

**Canadian Nuclear  
Safety Commission**

**Commission canadienne de  
sûreté nucléaire**

**Public meeting**

**Réunion publique**

**December 10<sup>th</sup>, 2020**

**Le 10 décembre 2020**

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

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

*via videoconference*

*par vidéoconférence*

**Commission Members present**

**Commissaires présents**

Ms. Rumina Velshi  
Dr. Sandor Demeter  
Dr. Timothy Berube  
Dr. Marcel Lacroix  
Dr. Stephen McKinnon

M<sup>me</sup> Rumina Velshi  
D<sup>r</sup> Sandor Demeter  
M. Timothy Berube  
M. Marcel Lacroix  
M. Stephen McKinnon

**Secretary:**

**Secrétaire:**

Mr. Marc Leblanc

M<sup>e</sup> Marc Leblanc

**Senior General Counsel:**

**Avocate-générale principale :**

Ms. Lisa Thiele

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Ottawa, Ontario / Ottawa (Ontario)

--- Upon resuming on Thursday, December 10, 2020  
at 9:00 a.m. / L'audience reprend le jeudi  
10 décembre 2020 à 9 h 00

**Opening Remarks**

**THE PRESIDENT:** Good morning, everyone,  
and welcome to the continuation of 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  
our participants today are located in many different parts  
of the country. I will pause for a few seconds in silence  
so that each of us can acknowledge the Treaty and/or  
traditional territory for our locations. Please take this  
time to provide your gratitude and acknowledgment for the  
land.

--- Pause

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

I would like to introduce the Members of  
the Commission that are with us today, remotely: Dr.

Sandor Demeter, Dr. Stephen McKinnon, Dr. Marcel Lacroix and Dr. Timothy Berube.

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

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

Marc...?

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

Bonjour, Mesdames et Messieurs.

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

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

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

The transcripts should be available on the CNSC website within one to two weeks.

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 close of the proceedings.

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

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

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

President Velshi...?

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

The first item for today is the Regulatory Oversight Report for Canadian Nuclear Laboratories (CNL) Sites: 2019.

The public was invited to comment in writing. The Commission received eight submissions. One Indigenous group will be making an oral presentation.

I note that representatives from Atomic Energy of Canada Limited (AECL) and Environment and Climate Change Canada are available for questions.

I will turn the floor to CNSC staff for their presentation first.

Ms. Murthy, over to you.

**CMD 20-M22/20-M22.A/20-M22.B/20-M22.C**

**Oral presentation by CNSC staff**

**MS. MURTHY:** Thank you, President Velshi, and good morning, everyone.

I will wait for the presentation. Thank you.

Good morning, President Velshi and Members of the Commission. My name is Kavita Murthy and I am the Director General of the Directorate of Nuclear Cycle and Facilities Regulation at the CNSC.

The Regulatory Oversight Report for Canadian Nuclear Laboratories, or CNL, facilities and activities is the second of three Regulatory Oversight Reports being presented in these proceedings that comprise the activities regulated under the Nuclear Fuel Cycle Program at the CNSC.

The Regulatory Oversight Program for the sites and activities covered in this ROR are managed at the divisional level and so this ROR will be presented by the Regulatory Program Director, Candida Cianci, and her team, with support from subject matter experts and specialists from across the CNSC who partner with us in delivering the compliance oversight of CNL facilities and activities.

Over to you, Candida.

**MS. CIANCI:** Thank you, Ms. Murthy.

Good morning, President Velshi and Members of the Commission and those joining us via webcast. My name is Candida Cianci and I am the Director of the Canadian Nuclear Laboratories Regulatory Program Division at the CNSC.

My staff and I are here today to present to you CMD 20-M22, a Regulatory Oversight Report covering CNSC staff activities at sites managed by CNL for the 2019 calendar year.

Presenting with me today are Ms. Liana Ethier and Ms. Alvira Mostafa. We are supported today virtually by a team of CNSC's subject matter experts and other project officers who are involved in the regulatory oversight of CNL sites.

Next slide. Thank you.

Before we begin, I wish to note that this presentation, CMD 20-M22.C, stands as the final presentation component of the 2019 CNL Regulatory Oversight Report and replaces the earlier version of the presentation provided in CMD 20-M22.A. This slide outlines the updates that were made to the presentation. Slides that were added to this presentation have been numbered differently, with Roman numerals, so that the slide numbers are unaltered in comparison to the earlier version of the presentation.



Following the release of the 2019 CNL Regulatory Oversight Report for public comment on October 5th, 2020, CNSC staff have an update to provide to the Commission on the Whiteshell Laboratories security order, which will be provided later in this presentation.

In addition, CNSC staff noted an error in the recordable lost-time injuries reported for the Port Granby Project. The recordable lost-time injury data in section 4.3 and Appendix G of CMD 20-M22 and slide 31 of staff's presentation in CMD 20-M22.A indicated that in 2019 there were no RLTIs for CNL staff at the Port Granby Project. CNSC staff have confirmed that there was one RLTI for CNL staff at the Port Granby Project.

CNSC staff have also clarified the distinct number of hours worked at each of the Port Hope Project and the Port Granby Project, instead of combining the number of total hours worked on the Port Hope Area Initiative. This information will be shown later in the presentation and will be corrected in the Regulatory Oversight Report prior to publishing.

I'm just going to pause because I believe the presentation has disappeared.

--- Pause

**MR. LEBLANC:** We are trying to find where it has been stopped, so just give us a few seconds, please.

--- Pause

**MR. LEBLANC:** I think you can resume, Madam Cianci.

**MS. CIANCI:** Thank you, Monsieur Leblanc. So as I was saying, the last correction that we just wanted to note was in the implementation status for REGDOC-2.2.4 Fitness for Duty Volume 2 Managing Alcohol and Drug Use, version 2 at Chalk River Laboratories. Appendix B, Table B-1 of the Regulatory Oversight Report indicated that version 2 of this regulatory document was implemented at Chalk River Laboratories in 2019. However, CNL did not implement version 2 of this Regulatory Document. CNL, along with other licensees, requested amendments to the Regulatory Document.

CNSC staff presented version 3 of REGDOC-2.2.4 to the Commission for approval on November 5th, 2020, in CMD 20-M35. CNL has committed to implement all aspects of version 3 of this Regulatory Document, with the exception of random testing, within six months of publication and 12 months post-publication for random testing. The implementation status of REGDOC-2.2.4 version 2 at Chalk River Laboratories will be updated in Table B-1 as "to be determined".

Lastly, CNSC staff have also made minor

edits to this presentation from the version that was previously released. None of these edits substantially changed the content, but we made them in in order to provide clarity in the information presented.

We will start with an overview of the Regulatory Oversight Report, followed by a brief description of the CNL sites and facilities.

Following this, we will walk through highlights of CNSC staff's risk-informed regulatory oversight activities of CNL's sites and facilities in 2019.

Finally, we will update on reportable events and other matters of regulatory interest and cover some of the major themes identified in the interventions which the CNSC has received. Detailed intervention tables have been prepared in response to the recommendations and comments which were specifically addressed to CNSC staff and within the scope of the Regulatory Oversight Report. They are included in CNSC staff's supplemental CMD 20-M22.B.

We will begin with an overview of regulatory oversight reporting.

CNSC staff submit Regulatory Oversight Reports to the Commission for information, providing the Commission with an overview of CNSC regulatory efforts in assessing licensee performance over a calendar year.

Regulatory Oversight Reports are presented to the Commission in public proceedings.

Participant funding is made available to facilitate participation by the public and Indigenous groups in the Commission meeting.

The Regulatory Oversight Report for CNL sites in 2019 is one of five Regulatory Oversight Reports that CNSC staff have produced, two of which have already been discussed in these proceedings.

The CNL Regulatory Oversight Report for 2019 comprises two complementary components: a text component and a presentation. Both the text and presentation components were made available in both official languages on the CNSC website in October 2020.

As mentioned, the Regulatory Oversight Report for CNL sites and facilities in 2019 provides a summary of CNSC staff's regulatory oversight efforts related to those activities.

In the report, we rate CNL's performance against each of the CNSC's 14 Safety and Control Areas.

We provide detailed data on radiation doses to workers and the public, on the releases of radioactive substances to the environment as a result of the licensed activities, and on CNL's conventional health and safety performance.

We also give updates on reportable events and other matters of regulatory interest to the Commission.

I will now pass the presentation over to Ms. Alvira Mostafa.

**MS. MOSTAFA:** President Velshi, Members of the Commission, my name is Alvira Mostafa and I am a Project Officer in the Canadian Nuclear Laboratories Regulatory Program Division at the CNSC.

I will begin by speaking briefly to CNL's sites and licences included in this Regulatory Oversight Report.

This picture shows the geographic locations of the CNL sites covered in this Regulatory Oversight Report. Going from east to west, it includes:

- in Quebec, Gentilly-1 in Bécancour;
- in Ontario, the Port Hope Project in the Municipality of Port Hope and the Port Granby Project in the Municipality of Clarington, Chalk River Laboratories in Chalk River, Nuclear Power Demonstration Waste Facility in Rolphton, and Douglas Point Waste Facility in Tiverton; and
- in Manitoba, Whiteshell Laboratories in Pinawa.

CNSC licences held by CNL for the sites and activities covered by this Regulatory Oversight Report are shown in this table. The licence numbers are shown in

the last column of the table, with the expiry date indicated as the last four digits of the licence number.

The last two licences on this list, the Port Hope Pine Street Extension Temporary Storage Site and the Port Hope Radioactive Waste Management Facility, are small temporary storage sites for low-level waste that are being remediated as part of the Port Hope Project. As such, they are included under the Port Hope Project in the Regulatory Oversight Report.

CNSC staff note that a licence amendment hearing for the Douglas Point Waste Facility was held on November 25th and 26th of 2020. The licence listed in this table is for the licence that was in place in 2019 and is currently still in place pending the Commission's decision on CNL's licence amendment request.

This slide lists the changes to the licences and *Licence Conditions Handbooks* for CNL sites in 2019.

Significant licensing changes in 2019 were the renewal of the operating licence for the Whiteshell Laboratories for a period of five years and the amendment of the Port Granby licence to incorporate revised environmental release limits. The Commission also granted CNL's request to separate the licence for the three

prototype reactor waste facilities into three separate licences, one for each facility. This did not introduce any changes to the authorizations or expiry dates from the previous consolidated licence.

In 2019, CNSC staff issued new or revised *Licence Conditions Handbooks* for all of the CNL sites, except for the Port Hope Project, which had no changes to either the licence or the *Licence Conditions Handbook* in 2019. All of the new *Licence Conditions Handbooks* were issued in response to their associated licence change, with the exception of the Chalk River Laboratories Handbook, which was updated to reflect the NRU reactor shutdown and the cessation of Molybdenum-99 production.

I will now describe CNSC staff's regulatory oversight of CNL's sites in 2019 in more detail.

The CNSC performs regulatory oversight of licensed facilities to verify compliance with the requirements of the *NSCA* and associated Regulations, each site's licence and *Licence Conditions Handbook*, and any other applicable standards and regulatory documents.

CNSC staff's regulatory oversight activities include inspections, desktop reviews and technical assessments of reports and submitted documents.

CNL's sites are regulated under the CNSC's Nuclear Fuel Cycle Program, and under this program the

appropriate level of regulatory oversight is determined via an assessment of the risk posed by a given licensed activity.

Chalk River Laboratories, or CRL, is a large and active nuclear research and test establishment located about 160 kilometres northwest of Ottawa. CRL continues to undergo a period of change and revitalization with the decommissioning of aging infrastructure and construction of replacement facilities throughout the site.

In 2019, CNSC staff's regulatory oversight focused on CNL's decommissioning of legacy facilities, and its planning and constructing of new facilities. CNSC staff also performed oversight of CNL's activities to repatriate highly enriched uranium to the United States Department of Energy, activities which have now been fully completed.

A significant amount of staff effort was expended on assessment of CNL's application for the construction of a Near-Surface Disposal Facility. The Near-Surface Disposal Facility proposal is currently undergoing assessment under the *Canadian Environmental Assessment Act, 2012* and the *Nuclear Safety and Control Act*. Commission decisions on this project are required before it may proceed.

CNSC staff are also assessing the plan to



host a Small Modular Reactor at CRL. However, CNL is not the applicant for the licence to prepare a site which has been submitted to the CNSC.

Neither the Near-Surface Disposal Facility nor the construction of any new reactors are approved by the current Chalk River Laboratories operating licence. Approval from the Commission would be required for each.

Whiteshell Laboratories is a shutdown nuclear research and test establishment located near Pinawa, Manitoba. CNL has been decommissioning the Whiteshell Laboratories site as permitted by the licence. As CNL continued its decommissioning work at the Whiteshell site in 2019, CNSC staff's compliance efforts focused on those activities.

The Whiteshell Laboratories licence was renewed by the Commission in January 2020 for a five-year term ending December 2024. This renewal saw no changes to authorizations for the Whiteshell site.

In 2019, CNSC staff performed inspections of the ongoing decommissioning work and waste management activities at Whiteshell Laboratories. Additionally, a considerable amount of staff effort was spent on the ongoing review and assessment of CNL's proposal for the in situ decommissioning of the WR-1 reactor at the site. In situ decommissioning falls outside the licensing basis for

Whiteshell Laboratories and is currently undergoing assessment under the *Canadian Environmental Assessment Act, 2012* and the *Nuclear Safety and Control Act*. Commission decisions on this project are required before it may proceed.

Another area of regulatory focus for Whiteshell Laboratories in 2019 was the Security SCA.

CNSC staff evaluated CNL's 2019 performance at the Whiteshell site for the Security SCA as "below expectations", the same rating as 2018.

In 2018, CNSC staff raised concerns regarding CNL's security program at Whiteshell Laboratories. These concerns led to the CNSC issuing an order to CNL to implement changes to CNL's security posture at the site.

In September 2019, CNL submitted a corrective action plan to the CNSC to address identified deficiencies, while implementing interim compensatory measures that were reviewed and accepted by CNSC staff. Since then, CNL has continued to address the actions identified in the corrective action plan and has now completed all actions to CNSC staff's satisfaction.

Taking into consideration the information submitted by CNL and CNSC staff's assessment of the corrective action plan, the Designated Officer made a

decision in November 2020 that the identified risks in relation to security threats at CNL Whiteshell Laboratories have been appropriately dealt with. The Designated Officer has determined that CNL has met all of the terms and conditions of the order, and the order has now been closed. Due to the prescribed nature of this matter, any additional information regarding the closure of the order can be provided during an in camera session should the Commission wish to obtain further details.

The Port Hope Area Initiative is a project to clean up legacy contamination in the Municipalities of Port Hope and Clarington, Ontario. It is composed of two separate but related projects: the Port Hope Project and the Port Granby Project.

Both involve the excavation of historic low-level waste and the placement of that waste in newly-built Long-Term Waste Management Facilities, or LTWMFs. In addition to the LTWMF, each site has its own facility for the management and treatment of leachates and impacted water, that is, water that may have come in contact with radioactive waste.

The Port Hope Project is unique in Canada in that it involves the remediation of large quantities of radioactive wastes from residential and commercial areas.

In 2019, CNSC staff carried out

inspections on CNL's construction milestones at the Port Hope Project, including inspection of liners installed in the different cells of the LTWMF, movement of CNL's off-site wastes into the LTWMF, and remediation activities at the Port Hope Harbour as well as commercial and residential properties.

CNL made significant progress on the remediation activities at the Port Granby Project in 2019 and completed the movement of legacy waste to the new LTWMF in fall 2020.

In 2019, CNSC Staff performed inspections on CNL's excavation of legacy wastes as well as their waste management practices. CNSC Staff also performed inspections on the capping activities of the LTWMF.

The Douglas Point, Gentilly-1, and Nuclear Power Demonstration reactors are all former prototype power reactors which have been in storage with surveillance for several years. In 2019, CNSC performed regulatory oversight on CNL's work to identify and remove hazards from these facilities and to characterize wastes in preparation for the execution of decommissioning.

Until 2018, the three prototype reactors were included in a single licence. In 2018,

CNL requested that the single licence be split into three, with each site having its own licence. The Commission granted CNL's request to separate the licence in early 2019.

In 2019, CNL requested an amendment to the Douglas Point licence to allow the dismantlement of that reactor. The licence amendment request was presented to the Commission at a public hearing on November 25 and 26 of 2020.

Similar to the *in-situ* decommissioning proposal of the Whiteshell reactor-1, CNL has put forward an application for the decommissioning of the NPD reactor using a similar approach. Again, a considerable amount of CNSC Staff effort was expended in the ongoing review and assessment of this proposal, which is currently undergoing an assessment under the *Canadian Environmental Assessment Act 2012* and the *Nuclear Safety and Control Act*. Commission decisions on this project are required before it may proceed.

As previously mentioned, CNSC Staff's regulatory oversight activities include inspections, desktop reviews and technical assessments of reports and submitted documents.

CNSC Staff effort is shown in this table, showing the number of inspections performed

and the number of CNSC Staff hours spent on compliance and licensing work for CNL sites. In 2019, CNSC Staff spent over 17,000 hours on compliance activities, and over 16,100 hours on licensing activities, which included drafting new licences, preparing Commission Member Documents, and drafting or revising *Licence Conditions Handbooks*.

CNSC Staff performed a total of 28 compliance verification inspections at these facilities. All identified non-compliances arising from the inspections were recorded and are tracked in the CNSC regulatory information bank.

The table also identifies the trend changes compared to regulatory oversight activities in 2018. An up arrow indicates an increasing trend and a down arrow indicates a decreasing trend. Of note is the increasing trend at Whiteshell Laboratories.

This is due to licensing activities associated with the review of CNL's licence application for the relicensing hearing held in October 2019. The reduction of effort at the Chalk River Laboratories is attributed to the completion of Chalk River Laboratories licence renewal activities in 2018 and a reduction in compliance activities following the shutdown of the NRU reactor.

For the other facilities, variation is

expected to occur from year to year and the trend arrows do not indicate a significant change in regulatory oversight activities.

This completes the overview of CNSC Staff's activities on the different CNL sites. I will now pass the presentation to my colleague, Liana Ethier.

**MS. ETHIER:** Good morning, President Velshi and Members of the Commission. My name is Liana Ethier. I am a Senior Project Officer with the Canadian Nuclear Laboratories' Regulatory Program Division.

I will now describe CNSC Staff's assessment of CNL's performance at each of the sites in 2019.

When evaluating licensee performance, CNSC Staff use a set of 14 Safety and Control Areas, or SCAs. Ratings for each SCA are generated for each licence year on the basis of CNSC Staff's regulatory oversight activities. The 14 SCAs are listed in the box on the right of this slide.

CNSC Staff rate performance based on multiple inputs, including key performance indicators such as dose to workers and releases to the environment, results of CNSC Staff compliance activities such as inspections or technical assessments, and the effectiveness of licensee corrective actions in response to non-compliances.

Ratings represent a holistic summary of licensee performance in each SCA.

This Regulatory Oversight Report focusses on three SCAs, Radiation Protection, Conventional Health and Safety, and Environmental Protection, as these are key indicators of the effectiveness of a licensee's management of the risks at its sites. However, CNSC Staff assess and rate licensee performance for all SCAs.

This slide shows the performance rating established for each CNL licence against each SCA for 2019. Ratings for the previous four years are also included in the Regulatory Oversight Report itself.

For 2019, CNSC Staff have rated CNL's performance across all SCAs and sites as satisfactory, with the exception of the Security SCA at Whiteshell Laboratories, which was rated as below expectations, as previously mentioned.

I will now provide information on the SCAs of Radiation Protection, Environmental Protection and Conventional Health and Safety in more detail.

First, I will briefly speak to the concepts of Action Levels and Regulatory Limits. Regulatory Limits and Action Levels are relevant to both the Radiation Protection and Environmental Protection SCAs.



Both are tools for regulating and managing doses to persons and releases to the environment.

As seen on this slide, Action Levels, shown in blue, are the lower of the two. Action Levels are set below Regulatory Limits, shown in red. The range of normal operation is indicated by the green dots.

Action Levels are set above the upper value of normal operation to serve as an early warning indicator of a potential loss of control in the Radiation Protection or Environmental Protection program. Action Levels are set by the licensee on the basis of actual performance data and are reviewed by CNSC Staff before being incorporated into the licence.

Exceeding an Action Level is reportable to the CNSC, but it is not considered a non-compliance. In fact, it is expected that Action Level exceedances will occur from time to time. When an action level is exceeded, the licensee is required to establish the cause of reaching the action level, to restore the effectiveness of the program, and to notify the CNSC.

Regulatory Limits are higher than Action Levels, and represent an upper bound that, if exceeded, would result in a non-compliance with the licence or with the Regulations. If the licensee exceeds a Regulatory Limit, the CNSC must be immediately notified.

I will now speak to CNL's environmental protection performance.

Environmental protection programs at all CNL sites incorporate a set of Action Levels. In 2019, there were four environmental Action Level exceedances.

CNL reported three action level exceedances at Chalk River Laboratories for releases of radioactive substances to air. Two of these exceedances occurred in adjacent weeks at the waste management facilities and were both related to the transfer of waste bags with higher than normal quantities of tritium from clean-up activities in the now shut-down NRU facility. The third was related to work in the Universal Cells facility due to internal cross-contamination from a higher activity cell to a lower activity cell when unloading a CANDU pressure tube assembly into the cells.

CNL reported one action level exceedance at the Port Granby Project for arsenic, uranium, molybdenum and radium-226 in effluent. CNL determined that this was due to higher influent feed water temperature and concentration.

CNL took appropriate corrective actions in response to these exceedances.

CNSC Staff have assessed that these events

did not represent a loss of control of CNL's environmental protection program. There were no effects on the public and the environment as a result of these exceedances.

As a follow-up to CNSC Staff commitments to the open government initiative, the CNSC has commenced publishing annual releases of radionuclides to the environment from nuclear facilities on the CNSC Open Government Portal. This data is intended to complement the publicly-available data on non-radiological emissions available through the National Pollutant Release Inventory database.

The 2019 data shows that, while radiological emissions exist at all CNL sites, they are at levels which are safe for workers, the environment and the public.

The graphs on this slide are examples of emissions from the Chalk River Laboratories site for radionuclides listed in the Chalk River *Licence Conditions Handbook* in comparison with their respective release limits. Please note that the graphs are on a logarithmic scale.

Another example of radionuclide emissions from a CNL site is shown on this slide, for Whiteshell Laboratories. These graphs are also on a

logarithmic scale.

As can be seen by the environmental release data shown on the last two slides, releases were well under the release limits at Chalk River Laboratories and Whiteshell Laboratories. In fact, at all CNL sites, airborne and waterborne releases of radioactive and hazardous substances remained below their respective regulatory limits in 2019.

CNSC Staff conclude that the environmental protection programs in place for CNL sites protect the environment and the public.

I will now turn our focus to the Radiation Protection SCA.

CNL sites are required to implement and maintain a radiation protection program to ensure that contamination levels and radiation doses received by individuals are monitored, controlled and maintained as low as reasonably achievable, or ALARA.

In 2019, CNL continued to effectively implement the radiation protection program at its sites. Radiation and contamination monitoring programs continued to control and minimize radiological hazards and the spread of radioactive contamination. CNL reported no radiation protection action level exceedances in 2019.

CNSC Staff conclude that CNL's radiation protection programs were effective at controlling radiological hazards in 2019. The doses received by workers at CNL sites and the estimated dose to the public near CNL sites were well below CNSC regulatory limits, as supported by the charts on the following slides.

This slide shows average and maximum effective dose for nuclear energy workers, or NEWS, at CNL sites in 2019 against the annual regulatory limit of 50 millisieverts.

It can be seen that the average effective dose to NEWS across all sites is extremely low, in fact, well below the dose limit for the public. Also, the maximum doses received by NEWS across all sites is well below the annual regulatory dose limit.

The dose fluctuations from site to site are due to the varying scope and duration of radiological work conducted along with the dose rates associated with the work activities.

Estimated doses to the public are calculated based on data for emissions of radionuclides from each site.

The annual dose limit for a member of the public is one millisievert, and data for some of CNL's sites for 2019 is shown on the slide. It can be seen that,

for these sites, estimated doses to the public have remained at a small fraction of the regulatory limit.

Douglas Point and Gentilly-1 are each on larger nuclear sites, the Bruce and Gentilly-2 nuclear generating stations, respectively. The estimated doses to the public are included in data for those sites as a whole and not captured separately. The public dose data for these sites is reported in the Regulatory Oversight Report for nuclear power plants.

NPD is no longer discharging liquid effluents from the facility sumps to the Ottawa River and, therefore, there were no such releases during the 2019 reporting period. All other releases of radioactive material in NPD effluents are a small fraction of their respective release limits and, therefore, dose to the public from that site remain negligible.

We will now move on to the Conventional Health and Safety SCA.

CNL must develop, implement and maintain effective safety programs to promote safe and healthy workplaces and minimize incidences of occupational injuries and illnesses.

At most CNL sites, conventional industrial activities are the greatest risk to persons due to site revitalization and decommissioning activities

at Chalk River Laboratories, decommissioning work at Whiteshell Laboratories, and extensive environmental remediation work at the Port Hope Area Initiative.

CNL reports data on Recordable Lost Time Injuries, or RLTIs, for all of their sites. In 2019, CNL reported RLTIs at Chalk River Laboratories, the Port Hope Project and the Port Granby Project. There were no RLTIs reported at Whiteshell Laboratories, Nuclear Power Demonstration, Gentilly-1, or Douglas Point.

This slide shows the lost time injuries reported at CNL sites in 2019.

There were 3 RLTIs reported for CNL staff, along with frequency and severity rates for those injuries, as shown in this slide.

CNL also records the number of lost time incidents reported to CNL by their contractors. There was one lost-time injury at each of the Port Hope Project and the Port Granby Project. However, the contractors do not divulge the specific number of hours worked to CNL. Therefore, CNL does not report frequency and severity rates for contractors, since these calculations require the hours worked.

CNL is required to report to the CNSC various events involving its licensed activities.

CNSC Regulatory Document 3.1.2 Reporting Requirements for Non-Power Reactor Class I Facilities and Uranium Mines and Mills, came into force for applicable CNL sites in January 2019.

Over the period covered by this report, CNL has complied with the requirements for the submission of event reports. The number of events reported to the CNSC for CNL sites in 2019 are shown in the table on this slide. When CNL reports an event to the CNSC, CNSC Staff assess the report, analyzing corrective actions and next steps.

CNSC Staff have assessed CNL's actions in response to events and found them to be appropriate. CNSC Staff conclude that CNL met event reporting requirements in 2019.

Events and situations that have the potential for the involvement of Commission Members or are deemed to be of interest to the Commission are identified and reported by CNSC Staff to the Commission Members by way of an Event Initial Report.

There were two Event Initial Reports for CNL sites in 2019. During the February 20, 2019 Commission Meeting, CNSC Staff presented two EIRs related to CNL sites. These included CMD 19-M9, regarding a worker that was injured at CNL Port Granby Project, and



CMD 19-M10, regarding a power outage at Chalk River Laboratories.

The event at the Port Granby Project occurred on January 9, 2019 when a worker inadvertently activated the unloading mechanism of a roll-off bin truck via a remote control in their pocket. The worker was consequently pinned by the roll-off bin.

CNSC Staff reviewed CNL's corrective actions and found them to be acceptable. CNSC Staff also verified implementation of the corrective actions during an inspection in the field.

The site-wide power outage at Chalk River Laboratories on February 3, 2019 was caused by a fire in aging cable insulation. This left the bulk of the CRL site without power.

CNSC Staff reviewed CNL's root cause analysis for this event and determined that CNL thoroughly assessed the root causes of the event, which relate to aging infrastructure at the Chalk River Laboratories site.

CNSC Staff performed an inspection at Chalk River Laboratories in March 2020 and confirmed the implementation of CNL's corrective actions. CNSC Staff are satisfied that CNL responded appropriately to these incidents and implemented appropriate corrective actions in response to each event. Under the Canada-IAEA safeguards

agreements, the IAEA has the right and responsibility to verify that Canada's nuclear activities are exclusively peaceful in nature. Much of this work involves the IAEA verifying that the inventories of nuclear material at Canadian sites are correct and complete.

As part of that work, the IAEA carried out over 50 activities at sites licensed to CNL in 2019. For most of those activities, the IAEA was accompanied by CNSC Staff, which provides a valuable opportunity to evaluate licensee compliance with their safeguards requirements.

Neither the IAEA nor CNSC Staff identified any significant issues as a result of these activities.

I will now pass the presentation back to Ms. Cianci.

**MS. CIANICI:** Candida Cianci, for the record.

The following section includes information on other matters of regulatory interest at CNL sites in 2019.

The CNSC Regulatory Document 3.2.1, *Public Information and Disclosure*, outlines requirements and guidance on public information and disclosure programs for licensees. This Regulatory Document is not yet reflected in the *Licence Conditions*

*Handbook* for all CNL sites; however, CNL currently has a comprehensive corporate public information program and site-specific programs.

Of note in 2019, CNSC Staff performed an in-depth inspection of CNL's public information program for the Port Hope Area Initiative. This inspection ran over a two-month period, during which time CNSC Staff assessed the information provided by CNL for the Port Hope Project and the Port Granby Project. CNSC Staff observed CNL's interactions with the public by attending multiple community engagement activities performed by CNL.

This inspection concluded that CNL effectively implements its public information program for the Port Hope Area Initiative.

The CNSC recognizes the importance of providing the public and Indigenous groups with objective scientific, technical and regulatory information. To support this objective, staff routinely engage with the public by participating in relevant community events, hosting dedicated sessions as well as participating in licensee events such as the Environmental Stewardship Council, of which staff most recently participated in the meetings held in July and October of 2020.

CNSC Staff also carried out several outreach activities in 2019 which were targeted at, or relevant to, CNL sites. Some of these activities were specific to regulatory review processes under way, including the Whiteshell Laboratories licence renewal, the Douglas Point licence amendment, the proposed Near-Surface Disposal Facility, and the proposed in-situ decommissioning projects of WR-1 and NPD.

In addition, CNSC staff conducted public webinars for this regulatory oversight report.

CNSC staff also ensured that interested Indigenous groups were informed of this report, this Commission meeting, and the participant funding opportunities. As an agent of the Government of Canada, and as Canada's nuclear regulator, the CNSC understands the importance of consulting and building relationships with Indigenous peoples in Canada. CNL sites fall within the traditional and treaty territories of many Indigenous communities.

In 2019, CNSC staff continued to work to meet the CNSC's duty to consult obligations with regards to CNL's proposed projects undergoing environment assessments and licence amendments or renewals. CNSC staff also continued to identify opportunities for formalized and regular engagement throughout the lifecycle of these sites.

CNSC staff are committed to building long-term relationships with Indigenous groups who have interest in CNSC-regulated facilities within their traditional and/or treaty territories.

CNSC staff note that CNL has a dedicated Indigenous engagement program that covers CNL's operations and activities. CNL met and shared information with interested Indigenous communities and organizations throughout 2019, in accordance with the requirements and guidance of CNSC's Regulatory Document 3.2.2, *Indigenous Engagement*.

CNSC staff are satisfied with the level and quality of Indigenous engagement conducted by CNL regarding its operations and proposed projects at its different sites.

CNSC's participant funding program supports individual, not-for-profit organization and Indigenous group participation in the CNSC's environmental assessment and licensing processes. The program helps interested parties contribute value-added information for the Commission's consideration.

For the 2019 CNL regulatory oversight report, the CNSC awarded participant funding to six applicants as shown on this slide.

In addition to analyzing licensee

environmental data, CNSC staff also carry out an independent program of sampling and analysis in publicly-accessible areas around nuclear facilities as part of our independent environmental monitoring program or IEMP. CNSC staff collect the samples and send them to the CNSC's laboratory for testing and analysis. The results are then posted on the CNSC's public website.

Under the IEMP, CNSC staff have carried out sampling near all CNL sites over the past three years. In 2019, CNSC staff carried out sampling near Chalk River Laboratories, the Port Hope Project, the Port Granby Project, and Douglas Point. The results from all of these IEMP activities confirm that the environment near these sites is safe.

CNL has proposed several major projects at its sites, including the proposed construction of a near-surface disposal facility for the disposal of low-level radioactive waste at the Chalk River site, the proposed in-situ decommissioning of the NPD reactor, and the proposed in-situ decommissioning of the WR-1 reactor. Additionally, Global First Power is proposing a small modular reactor, referred to as the micro-modular reactor project, at the Chalk River site.

CNSC staff are performing thorough technical assessments of all of these major project

proposals and are ensuring conformity with environmental assessment and licensing requirements. For each proposal, approval from the Commission is needed for both the environmental assessment and licensing aspects.

The following slides present an overview of the key themes from the interventions received regarding this regulatory oversight report. Detailed intervention tables have been prepared in response to the recommendations and comments which were specifically addressed to CNSC staff and within the scope of the regulatory oversight report. They are included in CNSC staff's supplemental CMD, CMD 20-M22.B.

CNSC staff received eight interventions on the CNL regulatory oversight report. The key themes from the interventions included Indigenous engagement and consultation. Several interventions were from Indigenous groups. These groups have requested increased consultation and engagement going forward from both CNL and the CNSC. And the other theme was content and scope of the regulatory oversight report. Intervenors recommended further information be provided in all regulatory oversight reports, as well as provided feedback on the content of this particular report.

I'll now speak to CNSC staff's responses to the key themes.

Several interventions requested that the CNSC share more information with Indigenous groups and that the CNSC provide additional opportunities for Indigenous groups to participate in CNSC processes. Additionally, acknowledgement was requested of the distinction between information needs of Indigenous groups and the general public.

The CNSC, as an agent of the Crown, has a duty to consult with Indigenous groups. CNSC staff are committed to building long-term positive relationships with Indigenous communities. We understand that such relationships must be built on mutual trust, which can take time to develop.

CNSC staff are working closely with Indigenous groups when planning IEMP activities in area of interest to them, and CNSC staff are also evaluating other areas where Indigenous groups could be integrated into CNSC processes. CNSC staff have carefully noted the content of the interventions received from Indigenous groups and will follow up with those groups separately in order to discuss their concerns.

Interventions commented on the format of the 2019 CNL regulatory oversight report and its variance from the 2018 report, and included recommendations for information to be included in CNSC's regulatory oversight



reports.

The 2019 regulatory oversight report was intended to be read as a multicomponent report, with a written component and a complementary presentation component. The written component was streamlined in order to remove redundant and repeated information between the written portion and the presentation and leveraging publicly available information via hyperlinks and references to existing information on the CNSC's public website.

CNSC staff acknowledge the feedback received on the format of this year's report and will take these comments into consideration in the development of next year's regulatory oversight report.

CNSC staff also note that CNSC intends to publish the Canadian Nuclear Safety Commission Regulatory Oversight Report Review Discussion Paper in the first quarter of 2021 for a 60-day public comment period. Its purpose will be to present information on regulatory oversight reports and solicit feedback on possible improvements.

We will now provide some concluding remarks.

CNSC staff carried out extensive regulatory oversight report of CNL sites and facilities in

2019 and conclude that CNL carried out its licensed activities safely and in compliance with relevant requirements: environmental releases remain below regulatory limits; radiation doses to workers and members of the public resulting from CNL's licensed activities remain low and below regulatory limits; and CNL's performance in conventional health and safety remains satisfactory.

CNSC staff will continue to verify CNL's compliance with requirements and we will present to the Commission on CNL's performance in a regulatory oversight report covering the 2020 calendar year.

We will end our presentation with a note about the current COVID-19 pandemic. For more details on this topic of regulating under COVID-19 restrictions, please refer to CMD 20-M36. That provides information on CNSC's response to COVID-19 and its modified oversight approach for the nuclear fuel cycle program.

As a summary, CNL implemented its business continuity plans, reduced its workforce at its sites across Canada, and instituted appropriate pandemic protocols.

The CNSC continues to monitor nuclear facilities to ensure the public and the environment are protected; however, the pandemic has impacted some of CNSC's activities. For example, in-person outreach

activities have been temporarily halted, and Indigenous consultation and engagement are being conducted through virtual meetings. CNSC staff have continued to perform compliance and inspection activities using a combination of on-site and remote methods.

At all times, CNSC staff has continued to adhere to public health guidance during the conduct of on-site activities.

This concludes CNSC staff's presentation. We are now available to respond to questions from the Commission.

Thank you.

**THE PRESIDENT:** Thank you very much for the presentation, staff.

I'll turn the floor to CNL for their presentation, as outlined in CMD 20-M22.9.

Mr. Boyle, the floor is yours.

**CMD 20-M22.9**

**Oral presentation by Canadian Nuclear Laboratories**

**MR. BOYLE:** Thank you, President Velshi and Members of the Commission.

Good morning, ladies and gentlemen. For the record, my name is Phil Boyle. I am vice-president of

Operations and the chief nuclear officer at Canadian Nuclear Laboratories, or CNL.

Today, I have with me Shaun Cotnam, chief regulatory officer, and Scott Parnell, general manager of the historic waste management program. In addition, CNL has made a number of key staff available today, including the other major licence holders for Whiteshell and the three historic prototype reactor sites.

I would like to begin by acknowledging that while this meeting is being held virtually, CNL wants to thank and acknowledge the Indigenous peoples and their traditional territories in which CNL carries out its work.

We are before the Commission today to discuss our 2019 calendar year performance at the sites we operate across Canada.

To begin, I will make a few short comments, then Scott Parnell will provide a brief update on the historic waste management program (Port Hope Area Initiative). Afterwards, the team would be happy to respond to any questions the Members of the Commission may have.

However, before commenting on our 2019 performance, a few words about CNL's COVID response in 2020 seems appropriate. As reported in November, CNL is working through its pandemic recovery plan and continues its safe,

phased return of staff to our sites. The plan includes protocols requiring daily site access screening, pre-job briefings for employees returning to our sites, and formal COVID hazards screening for specific tasks. This is in addition to the provision of mandatory face masks, updated personal protective equipment requirements, work controls, and cleaning regimens at the sites where we operate.

CNL's health centre continues to work closely with regional district health units to ensure that our pandemic response is well informed and up to date.

CNL's pandemic planning and crisis management committees continue to operate and provide oversight to our response to the COVID pandemic. The number of positive COVID cases experienced by staff at all CNL sites has been limited to 13 people through the course of the pandemic, all of whom, I am pleased to say, have recovered. I am able to report that as of November 6, there had been no active cases of COVID-19 at any of our CNL sites. However, we realize this situation is very dynamic, and we must be ready for changes which can happen any day. In fact, just yesterday, we received a report of a confirmed case of a contractor at our Gentilly-1 site in Quebec. No CNL employees or contractors appear to be at risk.

Now, on to performance. First and most

importantly, I want to assure the Commission that CNL works with a steadfast commitment to safe operations under the oversight of the CNSC and other government regulators. I want to be very clear that safety is CNL's top priority. We have operated safely during the 2019 calendar year and are constantly working to maintain our focus on safety and make improvements to enhance safety, and of course, we continue to meet all our regulatory obligations.

Twenty nineteen for CNL was marked by meaningful progress across all of our missions: restoring and protecting the environment, developing clean energy technologies for today and tomorrow, and improving the health of Canadians.

In the area of restoring and protecting the environment, CNL's environmental remediation team continued to make progress, safely decommissioning aging and redundant infrastructure, addressing legacy waste liabilities, and cleaning up the Chalk River campus. In 2019, the team removed 13 buildings and safely managed the resulting waste. In Manitoba, our Whiteshell site was granted a five-year decommissioning licence, and in 2020, we met the new security-related licence condition. The decommissioning project will continue within the current licence and under the regulatory oversight of the CNSC.

In the area of developing clean energy

technologies for today and tomorrow, the small modular reactor, or SMR, siting initiative progressed well as CNL moved closer towards hosting an SMR built on a CNL-managed site by 2026.

Concerning improving the health of Canadians, CNL performed its first commercial research work related to targeted alpha therapy. This revolutionary new form of treatment has shown exciting potential in early studies, killing cancer cells effectively without doing damage to surrounding, healthy cells. Work in this important area continues. Throughout 2019, work also continued through our participation in the key repatriation of HEU materials.

In addition to these accomplishments, CNL continues important work related to the revitalization of the Chalk River Campus through the construction of new facilities, revitalization of essential site infrastructure, completion of decommissioning and environmental remediation activities, and establishment of long-term waste management solutions.

At this time, I would like to turn to Mr. Parnell, who will provide an update on the significant remediation efforts being delivered under the historic waste management program, the Port Hope Area Initiative. Scott, over to you.

**MR. PARNELL:** Thank you, Phil.

And good morning, President Velshi and Members of the Commission. For the record, my name is Scott Parnell, and I'm the general manager for the historic waste program management office. And I'm here today to talk specifically about the Port Hope Area Initiative.

Next slide, please.

So this is a shot of the waterfront sites where we completed some work and we're starting some work, and we'll kind of get into a little bit more detail as we move through the slides.

Next slide, please.

For the first one, this would be in the harbour, Centre Pier site. So we've actually kind of set up the Centre Pier area for support of the remediation and dredging of the harbour, which we're anticipating to start this spring. Along with that, we'll be rehabilitating the harbour walls where needed to support the dredging operations. And when we get done with that work, we will then go back and clean up the sloughs that are on the Centre Pier that need remediation.

Next slide, please.

Here's a couple of sewage treatment plant sites. We've gone in; we've actually remediated them. We've restored them, and we've turned them back over to the



Municipality.

Next slide, please.

For the waterfront site, the Centre Pier temporary storage site, the picture showing us in the middle of remediation and when we're done. On the top right, we just started the Mill Street South site a month ago, taking in lessons learned from the Waterworks East site for water management. In the bottom right is a viaduct site where we're doing some delineation to find the limits of the low-level radioactive waste so it can protect the piers associated with the railway.

Next slide, please.

This is the Waterworks East site. We remediated this in the middle of the highest level for Lake Ontario. Lot of water issues, but we persevered and have completed that work, have completed the restoration and demobilizing from the site.

Next slide, please.

Additional sites. Strachan Street Ravine, a new contract has been awarded for that remediation, and we expect that to start this winter. For Alexander Street and Waterworks West, those are currently under design. Probably the key thing right now on Alexander Street Ravine, the design is trying to take into account the ability to preserve as many trees as we can in that ravine.

Next slide, please.

Industrial sites and Sculthorpe Marsh.

These are sites that were included in the legal agreement. We're in the process currently of submitting preliminary site forms in support of the record of site condition for these sites, and we anticipate the remediation to start on that in two years.

Next slide, please.

Highland Drive Landfill area. We're in the process of awarding a contract for the Pine Street North Consolidated Site, which was a site where they specifically placed material during the operation of the Eldorado plant, and we expect remediation for that to begin in the spring of 2021. At the same time, we're looking at Highland Drive Landfill and South Ravine options to optimize that work to basically minimize the amount of damage we're doing to the area and protecting people at the Jack Burger Recreation Centre and the high school.

Next slide, please.

For the Long-Term Waste Management Facility, we've finished construction of three cells. We've completed filling cells 1 and 3. We're in the process of filling cell 2A and in the process of constructing cell 2B.

Next slide, please.

This shows at the top right the filling of cell 2A and the clay placement of cell 2B. When we complete the cell placement, we have to cover it because we're not going to get back to it 'til next year. We have to have winter protection on that, so.

Next slide, please.

Small-scale sites' surveys. There's roughly 5,700 properties in the municipality. We've completed the majority of the surveys on those sites. We're anticipating roughly 1,100 sites needing remediation. Of those, we have about 325 with design in process. We've completed 44. Another 15 are currently underway, and we expect another 40 or so next year.

Next slide, please.

Here is a picture of remediation of one of the small-scale sites. In the bottom left is the remediation in process. In the top left is the -- basically the gridding in place for the verification sampling. And on the right two pictures is after we've restored those properties with new deck, new shed.

Next slide, please.

This is an aerial view of the small-scale sites' remediation. In the top left is where we've performed remediation on a group of sites in a neighbourhood, and in the bottom right is when we're done

with everything restored.

Next slide, please.

Just kind of a general summary for the long-term waste management facility. We placed roughly just over a million metric tonnes of waste. The on-site waste is from the legacy waste management facility that was actually there on the site and the off-site waste that has been received is from things like the small-scale sites and the temporary storage sites.

I can't pass up the Port Hope Project without talking about water and wastewater treatment plants. We have treated 592,000 cubic metres of water at the treatment plant released into Lake Ontario, and about 1,400 metric tonnes of solid waste from that water has been sent up to the Long-Term Waste Management Facility.

Next slide, please.

The Public Information Program at Port Hope is a very important thing for us because of the work we do and where we are doing that work. In the COVID-related year we have had to switch from face-to-face meetings to virtual meetings, but during the year we have had almost 4,000 public interactions to date.

Next slide.

I am going to switch over to the Port Granby site. This is the Port Granby Legacy Waste

Management Facility prior to any work being done.

Next slide.

We have actually completed that scope to date. We have safely removed 1.3 million metric tonnes from the Legacy Waste Management Facility and placed it into the Low-Level Waste Management Facility.

Next slide, please.

As we are doing that we are restoring the area, regrading the area. This is one of the areas where we have had some issues with water management, but as we have completed removal of all that waste and we have restored that waste, we no longer have to collect surface water from that area, which will significantly minimize any future impacts due to water in that area.

Next slide, please.

This is the Long-Term Waste Management Facility. Cell 2 has been capped and closed completely. So in that area we no longer have to collect any surface water from there either. Cell 1 is in the process of being capped, as you can see by the white pictures there. If you look to the right, you can see where lake tanks are. There are two lake tanks there. A year ago there were eight, and all eight of those had water in them and some of them were full. So we have had a significant reduction in the amount of water we are actually collecting. Between that and

upgrades to the wastewater treatment plant we are confident of moving forward with the process that we have in place to manage water.

Next slide, please.

Here are some photos of just different stages of the installation of the cap. We anticipate by the end of next fall we will have the entire area capped and closed.

Next slide, please.

Just as a summary, we have moved a little bit over 1.3 million metric tonnes and safely placed them into the Waste Management Facility. We have treated approximately 726,000 cubic metres of water and released it to Lake Ontario, and about 2,700 metric tonnes of solids have been sent to the Long-Term Waste Management Facility.

With that, I will turn it back over to you, Phil.

**MR. BOYLE:** Thank you, Scott.

In closing, CNL supports the content and conclusion in staff's 2019 Regulatory Oversight Report. We have operated safely during the 2019 calendar year and are constantly working to maintain our focus on safety and make improvements to enhance safety. We continue to meet all of our regulatory obligations.

Our work ensures that CNL continues to

serve as Canada's national laboratory, advancing development of nuclear science and technology products and services as well as performing environmental remediation on behalf of Canadians. Underpinning that work is our commitment to safety.

With that, I would like to thank you for your time today, President Velshi and Members of the Commission.

This concludes CNL's prepared remarks. We would now be happy to answer any questions you may have about our activities and performance. Thank you.

**THE PRESIDENT:** Thank you, Mr. Boyle and Mr. Parnell for the presentation.

We will now move to the intervention. First, we will move to a presentation from the Manitoba Metis Federation, as outlined in CMDs 20-M22.5 and 20-M22.5A.

I understand Ms. Marci Riel will be presenting the submission.

I believe you are on the phone with us, Ms. Riel, so over to you.

--- Pause

**MR. LEBLANC:** Ms. Riel, we know you are there because we have the registration, we just can't hear you. I don't know if you are muted.

**CMD 20-M22.5/20-M22.5A**

**Oral presentation by the Manitoba Metis Federation**

**MS. RIEL:** Good morning. Can you hear me now?

**MR. LEBLANC:** Yes, thank you.

**MS. RIEL:** I'm sorry, there was a bit of a delay on this end. It said it was promoting me to a panelist.

**THE PRESIDENT:** You have been promoted.

**MS. RIEL:** Well, that is always nice to hear. Thank you kindly.

Just so I'm clear, am I good to start?

**THE PRESIDENT:** Yes, you are, please.

**MS. RIEL:** Excellent. Thank you kindly. I appreciate it.

So, for the record, my name is Marci Riel, I am the Senior Director of Energy, Infrastructure and Resource Management at the Manitoba Metis Federation, the government to the Manitoba Metis Community.

President Chartrand asked that I welcome the Commission and the Panel to the homeland of the Metis Nation and offer you his best from the Manitoba Metis Community.



So if we can just advance to the next slide, please.

My hope today is to cover three particular items for the benefit of the hearing process. One obviously is to provide background and context on the Metis Nation, the Manitoba Metis Community and specifically Metis rights, claims and interests; the second is the outstanding impacts and concerns with regard to the oversight report itself; and three, obviously closing comments and recommendations.

I note that you do have the MMF's written submission as well as the presentation provided to you and so I won't belabour some of the additional context.

Next slide, please. And actually, perhaps you could just move one more. Thank you.

So with regard to the Metis Nation and the Manitoba Metis Community, in terms of context I want to provide a bit of a background in the sense of I know that the Commission is aware from our last participation in the hearing of who the Metis Nation is and who the Manitoba Metis Federation is in particular, but for the benefit of those who may be new to the Panel I will just provide a bit of an update on that.

So the Manitoba Metis Federation is the government, as I said, of the Manitoba Metis Community.

The Metis Nation is represented across the homeland from Ontario through to B.C. and there are five Metis governments, of which one is the Manitoba Metis Federation, specifically responsible for citizens of the Metis Nation who trace their ancestry back to the original Red River settlement.

Next slide, please.

So here you can see of significant importance is that the Metis Nation is a distinct indigenous people and so we often see this challenge around using appropriate language and focusing on appropriate words to describe people and places and things. And so I will just draw the Commission's attention to the fact that the *Constitution*, under section 35, does indicate that there are First Nation people, there are Metis Nation people and there are Inuit who have rights under section 35.

I will note as well that the reason I make that comment is because often there is a misunderstanding about who the Metis Nation is and who the people of the Metis Nation are. So I will just note for the record that the Metis Nation is distinct from both First Nations and the Inuit. It is not, as some folks have often said, a mixture. So it is interesting because if you look back to the original ancestry of the Metis Nation, one might say

that the Metis Nation was actually born here in Canada. It is the only nation of people that came forward in what became the Canadian soil.

So the Metis Nation in general and in Southern Manitoba finds its earliest roots in the fur trade. I'm sure everyone is well aware of that process. And I will just make reference to the heart of the Metis homeland in the Red River Valley.

Next slide, please.

And the reason that I do that is because -- for reference. So when claiming ancestry and citizenship in the Metis Nation, you must be able to trace your ancestry back to the original Red River settlement. That is key because it is the differentiation between the current conversations that are taking place about Eastern Metis and the French translation of the word "Metis" as opposed to the Metis Nation. So I will just draw your attention to the fact that section 35 references the Metis Nation and the Metis Nation is defined as those who are able to trace that ancestry.

So with regard to individuals who are claiming Metis as being the definition of mixed blood, the Metis Nation has said, you know, we are not suggesting that you are not Metis by your definition, we are simply saying you are not Metis Nation by section 35.

Next slide, please.

So you can see, in terms of the struggle of the Metis Nation, there is this the recognition. President Chartrand always talks about, you know, you have your European fathers and your First Nation mothers and this history of being on the land and being *Otipemisiwak*, which means the people who own themselves. So, you know, the Metis Nation didn't sign a treaty, it didn't perform those relationships with the federal government, it was very much and continues to be very much economic development based, with a focus on, you know, big picture projects and processes.

And so we will just note for the record that it was the constitutional amendment of '82 that signals the recognition of the Metis as a unique and distinct people through the *Cunningham* decision.

Next slide, please.

And so here is a quote from Louis Riel that President Chartrand often focuses on because it is really -- it is key to this idea that we were here, for a lack of a better description, this idea that, you know, the history of the Metis Nation is certainly one of struggle, but it is also one of presence. You know, people often take the position that the Metis Nation was formed when the Constitution was amended and I just want to be clear. You

know, if you look back to 1870 for example and Louis Riel negotiating Manitoba into Confederation and bringing the history of the Western world, we were clearly here at the time. No one is suggesting that the First Nations were not here first, but rather that it is not about being first or last, it is just about being among the three Indigenous Nations of people.

Next slide, please.

And so you can see in the *Goodon* decision the Court described the Manitoba Metis Community as a proud and independent Metis population that had historic rights, that it is a rights-bearing community in the present day, that it encompasses the area within Manitoba and particularly the City of Winnipeg, extending south to the United States.

So key to that process for this scenario is the location of CNL's sites and the process by which the CNSC looks to regulate and make decisions as it relates to projects and processes that have an impact on the rights, claims and interests of our citizens.

Next slide, please. Thank you.

So this slide shows the Manitoba Metis Federation in terms of the entire province and so what I will just draw note to is that the MMF is the official democratic self-government representative for the Metis

Nation's Manitoba Metis Community. Canada has recognized that, Manitoba has recognized that, the Supreme Court has recognized that. There is no other representative of the Metis Nation in Manitoba.

The MMF obviously has a number of goals and objectives as the Metis government. Key to that, though, is that the MMF is authorized to deal with the collective rights, interests and claims of the Manitoba Metis Community.

The reason that I say that is because it is important to recognize that as a citizen of the Metis Nation, rights, claims and interests are collectively held. No one individual citizen has more or less rights than another. In fact, as an individual under section 35, individual citizens have only the collectively held right of the Nation. That right comes from the Nation itself.

And so the last bullet on this slide is just drawing attention to the fact that the MMF, as the Government of the Manitoba Metis Community, expands throughout the entire Province of Manitoba in its seven regions. This is where the Matryoshka Doll example comes in. Each of the seven regions has up to 20 locals that form the region, the region forms the Federation. Key to this, though, is to draw your attention to the fact that the MMF is the government of the citizens of the Manitoba

Metis Community throughout Manitoba but also extends outside of that. So if I as a citizen of the MMF can trace my ancestry back to the original Red River settlement but I live in Europe, I am still a citizen of the Metis Nation.

Next slide, please.

So this slide just highlights the issues around Resolution 8 and brings to your attention the fact that the MMF has what some might call a one-stop shop. All processes run through President Chartrand or through the office of the President. And the reason for doing that is because there is a long history of industry in Manitoba going to the local community and making arrangements that may perhaps benefit those who are local and proximate to a project, but that those decisions, because of the collectively held right that I mentioned earlier, have the potential to impact others throughout the Nation. So through Resolution 8 we have streamlined an approach whereby all communication from the provincial, the federal Crown, industry, municipal governments, in fact other indigenous governments, both the First Nations and the Inuit, all processes go through President Chartrand's office and are disseminated from there.

Next slide, please.

So in terms of this, I just want to draw attention to the fact that the Manitoba Metis Community

possesses aboriginal rights, including pre-existing aboriginal collective interests in lands protected by section 35, throughout the homeland and across the traditional territory.

The reason that I do that is because there is often a perspective about First Nations rights, Metis Nation rights, Inuit rights. All indigenous people have section 35 rights. No one is suggesting otherwise. The key here is this understanding that all of those rights coexist and are equal. There is no hierarchy of rights.

And that is a really key component of the process, because we often see scenarios where industry will find perhaps a First Nation that is local and proximate to the project and will perhaps forget that the Metis Nation has rights, claims and interests on that same land, right? You may recall from the last hearing that I had pointed out, you know, that the first treaty in Canada was signed in 1871 and Louis Riel negotiated Manitoba into Confederation in 1870. So it is key to the process.

Next slide, please.

It is key to the process to recognize the significance of that.

So this slide just shows the recognized harvesting area of the Manitoba Metis Community and so this is based on the 2012 Agreement between the MMF and



Manitoba. And the reason I use this slide -- so it's two things. One, President Chartrand would argue that as a citizen of the Metis Nation we have the right to harvest across the homeland, but for the purpose of this project only I will just draw your attention to the fact that the CNL site that the MMF is particularly concerned about is well within the recognized harvesting area.

Next slide, please.

And so here is a quote from the Supreme Court decision which brought to bear this issue of the constitutional breach and the burden that the federal Crown has with dealing with the outstanding claim regarding the 1.4 million acres of land that was promised to the Metis in 1870.

The reason that I draw your attention to this is for two things.

One, you know, I think it is important to recognize, as a regulator, that there is an opportunity here to work with Canada, the Manitoba Metis Community, the MMF as the government to those citizens to identify opportunities for making good on that promise through, you know, processes that are related to CNL sites.

I am also mindful that it is important to recognize that while we recognize treaty areas and traditional territories of our First Nations brothers and

sisters, it is very important to remember that the 1.4 million acres of land that were promised to the Metis is very much the City of Winnipeg and some of the surrounding area, much of which is tied to the CNL site itself.

Next slide, please.

And so I just am drawing your attention here that, you know, the Manitoba Metis Community claims commercial and trade-related rights, in addition to aboriginal rights, and that pre-existing customs, practices and traditions, including those that are related to commercial art, commerce and trade, were not affected by the *Natural Resources Transfer Act* and continue to exist and be protected as aboriginal rights today.

The reason that I point that out is because folks often have a concern or a misunderstanding as it relates to the *NRTA* and the role and relationship with First Nations and so I will just note that the Manitoba Metis Community and the Metis Nation are not impacted by the *NRTA*.

Next slide, please.

So this slide just brings to bear the relationship between the MMF and Canada and a number of commitments that have been made by the federal government to the Metis Nation and the Manitoba Metis Federation, including those that are specific to current ongoing

negotiations around potential settlement lands, water and subsurface rights, wildlife, fishing and fisheries, environmental assessment, lands management. Those are key to this process because, you know, I recognize that CNL has come to the MMF and we are working towards forming a relationship as it relates to the Whiteshell site and things of that nature, but I am also very aware that there is a long history of CNL being present in the community and that relationship is very new. So it is important from the MMF's perspective for the Commission to remember that although Canada and the MMF are negotiating currently on righting the historical wrong, there are opportunities through processes such as this to begin doing some of that work.

Next slide, please. And again, the next slide.

So I will just draw your attention to the fact that there is this challenge here around the duty to consult and accommodate. I don't think anyone is suggesting that there is a misunderstanding around the fact that it is triggered here, but rather, we are flagging that in order to ensure that the duty to consult and accommodate is fulfilled. The Commission must require CNL/AECL -- because we are very mindful of the relationship between the two -- to develop clear mitigation, avoidance and/or

accommodation measures alongside the MMF where appropriate.

The reason I draw your attention to that is because of that relationship that I mentioned a moment ago. It is a very new relationship and the MMF would suggest that that relationship is moving forward in a positive direction. I am hopeful that CNL would say the same. What is key here, though, is that relationships are often built between people and not between industry and governments, and so the role of the Commission from the MMF's perspective, part of that process is in crystallizing that relationship, right, and ensuring that licensing conditions and other factors that flow from these processes ensure that the relationship is moved forward in a way that doesn't take into consideration whether Marci Riel is here or whether President Chartrand is here.

Next slide, please.

And then so this slide just identifies a number of things related to the duty to consult and accommodate regarding specifically the ROR. So there is a bunch of things that are of particular importance, but I will draw your attention to the fact that the MMF has provided a number of reports -- you know, this is our second participation in a hearing -- we have provided a number of reports to CNL/AECL on potential impacts of decisions made at the site on the rights, claims and

interests of the Manitoba Metis Community and of key importance to us is the fact that there is limited Crown land left in the area for the Metis to exercise their constitutionally protected rights and this particular site offers an opportunity to rectify that.

Next slide, please.

So recommendation number two is tied to the fact that there are outstanding concerns and interests of the MMF regarding future plans, and specifically we are suggesting that there must be an engagement process for the MMF to establish a decision-making process and a framework that ensures the MMF is meaningfully participating.

The reason I say that is because, you know, I am mindful that when we last participated in a regulatory hearing, President Velshi, you asked me what is it that we can do in this relationship to really move forward and one of the things I brought forward was monitoring. I think there is an opportunity here for the Manitoba Metis Community to meaningfully participate in big picture long-term processes around what happens on the site, what happens to the site and how the planning around the site evolves over time.

Next slide, please.

So here I will just note that as representatives of the Crown, the CNSC and AECL have a

responsibility to consult with the MMF as the democratically elected government to the Manitoba Metis Community, and, further to that, there is a responsibility on the part of the Commission to ensure that AECL and CNL are adequately considering and accommodating the potential impacts of decisions made on the site.

So the MMF, you know, generally suggests that, you know, it is mitigate where possible, accommodate where mitigation is not possible. We have identified a number of potential impacts on the site, we have identified a number of Manitoba Metis Community specific mitigation measures that could be put in place were this Commission to recommend to CNL/AECL that they do so, and we are hopeful that those processes will take place in a timely manner to ensure that decisions made on the site are not made in a way that it is too late to do something about the potential impacts on the rights, claims and interests.

Of key consideration to the MMF is the fact that this process has been ongoing for many years and it has only been recently that we have had the opportunity to participate and so to some extent we are playing catch-up. And so some of the recommendations that the MMF is making are around bringing to a certain position that threshold of this is where the relationship needs to be and then we can move above that.

Next slide, please.

And so here is just flagging this concern around enforcement actions and orders on the Whiteshell site. We are working with CNL to develop a communications protocol. I am mindful that a number of the documents that have been filed with the Commission reference communication protocols that are currently in place with the local First Nations, and while we applaud CNL for doing so and recognize the significance of those relationships, we continue to see that CNL files documents that reflect commitments to indigenous nations but not specifically to the Metis Nation and/or to the Manitoba Metis Community. So there will be references for example to certain First Nations that are local and proximate to the project, but there are not similar references to the Metis Nation or to the MMF, even though we share those collectively held rights and certainly the rights to that land.

I also will note that the Resolution 8 that I referenced earlier in my presentation is key to this process, because the communication protocol that we would be looking for from CNL and AECL will necessarily be tied to that Resolution 8.

Next slide, please.

So here I am just flagging that the Crown has recognized, under section 35, harvesting rights and the

definition of harvesting rights and other resources and the commitment to protecting and preserving for future generations, and because of that, I am just noting that monitoring is of critical importance to the MMF. The opportunity to participate with CNL on monitoring programs and processes is key to having Metis boots on the ground, to having Metis eyes and ears in the process to be able to reassure our citizens that the commitments made by the proponent are being followed through on, that the commitments made by the regulator are ensuring that CNL is following through, and, frankly, so that there is that opportunity between President Chartrand and the provincial or federal government to be able to highlight this is an opportunity to move forward in a different and more meaningful way.

Next slide, please. And again, the next one. Thank you.

So this slide just outlines a summary of the key MMF recommendations and through this process I will just note that many of the recommendations are tied to the triggering of the duty to consult and accommodate. Whether that is as the Commission in terms of through regulation, whether it is Canada's role in relationships with indigenous nations, whether it is CNL's role as a proponent in Manitoba within the Homeland to the Metis Nation, the



key here is meaningful participation. I say that because it is important that people understand that it is meaningful participation from the perspective of the MMF, not meaningful participation from the perspective of CNL.

So it is not necessarily about trying to move forward in a positive relationship. While that is important, it also is important to make sure that we have the opportunity, the capacity and the funding to ensure participation on site during activities, right?

So I will note that in order to ensure that the duty to consult and accommodate is fulfilled, a process for addressing the outstanding impacts and concerns that the MMF has already raised needs to be considered in the Regulatory Oversight Report.

The reason I am pointing that out is because one of the things that we noticed in particular, and I get that this is an ROR report for 2019, but we continue to make the same recommendations and the documents don't seem to be reflecting that. So one of the things that is significant from the MMF's perspective is that issue around relationship and the connection to the CNSC's roles and responsibilities and the Commission's roles and responsibilities tied to ensuring that the proponent is following through. You know, there is an opportunity here to really mandate, for lack of a better word, certain

things.

And I think when we last chatted at the last hearing, I had identified a number of things around, you know, if it is not in the licensing condition then it is not necessarily followed, and we are seeing here in this hearing as well that while to some extent we have made progress, the documents still don't reflect the Metis Nation. The licensing conditions still allude to indigenous nations plural. There is still that missing link between what the CNSC and what the Commission is putting forward as the baseline, the foundation for appropriate consultation with indigenous nations and what is actually being followed through on.

And then the last item I will just note is the Commission's approval conditions and review of the Regulatory Oversight Reports must align with Canada's commitments to implement the UN Declaration, advance reconciliation and a Nation-to-Nation relationship with the Manitoba Metis Community and with the Metis Nation.

And the reason that I flagged that is because the CNSC as a component, the Commission itself reflects and bears the weight of the honour of the Crown and we are very aware of those responsibilities, but also, we are very aware that the MMF as the Metis government has responsibilities, and we are looking to the Commission and

to the Panel to identify ways in which Canada through these processes and the MMF as the Government of the Manitoba Metis Community can work together to ensure that decisions made on site, whether that is in Manitoba at the Whiteshell site or Chalk River or any other site across the Metis Nation, that those decisions are made with the Metis Nation in mind, with potential impacts on rights, claims and interests of our citizens fully considered, fully assessed, fully mitigated. Because often, you know, there is a pan-aboriginal approach put in place whereby mitigation is recommended, but it isn't specific to the actual rights of the people. So I would encourage you to think of mitigation as being First Nation specific and Metis Nation specific.

There is no reason for why rights can't exist parallel. They are equal, they coexist as it is, but a parallel track process is completely fine. If anything, it is more respectful to both the First Nations and the Metis Nation, as opposed to trying to lump it together and trying to identify indigenous mitigation that is intended to cover both. Generally speaking, in our experience certainly, it tends to focus on First Nations' rights, and second, it tends to be too broad to actually meaningfully address the issues and the mitigation is often inappropriately applied to the impact to the rights that it

is intending to mitigate.

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Thank you and meegwetch.

So I will just thank you very much for allowing me to present today and I will ask if there are questions. Happy to answer them or take them back and I look forward to more meaningful opportunity in the future.

**THE PRESIDENT:** Okay. Thank you very much for your insightful and very helpful presentation. I will open it up for questions and start with Dr. Demeter.

--- Pause

**MS. RIEL:** I'm sorry, I can't hear him.

**THE PRESIDENT:** Neither can I.

**MS. RIEL:** Okay. Just checking.

**MEMBER DEMETER:** Is that better?

**MS. RIEL:** Yes, thank you.

**MEMBER DEMETER:** Okay. Yes, sorry.

I wanted to thank you for a very informative and instructive presentation. It was a lot to process.

But taking it all together, I wanted to address, Ms. Riel, and ask you, on the big picture, are relationships and engagement and recognition getting better, staying stable, getting worse? Like is there progress being made in the right direction overall with all

these components that you have talked about?

**MS. RIEL:** So thank you for that question.

I would say that -- I would say that progress has been made both with regard to the relationship between the proponent and the Metis government, as well as with the relationship between the CNSC and the Metis government.

Certainly, you know, the staff of the Commission have done an excellent job of recognizing the value and importance of working with the MMF as the Metis government and I would suggest that CNL has made an effort to make progress.

What I -- I guess the point I was trying to make is that while I appreciate that effort, it doesn't seem to be reflected in the filings. So the effort seems to be made on the ground in the relationships between people, but not in the documents that are filed with the Commission, whether it is within this hearing process or whether it is within the WR-1 process.

You know, we are about to move forward into the third process that the MMF has participated in with regard to the Commission and CNL and we continue to see the same challenges in the documentation that is filed. So I would say on one hand, yes, the relationship is moving forward. On the other hand, I would suggest that one of

the key components that we would be asking of the Commission is to really crystallize what is expected of CNL in those documents in a way that meaningfully ensures that it is not just the relationship between Marci as a person who works at the MMF and whomever at CNL, but rather, that it is crystallized within the documents that it is within the licensing conditions that processes are meaningfully followed through on, because if it is not in that way, there is not an ability for us to go back and point to that issue and expect something to be done about it.

**MEMBER DEMETER:** Thank you. That is insightful.

**MS. RIEL:** Thank you.

**THE PRESIDENT:** Maybe we can, as a follow-up, ask both staff and CNL, and perhaps even AECL, to comment on the progress of the relationship, the request or the recommendation to crystallize the expectations, and the distinction between the Metis government's needs and indigenous -- not indigenous peoples generally, you know, but the First Nations separately and the Metis people separately, because the expectations and needs may be different.

So let me start with staff first, please.

**MS. CIANCI:** Candida Cianci, for the record.

So I will start and then I will pass it over to our Indigenous Relations Team.

But just for the purposes of for this particular filing, although there is no contemplated decision for a Regulatory Oversight Report, I did want to say that we hear you, Manitoba Metis Federation, on behalf of the community and, as you may have seen in our supplemental CMD, we have provided responses to each of those and we do acknowledge that in the future we will and we are making a commitment that we can do a better job in the Regulatory Oversight Report itself of acknowledging the rights and the interests distinctly of the groups that we are engaging with or consulting with. So I just wanted to let you know that we have made that commitment for this particular part of the filing.

In terms of making progress on proposed projects where we have regulatory review processes underway, we have successfully and mutually signed Terms of Reference with the MMF, on behalf of the community, that speak to how we will collaborate together in the remaining steps that we have, but we are certainly open to going beyond and more broader than that particular review process and we would be certainly happy to discuss with MMF having a long-term engagement terms of reference.

So with that, I will pass it over to our

Indigenous Relations Team to provide further information.

**MR. LEVINE:** Thank you.

Adam Levine, Team Lead Indigenous Relations and Participant Funding.

So to build on what Ms. Cianci just laid out, one of the things that we are trying to do under the Terms of Reference for consultation on the WR-1 project with Marci and the MMF is actually do some work around collaborative drafting of certain sections of our EA reports and the rights' impact assessments so that their views and their thoughts are directly embedded within that to make sure that what we are submitting to the Commission is reflective of all the great work that is going on on the ground.

We also have seen a lot of progress from CNL and AECL over the years on trying to build the relationship and really actively listen to the MMF and do some great work with them around environmental monitoring and looking at an indigenous advisory committee, among a number of other programs, for more integration and incorporation, but we are always happy to look at how we can improve how we capture the information, all the work going on, including in the ROR itself. So it is something that we will go back and talk to the MMF about.

We do meet monthly or more with Marci and



her team to talk about everything that is going on and so we are happy to clarify anything and also to go back and show how their comments and concerns have been addressed in the past and what we are doing about it. We also meet with CNL and AECL with the MMF often as well so we can all be on the same page and collectively work towards addressing their concerns in a meaningful way.

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

Maybe to CNL. And I don't mean for your projects underway, but I mean overall general long-term relationship, what are your perspectives on that and your response to some of the concerns that have been raised by Ms. Riel, please?

Mr. Gilbert...?

**MR. GILBERT:** Yes. Good morning. For the record, I am John Gilbert. I am the General Manager at Whiteshell Laboratories.

I appreciate the presentation by Ms. Riel, it was very nicely done. And just to follow on on the question here, you know, through our conversations and our engagements we continue to seek to learn what is important to the MMF and their citizens not only with the WR-1 process but in all cases with the Whiteshell site.

CNL has incorporated additional species such as mushrooms into our environmental monitoring program

here at the site. We have actually brought on a member of the MMF organization to help us monitor our environmental sampling programs out here. And we continue to move in a positive way, we believe, so I will agree with Ms. Riel's comment before that we think the relationship is positive and we continually seek to learn more about what is important to the MMF as we move through the process of decommissioning at the site.

I think probably my colleague Brian Wilcox can provide a little bit more detail on the overall program, so I will ask Mr. Wilcox to join us.

**MR. WILCOX:** Thank you, John, and good morning.

My name is Brian Wilcox, for the record. I am the Director of the NPD and WR-1 Reactor Decommissioning Projects.

And yes, I would like to add on to what John added. I mean certainly CNL does recognize the Metis as a distinct indigenous people and having distinct indigenous rights. We have recently invested some corporate learning to increase our knowledge of Metis history and culture. The Riel Institute, which is associated with the Manitoba Metis Federation, delivered excellent training at the Whiteshell site recently, which did have inclusion by CNSC staff and AECL staff. And I

agree with Marci's comment, CNL is investing in a relationship and an engagement with MMF and we are committed to continue and grow those.

I appreciate Marci's feedback on improving documentation with respect to the Metis as distinct indigenous people and we will certainly take that feedback to heart as we move forward in further engagement with the MMF.

Thank you.

**THE PRESIDENT:** Thank you.

Mr. Boyle...?

**MR. BOYLE:** Thank you.

Phil Boyle, for the record.

I wanted to identify that across the CNL organization the need to communicate and engage with the indigenous communities is pretty clear to us and in the last couple of years we have worked hard to establish some relationships so that we would understand the values and knowledge that the indigenous communities have so that we can incorporate that into the projects and know how to apply their interests to the actions we are taking.

I would like to pass this to Pat Quinn, our Director for Corporate Communications, who I think can provide a little more information on the broader view from CNL.

**MR. QUINN:** Thank you, Phil.

For the record, my name is Pat Quinn, I am the Director of Corporate Communications for CNL and involved in a variety of indigenous relations.

As both John Gilbert and Brian Wilcox pointed out, engagement with the Manitoba Metis Federation has been quite active and there is progress being made there. This is -- and again, as Phil Boyle has pointed out, this is activity that we are undertaking where we do business across Canada. So this has been most active over the past four years and growing and CNL continues to be committed to having meaningful engagements with the indigenous communities and the Metis.

Thank you.

**THE PRESIDENT:** But, Mr. Quinn, based on what you heard today, what would you do differently?

**MR. QUINN:** I think what we would do, President Velshi, is continue our engagement with the MMF through the local organization, CNL Whiteshell, and continue to listen and implement and look for those opportunities. I think that this is -- you know, as I said, over the past four years, as Ms. Riel pointed out, this is recent and so we have been working very hard to do that and so this is something that will continue to be a priority for the organization.

**THE PRESIDENT:** Thank you.

**MR. QUINN:** Thank you.

**THE PRESIDENT:** Ms. Quinn from AECL,  
please.

**MS. QUINN:** Hello. For the record, I am Shannon Quinn, I am the Vice President of Science, Technology and Commercial Oversight for Atomic Energy of Canada Limited.

I too wanted to express to Ms. Riel our commitment to building a long-term relationship with the Manitoba Metis Federation and we have been actively engaging alongside CNL to develop that relationship and to have it advance and grow.

What I would say in particular in response to Ms. Riel's presentation was that I also heard the concerns around documentation and I certainly will make a commitment that AECL will attend to documentation issues going forward.

Ms. Riel also raised the importance of meaningful participation. AECL also recognizes the importance of that. We work hand-in-hand with CNL and rely on CNL in some instances to allow that to advance, and what we are seeing on our side is that there is progress being made on that front, as mentioned by CNL, in terms of inclusion in the monitoring programs, but certainly we are

very interested in continuing to engage with Ms. Riel and to further addressing any needs or interests on that side.

The one other thing that I picked up in the presentation was Ms. Riel's interest on the part of the Metis Federation in the lands that AECL holds, particularly in the Whiteshell area.

So currently, AECL is not actively considering the disposal of those lands, but I do hear her expressed interest, and we will keep it in mind. And certainly whenever the time would come to contemplate that, we recognize our duty to consult in that -- in that particular area and we will be consulting with the Metis -- the Manitoba Metis Federation.

**THE PRESIDENT:** Thanks very much,  
Ms. Quinn.

Over to Dr. Berube, please.

**MEMBER BERUBE:** Welcome back, Marci.  
Thanks for that presentation. It was very articulate and clear to us what you're trying to communicate here.

Certainly we're all in the process of learning and growing together, and I can sympathize and -- with the difficulty sometimes it is to get a message through when, historically, that's not maybe been the case all the time, so we are definitely listening and we are adapting.

And so I'll just cover all of this with that, and there are growing pains in all of it, so let's just carry on.

So Marci, could you explain the activities? We just had a couple -- what was it, a year and a half ago, two years ago, something like that -- regarding Whiteshell. And could you explain to me, you know, what activities that you've been engaged in since that decision was made?

Because you say the relationship is new. Maybe we can get some feedback directly on, you know, what you're engaged in.

We're talking about it generally, but it would be nice to hear from you, what are you doing now with CNL?

**MS. RIEL:** Thank you.

So I would say -- so I guess a couple of things. I would suggest that, you know, as CNSC Staff referenced as well as CNL, you know, we do meet regularly. There certainly is engagement taking place, and I'm not suggesting otherwise. I appreciate the relationship that is developing between the MMF and the CNSC as well as the relationship that's developing between the MMF and CNL.

And so to that -- to that point, you know, I want to stress that engagement and having those

conversations and having those meetings is very important, but I also want to just note, you know, Mr. Gilbert mentioned, you know, that they've had a citizen from -- I'm going to ignore the fact that he called us a member -- but that we had a citizen of the Manitoba Metis community participate in a monitoring program.

I just want to be clear, though, that it's not as though CNL has hired a citizen to work long-term at the site. We have, through the Manitoba Metis Federation a monitoring program specific to the Metis that we've rolled out to all projects in Manitoba, and so we've had the opportunity to participate in monitoring on transmission lines, pipelines at the CNL site as well as the CN oil spill at St. Lazare, like, so a variety of opportunities.

And so what I would just caution, though, is, you know, I'm going to say that our monitor has been on site four times, five times, maybe, since we last met, and so I just -- I just want to make sure that folks are not thinking that this is like, you know, weeks at a time or months at a time.

We greatly appreciate the opportunity to be on site. Do not misunderstand me in that respect. But when -- when you're talking about monitoring, it's important to remember that yes, you know, our monitor was there for the fish sampling, was there for some water



sampling, was there, you know, to deal with the mushrooms that Mr. Wilcox referenced, all of which are very important, but all of which are also singular days across, you know, what has been 18 months or two years, right.

And so I would say over the course of that and, you know, stand to be corrected, but I'm going to say maybe 10 times we've been out to site. Perhaps -- perhaps a couple of more, but certainly -- certainly not that many.

And so it's a good reflection of where the relationship is going, but I wouldn't say that it's the best reflection of the relationship that could be.

And I think part of the reason for what I'm -- what I'm trying to suggest here through this process is, CNL's making an effort and CNSC is making an effort, and we appreciate that. The MMF is also making an effort.

What I'm looking for, though, is for the Commission, through decisions made on projects, to identify those in the decision so that there is that impetus on the part of the proponent to do more, right. Like I can't think of any other way to explain it.

I greatly appreciate the commitments made by those on the CNL team, but if those folks are not necessarily here next week, those commitments at this point are gone, right, because they're not crystallized in decisions made by the Commission.

**MEMBER BERUBE:** So Marci, I just want to clarify here. Your citizens are still actively harvesting in the immediate area of the site?

**MS. RIEL:** Yes.

**MEMBER BERUBE:** And so that's still there. Has the CNSC contacted your people about inclusion in the IEMP and have you actually participated in that or are you working towards that?

**MS. RIEL:** Can you tell me what that means in actual language?

**MEMBER BERUBE:** It's our environmental monitoring program at CNSC independent. Usually we tend to work with indigenous peoples in that pursuit to try and -- it's a bidirectional learning opportunity.

**MS. RIEL:** Right.

**MEMBER BERUBE:** So I don't know if they talked to you. Obviously they haven't if you haven't heard of it yet, so.

**MS. RIEL:** Yeah. So I would say the CNSC team, we're working towards -- towards doing so. I'm aware that, you know, the last time there was monitoring on site was a few years ago and I know that we had had this conversation at the last hearing around the idea that it needs to happen more often, needs to happen more regularly.

I'm also very aware that we're in the

middle of a pandemic.

I would say, though, just on that particular note, all of the other regulators in Canada have still had inspections on site, and so I would just note -- not that I'm suggesting that that's a terrible thing but, rather, just that the other regulators have found a way during the pandemic to ensure that inspections continue to happen. And in this particular scenario, that didn't take place, for whatever reason, perhaps not even pandemic related.

But I would just note that the pandemic has -- the pandemic has, in fact, allowed for certain things to take place, indigenous monitoring in particular, that may not have otherwise had the opportunity based solely on the fact that so many people are available to participate in that process at the moment.

**THE PRESIDENT:** Thank you.

I see Ms. Cianci has her hand up. Over to you.

**MS. CIANCI:** Thank you, President Velshi. So Candida Cianci, for the record.

I just wanted to speak to how staff are committed to engaging with communities and knowledge holders on carrying out and planning for sampling efforts under the IEMP, so I just wanted to pass it over to our

administrators of the program to provide more information on the process that's carried out and future sampling plans around the Whiteshell site.

Over to you, Ms. Sauve.

**MS. SAUVÉ:** Thank you. Kiza Sauve, for the record.

Before I start on the IEMP, I did want to make a little bit of a clarification that doing environmental monitoring does not replace our CNSC Staff inspections. So when I'm finished my answer, if our inspectors want to give a little bit of information on that.

So I don't want to make it seem like we haven't been to site to do inspections.

In terms of our Independent Environmental Monitoring, we were last in the area in 2017. We're currently making our plans for moving forward, and I -- there has been a few discussions in our monthly meetings. I haven't been to them, but I know our team has talked a little bit about the monitoring.

One of the things we're considering is doing a more of a two-year approach, so in that first year, we can come out and meet with your citizens, walk the land, learn from you, understand what might be better to be sampling or where to be sampling and then, in that second

year, do a little bit more implementation.

We know this is an ongoing program, and so we want to make sure that we don't just come out and -- or we come out and not do the right thing.

So that's definitely something we are considering moving forward, and we want to work with you to do that.

So I'll pass it back to our inspectors.

**THE PRESIDENT:** No, I don't think there's a need for inspectors. We know that on-site inspections are happening specifically with the IEMP, and I'm glad you clarified that, Ms. Sauve.

Let's move to Dr. Lacroix, please.

**MEMBER LACROIX:** Well, Madam Riel, thank you very much for this presentation and also for the written submission.

Listening to you is -- it's -- I find it that your enthusiasm is as contagious as COVID-19. It's refreshing.

I just want to check something with you in your submission. I want to connect the dot between your oral presentation and your written submission.

On page 34 and 35 with respect to the indigenous relation, you mentioned that you have developed a positive relationship with CNL over the years and -- but

you mention that there's still outstanding issues and concerns that remain to be -- that remain unresolved, so I presume that you are referring to the five recommendations in your oral presentation. Isn't that right?

**MS. RIEL:** Thank you. I appreciate it.

And so I guess the -- so two things.

One, it's important to remember that, you know, the MMF is the government of the Manitoba Metis community. The -- and perhaps I should have given this context at the outset.

But the Metis Nation is actually the largest indigenous nation in Canada. Most people think of the First Nations as being the largest indigenous nation and, in fact, it's the Metis Nation.

And so that point, the Manitoba Metis community is the largest single indigenous community in Canada as well, and so the MMF represents 125,000 citizens in Manitoba and expanded areas, right.

And so I would say that, to answer your question specifically, yes and no.

And the reason that I say that is because my perspective is that the recommendations are more what I would consider buckets, right. There are a number of things that flow under each of those recommendations that, in practise, perhaps, would be, you know, five action

items, say, for example, just to use some round numbers.

And I would suggest that, you know, the CNL team and CNSC are working diligently with the MMF to address items in each of those buckets. The issue that I'm trying to bring forward -- and I don't want to belabour it, but the issue for me is that it would be very helpful to the Metis government and, to my mind, to CNL and to the CNSC Staff, if the recommendations that are being made are accepted by the Commission through the hearing process and recommendations by the Panel are made to that point.

Do you see what I mean? In the sense of the MMF is recommending this take place. Were the Commission and the Panel to say, "Yes, this needs to happen", then, you know, CNL is able to point to that as something that they have marching orders on, the CNSC Staff is able to point to that as something that needs to be implemented in order to meet those requirements.

The MMF, as the Metis government, is then able to, you know, say to Canada, you know, "We firmly believe that the regulator is moving forward in a, you know, full, proper and meaningful way on that issue".

Do you see what I mean?

And so it's not necessarily that we only have those five concerns; it's more that there are a number of unaddressed impacts that remain within a variety of

different topics.

**MEMBER LACROIX:** Okay. Thank you. Thank you.

Quite enlightening. Thank you very much.

**THE PRESIDENT:** Thank you.

Dr. McKinnon.

**MEMBER MCKINNON:** Yes, thank you. Like the other Commission Members have mentioned, thank you very much for a very clear and informative presentation.

I was very interested to hear about the monitoring that you would like to become engaged with. And when I think about monitoring, I always think of putting instruments in the ground and gadgets in the air and gathering data and graphing it and so on, but I imagine that's not exactly what you have in mind. And monitoring would be -- you're more concerned about monitoring which would have more direct relevance to your citizens who would be using the land.

So I'd like to hear a little bit about the type of monitoring you have in mind and what -- how have the discussions been progressing with both CNSC and CNL in that regard.

**MS. RIEL:** Thank you.

So I would say I -- unfortunately, I would yes and no to that question, too.



So to some extent, certainly, the monitoring that I am proposing is, in fact, all of the, you know, testing and the gadgets and things of that nature. What I would suggest, though, is that it's the -- it's the components of those process -- processes that we would be looking for to be different.

So it's not about necessarily, you know, what is the water testing but, rather, where's -- where are the tests being done so -- or, you know, it's not necessarily about, you know, impacts to wildlife, but perhaps impacts to certain types of wildlife that the Manitoba Metis community generally harvest.

And so from my perspective, it's not quite about, necessarily, the -- just not doing the science of it, for lack of a better description, but more about applying the scientific metrics to -- to items and things of concern to the Manitoba Metis community, whether that's animals or fish or water quality or land or anything of that nature, even to the extent, you know, CNL and the MMF have worked quite diligently on access management plans and concerns around things of that nature.

So I would say there is that scientific component to the monitoring that we very much want to participate in. We want to be there when the water is tested because we want to be able to reassure our citizens

that we observed it with our own eyes and that there is some veracity to that process, right.

Like President Chartrand is quite clear that he wants to be able to stand before the citizens and say that our Metis monitor was there, it happened, it happened the way that Canada committed to making sure that it would happen, the proponent is following through, it's an example of, basically, a circle of relationship with the regulator, with the proponent, with the government.

To the extent that Metis monitoring, though, would be included, certainly we are working with CNL and with the CNSC to identify opportunities for monitoring and specific to, you know, things that are of particular importance to the Manitoba Metis community, and we would be looking to roll those out, you know, on a larger scale.

And so yes, environmental monitoring is still happening, and so there's -- to my mind, there's a few things.

There's environmental monitoring, there's compliance monitoring and there's like safety monitoring, right. And so it's important that the MMF is participating in processes whereby we can, you know, test fish species and things of that nature, but also whereby, you know, there are challenges around having citizens participate in

processes that provide valuable information to the proponent and to the Commission on participation as it relates to big-picture items.

So not, you know, community barbecues, necessarily, but the opportunity for a bit of a demystifying of what is, you know, nuclear science, right.

There's this misunderstanding among citizens of the Manitoba Metis community, of Manitobans in general, of Canadians in general, I would argue, and so there's an opportunity through the monitoring program not just to be able to point to the fact that we tested the water, we tested the fish, we tested the plants, but also this idea that, you know, CNL is not flooding nuclear waste into the Winnipeg river system.

You know, there's those eyes and ears types of things whereby our monitor is able to, you know, speak at the annual general assembly that the MMF holds every year with up to 5,000 citizens. And to the credit of CNSC and CNL, they've both been there as well, you know, so credit to them for doing that.

But the idea being that the monitor can speak to our citizens and say, "No, no, I was there when that happened, and that's not what happened. It isn't what you're imagining. This is what actually happened because we were there and we participated".

And the key to that is the participation, and I'll just flag that because often the monitoring program is about watching and not about participating. And so the MMF's perspective -- and this, to my mind, is key -- is to have that Metis monitor participate in the action as opposed to watching others do it because I think the whole observing part lends itself to this idea that the monitor is trying to catch them doing something wrong when, really, what we're looking to do is meaningfully participate in the process so that we're partners in it.

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

That is very, very well articulated.

Thank you.

And I can see on my Zoom connection that I -- I only see a few of the heads of CNSC Staff, but there was a lot of vigorous nodding, so I think there's a lot of resonance with what you said, which I'm very glad to see.

Thank you very much.

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

And I know we're all overdue for a break, but we still have lots to talk to you about, Ms. Riel.

So what I suggest we do is break, resume at 11:40 and see if there's another round of questions, and then give you an opportunity to make any closing remarks.

So we'll get back at 11:40. Thank you.

--- Upon recessing at 11:19 a.m. /

Suspension à 11 h 19

--- Upon resuming at 11:39 a.m. /

Reprise à 11 h 39

**THE PRESIDENT:** Welcome back, everyone.

And let me just make sure whether  
Commission Members have any additional questions.

So I don't see any. Ms. Riel, you know,  
before I ask you for any final words, I just want to  
reaffirm to you that we've heard your request to the  
Commission for us to make it clearer, whether it's in our  
decision or in our record of proceeding, what our  
expectations are of licensees and of staff to make sure,  
then, that it's very -- as you said, it's crystallized and  
it's clear and it's enshrined. That would be helpful for  
commitments in the longer term.

So with that, let me turn it to you for  
any quick final comments before we move on to the other  
intervenors, please.

**MS. RIEL:** Thank you kindly. I appreciate  
it.

I don't have any extended final comments  
other than to say that if I could ask for one -- sorry, two

particular things from this process, it would be exactly as President Velshi just mentioned, you know, the crystallization of expectations in a way that ensures that, you know, staff of the CNSC as well as the proponent, licensees, whomever, whether that's AECL or CNL. The ensuring that that is identified and, you know, mandated as a task allows for the Metis government to be able to point to that item and be able to, you know, have the impetus to follow up, right.

There's -- the -- without that, it's communication and engagement, which is very important. No one is suggesting otherwise. But the ability to be able to point to that in a decision makes all of the difference.

And the last thing I would just say is that one of the key components of these processes, from my perspective, is the coexistence of those equal but distinct rights is a key component of this process in the sense that, you know, the hearing process, the Commission, the Panel, the proponent, everyone has been very, you know, careful to recognize the Metis Nation separately, and I greatly appreciate that.

I would just want to make sure that you understand that, where possible, certainly President Chartrand has prioritized opportunities to work together with other indigenous nations. And so whether that's

through procurement on the site or whether it's through, you know, procurement across all CNL sites or AECL opportunities, there's a significant driver within the Manitoba economy whereby the Metis Nation and the Manitoba Metis community can participate and provide that opportunity for the prosperity of the Metis Nation, the prosperity of Manitobans, the prosperity of Canadians.

And so I would be remiss if I didn't also flag that through all of these processes, one of the most significant accommodation opportunities would be economic development through partnership with indigenous nations.

Certainly our specific request would be through partnership with the Metis Nation, but where opportunity presents itself to work with local and proximate First Nations, certainly we would be open to that as well.

**THE PRESIDENT:** Okay.

**MS. RIEL:** I'll just thank you very much for your time today. I'll wish you all the best and health and happiness, and look forward to speaking with you again.

Thank you kindly.

**THE PRESIDENT:** Thank you so much for your intervention today. Thank you.

We'll now move to the written submissions.

And Marc, I'll turn it over to you to lead us through this, please.

**CMD 20-M22.1**

**Written submission from the  
Curve Lake First Nation**

**MR. LEBLANC:** Thank you very much.

So the next submission is from the Curve Lake First Nation, as outlined in CMD 20-M22.1.

Any questions from Members on this submission?

Dr. Berube.

**MEMBER BERUBE:** Yeah, reviewing this submission -- and it actually just came up in the last submission, too, with the MMF -- was the idea here of disposition of lands after release in terms of decommissioning strategies and this kind of thing.

As we are in the process of moving forward with various decommissioning projects, where is the inclusion of indigenous peoples in this and how would we include the indigenous peoples in this process?

Maybe we'll start with CNSC and then maybe get some feedback from the operators.

**MS. CIANCI:** Candida Cianci, for the



record.

So Dr. Berube, just for clarification, you're looking for how would indigenous communities participate in the decommissioning activities or the plans around the development of those decommissioning plans?

**MEMBER BERUBE:** Exactly. Because it's -- they're asking specifically about strategic end points, I think. This is what they're concerned about because, fundamentally, once these properties are returned to public use, obviously they want to be included in how that's going to look. I think that's what they're referring to.

And I think we just heard that, too, with the MMF presentation recently, so if you could give us some idea of what that process would look like.

**MS. CIANCI:** Great. Thank you for the clarification, Dr. Berube.

So I'll start, but then I'll pass it over to our waste and decommissioning team, Ms. Greencorn.

And I'll just remind or recall to the Commission Members that at the Douglas Point licence amendments when we -- when we spoke about this, there were certain expectations that CNSC Staff have that are reflected in CSA Standard N294 in terms of development of detailed decommissioning plans, that if there's any public and/or indigenous consultation or engagement carried out

that they are to summarize those as part of those detailed decommissioning plans.

And then with regard to Whiteshell and Douglas Point, at both of those hearings we did hear the commitment from CNL that they would be engaging with indigenous communities in proximity to those sites as they're preparing those detailed decommissioning plans, but I'll pass it over to Ms. Greencorn if she has anything to add to that.

**MS. GREENCORN:** Nancy Greencorn, for the record. I'm the Acting Director of the Wastes and Decommissioning Division.

And as Ms. Cianci just indicated, in accordance with CSA Standard N294 as well as Regulatory Document 2.11.2, licensees must include in their decommissioning plans a summary of any engagement activities that was taken throughout the development of their decommissioning plans as well as how those concerns were raised and dispositioned.

So CNSC Staff, when they reviewed the decommissioning plans, are able to see the consultations that were taking place as part of that process and raised concerns with the licensee if we don't feel adequate consultation has been taking place.

In addition, in the decommissioning plans,

licensees have to provide their end-state objectives, and that's the radiological, the chemical. So when licensees provide our decommissioning plans, we look at the end-states and we look at the consultation that have been taking place as part of those decommissioning plans and we have an opportunity to go back and look at the consultation, look at the disposition to the consultation.

Further in our Regulatory Document as well as the CSA Standards, we talk about what our expectations are for public and indigenous communication engagement through development of the decommissioning plans as well as through the execution, so we do have this stipulated through our regulatory framework.

**MR. LEBLANC:** So the next question, President Velshi.

**THE PRESIDENT:** Marc, I see Ms. Quinn's got her hand up. She may have a follow-up to Dr. Berube's question.

**MR. LEBLANC:** Thank you.

**MS. QUINN:** Thank you, President Velshi.

As I understood Dr. Berube's question, there were two parts. One part was focused on establishing end-states for the properties that are being decommissioned, and the CNSC staff have elaborated on that process and engagement around that.

But I think there was a second aspect of the question that was related to disposal of land once the land was remediated. And I just wanted to flag that AECL, as a federal Crown corporation and as the owner of many of the lands that we're talking about here, would have specific duty-to-consult requirements when contemplating the disposal of land. So we would certainly consult with the appropriate Indigenous communities in the areas where we were contemplating disposal of land.

And indeed, in the context specifically of Port Hope and area, we are currently contemplating the disposal of some lands in the Port Granby area, specifically contemplating the formation of a nature reserve. And in that context, we are -- we have started engagements with Indigenous communities, including the Curve Lake community.

**MR. LEBLANC:** President Velshi?

**THE PRESIDENT:** Thank you.

A question for CNL. Both -- well, you know, for all the submissions we've got from the different Indigenous groups, what initiatives do you have underway around employment opportunities or other economic participation opportunities for Indigenous groups at your facilities, and how well are those working?

**MR. QUINN:** Hello, Pat Quinn, for the

record.

Thank you for the question, President Velshi.

With respect to looking at employment opportunities and economic development opportunities, I can point out that at the Chalk River site, approximately seven per cent of the workforce is actually Indigenous. And so we are actively engaged, you know, through I would say the regular recruitment process to, you know, attract people to our various locations. However, I can say that we are working on several relationships where we are looking specifically at, you know, enhancing the creation of employment opportunities or the opportunity for employment with CNL. And so that continues to be a work in progress.

With respect to economic development, this again is another area that we've been working on. And I can point to a couple of activities over the last two-year period. In particular, a suppliers day or an industry day where we have worked with in the Chalk River area originally with economic development offices from the Pontiac County, Renfrew County, and the Algonquin Pikwàkanagan First Nation, and worked together with them in the development of, you know, attaching people and raising awareness of our local supply chain.

And most recently, as a matter of fact

yesterday, we held our industry day. And now given the COVID realities, this was a virtual event; however, we extended participation to a wide variety of Indigenous communities and groups so that they could come in, become familiar with our programs and our active engagements through the supply chain. So it's raising awareness and should help to establish some relationships, not only with CNL, though, but through the broader supply chain that's represented by the OCNI group.

And this -- like these are some examples of work that we're doing. But again, some of our relationship developments will see things more concrete and I think will enhance what I believe is already a good start.

Thank you.

**THE PRESIDENT:** Thank you.

**MR. LEBLANC:** Thank you. I'm looking to see if there's any raised hands, and not seeing any.

**CMD 20-M22.2**

**Written submission from the  
Concerned Citizens of Renfrew County and Area**

**MR. LEBLANC:** We will move to the next submission, which is from the Concerned Citizens of Renfrew

County and Area, as outlined in CMD 20-M22.2.

Questions from Members on this submission?

Dr. Lacroix?

**MEMBER LACROIX:** Thank you.

The Concerned Citizens of Renfrew County has a number of issues that they raise. And one of the issue that they raise concerns the -- well, supposedly the high turnover among the upper management of CNL. And from my point of view, if I could reformulate their concern in this way, could the historical safety culture at CNL be negatively impacted by senior management at CNL?

**MR. LEBLANC:** Mr. Boyle.

**MR. BOYLE:** So Phil Boyle, for the record.

My experience has always been that bringing in fresh views at the management level, especially management that has seen operations around the world in this particular work area is always advantageous. That doesn't mean that everyone you bring in is in fact an improvement. We all have different skills, and some of us are better than others, and some of us are not as good as others. But the concept of bringing in people who have been able to see how organizations are able to thrive in a rigorous safety culture as is required in the nuclear world has in fact worked out quite well in general.

And so Dr. Lacroix, I would not say that

the mere fact that there is a rotation at the top level is negative. Done properly, it is in fact quite positive.

One of the things that does have to happen and that we are working very hard to do is to not stratify between "outsiders," if you would, and senior CNL folks that have been here for 15, 20, and 30 years. It's very important that those that have been here a long time are involved in the decision-making or helping us determine what actions need to be taken to improve the safety culture. It's got to be a team effort.

**MR. LEBLANC:** Thank you.

**DR. LACROIX:** Thank you, Mr. Boyle, for addressing this concern. Thank you very much.

**MR. LEBLANC:** Dr. Berube?

**MEMBER BERUBE:** I'm just looking at some of the intervenor questions here, and one of them seems to be about the confusion about, you know, ownership of site, the GOCO model, the position of CNL versus the disposition of who actually has the licence, you know, who's actually responsible.

So maybe because we have everybody here, could AECL just get into quickly the nature of the GOCO model, what role CNL plays in that. And then maybe CNSC can talk about the licensing terms and who's actually got responsibility for that particular area at that particular



point in time so that we maybe get some clarity on this.

**MS. QUINN:** Shannon Quinn, for the record.

Thank you for the question.

So Atomic Energy of Canada Limited, we're a federal Crown corporation. We continue to own all of the lands, all of the facilities, all of the other assets as well as all of the radioactive waste liabilities at our sites and other sites for which Canada has accepted responsibility.

Historically, AECL had a staff of thousands of people and we self-performed our responsibilities under our mandate for the federal government. Within the context of the GOCO construct right now, what we do is we still have the same mandate and responsibilities, but we contract out the performance of a majority of the scope, and we contract out the majority of that scope to one particular organization that's fully qualified and appropriately licensed in order to undertake those activities, and that organization is Canadian Nuclear Laboratories.

And so Canadian Nuclear Laboratories undertakes the day-to-day operations and execution of the projects on our site. They're fully responsible for all aspects of the operations of our sites and the execution of the work that happens on our sites, including all aspects

of safety, security, and effective performance of the work so that there is good value back to the Government of Canada and the people of Canada.

And so the way that you might think of it, it's a little bit of perhaps an oversimplification, but it might help you get your mind around it, is if I purchased a property and wanted a house built on that property, as the property owner, I would have requirements for what my house would look like in the end. I might need a three-bedroom house and it might need to have two washrooms, but then I would contract out that to a fully qualified builder who would take responsibility for the site during the period of the construction, would construct a house that would meet the requirements that I establish, and would be responsible for all aspects of the build, including the safety and security. And so that is an analogy that holds in some part, at least, in terms of the relationship of the GOCO model.

So maybe I'll stop there and see whether that helps to clarify some of the division of responsibility.

**MEMBER BERUBE:** Yeah, that's clear.

And CNSC, if you would, could you talk about the licensing requirements in terms of who actually holds the site licence, who is responsible for seeing to

that licence implementation.

**MS. CIANCI:** Candida Cianci, for the record.

So certainly. So CNL is the licence holder of CNSC licences, and as such, they are responsible for ensuring that all of their activities at their sites are performed safely and in accordance with our regulatory requirements and that we hold CNL accountable for the conduct of those licensed activities as the licence holder.

**MEMBER BERUBE:** And does that include AECL indirectly? Or how does this work, for instance, if CNL goes away? Who is actually responsible in the end?

**MS. CIANCI:** So Candida Cianci, for the record.

I may pass this or run it by Dr. Quinn to provide the second part of that answer, but as long as CNL is the enduring entity and holds that licence, then they're held accountable. But as for if they were to walk away, I'll invite Dr. Quinn to answer that part.

**MS. QUINN:** Thank you. Shannon Quinn, for the record.

So as Ms. Cianci mentioned, the licence is held by CNL. They're fully responsible. But what I will say is, is that the GOCO agreements were structured in a way to see that should the GOCO -- should the contractor

Canadian National Energy Alliance change or go away for any reason, that CNL would remain with all of the staff that would be required in order to meet all of the licence requirements and that they would have all of the certifications and expertise and qualifications in order to continue to manage the sites in full compliance with their licence.

And so as an example, there is requirements within the GOCO contracts so that seconded employees into CNL, there aren't long reporting chains of seconded people reporting to seconded people, so that in the scenario where the relatively small number of seconded people departed, that you would still have those people who were sort of one level below them all fully qualified in order to take over the operations of the site.

In terms of what would happen in that scenario, there's a number of possibilities, but there's -- in all of those scenarios, CNL continues to exist with all of the expertise necessary in order to continue to operate our sites safely.

**MEMBER LACROIX:** So I see a few raised hands. Madame Velshi and then Mr. Boyle.

**THE PRESIDENT:** Maybe Mr. Boyle, because he probably has a follow-up.

**MR. BOYLE:** Yes, thank you very much.

Phil Boyle, for the record.

I just wanted to make the observation that as an executive of CNL, and more importantly as the chief nuclear officer, there's no question in my mind as to who is responsible for the licence and for meeting all of the requirements from the regulator. No question at all, that is our responsibility.

**MR. LEBLANC:** President Velshi?

**THE PRESIDENT:** Thank you.

Question to CNSC staff, please. The intervenor makes reference to a statement in the IAEA's integrated regulatory review service report of last year about the need for CNSC to ensure objectivity and independence of on-site inspectors.

Can you maybe give us a bit more background as to what led to this being included in the report? And is the CNSC's practice around on-site inspectors markedly different than other nuclear regulators, for instance? And what is the CNSC doing to address this particular statement?

**MS. CIANCI:** Candida Cianci, for the record.

So I'm going to pass this question to Ms. Murthy.

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

Kavita Murthy, for the record.

So there are two parts to your question about inspections practices that are seen across the world on site inspectors, and then how we are different.

So we currently at this point in the organization have the ability for staff to move, but we don't have a requirement that staff need to move. So there's that aspect of it.

The question for objectivity and bias, I think I can address that very effectively. In all our inspection programs across the organization, there is a requirement for team work. So it isn't one isolated inspector who is fully responsible for a given inspection or a given site. There is an active program of knowledge management and knowledge sharing within the different groups, be it through technical meetings where inspection findings are discussed. There is also a chain of responsibility which rests with the regulatory program director to review and approve reports. So there are no instances where we would see an isolated inspector being able to make calls on particular situations without having some sort of a check that is done by the organization through our management systems internally.

With respect to what the international practices are, it does depend on which country you're

talking about. I know Mr. Ramzi Jammal has extensive experience to having done many IRRS missions across the world, so maybe he would like to add better information than I can give you on that.

Ramzi, over to you.

**MR. JAMMAL:** Thank you, Madame Murthy or Kavita.

Madame Velshi, with respect to the IRRS mission itself, there are two things. It was an individual's point of view with respect to, as mentioned by Kavita, rotation element with respect to the inspectors.

So for us at the CNSC, the objectivity of our inspectors and the powers of our inspectors is second to none around the world. And we have site inspectors with us that can elaborate on what I mean by their "powers."

As Ms. Murthy mentioned, the fact that the decision-making objectivity, the inspection reports are reviewed by HQ independently. They are in general -- not in general, but in every directorate and in specific in DPRR. So the IRRS mission review was done for site offices -- even though it's out of scope of this discussion for the ROR; it's mainly for nuclear power plants, but the fundamental principle applies. We have quarterly verification reports that we do review the inspection reports, the lessons learned, and the findings of the

inspection globally, and now we're doing virtually between technical support branch and the regulatory operations branch to oversee the findings and the discussions on technical issues arising from the inspections.

So in -- from part of the team, there was an individual who felt that the way it's being done in their country and in specific in the US, that's who the person was, determined that he felt objectivity could be -- not it is -- but could be compromised. And we accepted such recommendation -- not even recommendation, but it was a discussion. So for us to always look for improvements, we didn't say no. We always want to look for improvements.

But I would like to address the issue of the CNSC itself. Few years back, we did take on internal assessment and independent assessment by the audit group with respect to potential -- how can I say? -- influence or fraudulent activity or -- by our site inspectors and our regional offices and determined there are enough check and verifications in place such that there is no risk or the risk is very, very low, extremely low with respect to any potential influence or by the licensee.

But I would like to conclude that our inspectors can independently -- and they do -- issue AMPs. They can independently shut down an operation and, as Ms. Murthy mentioned, in specific in the directorate there is



always a rotational element with respect to the inspections and the site review.

I will elaborate a bit more on it if you require me to do so.

**THE PRESIDENT:** And I would like you to, because there are two follow-up ones. One is, it says:

"CNSC does not have a comprehensive formal process to regularly review ..."

And the second part, it says, you know, maybe direct management observations would be one way of doing so.

So the question very specific -- I mean, you've identified all the elements that give you reassurance that independence and objectivity is maintained. Is that formally documented? And given this particular statement, is there -- because I didn't hear either of you talk about, you know, direct management observations. Is that something that you're considering doing? Like how is this statement addressed when you say, We've accepted it, it means you're actually going to do something about it now; right?

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

We accept it. We do have direct management oversight of the review of the inspection

reports. So is there a direct management oversight with respect to the findings of the inspector at the time the inspection was done? That's what we're looking at. So we do not want to second-guess the inspector. We accept the report, and then we verify the findings of the report. And that's where part of the review we're taking place is do we need to review every finding of the inspection report? It's going to be rest upon decision-making. Our inspectors always consult with the directors on major findings, and then they come up with a determination with respect to the actions to be proposed by the licensee.

So there are two elements. There is the enforcement element and the review of the inspection reports. And that's where we're looking at the findings and the findings of the inspector, and if it is being changed, because it's going to need to be reviewed by the management at every inspection.

So far, I can say that we -- work is in progress. Our management system is sound with respect to the training of the inspector, the independence of the inspector, and as I mentioned before the review of the inspection findings. So we accepted for us to look at doing it to -- at the management findings for every inspection report, and all await for the verifications to be done and the review to be done by our staff if there is

a need to do so.

But what we'll do is I'll take it as an undertaking, because under the IRRS, we -- which were presented to the Commission, we present the facts associated with that finding and the determination for the action plan for us and then we will put it on the record for you. But we did address it in our IRRS report to the Commission and the publicly available management response to these findings.

**MR. LEBLANC:** Thank you.

So I'm looking to see if there are any further raised hands.

**CMD 20-M22.3**

**Written submission from the  
Canadian Nuclear Workers' Council**

**MR. LEBLANC:** Not seeing any, we will move to the next submission, which is from the Canadian Nuclear Workers' Council as outlined in CMD 20-M22.3

Any questions from the Members on this submission?

No, there are no questions on this submission.

**CMD 20-M22.4**

**Written submission from the  
Canadian Environmental Law Association**

**MR. LEBLANC:** So we will move to the next one, which is from the Canadian Environmental Law Association, as outlined in CMD 20-M22.4.

Dr. Demeter...?

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

I want to address one of CELA's comments about an accelerated decommissioning approach and the specific question I have is related to the estimates of collective dose.

So the collective dose estimate is 520 person mSv for the accelerated approach versus 205 mSv for the alternate schedule in the 2002 Comprehensive Study Report, and the 520 includes doses at both the Whiteshell and Chalk River Laboratory. So the collective dose has two components, number of exposed individuals and the actual dose received by the individuals themselves.

So the first question for CNSC is more technical. What accounts for this near doubling or this doubling of collective dose?

And for CNSC and for the licensee, how is this doubling of the collective dose justified under ALARA?

**MS. CIANCI:** Candida Cianci, for the record.

So I will pass this question over to our Radiation Protection Specialists.

**MR. McMANUS:** Thank you.

John McManus, for the record.

I will address the first question on the near doubling. From the assessment that CNL provided there are two components for the doubling. At the Whiteshell site most of the additional exposure will be from reduced decay periods and about 110 person mSv will also occur at Chalk River due to waste handling.

Now, if I can jump to the justification. In totality the collective doses, even though there be a doubling, which is a relative measure, in absolute terms the collective dose values are still quite low. We are talking about 520 person mSv for the entire duration of the project over the next seven years.

CNL estimates that the average collective dose at Whiteshell will be approximately 50 person mSv.

Just for perspective, and I don't want to -- it's kind of maybe perhaps an apples-and-oranges comparison, but we do have licensed sites that are actually good RP performers but that will have collective doses greater than 500 person mSv per annum. This is not to

criticize any of the sites. Usually the collective doses are basically a nature of the type of activities and scope of work, but the absolute value of 520 person mSv for both sites over a seven-year period is still quite a low value.

**MEMBER DEMETER:** Any comment from CNL on the collective dose difference?

**MR. LEBLANC:** Mr. Boyle.

**MR. BOYLE:** Thank you.

Phil Boyle, for the record.

Before I pass this to Sarah Brewer, our Director of ERM Safety, Licensing and Engineering, I just want to point out that there are many considerations that come into play in laying out a schedule for decommissioning a particular facility, not the least of which is the recognition that leaving the facility in its current condition for an extended period of time has certain risks also. So I think Sarah can provide a little more discussion about how these comparative concerns are balanced.

Sarah, are you available?

**MS. BREWER:** Yes. Good afternoon. Can you hear me?

**MR. LEBLANC:** Yes, we can.

**MS. BREWER:** Okay. So I will just start by saying, you know, that with respect to dose management

CNL's robust radiation protection program ensures doses to workers are effectively managed. Doses at all CNL sites are below regulatory action levels. As well, CNL utilizes dose action limits that are set well below Reg limits to ensure doses to workers are justified and optimized. CNL plans all the work, decommissioning work, such that worker doses are below these Reg limits and even lower than the action limits, as Mr. McManus mentioned.

CNL has learned and grown their decommissioning portfolio and uses modern-day dose reduction methods, including robotic equipment in high dose rate situations, wear protective clothing for situations or activities of field protection monitoring such as air monitoring with local alarms to alert staff to any abnormal situation.

So I will just say, you know, that a number of factors are considered when determining the timelines for conducting decommissioning activities and provision of robust radiation protection is one of the many factors considered.

**MEMBER DEMETER:** If I can just comment back for a second, the apples-to-apples scenario analogy is really good. So we have one scenario where let's assume that all the above ground waste is going to be managed in either scenario, in the original or the accelerated, and

then the accelerated has the assumption of in situ decommissioning of the reactor and one of the arguments from that in the past, which I am sure we will hear in the future, is to reduce occupational dose. So we have the same amount of waste being managed with the reduction in occupational dose from the in situ model and we still have a doubling of collective dose. So I am still not understanding what has doubled the collective dose here technically, given that now the reactor components are out of there and that actually is a big contribution and a big argument as to what I have heard in the past for going in that direction.

So I am still not clear as to what has doubled the collective dose.

**THE PRESIDENT:** I'm sorry to intervene, but maybe this is not a discussion for the ROR and the Commission should save that discussion for later.

**MEMBER DEMETER:** Sure. Yes. I'm happy with that.

**THE PRESIDENT:** I think so, because we will have extensive discussion on the topic.

**MEMBER DEMETER:** Yes. CELA brought it up, so I thought --

**THE PRESIDENT:** Right. No, but it's just not appropriate for here, I would submit.



**MR. LEBLANC:** Thank you.

So, Dr. Lacroix, you had a question?

**MEMBER LACROIX:** Yes, indeed, I do have a question.

According to the intervenor CELA, the ALARA rating is different from one site to another and I was wondering, how does CNSC account for the differential risk based on this principle?

**MS. CIANCI:** Candida Cianci, for the record.

So I will pass that again to our Radiation Protection Specialists.

**MS. PURVIS:** Good afternoon. It's Caroline Purvis, I am the Director of the Radiation Protection Division, for the record.

I think I will start by sort of taking a step back and looking at CNL as the corporate entity and all of their sites follow their corporate radiation protection program and the principles therein. The program has a very robust and risk-based ALARA approach and so in the implementation of that program at each of its sites it would use that process to look at the task at hand to establish what the risk may be, to identify the mitigating measures, to maintain doses as low as can be achieved in the prevailing circumstances.

At some of the sites the complexity and the hazards are greater than at other sites. So from that perspective, the approach may be more complex and more in-depth at certain sites, with certain more complex hazards that have to be addressed, whereas other sites, although the ALARA process would still be used, it may not be as extensive. So I think if we just take a step back and we look corporately, we can confirm that their program elements meet our expectations and in implementation at the various sites it is done according to their processes, and of course we can see that in their dose results, that their doses are maintained quite low.

**MEMBER LACROIX:** Okay. I understand.

Thank you.

**MR. LEBLANC:** Thank you.

So I am looking if there are any other --  
Dr. Berube...?

**MEMBER BERUBE:** CELA has a recommendation underneath item 12 here with regard to the PGP release of untreated water due to heavy rains and they were looking for clarification on why that happened. I am more concerned about what actions were taken after that event by CNL and CNSC as a follow-up to that discharge. Could you bring me up to speed on that, please?

**MS. CIANCI:** Candida Cianci, for the

record.

So I will ask the Senior Project Officer, Rob Buhr, for the Port Hope Area Initiative to answer that question.

**MR. BUHR:** Rob Buhr, for the record. I am a Project Officer with the Canadian Nuclear Laboratories.

**MR. LEBLANC:** Mr. Buhr, we have difficulty hearing you. I don't know if you can work with your sound, your volume?

**MR. BUHR:** Okay.

So can you hear me now?

**MR. LEBLANC:** Barely.

**MR. BUHR:** Well, maybe give me a minute to sort this out.

**MS. CIANCI:** So maybe while Mr. Buhr is doing that I can jump in and then also invite CNL to provide further comment.

The corrective actions that were taken in all repairs to the breached berms, reinforcement of water controls, repairs to areas of erosion or sediment deposition, and review of the site water management and contingency plans and procedures, I believe we have done either a desktop review or inspection, so I will let -- if Mr. Buhr can come back and speak to that, but maybe as we are waiting for CNL to provide further details on the

corrective actions taken.

**MR. LEBLANC:** Mr. Parnell...?

**MR. PARNELL:** It's Scott Parnell, for the record.

As mentioned by Candida, we went in, repaired the berms and a big part of that was we went back and reviewed the legacy management plan. Probably as we look at long term though, as mentioned earlier in the presentation, we actually completed removal of all of the waste in that legacy waste management area. We have collected some clean soil and we have actually revegetated it. So the ultimate answer is it is remediated and that risk is significantly minimized by stuff getting done.

**MR. LEBLANC:** Thank you.

Anything you want to add, Mr. Buhr?

**MR. BUHR:** Oh, thank you.

Rob Buhr, for the record. I'm sorry about the issue with the microphone, I think it is resolved now.

I would just like to point out that a lot of the remediation activities are now completed in the Port Granby area and, as such, any surface water that would need to be collected and pumped up to the wastewater treatment plant is now significantly reduced. And as such, moving forward, the need or the probability of a similar event reoccurring has been removed by the progress of the

project.

**MR. LEBLANC:** Thank you.

Any further questions from the Members?

**CMD 20-M22.6**

**Written submission from the Algonquins of Ontario**

**MR. LEBLANC:** Not seeing any raised hands, we will proceed to the next submission, which is from the Algonquins of Ontario, as outlined in CMD 20-M22.6.

Any questions from the Members?

Dr. Lacroix...?

**MEMBER LACROIX:** This is a snap question for CNL. For the record, could you say a few words about the highly enriched uranium at Chalk River, the nature of the waste itself, transportation and repatriation in 2019 and maybe the years to come? Thank you.

**MR. LEBLANC:** Mr. Boyle...?

**MR. BOYLE:** So I can comment that the -- excuse me, Phil Boyle, for the record.

I can comment that the repatriation of the target residue material and some solid material that was part of the agreement that Canada struck up internationally did complete this year. We were engaged in it for a number of years, but it completed this year and I think that is

clearly an important milestone for Canada.

I have to say that I am very proud of the work of the staff here finishing up that liquid transport, which was done incidentally without incident, was done through the COVID pandemic downturn in work and figuring out how to get back into that safely and doing it to a timescale that we had already established. It was an impressive set of actions from that team.

So I think that is the key that the liquid and solid that was committed to has in fact been repatriated.

**MEMBER LACROIX:** Thank you, Mr. Boyle, for reassuring the Algonquins of Ontario on this question. Thank you.

**MR. LEBLANC:** President Velshi...?

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

I have a number of quick questions based on concerns raised by the Algonquins of Ontario. One was around whether the hypothetical dose to the most vulnerable member of the public, how representative or adequate that was for protecting any AOO member -- and I saw staff's disposition to that -- as well as I think the Manitoba Metis Federation had raised a similar concern, and when the response is that this is based on the most sensitive receptor using a bounding exposure scenario and is

protective of indigenous persons, I just don't think that is in plain enough language. Why do we just not say that no member or no citizen of that Nation will get a dose higher than this upper bound? It's just using language that is just confusing, so just something for consideration.

A question for CNL. After the fire incident that you had at CNL around cables and aging infrastructure, concern was raised around just general aging infrastructure at CNL and what are the risks associated with that and any additional mitigation measures probably outside the cable incident that you can shed some light on, CNL, please?

Mr. Boyle...?

**MR. BOYLE:** Thank you.

Phil Boyle, for the record.

Well, it is clear that infrastructure and the age of the infrastructure here has been a major area of focus for us. There have been quite a few actions taken that improved the situation. You know, we completed the installation of a water pipeline for domestic water from Deep River, we have brought online a new sanitary sewage treatment plant, we brought natural gas to the site. We had 13 buildings that we have decommissioned and taken down, which are 13 less spots for a problem to occur. We

have new buildings that are going up, which of course have more modern utilities internally.

The actual utility structure, we have replaced in the last couple of years over 2,000 feet of underground piping. We have replaced a substantial portion of the electrical system. We have these annual electrical site-wide shutdowns where we take the entire site off-line. It is fairly expensive not only in that we lose a day of productivity, and we do it over the weekend, but we have a large number of contractors on site, but with the entire site de-energized we can get into lots of different areas to do inspections and checks, et cetera.

So I think overall the trend is improving. This is not to say that there still aren't vulnerabilities. It is, I would say, one of our top risk areas.

I do want to point out that without the NRU reactor on-site and no fuel that needs forced cooling, the consequences of a utility failure are quite a bit less than they would be before. There is still a concern, there are still safety aspects associated with infrastructure problems, so it is not taken lately by any means, but we are working on it.

**THE PRESIDENT:** Thank you.

So today as we sit here, what would be the two largest vulnerability areas from a safety perspective?



**MR. BOYLE:** From a safety perspective there is no particular vulnerability that the failure itself would be a safety issue. I think from the viewpoint of impact on the site, electrical power distribution is a key and there are some single points along that line that if we had a failure it would take a substantial amount of time to recover.

And I think the second one is the condition of the service and water mains underground. We have had a number of failures. We not only fixed that failure but replaced pipe in the general vicinity. So we are making progress again on improving that situation, but this pipe was laid 50-60 years ago and you either dig up the whole site and replace it all at once or do the phased kind of approach. As part of the new constructions we have going on, we expose areas and we take advantage of those opportunities to replace the piping and we work on it in that incremental way.

**THE PRESIDENT:** Thank you.

**MR. LEBLANC:** Dr. Berube...?

**MEMBER BERUBE:** Yes. I just want to mention something that the Algonquins of Ontario touch on and I think this is really kind of a critical part of indigenous engagement. They comment on, you know, maybe they're getting too much. They don't have the resources to

accommodate too much, too many meetings, so they would like to do, you know, one meeting wraps all type thing.

So what I want to ask CNSC staff, the engagement staff is how are you customizing or tailoring your approach to accommodate differential groups? I mean we are hearing of course from differential groups all the time and each one of them has different expectations of what engagement should look like and different resource levels. So how do you go about ascertaining what is the appropriate level of engagement and how do you shift that over time?

**MS. CIANCI:** Candida Cianci, for the record.

So I will ask our Indigenous Relations Team to answer that question.

**MR. LEVINE:** Thank you.

Adam Levine, for the record.

So yes, we definitely always want to tailor whatever we are doing with each community, each Nation as they have different demands on them, different areas of interest, different capacities, et cetera. So this is all done through ongoing dialogue and then seeing if each community wants to set up a mechanism for formal engagement and formalizing that relationship. So we have talked already a lot about these terms of references that

we have been developing with different communities across the country and the Algonquins of Ontario are certainly one of the organizations and communities that we wanted to do that with and have been putting that forward over the past few years.

Unfortunately, as the AOO have described in their intervention, they have a large number of demands on them, including the ongoing negotiation of a comprehensive land claim agreement with the governments of Ontario and Canada which take up a lot of their time. And they coordinate 10 different Algonquin communities. So they have a lot on their plate, but we are trying our best from our vantage to make ourselves a single window approach because from CNSC alone there is a lot of different things we engage on, including IEMP, ongoing environmental assessments, ongoing oversight work at Chalk River, et cetera.

So there is a lot going on in their territory that we are responsible for and we understand that, so we are trying to find mechanisms to make it easier to access participant funding to learn more about what we are doing. So we really hope that the AOO really prioritizes their relationship with us over the coming years, to really formalize that and really identify the specific things they want to work on together, because

there is so much. We can't do everything, there is limited capacity on all sides, but we really are committed to working and tailoring that approach with them.

**MR. LEBLANC:** Thank you.

Any further question from the Members? I am looking for raised hands.

**CMD 20-M22.7**

**Written submission from the Power Workers' Union**

**MR. LEBLANC:** So we will proceed with the next submission, which is from the Power Workers' Union, as outlined in CMD 20-M22.7.

Any questions from the Members?

There are no questions.

**CMD 20-M22.8**

**Written submission from the  
Municipality of Port Hope**

**MR. LEBLANC:** So the next submission is from the Municipality of Port Hope, as outlined in CMD 20-M22.8.

Any questions from the Members on this submission?

**M. LEBLANC :** Madame la Présidente, this concludes the written submissions.

**THE PRESIDENT:** Okay. Thanks very much for that, Marc.

We will now open the floor to Commission Members for any other questions that they may have that have not been addressed on the Regulatory Oversight Report. We will start with Dr. Demeter, please.

**MEMBER DEMETER:** Thank you. I have no further questions.

**THE PRESIDENT:** Dr. Berube...?

**MEMBER BERUBE:** Yes. I have some questions about the long-term storage at Port Hope in terms of what is the current capacity there and how long do you intend to operate the site before you intend to close it up?

**THE PRESIDENT:** Mr. Parnell...?

**MR. PARNELL:** Yes. Scott Parnell, for the record.

So the capacity of the mound is roughly 2 million cubic metres and we intend on keeping that open as long as we have small-scale sites to continue to remediate. We expect the majority of the waste to be in over the next three years, with the majority of the waste coming from the major sites and then the small-scale sites will tail on for

a couple of years after that.

**MEMBER BERUBE:** We have you discussing small-scale sites. Just out of curiosity -- not curiosity, but how many people are directly affected? Are there homes coming down in this or -- because there are quite a few of these obviously and I would suggest that probably some homes would have to be removed as a result. Is that correct?

**MR. PARNELL:** At this point in time we do not anticipate removing any homes completely. We have the ability, for most of the homes, to work in and around them. We haven't finished up all of our characterization yet, so there is a possibility. But there are severe impacts, basically taking out entire yards, working in basements and a lot of activities that really impact the property owners' day-to-day lives.

**THE PRESIDENT:** Mr. Parnell, can you maybe elaborate a bit around these residential property owners' reaction to the remediation efforts? I know in past Commission proceedings we have heard a number of concerns from residents. We haven't got any interventions this time, but just, you know, even when you go meet with the Council, and I know members of the public are there, what is the nature of concerns, if any, that you hear from them?

**MR. PARNELL:** So we have a wide range of

responses to work that we are doing in the community and they range from complete support to "how soon can you get in and get it done", to "why are you doing it on my property, why can't you just let it go, can you provide me a letter that says it's good".

And some of it ends up being -- things we are finding as we have established our remediation is some of the things we are coming across is arsenic. It ends up being at a low enough level and getting to our cleanup criteria for that, we have initial designs and then we go back two and three times after sampling to validate that we have actually completed our remediation.

So a lot of that is driving the amount of time we are spending on a property owner's property doing the remediation. So a lot of it is "why are you taking so long". And some of it comes in and around, you know, "I planted this tree with my grandfather and why do you have to take it".

So it is completely across the board on responses we are getting from the public.

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

Dr. McKinnon...?

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

I have a question, a general question for

CNL about waste inventory and management. Obviously, there are a lot of issues related to exposure based on movement of materials and when they have to be worked with and when they are transported and sorted, and so on, and when I was reading the reports I was trying to get a sense of where all the different types of materials are, where they are coming from, what the volumes are, how they are transported, where they end up, and there are bits of pieces of information scattered throughout the reports. And there was a reference to a very good report that had quite a bit more, the Canadian National Report for Joint Convention on Radioactive Waste Management, but that was to 2017.

So my question is: Is there a chart or like a simple math balance ledger sheet that really consolidates movement of material that would enable us to more simply understand the nature of -- sort of the snapshot of 2019 in this case -- all the materials that are in situ, in motion and going to be deposited in a repository? I think it would be a very useful framework to understand a lot of the issues around exposure. So my question is -- I'm sure there is such a list, maybe it is in parts, but is there something like that that we could be shown?

**THE PRESIDENT:** Mr. Boyle...?



**MR. BOYLE:** Phil Boyle, for the record.

I'm going to pass this to Sarah Brewer, our Environmental Remediation Management, Safety, Licensing and Engineering Director.

I do want to stress -- I don't think anybody has raised any questions about this, but I want to stress that all of the handling of the waste we do here is in accordance with the regulatory requirements and we are fully compliant in that respect.

Relative, Dr. McKinnon, to your question, let me see if Sarah can shed some light on what might be available for your concern.

Sarah...?

**MS. BREWER:** Hi. Sarah Brewer, for the record.

I can indicate that CNL has developed an integrated waste strategy that captures and considers all waste generated from CNL managed sites, including operational waste, decommissioning waste and legacy waste. This document provides a high-level framework within which waste management decisions can be taken to ensure safe, cost-effective environmental remediation and waste management.

It is a single waste strategy for all CNL waste, provides a consolidated position and greater clarity

of the strategic requirements, particularly for radioactive waste management, promotes opportunities across different waste classification and encourages a risk-based approach to waste management.

And I will just note that this document is publicly available on the CNL external website. So I just encourage people to access that for their information. And if you can't gather the information that you are looking for from that document, please contact our Public Affairs. We will obviously answer any further questions you have.

**THE PRESIDENT:** Thank you.

Ms. Cianci, you had something to add?

**MS. CIANCI:** Candida Cianci, for the record.

Yes. I just wanted to pass it to our colleagues in Wastes and Decommissioning who can also speak to the next Joint Convention Report to be released soon. So I will let them provide that detail to the Commission.

**MS. THOMPSON:** Hi. This is Shona Thompson, for the record.

Can you hear me okay?

**THE PRESIDENT:** Yes, we can.

**MS. THOMPSON:** Thank you.

So I will just talk a little bit about inventory and where this data can be found.

So, first of all, CNL submits annual compliance reports to the CNSC and these reports contain three years' worth of data for annual generation of waste at each facility individually.

The total inventory can also be seen in Canada's National Reports to the Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management, and these reports are published on a three-year basis. On the CNSC's website you can see Canada's Sixth National Report to the Joint Convention, which was submitted to the IAEA in the fall of 2017 and was published publicly in Q1 of 2018.

Canada's seventh National Report to the Joint Convention was just recently submitted to the IAEA in October 2020 and that will be published publicly on the CNSC's website in Q1 of 2021. The report is currently undergoing French translation and as soon as that is complete then the report will be published in both English and French on CNSC's website.

On top of this, Natural Resources Canada also publishes on a three-year basis Radioactive Waste Inventory Reports, so CNL's inventory can also be found in these reports. These are also published on NRCan's public website. The most recent one is 2017 that is publicly available. The next report is in 2020 and I believe that

will be published in early 2021. NRCan's reports also contain future projections of waste generation at the CNL sites and waste projections can also be found in decommissioning plans for the CNL facilities.

I hope that answers the question. Thank you.

**MEMBER MCKINNON:** I just come back with a comment. I will look up the CNL report certainly, and thank you for that reference.

In connection with the 2017 Joint Convention Report, there was a lot of information contained in it, but my point was that it was contained in a paragraph in text form and it was very, very difficult to aggregate that and really get a picture, you know, a relative sense of waste magnitudes at different sites. You know, I'm trying to think of it presented in that format. So, you know, I was trying to imagine, is there a graphical or some consolidated simplified format that would convey that type of information? Because as it was currently presented, it was very, very difficult to get that picture.

**THE PRESIDENT:** So maybe that's something staff wants to take away and think about and let the Commission know how to address Dr. McKinnon's specific request, but also a recommendation on easily providing that information.

Mr. Cotnam...?

**MR. COTNAM:** President Velshi, can you hear me?

**THE PRESIDENT:** Yes, we can.

**MR. COTNAM:** I'm sorry, it seems like you had already concluded this item, but I was going to reiterate that the more detailed information that Dr. McKinnon may be looking for is actually in our Annual Compliance Monitoring Reports, which again CNL does post those publicly on our website.

And I think, Dr. McKinnon, you also had a question that I'm not sure we answered, which is where is the waste coming from.

And I want to reassure you that in broad terms the waste is almost all 90 percent at the site. For example, at Chalk River it is already there either in the waste areas or else in buildings that we have yet to decommission. So it is only the smaller sites. We had a hearing last month obviously about Douglas Point where there is a very small amount to come to Chalk River. So the waste is very much in residence at the federal sites that we are already managing on behalf of AECL. By and large, that is the bulk, the 90 percent or more.

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

Dr. Berube...?

**MEMBER BERUBE:** Yes. Last question from me. I would like to know what the status of the environmental assessment is for the Near Surface Disposal site. Where are we at in that? Is there some line of sight to a decision with regards to the environmental assessment at this point?

Maybe CNSC or CNL can bring us up to speed on that.

**MS. CIANCI:** Candida Cianci, for the record.

So I will pass this over to the Environmental Assessment Division, Dr. Kwamena.

**DR. KWAMENA:** Hello. Good afternoon. My name is Dr. Nana Kwamena and I am the Director of the Environmental Assessment Division.

So in terms of the Near Surface Disposal Facility, Canadian Nuclear Laboratories recently submitted their final EIS package to the CNSC for review. That was done on December 4th. CNSC staff are currently, along with the Federal-Provincial Review Team, reviewing that final EIS package to determine if the final EIS package is consistent with the information request -- sorry, the responses to the information requests that were provided to the team to ensure that that final report is consistent with those responses.

Following this next step, the final EIS report will be posted on the Canadian Environmental Assessment Registry. The final EIS in its draft version is already available on CNL's website and they can speak to that.

CNSC staff will then be preparing the Environmental Assessment Report, which will summarize CNSC staff, along with the Federal-Provincial Review Team's review and conclusions and recommendations to the Commission on the environmental assessment. So a decision on the environmental assessment is required before a licensing decision can be made. So that report, based on the current timelines, we hope that will be posted sometime in the spring of 2021.

And we will be working along with indigenous groups as well as we prepare this environmental assessment report to ensure that the report also includes the views of indigenous groups based on their review of the environmental assessment.

And then we are aiming towards the latter part -- pending the scheduling by the CNSC, the latter part of 2021 for what will be a two-part Commission proceeding in which the licensing and the environmental assessment will be presented to the CNSC for decision.

So I believe that sort of walks you

through what the next steps are.

Just in terms to clarify, the public and indigenous will have an opportunity to comment and review on the final EIS when it is -- well, they have the opportunity now as it is posted on CNL's website, but they will also have the opportunity to review CNSC staff's Commission Member Document as well as the EA report prior to the Commission proceedings and use that information to help inform their interventions in support of the Commission proceedings.

**THE PRESIDENT:** Thank you.

**DR. KWAMENA:** Does that address your question?

**MS. CIANCI:** If I may just add -- Candida Cianci, for the record.

So Dr. Kwamena covered the Environmental Assessment Review and where things stand. The other piece to that is the ongoing licensing review that we have for that proposed project as well, and following similar timelines to what Dr. Kwamena mentioned. So when we have collectively determined that both the environmental assessment and the licensing requirements have been met and we have the information that we need, we will be informing the Commission Secretariat that we are ready to proceed to a hearing and so they will schedule those dates for us



sometime next year.

**THE PRESIDENT:** Thanks very much for that.  
Dr. Lacroix...?

**MEMBER LACROIX:** Thank you, Madame la  
Présidente.

Before I forget, I would like to thank both CNSC and the CNL for making and preparing these CMDs. I appreciate the time, effort and the energy that you devote to preparing these reports. So rest assured that I spent a lot of time scrutinizing both these CMDs and I found it very interesting.

Now, I have a quick question, a snap question for CNL.

CNL is already engaged in the decommissioning process of Douglas Point and also of the Nuclear Power Demonstration Facility, and the next demonstration reactor on the list is Gentilly-1.

I was wondering, is CNL contemplating the decommissioning of this facility in the near future? And let me be more specific in the sense that by "near future" I mean have you already started working on a proposal for the decommissioning of this facility? And furthermore, do you foresee any challenge or specific problem related to the decommissioning of Gentilly-1 due to the fact that it is a different type of reactor? Thank you.

**THE PRESIDENT:** Mr. Schruder...?

**MR. SCHRUDER:** Hi there. Kristan Schruder, for the record. I am the General Manager for Decommissioning and Environmental Remediation and the site licence holder for Gentilly-1, Douglas Point, as well as the Nuclear Power Demonstration reactor.

Specific to your question in regards to the schedule for decommissioning of Gentilly-1, you know, this facility is currently under Phase 2 storage with surveillance, so we are safely maintaining this facility. We have started decommissioning planning and starting to look at the plans for future decommissioning. I suspect it will be a couple of years before we are in front of the Commission, you know, presenting something to the CNSC for a licence amendment to start decommissioning at Gentilly-1. We are currently focused on hazard reduction and reduction of hazards at the facility in order to advance our planning such that we are in a state in order to present our decommissioning plan going forward for that facility.

With respect to problems, because it is a different type of reactor, at this point, you know, it is a different orientation than at Douglas Point, but we are looking at the planning of that and the characterization in the future. So I do not anticipate any additional challenges to that outside of any sort of decommissioning

of reactors.

**MEMBER LACROIX:** And one last question. Would it be a decommissioning strategy similar to what you are proposing at Douglas Point for instance, an accelerated decommissioning strategy for instance?

**MR. SCHRUDER:** Yes. Kristan Schruder, for the record.

Once we put forward our plan, we will likely be proposing a slightly advanced schedule compared to our preliminary decommissioning plan, but that is yet to be determined and we will be putting that forward as part of our licence amendment.

**MEMBER LACROIX:** Okay.

**MR. SCHRUDER:** But most likely it would be.

**MEMBER LACROIX:** Okay. Thank you for the answer. Thank you very much.

**THE PRESIDENT:** Thank you.

I have a couple of very quick questions, the first one for staff.

When are the 2019 IEMP sampling results going to be posted?

**MS. CIANCI:** Candida Cianci, for the record. I will pass that over to Ms. Sauv e.

**MS. SAUV E:** Hi. Kiza Sauv e, for the

record.

So it turns out we have two last sites to post and they are both CNL sites. Port Hope/Port Granby is one campaign and CRL is the other campaign, and those are going through final reviews and approvals right now. So we expect them to be posted, I will say, in the next month, pending holiday closures.

I would note that should we see a result as soon as we get the results back from the lab, action will be taken immediately. So delay in posting does not mean that there is a concern.

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

And last question, also for staff, and I can't remember which intervenor had raised this, but it had to do with REGDOC-3.2.1 on Public Information and Disclosure and that it wasn't applicable for the Port Hope and Port Granby Projects. But I know both those projects have -- CNL has a public information program. What would be the delta between what the REGDOC would require and what CNL's program is? Are they big gaps? Given how much public interface is associated with this project, I just wondered why the REGDOC wasn't applicable.

**MS. CIANCI:** Candida Cianci, for the record.

So I will pass this over to Mr. Buhr to start and then our Communications Advisor is also available and they can speak to their specific inspection of the program and the results of their findings on that.

So over to you, Mr. Buhr.

**MR. BUHR:** Thank you. It's Rob Buhr, for the record.

Just to be clear that the Port Hope and Port Granby Projects are both waste nuclear substance licences and so the idea of the REGDOC for public information disclosure was written for Class I, Class IB facilities and uranium mines and mills.

We did do an inspection of the public information program for the Port Hope Area Initiative. We didn't find any gaps. There was no delta. In fact, I would say that the Port Hope Area Initiative's public information program is a gold standard and that I would recommend other licensees looking at it and reflecting what they are doing well to improve their own programs.

**THE PRESIDENT:** Okay. That's great. I think that is the reassurance I needed, so thanks very much for that.

Let me see if Commission Members have any other questions. I don't see any hands up. Going, going, gone.

Okay. Well, this concludes the presentation of the Regulatory Oversight Report on CNL sites. Let me echo what Dr. Lacroix said. Thank you very much to CNL for their submission and to staff for your presentations and responding to all our questions, and certainly to all the intervenors as well to help us in our assessment on how well these sites are looking after safety and environmental protection.

So with that, we will break for lunch and we will reconvene at 1:45 p.m. for the report on uranium mines and mills. So we shall see you then. Thank you.

--- Upon recessing at 1:02 p.m. /

Suspension à 13 h 02

--- Upon resuming at 1:46 p.m. /

Reprise à 13 h 46

**MR. LEBLANC:** Vous êtes en sourdine, Mme Velshi. You are muted.

**THE PRESIDENT:** Merci, Marc.

Good afternoon, everyone, and welcome back to the Commission meeting.

And our next item on the agenda is the Regulatory Oversight Report on Uranium Mines and Mills in Canada for 2019.

The public was invited to comment in writing. The Commission received nine submissions. One indigenous group will be making an oral presentation. We will proceed with the interventions after CNSC Staff's presentation.

Before turning the floor to CNSC Staff for its presentation, I would like to acknowledge that representatives from the following departments are joining us to be available for questions: Saskatchewan Ministry of Environment; Saskatchewan Health Authority; Environment and Climate Change Canada; Saskatchewan Energy and Resources, and Saskatchewan Ministry of Labour Relations and Workplace Safety.

I'll turn the floor to CNSC Staff for their presentation.

Ms. Murthy, over to you.

**CMD 20-M25/20-M25.A/20-M25.B**

**Oral presentation from CNSC staff**

**MS. MURTHY:** Thank you.

Good afternoon, President Velshi and Members of the Commission. My name is Kavita Murthy, and I'm the Director-General of the Directorate of Nuclear Cycle and Facilities Regulation.

The Regulatory Oversight Report for Operating Uranium Mines and Mills in Canada is the third and last in the set of three regulatory oversight reports that comprise the activities regulated under the nuclear fuel cycle program at the CNSC.

The regulatory oversight program for uranium mines and mills is managed at a divisional level. The ROR will be presented by the regulatory program director of the UMM division, Mr. Peter Fundarek, and his team with support from subject matter experts from across the CNSC.

Next slide, please.

Before I hand off to Peter, I would like to note some -- two typographic errors in the original submissions for the record.

On page 7 of the text summary, CMD 20-M25, Table 4.1, Current and Upcoming Environmental Risk Assessments, "Upcoming ERA" should read 2020, and not 2021 for Key Lake, Rabbit Lake and McArthur River operations.

On page 19 of the text summary, CMD 20-M25, Appendix A: List of Inspections at UMM Facilities, the McArthur River training inspection (December 2-5) identified four non-compliances, not zero as indicated.

These two clerical errors do not impact CNSC Staff's conclusions related to the CMD.



Over to you, Peter.

**MR. FUNDAREK:** Thank you, Kavita.

For the record, I am Peter Fundarek, the Director of the CNSC Uranium Mines and Mills Division.

Our presentation to you today is outlined on this slide. I will provide a high level overview of how CNSC Staff exercise their regulatory oversight before passing the microphone to my colleague to describe the uranium mine and mill facilities, our regulatory efforts, and assessments for 2019 and other matters of regulatory interest to the Commission. At the end of the presentation, I will provide CNSC Staff's conclusions.

Since the CMD was submitted to the Commission, a number of constructive suggestions to the presentation have been made by CNSC Staff and intervenors. As a result, this presentation has been updated to improve the discussion of worker dose and to include a summary of the intervention process.

Specifically, slide 26 was changed to show the maximum effective dose, as it is a better indicator of operational performance, slides 37 to 38 were added to provide information on the participant funding program recipients and interventions received for this ROR, and slides 44 to 61 were added as an annex to this report

to provide staff's disposition of the comments received during the CMD external review process.

As in previous years, the annex will not be presented, but is included in the deck for reference.

This is the last regulatory oversight report for 2019 to be presented to the Commission this year. CNSC Staff have previously reported to the Commission regarding all major areas of regulatory oversight.

I will now provide a brief overview of the main issues and improvements that have been carried out throughout the development process for the regulatory oversight report for uranium mines and mills. I will also update the Commission on actions requested in the previous meeting in December 2019.

I would like to start by discussing three overarching subjects. One is what CNSC Staff consider an improved way that we engage with indigenous leadership. CNSC Staff heard from indigenous groups that the information in the regulatory oversight report was not in a form that was easily understood and that there wasn't enough time provided for that information to be considered and understood. We approached these issues from two different directions.

First, we made the commitment to include a

plain language summary and this was highlighted in December 2019 when we presented the 2018 uranium mines and mills regulatory oversight report. Since 2017, all uranium mine and mill regulatory oversight reports have included this plain language summary which gives an overview of all the information presented in the report.

The feedback we have received from indigenous groups is that this a welcome move on our part and shows that we are listening to their needs. This is part of our expanded approach to getting information contained in the regulatory oversight report out to a broader audience.

Following the success of last year's meetings in Saskatchewan to present the information in the ROR to indigenous groups and northern Saskatchewan communities, this past September CNSC Staff conducted similar outreach for this ROR. In addition, a separate session was organized this year by the Ya'thi Néné Lands and Resource Office to meet with indigenous leadership and answer questions regarding this report and uranium mining and milling in Saskatchewan.

My colleague will have additional information on these outreach efforts later in the presentation.

As noted, CNSC Staff has made significant efforts to improve the level of communication with potentially impacted persons and communities on this important topic. Improving the level of communication is an important component of building trust with potentially impacted persons and assuring them that the CNSC maintains effective regulatory oversight.

The second is an action on CNSC Staff to monitor Orano's indigenous engagement programs. Some interventions to the 2018 regulatory oversight report included comments of inadequate communication between Orano and local communities.

CNSC Staff have discussed Orano's engagement activities with senior Orano staff, and CNSC Staff have continued to encourage Orano to maintain open communications with indigenous communities. Orano continued to meet the commitments made in their public information program by providing the public with updated information related to their regular operations. Company representatives engage in project-specific related dialogue which is captured in a database which tracks requested information and which will, over time, provide an improved understanding of public interest areas and concerns.

CNSC Staff evaluated Orano's public information and disclosure programs throughout 2019 and determined the uranium mine and mill facilities complied with the requirements of CNSC REGDOC-3.2.1, Public Information and Disclosure.

The last is an action on CNSC Staff to engage and work with the province of Saskatchewan to engage -- or to update the working relationships. The action, included in the minutes of the meeting held in December 2019 during the presentation of the 2018 uranium mines and mills regulatory oversight report, directs CNSC Staff to work with the province of Saskatchewan to develop a new, formal collaborative approach.

To be clear, CNSC Staff has always worked closely with their counterparts in the Saskatchewan government. Mutual respect and cooperation have been hallmarks of CNSC Staff relationships with the Province of Saskatchewan staff. However, CNSC Staff realize that there is always room for improvement and that many of the formal working agreements already in effect are due to be reviewed and updated.

CNSC Staff has begun to work -- begun the work to consider the best approach to amalgamate and update the existing working agreements that we have with the

Government of Saskatchewan, which are listed here, as well as what new ones would be worth establishing. The topics of interest in particular are environmental assessment, conventional health and safety, environmental oversight, oversight of mining and milling industries and labour relations.

As can be understood, this is a very complex review that will involve many CNSC divisions. Work has begun on this process, but it is still in the very early stages and has been complicated by the COVID-19 pandemic.

And now we will proceed to the main part of the 2019 Uranium Mines and Mills Regulatory Oversight Report.

The nature of the CNSC's regulatory oversight is commensurate with the risk associated with the licensed site, according to their licensed activities and programs, and the performance by the licensee.

The base level of risk is reflected in CNSC Staff's facility-specific compliance verification plans, which include the number and scope of inspections. These plans are regularly reviewed and, if need be, revised.

CNSC compliance verification activities are primarily in the form of desktop reviews by CNSC

inspectors and other CNSC specialists. This makes up around 75 percent of CNSC effort and includes reviews of licensee documentation, operations reports, event reports and responses to CNSC Staff queries.

Approximately 25 percent of CNSC Staff effort involves on-site compliance verification activities, which may include CNSC specialists or other CNSC staff. On-site verification can be focused inspections targeting one specific safety and control area or may be more general in nature and encompass a wide range of criteria.

The amount and type of effort that staff expends on these areas for each site varies over time, depending on the activities being performed at the site. For instance, in 2019 there were relatively few licensing decisions, so our licensing efforts were lower than were expected. However, the distribution in 2022 to 2023 will be more towards licensing work, as there are several site licences expiring in 2023 which will be brought to the Commission for a decision.

Also in 2019, three of the five sites being discussed today were in care and maintenance, while the licensees continue to make operational decisions under low market values for uranium. This does not mean that no site activities require CNSC oversight, but that the specifics of the operations have shifted and CNSC oversight

is refocused from normal operations to those involved in care and maintenance status.

Environmental and radiological monitoring continues, and the reduced staff numbers require licensee staff to be responsible for taking on multiple tasks. Maintenance programs require some different skill sets from operations and proportionally more contractors are being brought to the site.

Evolving licensee management systems and personnel qualification requirements become more important areas for UMM staff focus. Site-wide safety programs and facility specific changes require more CNSC oversight effort. Monitoring the impacts of changing radiological zones and balancing the need for ventilation in temporarily disused areas with worker safety are good examples of how CNSC Staff's focus has been adapted.

Most reporting, and therefore CNSC Staff desktop reviews, has not changed in frequency. Monthly and annual reports arrive for all five sites and are reviewed by CNSC Staff, including subject matter specialists as appropriate.

CNSC Staff also continues to engage with indigenous groups and the general public related to these operating mines.



This Regulatory Oversight Report is an overview of CNSC Staff's risk-informed regulatory efforts in assessing licensee safety performance for these mine and mill sites.

I will now turn the presentation over to Mr. Ron Stenson.

**MR. STENSON:** Good afternoon, President Velshi and Commission Members. My name is Ron Stenson, and I'm a Senior Project Officer for the Uranium Mines and Mills Division.

There are currently five operating uranium mine and mill facilities in Canada, all located in the Athabasca Basin in northern Saskatchewan.

Orano Canada Inc. operates the McClean Lake mine and mill. Cameco operates the Cigar Lake mine, McArthur River mine, Rabbit Lake mine and mill, and the Key Lake mill.

Three of these facilities, the McArthur River, Rabbit Lake and Key Lake operations, are in a state of indefinite production suspension, care and maintenance, throughout most of 2019.

CNSC Staff licensing efforts during 2019 focused on two licence amendments, one for the McArthur River operation and one for the Key Lake operation. Both related to updated financial guarantees.

A CMD recommending the acceptance of the proposed financial guarantee and the amendment to the McArthur River operating licence was submitted to the Commission on June 26, 2019. CNSC Staff's recommendations for the acceptance of the proposed Key Lake financial guarantee were submitted to the Commission in early 2020.

The picture on the right of this slide shows an aerial view of the Cigar Lake mine. Cameco's Cigar Lake operation is the world's second-largest known high-grade uranium deposit.

Uranium ore mined at the Cigar Lake operation is ground into ore slurry, loaded into containers and shipped by truck to Orano's McClean Lake mill.

CNSC Staff spent 284 person days on licensing and compliance verification activities, including six inspections.

Cigar Lake had three reportable events. All were of low safety significance and were managed by Cameco to the satisfaction of CNSC Staff.

For the Cigar Lake operation, there were no licensing or *Licence Condition Handbook* changes in 2019. Cameco's Cigar Lake licence is valid until June 30, 2021.

Cigar Lake continued development of underground workings and continues programs for ongoing improvements to mine wastewater. Cigar Lake continues to

haul low-level waste to the Rabbit Lake operation.

The picture on the right shows the surface facilities at Cameco's McArthur River mine, the world's largest high-grade uranium mine.

CNSC Staff spent 156 person days on compliance verification and licensing activities. CNSC Staff conducted four on-site inspections.

McArthur River had one reportable event. It was of low safety significance and was managed by Cameco to the satisfaction of CNSC Staff.

There was one licence amendment in 2019 resulting in an updated financial guarantee for McArthur River. There were no licensing or *Licence Condition Handbook* changes in 2019 at McArthur River. The CNSC licence issued to the McArthur River site is valid until October 31st, 2023.

During 2019, the mine remained in care and maintenance.

The picture on the right here shows an aerial view of the Rabbit Lake facility.

Cameco's Rabbit Lake facility has been in operation since 1974 and has both a mine and a mill. Mining and milling operations were suspended in 2016, and associated facilities were placed into a state of care and maintenance.

CNSC Staff spent 139 person days on compliance verification and licensing activities. CNSC Staff conducted three inspections.

There were no licensing or *Licence Condition Handbook* changes in 2019. The CNSC licence for Rabbit Lake is valid until October 31st , 2023.

The Rabbit Lake in-pit tailings management facility continues to provide storage of solids produced by the mill water waste treatment system, and progressive reclamation activities will continue throughout the care and maintenance period.

Located approximately 570 kilometres north of Saskatoon, the Key Lake operation is owned and operated by Cameco Corporation.

CNSC Staff spent 130 person days on compliance verification and licensing. CNSC Staff conducted six inspections in 2019.

There were no licensing or *Licence Conditions Handbook* changes at Key Lake in 2019. The Key Lake operation licence expires on October 31st, 2023.

Key Lake had four reportable events. There were all of low safety significance and were managed by Cameco to the satisfaction of CNSC Staff.

Milling operations were suspended in 2018,

and associated facilities were placed into a state of care and maintenance to ensure the safety of workers, the public and the environment.

The picture on the right shows the McClean Lake mill operated by Orano Canada.

In 2019, CNSC spent 320 person days on compliance verification and licensing activities at McClean Lake. CNSC Staff conducted four inspections.

In July 2017, the Commission issued a 10-year licence following a public hearing in La Ronge, Saskatchewan. The CNSC licence for the McClean Lake operation expires on July 1st, 2027. There were no changes to the licence or *Licence Conditions Handbook* in 2019.

The McClean Lake operation had three reportable events. They were all of low safety significance and were managed by Cameco -- I'm sorry, they were managed by Orano to the satisfaction of CNSC Staff.

Two level exceedances will be discussed briefly later in this presentation.

McClean Lake continued processing uranium ore slurry received from Cameco's Cigar Lake mine in 2019.

I will now describe CNSC Staff's regulatory efforts at the five operating uranium mines during 2019.

The total compliance verification effort

for uranium mines and mills in 2019 was close to 860 days. This is slightly lower than previous years, reflecting the continued suspension of normal operations at the sites. Compliance verification effort was 963 days in 2017 and 959 days in 2018.

While the Key Lake, McArthur River and Rabbit Lake sites have suspended their operations during 2019, the total amount of regulatory effort changes only a little, while activities such as environmental protection, particularly water treatment, are required to continue.

UMM reviews our planned effort for compliance verification annually. The total number of inspections carried out in 2019 decreased from 26 in 2018 to 20 in 2019.

The number of non-compliances identified decreased from 31 to 27, which continues to be within the normal ranges for these facilities. All of the non-compliances raised as a result of inspection activities in 2019 were considered to be low risk and have been adequately addressed by the licensee after an evaluation by CNSC Staff.

A significant amount of a project officer's time is spent monitoring activities at their assigned sites. Communication with the licensee is maintained through email, telephone meetings and

teleconferencing on a regular basis.

A significant amount -- excuse me.

Communication is often initiated by licensee staff looking for clarification on regulatory requirements or simply informing CNSC Staff of upcoming projects or the implementation of significant work authorized under their licence.

CNSC Staff also reviews incoming technical reports required under the NSCA through licensing such as radiation safety or environmental program reports. For these sites, some of these reports are monthly. The CNSC project officer usually involves specialist staff assigned to the file.

CNSC Staff also reacts to unforeseen events reported under the requirements of the NSC Regulations.

In 2019, CNSC Staff spent around 75 percent of their compliance effort on desktop compliance activities.

All non-compliances have been addressed to the satisfaction of CNSC Staff.

Person days for licensing marginally decreased in 2019. However, with the anticipated renewal of Cigar Lake in 2021 and the McArthur River, Key Lake and Rabbit Lake in 2023, these numbers will

increase significantly in the next three years.

CNSC Staff also invest significant time assessing licence applications for amendment or renewal.

In 2019, UMM staff submitted CMD 19-H105 recommending that the Commission amend the McArthur River licence to update the financial guarantee. CNSC Staff also worked on recommendations for amendments to the Key Lake and Rabbit Lake licences, which are being submitted to the Commission in 2020.

CNSC Staff also maintained all *Licence Condition Handbooks* to reflect revised and new REGDOCs as appropriate.

The presentation will now focus on CNSC Staff efforts reviewing licensee performance related to the uranium mines and mills.

CNSC Staff evaluate licensees' performance using safety and control areas. The 14 safety and control areas are common to all CNSC licensees, but the relative importance of each safety and control area is related to the type of operation being regulated.

Ratings are derived from the results of regulatory oversight activities. Safety and control area performance is rated using a set of criteria such as key performance indicators, compliance verification with licence conditions and events reported to the CNSC,



including licensee actions in response to events and the nature of the events themselves.

CNSC Staff, including both inspectors and subject matter experts, review each safety and control area and assign ratings to each area based on their professional judgment, expertise and the information collected.

The rating methodology was presented in much more detail as part of the 2017 UMM ROR.

To ensure that uranium mine and mill licensees in Canada meet all of their regulatory requirements, the CNSC staff base their evaluation on safety and control areas. The 14 safety and control areas can be broadly sorted into three functional areas: management, facility and equipment, and core controls and processes. Management-specific SCAs address the organizational and human elements of safety. Facility and equipment SCAs assess the potential hazards and risks of operating (as well as the preventative measures taken to minimize risk), the integration of facility infrastructure design, and the overall long-term performance of equipment and systems. Core controls and processes SCAs measure actions and plans that are in place against all the unique and specific nature of each facility.

The 2019 performance ratings for each of the 14 safety and control areas determined by CNSC staff

based on regulatory oversight activities are shown on this slide. The CNSC regulates all aspects of safety at nuclear operations in Canada, including risks to workers, the public, and the environment. For this particular sector, CNSC staff have focused on three SCAs which best represent the overall safety performance for mining and milling operations. Specifically, the core controls and processes SCAs of radiation protection, environmental protection, and conventional health and safety.

CNSC staff's review resulted in a rating of Satisfactory for all SCAs at all operating uranium mines and mills for 2019. This is similar to the previous three years.

The primary sources of radiation exposure at uranium mines and mills comes from gamma radiation, long-lived radioactive dust, radon progeny, and radon gas. As part of the routine and focused compliance verification activities, CNSC staff verified that licensees have effective radiation protection programs and practices to monitor and control radiologic hazards.

The five operating facilities all have the same actions levels for nuclear energy workers of millisievert per week and five millisieverts per quarter for a given year. In 2019, there were no radiation protection action level exceedances. CNSC concluded

radiation doses were kept as low as reasonably achievable and workers were being protected.

Uranium mine and mill operations are remote from local populations. The *Radiation Protection Regulations* set a public dose (stream lost / diffusion perdue) of the health and public. Radiation exposures measured at the boundaries of these remotated licensed facilities are close to measured background radiation levels. As published in the CNSC fact sheet on natural background radiation, the background radiation level for Canada is approximately 1.8 millisieverts.

An important measure of safety at uranium mine and mill sites is radiation dose. In 2019, no worker at a uranium mining and milling facility received a radiation dose in excess of the CSNC regulatory dose limits. The maximum individual effective dose to workers in 2019 was less than 10 per cent of the regulatory limit of 50 millisieverts at all five uranium mine and mill sites. The maximum effective dose ranged from 1.6 to 4.7 millisieverts for 2019. These values fall within the normal distribution of doses reported over the last five years for all sites.

Licensees are required to implement environmental protection programs. Action levels are established for contaminants in effluent to ensure early

detection of potential problems in water treatment systems. CNSC staff's compliance verification activities verified that the licensees' environmental protection programs were protective of the environment.

Licensees were required to report to the CNSC and other regulatory authorities any unauthorized release of hazardous substances or nuclear materials. There were 11 reportable releases in 2019. For each of these events, the licensee investigated the cause and implemented corrective actions to remediate and/or prevent a recurrence. CNSC staff are satisfied with the licensees' response and corrective actions. By comparison, in 2018, there were 20 reportable events. CNSC staff rated all reportable events in 2019 as low safety significance. There is no impact to humans or the environment as a result of these events. Although there were no exceedances of CNSC regulatory limits, there were some exceedances of actions levels at McClean Lake during 2019.

During 2019, one action level exceedance and one maximum authorized concentration exceedance occurred at McClean Lake. Both occurrences had no measurable impact on workers or the environment and were rated as low safety significance by CNSC staff.

On August 25th, 2019, at the McClean Lake operation, treated effluent from pond C was discharged into

the sink reservoir with a total suspended solids concentration of 18.9 milligrams per litre. The action level for treated effluent discharge for TSS is 12 milligrams per litre. The regulatory limit is 22.5 milligrams per litre.

Orano took immediate and appropriate actions to stop the discharge. Subsequently, Orano identified the cause and updated their working procedures to ensure that this type of event will not happen again. CNSC staff have reviewed and are satisfied with Orano's response and their implemented solution.

Also at McClean Lake, a maximum authorized concentration exceedance occurred on January 31st, 2019. This also resulted in no measurable impact on workers or the environment and again was rated as low safety significance by CNSC staff. During the start-up of the McClean Lake sulphuric acid plant, the one-hour average ambient sulphur dioxide concentration exceeded the maximum authorized concentration level. The 24-hour average concentration, which uses a rolling average, also exceeded the maximum authorized concentration level.

Orano took immediate and appropriate action. Subsequently, Orano identified the cause and updated their working procedures to ensure that this of event doesn't happen again. CNSC staff reviewed and are

satisfied with Orano's response and their implemented solution.

All metal mines and mills in Canada are subject to the *Metal and Diamond Mining Effluent Regulations* of the *Federal Fisheries Act*. In 2019, all five operating uranium mine and mill sites reported annual average concentrations below *Metal and Diamond Mining Effluent Regulations* discharge limits and site-specific action levels. CNSC staff verified through desktop reviews and on-site inspections that licensees have effective environmental protection programs to monitor and control the protection of the environment.

I will now speak to other matters of regulatory interest.

All licensees are required to provide financial guarantees sufficient to fund all approved decommissioning activities should the licensee not be able to fulfill its obligations. In the case of the operating northern Saskatchewan uranium mines and mills, CNSC staff have verified that during 2019, all five licensees were in compliance with this licence requirement.

As briefly discussed earlier by Peter Fundarek, during the ROR presentation in December 2018, Indigenous community members expressed concerns related to the amount of technical information and data provided in

the ROR, their ability to understand it, and the time available to prepare responses to the Commission. Community members expressed interest in a plain language summary with more time to review and understand the information in the ROR.

Feedback from intervenors and Indigenous leadership on the plain language summary presented in last year's ROR was very positive and encouraging. CNSC staff provided a plain language summary as part of this year's supporting documentation to this presentation.

In addition, CNSC took steps to address the concern that there was not enough time to consider the information in the regulatory oversight report once it's released for public comment. In 2019, CNSC staff took an initiative to meet with Indigenous groups and communities in Saskatchewan. Two meetings were held in Prince Albert, Saskatchewan, in early September with over 40 people in attendance each day. One day was hosted by the Province and involved a meeting of the Northern Saskatchewan Environmental Quality Committee, and the second day was with Indigenous community leaders, supported by funding from the participant funding program. At each meeting, information from the upcoming regulatory oversight report was presented using plain language as much as possible. In addition, each CNSC project officer presented information

regarding the sites for which they were responsible in order to help establish a personal connection for those interested. Feedback from the Prince Albert meeting was used to revise and improve the plain language overview included in this year's report.

In September 2020, following CNSC protocols related to the management of risks of the COVID-19 pandemic, the CNSC organized a Zoom meeting with Indigenous leadership. The meetings were well attended and provided a realistic substitute for in-person meetings. Similar information was presented, including information on the context of the regulatory oversight report and updates for each operational site. In addition, information was presented on the status of ongoing environmental assessments and other matters of interest to the assembled groups.

In November 2020, a separate remote meeting was organized by the Ya'thi Néné Lands and Resource Office and involved Indigenous leadership meeting with CNSC staff. Following an overview of the CNSC and the conclusions in the regulatory oversight report, CNSC staff, including subject matter experts, answered questions from those present. This meeting was also well received by the participants.

CNSC staff remain committed to building



long-term positive relationship with Indigenous communities. We understand that such relationships must be built on mutual trust, which can take time to develop. CNSC staff will continue to meet and engage with Indigenous groups with an interest in CNSC-regulated facilities and activities, including uranium mines and mills upon request, to provide updates and build these important relationships.

CNSC REGDOG-3.2.1, *Public Information and Disclosure*, sets out the CNSC requirements for effective communication with all members of the public. The primary goal of the program as it relates to the licensed activities is to ensure that information related to the health, safety, and security of persons and the environment and other issues associated with the lifecycle of nuclear facilities are effectively communicated to the public.

Licensees have public information programs to engage communities and keep them informed of facility performance and developments. CNSC staff often participate in these information sessions to listen to the issues being raised by stakeholders and to provide information regarding the role and mandate of the CNSC.

Cameco and Orano provided information on the status of their facilities through a variety of communication activities and products. Some activities implemented by the licensees included facility updates to

community committees, northern tour public information sessions, disclosure of onsite events, facility tours, organization of and participation in community events, newsletters, and promotion of activities and public engagement using social media. Licensees also held workshops with Athabasca collaboration agreement communities, communication efforts to be primarily in person, given the local community communication preferences.

The map on the right shows the region covered by the Eastern Athabasca Regional Monitoring Program. The Eastern Athabasca Regional Monitoring Program was initially established in 2011, building on the previous Cumulative Effects Monitoring Program. In partnership with the Government of Saskatchewan, industry, and Saskatchewan communities, the program monitors the safety of traditionally harvest country foods from representative communities located in northern Saskatchewan.

The program is completed annually. The intent of the program is to evaluate the quality of country foods to assess any potential impacts resulting from industrial activities and to provide confidence to community members that traditional country foods remain safe to eat today and for future generations. Community

members may also submit samples for analysis, as the Eastern Athabasca Regional Monitoring Program maintains capacity to receive samples of foods of particular interest. The program is designed to report on cumulative effects downstream of uranium mining and milling operations and gives a good representation and assurance that country foods are safe to eat, the water quality is safe to drink, and the environment is protected.

The CNSC is a funding partner for the program and funding has been secured through to 2022 sampling period. CNSC staff participates in the development of the program, including reviews of the sampling data and providing input into the conclusions of the report.

The primary objective of the 2018-19 program report was to identify potential cumulative effects downstream of uranium mining and milling operations in the eastern Athabasca region of northern Saskatchewan. As stated in the program report 2018-19 that was published in 2020,

"The ... results indicate that the measured concentrations of contaminants of interest in water, fish, berries, and mammal samples collected and tested in 2018-2019 ...

community program were similar to baseline and regionally measured levels. The measured concentrations were also similar to those incorporated into the last human health risk assessment completed in 2018. Thus the community traditional foods continue to be a safe and healthy dietary choice for residents of the Athabasca basin."

The CNSC Commission Member Document process allows for public review of most documents prior to the Commission meeting. The participant funding program funded two participants, listed here, to assist in their review of the 2019 UMM ROR. In total, the CNSC received nine interventions related to the 2019 uranium mines and mills ROR. Seven of the nine interventions were supportive of the ROR and of the licensees' operations. Two of the interventions raised questions, allowing CNSC staff to provide clarification and answers, as appropriate. The key themes addressed in the interventions are listed here.

CNSC staff clarifications and responses for key topics identified in the interventions and within the scope of the UMM ROR are provided in Annex 1 to this presentation. Although not all topics covered in the

interventions are addressed in the tables, CNSC staff reviewed all of the interventions carefully and prepared responses.

Thank you for your attention. I will now pass the microphone back to Peter Fundarek to provide you CNSC staff's conclusions.

**MR. FUNDAREK:** Thank you.

For the record, I am Peter Fundarek, director of the Uranium Mines and Mills Division.

I will now present CNSC staff's conclusions regarding the performance of the uranium mines and mills for the year 2019.

Although the document is not as long as in previous years, CNSC staff have applied the same rigorous review of licensee performance, based on licensing and compliance verification efforts by CNSC staff and following the CNSC approach for regulatory oversight. CNSC staff confirm that all uranium mines and mills included in this report had satisfactory performance, radiation protection measures that were effective in keeping doses as low as reasonably achievable, environmental protection programs that were effective at protecting the environment, and effective conventional health and safety programs to protect workers.

CNSC staff conclude that each regulated

facility operated safely, met the conditions of their CNSC licence and all regulatory requirements with respect to the health and safety of persons and for the protection of the environment and Canada's international obligations.

The COVID-19 pandemic challenged the normal approach to regulatory oversight in 2020, as it was considered prudent not to travel to the operating sites in order to minimize the risks of transmission. The uranium mines and mills licensees faced the additional challenge associated with having employees and contractors from northern Saskatchewan communities which may not have the resources to respond to the pandemic.

Following the declaration of the pandemic in March 2020, CNSC staff monitored licensee sites as they voluntarily shut down and restricted on-site staff to the minimum complement. CNSC staff noted that licensees took effective measures to minimize contact between workers and provide additional barriers where needed to help contain the spread of the virus. These measures were taken in workplaces, common living areas, and in the transportation on site and to and from the site. In addition, the licensees implemented screening methods to check the health of those going to the site. These measures were effective as evidenced by the low number of persons testing positive at these sites.

To date in 2020, Cameco has reported two cases of COVID-19 at the Cigar Lake operation, while Orano has reported four separate cases at the McClean Lake operation. The Gunnar remediation site, operated by the Saskatchewan Research Council on behalf of the Province of Saskatchewan, has reported four separate cases of COVID-19 at their operations. It is important to note that in all of these cases, transmission has occurred outside of the licensed property and there has not been any transmission on site.

During 2020, CNSC staff continued to exercise regulatory oversight at all the sites and continued with a revised plan of inspections. As noted earlier in the presentation, desktop reviews comprise approximately 75 per cent of the CNSC regulatory effort. There was no impact by the pandemic on the conduct of these reviews. CNSC staff do not expect to cancel or defer any CNSC inspections that had been scheduled for the operational uranium mines and mills.

Since the beginning of the pandemic, CNSC staff have pivoted to the use of remote inspections to minimize the potential hazard associated with travel to the sites. The use of remote inspections has been implemented for all operational uranium mine and mill sites. The use of remote inspections has been demonstrated to be an

effective approach to be used during circumstances such as the pandemic and their use will continue in the future.

CNSC staff continue to apply a risk-informed approach to the regulatory oversight at uranium mines and mills. Since the operational uranium mines and mills rank high in this rating approach, CNSC staff have endeavoured to maintain effective regulatory oversight.

To date in 2020, CNSC staff have completed 17 inspections at uranium mines and mills, predominantly in Saskatchewan, with most being remote inspections. Some of these inspections have been coordinated with specialists from the CNSC offices in Ottawa, and we also try to coordinate with the Province where possible. As an example, one on-site inspection was conducted at the remediated Beaverlodge site with provincial staff, following all required safety protocols. CNSC staff will continue to work with Province of Saskatchewan staff and continue to work towards updating the agreements between our regulatory authorities.

CNSC staff are also continuing to reach out and engage with Indigenous peoples and their leadership, building on the trust we have gained over the years. As a result of the pandemic, this requires the use of new communication technologies for group meetings.



However, these have been well received by the participating groups, and CNSC staff expect that the use of virtual meetings will continue into the future.

This concludes the CNSC staff presentation on the 2019 regulatory oversight report for uranium mines and mills. CNSC staff are available to answer any questions from Commission Members.

Thank you.

**THE PRESIDENT:** Thank you, staff, for the presentation.

I will now ask the licensees if they would like to make any statements on what was presented today.

I will start with Cameco Corporation.

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

For the record, my name is Liam Mooney and I am the Vice President of Safety, Health, Environment, Quality and Regulatory Relations for Cameco Corporation.

With me today is Kevin Nagy, the Director of Compliance and Licensing for our Uranium Mining and Milling Operations in Saskatchewan, and Kristin Cuddington, our Manager of Community and Indigenous Engagement.

We are joining you today as part of your review of CNSC staff's 2019 Regulatory Oversight Report for Uranium Mines and Mills.

I would like to start by emphasizing that Cameco's highest priorities are the safety and health of our workers and the public, along with the protection of the environment. Our consistent performance in these areas is demonstrated in a report that CNSC staff is presenting today.

We sustained our ratings on all safety and control areas, while responding appropriately to events at our operations. We are proud of our record on conventional and radiation safety, as well as environmental performance, which we feel is a product of our strong management systems and capable, dedicated staff.

Cameco continues to manage operations during the challenging global uranium market. 2019 was our second full year with three of our Saskatchewan operations in a state of safe care and maintenance. More recently, we have been facing the challenges associated with the pandemic. In this context, we remain committed to informing our target audiences in Northern Saskatchewan in accordance with our approved public information programs and our own policies and procedures that reflect the various agreements we have with indigenous and other communities in the North. We do this formally through Cameco and government-sponsored committees and meetings with local communities or their elected representatives.

We signed the first of its kind Impact Management Agreement with the Athabasca Basin communities in 1999. Starting in 2012, after extensive negotiations with the appointed representatives of the communities, Cameco signed modern-day collaboration agreements with our Northern partners to formalize the existing framework for our engagement. Together we have established a process for engagement under these agreements. Community members have been appointed by five First Nations, five municipalities and one Metis local who are signatories to these agreements to represent their communities and steer engagement efforts with industry.

Community and industry representatives meet throughout the year to discuss the operations and matters of importance to their respective communities. We discuss all aspects of our business on traditional territories, from exploration activities to decommissioning.

Cameco also employs local community members to serve as liaisons in our agreement communities. These liaisons work to deliver on our northern strategy, namely, workforce development, community engagement and environmental stewardship initiatives. The liaisons work closely with local leadership and more broadly to communicate with community members.

We also continue to work closely with the Northern Saskatchewan Environmental Quality Committee, which was established in the 1990s by the Province of Saskatchewan in accordance with a recommendation from the provincial and federal Joint Review Panel of Uranium Mines and Mills.

Further, the community-based Environmental Monitoring Program and the Eastern Athabasca Regional Monitoring Program rely on local residents to help confirm that country foods continue to be safe to eat and the water safe to drink. As previously indicated to this Commission by Dr. Irvine, these country foods continue to be a safe and healthy dietary choice for residents of the Athabasca Basin. We are proud to be a part of these programs.

We are honoured that the community-based Environmental Monitoring Program born out of the agreement with the Athabasca Basin communities won the 2019 Mining Association of Canada's Towards Sustainable Mining Award for community engagement excellence.

Cameco works to ensure that local communities benefit from the value that the company places on economic development and social responsibility.

In 2019, Cameco procured 85 percent of its services from Northern Saskatchewan businesses and over \$100 million was provided for business development,

community investment and workforce development initiatives.

With respect to benefiting business development in our partner communities, one example is our preferred northern transportation contractor, Northern Resource Trucking. With the assistance of this northern partner, Cameco has a long history of regulatory compliance in safely transporting product from our operations in Northern Saskatchewan in accordance with the *Transportation of Dangerous Goods Act*.

Since 1990 we have commissioned province-wide public opinion surveys annually so we can gain a better understanding of public perceptions and opinions related to uranium mining in Northern Saskatchewan. The surveys measure trends in public support and continue to identify issues of interest.

In 2019, survey results showed high levels of support for the continuation of uranium mining, with 85 percent of respondents, both province-wide and from Northern Saskatchewan, supporting our industry. This high level support is consistent with the long-term trend.

The safety of our employees, their families and our communities is our overriding priority as Cameco addresses the current pandemic. In March of this year we convened our Corporate Crisis Management Team and our operations activated their local business continuity

plans. We then took the step of suspending production at our Cigar Lake operation and reducing the number of non-essential personnel at all our facilities and offices. Employees who could work remotely from home did so, while others continued to receive 100 percent of their wages for the first four weeks and 75 percent of their regular pay thereafter. We worked with Public Health Authorities to develop and implement comprehensive exposure control protocols while we relied on our longstanding relationships in Northern Saskatchewan to understand and respond to the concerns raised by the needs of our communities.

The pandemic has had considerable impacts and we commend northern communities for their ongoing efforts to support community members.

COVID-19 has changed the way we all work and that is particularly true at Cameco. Workers are screened twice prior to any travel to and from our operations. Physical distancing and mask usage requirements are in place and enhanced cleaning and disinfection protocols have been implemented. With these measures in place, we were able to safely resume production at Cigar Lake this past September.

Throughout the pandemic we have continued to manage our facilities in a safe manner and have maintained compliance with all our regulatory requirements.

During these difficult times, Cameco has continued to support our local communities. We created a \$1 million COVID-19 Relief Fund, which to date has helped 67 not-for-profit organizations across 40 communities. We also shipped more than 1,000 care packages containing food and home essentials to Northern Saskatchewan communities.

Looking forward, we will continue to work together with the Province of Saskatchewan and Public Health Authorities, as well as dialogue with northern communities to ensure we have the right measures in place to protect our people and communities.

We plan to see you next in April regarding the licence renewal of our Cigar Lake operation. The strength of our programs and processes allowed Cigar Lake to effectively and safely transition through commissioning to full operation during the current licence period.

We believe our strong performance across all safety and control areas at that facility support our request for a 10-year licence term.

In closing, I would like to thank CNSC staff for their work in preparing this report for the Commission in these challenging times. I would also like to thank the representatives of Northern Population Health, who have not only been invaluable in their guidance that they have provided but also for taking the time from their

extremely busy schedules to be here with us today.

Our strong performance, accompanied by our leading engagement practices, contribute in no small measure to the consistently high support for our operations that we enjoy in Saskatchewan.

We are available to respond to any questions that you might have for us.

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

I will ask Orano Canada Inc. if you would like to make a statement, please.

**MR. LANIECE:** Madam Chair, Members of the Commission, good afternoon. My name is Vincent Laniece and I am the Vice President for Safety, Environment and Engineering at Orano Canada.

**MR. LEBLANC:** My apologies. We really are not hearing you very well, Mr. Laniece, so I don't know if there is a way for you to increase the volume.

**MR. LANIECE:** Would that be better?

**MR. LEBLANC:** Slightly.

**MR. LANIECE:** Slightly. Like that?

**MR. LEBLANC:** Let's try it. Thank you.

**MR. LANIECE:** Okay. I'm sorry for that.

Again, Madam Chair and Members of the Commission, good afternoon. My name is Vincent Laniece and I am the Vice President for Safety, Environment and



Engineering for Orano Canada.

I am joined by my colleagues here in Saskatoon, Tina Searcy, our Regulatory and Environmental Science Manager --

**MR. LEBLANC:** Excuse me again. Why don't we try again. I think you are speaking from the light that is on the computer, rather than the one with your headphone. So maybe if you could just try something else.  
--- Pause

**THE PRESIDENT:** Marc, I can hear him fine. Let me just check with the other Commission Members.

**MR. LEBLANC:** Okay.

**THE PRESIDENT:** No, they can't. Okay. I think, Mr. Laniece, you may want to try something different.

**MEMBER DEMETER:** It is very low volume.

**MR. LANIECE:** Is that better right now?

**THE PRESIDENT:** I see a shaking of heads.

**MR. LANIECE:** If I am speaking directly to the laptop microphone, is that better?

**THE PRESIDENT:** Commissioner Demeter...?  
No?

Maybe you just need to shout at us.

**MR. CARISSE:** I'm sorry, sir. If you use your headset, go down to your microphone where you are

muted. Beside there is an arrow up and talk in your headset instead of your computer, please.

**MR. LANIECE:** Is that better right now? Can you hear me?

**MR. CARISSE:** If you could go down to where you unmuted yourself on your screen, there is an arrow up beside "Mute". Right beside the "Mute" there is an arrow up. Select your microphone for your headset.

**MR. LANIECE:** This is a test. Can you hear me?

**MR. LEBLANC:** Let's try it. I hear a little better than I heard you earlier.

**MR. LANIECE:** Yes. I followed Mario's advice, so setting the microphone in my headset to speak. So hopefully you can hear me correctly.

**M. LEBLANC :** On vous entend très bien... assez bien. Donc, on peut poursuivre là, mais c'est ça, rapprochez-vous de votre microphone un petit peu, et ça va bien aller.

**MR. LANIECE:** Okay. Merci beaucoup. I am sorry for this technical challenge that we have here.

So, Madam Chair, Members of the Commission, good afternoon. My name is Vincent Laniece and I am the Vice President for Safety, Environment and Engineering for Orano Canada.

I am joined by my colleagues here in Saskatoon, Tina Searcy, our Regulatory and Environmental Science Manager; Sarah Benson, our Senior Ecologist and Environmental Scientist; Kebbi Hughes, our Senior Geo-Environmental Scientist; and Glenn Lafleur, our Manager, Northern Affairs.

Thank you for inviting us today to participate in the CNSC's 2019 Report on Regulatory Oversight for Uranium Mines and Mills. Orano operates the McClean Lake operation and we are in joint venture partners with the McArthur River, Key Lake and Cigar Lake operations.

We operate as well the Cluff Lake Decommissioning Project that will be included in next year's ROR.

The Regulatory Oversight Report speaks to our performance in 2019. The report demonstrates our consistent performance in the areas of the safety and health of our workers, the public and the protection of the environment. In 2019, we continued to receive high grade uranium ore slurry from Cigar Lake and produced 6,938 tonnes of packaged yellowcake, while achieving good safety and environmental performance. And appropriately we responded to events, which is reflected in the report and the ratings presented today by the CNSC staff.

We process our slurry at grades averaging 15 percent uranium, while achieving an average worker radiation dose near the public dose limit.

We have had several occasions to meet with our local stakeholders and update them on our performance and our activities through the established forum of the Athabasca Joint Engagement and Environmental Subcommittee and the Northern Mines Monitoring Secretariat's Environmental Quality Committee. It is Orano's objective and practices to meet with our stakeholders and trusted parties in a meaningful way, creating opportunities for representatives of these communities we operate near to bring forward questions, comments and concerns regarding our operations and developments.

We have reviewed CNSC staff's Regulatory Oversight Report and find that it accurately summarizes performances at McClean Lake.

As is seen in the report, uranium mines continue to have a good performance in the mining industry in terms of the protection of health, safety and the environment that are Orano's highest priorities.

We are available to answer any questions you may have. Thank you.

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

We will now move to the interventions and the first one is a presentation from the Ya'thi Néné Land and Resource Office, as outlined in CMDs 20-H25.9 [sic] and 20-M25.9A.

I understand Ms. Shea Shirley will begin this presentation.

I'm sorry, they should both be M25.9 and M25.9A.

Ms. Shea Shirley is here with us and will start the presentation. Ms. Shirley, over to you.

**CMD 20-M25.9/20-M25.9A**

**Oral presentation by the**

**Ya'thi Néné Land and Resource Office**

**MS. SHIRLEY:** Thank you very much, President Velshi.

I will just wait for it to load up.

--- Pause

**MR. LEBLANC:** Are we on the right slide, Ms. Shirley?

**MS. SHIRLEY:** Maybe just one prior to. Just there is a title slide, I believe.

**MR. LEBLANC:** Okay.

**MS. SHIRLEY:** Thank you. Perfect, thank

you.

Good afternoon, everyone, President Velshi and Commission Members. I want to thank the Commission for providing us the opportunity to speak today on our review and recommendations on the 2019 Regulatory Oversight Report for Uranium Mines and Mills in Canada.

My name is Shea Shirley, I am the Environmental Land Use Planner for Ya'thi Néné Land and Resource Office. I have been with Ya'thi Néné for a year and a half now. I have a background in a Bachelor of Science in Renewable Resource Management and a Master's in Environment Sustainability.

With me today on the call I also have Freddie Throassie, who is a Member of the Athabasca Land Protection Committee and Elder from Black Lake Denesuline First Nation. He has 30 years of experience working at Rabbit Lake Mine. He was also Chief of Black Lake for four years. He was also a community liaison for Cameco and is currently working with the Saskatchewan Research Council at the Gunnar Mine cleanup.

As well on the call I have our three Community Land Technicians with Ya'thi Néné, or for short our CLTs.

First, we have Jean Tsannie from Hatchet Lake Denesuline First Nation. Prior to starting as a CLT

in January of this year, she worked as a childcare worker for Athabasca Child and Family Services.

From Black Lake we have Ian Donard, who previously worked as a full-time youth wellness worker and casual youth therapeutic worker before coming on as a CLT.

And last but not least, we have Derek Cook, our CLT for Fond du Lac Denesuline First Nation. Derek has past experience as a Safety Technician for Orano for seven years, where he became a Certified Safety Officer with the SCSA. And he also participated in site inspections with the CNSC at the McClean Lake Mill. Prior to that, he was a heavy equipment operator for the former Areva and helped construct the Cigar Lake Road with Rota(ph) construction back in 2006.

Next slide, please.

On October 5, 2020, we received and began to review the Regulatory Oversight Report from the CNSC. We conducted a joint virtual meeting with elected leaders from communities in Nuhenéné, our Ya'thi Néné Board of Directors and representatives from the CNSC on November 10, 2020. During the meeting the CNSC provided an overview of who they are, what they do and as well a review of the ROR. They had designated staff present on the call to assist with any questions. It allowed for enhanced discussion and the community members, Board of Directors and leaders were

all able to interact with the representatives from the CNSC.

Following the review of the document, we have four recommendations for the Commission.

Next slide, please.

Our first recommendation is that an additional section be included within the report that summarizes recommendations identified in previous years from intervenors and for the CNSC to include a status update on each.

This will allow for intervenors to know what recommendations are being addressed and how, and as well how to respond accordingly in the next response for the ROR.

Our second recommendation to the Commission is that a similar degree of regulation that the CNSC applies to mines and mills also be applied throughout all aspects of the uranium lifecycle (exploration and transport), with risks and performance issues regularly communicated to impacted communities.

It was mentioned in our joint meeting that there was concern on the safety of trucks transporting yellowcake along the highway and the speed at which they travel on the major road in Nuhenéné.

In addition, it was also noted that



uranium exploration activities pose risks to communities and land users. Ya'thi Néné understands that exploration activities primarily fall under the jurisdiction of the Saskatchewan government. However, minimal to no communication is provided from the provincial government to impacted communities.

Next slide, please.

Our third recommendation is that Ya'thi Néné recommends that the CNSC continue to consult with and further incorporate Ya'thi Néné staff and feedback into subsequent IEMP, or Independent Environmental Monitoring Programs, in future years.

For example, this past year the Environmental Monitoring Group from the CNSC met with us to discuss their planned sampling program for Cigar Lake relicensing. With the assistance of our CLT Jean Tsannie in Hatchet Lake, she identified land users who know that area and use that area very well. We had the opportunity back in March, prior to the pandemic shutdown, to sit down with them and be able to show them a map of the planned sampling sites that the CNSC had put into place and as well the proposed samples that they were going to take from those areas. The land users we spoke to provided areas on the map that they thought were better suited for samples and as well they also suggested alternate species to be

sampled.

Our last recommendation is that in the future, post-pandemic, CNSC hearings should be held within one of the seven impacted communities in Nuhenéné to not only improve communication but as well trust.

Concerning the ROR, it is directly focused on the five uranium mines and mills in Northern Saskatchewan. Members indicated that having a meeting in Nuhenéné would allow for enhanced communication to all community members and increase the knowledge of both the CNSC and the regulatory process in which these mines and mills fall under.

Next slide, please.

In closing, Ya'thi Néné looks forward to further collaboration with the CNSC to assist with the implementation of these recommendations and to continue the dialogue to improve the regulatory process that licensees and licensed facilities abide by.

While Ya'thi Néné has been pleased with the level of communication between the CNSC and our office to date, we appreciate the opportunity to participate in these important regulatory processes.

I want to thank you all for listening to us today. Thank you.

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

Shirley.

I will open the floor to questions and start with Dr. Demeter, please.

**MEMBER DEMETER:** Thank you very much for the very informative presentation, Ms. Shirley.

I am looking at the intervenor intervention M25-9 and page 3 at the bottom and it might be good to get some clarification. The understanding of the intervenor, based on the last paragraph, or second last:

"CNSC representatives identified that transport of yellow cake falls under the jurisdiction of Transport Canada."

I think it would be good to clarify the differences between where CNSC jurisdiction is, where Transport Canada jurisdiction is, and what the overlap is.

**MR. FUNDAREK:** Peter Fundarek, for the record.

So I am going to ask Mr. Martin Thériault to answer that question.

**MR. THÉRIAULT:** For the record, my name is Martin Thériault, I am a Transport Officer with the Transport Licensing and Strategic Support Division.

The transport of the yellowcake is jointly regulated by Transport Canada under the *TDG Regulations* and

CNSC under the *Packaging and Transport of Nuclear Substances Regulations*.

Transport Canada applies to all classes of dangerous goods, whereas CNSC *Packaging and Transport of Nuclear Substances Regulations* specifies the particular requirement to transport radioactive material in the *Nuclear Substances Regulations*. It uses a graded approach, it is on the content and the risk posed by the material in order to be protective of the public and the environment, by requiring the containment of the radioactive content within the specified package and control of the external dose rates.

So both jurisdictions impose different requirements. Transport Canada imposes requirements on training on how to handle the material and CNSC will impose a particular requirement on how to package the material inside of the package to allow it to be transported in the regular stream of transport.

That's the answer.

**MEMBER DEMETER:** Thank you.

Ms. Shirley, hearing that, was there a particular aspect or gap that you felt that was not being addressed by CNSC or Transport Canada adequately, based on that statement and what you have just heard?

**MS. SHIRLEY:** Yes. So that point came

from -- it stems directly from our virtual meeting that we had with the CNSC. One of the leadership had expressed concern about dangerous driving they had seen on the highway and I think that it had been happening in the past before. So I guess it would just depend on -- now knowing if we do hear that, perhaps it can be reported to the CNSC along with Transport Canada when these issues come up.

And I will just add in that I have four other people with me on the call, so at any time they might join in as well to answer some of these questions.

**THE PRESIDENT:** Okay.

**MEMBER DEMETER:** Would I be able to suggest there may also be -- and maybe someone else can answer -- some provincial authorities that might be reasonable to talk to if they feel there is unsafe driving or exceeding speed limits that might be more applicable.

I'm not sure who would be able to answer that.

**MR. THROASSIE:** Hello. Hello. My name is Freddie Throassie.

First of all, I would like to thank everybody at CNSC for the Oversight Report for 2019. I would also like to thank Shea for the introduction.

This report is nothing new to me. Like for CNSC, the report, I am referring to that, and also your

mining.

The road condition that the Chief has inquired about is the safety concerns. The roads to the mines are really narrow, sharp corners, hilly, lots of blind spots. To me, I think a radio callout every 10 kilometres should be mandatory, because I personally noticed that sometimes these truck drivers are not calling out, so it's a safety concern. And also, when they are hauling, backhauling yellowcake, we don't know which one is which. There are lots of dangerous goods that have been transported on the road. It is just a safety concern I think the Chief is addressing. Thank you.

**THE PRESIDENT:** Ms. Murthy...?

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

So we have noted, Dr. Demeter, the concern and the confusion about the different jurisdictions and who is responsible for what, and so we will take it as something that we will make a note of and maybe provide clearer information on this particular matter.

I know there are provincial responsibilities and there are load-related requirements. So obviously, safe transport is a concern for all of us and if clarity can be provided by way of either an infographic or a document that we can produce that can be easily

understandable, we are going to look into that and do that.

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

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

Dr. Berube...?

**MR. MOONEY:** Oh, sorry.

President Velshi, just from an industry perspective, or maybe just to provide a bit of background there, we have had no major highway-related incidents pertaining to the uranium industry in Saskatchewan. The Saskatchewan Ministry of Highways and Infrastructure maintains the highways for commercial trouble, so you are right that there is a provincial responsibility here, too. But despite that, Cameco and Orano conduct regular inspections on the roads and perform maintenance on a routine basis as well.

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

Again, just a reminder. If anyone has something they would like to add, just use the "Raise Hand" function so I don't miss you.

Dr. Berube...?

**MEMBER BERUBE:** Just to add some clarity to that. I guess between -- this would be Orano that's shipping yellowcake at this point. Do you utilize your own vehicles, your own transport mechanisms or do you actually contract that out?

**MR. LANIECE:** Vincent Laniece, for the record. Can you hear me?

**THE PRESIDENT:** Yes, we can.

**MR. LANIECE:** Okay. We are using a contractor. We are using Northern Resource Trucking for shipping our yellowcake to where it needs to go to the refineries. Northern Resource Trucking is providing us with a monthly report that states globally their safety and the number of small, small incidents or issues that they had. As Ian was pointing out before, there is very regular maintenance that is being done on the road and at this point in time I am not aware of any incidents or issues with the transport of yellowcake, myself.

**THE PRESIDENT:** Thank you.

Dr. Lacroix...? You are on mute still.

**MEMBER LACROIX:** I'm sorry. Can you hear me?

**THE PRESIDENT:** Yes, we can.

**MEMBER LACROIX:** Okay, that's great.  
That's good.

Thank you very much for the presentation and bringing the subject of transportation. I do realize that I am totally ignorant on the transportation of yellowcake and my question is upstream of Dr. Demeter's question. Well, first of all, I understand that a slurry



comes from Cigar Lake and it is converted at McClean facilities into yellowcake. And once the yellowcake is packaged and put on the truck, who does it belong to? Does it belong to Orano or does it belong to Cameco? That is the first question.

The second question is: How many truckloads a year are there and what do the packages look like? Are these barrels? How many barrels per truckload? Could you provide me some technical detail so that I can have a certain appreciation of the problem here? Thank you.

**MR. FUNDAREK:** Peter Fundarek, for the record.

So I am going to ask that Orano answer this question as they are best suited to address the issues that Dr. Lacroix brought up.

**THE PRESIDENT:** Over to you, Mr. Laniece.

**MR. LANIECE:** Vincent Laniece, for the record.

So effectively, Mr. Lacroix, you are correct that we are receiving the slurry from Cigar Lake via truck and the slurry is unloaded at McClean Lake and then is being processed through the McClean Lake Mill in order to concentrate the uranium, which eventually ends up as a uranium concentrate or yellowcake that we are putting

into barrels. Then the barrels are kind of packaged individually and then loaded in each and every truck for a lot. There are usually about 45 to 50 drums that constitute a lot, and the number of lots that we have, we have about one lot going out of the site every two days or every one and a half days, depending on the production of the month and the duration of the shutdown.

So with respect to the number of trucks of yellowcake that we have on the road, it would be in the range of 200 to 250 trucks per year, so one truck every one and a half days to every two days.

**MEMBER LACROIX:** And just by curiosity, do you have any statistics on the incident per kilogram or per tonne of yellowcake transported from McClean to I presume Blind River Refinery?

**MR. LANIECE:** Vincent Laniece, for the record.

The statistics that I would have would be that there is effectively the joint venture. I did answer your question on the joint venture side. The different lots are allocated pro rata the ownership of each partner in the joint venture and then the transfer of the ownership of the yellowcake happens once the -- once I believe the truck arrives in Saskatoon and then there is a transfer of ownership and then each and every partner can ship their

yellowcake or their lot to the refiner of their choice.

**MEMBER LACROIX:** I see. Okay. Okay, I understand.

The reason for my question is that I wanted to compare the transportation of yellowcake with other similar substances in terms of incidents per kilogram and per kilometre for instance. There must be somewhere some kind of statistics that we could, you know, compare apples with apples.

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

I guess what I would add is that looking at 50 years of uranium transportation, the numbers that we have that are broader than just yellowcake, about 20 million transports per year, there has never been a transport incident that has caused significant radiological damage to people or the environment. We take a lot of pride in the international and national regime that we have and our compliance with it, and the transportation of it is very safe. And if we do have any sort of event, it is usually a minor traffic event such as a flat tire or, as we talked about earlier this week, where on a highway we may have been subject to a bump or something from another vehicle or that sort of thing. But again, I think we have a very strong safety record as an industry for transport and that includes the transport of uranium ore concentrate.

**THE PRESIDENT:** Mr. Fundarek...?

I think you may have something to add, Dr. Lacroix.

**MEMBER LACROIX:** Yes, sure.

What is the main health hazard of yellowcake? Is it radiological or chemical?

**MR. FUNDAREK:** Peter Fundarek, for the record.

So I would like to first ask Karen Owen-Whitred to talk to the issues regarding the transport just to answer any additional or outstanding questions you may have on that. And then perhaps John McManus can answer questions regarding the radiological hazards associated with yellowcake. Thank you.

**MS. OWEN-WHITRED:** Hi. Karen Owen-Whitred, for the record. I am the Director General of the Directorate of Nuclear Substances Regulation.

I believe that all of the main elements have been covered so far with respect to the safety of transport of the yellowcake, but for certainly Dr. Lacroix, if you have additional questions, we would be happy to answer.

**MR. McMANUS:** John McManus, for the record, Radiation Protection Specialist with the CNSC.

I am certainly not an expert on this. We

have a dosimetrist that does look at these. But with calcined yellowcake the radiological properties are the most restrictive properties and with a non-calcined yellowcake, then the chemical toxicity, especially with the kidney, becomes more of a concern.

**MEMBER LACROIX:** Thank you.

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

**MEMBER MCKINNON:** Yes. Thank you, Ms. Shirley, for your presentation.

I would like to ask a question on exactly the opposite end of the lifecycle and go right to exploration. In your presentation you brought up the question of regulation over the complete lifecycle, so I would like to cover that.

My question is for CNSC staff. I'm just curious, because I don't know if there are regulations for the health and safety during the exploration stage and I am particularly interested in, let's say, the drilling activities where there could be -- you know, the boreholes could allow communication from deep groundwaters to surficial waters and also the handling of core, and so on, of high grade ore. If you could discuss that, please?

**MR. FUNDAREK:** Peter Fundarek, for the record.

So the jurisdiction for exploration

activities is outside of the CNSC's mandate and it is a provincial responsibility and so I would ask somebody from the Province of Saskatchewan who is online today if they could respond to this issue. Perhaps Mr. Tim Moulding.

**THE PRESIDENT:** We have someone from the Saskatchewan Energy and Resources.

**MR. MOULDING:** Tim moulding, for the record. Can you hear me?

**THE PRESIDENT:** Yes, we can.

**MR. MOULDING:** Hi. Yes, typically exploration activities are dealt with by our Fish, Wildlife and Lands Branch personnel with the Ministry of Environment. They permit activities. And again, most of the exploration activities that are undertaken in the Northern Saskatchewan or in hard rock situations tends to be 2-inch diamond drill. Because the amount of core material is relatively minor, the surface disturbance for these activities tends to be relatively minor as well and of short duration. The exploration permits that are issued do go through consultation, evaluation as per the Provincial Consultation Policy Framework document that is available online on the Ministry's website. If there are any issues that are identified through that valuation process through that policy document, there will be consultation activities undertaken. Again, typically with

exploration, with the relatively minor site impacts, relatively short duration, consultation issues tend to be relatively minor as well.

**MEMBER MCKINNON:** Would there be a requirement for example to grout the boreholes once they have been completed?

**MR. MOULDING:** If there are any issues with potential for groundwater flow, absolutely, and also grouting to prevent any future issues with respect to water entering any potential underground mine that might be developed in the future.

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

**THE PRESIDENT:** Thank you.

**MR. MOONEY:** Dr. McKinnon, would it help to give an exploration -- part of our business is exploration. Would it help if I give you a bit from the industry side? I do think like it's important to understand that our sites are inspected by the provincial authorities as well as internal inspections that we conduct and we ensure to leave -- ensure that they are properly cleaned up. As part of the permit conditions we get from the province, we are required to submit a closure report with specific details in relation to the program. With respect to our exploration activities and our contractors,

our sites are thoroughly cleaned and subject to those inspections, and we also clean up any waste we come across, even when it wasn't left by us. So overall we have a very internally responsible exploration program and one that we are quite proud of in relation to its activities in the North.

**MR. KASKIW:** For the record here, it's Len Kaskiw, Chief Mines Inspector for the province.

We regulate the health and safety of Saskatchewan projects. So whenever they apply for their permits they send the information to us and then we typically do a round of inspections to ensure that they are following our provincial health and safety regulations.

**THE PRESIDENT:** Thank you.

Dr. Berube...?

**MEMBER BERUBE:** Just a change of venue a bit since we have the First Nation in front of us right now.

Ms. Shirley, I just want to ask you, solicit your feedback here on the actual ROR, particularly the plain language section of it to see if you can see any room there for improvement in future or is it adequate? Is there anything you would like to have added or amplified? Does it meet your needs?

**MS. SHIRLEY:** Yes. I noticed the report



when I did do the initial review this year. It was -- you know, I have a technical background, but it was easier to read through. You know, it was at least shorter in length as well, which is always less intimidating when you go to read these large reports. But I think in terms of, you know, better communication to the impacted communities, I know back when we met with the Environmental Monitoring Group talking about the IEMP and communicating it, they mentioned about potentially -- this is pre-COVID I guess, but setting up a site in the community when they were going to be and show people how they sample, what they do, like, you know, how a water sample is collected, how -- you know, the various different things they do. And I think we struggle right now with COVID and being able to do those in person, but I think if there was, you know, like a brochure or anything like that that could be easily distributed in the communities to just bring more awareness. Because I think we can always improve on communication and to share that information to let people know exactly who the CNSC is and what they do, you know, that they are the regulatory body that oversees the mines and mills, they are not part of the mines and mills, right? And I think that is a key part, is always making sure to kind of communicate that this is separate from that, right, and we are here to -- that you are here to monitor, make sure the licensed

facilities are abiding by these rules, they are following these safety and control areas, and I think just any kind of enhanced kind of mechanisms, whether it is a video that can be posted on Facebook, which is a huge way that people access communication in the North as well. You know, personally we have developed a newsletter where there could be a feature of the CNSC about the ROR in one of our upcoming things and they are all distributed, the CLTs all get them shipped to each of the communities and they are mailed out to everybody in the community. So it is just kind of another vessel to get that information out there and to enhance that knowledge. I think, you know, there are always additional steps that could be improved just to get that better information out there.

**MEMBER BERUBE:** And CNSC, did you hear any of that?

**MR. FUNDAREK:** Peter Fundarek, for the record.

Yes, we did hear a lot of that and we have heard that in the past and we have taken a lot of steps to address those issues, those very same issues. So we do get out to the communities.

We interact with the Northern Saskatchewan Environmental Quality Committee, which is representatives from northern communities and indigenous peoples in that

area, and we meet with that group on a regular basis to identify who we are as the CNSC, what we do and provide information on projects of interest for that.

We also have a number of communication vehicles that are available on the CNSC website that outline exactly what Ms. Shirley is looking for in terms of videos through our YouTube channel, information articles that are also available.

And I can ask that Meghan Gerrish, our communications specialist, to respond and provide further information on these other communication opportunities.

**MS. GERRISH:** Hi there. Meghan Gerrish, for the record.

As Peter was saying, we do have various tools that we use within the CNSC to help promote different information and to various audiences. And like Mr. Fundarek has said, we are taking into account very much so what our intervenors are saying and help to accommodate and try to meet their objectives while meeting our objectives as well.

And we're always open to new tactics and tools to use, but certainly CNSC has a variety of tools that we can share directly with different target audiences to help share within their communities as well.

And we are working to expand upon some of

those tools that we're using and we look for ways that -- what's meaningful to each community. We look for ways to help achieve a nice balance among what people are looking for, so if somebody's looking for something in hard copy like a -- like was mentioned, a brochure, that's something we are certainly open to doing and to preparing and executing.

**MEMBER BERUBE:** Just one more follow-up question, if I might.

Because you have rural communities, deep rural communities, what's your access to broadband like in -- around the mining communities?

There can't be very much up that area, so a lot of our public campaigns that are focused on internet accessibility or broadband would not be particularly useful. Is that correct, or what would you say is the situation there, Ms. Shirley?

**MS. SHIRLEY:** Also if the CLTs want to intervene at any time, too, because they live directly in the communities, but there is -- they have cell service in Fond du Lac, Hatchet Lake and Wollaston Lake, but it is -- can be limited at times. And power can be limited, so that can affect Wi-Fi connectivity.

So there are ways that they can access, but then again, if they don't have accessibility to Wi-Fi,

then they're running off the cell system, and that can burn through someone's data pretty quick if they're trying to join in on a video.

So there are restrictions to that, but -- I know, for example, Uranium City they don't have cell service at all. It's only Wi-Fi. It's in people's houses or at the school. So they are limited, but some have and some don't.

It's kind of hit or miss, so if I miss anything I'll let the CLTs jump in, but that's to my knowledge.

**THE PRESIDENT:** Well, let's give the CLTs an opportunity if they'd like to add anything that's been said.

Mr. Cook?

**MR. COOK:** Hi, sure. Derek Cook from Fond du Lac.

No, I just -- just to go back to the -- I just wanted to mention the road -- the safety issue for road going south for transportation of -- especially the yellow cake and the semi trucks going south from the mine sites. I just wanted to touch base on that.

I recall a semi truck hitting a ditch, I think it was 30 to 40 kilometres south of Rabbit Lake mine when it left the McClean site, and I was in safety at that

time.

And I recall the uranium -- the yellow cake truck being abandoned by the truck driver. And I was just wondering if there was any follow-up, anything that was done by Orano or disciplinary actions taken with the contractor.

That's just my question on that.

**THE PRESIDENT:** Mr. Cook, when did this happen? Give me maybe a -- what year, anyway?

**MR. COOK:** If Mr. Laniece can help me on that.

I believe it was 2018, but I could be wrong. I think it was two years ago.

**THE PRESIDENT:** Thank you.

Mr. Laniece, anything you'd like to add?

**MR. LANIECE:** Vincent Laniece, for the record here.

Yes, I remember very well the incident that Derek is related. What had happened there is that, effectively, one of the truck driver -- I believe it was a fairly cold day. It was, in my memory, like in January or February of 2018.

And it was effectively turned out because I believe the -- he had some kind of inattention when he was at the wheel. Very fortunately, there was absolutely

nothing that happened to the -- to the yellow cake transport, to the truck driver, of course. And then the emergency response team from site was paged and attended effectively the truck.

The truck was left effectively or the yellow cake load was left for a couple hours, but immediately we contacted an alternate intervenor to send some dispatch in order to get to the trailer and then being able to take care of the trailer correctly.

So the follow-up actions that we had at the time was exactly in agreement with our emergency response plan in that kind of event when we had an alternate intervenor because that was effectively their transport that was affected there.

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

I see no further questions, so Ms. Shirley and your colleagues, thank you very much for your intervention. Greatly appreciated.

We will now move to our written submissions. And as was mentioned by staff, most of the written submissions are very supportive, very -- have no -- expressed no concerns with the operations by both Orano and Cameco and supportive of staff's assessment.

But with that, I will turn it over to Marc for us -- to take us through the written submissions,

please.

**CMD 20-M25.1**

**Written submission from the  
Saskatchewan Mining Association**

**MR. LEBLANC:** Thank you very much.

So the next submission is from the Saskatchewan Mining Association, as outlined in CMD 20-M25.1.

Any questions from the Members?

**CMD 20-M25.2**

**Written submission from the  
Canadian Environmental Law Association**

**MR. LEBLANC:** As I see no question, we'll go to the next submission, which is from the Canadian Environmental Law Association, as outlined in CMD 20-M25.2.

Any questions from the Members?

Dr. Demeter.

**MEMBER DEMETER:** Thank you very much.  
This is for the two licensees.

CELA talked about availability of the preliminary decommissioning plans, and I'd like to get a



sense from you what's available either as is or in a redacted format relative to proprietary information. What is currently available to groups that request such information?

And I guess it's Cameco and Orano.

**MR. LEBLANC:** So Mr. Mooney.

**MR. MOONEY:** Yes. There was an over-under and how many times I was going to speak today before unmuting myself, so I've been doing fairly well.

It's Liam Mooney, for the record.

And in that regard, we view our PDPs as being proprietary and confidential, particularly given the competition that we see in northern Saskatchewan with a number of other applicants who are up and running, but maybe I'll turn this over to Kevin Nagy to provide a more detailed response in relation to what is currently available and how we've improved in that regard over the last several years.

So with that, I'll just turn it over to Mr. Nagy.

**MR. NAGY:** Good afternoon. For the record, my name's Kevin Nagy.

We have posted detailed summaries of the preliminary decommissioning plans for all our northern Saskatchewan operations on our website. We undertook that

activity to facilitate the recent licence amendments for the approvals of our revised financial guarantees.

These summaries provide an explanation of what the preliminary decommissioning plan is, its purpose, to provide a conceptual level of our decommissioning strategies for the purpose of costing out financial guarantees to cover any potential decommissioning costs.

It describes our process for reviewing and updating these documents, provides an overview of the overall decommissioning process and the major milestones associated with that, so the orderly cessation of production, transferring the site safely to care and maintenance, development of the detailed decommissioning plans and the approval process that would be related to that.

It also provides detail on the basic decommissioning strategies that would be employed at the site, so if there is a mine, how the mine and the underground workings would be decommissioned. Similarly, if there was a tailings facility, how that would be decommissioned, surface buildings and infrastructure, site access roads, the overall strategies that we would employ to decommission that infrastructure.

And then finally, it provides a discussion of the financial guarantee and the amount that's currently

in place.

So those summaries are on our website right now, today, for all four of our northern Saskatchewan operations.

Thank you.

**MEMBER DEMETER:** And would it be possible to find out what Orano has available for public on their decommissioning?

**MS. SEARCY:** Hi. It's Tina Searcy, for the record. I'll take that comment.

After last year's ROR and the request for publicly-available PDPs, we started to prepare plain-language summaries to accompany our PDPs for the McClean Lake operation.

Coincidentally, our PDP was due for its five-year review cycle with the regulators, both the Ministry of Environment and the CNSC, so those have both been provided to the regulators for review, the updated PDP and a plain-language summary, that as soon as we receive acceptance from those, they'll be posted -- the plain-language summary will be posted to our website.

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

**MR. LEBLANC:** President Velshi?

**THE PRESIDENT:** A follow-up to that.

So thank you both, Orano and Cameco, for

that. CNSC Staff, does the regulator have any requirements around a summary PDP and what should be included in there and this plain-language summary that we just heard about?

It seems like a great practice.

**MR. FUNDAREK:** Peter Fundarek, for the record.

So I'm going to pass this question on to Ms. Nancy Greencorn, Acting Director of Waste and Decommissioning Division.

**MS. GREENCORN:** Good afternoon. Nancy Greencorn, for the record, the Acting Director of the Wastes and Decommissioning Division.

Sorry. It's been a long day.

In REGDOC-2.11.2 on decommissioning, we prescribe the elements that are required as part of the preliminary decommissioning plan, and this includes for uranium mines and mills.

We do not, in this document, set out that a summary plan be also developed and shared with members of the public or interested parties. So from a regulatory perspective we set out what we as a regulator need to see to review the decommissioning plans, but there is not a separate section that says a summary document should be provided. But we do encourage licensees to share the information in the documents that would not be considered

proprietary.

**MR. LEBLANC:** Thank you.

So we have Ms. Murthy. Is it a follow-up?

**MS. MURTHY:** Thank you. Yes, it's a follow-up.

I believe that under the public information and disclosure program revisions there were some requirements put in, so I'm going to see if Meghan Gerrish is able to provide some information on what the requirements are.

**MS. GERRISH:** Hi there. Meghan Gerrish, for the record.

REGDOC-3.2.1 is not prescriptive, but we do encourage all licensees to post documents of interest or that they are asked for from their target audiences.

In particular, what is prescribed in REGDOC-3.2.1, the public information and disclosure, is to have a summary PSR and -- available to the public as well as the environmental risk assessment available to the public and posted on their website.

Thank you.

**MR. LEBLANC:** Thank you.

Dr. McKinnon.

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

I thought I'd ask this question now while the topic is being discussed, but I was aware of the fact that the province of Saskatchewan did require a five-yearly reporting of the -- updating of decommissioning plans and, you know, possible revisions to the financial guarantees.

My question is, really, CNSC also has very similar requirements and I saw in the presentation that there are some agreements between CNSC and the province.

How much coordination is there between the reporting of the decommissioning plans and are the financial guarantees for one acceptable to the other?

I'm just wondering about how that handshake occurs between the two jurisdictions, the two departments.

**MR. FUNDAREK:** Peter Fundarek, for the record.

So I can start this and if Mr. Tim Moulding wants to provide additional information, I'd welcome his additions to this.

Your question is with regards to the coordination of reviews of financial guarantees and financial guarantee costing every so often.

Yes, there is a requirement by the CNSC that financial guarantees and the -- sorry, the decommissioning plans and the financial guarantees are

reviewed every five years. In addition, licensees have to attest that the financial guarantees that they have in place are still valid. And that has to be done on an annual basis.

So every year, the licensees have to assure the CNSC that the financial guarantees remain in effect and valid, but the programs, the decommissioning plan and the financial guarantees for themselves are reviewed every five years.

That review is coordinated with the province because both the province and the CNSC receive both the revised preliminary decommissioning plan and the proposed financial guarantee amounts, the costing evaluation of those plans. At the same time, we conduct our reviews independently, but the CNSC Staff won't take the matter to the Commission for a decision on acceptability of the financial guarantee and the financial guarantee costing until we've gotten assurance from the province that they're satisfied with the values and the program -- or the plan that's being proposed.

So there is a coordination between the province. We work very closely with our provincial counterparts to ensure that this is carried out, and it's an example of the way that we do work together already.

And I'll just pass to Mr. Tim Moulding if

he would like to add anything further.

**MR. MOULDING:** For the record, Tim Moulding with Saskatchewan Ministry of Environment.

Yes, I'll echo Peter's comments with respect to how we review decommissioning and reclamation plans and financial assurance cost estimates.

We do have a Memorandum of Understanding with the Canadian Nuclear Safety Commission that does speak to the arrangements that we have with respect to reviewing these documents. The province does hold the financial assurance instruments, so we do coordinate the reviews of those decommissioning and reclamation plans and financial assurance cost estimates with the CNSC.

And as Peter mentioned, there is also right in our mineral industry environmental protection regulations the requirement for review of the financial assurance decommissioning and reclamation plans at least on a five-year rotation or if there's any major changes to the operation that might affect the cost estimates for those.

**CMD 20-M25.3**

**Written submission from the  
Kineepik Metis Local #9**

**MR. LEBLANC:** Thank you.



I'm just looking if there's any more questions.

Not seeing any, we will move to the next submission, which is from the Kineepik Metis Local #9, as outlined in CMD 20-M25.3.

Are there any questions from the Members on this submission?

Dr. Lacroix.

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

This question belongs -- well, this question could apply also to the upcoming submissions, so this is a general question.

I've noticed that, over the years, Cameco and Orano have signed collaboration agreements with northern communities. And when I read in this submission and in the following submissions, it's quite interesting to see that the communities sort of all want these collaboration in the sense that they contribute to the improvement -- well, they contribute to the workforce development. They contribute to the business development, community investment, community engagement, environment stewardship and also scholarship for their youth. In other words, these agreement, they improve the quality of life of people and they raise the standard of living.

So beyond the agreement, there must be a

secret ingredient behind this, and what is the -- it's a win/win situation, so what is the secret ingredient of the success?

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

And maybe I'll ask Ms. Cuddington to provide a bit more information in that regard, but I think it's important to understand that the collaboration agreements -- sorry.

The collaboration agreements themselves formalized what has been long-standing relationships, so they aren't themselves, you know, the -- but we did have, through our impact management agreement, a head start over a lot of other sectors in that regard, but I think that if you look going back through the history of the uranium mining industry in Saskatchewan, there's a long history of working with our communities. And that's been driven by both the provincial government in relation to our surface lease obligations, but also leading practices in our attempts to staff our facilities.

And people will tell you that our strongest proponents tend to be people like Mr. Cook who were former employees or contractors at our facilities and were able to see firsthand the care that we take of both our workforce, but also the environment and our

communities.

So maybe I'll just ask Ms. Cuddington to give you a bit more in that regard because she's very much tied into that effort.

**MS. CUDDINGTON:** Thank you, Liam. Kristin Cuddington, for the record.

So really, more to what Liam had commented already is the collaboration agreements are just a tool. It's a commitment to work together.

We set out a number of deliverables, a number of asks and then we work together to try and move those forward on all four pillars. So really, these pillars just stem from our northern strategy, something that's been around for a really long time.

We have been working, we have been building these long-standing relationships with the communities in which we operate. You know, I've had the opportunities -- you know, we heard from Mr. Freddie Throassie earlier and, you know, I remember a campaign where it was multi-generation. It was, you know, Freddie and Freddie's daughter that have worked with the industry, so you know, just building that capacity, that understanding and working with the communities.

So really, the -- I want to stress the success has really come from a tool, a process to work

together.

You know, when I look -- think about our engagement pillar, engagement and environmental stewardship, you know, we have an understanding, we have something to come to the table together to understand each other.

The ages which have also submitted an intervention much like the Kineepik Metis Local, the Lac La Ronge Indian Band, we have committees, we have members that sit that represent industry, represent the community, youth, elders, previous employees, current employees, representatives from the Northern Saskatchewan Environmental Quality Committee.

We're all sitting together hearing from different perspective land users and just being able to better strategize, better implement, better communicate with communities and, you know, look at opportunities to make improvements.

Every year we submit a report back, and it's not Cameco's report or Orano's report; it's a joint report. It's a report that we give back to the communities to say what's happened, where are we at, where are we at with the implementation.

In 2019, just as an example, the report back to the community of the Athabasca, so those seven

communities that signed that agreement in 2016, really talked about the great work that the communities did. And it wasn't just Cameco or Orano; it was feedback from all of the different pillars.

So we noted 62.2 million was provided for business development, community investment, workforce development to the basin communities.

So really, you know, this tool has really been able to help us, you know, move our relationship forward.

**MR. LEBLANC:** Thank you.

Dr. Berube.

**MEMBER LACROIX:** Thank you very much.

**MEMBER BERUBE:** So I'm just going to follow up on that because what I heard was really interesting.

You know, we're striving for collaboration and engagement activities, and what I hear you saying is inclusion and community.

So I think the secret sauce is inclusion and community, and that's what you've been doing for quite some time. And so the distinction kind of goes away at that point because everybody's working together for a common goal, I think.

Would that be an adequate summary of

what's going on there?

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

And I think that there are limits to that approach, too. We are one company operating in northern Saskatchewan. It's an area the size of New Brunswick, so, you know, we've looked at things and we've tried to do what we can in relation to our near neighbours and then looking more broadly as best we can, but you know, it's important to recognize that we have three facilities that are in care and maintenance because we've been -- you know, this is nine years in a very depressed market.

And you know, just in that regard, I think that, you know, we're doing the best we can but that there are limits.

So I wouldn't -- you know, you're right in sort of the fundamental underpinning of it, but there is a difference between the role of industry and the role of government, and I think that, at times -- you know, private industry, we have a responsibility to our shareholders. We want to protect the environment, we want to see strong communities, we want to see, you know, our workforce thrive and I think that's, you know, a big part of where we've taken it so far.

But I think that, you know, it's not

unlimited, would be my only point in that regard.

**MR. LEBLANC:** Thank you.

Any other questions from the Members?

I don't see any, but I think we're overdue for a short break, so let's resume at 10 past 4:00.

Thank you.

--- Upon recessing at 3:52 p.m. /

Suspension à 15 h 52

--- Upon resuming at 4:10 p.m. /

Reprise à 16 h 10

**MR. LEBLANC:** We're back. So thank you.

We will continue with the written submissions.

**CMD 20-M25.4**

**Written Submission from the**

**Northern Saskatchewan Environmental Quality Committee**

**MR. LEBLANC:** And the next submission is from the Northern Saskatchewan Environmental Quality Committee, as outlined in CMD 20-M25.4.

So do we have any questions from the Members on this intervention?

Not seeing any raised hands.

**CMD 20-M25.5**

**Written submission from the  
Lac La Ronge Indian Band and  
Kitsaki Management Limited Partnership**

**MR. LEBLANC:** We will move to the next submission, which is from the Lac La Ronge Indian Band and Kitsaki Management Limited Partnership, as outlined in CMD 20-M25.5.

Any questions?

There are no questions.

**CMD 20-M25.6**

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

**MR. LEBLANC:** So the next submission is from the Athabasca Joint Engagement and Environmental Subcommittee, as outlined in CMD-20-M25.6.

Any questions?

Not seeing any raised hands.



**CMD 20-M25.7**

**Written submission from the  
English River First Nation**

**MR. LEBLANC:** We will move to the next submission, which is from the English River First Nation, as outlined in CMD 20-M25.7.

Any questions from the Members?

No.

**CMD 20-M25.8**

**Written submission from the  
Canadian Nuclear Workers' Council**

**MR. LEBLANC:** So we will move to the next submission, which is from the Canadian Nuclear Workers' Council, as outlined in CMD 20-M25.8.

And Madame la Présidente, this was the last of the written submissions.

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

So we'll now open the floor to the Commission Members for any other questions that they may have on the regulatory oversight report.

Dr. Demeter?

**MEMBER DEMETER:** Thank you.

If we still have Environment Canada and Climate Change on the line, it might be worth -- because we talked about it in the other areas -- whether there's any concerns or oversight needed for climate change or change in frequency or intensity of extreme weather events relative to mines and mills and how that's being monitored for potential impact.

**MS. ALI:** Nardia Ali, from Environment and Climate Change Canada, for the record.

I don't really have too much to say. Like as was stated before, uranium mines fall under our *Metal and Diamond Mining Effluent Regulations*, and they are -- we agree with the regulatory oversight report that they are some of our best performers, that they've been in compliance.

We're also involved in like the residual environmental effects monitoring as part of the requirements for the *Metal and Diamond Mining Effluent Regulations*, and at this point in time, we have no concerns.

So I don't have much else to say. I don't know if Duck wants to add anything.

**MR. KIM:** Duck Kim, for the record, Environment Canada.

Maybe one thing I could add is that

certainly for flooding, rainfall, extreme rainfall events, we have been reviewing those reports and some of the incidents of severe rainfall, and how that's impacting operations and surface waters is a concern.

We have been -- so ECCC has been, as a department, been working on, as we have -- I think Ms. Ali has mentioned previously -- that we are working on a guidance document for resiliency, climate change resiliency for large installations, facilities like some of these nuclear facilities.

Also, we have been working with the CNSC on improving flood-risk assessments. We have been involved previously for severe weather probabilistic risk assessments, and we are also working with the CNSC on improving the flood risk assessments for nuclear facilities. So things such as looking at the intensity, duration, and frequency of precipitation events and providing data through the Meteorological Service of Canada, which is available online, and generally working towards improving this area.

Thank you.

**MS. ALI:** And it's Nardia Ali, Environment Canada and Climate Change Canada, for the record.

And as with all the other regulatory oversight reports, as I've mentioned before, we have the

MOU with the CNSC. And usually any environmental reports containing content that falls under our mandate, we work very closely with the CNSC to ensure that our regulations are respected.

**THE PRESIDENT:** Thank you.

Mr. Fundarek, you had something to add?

**MR. FUNDAREK:** Yes, I'd like to address this question by providing a brief response and then asking Mr. Andrew McAllister to add additional information.

So I just wanted to point out that climate and climate change impacts are assessed at each stage of the life cycle of a facility and are considered during licensing reviews which are carried out every 10 years or shorter, as depending on the licence term.

But I'll pass to Mr. Andrew McAllister for a more fulsome response.

Thank you.

**MR. McALLISTER:** Thank you, Mr. Fundarek. Andrew McAllister, director of the Environmental Risk Assessment Division.

So this is I guess the last -- not the last chapter, but certainly we'll continue the climate change discussion if you're looking at the uranium mines and mills. And we noted, for example, the concerns that CELA raised in their intervention.

And with respect to mines and mills, again, if we take us back to the beginning of the regulatory process, and to echo some of the things that we've heard over the past few days, things such as climate being an area of uncertainty, the importance of having conservative assumptions, the importance of having safety margins, those themes run through as we sort of walk our way through the process.

At the beginning, whether they be environmental assessments or consideration of new proposals, I'm going to illustrate with some examples relative to the mining sector to sort of demonstrate that. At the EA phase, for example, when the Kiggavik mine was being contemplated in Nunavut, permafrost scenarios were looked at in that process to determine what the tailings management facilities would look like, so design and safety implications as well as potential impacts to the environment through contaminant transport perspective.

Similarly, with the proposed JEB TMF expansion that's currently undergoing technical review within the CNSC, they too have factored in climate-change-related aspects such as precipitation and rainfall intensity into their documentation as part of that licence application.

When we move into operations, again we

have the licensees have that adaptability, that ability to change, given climatic conditions and upset events. And one thing that Dr. Lei mentioned the other day was the importance of having contingency plans in place. What happens if an event happens that exceeds the design basis? So making sure those contingency plans are in place.

And the ERAs are one of the vehicles that again give us that check on the climatic information as well as the predictions. So we're thinking about mines and mills. The tailings are going to be left in place and managed into the long term. And it's really important the ERA predictions and the models associated with them are conservative. They have the safety margins built into them. Using, for example, the McClean Lake ERA, they looked at future conditions with respect to their long-term modelling. So again, reflected in sort of the operational aspects and as these get updated on the five-year basis.

And then when we arrive to decommissioning, again, climate change comes back to play and gets integrated into those detailed decommissioning plans and designs. And we've seen evidence of that recently in some of the work that's been happening on the Gunnar and the Lorado sites as examples.

So it intersects at different points along our regulatory process. And meanwhile, we keep abreast of

the developments. We work closely with Environment and Climate Change Canada. Dr. Lei made reference to an international working group on external events. One of our staff, Dr. Grant Su, geotechnical specialist, sits on the Canadian Dam Association, which is focused on dam safety guidance for Canada. And so it's really a multi-faceted approach when looking at climate change under our regulatory framework.

**THE PRESIDENT:** Thank you, Mr. McAllister.  
Dr. Lacroix?

**MEMBER LACROIX:** Question for CNSC staff.  
What if Eastern Athabasca Regional Monitoring Program came up with an unusual data, high concentration of a pollutant somewhere? Would it trigger an immediate response from CNSC?

**MR. FUNDAREK:** Peter Fundarek, for the record.

Any kind of unusual response that we would be -- that would be reported to us, whether by the licensee or through the Athabasca Joint Environmental Service, any of that would be actionable by CNSC staff. We would look at that to try and figure out what the implications are, what the potential source term could be, and we'd conduct our own reviews of the information to see what additional measures that could be taken, and who could be tasked, if

we could identify which licensee was responsible for it. And certainly that is easy to do, because they're all in very separate geographic areas.

But I'll ask perhaps Ms. Kiza Sauvé to answer further from the perspective of the independent environmental monitoring program.

**MS. SAUVÉ:** Kiza Sauvé, for the record. I'm a director of Health Science and Environmental Compliance Division.

So for the independent environmental monitoring program, we have a result -- sorry, a procedure on how we review our results. And that procedure is called the "results of potential interest procedure." So should we see something out of the ordinary, we would immediately talk to our licensing specialists and our staff and our inspectors that are on site to look at what follow-up would be needed.

Having said that, monitoring results are in the environment, and we would have seen something likely from the effluent results. Right? We get reports quarterly. The licensee is required to report when there's an action level exceedance. So there's so many barriers before we would see something in the environment, that we sometimes say in the independent environmental monitoring program we don't expect to see anything. Same with in the



EARMP. We don't expect to see anything. If we do, we would work with licensing and of course with the licensee to confirm where it was coming from.

**MEMBER LACROIX:** That's good. Thank you.

**THE PRESIDENT:** Maybe another question on the Eastern Athabasca Regional Monitoring Program.

Staff, you had said that community members can also submit samples for analysis. So in a given year, how many samples would community members submit? And how would that compare with what the defined program's number of samples are?

**MR. FUNDAREK:** Peter Fundarek, for the record.

So I'll pass this question to Ms. Haidy Tadros.

**MS. TADROS:** Good afternoon. Haidy Tadros, for the record. I'm the director general of the Directorate of Environmental and Radiation Protection and Assessment.

So President Velshi, your question was specific to the number of samples that we would get from the Eastern Athabasca Regional Monitoring Program? Or the sample number that we would do in addition to -- just a clarification there.

**THE PRESIDENT:** So I gather community

members can submit samples for analysis. I wanted to get a feel for how many samples did community members give, and what percentage did they make of the overall analysis. Just wanted to see when it comes to country food safety their role in it.

**MS. TADROS:** Thank you very much. Haidy Tadros, for the record.

Thank you for that clarity. Yes, so we do get samples from the community members. I believe I saw Mr. James Irvine on the line. He is active in the Eastern Athabasca Regional Monitoring Program and can probably speak to the kinds of samples that are submitted from caribou to foodstuffs that are looked at, and how we interact with the Eastern Athabaskan Programs. Perhaps we'll go to him first, if he's online. And then I know Ms. Kiza Sauvé is also available to provide that detail.

Thank you.

**MR. IRVINE:** Good afternoon. James Irvine, for the record.

I don't get involved with the decision in terms of sampling frame. But when we review the studies, often there's -- it's a voluntary nature in terms of what access is to various specimens within a community. So sometimes it'll be the frequency of specimens from cranberries, from blueberries, fish will be more

substantial than it will be from caribou and moose. Moose particularly there'd be fewer samples. But it depends on the community in terms of the people that are coming forward with samples.

But I'd certainly invite others to add comments to there if they wish.

**MS. TADROS:** So Haidy Tadros, for the record.

I believe we've gotten some results with regards to there's approximately a hundred samples. We can get the numbers exactly for you, President Velshi.

Perhaps Ms. Kiza Sauvé can provide a little bit more detail and insights on this.

**MS. SAUVÉ:** Thank you.

Kiza Sauvé, for the record.

So we did just get that answer, that it's approximately a hundred, including all types of media.

But what's important to note is that this is with the Eastern Athabasca Regional Monitoring Program. So this not the CNSC's IEMP. So this is a program where the EARMP has a specific budget set aside. So they have their ongoing community monitoring program, but there's a specific budget for submitted samples. So you know, if a community members finds -- is out hunting or trapping and finds something that is of concern, they could submit that

sample.

So we are seeing that the number's about a hundred, but we can provide more information if that's what you're looking for.

**THE PRESIDENT:** No, let me just -- maybe I'm not being clear enough as to what I'm asking. So the program has, as you said, a budget and they decide how many -- well, what they want to sample, what media they want to sample. And then community members can submit their own samples because they're interested, they're concerned. And I want to get a sense of what percentage of the overall analysis that's done is driven by community concerns or needs.

**MS. SAUVÉ:** Kiza Sauvé, for the record.

So I'm not sure if we can give you an overall percentage. And I'm worried now that we might be giving you the overall number of samples in the program and not -- I know I'm not giving you what you're looking for.

**THE PRESIDENT:** But the numbers don't mean much. I just want to know is the dominant factor in reaction to what the community is asking for.

**MS. SAUVÉ:** So the community program itself is community members that are inputting into that program. So the community program for the EARMP is community. There is also a technical program that's run

about every five years. That's more of the larger scientific program. But the community one is based on the community's needs.

**THE PRESIDENT:** Right. But when we talk about the Eastern Athabasca Regional Monitoring Program, there is one that's kind of designed with levels of sampling and frequency and so on. Right? I mean that's -- or is that all, you know, just driven by whatever the community thinks is important and of concern to them?

**MS. TADROS:** Haidy Tadros, for the record.

Perhaps what we can do is get all of that information put together for you, and either provide as an undertaking or maybe put some sort of information on our website to provide further clarity on what exactly is involved with the community sampling program.

**THE PRESIDENT:** Excellent. That would be very helpful. Thank you.

**MS. TADROS:** Thank you.

**MS. SAUVÉ:** Kiza Sauvé, for the record.

I would note that the EARMP actually has a good website as well. And so I've got that up and I can see where the seven communities are. And I also think that Tim Moulding from the Province might be able to add a little more detail, as he's on the program.

**THE PRESIDENT:** Mr. Moulding?

**MR. MOULDING:** I was just actually just going to mention exactly what Kiza just said, that the Eastern Athabasca Regional Monitoring Program has a pretty good website that can be accessed that has some details about all that information.

**THE PRESIDENT:** Okay. So rather than creating work for you, staff, let me just look at the website. And if I still have questions, I'll get back to you through the Secretariat. Okay, thank you.

Commission Members, any other questions?  
Dr. Berube?

**MEMBER BERUBE:** Just one question with regard to the SO<sub>2</sub> release exceedance at McClean Lake during start-up. Could you give me some insight as to the causation for that and what the remediation was for that?

**MR. FUNDAREK:** Peter Fundarek, for the record.

So that was during the start-up of the sulphur plant for production of sulphuric acid.

But I'll ask Mr. Salman Akhter, the project officer responsible for McClean Lake, to respond.

**MR. AKHTER:** Salman Akhter, for the record.

Normally during the start-up of the sulphuric acid plant, conversion of SO<sub>2</sub> to SO<sub>3</sub> is less

efficient and emissions of SO<sub>2</sub> are temporarily elevated until optimal temperatures are reached in all parts of the converter. During the start-up, a valve in the second converter inlet was not completely closed, contributing to a loss of heat and resulting in elevated SO<sub>2</sub> emissions and elevated ambient concentrations. The work instruction for acid plant short shutdowns was updated to note that the valve on the second converter inlet must be closed completely during start-up.

Thank you.

**THE PRESIDENT:** Okay. I see no further hands. Oh, I do. Dr. McKinnon?

**MEMBER MCKINNON:** Yes, one last question. It's to Cameco in terms of care and maintenance of the mines. So putting a mine into a care and maintenance state and then bringing it out is a fairly meticulous process. So my question is in terms of the uranium mines, what additional precautions or actions, if any, are required when you bring the mines back into operation in terms of avoiding any accumulations of contaminants that, you know, might have occurred during the shutdown stage?

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

So in relation to those facilities that we do have experience in taking them down and bringing them back up. We have shutdowns typically during the summer

months to allow for maintenance that takes place. And doing so gives you some sense on what it's going to take.

But I think it's important for those facilities to understand that we still have a good deal of personnel who are stationed there, even in the care and maintenance circumstance. Their primary focus is water treatment, so the concern that you had expressed about any sort of lumpiness to start-up, water continues to be treated at those facilities throughout the safe care and maintenance period. And a big focus on that is regulatory compliance, so all our applicable regulatory requirements, be it reporting or monitoring, have to be carried out. So while the sites are in care and maintenance, there's still considerable resources that are directed towards them.

And also looking at from, you know, a continuous improvement perspective, so the folks that are there are, you know, we have a program, quality management program, and in that regard continual improvement is one of the things we look at. So they're looking at opportunities to improve, whether it be the radiation protection program or the environmental management program, or the safety program and implement those, so that when the site starts back up, they're not at all behind. In fact that, you know, they can focus on the staff that's returning or the new staff and training them. But the backbone of our



programmatic documents is there and updated and kept current.

So I'd say that, you know, we've had some experience in that regard. We've been able to do it safely. And even in 2020, I referred to in my speaking notes on Cigar Lake, we had -- when we made the decision to take Cigar Lake down earlier this year, in that conversation we did so safely without incident and similarly on restart. So we have a good deal of experience and confidence in our ability to do so safely, and continue to protect the environment while we satisfy all our regulatory requirements.

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

**THE PRESIDENT:** Thank you.

And so before we conclude the meeting today, I do want to again reiterate the priority of revisiting our working agreements with our provincial partners. And I know there is work underway, but it's long overdue. So just again reinforce that to staff.

And with that, this concludes the public meeting of the Commission. Our special thanks to Cameco, Orano, staff, and all the intervenors for your participation.

And all of you stay safe, stay well. Bon  
fin de journée. Au revoir.

--- Whereupon the hearing concluded at 4:34 p.m. /

La réunion est terminée à 16 h 34