

Canadian Nuclear
Safety Commission

Commission canadienne de
sûreté nucléaire

Public meeting

Réunion publique

June 8th, 2017

Le 8 juin 2017

Kikinahk Friendship Centre
320 Boardman Street
La Ronge, Saskatchewan

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

Commission Members present

Commissaires présents

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

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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La Ronge, Saskatchewan / La Ronge (Saskatchewan)

--- Upon commencing on Thursday, June 8, 2017
at 9:02 a.m. / La réunion débute le jeudi
8 juin 2017 à 9 h 02

Opening Remarks

M. LEBLANC : Bonjour. Good morning, ladies and gentlemen. Welcome to the public meeting of the Canadian Nuclear Safety Commission.

As indicated yesterday and as indicated in the agendas, we have a short meeting this morning to deal with recurrent Commission business and we will proceed at 9:45 or around 9:45 with the continuation of the public hearing.

So this morning, as yesterday, we have simultaneous interpretation particularly for the hearing item as it pertains to it being also available in Cree and Dene, in addition to French obviously.

We would ask that you 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.

I don't think we have interpretation in Cree and Dene, but I will read what is said here, that if there is Cree it's on channel 3 and Dene would be on channel 4.

Please identify yourself before speaking so that the transcripts are as complete and clear as possible. And those transcripts should be available by the end of next week on our website.

I would also like to note that this proceeding is being video webcast live and that archives of the 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, please silence your cell phones and other electronic devices.

Dr. Sandy McEwan will be presiding over today's Commission Meeting.

Dr. McEwan...?

THE CHAIRMAN: Thank you, Marc.

Good morning and welcome to this meeting of the Canadian Nuclear Safety and welcome also to those who are joining us via webcast and teleconference.

My name is Sandy McEwan and I will be chairing the Commission meeting today.

I would like to introduce the Members of

the Commission who are with us today. These are, on my right, Dr. Soliman A. Soliman and Dr. Sandor Demeter; and to my left Mr. Rob Seeley.

We have already heard from our Commission Secretary Marc Leblanc, and Ms Lisa Thiele, who is Senior General Counsel to the Commission, is also with us on the podium.

MR. LEBLANC: I will try not to mess this up.

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 29th. This will be a short meeting, as indicated earlier, with one item on the agenda in addition to the approval of the minutes, and it will be to provide the Members with an update on the status of the power reactors in Canada. This update is provided at every Commission proceeding and that's why we are having it even if we are in a remote community.

Mr. Chair...?

CMD 17-M28

Adoption of Agenda

THE CHAIRMAN: So with this information, I would now like to call for the adoption of the agenda by Commission Members. This is outlined in CMD 17-M28.

Do we have concurrence?

For the record, the agenda is adopted.

CMD 17-M29

Approval of Minutes of

Commission Meeting held on May 9, 2017

THE CHAIRMAN: I will now call for the approval of the Minutes of the Commission meeting held on May the 9th, 2017. This is outlined in CMD 17-M29.

Are there any comments, additions or deletions from the Commission Members that reflect changes to the draft minutes?

I note there are no changes. Therefore, I would ask the Commission Members to approve the minutes.

Do we have concurrence?

Thank you. Approved.

Status Report on Power Reactors

CMD 17-M30

Oral submission from CNSC Staff

THE CHAIRMAN: So we now move to the Status Report on Power Reactors. This is under Commission Member Document CMD 17-M30.

I note that we have representatives from the nuclear power plants joining us by teleconference and representatives from CNSC staff are also on the line.

So to test the technology, in Ottawa, Mr. Frappier?

MR. FRAPPIER: Yes, I can hear you very well. Can you hear me?

THE CHAIRMAN: Perfectly. Thank you, Mr. Frappier.

Mr. Burton from Bruce Power, can you hear us?

MR. BURTON: Yes, I can, Dr. McEwan. Thank you.

THE CHAIRMAN: Thank you. Mr. Dehdashtian from OPG Pickering site, can you hear us?

MR. DEHDASHTIAN: Yes, I can. Thank you.

THE CHAIRMAN: Thank you.

Mr. Khansaheb and Mr. Wooland from OPG
Darlington site?

MR. WOOLAND: Yes, we can hear you.

THE CHAIRMAN: Thank you.

And the CNSC Pickering site, Mr. Leader
and Mr. Finigan?

We will try again. CNSC Pickering site,
Mr. Leader and Mr. Finigan?

They will perhaps let us know when they
join.

Thank you.

So, Mr. Frappier, do you have any
introductions and opening remarks?

MR. FRAPPIER: Yes, I do and if it's okay
with you I will proceed to doing that.

THE CHAIRMAN: Thank you.

MR. FRAPPIER: Thank you and good morning,
Mr. Chair and Members of the Commission. I am here to
present Commission Member Document 17-M30, 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 Power Reactor Regulatory

Program Directors and technical support staff who are available to respond to questions on the Status Report on Power Reactors.

We also have licensee representatives, as you have just tested with your phone test, should there be any questions for them.

As you will note, the CMD in front of you was finalized on June 2nd, so I'm here to present a verbal update to provide you with the most current information.

Starting with Bruce, Bruce Unit 7 was shut down Sunday, June the 4th for what's called a surplus baseload generation outage. The Unit has returned to service and reached full power on June the 8th. This type of outage is requested by the grid operator, the provincial grid operator when there is a surplus of electricity being generated in the province. So there are no safety or regulatory issues associated with this outage.

At Darlington, I would like to draw your attention to a small change in the synchronization date for Unit 1. The anticipated date is now June 25th, with full power on June 26.

At Pickering, Unit 5 is now at 99 percent of full power after exiting the planned maintenance outage and is currently holding at that level until the results of the post start-up heat balance test are evaluated, so it's

a very normal process, and the target date for Unit 5 full power is June the 9th.

Also at Pickering, Unit 8 is currently at 97 percent of full power. Fuelling is still unavailable due to high suspended particulate concentration in the heat transport system. The CNSC staff are monitoring the Unit 8 refuelling issues and there is currently no target date for resuming fuelling.

Point Lepreau continues to operate at full power. No issues there.

And that concludes my update. As I said at the opening, CNSC regulatory and technical staff as well as licensee representatives are here to answer your questions if you have any. Thank you very much.

THE CHAIRMAN: Thank you, Mr. Frappier.

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

Dr. Demeter...? No questions.

Dr. Soliman...?

MEMBER SOLIMAN: Yes, I have a few questions about Bruce Unit 4 surplus baseload generation shutdown. I would like to know the location of that circuit breaker, first.

MR. FRAPPIER: Gerry Frappier for the record. I would ask Bruce Power to give us some detail on

the circuit breaker, where it was located.

MR. BURTON: Maury Burton for the record.

The circuit breaker in question is located off of our system service transformer. When we do bring units down, the unit power is supplied by one of two ways, one either from the generator through what we call the unit service transformer or through what we call a system service transformer. So when we prepare to shut down, the normal configuration is applied through the generator and the unit service transformer. When we prepare for a shutdown like this, we do electrical switching to the system service transformer which takes power from the grid. This particular breaker connects the station to that transformer.

MEMBER SOLIMAN: Okay. So in this case you lost Class IV power?

MR. BURTON: That is correct, we lost Class IV power to our odd side bus.

MEMBER SOLIMAN: Okay. So that loss of Class IV power trips the reactor and in this case the shutdown process is started. Did SDS1 -- you shut down the reactor using SDS1 and then SDS2 or just you shut down the reactor using SDS1 only?

MR. BURTON: Maury Burton for the record.

Both shutdown systems are activated during

this event, both on heat transport system high pressure.

MEMBER SOLIMAN: Okay. So what is the relation between the failure of the -- or the opening of that circuit breaker and the process you are doing in order to reduce the load or in order to eliminate the surplus baseload?

MR. BURTON: It's Maury Burton for the record.

Essentially what we're doing, we would be shutting down the reactor and taking the turbine offline. Therefore, that's reducing power generated in the Province of Ontario. This is something that we have been dealing with for a number of years now and a common practice. In this particular case we did have a failure which resulted in the shutdown system activating rather than a normal controlled shutdown through manual processes. That essentially is what we are doing for the surplus baseload generation shutdown. In this case we had an equipment failure during that which activated the safety systems and brought the unit down.

MEMBER SOLIMAN: Okay. During the trip and shutdown of the reactor, the reduced transient in this case is exactly the same like loss of Class IV power or it is an abnormal condition where you have different pressure and different temperature and you have to reevaluate your

fatigue usage factor?

MR. BURTON: Maury Burton for the record.

It is essentially the same as a loss of Class IV power. What happens when we lose one of our two buses, we have an odd side and an even side bus, if we lose the heat transport pumps and that's what essentially caused the -- or two of the heat transport pumps, that essentially is what caused the trip and by procedure we shut down the other two because flow conditions are not ideal with only one side of the reactor's pumps running and could cause damage to the other pumps that had tripped off. So the cooldown is done by thermo-siphoning. This is within the design basis. We do a number of engineering assessments after such trips to ensure that we do not have a serious process failure, that the fuel is fit for service and that the major components that could be affected, such as fuel channels and in Bruce A's case the steam drum, are fit for service.

MEMBER SOLIMAN: Okay. You are investigating right now and you are producing a report. On behalf of the Commission, we would like to see the detail of this incident. And also, I would like to ask if this is an OPEX report. You are going to report that to OPEX?

MR. BURTON: Maury Burton for the record.

I will answer the second part first. Yes,

the OPEX will be sent out through our normal processes through the CANDU Owners Group.

And for the first question, we do have a root cause investigation in progress and that is due to be completed by July 9th and information will be sent to CNSC staff in accordance with the requirements of REGDOC-3.1.1, which details how we report to CNSC.

MEMBER SOLIMAN: Thank you very much.

THE CHAIRMAN: Mr. Seeley...?

MEMBER SEELEY: Thank you.

Two questions, one for Bruce and one for Pickering.

The first one is a general safety question on the Bruce incidents involving shifting loads and transportation of low-level radioactive material. So my question would be, since we had two incidents, was it the same operator or entity? And the second part of the question is then, have recommendations to prevent reoccurrence been made as part of the incident follow-up?

MR. BURTON: Maury Burton for the record.

In this case it was the same company doing the transport and the material being transported were three what we call rapid deployment platforms that we use for maintenance outages. The issue that we had here were these things actually have wheels on them and the way that we

secured them were through tiedowns within the containers. What we found was that even with them being tied down, it still allowed some movement which caused either the tiedown straps to loosen off or in some cases they actually snapped. So we -- when we brought these things back to site we actually lifted the platforms and put them under wood blocks so that they couldn't roll around and affect the tiedowns and used chains instead of the nylon strapping that was used in the original arrangement.

MEMBER SEELEY: Thank you for that.

A question for Pickering with respect to the EHG failure. I understand it was a production issue and not a safety issue, this particular incident, but I just had a question about learnings. And, you know, knowing that it's an aging facility and this component is failing, what was the age of that component? And then a general question about experience from aging components going into your cycle time analysis. Do you have a better understanding of lifecycle of different pieces of hardware within the facility? Is that part of the learning that comes from this incident?

MS SMITH: Good morning. For the record it's Stephanie Smith, Director of Ops and Maintenance at Pickering Nuclear.

So the EHG is part of our normal aging

management process, so it is in that process right now. I don't know the exact age of it. However, it is being managed through that process.

THE CHAIRMAN: Dr. Demeter...?

MEMBER DEMETER: Just a quick question regarding -- it's an action item, 8556, because I wasn't here in April 2016, and it refers to an event in Kakrapar, India, with a memo to come I guess by the end of June. But if someone could just give me one or two sentences on what the event was, because it's not listed in the update.

MR. JAMMAL: It's Ramzi Jammal.

If you're looking for an update I will just give you a high-level update with respect to the Kakrapar incident where there was a fracture of a pressure tube in a newly refurbished reactor and this was discussed at length at the Convention on Nuclear Safety and we are in communication with the colleagues in India, the Atomic Energy Regulatory Board, in order to have the root cause analysis with respect to the fracture of the pressure tube.

Since I have the floor, Mr. Chair, I would like to confirm, to Dr. Soliman's request, the submission to staff will be in early July just for the minutes and the record of the minutes. Staff will review the submission of the root cause analysis and we will provide you an update on the progress in August if it's not completed by then,

the root cause analysis.

THE CHAIRMAN: Thank you, Mr. Jammal.

Dr. Soliman...?

Mr. Seeley...?

Mr. Frappier, do you have any concluding comments?

MR. FRAPPIER: No, not from here. I would just like to concur with what Mr. Jammal just mentioned, that we will certainly be updating the Commission on these events as we get final reports on them.

THE CHAIRMAN: Thank you.

So this concludes the meeting of the Commission. The public hearing will start at 9:45, so in about 20 minutes. Thank you for your participation.

--- Whereupon the meeting adjourned at 9:22 a.m. /

La réunion est ajournée à 9 h 22