

Canadian Nuclear
Safety Commission

Commission canadienne de
sûreté nucléaire

Public meeting

Réunion publique

May 9th, 2017

Le 9 mai 2017

Delta Hotels Saint John
Ballrooms A & B
39 King St.
Saint John, New Brunswick

Hôtel Delta Saint John
Salles de bal A et B
39, rue King
Saint John (Nouveau-Brunswick)

Commission Members present

Commissaires présents

Dr. Michael Binder
Dr. Sandy McEwan
Dr. Soliman A. Soliman
Dr. Sandor Demeter
Mr. Rob Seeley

M. Michael Binder
D^r Sandy McEwan
M. Soliman A. Soliman
D^r Sandor Demeter
M. Rob Seeley

Secretary:

Secrétaire:

Mr. Marc Leblanc

M. Marc Leblanc

General Counsel:

Avocate générale :

Ms Lisa Thiele

M^e Lisa Thiele

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Saint John, N.B. / Saint-Jean (N.-B.)

--- Upon commencing on Tuesday, May 9, 2017 at 9:30 a.m. /

La réunion débute le mardi 9 mai 2017 à 9 h 30

Opening Remarks

M. LEBLANC : Good morning, ladies and gentlemen. Bonjour à tous et à toutes.

Welcome to the public meeting of the Canadian Nuclear Safety Commission.

We have simultaneous interpretation this morning. Please keep the pace of speech relatively slow so that the interpreters have a chance to keep up.

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

Please identify yourself before speaking so that the transcripts are as complete and clear as possible.

We would also ask that you please keep the pace of your speech relatively slow so that the interpreters have a chance to keep up. I have a feeling I said that before, so I apologize for that.

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

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

As a courtesy to others in the room, we would ask that you please silence your cell phones and other electronic devices.

Just for certainty, this is a Commission Meeting that, after a short break, will be followed by the Commission Hearing where there will be a number of additional introductory remarks.

Monsieur Binder, président et premier dirigeant de la CCSN, va présider la réunion publique d'aujourd'hui.

President Binder....?

LE PRÉSIDENT : Merci, Marc.

Good morning and welcome to the meeting of the Canadian Nuclear Safety Commission.

First let me start by saying that we are really happy to be out of Ottawa and here. We were worried that maybe this meeting will not happen because of this terrible flood that's going on and our sympathy for all those who are affected by this. Hopefully it will not disrupt the meeting here.

So with that, I would like to introduce

the Members of the Commission.

To my right is Dr. Soliman Soliman and Dr. Sandor Demeter; on my left is Dr. Sandy McEwan; and we also have -- right, sorry -- Mr. Rob Seeley. Welcome. I'm getting used to you being on the Commission here.

We heard from the Secretary Marc Leblanc, and we also have with us Ms Lisa Thiele, Senior General Counsel to the Commission.

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

The meeting agenda was published on May 3rd.

This will be a short meeting, as I indicated before, with two items on the agenda, and the main item will be to provide the Members an update on the status of power reactors in Canada. This update is provided at every Commission proceeding.

Mr. President...?

CMD 17-M24

Adoption of Agenda

THE PRESIDENT: So with this information I would now like to call for the adoption of the agenda by

the Commission Members, as outlined in CMD 17-M24.

Do we have concurrence?

Okay. So for the record, the agenda is adopted.

CMD 17-M25

Approval of Minutes of

Commission Meeting held on April 12, 2017

THE PRESIDENT: I would like now to move for the approval of the Minutes of the Commission meeting held April 12, 2017, as outlined in CMD 17-M25.

Are there any comments, additions, deletions?

Okay. I guess everybody is in agreement. So for the record, the Minutes are adopted.

CMD 17-M26

Oral presentation from CNSC Staff

THE PRESIDENT: I would like to proceed now with the Status Report on Power Reactors, which is under Commission Member Document CMD 17-M26.

I understand we have representatives from the nuclear power plants in the room and also via

videoconference at the Darlington site office.

Darlington, can you hear us?

MS KARCOUR: Yes, we can.

MR. KHANSAHEB: Yes, sir, we can.

THE PRESIDENT: Okay, thank you.

Mr. Frappier, I understand you have some additional remarks. Over to you.

MR. FRAPPIER: Thank you and good morning, Mr. President and Members of the Commission. I am here to present Commission Member Document 17-M26, the Power Reactor Status Update.

For the record, my name is Gerry Frappier and I am the Director General of the Directorate of Power Reactor Regulations.

With me today are the Power Reactor Regulatory Program Division and technical support staff who are available to respond to questions on the status report, if there are any.

Please note that, as the President just mentioned, other than Mr. Ben Poulet beside me, the technical staff is primarily in Ottawa, so we will be going through teleconferencing to answer questions.

Also with us and on the phone are licensee representatives should there be questions for them.

As you will note, the CMD was finalized on

May 3rd last week, so I am here to present some verbal updates since then.

Starting with Bruce Unit 5, which was in maintenance, is returning to service following the planned maintenance. As of yesterday the power level was at .2 percent and the reactor is critical cold pressurized and should be coming up to full power in the next day or so.

With respect to Darlington, Unit 4 was put in a forced shutdown -- forced outage, rather, on Saturday, May 6th, due to a failsafe shutdown rod dropping into the core. The cause was determined to be a faulty logic module power supply, which was subsequently replaced. Unit 4 achieved criticality on May 9th and is projected to return back to 100 percent full power on Thursday of this week.

Also with Darlington, CMD 17-M26 reports an incident where a contract worker experienced electrical shock symptoms while performing welding on the emergency power generator building. To update that report, there were no actions imposed on OPG by the Ministry of Labour, who did the investigation. However, there was one action imposed by the Ministry of Labour on the contractor. The contractor must provide the MOL with a copy of the inspection report of the welding machine that caused the electric shock prior to returning it to service.

At Pickering the Unit 7 electro-hydraulic

governor module has been replaced and Unit 7 is now at full power and critical.

However, Unit 1 was shut down on May 8th because of a Level 2 impairment of the emergency coolant injection system. Repairs are in progress and it will likely return to full power by the end of the week.

Here at Point Lepreau, as reported in the update report, the activities to return the station to service were underway and as of yesterday I understand the station has now returned to full power. CNSC staff has been monitoring the reactor's progress in this regard and Ben Poulet can update as well as New Brunswick Power if there are any questions on that.

That completes the update and we are available for any questions.

THE PRESIDENT: Thank you.

I was remiss, I didn't acknowledge that we have also a representative from Bruce Power here and we have -- I guess that's the only addition.

So let's open the floor for questions.

Dr. McEwan...?

MEMBER MCEWAN: Thank you, Mr. President.

The Pickering Unit 5 leak, the update is very brief. Can you provide a little more detail, a little more background, please?

MR. FRAPPIER: Gerry Frappier for the record, and then I will ask -- I think Mr. Fraser is on the line from Pickering.

From our perspective we are waiting to have a complete wrap-up report and then we thought we would come and update the Commission completely, but if somebody from OPG wants to add to where we are with the Pickering leak problem...?

THE PRESIDENT: Anybody from Pickering? No? Darlington, want to help them? Probably not.

MR. KHANSAHEB: It's Zar Khansaheb for the record. I don't have all of the details on that, but I do know there has been progress, as Mr. Frappier has noted. They are continuing with the investigation and review. So that report is due relatively shortly.

MR. FRAPPIER: Gerry Frappier for the record. Maybe I can provide a little bit of update because we do know a few things that were sent in. As I mentioned, we are waiting for the complete report, but as I understand it you will remember the leaks were from some of the construction joints in the concrete and they have been resealed and the expectation is that the leak has now been fully brought under control. That was in the moderator room, where it's not really a room that we would expect to be that wet, but it gets wet on occasion.

MR. VICTOROV: Alex Viktorov on line from Ottawa, if I may provide extra detail.

The leak source is identified and repaired. It's a small leak in the moderator room. The leak path through the construction joint has been repaired and tests are ongoing to verify that the repairs are effective. The root cause identification why the joints were not leak-tight is ongoing and that information will be available shortly.

MEMBER MCEWAN: Okay. Thank you. So we will get a full report next meeting or the meeting after that.

THE PRESIDENT: Dr. Demeter...?

MEMBER DEMETER: Thank you.

On the same issue with the leak source, what was the final -- the leak went where? I'm just curious where. Did it just stay within the boundaries, did it go into the ground, did it go -- I'm just curious where the leak went.

MR. FRAPPIER: Gerry Frappier for the record. And Alex might be able to put some extra dimension to this.

The moderator room is within the main reactor building. The leak was a small leak that the water ended up under the building in what's called the tunnels,

the tunnels for the fuel to be brought from the reactors into the fuel pools. So it was always contained within the building itself. So nothing got out to the environment in any way. And so with the repairs made we would expect that leak to be stopped now.

But Alex, I don't know if you want to add some details on that?

MR. VIKTOROV: It's Alex Viktorov. Can you hear me?

MR. FRAPPIER: Yes, we hear you good, Alex.

MR. VIKTOROV: Okay. So it was in the reactor building and it's normally not accessible in power. Because of that, the repairs can only be done when the unit is in outage. That restricts the time window when any substantial work can be done.

Unit 5 has been in outage for several months and OPG was capable of accessing the room and making physical changes as required. So the leak was very small and below the detection limits of systems that maintain the inventory, and because of that it was not detected promptly.

Over years or months kilograms of heavy tritiated water were accumulated on the floor of that room and seeped through the construction joints and reached the

fuel transfer tunnel. That's where the water was detected and the repairs triggered by that. Their release to the environment was minimal and there was no danger to the public and the workers. However, at certain points the elevated levels of tritium in air were detected and that again triggered the search. Thank you.

THE PRESIDENT: Thank you.

Dr. Soliman...?

MEMBER SOLIMAN: Thank you very much.

I have a question on the Unit 7. It's just for my information. What is the electro-hydraulic governor function and why do we have to reduce the power to 59 percent of the full power? And then after that it is -- on May 3rd it was 1.5 percent full power and what is the power level right now?

MR. FRAPPIER: Gerry Frappier for the record. So again, I will ask Mr. Viktorov to provide a few more details on the hydraulic governor situation on Unit 7 at Pickering.

MR. VIKTOROV: The main function of this unit is to control the flow of steam from steam generator to turbine and in this way to maintain a balance between the reactor power and the amount of steam delivered to turbine. When the module within this governor malfunctioned, the control of inflow was unbalanced and

that resulted in above the design limit flow from the turbine, and because of that the reactor power was dropped to per design levels. However, the unit was determined to be defective and the reactor power was brought to zero.

The module that failed is an electric module and easy to replace. It's not repaired in place, it's just replaced with a tested functioning unit so repairs can be done quickly. Following the repairs and testing, the unit was brought back on power and is currently operating at full power.

MR. FRAPPIER: Gerry Frappier for the record. Just to be clear too, so all of this is on the non-nuclear side, so it has to do with steam and steam balancing but is not a radioactive system at all. And, as Alex said, it's back to full power there now.

MEMBER SOLIMAN: Thank you.

THE PRESIDENT: So the root cause for the failure, will that -- you are eventually going to get a report on that?

MR. FRAPPIER: Alex, maybe you can report -- provide that answer, please.

MR. VIKTOROV: In fact there was a similar failure a month before and we already have an action from the Commission to provide an update. So yes, once we have information from OPG on the causes of apparently frequent

failures with this component, we will update the Commission on results and root cause investigation.

THE PRESIDENT: Thank you.

Mr. Seeley...?

MEMBER SEELEY: I have no questions.

THE PRESIDENT: Anybody else? Any other questions? Any other questions?

Okay, thank you. Thank you very much.

So we are going to take a 10-minute break and change the players, let me put it this way. We will explain later. Thank you.

--- Whereupon the meeting adjourned at 9:49 a.m. /

La réunion est ajournée à 9 h 49