Canadian Nuclear Safety Commission

Commission canadienne de sûreté nucléaire

Public meeting

Réunion publique

January 26th, 2022

Le 26 janvier 2022

Public Hearing Room
14th floor
280 Slater Street
Ottawa, Ontario

via videoconference

Salle des audiences publiques
14e étage
280, rue Slater
Ottawa (Ontario)

par vidéoconférence

Commission Members present

Ms. Rumina Velshi
Dr. Sandor Demeter
Dr. Marcel Lacroix
Dr. Timothy Berube
Ms. Indra Maharaj
Mr. Randall Kahgee

Commissaires présents

Mme Rumina Velshi
Dr Sandor Demeter
M. Marcel Lacroix
M. Timothy Berube
Mme Indra Maharaj
M. Randall Kahgee

Registrar:

Mr. Denis Saumure

Greffier:

Me Denis Saumure

Senior General Counsel:

Ms. Lisa Thiele

Avocate-générale principale :

Me Lisa Thiele

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via videoconference / par vidéoconférence

--- Upon commencing on Wednesday, January 26, 2022
at 1:00 p.m. / La réunion débute le mercredi
26 janvier 2022 à 13 h 00

Opening Remarks

THE PRESIDENT: Good afternoon and welcome to this virtual 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. Marcel Lacroix; Dr. Timothy Berube; Ms. Indra Maharaj; and Mr. Randall Kahgee.

Ms. Lisa Thiele, Senior General Counsel to the Commission, and Mr. Denis Saumure, Commission Registrar, are also joining us remotely.

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

Denis, over to you.

MR. SAUMURE: Thank you, President Velshi.

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 closure 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 "Raise Hand" function.

The *Nuclear Safety and Control Act* authorizes the Commission to hold meetings for the conduct of its business.

Please refer to the agenda published on January 12, 2022 for the list of items to be presented today and tomorrow.

All the Commission Member Documents listed on the agenda are available on the CNSC website.

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

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

Présidente Velshi.

CMD 22-M2

Adoption of Agenda

THE PRESIDENT: Thank you, Denis.

With this information, I would now like to call for the adoption of the agenda by the Commission Members, as outlined in Commission Member Document CMD 22-M2.

Do we have concurrence?

For the record, the agenda is adopted.

CMD 22-M3/22-M9

Approval of the Minutes of Commission Meetings held on November 23 and 25, 2021 and December 15 and 16, 2021

THE PRESIDENT: The minutes of the meetings held on November 23 and 25, and on December 15 and 16, 2021 were approved secretarially prior to today's meeting. The approved minutes are available upon request to the Registry and will be available on the CNSC website at a later date.

CMD 22-M8

Written submission from CNSC staff

THE PRESIDENT: The first item on the agenda today is to provide an update from a previous Commission proceeding, on CNSC staff's assessment of the relevance of the inclusion of radionuclides as a chemical of mutual concern under Annex 3 of the Canada-United States Great Lakes Water Quality Agreement.

This was discussed during the 2018 public hearing on the renewal of the licence for OPG's Pickering Nuclear Generating Station. CNSC staff filed a memo to the Registry on December 2, 2021, as outlined in CMD 22-M8.

The Commission is satisfied with the information provided and has no further questions.

The next item on the agenda for today is the Status Report on Power Reactors, as outlined in CMD 22-M4.

I note that we have representatives from the nuclear power industry and CNSC staff joining us for this item. They can identify themselves later, before speaking.

Dr. Viktorov, the floor is yours.

CMD 22-M4

Oral presentation by CNSC staff

DR. VIKTOROV: Thank you.

Good afternoon, Madam President and Members of the Commission. My name is Alex Viktorov, I am the Director General of the Directorate of Power Reactor Regulation.

The Status Report on Power Reactors, CMD 22-M4, was finalized on January 13th. The following are updates reflecting changes since that date

As noted in the CMD, the use of COVID rapid testing has led to large fluctuations in daily case numbers. Therefore, overall COVID numbers updated since the publication of the CMD will not be presented today, but CNSC staff will report on situations when COVID affected the safety of operations.

For Bruce, Unit 7 has returned to service following a planned maintenance outage and is currently at full power.

For Pickering, Unit 1 is now at 94 percent of full power due to a fuelling deficit. Unit 4 is at 95 percent of full power also due to a fuelling deficit.

For Point Lepreau, the Unit is currently at 99.9 percent of full power.

We also have an update regarding the implementation of Regulatory Document REGDOC-2.2.4, Fitness for Duty, Volume II: Managing Alcohol and Drug Use, Version 3.

The licensees' unions have challenged the constitutionality of certain aspects of the drug testing requirements specified in this REGDOC. On Friday, January 21st, Judge Gleeson of the Federal Court decided to temporarily prevent the implementation of the pre-placement and random testing requirements under this REGDOC. These aspects of this requirement will not be allowed to be implemented until the Court hears and decides on the merit of the judicial review publication. It's not that the Court has found the testing of the REGDOC itself to be unconstitutional. Rather, until the Court hears and decides on constitutionality, the Court has prevented this testing from being undertaken.

CNSC staff will amend the *Licence Condition Handbooks* for power plants as appropriate.

This concludes the Status Report on Power Reactors. CNSC staff are available to answer any questions you might have. Thank you.

THE PRESIDENT: Thank you, Dr. Viktorov.

I will open the floor for questions from Commission Members to both CNSC staff and licensees and

we'll start with Mr. Kahgee.

MEMBER KAHGEE: Good afternoon. Thank you for your presentation.

I just have a general follow-up question in terms of the timeframe for CNSC staff's review of the uptake model validity analysis for pressure tubes.

DR. VIKTOROV: Alex Viktorov, for the record.

We are receiving information from licensees on the ongoing results for inspections and laboratory testing. The information is complex and is perhaps not really completed to draw full conclusions. CNSC staff is certainly aware of the commitment made to bring to the Commission an update on this aspect. We currently estimate that we will be able to develop our position and recommendations in the next few months, by probably late spring, and as we understand, there is intended to be a period of public consultation which will probably also -- public review or input, so it will probably put us somewhere in the late summer/early fall to really come to the Commission. That's how we currently see it, but we are still working on firming up the timeline.

MEMBER KAHGEE: Thank you.

THE PRESIDENT: So perhaps on that, Dr. Viktorov, for our next meeting maybe you can give us a bit

more definitive outlook as to what that timeline may look like, please.

DR. VIKTOROV: Absolutely. We are in contact with Registry, working on this. Thank you.

THE PRESIDENT: Okay, thank you.

Dr. Lacroix.

MEMBER LACROIX: Yes, thank you.

This is a question for Bruce Power. Well, first of all, congratulations for your implementation of the new isotope production system. And speaking of this system, I was wondering, Lutetium-177 is produced from neutron activation and that means that within the core of the reactor itself there is a place where the neutron flux or the neutron population is affected by this production system. So I was wondering, how much does it affect the neutron population? Is it a concern for you as far as the control of the reactor itself? And also, does it affect the power production?

MR. BURTON: Thank you for the question, Dr. Lacroix. Maury Burton, Chief Regulatory Officer for Bruce Power.

As far as the impact on the actual neutron flux, it's a very small impact. The targets are relatively small and the safety analysis that was done ahead of time and part of the approval with CNSC staff will finalize

before releasing the hold points has looked at impact on reactor control and there really is no impact there.

One of the things that we did do when we agreed to get into this business was ensure that if there was something wrong with the actual system that we could actually leave the targets in until the next planned outage, so for up to two years, and that was taken into account in the safety analysis as well.

MEMBER LACROIX: Okay, that's great. And what about the power production, it doesn't affect the power production?

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

No impact on the power production. Like I mentioned, the actual impact on the neutron flux is so small --

MEMBER LACROIX: Right.

MR. BURTON: -- because of the size of the targets that it -- the reactor really doesn't -- doesn't really notice these things in -- in there.

MEMBER LACROIX: Okay, that's great. Thank you very much.

THE PRESIDENT: CNSC staff, did you wish to complement Bruce Power's response?

DR. VIKTOROV: Alex Viktorov for the

record. We concur with this assessment. The targets -- the impact of targets on the neutron flux has ameliorated and found to be really small, negligible. So in the sense of the impact on the neutron flux distribution within the core, it's assessed and found to be, confirmed to be very small, and the reactor power wouldn't be affected anyway, but it's also can be controlled with the application of the control system. So, no impact on the power of the reactors.

MEMBER LACROIX: Okay, good. Thank you.

THE PRESIDENT: Thank you.

Dr. Berube.

MEMBER BERUBE: No questions at this time.

THE PRESIDENT: Thank you.

Dr. Demeter.

MEMBER DEMETER: Thank you for the report. So, the -- the COVID word of the year in 2021 was "uptick", but the COVID word for 2022 is "pivot". So, in the health care sector because of the shorter incubation period, the increased transmissibility and the less severe disease in -- in those that are vaccinated, the health care system has pivoted to changing the parameters for maintaining essential core services in the health care sector. And I didn't know if this had -- if this had trickled down at all to the nuclear power plants relative to maintaining minimal

shift complements, if there had been any change in the isolation periods and testing frequency to ensure that you industrial minimal shift complements because much -- many more people will get Omicron variant compared to the previous ones, but it's milder disease. So, maybe the -- the licensees can comment as to whether they have taken any of the lessons learnt in the health care sector to help maintain minimal shift complements or whether it's an issue at all with existing standard isolation and testing procedures.

THE PRESIDENT: Why don't we start with Point Lepreau because you have had one minimum shift complement noncompliance, and then we'll move to the other licensees.

MR. NOUWENS: Yeah, thank you for the question. Jason Nouwens for the record. I'll turn this over to Nick Reicker, Manager of Regulatory Affairs, but I just do want to say at a high level we have seen it, as you know, an increased number of cases of less severity though, so it has been a little bit different for us to manage, but I'll turn this over to Nick for some more details.

MR. REICKER: Thank you very much for that, Jason. Nick Reicker, Manager of Regulatory Affairs and Emergency Preparedness for the record. So, we have seen an increased case and a lot of the change in the

approach has been to rapid testing in alignment to what Public Health and what we have learned from health officials over the last several months. So, really based on that assessment now we have been reviewing daily through our COVID Response Team on any implications particularly to that minimum shift complement through operations, ERT, and security. We are applying the guidelines between the isolation periods as it relates to close contact and other traces. Particularly seeing the impacts that are more applicable to outside of the Lepreau setting but for family bubbles and particularly through the schools, which we have seen challenged.

Some direct efforts that we have been doing on site has been since December we minimized all station staff and went down to those who can work remotely to go back to that aspect and truly to put a focus on protecting our site staff, who need to be here 24/7 for safe, reliable operation.

So, with that and you did bring up a great point, President Velshi, when you did mention we did have one case of an impact to minimum shift complement. We would like to go and clarify that for the record. We did. That occurred on December 24th and was with our Emergency Response Team and was for a window of about six and a half hours where an individual tested positive through rapid

test. We went through station protocols and ensured that additional resources and everything was placed in a safe state to manage that, but from current perspective on we have not seen any challenges to maintaining safe operations but continue to focus this daily, weekly, as the conditions around us change and are very dynamic from this point.

THE PRESIDENT: Thank you very much.

OPG.

Maybe start with Darlington first.

MR. BEVACQUA: It's Val Bevacqua for the record, Madam Velshi, for OPG. I can speak on behalf of OPG.

So, in regards to the question on the changes, OPG has remained aligned with our local health organization in regards to testing requirements in quarantine periods. We have seen an increase in absence, you know, in proportion to what we're seeing in the -- in the general public as -- as far as increasing in Omicron and the transmittability, however, we have not had any impact on our -- our minimum complement or any -- any issues that would impact nuclear safety at our plants. Much like Point Lepreau, we have maximised work from home to minimize the number of staff on site, and we have maintained our vigilance around our COVID protocols on site. Continuing to encourage all our -- our staff members

to become vaccinated and to that end we had a vaccine clinic last week where we adminis-- with the help of Durham Health administered over a thousand vaccines. So, I hope that answers the question.

THE PRESIDENT: Thank you.

Bruce Power.

MR. BURTON: Yes. Maury Burton for the record. Much similar to our counterparts at NB Power and OPG, we have seen an increase in -- in numbers of affected staff with the Omicron variant. We, like OPG, are following the Public Health recommendations, so vaccinated people are required to quarantine for five days before returning to site and the unvaccinated ten days. As far as taking precautions, we are asking all staff to -- to do rapid testing before they attend the site. So, that's anybody that's attending the site. Most people that can work from home are working from home, though we are trying to minimize the numbers on site as well similar to OPG.

THE PRESIDENT: Thank you.

Ms. Maharaj.

MEMBER MAHARAJ: Thank you, Madam Velshi. I have a small question for Pickering with respect to the -- the units that are derated for fuel deficit. We have seen deratings for mechanical and operational matters, but I haven't seen one for fuel deficits, so I'm -- I'm just

wondering if somebody from Pickering can explain why there would be a fuel deficit and whether or not that has any kind of a different operational impact than derating for the vibrations, for example, as in the case of Bruce.

MR. BEVACQUA: It's Val Bevacqua for the record. Thank you for the question. So, Unit 1 and Unit 4 I've mentioned have been -- have power reduced due to fuel deficits. So, as -- as we're all aware, we use online fuelling in the CANDU reactors, and to maintain reactivity we need to fuel pretty much every day. And we follow what we call reactivity management plans to ensure that the reactivity is optimum.

Now, in Unit 1 we did a planned fuel handling machine outage and as part of that plan the machines were made unavailable for approximately ten days, and we followed our reactivity management plan which required us to derate the unit in order to maintain the -- the reactor at the proper control states.

For Unit 4, this was an emergent issue with our conveyor tunnel that required us to take the fuelling machines out of service. We have procedures, well -- well-performed procedures that we've done that mandate that we reduce power based on our reactivity. We do expect the machines to be back available on Unit 4 in two days. At that point we'll -- we'll follow our reactivity

management plans to increase reactor power back up to a hundred as we fuel in order to maintain that reactivity.

I hope that answers the question.

MEMBER MAHARAJ: Yes, it does, thank you.

THE PRESIDENT: Okay. Now, I had a quick question for Bruce Power on the vibrations in the turbine steam supply system. At our December meeting I thought you had advised the Commission that a fix actually had been installed and you were just waiting -- commissioning off that. Did that fix not work or is my memory betraying me?

MR. BURTON: Maury Burton for the record. Your memory is a hundred percent correct. What happened when we actually raised the power is the -- the vibration was within spec in the area, but as we monitored the rest of the system the vibration had moved to a different area of the system. So, what we have been doing is -- is doing an assessment of the overall system to see if there's anything we can do. And -- and if there is not, we will run the unit as is until its planned outage this spring.

THE PRESIDENT: Okay, great.

Thank you all for the update, and thank you to our industry participants for -- for your involvement today.

We move to our next item on the agenda, which is a presentation by CNSC staff on the Phase I report

from the Potassium Iodide Pill Working Group as outlined in Commission Member Documents CMD's 22-M6 and 22-M6.A.

I'd like to acknowledge that working group members representing Ontario Power Generation, the Office of the Fire Marshal and Emergency Management, and Public Health Units and Emergency Management Coordinators from local municipalities are available for questions later.

And I'll turn the floor to Ms. Heppell-Masys.

CMD 22-M6/22-M6.A

Oral presentation by CNSC staff

MS. HEPPELL-MASYS: Thank you, Ms. Velshi, and good afternoon, members of the Commission.

My name is Kathleen Heppell-Masys, and I am the Director General of the Directorate of Security and Safeguards. I am joined here today by Alex Viktorov, the Director General of the Directorate of our reactor regulations. Also here today are Andrea Bellingham, Emergency Management Program Officer with the Emergency Management Program Division, and Lee Casterton, who is a Senior Regulatory Program Officer with the Pickering Regulatory Program Division, and he is also the Chair of the Potassium Iodide Pill Working Group.

Today we will be presenting CMD22-M6 concerning the Phase I Report of the KI Pill Working Group.

CNSC staff would like to acknowledge the land on which the Pickering Nuclear Generating Station is located and -- and which is within the traditional and treaty territory of the Chippewa and Michi Saagiig Nations, collectively known as the Williams Treaties First Nations.

This presentation will cover the key areas shown here, primarily focused on Phase I of the Working Group. And the purpose of this Commission meeting is to present the Phrase 1 report of the Working Group to the Commission for information.

I will first provide some context related to what led to the formation of the Working Group. At the Pickering License Renewal Hearing, CNSC staff executive management made a commitment to the Commission to form a working group to address the questions raised by interveners. Through this Working Group CNSC staff would work with the appropriate responsible authorities to provide clarity on the existing plans and associated responsible authorities to distribute potassium iodide pills in the 50 kilometre Ingestion Planning Zone, known as "IPZ", in the event of an emergency at the Pickering Nuclear Generating Station.

Furthermore, in November 2018 at the

Commission meeting on the regulatory Oversight Report for Canadian nuclear generating sites, CNSC staff executive management committed to establishing a CNSC advisory committee to provide advice and input to CNSC staff sharing of the work group.

At this point I will pass on the presentation to Mr. Casterton, who I mentioned was the Chair of the Working Group.

MR. CASTERTON: Thank you, Kathleen, and good afternoon, members of the Commission. My name is Lee Casterton and I -- as Kathleen mentioned, I am the Chair of the KI Pill Working Group.

Prior to going into detail about the Working Group, we would first like to provide some background information on when we talk about KI Pills and planning zones.

KI pills, or tablets, are an iodine thyroid blocking agent made of potassium iodide salts containing stable, nonradioactive iodine. Iodine is an essential element for human life, in which all nearly of the iodine in the body is absorbed by the thyroid gland.

Because of iodine's role in human physiology, the thyroid gland is specifically vulnerable to radioactive iodine, also known as radioiodine, such as Iodine 131. Uptake of radioiodine, such as that released

in the very unlikely event of a nuclear emergency, is linked with increased risk of thyroid cancer. KI provides a plentiful source of iodine which saturates the thyroid gland with safe, stable iodine that the human body needs. If taken shortly before or immediately after radioiodine exposure, KI reduces the uptake of radioiodine by the thyroid, greatly reducing the absorbed dose to the thyroid. In this way KI provides a valuable emergency protective action to guard against the risks of thyroid cancer if taken at the appropriate time. KI pills are most effective if taken two to six hours before exposure or up to four hours following exposure. After four hours the effectiveness begins to decline significantly.

In an emergency the decision to administer KI pills is made by the Provincial Chief Medical Officer of Health. Background information on KI pills is included in Section 1 of the Phase I report. Shown here is a picture of the KI pills that are mailed out through the Prepared to be Safe website.

Planning zones, as defined in the Ontario Provincial Nuclear Emergency Response Plan, are areas beyond the boundary of a reactor facility in which implementation of operational and protective actions are or might be required during a nuclear emergency in order to protect public health, safety, and the environment. In

Ontario the planning zones and the affiliated distances are shown here. We have the Automatic Action Zone, known as the AAZ, with a 3 kilometre radius; the Detailed Planning Zone, or the DPZ, with a 10 kilometre radius; the Contingency Planning Zone, or CPC -- CPZ, has a 10 to 20 kilometre radius, and, lastly, the Ingestion Planning Zone, or IPZ, with a 50 kilometre radius.

The scope of the KI Pill Working Group focuses on the 50 kilometre IPZ of the Pickering Nuclear Generating Station. As depicted in this diagram, the IPZ includes the following municipalities. The Durham region in yellow is where the Pickering Nuclear Generating Station is located, and the municipality extends out past the IPZ. The City of Toronto, in green, is located in the Detailed Planning Zone, the Contingency Planning Zone, and the Ingestion Planning Zone. The York region, shown in pink, is located in the Contingency Planning Zone and the Ingestion Planning Zone. And, lastly, Peel Region in dark blue, the City of Kawartha Lakes in light blue, and Simcoe County in orange are all located in the Ingestion Planning Zone. Simcoe County is difficult to see in this diagram as it is only within the Ingestion Planning Zone by a few kilometres and is shown on the boundary of the IPZ in the northwest.

The CNSC published the first version of

REGDOC-2.10.1, *Nuclear Emergency Preparedness and Response*, in October of 2014. REGDOC-2.10.1 has a number of requirements related to KI pills, or referred to as iodine thyroid blocking agents in the REGDOC. In accordance with the REGDOC, licensees are required to provide resources and support to provincial and municipal authorities for the following: Firstly, the distribution of KI pills to all residents in the 10 kilometre Detailed Planning Zone, which was completed in 2015 and 2016; the procurement of a sufficient amount of KI pills for distribution beyond the Detailed Planning Zone when required - currently these KI pills are located in the provincial central stockpile. To ensure KI Pills are available upon request to all residents of the Ingestion Planning Zone, this is done through the preparedtobesafe.ca website where members of the public living or working in the Ingestion Planning Zone can order KI pills. To ensure pre-distribution and stockpile of KI pills are maintained within their expiry date, OPG recently completed, as well as the Municipality of Durham, a replacement of all KI pills approaching that expiry date. And, lastly, to provide the public with information on emergency preparedness, including KI pills. This is also completed through the preparedtobesafe.ca website, as well as information campaigns that are conducted regularly.

Through compliance verification, CNSC

staff determined OPG to be compliant with regulatory requirements, including REGDOC-2.10.1. In addition to the specific requirements for KI discussed on the previous slide, OPG is also responsible to conduct full scale emergency exercises every three years. These exercises involve municipal, provincial, and federal stakeholders, many of whom are present on the Working Group. Emergency response plans at the municipal, provincial, and federal level are currently in place for nuclear emergencies. Details on these plans and appropriate references to them are provided in the Phase I report.

In 2019 an Emergency Preparedness Review, known as an E-- known as an EPREV mission, was conducted in Canada by the International Atomic Energy Agency. The review found that Canada demonstrated a high level -- level of readiness in nuclear emergency preparedness plans. Specific to KI, the review identified good practices related to pre-distribution, public information campaigns, and measures to ensure new residents within the 10 kilometre Detailed Planning Zone received KI pills.

I will now discuss the terms of reference that were established for the Working Group.

In the fall of 2018 a draft Terms of Reference was prepared by the CNSC; Ontario Ministry of Health, or MoH; Ontario Office of the Fire Marshal and

Emergency Management, known as OFMEM, and Ontario Power Generation, known as OPG. The Terms of Reference establishes the membership, mandate, deliverables, and conduct for the Working Group. A public comment period on the draft Terms of Reference was held from December 24th, 2018 to February 14th, 2019, and a total of 17 submissions were received. The Terms of Reference was revised based on the comments received, as well as the direction from the Commission in the Pickering License Renewal Record of Decision from January 2019. The Terms of Reference was signed on May 14th, 2019, formally enacting the Working Group.

The Working Group is chaired by the CNSC, with co-chairs from OFMEM, MoH, and OPG. These four organizations are the signatories to the Terms of Reference. The members of the Working Group include representatives from Health Canada and Public Health units and Emergency Management Coordinators from the municipalities located in the Ingestion Planning Zone. Although Peterborough County is not located within the Ingestion Planning Zone, they have a designated role as a host community and in Nuclear Emergency Response and thus were included in the Working Group.

The Terms of Reference identifies a two-phased approach, with each phase having a defined mandate.

The mandate for Phase I is to fulfil the commitment made to the Commission at the Pickering license renewal hearing to provide clarity on the existing plans and associated responsible authorities for distributing KI pills in the Ingestion Planning Zone in the event of an emergency. The Terms of Reference also provides additional direction for Phase I to consider available public information related to KI.

In the Record of Decision for the Pickering license renewal, the Commission also provided direction to the Working Group. This direction was captured in the -- in the mandate for Phase II, focused on determining the feasibility to pre-distribute KI pills to all schools in the Ingestion Planning Zone, and for the Working Group to establish clear and detailed plans for KI pill distribution in an emergency at Pickering.

The Terms of Reference identifies specific deliverables for the Working Group and the CNSC. This ensures accountability is clearly defined. Two of the Working -- two of the Working Group deliverables have now been completed: the Terms of Reference and the Phase I report. The CNSC has also completed two deliverables, being the development of the Working Group webpage and the establishment of an advisory committee. CNSC staff led and coordinated Indigenous engagement opportunities during

Phase I and will continue to lead and coordinate engagement throughout Phase II. In addition, the CNSC has posted the terms of reference and Phase I report for public comment and is before the Commission today to present the Phase I report.

The CNSC is committed to ongoing indigenous and public engagement throughout this initiative.

In relation to the first CNSC deliverable, a dedicated webpage for the working group was launched in June of 2019 on the CNSC website. The webpage provides general background information on the working group, the terms of reference, the project milestones, meeting minutes from both the working group and advisory committee meetings, additional information on the advisory committee, and quick facts on KI pills. This webpage is used as a repository of information for the working group and will continue to be populated with information and documentation related to the working group, such as the final Phase I and II reports.

The second CNSC deliverable, to establish an advisory committee, stemmed from the Commission meeting held in November of 2018 on the *Regulatory Oversight Report for Canadian Nuclear Generating Sites*. During the Commission meeting, CNSC executive management committed to

establishing an advisory committee and the advisory committee was then established in January of 2019. The purpose of the committee is to provide independent advice to CNSC staff on the deliverables of the working group, namely the draft terms of reference, the draft Phase I and II reports, as well as to provide advice on topics that were discussed at the Phase I and will be discussed at the Phase II workshops of the working group.

The CNSC, as chair of the working group, brings advice from the advisory committee to the working group for further discussion and consideration. Operating procedures were developed to clarify the purpose, membership, engagement opportunities and conduct of the committee.

The advisory committee is co-chaired by two CNSC director generals, Kathleen Heppell-Masys and Alex Viktorov.

The advisory committee members include:

The Canadian Environmental Law Association as their intervention during the Pickering licence renewal hearing focused on emergency management and raised questions on emergency distribution.

The Toronto District School Board and Toronto Catholic District School Board were also included as we saw a number of teachers intervene at the licence

renewal hearing with similar questions, and these boards are two of the largest in the ingestion planning zone.

The Municipality of Kincardine and Bruce Power were included as interventions pointed to predistribution being different in Kincardine and we wanted to understand the factors that went into the decision-making process behind the predistribution.

Lastly, a professor from McMaster University in the area of emergency management who has been involved in the development of the provincial emergency plans, and also CSA standards for emergency management was included.

This group was established to provide diverse perspectives and the CNSC has appreciated the support and collaboration from all committee members throughout Phase I.

I will now pass the presentation to Ms. Andrea Bellingham to discuss the Phase I report.

MS. BELLINGHAM: Thank you, Lee.

My name is Andrea Bellingham and I am an emergency management program officer with the CNSC.

I will now go over the Phase I report.

Our workshop with Phase I was conducted on November 4 to 5, 2019, in Pickering, Ontario, with all working group members present.

The workshop was successful in meeting its objective to gathering the information necessary to achieve the mandate of Phase I.

Meeting minutes from this workshop are available on the working group public webpage.

Following the workshop, CNSC staff took the lead in drafting the Phase I report. The draft Phase I report was circulated on January 7, 2020 to all working group members for their review.

In March 2020, the onset of the COVID-19 pandemic caused the majority of working group members, such as the public health unit representatives and the municipal emergency management coordinators, as well as the co-chairs from the Ministry of Health and the Office of the Fire Marshal and Emergency Management, to focus on supporting Ontario's pandemic response. As a result, the CNSC decided to postpone seeking concurrence on the draft report, which ultimately delayed the public review period.

In August 2020, all working group members indicated availability to resume working group activities.

Following a final review by all members, the working group achieved concurrence on the draft Phase I report in December 2020.

The Phase I report covers a number of topics in order for the working group to meet its mandate.

The topics covered in this report include information on Canada's nuclear emergency management framework, background information on KI pills and their predistribution within the DPZ and availability in the IPZ, an overview of the current plans and associated roles and responsibilities for KI pill emergency distribution, the currently available public resources related to KI pills and their associated references, and, lastly, a concept of operations that describes how municipal, provincial and federal departments would coordinate emergency distribution of KI pills in the IPZ.

With respect to available public information on KI, sections 1 to 3 of the Phase I report include references and key information from the documents and website shown on this slide.

The report also includes an annotated appendix that highlights and explains excerpts from these documents for easy reference for members of the public.

The extensive list of references related to publicly available information was meant to address the questions raised by intervenors at the Pickering licence renewal hearing concerning where the public can find this type of information. The working group webpage will be updated to include quick links to these documents and the preparetobesafe.ca website.

Section 4 of the report provides a detailed concept of operations for KI emergency distribution in the IPZ. This concept of operations was simulated at the Phase I workshop and detailed in the report. The concept of operations demonstrates a flexible approach to emergency distribution of KI pills that can be adapted in response to multiple variables associated with a severe accident.

Over the next few slides, I will provide an overview of these four key stages.

The concept of operations begins with an initiating event. In this case, the scenario does not include a specific onsite event but assumed an offsite release would occur within 28 hours.

OPG would notify the province through the provincial emergency operations centre, also known as the PEOC, and the CNSC of an event at the Pickering Generating Station. In this scenario, with an anticipated offsite release, the PEOC would be activated. The PEOC would notify external stakeholders, including designated municipalities and federal authorities. The Ministry of Health would follow up with public health units and the municipal emergency operation centres may in turn also be activated.

The PEOC will monitor the situation and

evaluate any potential offsite consequences as they relate to required protective actions, such as KI.

The province would also communicate with the public through emergency bulletins and a provincial alert-ready system. Emergency bulletins can also be geo-targeted.

In order to maintain as much timely readiness as possible, the Ministry of Health will begin preparing KI stored at the central stockpile for shipment. This ensures that KI is promptly ready should staging be required.

Step two involves the staging of KI. Forecasting and modelling of an anticipated release by the PEOC will be used to determine which areas of the planning zones may be affected.

The Ministry of Health would inform the chief medical officer of health that logistical requirements are being arranged for the transportation of KI pills to certain locations within the IPZ. The province would recommend the IPZ areas within which KI pills will be required for potential ingestion purposes. As meteorological conditions are assessed to determine the anticipated path of any release, it is expected that distribution of KI pills to the entire IPZ will not be required.

The province would liaise with the municipalities identified as possibly being affected in order to advise of the required staging of KI pills to locations within those municipalities.

Step three is the emergency distribution of KI.

As the event progresses, analysis may indicate an anticipated release could occur with offsite consequences for specific areas of the IPZ. The province will ensure that staged KI pills are distributed throughout the specific areas of the IPZ where the release is anticipated to travel. This distribution would include the entire population of these specific areas, which captures a vulnerable population, for example, children under 18 and pregnant and breastfeeding persons.

The precise means of emergency distribution will depend on event-specific factors and will utilize all available resources. Residents of the IPZ will be provided with the required information on how to retrieve and receive KI pills and information for ingestion through emergency bulletins.

The last step is ingestion of KI. The chief medical officer of health has the authority, in consultation with the PEOC and the appropriate local medical officers of health, to order the ingestion of KI

pills. This order will be broadcast to the affected areas through existing emergency bulletin systems. As KI efficacy is time sensitive, the order will be given in advance of the ingestion time. Generally, the ingestion will be instructed two hours before the potential exposure.

This concludes section 4 of the report for the concept of operations.

Section 5 of the report covers the conclusion.

The working group found that the roles and responsibilities are clearly defined in the current plans and that the Phase I report provides greater clarity on these current plans and associated responsible authorities. The current plans provide a flexible concept of operations for emergency distribution of KI that can be adapted depending on the specific event and potential offsite consequences.

Public awareness and information campaigns are conducted in designated municipalities and information on KI is available on municipal, provincial and federal websites. The working group did identify that improvements could be made with regard to public awareness and information campaigns as will be outlined in the next slide.

Overall, the working group members

concluded that the Phase I report meets the mandate of Phase I.

In addition to the mandate for Phase II, the working group identified additional topics in section 5 to be considered during Phase II. These topics were identified at the Phase I workshop and during the development of the Phase I report. The topics include public awareness and education in designated and non-designated municipalities, prestaging of the central stockpile to municipalities in the ingestion planning zone, and the development of a pre-existing emergency communication strategy for use by municipalities and public health units within the IPZ during an event.

I will now provide an overview of the engagement activities conducted in the Phase I report.

The KI pill working group's draft report was open for consultation from April 6 to July 5, 2021, through CNSC's e-consultation page www.letstalknuclearsafety.ca. Sixteen distinct comments were received from three reviewers in which the following key themes were raised: information on how new residents would attain KI pills; clarification on definitions and terminology; and, the acknowledgment of treaty lands that the Pickering Nuclear Generating Station resides on.

With respect to indigenous engagement, a

notification letter was sent by CNSC staff to indigenous nations and communities with rights and interests on August 27, 2019.

CNSC staff notified the indigenous nations and communities listed on this slide to inform them of the working group, and committed to providing the Phase I and Phase II reports for comment, as well as indicated that we are available to discuss in person upon request. CNSC staff conducted follow-up phone calls with all notified indigenous nations and communities to answer any questions.

In April 2021, CNSC staff sent the draft Phase I report to the indigenous communities, informing them of the public review period and offering to meet to discuss the report further.

Following receipt of the draft Phase I report, Curve Lake First Nation expressed interest to learn more about the working group. CNSC staff, as the lead for the working group, attended a regularly scheduled meeting between the CNSC and Curve Lake and provided a presentation on the working group, the Phase I report, and answered associated questions.

Curve Lake First Nation was awarded funding through the CNSC participant funding program to support their review. Curve Lake First Nation submitted comments on the draft Phase I report on the following

areas: impacts to non-human species during an emergency; communications to indigenous communities before and during an emergency; information awareness and education related to KI pills specific to indigenous communities; and, information on how indigenous communities outside of the IPZ can obtain KI pills.

CNSC staff will continue to engage with Curve Lake First Nation during Phase II of the working group and will provide additional information in relation to their comments submitted on the Phase I report.

In addition, the working group will consider the topics raised by Curve Lake First Nation further in Phase II. Indigenous engagement is an important consideration of the CNSC activities and we will continue to ensure opportunities for input are provided.

The CNSC also held an advisory committee workshop on November 19, 2021. The objective of the workshop was to solicit comments on the Phase I report, discuss the comments received from the public review period, and determine if the committee agreed that the report meets the mandate for Phase I.

Overall, the comments discussed at the workshop did not necessitate revisions to the Phase I report, but additional considerations for Phase II were proposed.

Members of the advisory committee present at the workshop concluded that the Phase I report meets the mandate of Phase I.

From the workshop, input on further topics for consideration as part of Phase II includes the following: information on the actions taken by municipalities in support of emergency distribution of KI pills; the need for an availability of information and medical advice for individuals who cannot take KI pills and how that differs between other populations, for example, pregnant persons and children; and, the impact on timelines and capabilities for KI pill distribution from a severe beyond design basis accident.

I will now provide an overview of the engagement activities plan for Phase II.

As committed in the terms of reference, the draft Phase II report will be posted on the CNSC e-consultation platform for a public review period. The public review period will be advertised through the CNSC subscription list and our social media accounts.

Following the public review period, CNSC staff will organize a workshop with the CNSC advisory committee to solicit input on the draft Phase II report and discuss comments received through the public review.

The working group will consider all

comments received from the public review and the CNSC advisory committee.

CNSC staff are also committed to ongoing engagement with indigenous nations and communities and will meet with any community upon request.

CNSC staff will conduct follow up with the Mississaugas of Scugog Island First Nation, as they have expressed interest in Phase II and are also located within the IPZ approximately 46 kilometres from the Pickering Nuclear Generating Station.

CNSC staff are also committed to follow up with Curve Lake First Nation to provide answers to their comments on Phase I and solicit input for the working group to consider further in Phase II.

CNSC staff will send the draft Phase II report to all identified indigenous nations and communities informing them of the public review period.

Furthermore, the working group is currently discussing additional opportunities for indigenous engagement early in and throughout Phase II, recognizing the importance of their input and the need for focused information for indigenous nations and communities on KI.

I will now pass the presentation back to Kathleen Heppell-Masys for the conclusion and next steps.

MS. HEPPELL-MASYS: Thank you, Andrea.

Through this presentation we aim to demonstrate how the CNSC and its partners listened, collaborated and then executed an effort to incorporate public comments and improve the understanding surrounding the predistribution of potassium iodine.

While there were no gaps in the predistribution plans, there was a recognized need to improve clarity on how they are executed, such as better defining roles and responsibilities and communicating them more effectively to the public.

Following Phase I of the KI working group, CNSC staff was able to confirm that the predistribution of KI in the detailed planning zone and stockpiling KI in the ingestion planning zone meet regulatory requirements. We were pleased that this capability was endorsed in 2019 during an IAEA peer review EPREV mission to Canada, which identified the KI predistribution as a good practice.

Consequently, CNSC staff are confident in the plans that are currently in place for the distribution of KI pills to the residents of the IPZ in the event of an emergency at Pickering. We're also confident that existing responsibilities, including a flexible concept of operations for KI pill distribution, are adequate, with the working group identifying no major issues in this area.

However, the Phase I working group report did provide an opportunity to clarify the interoperability of existing plans and the associated responsible authorities, which will enhance the way the distribution plans are executed during an emergency.

While Phase I is concluding, we are poised to continue the efforts of Phase II. Following this Commission meeting, the working group will finalize and publish the Phase I report on the working group's webpage.

In November 2021, the working group undertook discussions to begin identifying timelines for the work plan to be undertaken in Phase II. The working group anticipates the Phase II workshops to be held virtually in the spring of 2022.

Similar to Phase I, the CNSC anticipates drafting a Phase II report with support from all working group members. This report will undergo a public review period anticipated to take place in December 2022.

Throughout Phase II, engagements with indigenous communities, the public and the CNSC advisory committee will continue. These stakeholders will be part of the review of the draft II report, which will then be presented to the Commission in a public meeting presently intended to take place in the spring of 2023.

Through this timeline we hope to

demonstrate that the work on the KI distribution will continue with an effort to conclude our efforts in 2023.

We remain committed to open, transparent and inclusive dialogue in collaboration throughout Phase II.

This concludes our presentation and CNSC staff and colleagues are prepared to answer questions the Commission may have.

Thank you.

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

I will now open the floor for questions from Commission members and we'll start with Dr. Lacroix.

MEMBER LACROIX: Thank you, staff, for the presentation. It was quite interesting. I've got two short questions.

The first one is with regard to the distribution and ingestion of KI pills. Are there lessons to be learned from the present pandemic response in terms of strategy, tactics, education, communication, things to do, mistakes to avoid?

MR. CASTERTON: Lee Casterton, for the record.

So, yes, there definitely are. When we actually held our workshop in 2019, at that point we had

looked to lessons learned from H1N1, and mass vaccination that was associated with that.

And so from the pandemic, we have obviously gone quite further into what that would look like. And there are definitely lessons learned in terms of the information that we would provide to the public, both during an emergency as well as when they receive KI pills themselves. We've talked about the challenge of misinformation, for instance, as well.

But I think if any of the public health units that are online from our members would like to add to that, I think they might be in a better position to more fully answer a question on lessons learned.

So I would turn to any of the municipal public health units to provide some additional information. Maybe I'll start with the Region of Durham, if that's possible?

MS. STRUNA: Good afternoon.

MR. CASTERTON: Thank you, Sendi.

MS. STRUNA: Good afternoon. My name is Sendi Struna with the Regional Municipality of Durham, Regional Health Department.

Most definitely, we have been gathering lessons learned from our COVID pandemic, and this is information that we are taking and we will be looking at

how we can make improvements in our current communication campaign and also as well in terms of planning for distribution into the ingestion planning zone.

So at current time, this is something where we are gathering lessons learned and we'll be looking at how we can make revisions.

MR. CASTERTON: I would also like to note, we had a representative from York Region that had raised their hand. Katarina, if you'd like to provide a response?

MS. GARPENFELDT: Thanks so much, Lee. This is Katarina Garpenfeldt from the Regional Municipality of York.

So I'm representing both Public Health and the York Regional Municipality here today. And I have the fortunate experience of being previously the Chief of COVID Vaccine Operations in the York Region and obviously also working with this.

And there's most definitely lessons that we have learned and I think we will continue to gather them as we go into more of an after-action review for the COVID response generally.

What I would say spontaneously is that we do have a number of logistical insights today when it comes to very rapid distribution to a large number of people. That comes with many of those challenges that was mentioned

by my colleagues in terms of communication and miscommunication, and also the need for extreme clarity in who is eligible at one point and how they can access the KI pills or the vaccine, whatever is at hand.

So most certainly there are lessons to be learned on the logistical components as well as the communication. Thank you.

THE PRESIDENT: Mr. Mayer, Bernie Mayer?

MR. MAYER: Yes. It's Bernard Mayer, I'm Environmental Health Manager with the Haliburton, Kawartha, Pine Ridge District Health Unit.

I just want to add to what my fellow colleagues have mentioned. That certainly lessons learned is that we need to collaborate more closely with our community partners and to do more advanced planning in such event. Thank you.

THE PRESIDENT: Thank you. Dr. Lacroix, Did you have any further follow-up questions?

MEMBER LACROIX: Yes, I do have a -- well, it's not necessarily a follow-up question. But I was surprised to find out that on the Advisory Committee there's no representative from the Chippewa or the Métis Saugeen Nations. Is there a reason for that?

MR. CASTERTON: Yes. Lee Casterton, for the record. So the reason they're not included or we

didn't include any Indigenous Nation on the Advisory Committee is because we felt that the engagement that we would need to do with all of the Indigenous Nations and communities would be substantially more than what would be done through the Advisory Committee.

We have regular meetings with a number of these communities and we understand that we would be meeting directly with these communities to answer any questions.

So we felt that there's a direct line of communication there and so it wasn't necessary to include them in the Advisory Committee, as they would have their dedicated mechanisms to provide input.

MEMBER LACROIX: I understand. Thank you very much.

THE PRESIDENT: Thank you. Dr. Berube?

MEMBER BERUBE: Yes. Thank you for your presentation on your work to date on Phase 1.

I'm just recalling actually the Pickering hearings, and myself and Dr. Demeter at the time were quite concerned about a couple of issues. One of them was proximity of the KI store pile held by the province, where that is being held. And also the speed at which that could be distributed to the vulnerable population.

And as we go through the Phase 1 report

here, I'm still not seeing that being adequately addressed as to how that stockpile is going to be moved to the vulnerable population in a very responsive timeframe and, hopefully, the Phase 2 will actually outline that.

What I am seeing is that you're saying everything seems to be okay. And maybe you can clarify that? Maybe I'm getting the wrong idea here, but what I'm hearing is, you know, you think things are fine based on this report. But, clearly, I still don't understand how these pills are going to get from a warehouse somewhere north of the 401 to the vulnerable population within a couple hours. Maybe you can explain that to me?

Thank you.

MR. CASTERTON: Yes. Lee Casterton, for the record. So before I pass it to the Office of the Fire Marshal and Emergency Management to provide some more information, I would first like to point to the discussions we had at the workshop.

So one of the interesting items that was raised by the Ministry of Health is that, yes, currently the KI is all in one central location.

However, they did raise at the workshop that they are looking into whether or not that stockpile could be further broken up into the municipalities. And this idea did receive a lot of support from the

municipalities as ultimately the distribution would be handled through those municipalities.

So that was something that we've identified for Phase 2.

OFMEM did indicate at the workshop that they hadn't looked at the timing to date for the distribution, but that's something into the future.

But I'll now pass it to OFMEM if they wish to provide more information.

MR. KINCHLEA: Good afternoon, President Velshi and Commission Members. For the record, my name is Richard Kinchlea, Acting Deputy Chief of Nuclear and Radiological Planning and Science for Ontario's Office of the Fire Marshal and Emergency Management.

Thank you for the question. As I understand it, the logistics of distribution of the provincial stockpile and the issue of perhaps breaking it up for more close proximity to Pickering and other locations are issues for discussion in the Phase 2 report. And it will be determined at that point, you know, what possible logistical protocols and procedures will be put in place for that distribution.

But, as I understand, that will be discussed in detail in Phase 2 of the working group.

THE PRESIDENT: Okay. Dr. Demeter.

MEMBER DEMETER: Thank you very much for the presentation. As Dr. Berube alluded to, he and I were both at the meeting that this initial question came up. And I appreciate the very comprehensive report in Phase 1 which, to me, when I look at it, on the face of it, it validates with some tweaks, the status quo of current practices.

I have to point out that under next steps in your CMD it says feasibility of pre-distribution of KI pills to schools and establishing clear and detailed plans for distribution of KI through the IPZ. Those are the two questions that were brought up in 2018.

So we've got a nuclear power plant that's been operating in two phases; 1970s, 1980s. We've had an established program for distribution of iodide pills. And now we're 2022, looking at the Phase 1. Phase 2 will be out, they said, in 2023. Understanding that the current licences for Pickering not to operate beyond 2024.

So I'm a little bit concerned about how long it's taken to answer those two specific questions, the pragmatism. I mean, I understand going through this in a very detailed and sort of consultative process.

But the issue of when we asked, and we were really trying to push at that 2018 meeting, okay, walk me through; there's a severe weather system, how are you

going to get pills from here, to here, to here? And, you know, it was a very pragmatic question.

So I'm a little bit concerned about the timelines and the fact that by the time this report comes out, based on the current licence, there'll be one more year of operation of Pickering for a plant that's been running since the 1970s and 1980s.

So I just need that on the record. We need to be a little bit more pragmatic and address the questions. We validated the status quo, great. But it still doesn't answer those two questions that were initially asked by the Commission.

There's no real question there, it's just an observation.

THE PRESIDENT: I'm just going to ask it in a bit of question.

Is there any way this Phase 2 can be expedited? I understand Phase 1, the pandemic had -- you know, was a large contributor. But how about expediting Phase 2?

MR. CASTERTON: Lee Casterton, for the record. We can definitely look at possibly looking at means of breaking out some of the deliverables from Phase 2 and trying to accomplish them at different timelines so that we could get answers to some of those questions

earlier in Phase 2 and not have to wait for the culmination of the Phase 2 report.

But we do recognize the challenges with many of our members being in Public Health and Emergency Management that COVID has provided a significant roadblock. But we were very encouraged when they came back to the table in August of 2020 and continued to work.

But we do have to be flexible with COVID response and competing resources. But that's definitely an idea that we can bring back to the working group, to breakdown the deliverables for Phase 2 and look to focus on certain deliverables expeditiously.

THE PRESIDENT: Thank you. Ms. Maharaj?

MEMBER MAHARAJ: Thank you, Madam Velshi. And thank you for the report and the presentation.

I have a question perhaps following on Dr. Berube's observation, that the timeframe for distribution appears to be very small. And when I look at the diagram, I don't have the slide number right at hand, but when you look at the diagram showing the ingestion protection zone -- planning zone, sorry, the IPZ, it has an actual diameter of 100 kilometres through very densely-populated areas.

So I have a whole bunch of questions around the logistics of how this is even possible. And perhaps if somebody could help clarify my assumptions, that

might help me take -- answer some of my own questions.

So what I understood from reading the report is that there are areas where stockpiles of KI pills will occur, but there's also distribution to the public of KI pills which also have an expiry date.

So I have a general concern about how is planning going to occur such that not only are the appropriate medications distributed within that very narrow timeframe of four hours after potential exposure or incident, but also what kind of tracking or management of distributed tablets is possible and how do you manage expiry dates and that sort of thing?

So it's a scope question that I'm trying to understand better.

MR. CASTERTON: Lee Casterton, for the record. So before I pass it to the Office of the Fire Marshal and Emergency Management to speak more about the distribution, and as well as OPG to speak to managing the expiration of the KI. So just to clarify a few things.

So currently, the stockpile for KI is in a central location that is close by to the ingestion planning zone. When we look at an emergency, an event, the PEOC does have a scientific section.

So the Emergency Operations Centre has a scientific section that from the point the event is

declared to the point that there is a potential release, they're constantly looking at meteorological conditions, potential dose, and exactly where that's going so that the focus can be on distribution in that area.

So I'll pass it to OFMEM to provide a bit more context in terms of distribution.

MR. KINCHLEA: Thank you. For the record, Richard Kinchlea. To answer I guess one of the first questions, or one of the assumptions that was put out by the Commission Member, it's important to note that in consideration of a release that it's not for the entirety of -- or it's not expected to be the entirety of the IPZ for distribution, as has been determined through the scientific detection of the PEOC.

So we're looking at like localized distribution. And in that way, it's difficult give specifics as to, you know, what, where and how when the scope and the areas involved are unknown and will be unknown until the release has actually happened and the scientific detection goes through modelling with all the weather data, et cetera, et cetera in order to determine where the KI distribution has to be set.

So there's a number of logistical issues to go through and that would be at the time or as we run up to the need to distribute. So it's difficult to put those

details in specific that are being asked for right at the moment.

As we know, that that's -- you know, consideration for the time of response that where those will be needed and how they'll be put into play, the available resources that we have at the time, and a number of other factors as a plan for distribution is built to the need that's occurring at the time.

MEMBER MAHARAJ: So one follow-up question, if I might, Mr. Kinchlea.

You've mentioned, and in the presentation it was also mentioned, that meteorological conditions will be considered with respect to where distribution needs to occur.

Have any of the commentators that you've spoken to in Phase 1 raised a question of concern around too narrow an area that could be contemplated? You know, it's the better safe than sorry should that area be broader than a plume that is based on meteorological conditions? Are there any scientific concerns there that we should be taking into account?

MR. KINCHLEA: There are none that I'm aware of. Meteorological data, along with other data, are fed into scientific models that have been developed for this very purpose, for determining where releases might

impact through any of the zone, et cetera. And that will occur at the time when the data's fed in, to give us the areas where it's felt that, you know, the measures are required to protect the public.

Now, it's always within -- I know with OFMEM, and I'm sure with all of our colleagues that, you know, we side on the side of safety and, you know, we plan for the greater sense rather than the narrow sense, if you will, you know, for the side of safety, right?

Nobody wants to make a mistake. So if there's an opportunity, you know, to be broader and if that makes sense and that's part of the modelling and whatnot, that's what's considered.

So I haven't heard that there are any concerns about it being too narrow. But the modelling sort of states the science and what will occur according to time.

MEMBER MAHARAJ: Okay. Madam Velshi -- oh, sorry, I didn't know whether Mr. Kilgour wanted to respond to that question. I had one unrelated question to wrap-up.

THE PRESIDENT: Okay. I'll come back to you for more questions then.

Mr. Kinchlea, just one question before I turn to the folks who've got their hands up.

What's the population in the ingestion planning zone?

MR. KINCHLEA: That, I actually don't know off the top of my head. As we know, it's a lot, but I don't have those exact figures with me right at the moment or I can't answer that right now.

THE PRESIDENT: If you can forward that information to the Registrar, that would be helpful. Thank you.

MR. KINCHLEA: Yeah.

THE PRESIDENT: Mr. Kilgour please.

MR. KILGOUR: Thank you so much. James Kilgour, Director, Emergency Management for the Region of Durham, for the record.

Just wanted to clarify some of the things about lessons learned that has been discussed about the pre-distribution that the Commissioner brought up.

Currently, in the Region of Durham we do have stockpiles of it at the reception centres so that we can distribute around those issues. We are learning from those pieces about the pandemic planning as well as next steps around could we increase the volume at those locations to help distribute.

I believe it's also helping influence around what will we be doing inside cities of Toronto, York

Region, Peele Region to strategically put those pieces out there.

So I don't want it to be seen as there is not a stockpile in some strategic locations, it's the lessons we're trying to learn from them to apply in the other jurisdictions.

So hopefully that answers that, and I thank you for your time.

THE PRESIDENT: Thank you, Mr. Kilgour. Mr. Dickey?

MR. DICKEY: Good afternoon. This is Dave Dickey. For the record, my position is Director of Enterprise, Emergency Management, Programs and Training at OPG.

Thank you for your question and allowing me to speak on this item.

Just a few datapoints for consideration in terms of the expiry dates that were mentioned earlier.

What the plan is is always to, you know, work with our partners, and particularly in the municipalities, with folks like James Kilgour, who just spoke, to replace the pills and work in conjunction with them.

So there's an awareness, we just went through and it was mentioned a little earlier that we've

pulled back to change out expiries for our pills which includes, up to now, 2027, 2029 and 2032 expiry dates. So we're way up there and we're going to continue to monitor that and work with our partners.

In terms of - there isn't a formal tracking mechanism, but OPG uses an AR, or an action tracking, type of system that allows us to keep on important dates like that. And so we've entered that into our system and we'll continue to monitor that, work with our partners.

End of comment, thank you.

THE PRESIDENT: Thank you. Mr. Mayer?

MR. MAYER: Yes, thank you. Bernard Mayer from Haliburton, Kawartha, Pine Ridge District Health Unit.

I just want to state for the record that when we're considering plans for distribution we should also consider or keep in mind that the Darlington Nuclear Plant is also within close proximity to the Pickering Nuclear Plant, and many of those ingestion zones do overlap with each other. So we should keep that in mind as well.

THE PRESIDENT: That's correct. Thank you. Ms. Maharaj, back to you.

MEMBER MAHARAJ: My final question is really more a bit of a lessons learned or a question for consideration. And that's related to how are plans moving

in terms of ensuring that there's consent for the administration of this particular treatment?

We've seen with COVID-19 vaccinations that what would have appeared to have been a straightforward scientific medical treatment with clear validity created a lot of stress and anxiety in the public about whether or not they should be vaccinated, perhaps to a level that nobody would have anticipated.

In an emergency situation like this, how -- I guess I just have this image of, you know, a fire truck running down the street and people being given these KI pills, and how or are there any provisions for ensuring that people are aware enough of the importance of taking this medication at the time so that consent can almost be presumed, or how are we going to deal with that?

MR. CASTERTON: Lee Casterton, for the record. So you bring up a very good point and it's something that we did discuss at the workshop itself. When you are looking at that type of emergency distribution you have to have the people handing those out to be trusted and have the information that can calm the public that's receiving these. So it's very important to have that information.

We did identify, for Phase 2, we want to actually develop some of that information that can be done

before an emergency to raise awareness and public education. That's really a big piece of this, is that public education and awareness.

And we are going to be looking further in Phase 2 as to what can we do so that in an emergency distribution we can provide that reassurance to the public when they receive their KI pills.

Now, the Ministry of Health was unavailable to participate today, and I think they would also be in a position to provide some input on that question. So they have indicated that any questions that come under their jurisdiction, that we can relay it to them. And I would propose through our status report on NPPs where we provide a regular update on KI, we can have them provide the response from the Ministry of Health on that specific issue.

But we did discuss it and it is definitely something that we look to explore further in Phase 2.

MEMBER MAHARAJ: Thank you. Those are my questions, Madam Velshi.

THE PRESIDENT: Thank you. Yes, Mr. Casterton, that would be a good thing to do in the next update, to get Health Canada's response to that.

Mr. Kaghee?

MEMBER KAHGEE: Good afternoon and thank

you very much for your presentation and all of the efforts and the hard work of the working group to date.

I just have a general follow-up with respect to Dr. Lacroix's question. He talked specifically about the Advisory Committee. I want to focus more on the working group itself.

Going beyond the Indigenous engagement activities, was there consideration given to including Indigenous representation on the working group if not by specific First Nations, then perhaps by bodies such as the OFNTSC which was tasked with providing technical advisory service to First Nations in Ontario on emergency management preparedness, for example?

And, if not, was the consideration given including Indigenous representation on the working group going forward with respect to Phase 2?

MR. CASTERTON: Lee Casterton, for the record. Yeah, all options are on the table at this point. When we brought Curve Lake's comments forward to the working group there was a significant amount of support of increasing Indigenous engagement on Phase 2 and not just on the report as we define it in terms of reference. We realize that that's not the right point. We need them early on, at the beginning, to help scope Phase 2 and the information that we need to provide.

The comments received from Curve Lake helped give us an idea of the type of information Indigenous Nations communities are maybe looking for. And we are looking at whether or not their involvement directly on the working group or focused meetings between the working group and Indigenous Nations can occur.

Your suggestion to include a larger organization is also a good suggestion that we will bring forward to the working group to discuss.

But, at this point, no decisions have been made as to what that looks like. But we are committed, as a full working group, to increase engagement throughout Phase 2.

MEMBER KAHGEE: That's helpful. And certainly I would encourage the working group to consider Indigenous representation on the working group. You talked earlier about the importance of building that trust and confidence in the broader public, and the same applies to Indigenous communities. Certainly there's some lessons to be learned here. But I think we'd strongly encourage consideration of that going forward.

THE PRESIDENT: Thank you. I'll give an opportunity to other members of the working group who are here with us today for any comments they wish to make both on Phase 1 report and what's planned for Phase 2.

Just a show of hands if you'd like the mic.

Mr. Kilgour?

MR. KILGOUR: Thank you so much. I just really want to just take a quick moment and I think this might be out of order on the piece. But I just want to recognize Bernie Beaudin who used to work -- I believe he's retired from your organization.

I just want to personally acknowledge the outstanding work that he has done, whether I was the Director of Emergency Management at the City of Toronto or the Region of Durham, I think he's an outstanding professional, and I just want to send my thanks to him and for all the great work that he has done.

He's advanced the file quite a bit and I just wanted to acknowledge that.

THE PRESIDENT: Thank you very much for that, Mr. Kilgour.

Okay. Well, this concludes. So thank you for this update. I think you've heard from the Commission on areas of concern, of priority for us. So please do take our suggestions and our recommendations seriously. And we look forward to how you disposition those.

This concludes the public meeting of the Commission for today. The meeting will resume tomorrow at

10:00 a.m. eastern time.

Again, thank you all for your participation. Stay safe, stay well.

Bonne journée.

--- Whereupon the hearing adjourned at 2:29 p.m., to resume on Thursday, January 27, 2022 at 10:00 a.m. / L'audience est ajournée à 14 h 29, pour reprendre le jeudi 27 janvier 2022 à 10 h 00