

**Canadian Nuclear
Safety Commission**

**Commission canadienne de
sûreté nucléaire**

Public hearing

Audience publique

May 21th, 2010

Le 21 mai 2010

Pickering Recreation Complex
1867 Valley Farm Road
Pickering, Ontario

Pickering Recreation Complex
1867 route Valley Farm
Pickering (Ontario)

Commission Members present

Commissaires présents

Mr. Michael Binder
Dr. Moyra McDill
Dr. Christopher Barnes
Mr. Alan Graham
Mr. André Harvey
Mr. Dan Tolgyesi
Dr. Ronald Barriault

M. Michael Binder
Mme Moyra McDill
M. Christopher Barnes
M. Alan Graham
M. André Harvey
M. Dan Tolgyesi
M. Ronald Barriault

Secretary:

Ms. Kelly McGee

Secrétaire

Mme Kelly McGee

Senior Counsel :

Ms. Lisa Thiele

Conseiller principal:

Mme Lisa Thiele

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Pickering, Ontario

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--- Upon commencing at 8:34 a.m. /

L'audience débute à 8h34

Opening Remarks

MS. MCGEE: Bonjour, mesdames et messieurs.

Bienvenue à l'audience publique de la Commission canadienne de sûreté nucléaire. Mon nom est Kelly McGee. Je suis la secrétaire adjointe de la Commission et j'aimerais aborder certains aspects touchant le déroulement des audiences.

The Canadian Nuclear Safety Commission is about to continue the public hearing regarding the application by Ontario Power Generation for the renewal of the Pickering Nuclear Generating Station A Operating Licence.

After hearing from OPG and CNSC staff on February 17th, 2010 in Ottawa, the focus for today will be on the submissions from the intervenors. Please note that there are 34 intervenors, including 17 oral presentations.

During today's business, we have simultaneous translation. Des appareils de traduction sont disponibles à la réception. La version française est

1 au poste 8 and the English version is on channel 7.

2 We would ask you to keep the pace of your
3 speech relatively slow so that the translators have a
4 chance to keep up.

5 Please note that this proceeding is being
6 video webcasted live and that the proceeding is also
7 archived on our website for a three-month period after the
8 closure of the hearing.

9 Written transcripts of this proceeding will
10 be available on the Commission's website next week.

11 To make the transcripts as meaningful as
12 possible, we would ask everyone to identify themselves
13 before speaking. And as a courtesy to others in the room,
14 please silence your cell phones and any other electronic
15 devices.

16 Monsieur Binder, président et premier
17 dirigeant de la CCSN présidera l'audience publique
18 d'aujourd'hui.

19 President Binder.

20 **THE CHAIRMAN:** Thank you.

21 Good morning, everybody, and welcome to
22 this public hearing of the Canadian Nuclear Safety
23 Commission.

24 Mon nom est Michael Binder. Je suis le
25 président de la Commission canadienne de sûreté nucléaire

1 et je souhaite la bienvenue aux gens ici présent and all
2 of you who are joining us through webcast, welcome.

3 First of all, let me start by saying how
4 delighted we are to be here in beautiful Pickering.
5 Anything is better than being in Ottawa right now. We
6 enjoy the hospitality and the atmosphere. So we really
7 are happy to give the citizens of Pickering an opportunity
8 to attend and actually participate in this public hearing.

9 I would like to start by introducing the
10 Members of the Commission that are here with us today. On
11 my right are Dr. Moyra McDill and Dr. Christopher Barnes,
12 and on my left are Mr. Alan Graham, monsieur André Harvey,
13 monsieur Dan Tolgyesi and Dr. Ronald Barriault.

14 You heard from Ms. McGee and we also have
15 with us here today Ms. Lisa Thiele, our senior counsel to
16 the Commission.

17 Before adopting the agenda, please note
18 that nine supplementary Commissioner Member Documents,
19 which we refer to as CMDs, were added to the agenda after
20 publication on April 23rd, 2010, as listed in the updated
21 agenda.

22

23 **10-H11 / 10-H11.A / 10-H11.B**

24 **Adoption of Agenda**

25

1 **THE CHAIRMAN:** With this information, I
2 would like to call for the adoption of the agenda by the
3 Commission Members.

4 Do I have concurrence?

5 For the record, the agenda is adopted.

6

7 **Ontario Power Generation Inc.:**

8 **Application for the renewal of the**

9 **Pickering Nuclear Generating**

10 **Station A Operating Licence**

11

12 **THE CHAIRMAN:** On the agenda today is Day
13 Two of the hearing on the matter of the application by
14 Ontario Power Generation Inc. for the renewal of the
15 Pickering Nuclear Generating Station A Operating Licence.

16 Kelly?

17 **MS. MCGEE:** This is Public Hearing Day Two.
18 The first day of the public hearing on this application
19 was held on February 17th, 2010. The Notice of Public
20 Hearing 2010-H-03 was published on December 17th, 2009.

21 The public was invited to participate
22 either by oral presentation or written submission. April
23 21, 2010 was the deadline set for filing by intervenors.
24 The Commission received 34 requests for intervention.

25 Presentations were made on Day One by the

1 Applicant, Ontario Power Generation, under Commission
2 Member Documents (CMDs) 10-H6.1, H6.1A, H6.1B, and by
3 Commission staff under CMDs 10-H6, H6.A and H6.B.

4 May 12th, 2010 was the deadline for filing
5 of supplementary information. I note that supplementary
6 information has been filed by CNSC staff, OPG and
7 intervenors.

8 Commission Member Documents 10-H6.D is
9 confidential and will be discussed in closed session, if
10 necessary, after the public portion of the hearing.

11 **THE CHAIRMAN:** Okay. After all this, why
12 don't we jump right into it and start the hearing by
13 calling on the presentation from OPG, which I understand
14 Mr. Wayne Robbins will present.

15 Mr. Robbins, the floor is yours.

16
17 **10-H6.1C / 10-H6.1D / 10-H6.1E**

18 **Oral presentation by**

19 **Ontario Power Generation Inc.**

20
21 **MR. ROBBINS:** Good morning, Chairman Binder
22 and Members of the Commission.

23 For the record, I am Wayne Robbins. I am
24 the Chief Nuclear Officer for Ontario Power Generation.

25 On behalf of OPG, I would like to welcome

1 the Commission to the City of Pickering and the Region of
2 Durham. My team and I are pleased to appear before you
3 today to participate in this portion of the public hearing
4 process being held to hear the views of the community on
5 the Pickering A application for licence renewal.

6 OPG has a strong corporate framework of
7 governance and support for its nuclear fleet, benchmarked
8 industry practices and standards. We have established
9 centres of excellence. The effectiveness of our managed
10 systems is demonstrated by results.

11 Darlington's performance is at the high
12 industry standard levels. Pickering B performance is
13 progressing to the same level and Pickering A continues to
14 improve year over year.

15 We have five-year improvement plans in
16 place to drive the OPG fleet towards nuclear excellence.
17 Each station has continuing improvement plans in place
18 linked to the nuclear fleet improvement plans.

19 We are proud of the improvements made at
20 Pickering A over the last five years and are continuing to
21 make significant investment in Pickering A to ensure safe
22 and reliable operation.

23 Safety is our overriding priority and there
24 is clear accountability for safety at the stations.

25 I will now turn over to our Senior Vice-

1 President, Mr. Glenn Jager, who is accountable for the
2 safe, reliable operation of Pickering A. He will
3 introduce his team and make a brief presentation based on
4 questions raised during the Day One hearing.

5 Thank you.

6 **MR. JAGER:** Thank you, Wayne.

7 For the record, my name is Glenn Jager,
8 Senior Vice-President of Pickering A. With me today are
9 Sean Granville, Director of Operations and Maintenance;
10 Robert Black, Director of Station Engineering; Donna
11 Macdonald, Manager, Regulatory Affairs Projects; Pierre
12 Tremblay, Senior Vice President, Nuclear Programs and
13 Training; Laurie Swami, Vice President, Nuclear Regulatory
14 Programs.

15 Other representatives of OPG are also here
16 today to respond to your questions.

17 My presentation today is in support of our
18 request for renewal of the Pickering A operating licence
19 for another five years. Additional information requested
20 by the Commission during the Day One hearing has been
21 submitted and is found in Commission Member Documents 10-
22 H6.1C and D.

23 During the Day One hearing on February
24 17th, I spoke to you about our performance and
25 improvements plans, structured along our four cornerstones

1 of safety, reliability, human performance and value for
2 money.

3 Today's presentation will review progress
4 on safety and the environment. I will discuss our
5 community involvement and the Pickering site strategic
6 plans.

7 Continued progress has been made as part of
8 life cycle management and improvement initiatives to move
9 the station to excellence and support safe operation
10 through to 2020. The Unit Four liquid zone 2 has been
11 repaired and is performing well. As you may recall, this
12 zone was problematic in 2009, resulting in forced outages.
13 The cause was identified and corrected, and the Unit
14 returned to power in January.

15 Improvements to turbine controls for unit
16 manoeuvring were completed at the start of our vacuum
17 building outage. Installation of new switch yard controls
18 is being completed for all units during the spring outage.

19 Modifications to place units 2 and 3 in a
20 safe storage state are almost complete with the only unit
21 1 outage work remaining.

22 Installation of the permanent modification
23 to the inter-station transfer bus has been completed. The
24 system has been fully tested, energized, and is now in
25 service. The permanent modification restores the

1 redundancy of power supply to critical Class 2 loads
2 following a low probability accident and concludes a two
3 and a half year project.

4 We have just completed a once-in-ten-year
5 maintenance outage of the vacuum building and the pressure
6 relief duct. This required execution of 46,000 tasks
7 within a 41-day outage window and represents a significant
8 investment in the safety system. Testing of the dousing
9 system and pressure relief duct, replacement of piping
10 inside the vacuum building, and installation of isolating
11 valves to enable online maintenance of pumps and valves
12 has been completed.

13 As part of our ongoing inspection program,
14 we examined over 1000 locations on structures and piping.
15 They were found to be in good condition.

16 The work that was done has left this system
17 in better condition and will ensure a safe operation for
18 the next 10 years. The same processes used to drive
19 improvements made to this system and ensure a continued
20 safe operation of the system in 2020 are being used on all
21 of our systems.

22 In the area of worker safety, there is
23 clear accountability from myself, the senior vice
24 president, through line management to all workers. Safety
25 is highly valued by all of our employees. In practice,

1 this looks like the following.

2 Prior to dispatching workers to the field,
3 supervisors brief workers directly on hazards and
4 mitigating measures to be taken. Each employee is fully
5 trained and self-identifies safety requirements and
6 improvements. Supervisors provide oversight and control
7 at the job site, and contractors are subject to the same
8 expectations as full-time employees and participate fully
9 with station management.

10 We are proud to be recognized by our
11 industry peers in the area of worker safety, as
12 illustrated in the intervention by the Organization of
13 CANDU Industries. Quoting AECON, one of the vendors used
14 by Nuclear Utilities,

15 "Human performance programs are an OPG
16 initiative that AECON has adopted into
17 its own program after working closely
18 with OPG Nuclear and recognizing the
19 safety performance improvements they
20 yield."

21 Our Health and Safety Department supports
22 the station through the development of programs and
23 standards promoting a safe work environment through
24 return-to-work assistance, through monitoring and feedback
25 to senior management, and through direct support to line

1 managers.

2 Clear accountability achieves results.
3 This is evidenced by the fact that we continue to achieve
4 top quartile performance relative to the rest of the
5 industry for all injury rate and accident severity rate.
6 The effectiveness of our safety program was recently
7 recognized when OPG achieved the platinum level for the
8 ZeroQuest program, the first company to do so. This is a
9 program established by the Electrical and Utility Safety
10 Association, which uses a systematic approach to
11 implementing and assessing a firm's safety management
12 system.

13 A platinum level is only awarded to a
14 company who has successfully maintained a gold level
15 performance for five consecutive years.

16 Completing 46,000 tasks in 41 days during
17 the vacuum building outage with no lost time accidents is
18 a demonstration of the commitment to safety of our
19 workforce and our contractors and an effective safety
20 program.

21 No personnel doses during the licensing
22 period has exceeded either regulatory or administrative
23 limits. As well, there continue to be zero unplanned
24 exposures over the last two and a half years. OPG has had
25 an effective alpha monitoring program for many years but

1 took steps to further strengthen the program based on
2 industry feedback over a year ago.

3 The key elements of the program are
4 workplace characterization and monitoring of alpha
5 activity, prevention and mitigation of contamination, and
6 protection of workers.

7 OPG is routinely reviewing industry
8 operating experience and adjusts the alpha monitoring
9 program based on lessons learned. We communicate with our
10 staff any alpha program changes and lessons learned from
11 other operators. We continue to address any questions and
12 concerns from staff with information updates and follow-
13 up.

14 With respect to public safety, Pickering
15 station contributes approximately 0.1 percent of the
16 annual dose received by the public in the Pickering area.
17 The remaining 99.9 percent is background dose. Although
18 the station contribution to public dose is very small and
19 well below one percent of the regulatory limit, Pickering
20 A has plans in place to further reduce radiological dose
21 to the public through lowering the tritium emissions over
22 the next five years. This is one of our initiatives for
23 continuous improvement at the station.

24 Pickering Nuclear is taking adequate
25 measures to protect the environment. With respect to

1 environmental stewardship, we have a program to improve
2 the natural environment and wildlife habitat on the
3 Pickering site and in the neighbouring area. This has
4 been internationally recognized.

5 On-site biodiversity is promoted through
6 development of a wildlife corridor across the site,
7 expansion and maintenance of site woodlots, and
8 enhancement and protection of the hydro marsh.

9 Off-site biodiversity is promoted through
10 enhancement and protection of adjacent natural areas
11 including Frenchman's Bay and Duffin's Creek Marsh in
12 partnership with external stakeholders. Much of this work
13 is done in partnership with local organizations and OPG is
14 involved with many environmental public education
15 initiatives as well.

16 With respect to environmental protection,
17 radiological emissions are well below target and
18 conventional emissions are in accordance with our
19 certificates of approval issued by the Ontario Ministry of
20 the Environment.

21 Waste reduction initiatives such as
22 recycling and use of rewashable items have successfully
23 reduced the volume of waste generated by more than 50
24 percent over the licensing period.

25 OPG is committed to a significant reduction

1 in fish mortality. We reinstalled the barrier net in
2 April to prevent fish from entering our intake system.
3 The net will be left in place until late November. Based
4 on industry experience, we expect that the net will reduce
5 the annual fish impingement by more than 80 percent. We
6 are verifying the effectiveness of the barrier net through
7 a combination of representative sampling and assessing
8 actual fish impingement.

9 Fish stocking and/or fish habitat
10 restoration will be implemented to offset entrainment
11 losses. These initiatives will also further assist in
12 reducing the impact of fish impingement.

13 Preparation of plans and schedules for fish
14 stocking, fish habitat restoration and a feasibility study
15 for the next most cost effective contingency is in
16 progress and will be submitted on September 30th.

17 OPG has taken the necessary steps to
18 provide adequate protection for the environment based on
19 the large body of work we have completed over the past
20 number of years. This includes two environmental
21 assessments and a recently completed peer reviewed benefit
22 cost analysis which identified the barrier net as the best
23 option. Support from our host community is a key
24 requirement for successful nuclear operations.

25 We maintain an excellent relationship with

1 our host community through safe, effective and transparent
2 operation of the station. We demonstrate our commitment
3 to proactive, open and transparent communications by
4 various means including operating our information centre,
5 community outreach activities, monthly meetings with our
6 community advisory council, updates to elected officials,
7 media advisories, key stakeholder station tours and
8 community news letters that are delivered to about one
9 hundred and twenty-five thousand (125,000) homes and
10 businesses.

11 We demonstrate our commitment to leadership
12 and environmental stewardship, enhanced educational
13 opportunities for youth and community building through
14 extensive employee volunteerism and corporate citizenship
15 funding.

16 We're proud of our community partnerships
17 and even more proud of the positive impact they've had for
18 our neighbours. Some of our partners are here today. We
19 appreciate their support and recognition.

20 In Day 1 we discussed the OPG decision not
21 to refurbish Pickering B. We committed to provide a
22 Pickering site strategic plan for Day 2. This plan was
23 submitted on March 31st.

24 Our decommissioning plans comply with
25 regulatory requirements. Based on the preliminary

1 decommissioning plan the current projection is for shut
2 down of the first Pickering B unit in 2018 and the last of
3 the units in 2020, followed by a 30 year safe storage
4 period.

5 The subsequent dismantling of the facility
6 and restoration of the property is estimated to take ten
7 to twelve years. As part of the decommissioning process
8 there will be public consultation period. A detailed
9 decommissioning plan will then be submitted to the CNSC
10 along with a request for a decommissioning license.

11 There will be at least one more operating
12 license required for Pickering A in 2015. OPG maintains a
13 separate fund to cover decommissioning costs. This is
14 supported by a provincial guarantee. We update the CNSC
15 annually on the status of funds, the provincial guarantee
16 and material changes which may impact the financial
17 guarantee requirement.

18 A comprehensive estimate of the financial
19 guarantee requirements including cost estimate updates is
20 carried out every five years and provided to the
21 Commission.

22 It's important to note that there are
23 adequate margins in Pickering A major components to
24 operate well beyond the current licensing period. The
25 nominal service life based on the limiting component is

1 mid 2020's.

2 However the current plan is to shut down
3 the remaining Pickering A units in 2020 when the last
4 Pickering B unit is shut down. A detailed operational
5 plan for Pickering A will be submitted to the CNSC in
6 December of 2011 at the same time as the first annual
7 update to the Pickering B detailed operational plan.

8 Until we shut down the Pickering A units we
9 will continue to invest to achieve industry excellence,
10 continue to demonstrate fitness for service through
11 inspection, surveillance and maintenance programs and
12 continue to monitor, assess and manage aging mechanisms to
13 ensure safe and reliable operation to end of life.

14 Pickering A will maintain a sufficient
15 number of qualified staff at all times. Five year and ten
16 year staffing plans are developed across OPG Nuclear and
17 are updated every six months. These plans will be
18 adjusted as required to accommodate the staffing
19 requirements of OPG Nuclear including shut down and safe
20 storage of the Pickering site.

21 We will continue developing and planning
22 the succession of employees across OPG to ensure continued
23 capability of key resources. We are committed to working
24 in partnership with representatives of the Power Workers'
25 Union and with the Society of Energy Professionals to

1 develop and manage these plans.

2 The primary focus for employee
3 communications is to address concerns and questions of
4 employees about continued operation and to instil pride in
5 the safe operation of the Pickering site.

6 Communications will emphasize the valued
7 role of the Pickering Station to Ontario and will align
8 staff around clear business goals of safe, reliable
9 operation and continuous performance improvements. To
10 achieve this we are committed to providing support for
11 face to face discussions as well as many other
12 opportunities for two way dialogue.

13 As an example this has included a blog
14 where employees were able to post any questions relating
15 to the announcement and receive a timely response posted
16 for all employees to read.

17 The focus of communications with our
18 community stakeholders regarding the current decision to
19 shut down the Pickering Units is safety is our overriding
20 priority, continued commitment to excellence in
21 operations, open transparent communications and
22 consultation and continued leadership as an economic
23 driver and community builder.

24 In conclusion, we have provided information
25 which demonstrates OPG is qualified to operate Pickering A

1 and has made adequate provisions for the health, safety,
2 security, the environment and for compliance with
3 international obligations.

4 Our results demonstrate clear
5 accountability and ownership for personnel safety. Our
6 substantial investment in the vacuum building outage and
7 the interstation transfer bus demonstrates a commitment to
8 nuclear safety, plant reliability and life cycle
9 management.

10 Our initiatives to reduce waste, manage
11 emissions, promote biodiversity and reduce our impact on
12 fish highlight our commitment to environmental
13 stewardship. I am committed to continue to work with our
14 staff, the community and the province to ensure safe and
15 reliable operation of Pickering until the last unit is
16 shut down.

17 I understand and support the new license.
18 We have worked closely with CNSC staff in the development
19 of a Pickering A Licence Condition Handbook. We
20 respectfully request that this Commission renew the
21 operating license for Pickering A for a period of five
22 years.

23 We're prepared to answer any questions that
24 the Commission might have.

25 **THE CHAIRMAN:** Thank you. I'd like to now

1 move to a presentation from CNSC staff as outlined in
2 CMD's 10-H6.C and H6.E. I understand Mr. Rzentkowski, the
3 floor is yours.

4
5 **10-H6.C / 10-H6.E**

6 **Oral presentation by**

7 **CNSC staff**

8
9 **MR. RZENTKOWSKI:** Good morning, Mr.
10 President and members of the Commission. For the record
11 my name is Greg Rzentkowski. I'm Director General of the
12 Power Reactor Regulation Directorate.

13 With me today are Mr. Tom Schaubel,
14 Director of the Pickering Regulatory Program Division,
15 and Lisa Love and Claude Morency, Regulatory Program
16 Officers. Other CNSC staff are also present here today to
17 provide additional information on various subjects, if
18 required.

19 In the Day 1 hearing which was held on
20 February 17, 2010, OPG has requested the renewal of the
21 operating license for Pickering A for five years. CNSC
22 staff presented CMDs 10-H6 and 6.B and concluded that OPG
23 has made adequate provisions to ensure safe operation of
24 Pickering A and recommended that the licence be renewed
25 for five years.

1 This presentation and the CMDs 10-H.C and E
2 provide additional information as requested by the
3 Commission during the Day 1 hearing. These documents
4 provide also new developments since Day 1 hearing
5 including changes to the license and the license condition
6 handbook.

7 I will turn now the presentation over to
8 Mr. Tom Schaubel. Tom?

9 **MR. SCHAUBEL:** Good morning. My name is
10 Tom Schaubel, Director of the Pickering Regulatory
11 Program. I will start by discussing those areas where
12 additional information was requested by the Commission
13 during the Day 1 hearing.

14 For a minimum shift complement OPG has
15 identified the common mode event scenarios deemed to be
16 the most resource intensive. These event scenarios
17 include a seismic event, a loss of coolant and loss of
18 electrical power event and a main equi-line break.

19 Field walkdowns have been completed for all
20 of these event scenarios and the information provided by
21 OPG to date indicates that the current staffing levels are
22 sufficient. It is anticipated that OPG's validated
23 minimum shift complement numbers will be incorporated into
24 an update of the shift complement document and submitted
25 to CNSC by October 31st, 2010.

1 For the loss of coolant accident margin
2 management, a joint industry CNSC working group is
3 addressing this large loss of coolant accident safety
4 margins and has recommended approaches to resolve this
5 issue. The industry has started documenting the state of
6 knowledge related to the design change option and a
7 project execution plan for the composite analytical
8 solution has been approved by members of the CANDU owners'
9 group.

10 CNSC staff will include all commitments in
11 the licence condition handbook as they are established.
12 For the safe storage of Units 2 and 3, CNSC staff has
13 reviewed the assessment and determined that the safe
14 storage of Units 2 and 3 will not adversely impact the
15 safe operation of Units 1 and 4.

16 The safe storage project is nearing
17 completion. The containment boundary will be moved and
18 the electrical systems were modified during the recent
19 vacuum building outage. CNSC staff has reviewed and
20 approved the proposed modifications. For generic action
21 items, it is the intent to close all generic action items
22 by the end of 2013. CMD 10-H6 contains the target date
23 for the closure of all the remaining generic action items.

24 For conventional health and safety, the
25 safety issues raised by OPG staff and/or Joint Health and

1 Safety Committee, including written recommendations, are
2 documented in the station condition record database. This
3 data is reviewed routinely by CNSC staff.

4 For the fish mortality, CNSC staff has
5 responded to OPG's proposed solution by endorsing OPG's
6 cost-effective solution and, in addition to the barrier
7 net already installed, the following actions are
8 recommended: creation and enhancement of fish habitat in
9 local coastal wetlands, contingency plan for intake fish
10 mitigation technology option in case of inadequate barrier
11 net performance, and annual reporting on the progress
12 including performance data.

13 A decision on the long-term mitigation for
14 intake and thermal discharge fish mortality is to be
15 completed by the end of 2011.

16 For financial guarantees, on February 22nd,
17 2010 a new provincial guarantee between CNSC and the
18 Province of Ontario and the second amending agreement to
19 the CNSC financial security and Ontario Nuclear Funds
20 Access Agreement between OPG, the CNSC and the Province in
21 Ontario were signed.

22 The following are the new developments
23 since the Day One hearing. For safety culture
24 assessments, CNSC staff has reviewed an action plan
25 provided by OPG to resolve the areas of improvement

1 identified in the independent Organization and Management
2 Assessment Report. CNSC staff has concluded that the
3 corrective action plan is adequate.

4 For cobalt-60, the licensed activities and
5 licence condition have been clarified to differentiate
6 between cobalt-60 rods, which are produced at Pickering B,
7 and the cobalt-60 in the form of sealed sources which are
8 permitted to be received into the plant and stored.

9 An end-of-life plan for Pickering A. Units
10 have an assumed design life until the middle 2020s.
11 However, because of inter-reliance on Pickering B, both
12 stations would have the same end of operating life. OPG
13 has recently announced that Pickering B is entering its
14 final decade of operation. CNSC staff expectations for
15 the transition to end of life have been provided to
16 Pickering B for incorporation into the Pickering B
17 operations plan which will be submitted at the end of
18 September. OPG is committed to providing Pickering A
19 detailed operations plan by the end of 2011.

20 Aboriginal consultation. Three Aboriginal
21 groups located within 40 kilometres of the station were
22 consulted prior to the Day One hearing. We provided these
23 groups with the Day One documents and phoned them to
24 ensure that the documents were received, and encouraged
25 them to contact us with any questions. None of the groups

1 has filed any interventions.

2 On Day Two, documentation was also sent to
3 these groups. Another six groups, signatories to the
4 Williams Treaty which covers the land on which Pickering A
5 is located, were sent documentation for Day One and Day
6 Two at the end of April.

7 Neutron overpower trip and changes to the
8 licence and licence condition handbook are discussed on
9 the following slides.

10 During a Commission hearing on April 19th,
11 2010 an update was given by CNSC staff on the new neutron
12 overpower methodology. At that time CNSC staff committed
13 to provide a graph comparing the old and new methodology.
14 As committed, this graph compares the required NOP
15 setpoints based on the old and new methodology and the
16 impact of aging on the heat transport system major
17 components.

18 It shows the installed NOP trip setpoints
19 for shutdown system A are well below the required trip
20 setpoints based on the new methodology for the duration of
21 the proposed licence. The slope on the line reflects the
22 impact of aging of the heat transport components.

23 Several changes have been made to the
24 proposed power reactor operating licence since Day One
25 hearing. Licence Condition 1.1 was modified to remove

1 criteria for changes which are covered by Condition 1.2
2 and other specific conditions. Licence Condition 16.2 was
3 added to allow OPG to receive cobalt-60 sealed sources and
4 the financial guarantee and Licence Condition 16.3 was
5 updated.

6 Changes to the licence condition handbook
7 since Day One include consistency of wording for
8 verification and acceptance criteria for all licence
9 conditions. This was done as a result of reviews by the
10 CNSC specialist groups and a series of meetings with OPG.

11 For conclusions, CNSC staff conclude the
12 following. The overall performance of OPG at Pickering A
13 during the current licence period has been rated as
14 satisfactory. Noticeable improvements have been observed
15 since the previous licence period.

16 OPG's application for licence renewal of
17 Pickering A meets all requirements of the *Nuclear Safety
18 and Control Act* and its related regulations. An
19 environmental assessment under the *Canadian Environmental
20 Assessment Act* is not required for this licence renewal.

21 OPG is qualified to operate Pickering A.
22 OPG has made and will continue to make adequate provisions
23 for safety and OPG meets the criteria of CMD 02-M12 for a
24 five-year licence at Pickering A.

25 Recommendations. CNSC staff recommends

1 that the Commission take the following actions: accept
2 that OPG is qualified and meets the requirements of
3 subsection 24(4) of the *Nuclear Safety Control Act*;
4 approve the proposed modifications to the licence and
5 accept that proposed revisions to the licence condition
6 handbook as set out in CMD 10-H6.E; grant an exemption for
7 the requirements to conduct leak tests on cobalt-60 sealed
8 sources; and renew the licence for a period of five years
9 until June 30th, 2015.

10 Okay, thank you. I will now pass the
11 microphone back to Dr. Rzentkowski.

12 **DR. RZENTKOWSKI:** Thank you very much, Tom.

13 In summary, this presentation provided a
14 high level overview of additional information requested
15 from CNSC staff to better support staff's conclusions and
16 recommendations.

17 As stated at the beginning of the
18 presentation, further details are provided in the CMD
19 submitted by CNSC staff for Day One and Day Two hearings.
20 We provided also an update on the licensing aspect of the
21 new neutron overpower protection methodology and the
22 impact of aging on the reactor trip set points.

23 To put this discussion in the context of
24 operation of Pickering A Units 1 and 4, I would like to
25 show one more graph that presents the actual operating

1 reactor power for these units.

2 Can we have it up, the additional graph we
3 provided?

4 Yeah, here it is. Thank you.

5 So I would like to show this graph that
6 presents the actual operating reactor power for these
7 units together with the installed trip set points.

8 The operating power is shown from the date
9 the units were returned to service after a long layup for
10 repairs and installation of safety upgrades.

11 Please note that the numbers on the
12 horizontal, time axis, these numbers indicate certain
13 important operating milestones that I will explain first.

14 Number one shows the date when Unit 4
15 returned to 100 percent power in 2003 following the end of
16 the layoff period in which pressure tubes and other
17 refurbishment work was completed.

18 Number two shows the date when the unit
19 returned to 100 percent power in 2005 prolonging the end
20 of a similar layup period.

21 Number three shows the date when a 5
22 percent penalty factor was applied for NOP trip set points
23 to account for 28-element fuel bundle CHF issue. CHF
24 stands for a critical heat flux. This happened during the
25 period of CNSC staff review of the new NOP methodology.

1 Number four shows the date when Unit 1 and
2 Unit 4 returned to 100 percent power following CNSC
3 interim acceptance of the results of the new NOP
4 methodology.

5 Finally, number five shows the end of the
6 proposed licensing period of June 30th, 2015. The impact
7 of aging on the actual power level will be evaluated for
8 the next licensing period from 2015 to 2020.

9 Please note at the top of the graph three
10 time periods are shown as follows: The period for which
11 the old methodology was in place, that is prior to
12 consideration of aging effects, the period when CNSC staff
13 were reviewing the new NOP methodology and finally the
14 period for interim acceptance of the new methodology. On
15 this graph you also see the actual reactor power which is
16 shown by the solid black line. The darker grey area shows
17 reactor power limited by the old NOP methodology with
18 aging effects considered from the day when they were first
19 quantified.

20 The smaller light grey area represents the
21 differential in the actual reactor power and the reduced
22 reactor power. The two would had been required under the
23 old methodology with aging considered.

24 Next slide, please. Thank you.

25 That now concludes the staff presentation.

1 We can now answer any question on the presentation of CMDs
2 10-H6 and B, 6.C and E and on the additional graph I just
3 presented. Thank you very much.

4 **THE CHAIRMAN:** Thank you. We are now going
5 into the question period and the way we are going to
6 conduct it there are going to be two rounds of Commission
7 Members questioning.

8 The first round will be taken right away
9 and after that we're going to allow for the interveners to
10 present their presentations and then at the end Commission
11 Members will have another round with the Proponents and
12 CNSC staff.

13 Before opening the floor, I'd like to
14 acknowledge the presence of representatives from
15 Environment Canada, Fisheries and Oceans, our Ontario
16 Ministry of Natural Resources and the Toronto Regional
17 Conservation Authority which are available for
18 questioning.

19 So thank you for being here.

20 So let's now proceed with questions, and
21 starting with Dr. Barnes.

22 **MEMBER BARNES:** Thank you, Mr. President.

23 I'd like to maybe address about three
24 points, if I may. And the first really is a concern I
25 think we expressed that I recall on Day 1 as part of the

1 public process of the licensing of Station A here, that I
2 am still concerned about the overall planning and
3 licensing of these two aging plants, Pickering A and
4 Pickering B which, as you've shown, OPG has shown in
5 Figure 1, the general series of licenses as we go from
6 2010 to 2020 and then the 30 year layup and then the
7 period of dismantling over about an eight-year period and
8 then in 2059 to 2062 the site restoration.

9 So here we are in 2010 and roughly by 2020
10 and I know there is a certain amount of uncertainty in
11 this but Pickering B would have been closed, right,
12 between 2018 and 2020. And Station A has some uncertainty
13 about just when it would close and, yet, we don't -- we're
14 not receiving very much information. I mean this is a
15 major, major issue of closing this enormous facility that
16 has been operating very successfully over a period of
17 decades.

18 We have one decade to go and, yet, we're
19 still talking about a five-year licence sort of more or
20 less routinely to take this through the next five years
21 without really, I think, as part of the public process,
22 having much more information about the -- I'll call it --
23 you have too -- the harmonization of these, of basically
24 moving towards this closure and what is necessary as part
25 of the licensing, as part of the planning so that both the

1 Commission and the public have a much more detailed look
2 at the implications, the staffing, the implication for
3 closing and implication for decommissioning costs and so
4 on.

5 So we could take two years. One could say,
6 "Well, we'll leave this to roughly 2015 in this licence".
7 Well, we're basically operating out of that time. We'll
8 worry about some of those issues. And then we've got five
9 years, et cetera.

10 But it seems to me the scale of what we're
11 looking at in the overall closure of Pickering B and A
12 really would require a lot more information to come out at
13 about this time, at about one decade and I don't really
14 see it as part of the process.

15 Now, we're in Day 2 and so -- and we have a
16 lot of information and thank you for responding to a lot
17 of our questions in Day 1, but I would wonder for example
18 at a couple of things.

19 Why wouldn't we give -- why wouldn't we be
20 recommending a three-year licence to essentially harmonize
21 the licences of Pickering A and Pickering B so that when
22 we get to 2013, which is the end of the licence for
23 Pickering B, we could then look at these two units in a
24 much more harmonized approach and then look for that five-
25 year between 2013 to 2018 when we start the closure of

1 Pickering B that we'd look at these in a much more
2 integrated manner.

3 So that's my first question, both to --
4 I'll start with OPG and then to staff. Why wouldn't it be
5 more rational to have a three-year licence instead of a
6 five-year licence and ensure at this point that there is
7 an integration, a better integration from a licensing
8 viewpoint and a public information and a public policy
9 viewpoint than going for a five-year licence that will
10 offset Pickering B licence in 2013 and Pickering A in
11 2015?

12 **MR. TREMBLAY:** Thank you, Dr. Barnes.

13 For the record my name is Pierre Tremblay.

14 We did, in fact, have historically operated
15 Pickering A and B sites as separate licences and continue
16 to do so today. Our intention going forward is certainly
17 to look to harmonize or synchronize the licences.

18 There are a number of ways of doing that,
19 one of which would be to, at some point, request an
20 extension of the Pickering B licence to synchronize them
21 at that time.

22 So we are certainly working with the staff.
23 We've discussed a number of options. Clearly this is
24 early in terms of the decision. We are producing some
25 detailed plans and will look forward through the process

1 to provide greater and greater clarity around our plans.
2 But at this time, our view is that the matter for us is
3 requesting a five-year licence for Pickering A.

4 Sometime before 2013, we would come forward
5 with the specifics and look to synchronize those licences.
6 Whether we go so far as to integrate the two into one
7 licence is something else that we're looking at, but at
8 this stage this is the request that we have with the
9 Commission.

10 **DR. RZENTKOWSKI:** From the CNSC staff
11 standpoint, we made this recommendation based purely on
12 safety consideration and we recommended a five-year long
13 licence until 2015.

14 Presently, as Mr. Tremblay mentioned, we
15 are involved in the discussion with the licensees to see
16 how we can harmonize those licences for Pickering A and B
17 sites better.

18 Two options of course exist, one is 2013
19 and second is 2015. At the moment, we support more 2015
20 because one option we will try to explore is also
21 consolidation of Pickering A and B licence into one
22 licence only. This will save a lot of administrative work
23 which is not required -- or at least the extent of this
24 work would be significantly reduced if we can consolidate
25 both licences into one.

1 But this requires of course preparation. I
2 don't think that either CNSC or the licensee will be ready
3 to consolidate the licences by 2013. So from that
4 standpoint, we recommended 2015; first, safety of the
5 operation is guaranteed for five years; second, we would
6 like to explore the options consolidating of both
7 licences.

8 **MEMBER BARNES:** So if that were the case,
9 and you haven't specified this, if this was then to be a
10 five-year licence for A with an expectation of harmonizing
11 the two licences, or presumably Pickering B would be given
12 a two-year licence to go to 2015 from '13, and then you
13 would try to harmonize at the end of this particular
14 licence, what would be the -- or I'll call it a -- would
15 you suggest that there be a mid-term report in this
16 licence for Pickering A in 2013?

17 **DR. RZENTKOWSKI:** It's not our intention to
18 provide a mid-term report because, as you know, we are
19 reporting on industry performance on annual intervals in
20 our NPP annual report and this year, for the first time in
21 the NPP annual report, we include the section to describe
22 licensing milestones or initiatives.

23 So this issue will be captured in the
24 section which is not -- which is presently included in the
25 NPP annual report.

1 **MEMBER BARNES:** And do you think that would
2 be an adequate process with adequate public input into
3 what would be a significant development of harmonizing
4 these two and, therefore, giving both the Commission and
5 the public an opportunity to look. It's one thing today
6 to say, well the staff and OPG are talking about this and
7 there are a number of other things that we hear are going
8 to happen. But at some point, I think as part of the
9 public process, we need to see some actual information and
10 actual details.

11 So by 2013, Pickering B would be coming
12 forward to ask for presumably a two-year licence as a run-
13 up to harmonization in 2015 and as part of that sort of
14 process, those looking at the Pickering A licence would
15 have to be in 2013 having some pretty specific plans.

16 So why wouldn't we have some kind of
17 process in 2013 where we saw what this harmonization was
18 going to look like at least?

19 **DR. RZENTKOWSKI:** I think there were two
20 questions here.

21 So the first one is, is the process which
22 we employed for NPP annual report adequate to provide
23 public participation? This year, for the first time, we
24 will invite public intervention on the NPP annual report.
25 So that means the public would have an opportunity to

1 comment on all the information provided there.

2 The second point was harmonization of the
3 licences. So we have to clarify what harmonization means
4 because there are two options here. Synchronization of
5 the licences; so that means separate licences but issued
6 at the same point in time, or consolidation of the
7 licences into one.

8 If we talk about synchronization alone, I
9 think the process is relatively simple. If we talk about
10 consolidation of the licences, the process would be more
11 complicated and we need some time to assess the path
12 forward, and we have to engage ourselves in deep
13 discussion with the industry.

14 I understand that Mr. Ramzi Jammal, the
15 Executive Vice President of CNSC would like to comment on
16 this subject.

17 **MR. JAMMAL:** Thank you, Dr. Rzentkowski.

18 Dr. Barnes, you asked a very good question
19 with respect to the timeline of the licence itself, five
20 years or three years. And your question, you're looking
21 for the process by which that we will come back to the
22 Commission with clear understanding and engagement of the
23 public for transparency for what we're going to call
24 harmonization.

25 Our discussions with OPG has started with

1 respect to my intent as one-site licence. As Dr.
2 Rzentkowski said, we have changed the annual NPP report
3 for public engagements. We are not far away with respect
4 to introducing either a mid-term or a yearly update and
5 where we can put the focus on the harmonization of this
6 facility into a single site licence during the period.

7 Now, the question is, is the five-year term
8 adequate from staff recommendation point of view? Five-
9 year term is adequate in that we will be giving the
10 progress report on the harmonization towards the one
11 single site licence because the discussions with OPG have
12 already started.

13 We are working towards that goal and you
14 would like to have timelines by which we report back to
15 the Commission and engage the public.

16 The timelines will be start on a yearly
17 basis but at the same time, we will be working with OPG
18 and if the Commission feels by putting a whole point into
19 the licence itself by which the stake in the timeline to
20 come back to you, we will be more than happy to provide
21 such updates.

22 **MEMBER BARNES:** Thank you.

23 I'd like to turn to what I think is a
24 related ---

25 **THE CHAIRMAN:** Sorry, can I jump in? I'm

1 still a bit puzzled here.

2 It seems to me I'm just struck by the
3 argument that there is going to be some administrative
4 efficiencies.

5 It seems to me that CNSC would like to go
6 into one-site licence ASAP. And it seems to me, if we
7 heard correctly, you're going to get end-of-life proposal
8 for Pickering B this year, end-of-life for Pickering A
9 sometime next year.

10 This is 2010, you've got three years to
11 consolidate into one licence. What's the problem here?
12 What is the difficulty between a three-year licence and a
13 five-year licence for OPG, and why can't you consolidate
14 it in three years?

15 So from 2013, everybody knows what the end-
16 game is for decommissioning the whole site. Something
17 doesn't compute here. So let me start with CNSC.

18 **DR. RZENTKOWSKI:** Yes, from the CNSC
19 standpoint, I think we will be ready for 2013 if we have
20 to prepare all supporting documentation, including a
21 common licence and a common Licence Condition Handbook.

22 However, we have to understand that this
23 may have a significant impact on OPG organization, but I
24 am not in a position to answer this question.

25 **MR. TREMBLAY:** For the record, Pierre

1 Tremblay.

2 The way I see it, really you're asking a
3 couple of questions. One is around providing information
4 with regards to some significant changes. I think as a
5 result of our plans and our announcements, we are in a
6 position to do that.

7 The matter here is Pickering A relicensing
8 but, nonetheless, on Pickering B we agreed to and are
9 providing an operational plan, detailed operational plan
10 that will provide the opportunity for discussion and
11 review of some specific details as they relate to that
12 facility.

13 The details going forward around
14 decommissioning will be provided, it's our intention, as
15 part of the overall plan in around 2017 to provide more
16 detailed decommissioning plans, as is required by the
17 regulations, and we will do so. That will include public
18 consultation.

19 The issue of the operational plans is that
20 for the current licensing period we're looking for a five-
21 year licence for Pickering A. At some point between now
22 and then we will, as has been discussed, look to
23 consolidate the licences. It's not a minor matter; there
24 are significant differences.

25 We're going to have to do a lot of reviews

1 and it's our view and our position that we will take that
2 time to carry out those discussions and do what
3 synchronizations or consolidations need to be done at that
4 time, but we're asking for a five-year licence from the
5 Commission.

6 **THE CHAIRMAN:** Just the last point on this.
7 I thought we are providing you with incredible
8 administrative safety -- administrative efficiency; let me
9 put it this way. As soon as you can come up with a one-
10 site licence you don't have to come in front of us twice.
11 I think that should be an incentive all by itself.

12 **MR. TREMBLAY:** Pierre Tremblay, for the
13 record.

14 I agree. As much as I like to interact
15 with the Commission, I agree with your point.

16 **THE CHAIRMAN:** Thank you.

17 Dr. Barnes?

18 **MEMBER BARNES:** Well, again, one problem in
19 having long licences, five years, when here we are, as I
20 repeat, in 2010, with maybe only two cycles left -- or
21 Pickering A could be a little longer -- is the issue of
22 highly-qualified personnel and the staffing, the issues of
23 retention and recruitment.

24 So from the Commission's viewpoint safety
25 is foremost and one of the key issues of running a nuclear

1 plant is the stability and the expertise that one has
2 developed in one's staff. One could hypothetically
3 assume, in any kind of business where you tell the
4 employees that we're going to close in 10 years time, that
5 people, depending on their age and their aspirations and
6 their family situations, might start looking for
7 alternative employment and therefore there would be a kind
8 of brain drain -- since that's the issue of the week, I
9 guess, in the press -- but potentially a brain drain and a
10 loss of expertise for both Pickering A and B.

11 You might say, "Well, we will recruit to
12 offset this", but again, you're not offering a long-term
13 security here and therefore one could speculate that the
14 success in recruiting adequate people to replace maybe
15 more senior people leaving will be a real challenge.

16 I would have thought, again, in this
17 licensing period, since we've gone to five-year licences,
18 that the Commission would have received much more specific
19 detail about what OPG plans are for this next licence
20 period, this five years that you're asking for, given that
21 there may be only another one and Pickering B is sort of
22 closing at that time.

23 I imagine that the public, particularly
24 here in Pickering, would also be interested in the plans
25 et cetera, but I don't see any transparency for this kind

1 of public process that we're engaged in today.

2 So what you've told us, Mr. Tremblay, is
3 that you have five and 10-year staffing plans and these
4 are updated every six months, and I presume the CNSC staff
5 have access to this but why wouldn't you be a bit more
6 transparent in showing some of these plans -- maybe
7 they're high level -- but also addressing this issue of
8 retention and recruitment as we go through basically this
9 last decade of operation of the two plants?

10 **MR. JAGER:** Glenn Jager, for the record.

11 Yes, we agree that's a concern. We have
12 committed to prepare, as mentioned in our presentation, a
13 detailed operational plan which will be submitted to CNSC
14 on the end of 2011.

15 In those plans we will address the concerns
16 regarding staffing and recruitment and staff retention
17 over the licence period and beyond. We already maintain
18 our staffing plans over a five-year period and in fact a
19 plan of 10 years, and we do this on a fleet basis.

20 In the development of that operational plan
21 it's our intention to consult with the union leadership,
22 the community, and develop solutions to the concerns that
23 you've mentioned here, and develop detailed plans which we
24 will submit to the Commission for review and comment.

25 Our existing plans are robust. We don't

1 anticipate any staffing issues within the current
2 licensing period but definitely recognize the need to
3 develop those plans to take us out through to the end of
4 life in the 10-year operational plan, and that's the plan
5 that we will develop over the next year and a half and
6 submit on December 2011.

7 **MEMBER BARNES:** Why wouldn't you have
8 developed it so that we could hear it today in the licence
9 period?

10 I'm almost surprised that so much of when
11 we come to a licence period where all of this
12 documentation that we've just referred to -- the time and
13 expense, and et cetera, of putting all this material
14 together, having this part of the public process, and time
15 and time again we're always going to get another report
16 but it's a year later.

17 **MR. JAGER:** Glenn Jager, for the record.

18 We do have five and 10-year staffing plans.
19 We can make them available. The plans that I'm speaking
20 of are to specifically address the concerns that you've
21 talked about in terms of retention and staffing, given the
22 announcement to operate the plant in its final decade.

23 So we do currently have plans, and we can
24 provide those, that show how we staff to operate the
25 Pickering facility to meet all our performance objectives,

1 to safely operate the plant and meet our business plan
2 objectives.

3 So those plans are in place. I believe
4 they're fully adequate to meet the needs, certainly now
5 and in the term of the operating licence that we're
6 requesting. The changes that I'm speaking of is to
7 address the potential concerns with the remaining 10 years
8 and closing the plant in 2020.

9 **MEMBER BARNES:** Does staff have any
10 comment? Does staff have any comment?

11 **DR. RZENTKOWSKI:** Sorry about that. We
12 were engaged in a side discussion, unfortunately.

13 From the CNSC standpoint we of course
14 realize that maintaining fitness for service of
15 structures, systems and components is not sufficient. We
16 have to ensure also that an adequate level of competent
17 staff is maintained. Therefore, we expect that in the
18 end-of-life plan OPG will address this issue, including a
19 succession plan to maintain staffing level, certified
20 staff-specific succession measures and also retention
21 program for current staff.

22 So this is our expectation and this
23 information we've already provided in support of the
24 licence application.

25 **MEMBER BARNES:** Mr. Chair, one could pursue

1 this but I notice that two of the CMDs that we receive
2 later are from the unions that have a somewhat different
3 view of the current staffing, and I think maybe we could
4 discuss this at that time.

5 **THE CHAIRMAN:** Absolutely. I just have an
6 addendum to this.

7 It's not like we have a lot of experience
8 in shutting down nuclear plants, particularly not in this
9 country, so it's not like shutting down any other kind of
10 operation. You have to be at the top performance till the
11 very last day.

12 So do we know -- do we have any experience,
13 do we have any benchmark elsewhere that somebody actually
14 knows how to do this properly? And are we taking
15 advantage of such experience?

16 **MR. TREMBLAY:** Pierre Tremblay, for the
17 record.

18 Certainly as an organization we're not new
19 to shutdown of facilities. Our thermal operation, for
20 example, is undergoing or has undergone some significant
21 changes.

22 So we certainly have had discussions with
23 them about transfers of staff, communications and so
24 forth, and obviously as part of the long-term plans, well
25 beyond the current licensing period in question, those

1 plans will be put into place.

2 There are many factors, many things that
3 require us to move resources and the motivation and the
4 communication to our staff is key, and we appreciate and
5 understand that. So we are looking at the industry wide
6 in terms of shutdowns that have occurred elsewhere in
7 North America and talking to those people.

8 We've got our own internal experience that
9 we can draw on and very successfully, recognizing that the
10 legacy and the future of Pickering is a very proud one,
11 recognizing the importance and the significance of that
12 site to providing reliable energy to the Province of
13 Ontario for the next 10 years at a time when there's a lot
14 of activity in the industry.

15 Our staff know that. We want to reinforce
16 that with them. And as you rightly point out, you can't
17 be mediocre in this area. You can't aim for mediocrity.
18 We will continue to drive for performance excellence.
19 That's what we expect out of our staff. That's what we're
20 driving towards and they understand that as well.

21 Furthermore, we've made a commitment to
22 ensure adequate resources, not only to meet the day to day
23 requirements but to continue to drive for performance
24 excellence. I think we've shown that in the last five
25 years at this plant, and we'll continue to do that in the

1 next five years.

2 **THE CHAIRMAN:** Thank you.

3 Dr. Barnes?

4 **MEMBER BARNES:** I think I'll leave it
5 there, Mr. Chair.

6 **THE CHAIRMAN:** Thank you.

7 Dr. McDill?

8 **MEMBER McDILL:** Thank you. Good morning.

9 I'd like to extend a little bit on Dr.
10 Barnes' comments. We're one decade out. We have some
11 uncertainty in licence synchronization. And maintenance
12 for the expectation of shutdown is different than
13 maintenance for the expectation of ongoing production.

14 So, for example, in 2020 you won't be
15 planning on a vacuum building outage. So I think my
16 concern is that in 2020 we're going to be faced with a
17 facility that is not ready to continue its life but might
18 need to in Ontario.

19 So I realize I'm asking you to speculate
20 but if the maintenance isn't kept at a level that allows
21 ongoing production with something like the vacuum building
22 outage where will we be in 2020?

23 **MR. TREMBLAY:** For the record, Pierre
24 Tremblay.

25 Glenn Jager's presentation this morning had

1 some indications of the results of the vacuum building and
2 the good material condition that was observed. The work
3 was done to ensure that right through the next decade, the
4 power plant and its safety systems are fit for service and
5 the plant will continue to operate -- in fact will operate
6 at a higher reliability than it has in the past. The
7 commitment is to continue to drive for excellence.

8 And the commitment has been made to do so.

9 Clearly, as the decade progresses beyond
10 the current operating licence that we're seeking we will
11 need to make more detailed plans and evolve those plans
12 from operation.

13 However, I would suggest that that's beyond
14 the scope of the current request. Suffice it to say that
15 we are committed to providing those plans and providing
16 the opportunity for a full dialogue at the appropriate
17 time.

18 **MEMBER MCDILL:** And staff?

19 **MR. RZENTKOWSKI:** From the CNSC standpoint
20 we have to ensure that the current facility's specific
21 licensing and design bases are maintained on the very last
22 day of the operation. And we are revising the regulatory
23 documents on the life extension with RD-360 to include
24 life management issues and develop regulatory requirements
25 for those.

1 To give you a specific example, the most
2 limiting component for CANDU reactors are pressure tubes
3 and the life of the pressure tubes is estimated at 210,000
4 effective full power days in operation. Ontario -- OPG
5 revised this number to 240,000 effective full power days
6 in operation.

7 Of course we have to understand better the
8 reason for that revision and we also have to ensure that a
9 proper maintenance and surveillance program will be put in
10 place to ensure fitness for service of all pressure tubes.

11 So we are revising the regulatory
12 requirements to make sure that we also maintain a proper
13 level of regulatory oversight and at the end we will be
14 also assured that we can maintain safe operation until the
15 date of the shutdown.

16 **MEMBER McDILL:** Thank you. Thank you also
17 for your response, OPG, to the issue of the large break
18 loss of coolant accident. I wonder if you could also give
19 me an idea of when the last four bulleted items on your
20 page 1 of attachment 2 are likely -- one of them is Report
21 on the Reclassification of Large Break LOCA, Report on the
22 Break Size and Opening Time.

23 Are these likely to be resolved within your
24 five-year expected licence?

25 So it would be H6-1D. It's attachment 2,

1 item 1. It's in your supplementary information.

2 **MR. JAGER:** Just for clarification, you're
3 talking about page 1 of attachment 2, down at the bottom
4 the four bullets?

5 **MEMBER McDILL:** Yes, thank you.

6 **MR. JAGER:** Okay. I would just like to
7 turn that over to Mr. Fred Dermarkar for comment.

8 **MR. DERMARKAR:** For the record, my name is
9 Fred Dermarkar. I'm the Director of Engineering Services
10 for Ontario Power Generation.

11 I'd just like to get a clarification on the
12 question. The four bullets -- the Report on
13 Reclassification of Large Break LOCA -- that one is due in
14 Q4 2011, but I'm just -- the next one -- Report on Break
15 Size and Break Opening Time is -- we're targeting for Q2
16 2012.

17 The Closure Report for Codes, Safety Margin
18 and Acceptance Criteria we're targeting for Q4 2012; and
19 the final project report for Q1 2013.

20 **MEMBER McDILL:** So those dates are -- are
21 you ahead of schedule or on schedule?

22 **MR. DERMARKAR:** We are on schedule. We've
23 issued a project execution plan. It is being managed
24 through the CANDU owners group and we do have a project
25 plan outlined to execute those and we are progressing

1 well.

2 **MEMBER McDILL:** So as of today they're all
3 expected to come in within the five years?

4 **MR. DERMARKAR:** That is correct.

5 **MEMBER McDILL:** Okay that answers my
6 question.

7 Second, correct me if I'm wrong -- I
8 believe you set aside low void reactivity fuel and it's
9 listed there again as being a backup. Could you comment
10 on that?

11 **MR. DERMARKAR:** Yes. For the record, it's
12 Fred Dermarkar.

13 Our primary approach is a composite
14 analytical approach and we believe and we have done a lot
15 of work already to show that there are large margins. In
16 fact we've done deterministic safety analysis for the
17 Pickering A reactor and even with deterministic safety
18 analysis we demonstrate that there is adequate margin.
19 With probabilistically based safety analysis the margins
20 are much larger.

21 There are -- we are not ruling out the use
22 of low void reactivity fuel. However, low void reactivity
23 fuel does have -- doesn't reduce a large number of complex
24 technical issues and it is not our preferred approach. It
25 would be something that we would turn to only if there is

1 no other reasonable option. And at this point in time we
2 have a fairly high degree of confidence that with the
3 composite analytical approach we will be able to
4 demonstrate that the margins are large for Large LOCA.

5 **MEMBER McDILL:** So if the -- if you had to
6 move to the low void reactivity fuel it would be
7 presumably after 2013 and very close to the end of this
8 licence.

9 **MR. DERMARKAR:** For the record, it's Fred
10 Dermarkar.

11 Aging does not affect Large LOCA very much
12 so it's not a time dependent phenomenon. The reason that
13 it's taking a long time to resolve this issue is because
14 there are complex technical questions to be resolved. And
15 that is what's taking the length of time. It isn't the --
16 it's not very age sensitive.

17 **MEMBER McDILL:** Does staff wish to add
18 anything?

19 **DR. RZENTKOWSKI:** Yes. I would like to add
20 that CNSC is very deeply involved in this work which is
21 coordinated through CANDU Owners Group as Mr. Fred
22 Demarkar mentioned a moment ago. This work has been
23 initiated by CNSC approximately four years ago when we
24 reviewed all outstanding safety issues related to CANDU
25 design.

1 And also we decided to replace the list of
2 the generic action items by all outstanding CANDU safety
3 issues, and as a part of that will establish a path
4 forward for the resolution of a Large LOCA. There are two
5 options on the table as was discussed a moment ago.

6 One is the integrated analytical solution
7 and second is the design option. However an integrated --
8 analytical solution is a little bit misleading. The name
9 is a little bit misleading because, as a part of this
10 option we will have to establish a clear acceptance
11 criterion for Large LOCA breaks.

12 And the establishment of those clear
13 acceptance criteria may eventually involve experimental
14 work as well.

15 **MEMBER McDILL:** Thank you.

16 My concern was that it would be at the end
17 of -- very close to the end of this license if that -- and
18 a complex analytical solution approach is not approved I
19 guess.

20 **THE CHAIRMAN:** Sorry to interrupt, but I
21 thought -- maybe I'm missing something here, but I thought
22 that CNSC accepted an interim solution associated with all
23 of this.

24 Are you saying that this interim solution
25 will remain interim for another three years until 2013? I

1 thought we had a little bit more urgency about resolving
2 this one way or another, whether the interim become
3 permanent or not.

4 **DR. RZENTKOWSKI:** This is our concern as
5 well. The resolution may take more than two years and
6 because of that we established our interim position. And
7 the interim position involves establishment of the
8 acceptance criteria for Large LOCA breaks.

9 And this can be taken straight from the
10 safety analysis report for operating power plants however
11 at the moment those acceptance criteria are different
12 depending on the design of the plant. We want to have
13 singular acceptance criteria for Large LOCA and then
14 perform the assessment including reclassification of the
15 pipe breaks depending on the probability. We believe that
16 this solution can be provided to us by the industry by
17 fall of this year.

18 **THE CHAIRMAN:** So there is no safety issue
19 or probability that our interim solution -- you know I
20 guess I -- if I understand correctly you're doing interim
21 solution because you don't know what the real answer is.

22 So there is no safety issue with the
23 interim solution or interim approach is there?

24 **DR. RZENTKOWSKI:** No, there is no safety
25 issue with the interim solution. The most limiting pipe

1 break is of course 100 percent break of the inlet or
2 outlet header. And those breaks are extremely unlikely
3 and there is a lot of conservatism built into the
4 analysis.

5 But this is the break which is being
6 considered for the assessment of effectiveness of the
7 shutdown system and emergency injection cooling system.
8 So from that standpoint we are clear and we are satisfied
9 that adequate margins are being maintained.

10 However we want to unify this approach
11 across the industry and we want this approach to be based
12 on a common acceptance criterion and a common approach to
13 reclassification of a pipe break.

14 **THE CHAIRMAN:** Dr. McDill.

15 **MEMBER McDILL:** Thank you.

16 On another matter with respect to the
17 Aboriginal groups, perhaps staff and OPG can explain and
18 correct me again if I'm wrong how several groups that were
19 signatory to a Treaty weren't involved earlier on. OPG
20 first, please.

21 **MR. JAGER:** Glenn Jager, for the record.

22 I will ask Laurie Swami to comment further
23 on that.

24 **MS. SWAMI:** Laurie Swami, for the record.

25 We have been working with Aboriginal groups

1 over the past 10 years on our major environmental
2 assessments that are associated with our major investments
3 in the nuclear program.

4 That consultation program has included the
5 number of the signatories to the Williams Treaty. We also
6 are enhancing our program and we are expanding it to
7 include our ongoing operations over this year.

8 **MEMBER McDILL:** But several groups have
9 been missed, is that correct, until the last say three
10 months for this?

11 **DR. RZENTKOWSKI:** Yes, I think we
12 recognized between Day One and Day Two hearing that there
13 were several groups which should be included in this
14 consultation. And I would like to direct this question to
15 Lisa Love, Regulatory Program Officer who will provide
16 more details.

17 **MS. LOVE-TEDJOUTOMO:** Thank you, Greg.
18 Lisa Love, for the record.

19 There's been some more recent work since
20 Day One, some studies with regard to the Williams Treaties
21 that we recognized that there was some additional groups
22 that we should consult with. So we did. We took action
23 to do that.

24 Now, this approach is slightly different I
25 think from what OPG's approach has been and which groups

1 they like to consult with. There's nothing wrong with
2 that but I think now that they're also adapting to look at
3 these other groups that we've recently identified.

4 **MEMBER McDILL:** I'll try the question
5 again. How is it we only recently identified them?

6 **MR. JAMMAL:** Thank you, Mr. Chair.

7 Dr. McGill, this group came to light as a
8 result of the environmental assessment for Darlington.
9 And as CNSC staff was comparing the groups during this
10 assessment and it did come to light by the CNSC staff that
11 this group needed to be consulted with.

12 So that's how it came about.

13 Sorry, to answer your question.

14 **MEMBER McDILL:** Thank you, yes.

15 That's all for now, Mr. Chair.

16 **THE CHAIRMAN:** Thank you. Dr. Barriault.

17 **MEMBER BARRIAULT:** Merci, Monsieur le
18 Président.

19 Just to pursue that issue on this last
20 round of consultation with the Aboriginal people, I
21 understand that there were three groups that weren't
22 contacted.

23 And did not make any presentation I
24 understand. Am I correct in assuming this; CNSC?

25 **MS. LOVE-TEDJOUTOMO:** Yes. The three

1 initial groups were sent the information prior to Day One.
2 And we spoke with all of those groups and they were not
3 interested in participating or intervening in any way.

4 Nor did they have any questions.

5 **MEMBER BARRIAULT:** So when you say you
6 spoke to them, on the telephone did you actually ---

7 **MS. LOVE-TEDJOUTOMO:** Yes, we contacted all
8 three groups by telephone and spoke to them personally and
9 we offered to provide assistance whether it's with respect
10 to the actual hearing process or with respect to technical
11 matters. And said we would be available, could help them
12 out.

13 But they thanked us and that was the end of
14 it. We followed up again because we sent all of these
15 original three groups information for the Day Two hearing.
16 And so we again followed up to make sure that they
17 received the material and asked if they had any questions
18 or if they needed to have information on the hearing
19 process, where it's located, how they could participate.

20 The rules of procedure as you know were
21 revised to allow them to intervene up until I think May
22 12th. We asked if they wished to do that and again there
23 was no interest in doing that.

24 And we did the same for the six new groups
25 We made sure that they got the material, we spoke with

1 installed the barrier net in April of this year.

2 **MEMBER BARRIAULT:** It was removed at what
3 time? You installed it last fall, I understand, for a
4 period of a month or so. Is that correct?

5 **MR. JAGER:** That's correct. It was
6 installed for a short period in the fall of last year. It
7 was removed in November for the winter.

8 **MEMBER BARRIAULT:** I guess -- basic
9 question -- is it because of ice control that you removed
10 it or why was it removed at that time?

11 **MR. JAGER:** Glenn Jager for the record.

12 The design of the barrier net and the
13 intention is to have it in place from the period of April
14 to November. It's removed for the winter period due to
15 the need to clean the net periodically. In fact we have -
16 - while the net is installed divers are out on the lake
17 for the majority of the week cleaning and maintaining the
18 net. During the winter season, the lake conditions are
19 such that it's hazardous to perform those types of
20 operations.

21 Similarly the Coast Guard is not available
22 during those months to perform rescue operations and
23 support those activities should an event or a situation
24 develop. So as a result we remove the net during that
25 period of time because we are not able to properly

1 maintain it through that period. So from November to
2 April the net is not installed and we re-install it April
3 and it's in place right through to November.

4 **MEMBER BARRIAULT:** So if I understand
5 correctly what you're saying is that you cannot find
6 people to look after the maintenance of the net over that
7 period of time?

8 **MR. JAGER:** The design of the net is such
9 that it's installed for that period. We benchmarked other
10 facilities. They have a similar installation and that is
11 how they manage their barrier net so it's been benchmarked
12 at other facilities around the Great Lakes.

13 Similarly we use the same dive services and
14 we've talked to the divers about maintaining the net
15 during that period of time and that was all done as part
16 of the design, installation and maintenance of the net.

17 I can ask Mark Elliott to -- part of our
18 ICMS group -- comment further on the maintenance of the
19 net and the restrictions of performing that operation
20 through the winter months.

21 **MR. ELLIOTT:** For the record, Mark Elliott,
22 Senior VP of Inspection, Maintenance and Commercial
23 Services. I'm the executive that manages the maintenance
24 of the net.

25 The net is -- the divers, our divers are

1 fully capable as any divers are in Ontario of doing this
2 work. What we're concerned about is that we could not
3 continue the maintenance through the winter with the
4 winter weather conditions on the lake and it would be
5 hazardous for any diving operation to maintain that net
6 and this net, as designed, takes continuous maintenance to
7 keep it in service.

8 Now as we develop this net solution, we
9 worked with the environmental people and our information
10 is that the net -- the amount of fish that come in in that
11 period is low and so the risk to the divers and the diving
12 operation versus the benefit in terms of fish mitigation
13 was not there to keep the net in service in the winter.

14 **MEMBER BARRIAULT:** I can understand. Would
15 it be difficult to replace the net with an alternate net
16 during that period of time to minimize the maintenance?

17 What I'm trying to understand is that why
18 we can't protect, I guess, the intake on a 365 days a year
19 basis. If I understand correctly, now there's November,
20 December, January, February, March, April that we do not
21 have any coverage. Is that correct?

22 **MR. ELLIOTT:** That's correct. For those
23 four months there's not coverage and our information is
24 the need for that coverage is less during those months.
25 The net does need continuous cleaning to remove algae ---

1 **MEMBER BARRIAULT:** Sure.

2 **MR. ELLIOTT:** --- and that means continuous
3 divers in the water and it's hazardous in those months to
4 have a boat and the divers in the water.

5 **MEMBER BARRIAULT:** Your cleaning cycle for
6 the net is how often?

7 **MR. ELLIOTT:** We're in the lake four days a
8 week during the eight months that the net is in service
9 and should we have an algae run, a need to clean it more
10 frequently, we have surveillance of the net and we would
11 come out in those other three days of the week to clean
12 it.

13 **MEMBER BARRIAULT:** Still maintaining a half
14 inch net, are you? Or have you gone to a bigger net?

15 **MR. ELLIOTT:** No, it's a half inch net.

16 **MEMBER BARRIAULT:** I understand, okay.

17 My guess -- next question is the
18 effectiveness of the net. Are you noticing major changes
19 in your amount of -- fish count at the pump house compared
20 to previous years?

21 **MR. ELLIOTT:** We're still studying that.
22 The net has been in since April but the Units have all
23 been shut down for our vacuum building outage so we'll get
24 a better handle on that as the Units start up in June.

25 **MEMBER BARRIAULT:** Okay.

1 **THE CHAIRMAN:** But there is data from other
2 utilities or other people who know the effectiveness of
3 the thing and I've seen some of the numbers that are in
4 the presentations but they're never presented as a
5 percentage of the total population. I don't know what's -
6 - what I want to say is that, you know, the kill here --
7 do you have any percentages that gives a feel for the
8 threat here?

9 **MR. JAGER:** Glenn Jager for the record.
10 I'll ask Laurie Swami to comment further on
11 that.

12 **MS. SWAMI:** Laurie Swami, for the record.
13 Yes, we've been studying the impingement at
14 Pickering for many years and we've had over eight research
15 reports and other documents that we've filed with respect
16 to this issue including the Pickering A return to service
17 environmental assessment and the Pickering B environmental
18 assessment which was recently accepted and in those
19 studies we've concluded that there was no lake-wide
20 population effect from the impingement at Pickering over
21 the period of time that we've doing these studies.

22 As we've looked at the solution, the target
23 for our improvement is to reduce impingement by 80 --
24 greater than 80 percent and based on the information that
25 we have from other facilities that use a similar net the

1 expected performance is greater than 90 percent -- in the
2 high 90s -- from that operating experience. So we expect
3 that we will achieve greater than 80 percent.

4 **MEMBER BARRIAULT:** In terms of the species
5 of fish, is there any of these species that are considered
6 "endangered species" that are coming through?

7 **MS. SWAMI:** Laurie Swami, for the record.

8 There are no endangered species. There are
9 two species that the CNSC has identified and we're working
10 with them to ensure we have protection in place.

11 **MEMBER BARRIAULT:** To make up, if I
12 understand correctly -- that 20 percent of -- that's still
13 being impinged, have you set up a program to restock
14 rivers, streams for those species?

15 **MS. SWAMI:** We are working on fish habitat
16 or a restoration program which could include fish
17 stocking. We're working with the local regional
18 conservation authority to establish what that program
19 would look like and we plan to submit an overview of that
20 later this year.

21 **MEMBER BARRIAULT:** Thank you. My next
22 question, Mr. Chairman, if I may.

23 In your February presentation on the issue
24 of your injury rates, your all injury rates, we had the
25 statistics for ten months at that time, not for the whole

1 year. Just for the record, could you give us the
2 statistics for the whole year and how they compare to
3 previous years?

4 **MR. JAGER:** Glenn Jager, for the record.

5 Yes, we did update that. The accident
6 severity rate to the end of the year was zero in 2009 and
7 all-injury rate was 1.11.

8 **MEMBER BARRIAULT:** And how did that compare
9 to the previous year?

10 **MR. JAGER:** Accident severity rate was
11 significantly down from previous years. It was an
12 exceptional performance, actually.

13 And all-injury rate, that was up from
14 previous years. It was an increase but still below target
15 and still very good compared to industry performance.

16 **MEMBER BARRIAULT:** Thank you.

17 Thank you, Mr. Chairman, for this round.

18 **THE CHAIRMAN:** I'm still on the fish file
19 here. I think it's going to be with us for a while.

20 Somebody mentioned that CNSC identified two
21 species that were at risk. I mean, maybe it's a good time
22 to bring friends from Fisheries and Oceans. Is anybody
23 here from Fisheries and Oceans willing to step forward?

24 What I'm really trying to understand is
25 whether the next solution is an acceptable solution here

1 to --

2 **MR. HOGGARTH:** Yes, it's Tom Hoggarth from
3 Fisheries and Oceans Canada here.

4 Yeah, we're currently working with the
5 Ministry of Natural Resources as well as Conservation
6 Authority, OPG and CNSC on the issue of fish mortality.
7 And based on the information provided, the fish nets at
8 this stage of the game might be one of the better
9 opportunities to try.

10 So the process in place right now is to put
11 the nets in, assess the mortality of it, but also I know
12 at this point in time they're also talking about other
13 strategies or adopting other strategies in case the nets
14 themselves aren't going to work.

15 So for us the process will be have the nets
16 in place, assess the value of them -- are they working,
17 are they not. Once we get that in place we'll then be
18 looking as well at the significance of what the remaining
19 mortality is and then using that for making decisions on
20 whether more measures are required to be put in place.

21 **THE CHAIRMAN:** What other measures are
22 there? I thought we have investigated this now for many,
23 many years as we just heard. So what other measures are
24 available and, you know, this is not the first time?
25 There is all kinds of others jurisdiction and utilities

1 using such a thing. So what other possible measures are
2 there?

3 **MR. HOGGARTH:** I wouldn't be an expert on
4 those or specifically what would be best applied to the
5 Pickering but others would be fish bypasses. So having
6 rotating nets -- or not nets but screens which would
7 actually collect fish, they would be continually operated
8 and would have a system in place; to any fish that come in
9 to collect them and have a bypass associated with them.

10 And, again, like I said, I'm not the expert
11 on them and definitely not an engineer, so I would have no
12 idea of, you know, the actual feasibility of installing
13 these types of things at Pickering. I would leave that to
14 the experts to comment on feasibility but there is stuff
15 like that as well.

16 **THE CHAIRMAN:** Okay, thank you.

17 I'd like to move on to Mr. Tolgyesi.

18 **MEMBER TOLGYESI:** Merci, Monsieur
19 Président.

20 On page 2 of the document 10-H6.1D is you
21 are saying that Units 1 and 4 predicted life is mid-20s.
22 What it means, 2025, 2028? Could it be shorter or longer?

23 **MR. JAGER:** Glenn Jager, for the record.

24 The predicted life of Pickering A in mid-
25 20s refers to 2026 and is in reference to the major

1 components of fitness for service and the efforts that we
2 would apply in regards to that.

3 **MEMBER TOLGYESI:** You're saying also that
4 the Units 1 and 4 will shut down simultaneously with the
5 Pickering B units and this shutdown is based on
6 interconnecting systems between A and B. I suppose it was
7 confirmed by simulation that you should shut down because
8 -- at the same time?

9 **MR. JAGER:** Glenn Jager, for the record.
10 The Pickering A plant shares common safety
11 systems with the Pickering B plant. That's as part of its
12 design and supporting safety analyses. Some of those
13 systems require the operation of Pickering B.

14 Therefore, when Pickering B is shut down we
15 would have to correspondingly place the Pickering A units
16 into the safe shutdown state. To operate those two units
17 would require a re-evaluation and possibly design
18 modifications to allow them to operate independently of
19 Pickering B, but under its current design and analysis the
20 Pickering A units require the operation of one or more
21 Pickering B units.

22 **MEMBER TOLGYESI:** Because that's what
23 you're saying a little later. However, in the fourth
24 paragraph of the document you say that the Pickering A
25 units shutdown could be revised should circumstances

1 dictate.

2 What kind of circumstances you have in
3 mind?

4 **MR. JAGER:** The statement is in reference
5 to whether we would consider operating the Pickering A
6 plant beyond the date that requires Pickering B to shut
7 down. In order to do that, as I said, again we'd have to
8 re-evaluate the design and analysis that supports the
9 operation of Pickering A in concert with that.

10 So it would be economic considerations
11 really that would dictate whether or not we would consider
12 that option and whether it is economically viable to do
13 so.

14 **MEMBER TOLGYESI:** When you are looking at
15 your accident severity rate and all-injury rates, in
16 accident severity rates you have a great performance in
17 2009. You were saying that it was zero, which was a drop
18 from close to 4.0 in 2008.

19 What's your 2010 target?

20 **MR. JAGER:** Glenn Jager, for the record.

21 The target for 2010 in accident severity
22 rate is 4.5. Our current performance year to date is
23 3.84.

24 And that number is to the end of April.
25 Our actual performance to date is 2.68, so it's going to

1 come down as we progress through the year, provided there
2 is no injuries occur during the course of the year.

3 **MEMBER TOLGYESI:** I wonder, you know, you
4 put lots of effort in safety and accident prevention.
5 Your performances are good and you strive for excellence
6 and still what I see, that your targets are much higher
7 than your performances could be. And it's the same for
8 accident severity rate, you know, and when I look at all-
9 injury, it's increasing slightly, although it's better
10 than industry average.

11 But I think that when you would like to
12 achieve something you should lower this target, lower the
13 number to give incentives to the people to achieve this
14 target.

15 **MR. JAGER:** Glenn Jager, for the record.

16 In regards to safety, if you want to
17 consider our communication to our staff and how we view
18 safety overall, our target is zero injuries and you'll
19 find that frequently in our communications. Zero injuries
20 is our target. That's what we strive for in terms of
21 supervisory performance, worker performance, corporate
22 performance in the area of safety. We strive for zero
23 injuries.

24 The targets by which we monitor our metrics
25 are benchmarked to the industry. That's important for us

1 to compare our performance and understand our performance
2 relative to the industry as a whole. But in terms of
3 communications to our employees and motivating staff,
4 clearly we don't want any injuries in the workplace and
5 our goal is zero injuries.

6 **MEMBER TOLGYESI:** Anyway, I think that even
7 for administrative purposes, these targets -- because what
8 you are saying is a target -- should curve down a little
9 bit to make sure that you achieve those.

10 I have a last question. By fixing the end
11 of life at 2020 and considering the importance, extent and
12 size of Pickering A and B facilities, you will face, from
13 now on, two major activities for the next 10 years. It's
14 operations, production -- you should maintain that, high
15 standards and full production. And on the other side, you
16 have also -- you initiated that -- it's planning and start
17 of shutdown and decommissioning.

18 These are two major undertakings. However,
19 when I consult your organizational chart at page 14, maybe
20 it's my difficulty, but I cannot -- I am not able to
21 identify a person in a senior staff level who will be
22 fully dedicated to shutdown and decommissioning Pickering
23 A, and eventually Pickering B also, because it's
24 integrated.

25 So am I right or I'm -- I don't see that

1 exactly?

2 **MR. JAGER:** Within the station organization
3 we are accountable for ensuring and developing the plans
4 for operation through the 10-year period and, as we say,
5 ensuring operation is maintained at excellence, meets all
6 industry standards, and we have a safe and reliable plant.
7 The decommissioning effort is handled by a separate
8 organization within OPG that does not appear on the
9 organization chart that relates to the station
10 organization.

11 **MEMBER TOLGYESI:** So it's two separate
12 organizations which, one is taking over this
13 decommissioning and shutdown; another one is dedicated to
14 production, and this production is on the site. And this
15 other group is not -- it maybe on the site also, but it is
16 responsible to -- I don't know who.

17 **MR. TREMBLAY:** Pierre Tremblay, for the
18 record.

19 Clearly, the transition as the plans emerge
20 and firm up and get more specific, as was done with the
21 safe-store project on 2 and 3, there will be dedicated
22 leadership assigned and staff and resources placed to it.
23 That will be the subject of lots of dialogue and work for
24 us and, clearly, as those plans emerge we'll be talking to
25 the staff and to the Commission in due course.

1 But you're right, our general approach has
2 been to focus the operators on the operation of the plant,
3 ensuring that they have adequate resources to focus and
4 pay attention to pursuing continued excellence. You know,
5 the phases themselves in the operating life will emerge as
6 part of the detailed work that we're doing.

7 One of the things that is part of the
8 licence for Pickering A over the next five years is the
9 detailed operational plan for Pickering A, which is due at
10 the end of next year as part of this process. And some of
11 that thinking will begin to emerge over that time period.

12 **THE CHAIRMAN:** But just to be clear,
13 there's -- Pickering B, for example, end-of-life
14 submission is being written as we speak now. So who in
15 the organization, empire actually, is accountable and
16 responsible for doing that?

17 **MR. TREMBLAY:** The Pickering A Operational
18 Plan is the responsibility of the site vice-president and
19 the ---

20 **THE CHAIRMAN:** End of life includes that?

21 **MR. TREMBLAY:** Well, the operational plan
22 will be the accountability of that organization to produce
23 because it focuses on ensuring safe, reliable operation
24 through the operating life of the plant. The point that
25 Glenn was making was that there is a broad decommissioning

1 plan that's in place now.

2 That plan is being reviewed now and updated
3 as per the requirements and in due course a detailed plan
4 will be produced. That's under the responsibility of the
5 Nuclear Waste Organization at the moment. That's where
6 the accountability lies.

7 **THE CHAIRMAN:** Monsieur Harvey.

8 **MEMBRE HARVEY:** Merci, Monsieur le
9 président.

10 My first point is not a question but a
11 comment to the staff.

12 In your supplemental CMDs H6.C and D, I
13 suppose -- or E -- in the summary we can read, "The
14 following actions are requested of the Commission", and in
15 French: "La Commission devrait prendre les mesures
16 suivantes".

17 I just want to express here the
18 independence of the Commission; that the Commission is
19 really independent, and I prefer to see what you mentioned
20 this morning in your presentation, that you recommend the
21 Commission such-and-such action. That's it.

22 My question is coming back to fitness for
23 service and the response to the question by OPG in page 2
24 of page 6.1(d). OPG is confident -- I'm talking of
25 Pickering B. My question is larger than that:

1 "Pickering B pressure tubes and the
2 other major components of the plant
3 will continue to be fit for
4 service..."

5 et cetera et cetera, and then at the end:

6 "...will not be operated without
7 adequate demonstration of fitness for
8 service."

9 My question is addressed to the staff. Are
10 there specific criteria already established to serve as
11 benchmarks for such a demonstration? Here we have two
12 different plants, Pickering A and B, and different age.
13 Would it be exactly the same process for A and B?

14 **DR. RZENTKOWSKI:** The criteria have been
15 established and they are now captured in a draft document,
16 "Life Management of Nuclear Power Plants", and we
17 communicated the criteria very clearly in the letter we
18 sent to Pickering B about two weeks ago, requesting
19 certain information to be included in their continued
20 operation plan. So, yes, there are specific requests,
21 which we elevated to the requirement level of sending our
22 letter.

23 **MEMBER HARVEY:** What will be the frequency
24 of such demonstration?

25 **DR. RZENTKOWSKI:** That depends on the

1 components. So specific surveillance plans to ensure
2 fitness for service of major components are developed, are
3 already deployed by the industry, and we are generally
4 satisfied how the system works. And as long as the
5 fitness of service of major components can be demonstrated
6 to us, we will allow for the continued operation of the
7 plant.

8 I believe the programs that are presently
9 in place are generally sufficient to ensure safe operation
10 of the stations.

11 **MEMBER HARVEY:** Okay. I was trying to find
12 a place because OPG was writing that it will not be a
13 question of date. In the future, the demonstration will
14 not be at a specific date but will be based on that
15 demonstration of fitness for service. So you have some
16 comment about that?

17 **MR. TREMBLAY:** For the record, Pierre
18 Tremblay.

19 The general approach that is taken is that
20 there is an inspection program, as Mr. Rzentkowski
21 indicates that it is conducted typically for the life-
22 limiting components, such as the pressure tubes. It
23 involves periodic inspections and an attestation and
24 demonstration of fitness for service for the next
25 operating cycle.

1 And so that's really what's being referred
2 to here. There is a periodic inspection program for all
3 major components and life management plan, and there is a
4 demonstration that is carried out prior to the restoration
5 of any of the units to service, to power for the next
6 operating cycle, up until the next outage period.

7 That's really what's the context of that
8 remark.

9 **THE CHAIRMAN:** I'll turn to the staff and
10 say is this a new thing that will be applied, all the
11 reactors once approved are Hydro Quebec or Gentilly-1,
12 Gentilly-2?

13 **DR. RZENTKOWSKI:** In terms of operating
14 requirements, there will be nothing new in our approach
15 but in the approach to the end-of-life, yes because we
16 will state very clearly our requirements for following
17 options; life extensions, continued operations or end-of-
18 life.

19 So as we discussed already here today, the
20 design life is estimated as a certain value but of course
21 the design life can be extended if it can be clearly
22 demonstrated to the regulator that fitness for service can
23 be ensured for the continued operation. But we want to
24 ask to very clearly define what is the nominal design
25 life? So this is the design life for which certain action

1 has to be taken by the licensee, and this action is either
2 refurbishment or end-of-life depending on probably
3 economic considerations.

4 **MEMBER HARVEY:** Thank you.

5 **THE CHAIRMAN:** Just so I am absolutely
6 clear. The next 10 years, are all the pressure tubes in
7 Pickering A and Pickering B, each and every one of them
8 going to be assessed for its adequacy to carry on? Are
9 you doing a hundred percent audit or some -- you know, how
10 do you ascertain that it is properly functioning?

11 **DR. RZENTKOWSKI:** There's a surveillance
12 program in place for pressure tubes and certain population
13 of the pressure tubes is being inspected very -- in a very
14 detailed fashion during the maintenance outage.

15 And then the disposition reports are
16 prepared and sent to the CNSC for assessment. So based on
17 those disposition reports, we assess if in fact all the
18 pressure tubes are fit for service. But in terms of
19 specific numbers, how many are inspected on an annual
20 basis, I don't know those numbers and I will refer to the
21 OPG to provide them.

22 **MR. JAGER:** Glenn Jager, for the record.

23 For Pickering A and B, the life of the
24 pressure tubes is beyond 2020, so the inspection program
25 actually demonstrates fitness for service with each plan

1 maintenance outage.

2 And I'll ask Rob Black to comment on that
3 inspection program and how it's managed.

4 **MR. BLACK:** Yes, Robert Black, Director of
5 Engineering, Pickering A, for the record.

6 Just to build on the conversation so far
7 that OPG, we monitor the condition of our pressure
8 boundary and other critical components according to the
9 in-service requirements of the CSA standards. So it's
10 n2D5.4 and n2D5.5.

11 These programs tell us what the quantity of
12 the surveillance is supposed to be. For example, on
13 pressure tubes it would be 10 on every outage cycle.
14 These results are coordinated in a fitness for service
15 argument and the results and reports are presented to the
16 CNSC staff for their review.

17 **THE CHAIRMAN:** Thank you.

18 Mr. Harvey?

19 **MEMBER HARVEY:** Last question. In your
20 presentation this morning, listening to the staff, you
21 mentioned that the staffing complement is sufficient.

22 When you say that, are you saying that the
23 submitted plan of shift complement is sufficient or that
24 there is on the ground at any time enough employees to
25 meet the requirements for all the scenarios you have

1 evaluated?

2 **DR. RZENTKOWSKI:** The minimum shift
3 complements are being maintained. The question is how the
4 minimum shift complement is being evaluated, and I would
5 refer this question to Mr. Tom Schaubel, the regulatory
6 program director.

7 **MR. SCHAUBEL:** For the record, Tom
8 Schaubel.

9 In the licences or licence requirement
10 there is a requirement that they have the minimum number
11 of people available to handle any worst case accident.

12 Right now they are doing an evaluation of
13 all of those worst case accidents to find out what is the
14 minimum number of staff.

15 And I believe that any time onsite there
16 are in a range of a thousand people onsite, but the actual
17 minimum complement is 83 people for Pickering A, 83
18 particular positions that they have identified as vital to
19 handle that accident. And that's what we call the minimum
20 shift complement, is those 83 people.

21 And that is being evaluated and from first
22 looking at the results that have come up with, that number
23 of 83 appears to be sufficient. It possibly may be
24 reduced some but what the program we've had over the past
25 couple of years is to make sure we had a good assessment

1 and really validated those numbers to know exactly how
2 many people were required and what qualifications those
3 people were.

4 So that is being done and should be
5 completed by the end of this year.

6 **THE CHAIRMAN:** Once that part is done,
7 you've got to -- well, I shouldn't say monitor this, but
8 to be sure that there will be 83 persons, if that is the
9 number, that there will be 83 persons at any time on the
10 side. So what do you do about that?

11 **MR. SCHAUBEL:** I'd like André Bouchard to
12 describe the program that monitors the actual number of
13 minimum complement staff that are there and just how that
14 is monitored.

15 **MR. BOUCHARD:** André Bouchard, Director of
16 Human and Organization Performance, for the record.

17 OPG over and above determining the analysis
18 of scenarios of events and coming up with actual numbers
19 of people, OPG and all our licensees are required to have
20 a program in place to monitor that effectively people have
21 shown up at the door at a given day and you're not caught
22 with short staff when an emergency happens.

23 So from OPG's specific standpoint, they do
24 monitor these things and CNSC as well do monitor minimum
25 shift complement. How OPG is verifying that, actually

1 people have shown up at the door.

2 **MR. JAGER:** Glenn Jager, for the record.

3 If I may, we do monitor minimum complement
4 in the station at all times and we have a program and a
5 method by which to do this.

6 And I'll ask Sean Granville to elaborate on
7 the details of those programs and how we assure minimum
8 complement at all times within the station's protected
9 area.

10 **MR. GRANVILLE:** For the record, Sean
11 Granville, Director of Operations and Maintenance,
12 Pickering A.

13 So like Glenn talked to, we do have a
14 minimum complement program. It's an electronic program
15 that staff as they come in to work, badge in and when they
16 leave work, they badge out. The system flags -- there are
17 screens at the exit points that identify if we are coming
18 close to meeting our -- hitting our minimum complement.

19 If they were to badge out and that would
20 put us below the job, there is a warning that tells them
21 that they can't leave the site. There is an historical
22 part to that program, so we can go back and review in the
23 past to confirm that at all times we have maintained our
24 minimum. And like it's been talked to, the minimums are a
25 relatively low number, relative to the normal station

1 complement.

2 So any and all violations are reported to
3 the CNSC and any threats we capture in our own, you know,
4 if we come close to our minimum complement, we capture it
5 in our own reporting system.

6 **THE CHAIRMAN:** Thank you, just a small
7 addition to this.

8 Is CNSC staff, you know, monitoring things
9 like that and will their function during the last kind of
10 10 years here would change in emphasis as to how we do our
11 inspection?

12 **DR. RZENTKOWSKI:** In addition to assessing
13 the programs and the effectiveness of those programs we
14 perform also daily inspections. So this is the role of
15 our site staff. They visit the main control room every
16 morning assessing the staff level working in the main
17 control room. So from that standpoint we are satisfied
18 that at least in the main control room there is always
19 adequate level of staffing.

20 **THE CHAIRMAN:** Okay, thank you.

21 Mr. Graham.

22 **MEMBER GRAHAM:** Thank you, Mr. Chair.

23 I have several lines of questions but
24 before I get into those, I just want to touch back for one
25 moment on the end of life.

1 And I listened this morning to questions
2 posed by my colleagues and for Pickering B, CNSC said that
3 there probably would be a two year licence to harmonize
4 but I heard OPG say they would ask for a two year
5 extension and in my mind an extension to a five year
6 licence to Pickering B and the two year licences is quite
7 different and I'm wondering -- I'd like to just clarify
8 that because you didn't -- OPG said that they would be
9 looking at the -- when the licence expired on Pickering B
10 that they would look for a two year extension.

11 Would you clarify that?

12 **MR. TREMBLAY:** Pierre Tremblay for the
13 record.

14 There are a number of ways of attacking
15 this. The comment was made about a two year licence that
16 may be kind of where we end up or we may extend the
17 Pickering B licence by a year or two. There are a number
18 of options here. Suffice it to say that as we move
19 forward the next couple of years we'll work with the
20 staff, develop the plan and harmonize the licences and
21 that synchronization may lead to one licence.

22 It certainly would be good if we could make
23 that happen. But at this stage, you know, I would prefer
24 to keep the options open as we're trying to work our way
25 through it.

1 **MEMBER GRAHAM:** Question to CNSC staff.

2 Are you -- is thinking of staff that a two
3 year extension to a five year licence in order to
4 facilitate the harmonization of A and B would be prudent
5 in the fact that the facility is planning an end of life
6 and because of all these other things an extend -- I
7 listen carefully and the wording -- CNSC staff did not say
8 extension. You said a shorter licence and then harmonize.

9 OPG is even -- my questions are confirming
10 that they would look at an extension and I realize that a
11 lot of the Commission and a lot of staff and a lot of
12 other people won't be here at that time in five or seven
13 years and I'm just -- I think a policy statement would be
14 important.

15 **MR. RZENTKOWSKI:** I think what options
16 we'll consider around 2013 will depend what will be the
17 decision about the harmonization of the licence because,
18 as I mentioned before, there are two options -- either
19 synchronization of the licences which means two different
20 licences but issued at the same point in time, or
21 consolidating both licences into one.

22 If we decide to consolidate both licences
23 into one in 2015, I think we would have to probably extend
24 the operating licence for Pickering B because simply there
25 would be too much administrative work to extend the

1 licence and prepare for consolidated licensing in 2013.

2 However, if we decide on the
3 synchronization of the licences in 2015 then I would
4 rather recommend a two year long licence.

5 **THE CHAIRMAN:** Just listening to you,
6 you're making a really compelling argument to do a licence
7 for 2013 when all the information will be available and
8 you'll know what to do next.

9 **MR. RZENTKOWSKI:** This is really a
10 difficult decision at this point in time because we are
11 engaged in the discussion with OPG and we still don't know
12 what will be the decision, either synchronization of the
13 licences or consolidation of licences but I understand
14 that Mr. Ramzi Jammal would like to comment on that
15 subject as well.

16 **MR. JAMMAL:** Thank you Mr. Chair.

17 Mr. Graham, it's a very good question. So
18 you need -- all your clarification and transfers to the
19 public. The term of the licence is a snapshot in time.
20 The safety is always maintained and the amendment to such
21 licences -- let it be a two year licence or an extension --
22 - I'm giving you a hypothetical answer here -- is the
23 Commission will have to do the extension and it will have
24 to do the approval.

25 So it's not the designated officer or the

1 Commission issues the licence and the Commission will do
2 the amendments and the extension.

3 Just globally with respect to the Pickering
4 site issue, Pickering came to us on the refurbishment.
5 They underwent an integrated safety review program of all
6 of the equipment on the basis of going through
7 refurbishment. When they made the decision not to
8 refurbish, we are gathering the information that we
9 collected and we reviewed with respect to the
10 refurbishment and then start to apply for the end of life
11 plan.

12 As Dr. Rzentkowski spoke, we are working in
13 this process very quickly and expeditiously because I'm
14 personally overseeing it and I had meeting with Mr.
15 Tremblay from OPG and almost we're turning things around
16 in a matter of two weeks in order to provide the
17 information and we're going back to the fact that safety
18 is our job as most people will like to say it -- it's in
19 our DNA.

20 It's not going to move away from our
21 mandate and we are working towards the establishment of
22 the action plan and development of -- as our President
23 mentioned, the experience of decommissioning or shutting
24 down such a large facility is new for us and we have the
25 processing in place; we have the enforcement tools in

1 place in order to ensure that OPG will be capable to
2 deliver on our timelines and put in place the best process
3 and transparent process with respect to the
4 synchronizations of one site licence for Pickering.

5 **THE CHAIRMAN:** Mr. Graham?

6 **MEMBER GRAHAM:** Well I'm still trying to
7 figure out whether we should go and grant a three year
8 licence or a five year licence and that's my concern and I
9 need convincing and we'd go from there but I won't
10 belabour that any longer.

11 I want to ask one other question at the
12 present time and that is with regard to Day One which I
13 had asked several questions with regard to fish
14 impingement and entrainment.

15 And my first question is to OPG -- is
16 approximately what is the volume of water that is
17 discharged from Pickering A and B when all six units are
18 running? What is the hourly discharge of water in volume?

19 **MR. JAGER:** Glenn Jager for the record.

20 We'll have to get that answer for you. We
21 probably get that later today.

22 **MEMBER GRAHAM:** If we could have it before
23 we get into the second round, I'd like to have that
24 because I -- my questions are around that and around the
25 Pickering B screening report which flagged a very major

1 concern with regard to fish mortality and so on.

2 My other question is though, is with regard
3 to the studies and the millions and tens of millions of
4 larvae and eggs that are destroyed by this volume of water
5 -- this warm water and so on, these plumes going out. Do
6 the nets have any adverse effect on that mortality or is
7 that -- will that happen regardless?

8 **MR. JAGER:** Glenn Jager, for the record.

9 The net does not offer any benefit to
10 entrainment, which is exactly what you're referring to ---

11 **MEMBER GRAHAM:** Yes.

12 **MR. JAGER:** --- which is the eggs and
13 larvae -- so offers no benefit in that regard other than
14 to prevent the impingement of the fish who then are able
15 to replenish.

16 I'll ask Laurie Swami to comment further on
17 the effects of the station operation on eggs and larvae.

18 **MS. SWAMI:** Laurie Swami, for the record.

19 So as Mr. Jager indicated, the barrier net
20 itself doesn't prevent entrainment per se and that's why
21 we are also looking at the fish stocking and fish habitat
22 restoration program as a complement to the installation of
23 the barrier net to address those other issues with respect
24 to entrainment.

25 **MEMBER GRAHAM:** So the 80 percent that

1 you're striving towards is 80 percent only at the time the
2 nets are in. Is that correct? So if you took a matter of
3 7/12s of this you're probably talking about 50 percent?

4 **MS. SWAMI:** Laurie Swami, for the record.

5 The way that we calculate the actual
6 reduction is we look at the effectiveness of the barrier
7 net over the period of time that it's installed. Our
8 current estimate is that it will reduce impingement by
9 high 90 percent and if we factor that over the entire year
10 we would achieve the greater than 80 percent on an annual
11 basis.

12 **MEMBER GRAHAM:** Species at risk and species
13 that not necessarily are at risk but fall into the next
14 category below that, and then also other species -- lake
15 sturgeon are, I believe one of the species at risk.
16 Atlantic salmon, I believe, are another.

17 Have there been indications that these
18 species at risk are part of the group that are in the
19 mortality listing that you found out?

20 **MS. SWAMI:** Laurie Swami, for the record.

21 We have not had any impingement of species
22 at risk as classified under the regulations. The species
23 that I was talking about that the CNSC had raised concerns
24 with respect to are the brown bullhead and northern pike.
25 They're a very small percentage of the actual impingement

1 that we experience at our Pickering facility.

2 **MEMBER GRAHAM:** The larger volumes are the
3 round white fish; is that correct?

4 **MS. SWAMI:** Laurie Swami, for the record.

5 There are two species that represent well
6 over 80 percent of the impingement -- that's alewife and
7 the three spine stickleback. We have records for 2004 and
8 2006 and in both cases those are fairly significant and as
9 I mentioned, well over 80 percent of the impingement.

10 **MEMBER GRAHAM:** The other question is --
11 talk about your working on solutions and DFO were here
12 before us. Are DFO working closely with you to find
13 solutions to the fish mortality and the benefits of
14 putting up the nets and so on?

15 **MS. SWAMI:** Laurie Swami, for the record.

16 We have been working on the plans and have
17 been developing the plans and we then submit them to the
18 regulators for their review and concurrence.

19 As mentioned, we submitted the cost benefit
20 analysis and as part of the development of this cost
21 benefit analysis we held a workshop in which DFO staff
22 were represented as well as other regulatory agencies and
23 bodies. So they have been providing their input to the
24 processes as we go forward.

25 **MEMBER GRAHAM:** Is there a permit -- is

1 there permitting required for what you're doing or is it
2 more or less and agreement of going forward with Natural
3 Resources Ontario and DFO?

4 **MS. SWAMI:** The historical practice has
5 been that we have installed our intake structures using
6 the regulations of the day. For older facilities we are
7 working through programs with DFO and other agencies as I
8 mentioned to ensure that we achieve the reductions
9 required as dictated by the targets that were established
10 by the regulators.

11 So we're working with those agencies to
12 ensure that we achieve the requirements of the *Fisheries*
13 Act.

14 **THE CHAIRMAN:** I see CNSC want to make some
15 comments on this?

16 **MEMBER GRAHAM:** Yes, and I'm wondering if
17 DFO might want to comment also.

18 **MR. RINKER:** Hi. My name's Mike Rinker.
19 I'm the Director of the Environmental Risk Assessment
20 Division. I'm supported here at the CNSC also by Don
21 Wismer who is connected to us by phone and I'd like to ask
22 him to follow up when I'm finished with a few points.

23 One of them is risk to fish in the winter.
24 I think we've talked about that. How we've worked with
25 DFO in responding to the 12-2 request that was issued back

1 in 2008 so you get an understanding of how we're working
2 together on that.

3 And finally, on the effectiveness of the
4 measures on the performance monitoring to date -- but
5 before we do that, I want to make sure that we're clear
6 that there's -- while we're talking about a risk to fish,
7 we're talking about three separate issues here.

8 One of them is impingement and that is the
9 process of where fish get captured up against the screen
10 at intake water there's fish mortality that results from
11 that.

12 The second is entrainment, and entrainment
13 is where the fish eggs or larva would pass through the net
14 and they could die by passing through the facility. And
15 then the third effect is by the warm water that is sent
16 out, discharged to the facility.

17 So these are three different things that
18 may require three different approaches.

19 The CNSC's 12-2 request was about
20 impingement and entrainment and there are performance
21 objectives for both. There is a requirement for an 80
22 percent reduction for impingement and a requirement for a
23 60 percent reduction for entrainment.

24 The barrier net in place -- it's really for
25 mitigating impingement only. It would not be successful

1 by definition for reducing entrainment because entrainment
2 is when things pass through the mesh and into the
3 facility.

4 So there are targets for the three of them.
5 For discussion -- we talked earlier about performance of
6 the nets in the winter time. We agreed that the
7 performance on other facilities has shown that it could
8 reduce impingement by up to -- in the 90s but the range is
9 really from what we've seen from other facilities, from as
10 low as 50 percent up to as high as 98 percent.

11 So we are indeed hoping on the upper end of
12 the range, but we'll be watching the performance for
13 mitigating impingement at this facility.

14 Entrainment would have to be offset by some
15 other means than the barrier net and I'll ask Don Wismer
16 to follow up on the details of what we've made suggestions
17 for OPG on that one.

18 So if I could pass -- if there's other
19 questions on general information, I could take those, but
20 if I could pass the mike to -- and if it's appropriate --
21 to Don Wismer to follow up with some more details.

22 **THE CHAIRMAN:** Okay, since we are on
23 biology, there is a biology call for break here. So can
24 we have some quick remarks please from Don and then maybe
25 from Fisheries and Oceans?

1 **MEMBER GRAHAM:** Mr. Chair, maybe we should
2 take that call because this may have some further
3 questions. Maybe we should do the break and then come
4 back, if that's quite all right?

5 **THE CHAIRMAN:** That's fine. Is Don going
6 to stay with us until after the break?

7 Okay, 15 minute break. Thank you.

8

9 --- Upon recessing at 10:59 a.m./

10 L'audience est suspendue à 10h59

11 --- Upon resuming at 11:16 a.m./

12 L'audience est reprise à 11h16

13

14 **THE CHAIRMAN:** We're missing CNSC staff.
15 Where are they?

16 **MR. JAGER:** OPG can provide the answer to
17 Commissioner Graham's question on the volume of water
18 while we're waiting.

19 **THE CHAIRMAN:** What happened to our staff?

20 **(A SHORT PAUSE/COURTE PAUSE)**

21 **THE CHAIRMAN:** Okay, can we begin again?
22 You wanted to provide some answers to Mr. Graham's
23 question. Go ahead.

24 **MR. JAGER:** Yes, Glenn Jager, for the
25 record.

1 The question was, what is the total volume
2 of water discharged from Pickering A and B? The answer is
3 120 to 150,000 litres per second is the volume flowing
4 through the Pickering facility, both Pickering A and
5 Pickering B with six units in service.

6 The variation is due to the service water
7 demands on the plant which varies from day to day, but the
8 condenser cooling and water demands are relatively
9 constant.

10 **MEMBER GRAHAM:** So that's about -- just
11 quickly -- 7.2 million litres a minute. So convert that
12 back, that's -- okay, that's large volumes. I just wanted
13 to get an idea of the volumes. The reason I asked the
14 question is I wanted to focus on the size of the problem;
15 and the problem, even though there are always -- every
16 problem is surmountable but just to focus on the amount.

17 I believe we were going to hear from
18 someone via telephone conferencing.

19 **THE CHAIRMAN:** That's right. We have a Don
20 Wismer.

21 Okay, are you still with us?

22 **MR. WISMER:** Yes, this is Don Wismer,
23 Environmental Risk Assessment Specialist in Ottawa.

24 **THE CHAIRMAN:** Go ahead.

25 **MR. WISMER:** Okay. I'll try to answer what

1 I think the questions were. There was one regarding the
2 winter fish losses when the barrier net is not in place.
3 And on an annual basis it varies from about 10 to 20
4 percent of the annual loss is during the period when the
5 net is not in place.

6 For some species that's a large part of the
7 time when they are impinged, like northern pike it seems
8 largely in winter. So that was one of the species that
9 CNSC identified in the 12-2 request that would need
10 protection by the mitigation effort. The wetland habitat
11 project would help offset that northern pike is a wetland
12 species.

13 The barrier net would also -- it would work
14 well for the other species we identified, the brown
15 bullhead. That doesn't get impinged in winter. It's
16 impinged the rest of the year when the net is in place.
17 It represents about 50 percent of the annual loss by
18 weight, so it's pretty important, but if the barrier net
19 performs to design it should cover off the bullhead. But
20 it's also a wetland species, so again that coastal wetland
21 fish habitat work would help offset that.

22 I think there was a question on entrainment
23 and is there a technological fix for that, and the U.S.
24 CPA has concluded that fine mesh panels on the travelling
25 screens are the most common technology to mitigate

1 entrainment. The problem -- and the DFO person alluded to
2 that earlier when he mentioned screening and fish sites.

3 The problem with that technology is at best
4 it reduces entrainment by 20 percent, so it's not 100
5 percent effective. The other thing is it's very finicky,
6 requires a lot of calibration at each site.

7 So that was the technology I had in mind in
8 terms of the initiative to look at alternatives to the
9 barrier net and perhaps try some fine mesh panels in
10 existing travelling screens to see how they work, look at
11 the site in terms of where would you actually return fish
12 live, if you were going to; start looking at the
13 feasibility of this in case the barrier net is not able to
14 meet the performance target.

15 Round whitefish was mentioned. That
16 species really is not a species that has an issue with
17 intake fish loss. That's more the thermal plume effect
18 which is associated with the Pickering B discharge. So
19 that's where we are addressing that and there will be a
20 report in July of this year on the effect on whitefish
21 from the thermal plume.

22 **THE CHAIRMAN:** Okay, thank you.

23 Fisheries and Oceans, you want to add
24 anything?

25 **MR. HOGGARTH:** This is Tom Hoggarth again

1 from Fisheries and Oceans.

2 At this point in time, with an existing
3 facility like Pickering; DFO were guided by our principle,
4 our policy on existing facilities and compliance with the
5 *Fisheries Act*. And so we're in that process with OPG
6 working with our partners like the Ministry of Natural
7 Resources as well to come up with a solution to get them
8 in compliance with the Act.

9 And so again, as I mentioned earlier, we'll
10 be looking at the net outcome of having the barrier net in
11 place, potential mitigation measures and stocking if
12 required, as well as habitat creation, and then with that
13 information we'll be talking specifically with the
14 Ministry of Natural Resources who manage the fisheries in
15 the lake on trying to determine what is the significance
16 of that is of that. Has enough been done? Has this --
17 you know, is it not likely significant any more? Is the
18 significance reduced to something we can live with?

19 And then at that point in time we make a
20 decision around whether -- and this is depending on
21 whether OPG comes to us to actually issue an authorization
22 for any residual impact, if there is residual impact after
23 that.

24 **THE CHAIRMAN:** Thank you.

25 Mr. Graham -- OPG want to say something?

1 **MR. JAGER:** Glenn Jager, for the record.
2 We'd like to additionally comment. I'll
3 ask Laurie Swami to comment.

4 **MS SWAMI:** Laurie Swami, for the record.
5 We have been working with the CNSC staff
6 and the other agencies, as mentioned, and the program that
7 Don outlined is consistent with the approach that we plan
8 to take.

9 I also would like to just clarify a
10 statement I made earlier with respect to species at risk
11 being impinged. The species at risk that I was referring
12 to was under the *Species at Risk Act* federally.

13 Finally, on the comments that DFO has just
14 made, we do plan to work closely with DFO in the future
15 and to ensure that we're meeting the requirements that
16 they require of us.

17 **MEMBER GRAHAM:** Thank you, Mr. Chair.

18 I appreciate the time spent this morning on
19 this topic. I guess, checking the handbook, there's no
20 reference as such in the handbook that I can find. I'm
21 wondering, because of the significance of the issue and
22 the determination of all parties to try and resolve some
23 of these issues, what is the method of reporting to the
24 Commission as such on this?

25 It's not a licence condition but I mean how

1 are we -- whether it's three years or five years, mid-term
2 reports is there -- will there be some sort of reporting
3 that this issue can be followed up on?

4 **DR. RZENTKOWSKI:** One way of reporting will
5 be through the NPP annual report. So this information
6 will be provided already in June of this year and it would
7 be further revised after receiving comments, public
8 comments on the report.

9 And we are just checking the licence
10 condition handbook because I was under the impression that
11 all those improvement initiatives and the schedules
12 associated with them are captured in our licence condition
13 handbook. So we will provide an answer in a moment.

14 **MEMBER GRAHAM:** They could be. I looked
15 through that handbook for more reasons than fish and I
16 didn't really see it, but I could have missed it.

17 **MR. SCHAUBEL:** For the record, Tom
18 Schaubel.

19 On page 101 of the handbook there is a
20 section on the expectations for the 2010 Fish Impingement
21 Study, that they are to do an update on external operating
22 experience and retrofitted fish intake mitigation options
23 by July 30th, 2011. And then talking about the -- they
24 will be reporting Pickering intake mitigation performance
25 by July 30th of each year, which is the annual reporting

1 of that.

2 **MEMBER GRAHAM:** Okay, thank you.

3 Mr. Chair, I have other questions but I
4 will defer to the intervenors and then do it in round two.

5 **THE CHAIRMAN:** Thank you.

6 So now let's go into the intervention.
7 Before we start, I'd just like to remind everybody that we
8 have allocated 10 minutes for each oral presentation and I
9 really would like you to try to stick to that because we
10 have read -- just consider we have read the submission.
11 So you don't have to repeat the submission verbatim; just
12 a summary would be much appreciated.

13 I also understand that we have changed the
14 agenda to accommodate somebody who couldn't make it later
15 on.

16 So we are starting with CMD -- this is oral
17 presentation by Lake Ontario Waterkeeper, as outlined in
18 CMD 10-H6.14. And I understand that Ms. Joanna Bull will
19 make the presentation.

20 Go ahead.

21

22 **10-H6.14**

23 **Oral presentation by**

24 **Lake Ontario Waterkeeper**

25

1 **MS. BULL:** Thank you.

2 Good afternoon, Commissioners. Thank you
3 for the opportunity to speak with you today. My name is
4 Joanna Bull and I'm here on behalf of Lake Ontario
5 Waterkeeper a grassroots environmental charity that works
6 to protect the lake for swimming, drinking and fishing.
7 Thank you too for the opportunity to speak a bit earlier
8 in the order today.

9 We're here because you've been asked to
10 renew the Pickering A's operating licence. But in order
11 to renew OPG's licence to operate Pickering A this
12 Commission must be satisfied that "A," OPG's qualified to
13 carry on that activity and "B," OPG will, in carrying on
14 that activity, make adequate provision for, among other
15 things, the protection of the environment. In order to
16 ensure that OPG's made adequate provision for the
17 protection of the environment, this Commission can include
18 any term or condition in the licence that it considers
19 necessary for the purposes of the *Nuclear Safety and*
20 *Control Act*.

21 Our recommendations are twofold and are
22 based on our concerns about the plant's impacts on the
23 integrity of Lake Ontario as aquatic and fish habitat, a
24 place for recreation and a source of drinking water for
25 millions of people.

1 Our concerns reflect many of the issues
2 we've heard raised already today, especially around fish
3 impingement, entrainment and thermal impacts. First, if a
4 licence is issued, it must include terms and conditions
5 that require OPG to take timely and effective action to
6 stop the unacceptable level of fish kills at this plant.

7 OPG should be required to implement a
8 system that will prevent fish impingement, entrainment and
9 thermal impacts effectively and all year round. Second,
10 OPG is not in compliance with the *Federal Fisheries Act*.

11 This Commission has heard evidence and has
12 ruled on the fact that OPG is not in compliance with your
13 request to address the volume of fish kills at this plant.
14 We submit that this Commission cannot reasonably issue a
15 licence renewal while OPG is not in compliance with
16 Canada's *Fisheries Act*.

17 Before a licence renewal can be issued the
18 Commission must be satisfied that no *Fisheries Act*
19 violations are occurring at Pickering A.

20 I'll now tell you a bit more about each of
21 those two submissions. Pickering A sits on the shores of
22 Lake Ontario. It relies on a once-through cooling system
23 shared with Pickering B. The cooling water system at
24 Pickering has a series of negative effects on fish and
25 fish habitat and I'll just recap those quickly for you.

1 We provided you with a copy in our
2 submission of a report that was prepared by Pisces
3 Conservation. They're international experts on cooling
4 water systems and the effects of those systems on the
5 environment.

6 That report explains that a once-through
7 cooling system like the one used at Pickering A is the
8 most environmentally damaging of all the alternative
9 technologies for cooling.

10 The 2008 Pickering B environmental
11 assessment reviewed the effects of this cooling water
12 system in particular, the one that's shared by A and B at
13 Pickering.

14 According to the screening report the hot
15 water discharge that causes a thermal plume in the lake
16 kills or harms fish. The thermal plume from Pickering A
17 and B ranges from 150 to 800 hectares at the water surface
18 year round and 50 to 300 hectares at the bottom during
19 cold weather. It causes fish to suffer cold water shock
20 when they swim out of the plume or when the system is shut
21 off for outages.

22 It increases the production of bacteria and
23 algae in the lake and it throws off the biological and
24 reproductive functions of fish. The screening report goes
25 on to say that once-through cooling water system at

1 Pickering A and B causes an estimated 5,531 kilograms of
2 fish to be impinged and entrained at Pickering each year
3 but the report notes that the actual amount might be 2.5
4 times higher because, of course, the kilograms doesn't
5 include the entrained fish eggs and larvae.

6 In its decision to approve the screening
7 report for the Pickering B refurbishment in 2008, this
8 Commission found that approximately 800,000 adult fish and
9 up to 62,000,000 fish eggs and fish larvae are destroyed
10 at the plant every year.

11 Despite the fact that you as Commissioners
12 have identified these effects on fish as a major problem
13 at Pickering, OPG has not made adequate provisions in
14 response to protect the environment. In your decision to
15 accept the Pickering B Refurbishment Screening Report you
16 found that the level of fish impingement at Pickering is
17 unacceptably high and must be addressed by OPG.

18 OPG staff responded that they were
19 considering the use of a net or sonar which CNSC staff
20 said, and has repeated today said, that could reduce the
21 fish kills at the plant by 80 percent.

22 In October, 2008 this Commission issued a
23 request under 12(2) of the General Nuclear Safety and
24 Control Regulations requiring OPG to take action on the
25 fish impacts of its Pickering operations.

1 OPG had failed to implement available
2 mitigation measures and the ongoing fish mortality
3 prompted this Commission to state that,

4 "ongoing fish mortality constitutes an
5 unreasonable risk to the environment
6 as OPG has not met its obligations to
7 take all reasonable precautions to
8 protect the environment in accordance
9 with Subsection 12(1)(c) of the
10 General Nuclear Safety and Control
11 Regulations."

12 Based on estimates of possible fish
13 mortality reductions provided by DFO, you requested that
14 fish impingement mortality at Pickering be reduced by 80
15 to 95 percent and entrainment mortality be reduced by 60
16 to 90 percent.

17 You also asked OPG to install interim
18 mitigation measures like a multi-sensory acoustic or
19 strobe light system by 2009. Since that request was
20 issued OPG's actions have not reflected a serious effort
21 to respond to this fish kill concern.

22 OPG has tested the installation of the
23 barrier net around the cooling water intake. It was
24 installed in the fall and as we heard today reinstalled in
25 April. No other mitigation measures like a sonar or a

1 multi-sensory acoustic or strobe light system have been
2 tested or implemented.

3 OPG staff have said that that net will
4 never be in place during the winter due to winter ice
5 effects. During Day 1 of the current licensing hearing,
6 Member Graham, you stated that OPG -- you asked OPG why a
7 year round measure was not being implemented to stop fish
8 mortality since fish swim all year and the water near
9 nuclear plants does not freeze due to the thermal plume.

10 OPG staff responded there are ice effects
11 because the net surrounds the intake rather than the
12 output pipe and because divers are not able to access the
13 net in the winter.

14 Member Graham, you did not accept those
15 reasons, stating there must be some technology that could
16 block fish throughout the year and that there are divers
17 that work throughout the winter in other provinces.

18 You stated OPG has a major problem with
19 fish mortality and with warm water plumes affecting
20 larvae. We've heard these same facts here today. This
21 Commission's also questioned OPG about the long timelines
22 for implementing a solution for impingement and
23 entrainment and the lack of any plan to address the
24 thermal plume at all.

25 Both Member Harvey and Chairman Binder

1 indicated that the timeline suggested by OPG to address
2 this problem are not sufficient. Mr. Chairman, you noted
3 that at the current rate of progress Pickering may reach
4 the end of its life with a nice engineering study but no
5 solution.

6 This Commission has recognized the serious
7 nature of the impacts on fish from Pickering's cooling
8 water system. This major problem is appropriately and
9 necessarily a licensing issue. Section 24 of the NSCA
10 states that before it can issue a licence, the Commission
11 must be satisfied that OPG will in carrying on that
12 activity make adequate provision for protection of the
13 environment.

14 While the 2008 screening decision indicated
15 OPG would consider two options, a net and a sonar system,
16 the sonar option was not discussed with this Commission on
17 February 17th. Neither was multi-sensory acoustic or
18 strobe light systems suggested as suggested in 12(2)
19 Request.

20 This appears to be a decision based on cost
21 rather than what the best available technology is to
22 address mitigation of these effects. It's not apparent
23 OPG's making adequate provisions to protect the
24 environment at Pickering.

25 If you issue a licence renewal for

1 Pickering A, terms and conditions must be included to
2 ensure that OPG takes more timely and effective year round
3 action to reduce its impact on fish and fish habitat in
4 accordance with this Commission's stated targets.

5 That said this Commission can not
6 reasonably issue a licence renewal while OPG is not in
7 compliance with the *Fisheries Act*. Making adequate
8 provision for the protection of the environment includes,
9 on the face of it, complying with environmental law.

10 According to the CNSC and OPG itself the
11 Pickering plant destroys fish and fish habitat through
12 entrainment and impingement contrary to Section 32 of the
13 *Fisheries Act*. Thermal pollution from the plant may
14 constitute the deposit of a deleterious substance or the
15 harmful alteration of fish habitat contrary to Sections 35
16 and 36 of the *Fisheries Act*.

17 It would not be reasonable for this
18 Commission to conclude OPG has made adequate provision for
19 protection of the environment while the company continues
20 to violate Canada's environmental laws. If OPG continues
21 to violate the *Fisheries Act*, a decision to issue a
22 licence renewal for Pickering A will not be in compliance
23 with Section 24 of the *Nuclear Safety and Control Act* and
24 will be vulnerable to judicial review.

25 I'll sum up my two main submissions in

1 closing. In order to issue a licence renewal to OPG for
2 Pickering A this Commission is required to ensure the
3 company's made adequate provisions to protect the
4 environment.

5 If a licence is issued it must include
6 terms and conditions that require OPG to take timely and
7 effective year round action to stop the unacceptable level
8 of fish kills at the plant.

9 However this Commission cannot reasonably
10 issue a licence renewal while OPG's not in compliance with
11 the *Fisheries Act*. Before a licence renewal can be issued
12 the Commission must be satisfied that no *Fisheries Act*
13 violations are occurring at Pickering A.

14 Thank you.

15 **THE CHAIRMAN:** Thank you. Questions? Dr.
16 Barnes.

17 **MEMBER BARNES:** Throwing a question to
18 staff. In the present -- in the licences being proposed
19 here, I don't see there's any requirement for the licensee
20 to respond to this issue that we're addressing with the
21 fishery.

22 **MR. RZENTKOWSKI:** There's no requirement
23 meant as a licence condition but we outline a specific
24 aspect of the program which needs to be implemented
25 including the schedule in the licence condition handbook.

1 **MEMBER BARNES:** But what we just heard in
2 your licence which is Section 10 Environmental Protection
3 or 10.1 which refers to S-296, that doesn't speak to it
4 and if we got to the Handbook, which in a sense provide a
5 guidance on what you've already referred to which is on
6 page 101 but running on to page 202, it says,

7 "OPG is expected to implement
8 permanent mitigation measures to meet
9 fish mortality reduction targets
10 discussed,"

11 et cetera, et cetera and the next sentence -- or the last
12 sentence in that paragraph,

13 "OPG is expected to initiate work by
14 December 15, 2011 on the permanent
15 fish intake mitigation measures."

16 So "A" -- the licence doesn't really require OPG to take
17 any action, and your Handbook sort of hopes that they
18 will.

19 **MR. RZENTKOWSKI:** The action which is
20 required is subject to the outcome of the test being
21 performed with the interim measure which is the net and
22 that's the reason why we couldn't be any more specific in
23 our licence condition handbook. But of course the licence
24 condition may be considered but it will be up to the
25 Commission to suggest it and I believe that Mr. Mike

1 Rinker would like to provide more details on the subject.

2 **MR. RINKER:** Thank you. Mike Rinker.

3 The CNSC took enforcement action or
4 regulatory action by issuing a formal 12(2) Request in
5 October 2008. So that's the vehicle that we're using to
6 take regulatory action. There were timelines and
7 deliverables required in that 12(2) Request based in large
8 part with our discussions with Department of Fisheries and
9 Oceans.

10 The first main deliverable was to have an
11 interim measure in place in 2009 and where we've been
12 talking about its performance and that is the barrier net.

13 The second main deliverable is to have a
14 permanent mitigation measure in place by 2012. We're now
15 studying a cost-benefit analysis that was provided by OPG
16 on what options would be available for the longer term.
17 One of those options may be the continued use of the
18 barrier net supplemented by some additional measures.
19 However that's the -- the regulatory action is through
20 that 12(2) Request and deliverables are required by our
21 acting regulations through that.

22 **MEMBER BARNES:** But as you just mentioned
23 that's a process that started in 2008 and you hope
24 something will come in in 2012, almost four years later on
25 a licensee that has about ten years to go, right?

1 So the intervenor has pointed out that
2 there were a number of alternative mitigation measures and
3 it appears that the licensee is only using one as opposed
4 to doing multiple studies in parallel in case this primary
5 one, the net, doesn't work.

6 Are you satisfied with that approach or do
7 you think the licensee should be, in fact, studying more
8 than one approach?

9 **MR. RINKER:** Mike Rinker, for the record.

10 We've provided letters to OPG under the
11 auspices of this 12(2) Request for additional information.
12 For the long term, it may be that the barrier net which
13 has satisfied a request for an interim measure -- it may
14 be appropriate for the longer term and that barrier net
15 was put in place within one calendar year of the 12(2)
16 Request. So that went from a request to consideration --
17 what could be interim options to its engineering and
18 implementation within a calendar year.

19 We are awaiting its performance. We are
20 also requesting from OPG to provide us by September a
21 detailed schedule for contingency measures should a
22 barrier net not work as appropriate and so by the end of
23 2011 we will either have evidence that the barrier net,
24 with some other contingencies such as perhaps stocking or
25 wetland creation, et cetera, to considered as offset --

1 whether that barrier net with those other options are
2 sufficient or need to implement Plan B that by that time
3 would have been considered, feasibility studies done for
4 its implementation. So we are not solely relying on the
5 primary option.

6 **MEMBER BARNES:** And just out of interest,
7 looking back as the plants have been in operation for some
8 decades now, why are we looking at this particular issue
9 in the last decade of its life?

10 **MR. RINKER:** Mike Rinker.

11 The issue, or the evidence that there was
12 an issue of this magnitude came to light during the
13 refurbishment, environmental assessment that was submitted
14 to the Commission at the end of 2008. So the technical
15 studies that supported that contained the information that
16 we observed that it was a risk to fish.

17 So we took immediate action on receipt of
18 that evidence and before we submitted the screening
19 assessment to the Commission.

20 **MEMBER BARNES:** So the recovery of fish
21 from the screens for some decades was not known or
22 appreciated?

23 **MR. RINKER:** Some of the contingency or
24 additional measures such as creation of wetland would be
25 permanent hatcheries for the species that we're concerned

1 about such as northern pike and that wetland would exist
2 beyond decommissioning of the facility and would help
3 support those fish species that have been impacted in the
4 past.

5 **THE CHAIRMAN:** Can I just get absolute
6 clarification because I'm trying to understand.

7 As a result of the 12(2), they're now
8 putting in a net. The net is an interim but permanent.
9 If the net doesn't work, the net still stays in place
10 until it will be replaced with other thing? Did I get
11 this right?

12 **MR. RINKER:** That would be correct. I
13 could ask OPG to follow up on what their plans were --
14 what their plans would be as well but ---

15 **THE CHAIRMAN:** So we're beyond just
16 experimenting? We have a solution ---

17 **MR. RINKER:** That's right.

18 **THE CHAIRMAN:** --- now, we don't know how
19 effective it is, you put it in place and if it doesn't
20 work to the level of 80 percent then you'll have to add
21 something else or replace it with something else, but from
22 here on we're beyond studying but implementation of
23 technologies. Is that my understanding?

24 And I think if that's the understanding, I
25 think maybe the language in the Handbook can be tightened

1 up to indicate that that is exactly what is going on now.
2 Is that correct?

3 **MR. JAGER:** Glenn Jager for the record.

4 That's correct. What we are -- we've
5 installed the net. We're undergoing a study on the
6 effectiveness of that net and we're committed to the
7 targets as provided to us by CNSC staff. We are working
8 with the CNSC staff and the applicable agencies to remain
9 in compliance and achieve those objectives.

10 And I'll ask Laurie Swami to comment
11 further on the studies and the plans going forward.

12 **MS. SWAMI:** Laurie Swami, for the record.

13 There was some discussion with respect to
14 when the fish mortality was identified and we have been
15 studying this issue for many years. We have reported our
16 fish impingement results through various studies. The
17 last, as mentioned, was the Pickering B environmental
18 assessment but we had also had discussion of this in the
19 Pickering A return to service environmental assessment and
20 had made commitments at that time to do additional work
21 looking at potential solutions.

22 I think that the change with the Pickering
23 B refurbishment environmental assessment, we were
24 considering the extension of that facility for additional
25 25 to 30 years with the decision that that will not longer

1 be the case. The situation for us has changed -- not to
2 say that we're not going to be in compliance with the
3 targets specified but certainly the circumstances have
4 changed significantly.

5 There has been changes in expectations over
6 the past number of years with respect to fisheries driven
7 in part by changes in U.S. legislation that's been
8 proposed and so the targets that are provided to OPG, I
9 believe, are based somewhat on the experience in the U.S.
10 and that's where we will make the necessary changes to
11 ensure we're in compliance with those targets.

12 **THE CHAIRMAN:** Once again, another
13 clarification.

14 In your studies did you look and
15 experimented with sonar and strobe lights?

16 **MS. SWAMI:** Laurie Swami, for the record.

17 We did investigate the use of sonar and
18 strobe lights. They are particularly effective with
19 certain species of fish and at certain times of the year
20 they would not have been that significantly a solution for
21 the Pickering situation. We had estimates that they would
22 only reduce fish impingements by much smaller percentages
23 compared to the barrier net.

24 OPG proposed then that we would pursue the
25 barrier net as that was a much better solution to the fish

1 impingement issue. The sonar and the strobe lights would
2 also have to be removed during the winter months for
3 maintenance purposes.

4 **THE CHAIRMAN:** I guess what I didn't
5 understand, I thought that sonar could operate during
6 winter and required very minimal kind of maintenance.

7 **MS. SWAMI:** Laurie Swami, for the record.
8 Our assessment was that they would have to
9 also be removed during portions of the year.

10 **THE CHAIRMAN:** Dr. Barnes?

11 **MR. RINKER:** Sorry, just to follow up; Mike
12 Rinker.

13 We also have similar concerns with the
14 sonar and the strobe lights. They're technologies that
15 have been shown to be effective for some species but
16 currently the Great Lakes are undergoing rapid changes
17 because of, in large part, the zebra mussels affecting
18 population distribution.

19 So we would be looking for a technology
20 that is a bit more broad based that would affect all
21 species at once, rather than something that may be
22 effective for certain species and not for others.

23 **THE CHAIRMAN:** I'm just surprised that --
24 it seems to me that if you're looking for some technology
25 that can operate in winter, if the net is not going to

1 operate -- so I thought those two may. I defer to the
2 experts.

3 **MR. RINKER:** The plan B, should the net
4 fail, what CNSC is asking for is travelling mesh screens
5 that would return the fish back to the water. We're not
6 sure whether it would be effective or not or whether it
7 could be implemented at Pickering but that is a plan B
8 that would work all year round.

9 **THE CHAIRMAN:** Dr. Barnes? Okay.

10 **MEMBER BARNES:** No more questions.

11 **THE CHAIRMAN:** Mr. Graham?

12 **MEMBER GRAHAM:** Yes. This is a major issue
13 and that's why it's occupying a lot of time, because it is
14 an environmental issue and it's part of the pillars of
15 providing protection to the environment.

16 First of all, my concern is as identified
17 in 2008, and you're talking 2012 and I keep hearing the
18 words "cost-benefit analysis." First question is, is cost
19 a factor in resolving the problem? And that's to OPG.

20 **MR. JAGER:** Glenn Jager, for the record.

21 Yes, cost is one consideration but also we
22 have to perform a safety evaluation. It is a modification
23 to the plant, to the cooling water intake and therefore we
24 also have to perform safety evaluations from an
25 engineering standpoint to ensure that we do not place the

1 plant at risk with the installation of deterrents or
2 mitigation measures for fish.

3 So yes, cost, safety is certainly a primary
4 consideration in regards to the selection of options, and
5 timing -- the speed at which we can put those deterrents
6 in place.

7 **MEMBER GRAHAM:** A question then: how do
8 you put a price tag on protecting the environment to the
9 extent that you're discharging -- just rough figures I did
10 -- at 100 million gallons an hour, based on 120,000 litres
11 a second. How do you put a -- what type of costing or
12 what type of cost-benefit do you put on a problem as big
13 as this?

14 **MR. TREMBLAY:** Pierre Tremblay, for the
15 record.

16 You know, clearly we're committed to
17 improving performance in this area. It is a significant
18 issue, as you've indicated. Clearly this plant has
19 limited life as well.

20 There are various options that would be
21 looked at, applied, assessed, evaluated for the best
22 solution to deal with this issue. I think there are a
23 number of options. We're confident that the barrier net
24 will in fact be significant. We've also committed to the
25 Commission to provide a plan for alternative methods and

1 we will look at all and every option.

2 Clearly a deepwater intake, which is
3 another potential solution to this, would be a significant
4 investment that might not be cost effective for us. So
5 Glenn talked about the safety considerations, the
6 modification to the intake structure, which is a
7 significant issue. All and every measure will be looked
8 at to ensure that we maximize performance and deal with
9 this issue, because we recognize its significance.

10 **MEMBER GRAHAM:** I am concerned when you
11 make a statement that because we're coming to the end of
12 life it may not be treated with the same significance and
13 the same expedience of resolving as if this plant was a
14 new build or one where it's ongoing for 20 or 25 more
15 years.

16 So your statement with -- because it's
17 coming to end of life, I would hope that CNSC would not
18 have that same philosophy and that you would make sure
19 that we try and develop solutions and not wait four years
20 to resolve that.

21 And my question to OPG is do you or have
22 you involved the Waterkeepers in any of the committees
23 that are working to try and resolve the problem, to try
24 and get a common resolve with all of the expertise
25 involved? Have you involved the Waterkeepers?

1 **MR. TREMBLAY:** Pierre Tremblay, for the
2 record.

3 Just to be clear, whether it's 10, 20 or 30
4 years, cost and payback would be an element of any
5 consideration. I said nothing about expediency. We will
6 move quickly to examine and look at all the options around
7 dealing with this issue and we recognize it as something
8 that's significant.

9 I'll turn it over to Laurie in terms of the
10 communication and the dialogue that's taking place.

11 **MS. SWAMI:** Laurie Swami, for the record.

12 Our protocols with respect to engaging
13 stakeholders; we have a number of stakeholder groups that
14 we work with routinely through our environmental
15 assessment programs. We have extensive consultation
16 programs and we would invite groups like Lake Ontario
17 Waterkeepers to join us during those discussions so that
18 they could raise particular issues or concerns that they
19 may have through that process.

20 We also have ongoing committees, such as
21 the Community Advisory Council at Pickering, where issues
22 of this nature can be discussed and they have access to
23 senior managers like Mr. Jager who would present
24 information and take questions and address concerns that
25 are raised.

1 So there are a number of different forums
2 where Lake Ontario Waterkeepers can participate and
3 provide input to our programs and processes.

4 **MEMBER GRAHAM:** My question then is to Lake
5 Ontario Waterkeepers.

6 Are you prepared or are you involved in
7 working towards trying to find a solution to this problem?

8 **MS. BULL:** Yes, of course, and I appreciate
9 you raising that.

10 We very much appreciate any invitation to
11 participate. We are participating actively in the
12 Darlington areas right now. One point is we don't
13 consider ourselves a stakeholder because we represent the
14 public, so we're happy to participate on behalf of our
15 members and on behalf of the public but not as a
16 stakeholder.

17 **MEMBER GRAHAM:** Well, rather than get into
18 technical semantics, as long as everyone is talking to
19 each other I think that goes a long way and I would hope
20 that whether the definition is stakeholder or
21 representative, that everyone would work together because
22 this problem has been ongoing and to expedite it is what
23 is important, and probably in our Commission determining
24 the licence and the conditions, I think it's garnered a
25 considerable amount of time and concern of the Commission.

1 **THE CHAIRMAN:** Monsieur Harvey?

2 **MEMBER HARVEY:** I would like to add a
3 point.

4 What bothers me is the fact that you have
5 installed a net and then you will -- and you showed us
6 here -- and to get more data, but you also said that there
7 exists such nets, and you probably have all the results
8 about the efficiency of such nets.

9 So what could be so different here in
10 Pickering than what has been observed elsewhere? What are
11 you trying to define? Two, (2), 3, 4 percent and is it
12 necessary to take more time to get a more precise answer?

13 **MR. JAGER:** Glenn Jager, for the record.

14 That's a very good question and the
15 benchmarking that we performed has been at different
16 locations around the Great Lakes and therefore the
17 conditions vary from location to location. So it's
18 important to do the study at the Pickering location
19 specifically to gauge the effectiveness of the net.

20 And I'll ask Laurie Swami to again comment
21 on the details of those studies and the benchmarking that
22 we performed.

23 **MS. SWAMI:** Laurie Swami, for the record.

24 The benchmarking results would indicate
25 that the results at other locations on the Great Lakes are

1 in the range of 99 percent effective when installed.

2 Their programs also have them remove the
3 nets during the winter periods. We therefore believe very
4 confidently that we can achieve the 80 percent target
5 that's been provided to us.

6 I don't think it's so much we're continuing
7 to study. We're really confirming that the barrier net
8 will be effective in achieving the target. I recognize
9 that there is always an opportunity that the conditions in
10 the lake in any particular location can vary and so it's
11 important that we get those results and confirm that we
12 are achieving the target specified.

13 **THE CHAIRMAN:** Can the staff comment on
14 that? You need, really need additional result to define
15 if it's permanent or an interim option.

16 **MR. RINKER:** Mike Rinker, for the record.

17 Mr. Harvey, Don Wismer would be able to
18 provide you with more technical details about this if you
19 wish.

20 But my understanding is that each site is
21 slightly different. The topography of the area may
22 influence whether the net can completely contact the
23 bottom of the lake, for example, or in such matters like
24 this need to be examined over the course of a year to see
25 whether it's performing appropriately. If you need some

1 more details, we can -- Don is on the line.

2 **MEMBER HARVEY:** That's okay. Thank you.

3 **THE CHAIRMAN:** Anybody?

4 **MEMBER BARRIAULT:** Surely on the
5 international stage, there must be information available.
6 I'm sure this is not the first time that this has happened
7 that you've had problems with fish entrapment. Can CNSC
8 comment? What do they -- look at the research, look at
9 what's available out there, what's gone on internationally
10 over the last 5, 10, 20 years?

11 **MR. RINKER:** Mike Rinker, for the record.

12 We have some evidence, for example, that
13 these barrier nets have had success at other types of
14 plants that have large intakes and outflows. The ranges
15 of success is often up in the 90 percent, but in other
16 areas, it could be as low as in the 50 percent.

17 So we're not certain how well it's going to
18 perform here and we would like evidence as opposed to an
19 estimation of how it's worked in the past before we make
20 formal decision.

21 There are other plants that have locations
22 of their intake at different areas and there are not only
23 costs which are a factor but from our perspective, there
24 is a time of implementation for those broader measures.

25 Some of those measures, like putting their

1 intake quite deep may take three or four years to
2 implement, and because we discovered this issue in 2008,
3 we were looking for a solution that could reach 80 percent
4 or better effectiveness immediately, and that was the path
5 we took.

6 **MEMBER BARRIAULT:** One more question.

7 You mentioned that the only time you
8 discovered this issue in 2008, it must have existed before
9 that. How about screens, for example, they must have
10 found that they had some problems associated with this.

11 I guess my question is that unless you look
12 for something, you ain't going to find it; it's that
13 simple. And I'm wondering if this was examined before as
14 a problem to be addressed or it was just kind of
15 overlooked and moved on.

16 So maybe OPG might want to comment on that.

17 **MR. TREMBLAY:** For the record, Pierre
18 Tremblay.

19 I think Laurie's comments have reflected
20 the fact that we've known and monitored our impact on the
21 fish population for many years. In fact, I think she
22 mentioned that there were over eight studies carried out
23 and all those essentially concluded that from a population
24 density standpoint there was minimal impact and the issue
25 again surfaced during the Pickering B environmental

1 assessment where there was a concern raised.

2 And it was on that basis and the dialogue
3 with the CNSC in the Department of Fisheries that we
4 undertook these aggressive actions and I think we've
5 spoken about sort of the path forward. We're confident
6 that we're going to have impact; we are having impact and
7 committed to the resolution.

8 So I think we have known about this for
9 some time. We've been transparent about it. We've been
10 monitoring. We've been reporting, but there's a new
11 urgency to dealing with this.

12 **THE CHAIRMAN:** Dr. McDill.

13 **MEMBER MCDILL:** Thank you.

14 Question to staff -- if a licensee, any
15 licensee is not in compliance with an Act, the
16 responsibility of another federal authority, who is the
17 first responder, or whose responsibility is it to deal
18 with it? It could be any federal authority, any
19 provincial authority, the Ministry of Labour or Fisheries
20 and Oceans, or...

21 **DR. RZENTKOWSKI:** With some of the federal
22 authorities we have a Memorandum of Understanding in place
23 which clarifies the relevant responsibility, and in
24 particular the extent of jurisdiction for a specific
25 issue.

1 For example, as there is the case on alpha
2 contamination. We discussed this responsibility between
3 the Ontario Ministry of Labour and the CNSC in terms of
4 the cooperation on the health and safety, and I think we
5 didn't have the Memorandum of Understanding in place and
6 because of that, we engaged ourselves in those
7 discussions.

8 So we tried to clarify this. We tried to
9 be proactive and upfront and we decided that we definitely
10 have to formalize our relationship with other ministries,
11 a little bit better and I think we will be looking forward
12 to develop more Memoranda of Understanding to make sure
13 that we understand roles and responsibilities vis-à-vis
14 new processes and other aspects of safety on which
15 operation of nuclear power plants can impact.

16 **MEMBER McDILL:** The intervenor asked a
17 specific question or made a reference to it. How can we
18 licence if they are not in compliance with DFO?

19 **MR. RINKER:** Mike Rinker.

20 I would just like to emphasize, although it
21 was a CNSC taking enforcement action in 2008, that 12(2)
22 request was taken on the advice of DFO as well. The
23 schedules and requirements and so on -- they helped us
24 author that request. So it was a one enforcement action
25 approach with Environment Canada and DFO and the CNSC

1 working together.

2 In addition, assessing OPG's response,
3 their compliance response in performance mitigation and so
4 on is being done collectively with Department of Fisheries
5 and Oceans, Environment Canada and the CNSC. But perhaps
6 DFO may want to speak to their policy on existing
7 facilities.

8 **MR. HOGGARTH:** Tom Hoggarth here again from
9 Fisheries and Oceans.

10 Our policy on existing facilities speaks to
11 working with that facility to get it in compliance with
12 the *Fisheries Act*. So again, as the example here is,
13 we're actually working with OPG trying to determine the
14 best solution forward.

15 As they mentioned, my understanding is that
16 barrier net at the moment is a permanent fix and
17 permanently to be used. They are assessing whether it's
18 working on measures that they hope it work for. We'll be
19 looking at that, as well as looking at what would be the
20 residual impact after these methods have been put in place
21 to determine the significance on the mortality.

22 Again, OPG if they wished to be in
23 compliance with the Act, will need to, if there is
24 continual mortality at the site, will need to come to DFO
25 and request an authorization for the mortality of fish at

1 the site and it will be at that point in time that we work
2 through conditions and that as well.

3 **THE CHAIRMAN:** I don't want to get into
4 some legal debate right here on this law. I just remind
5 everybody we have our own Act and we operate under our own
6 Act, and we reach conclusion on our own Act and that's the
7 bottom line.

8 Everything else is an input into our
9 deliberation as a Commission and we render our own
10 decision with all the inputs, which are not only fish
11 related. There are all kinds of other inputs into this
12 decision making.

13 So I think we have exhausted this
14 particular subject.

15 You want to say something?

16 **MS. BULL:** If I can just make one final
17 point.

18 In addition to raising the fish issue for
19 the terms and conditions. The fact that OPG is not in
20 compliance with the *Federal Fisheries Act*, while it may
21 not be an issue for this Commission in terms of the way it
22 is for DFO, DFO is going to be continuing to work on it.

23 It's evidence that OPG has not met the
24 condition in the Nuclear Safety and Control Act, Section
25 24, which requires it to make adequate provision for the

1 environment. Not meeting an environmental law that is in
2 place at the federal level in Canada is very very good
3 evidence that they're not making adequate provision for
4 the environment as required under your Act, the *Nuclear*
5 *Safety and Control Act*.

6 **THE CHAIRMAN:** Thank you, Counsel, for this
7 legal opinion. We'll take it under advisement.

8 I just have maybe a final question on this
9 particular topic and it's maybe an unfair question, so I'm
10 going to push you anyhow on it.

11 Knowing everything that you know about now
12 -- the fish and the water, et cetera -- would you consider
13 cooling towers or things like that to avoid all those
14 issues in a new building?

15 **MR. TREMBLAY:** Pierre Tremblay, for the
16 record.

17 Clearly the history that we generate and
18 the dialogue and discussion is informing sort of our
19 plans. Clearly, there's a lot of work to do before we get
20 to the point where we're committing to a new facility, but
21 obviously it's a consideration.

22 I'll leave it at that.

23 **THE CHAIRMAN:** Thank you. Thank you, and
24 we've got to move on.

25 **MS. BULL:** Thank you very much.

1 **THE CHAIRMAN:** You want to say something
2 about that?

3 **MR. RZENTKOWSKI:** Yes, on the subject.
4 Greg Rzentkowski, for the record.

5 I would like to go back for a moment to the
6 licence condition handbook and state that all the elements
7 of the implementation plan which are captured in the
8 licence condition handbook are in fact legally binding --
9 are legally binding because those elements are also
10 outlined in the licence application provided to us by OPG.
11 And the licence application forms the licensing basis.

12 The licensing basis in turn is referenced
13 in the general licence condition 1.1 which says:

14 "The licensee conducts the activities
15 described in part 4 of this licence in
16 accordance with the licensing basis
17 described in the associated licence
18 condition handbook for the new power
19 facility."

20 **THE CHAIRMAN:** Thank you. Thank you.
21 Thank you very much.

22 We're moving on to the next intervention
23 which is an oral presentation from the Ajax Pickering
24 Board of Trade. And I understand that, Mr. Smith, you'll
25 make the presentation? The floor is yours.

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10-H6.2

Oral presentation by

The Ajax-Pickering Board of Trade

MR. SMITH: Thank you ,and good morning.

And through you, Mr. Chair and members of the Commission, by way of introduction and for the record, my name is John G. Smith and I am the 2010 Chair of the Ajax-Pickering Board of Trade.

On behalf of the local business community, I would like to begin by welcoming the Canadian Nuclear Safety Commission to Pickering and offer our thanks for the opportunity to participate in this very worthy process.

As the voice of the Ajax and Pickering business community, the Ajax-Pickering Board of Trade requested to appear before you today to demonstrate our support for Ontario Power Generation's operating licence renewal application as it relates to the Pickering A Nuclear Generating Station.

Our endorsement of this project has been based on several factors including OPG's openness and transparency in station operations and communications within our community, its commitment to providing

1 information to the community, and interest in feedback
2 concerning any and all operations.

3 OPG's strong support of local initiatives
4 demonstrated both through financial contributions and
5 staff time in numerous charitable and community building
6 efforts, and OPG's status as a long time strong member in
7 good standing of the Ajax-Pickering Board of Trade.

8 During the few moments that we have here
9 today, I would like to expand on these points,
10 demonstrating the work of Ontario Power Generation and the
11 respect that it has earned here in Pickering.

12 In terms of openness and transparency, I
13 can say without a doubt that OPG consults and communicates
14 with community stakeholders in a timely manner on every
15 issue, demonstrating that safety is its number one
16 priority. Through these ongoing communications we
17 understand that OPG's operations are under the careful
18 watch of CNSC staff 365 days a year. We know that the
19 CNSC evaluates Pickering A in 14 areas of safety and
20 control, and that OPG continues to meet or better
21 performance expectations.

22 In terms of safety specifically, Pickering
23 A has maintained and safely operated the station during
24 the current five year licensing period and in nearly 40
25 years of operation, no member of the public has ever been

1 harmed as a result of Pickering A's operations.

2 Employees at this station hold safety both
3 in a conventional and a radiological sense as an
4 overriding priority. In fact, they recently surpassed
5 more than three million hours on the job without recording
6 a lost time incident. And in each of the past four years
7 OPG has been honoured with the Electrical and Utility
8 Safety Association's ZeroQuest gold award.

9 As those who live and work in the
10 community, we are well aware of the company's commitment
11 to environment and environmental stewardship. Any
12 emissions from Pickering A are kept far below regulatory
13 limits with an internal target that is actually less than
14 one percent of the allowable limit.

15 Once again, Pickering A had no
16 consequential spills in the past year.

17 Pickering Nuclear's commitment to
18 sustainability has been recognized with local and
19 international awards and certifications. A sample of a
20 few of these include the City of Pickering's Civic Award
21 recognizing OPG's commitment to the environment; Durham
22 Environmental Advisory Council's Jessica Markland
23 Partnership Award; the Wildlife Habitat Council's
24 Corporate Habitat of the Year.

25 OPG has been named Durham Sustainability

1 Eco-Business and it has completed the Ajax-Pickering Board
2 of Trade's own Eco-Business program.

3 Of course I would be remiss if I did not
4 address Ontario Power Generation's involvement in our
5 community. The company's level of support is a model for
6 any business, and for that reason our Board of Directors
7 nominated OPG and its employees for the 2010 Pickering
8 Civic Local Business Award.

9 Year after year OPG demonstrates
10 outstanding support and participation in a host of
11 community activities. In fact, I think it's fair to say
12 it would be difficult to think of a community activity
13 that does not benefit from the support and participation
14 of Ontario Power Generation and its employees.

15 Pickering Nuclear invests more than
16 \$200,000 annually in the community partnerships that
17 enhance educational opportunities for youth, build a sense
18 of community, and establish an ever-stronger commitment to
19 environmental stewardship.

20 The support does not end with the
21 activities offered through the City of Pickering and
22 community organizations. Employees at Pickering Nuclear
23 also offer fun and free programs of their own. Thousands
24 of children, their parents, and sometimes grandparents,
25 enjoy the annual week-long March Break programs. Every

1 Tuesday in July and August thousands of children and their
2 families enjoy the Tuesdays on the Trail, hosted by OPG
3 employees.

4 Twice a year, Pickering Nuclear employees
5 host "Take Pride in Pickering Day" at Alex Robertson Park
6 where thousands of indigenous trees and shrubs have been
7 planted, nesting boxes installed and maintained, and
8 wildlife habitats developed.

9 In fact, OPG employees across Durham region
10 donated countless volunteer hours and about \$640,000 to
11 charities and community organizations in 2009.

12 I've been personally honoured to come to
13 know many of those who have held leadership roles with
14 United Way, Big Brothers and Sisters, Horizon House, Rouge
15 Valley Health System Foundation, our hospital's Board of
16 Directors, and the Youth Centre.

17 Two of the past presidents of the Ajax
18 Pickering Board of Trade were also employees of Ontario
19 Power Generation.

20 Ultimately, let me say that we are proud of
21 our partnership with Ontario Power Generation and its role
22 as a community builder. For these reasons, and the
23 reasons listed in our letter of support, the Ajax-
24 Pickering Board of Trade strongly supports Ontario Power
25 Generation's application for a renewal of its operating

1 licence for the Pickering A Nuclear Generating Station.

2 We trust that you will find that this
3 relicensing application deserves to be approved.

4 I thank you for the opportunity to speak
5 before the Commission, and would of course be happy to
6 answer questions for the Chair that may exist.

7 **THE CHAIRMAN:** Thank you.

8 Questions?

9 Mr. Graham.

10 **MEMBER GRAHAM:** Just one question. Has the
11 Board of Trade had any discussions or made any plans with
12 regard to the end of service of such a large employer in
13 the community ending their operation in 2020?

14 **MR. SMITH:** Through you, Mr. Chair,
15 certainly the announcement of any closure of any business
16 is a cause of concern for the Ajax-Pickering Board of
17 Trade and certainly when we're talking about a community
18 leader like Ontario Power Generation and Pickering
19 Nuclear, very much so.

20 But the discussions as they are now, the
21 important thing that we have come to look at is the fact
22 that we are looking at 10 years out until that step
23 actually begins to occur. Then the steps leading into the
24 ultimate shutdown of the facility will take years beyond
25 that.

1 If anything, we're actually looking at some
2 of the opportunities that will exist through the efforts
3 that come about this whole process. It's something where
4 expertise could be developed and used elsewhere in the
5 world.

6 So it could be developed here, certainly,
7 and equally when we look at the steps through this entire
8 process we know that it's going to be following the same
9 respect for the environment, the same rules and
10 regulations that have been in place since the day that it
11 opened.

12 And at the end of the day as well, again,
13 this is an extended process and we respect that and we
14 look forward to seeing the opportunities that come out of
15 it.

16 **THE CHAIRMAN:** Monsieur Tolgyesi?

17 **MEMBER TOLGYESI:** Yes.

18 What's the rank as an employer of OPG in
19 the sense of size, number of employees in the Pickering
20 area? Are there some larger employers or OPG is the
21 largest by far?

22 **MR. SMITH:** Through you, Mr. Chair.

23 While I do know that they are certainly one
24 of the largest, without those employee counts in front of
25 me I would hesitate to give it an exact ranking but

1 certainly one of the top employers in the area.

2 **MEMBER TOLGYESI:** Because eventually, in
3 the long term, it will be a large impact because of the
4 size of the company of OPG and also in the sense of
5 suppliers or services that you provide to OPG or what OPG
6 requests from the area. So it will be a kind of a large
7 effect on the community and then on the business?

8 **MR. SMITH:** Well, again, and to that point
9 -- through you, Mr. Chair -- when I look at the situation
10 that is occurring, that's coming forward, we have a
11 situation where a new level of expertise is going to come
12 forward. So we have those new business opportunities
13 growing. A lot of these employees will be able to apply
14 their own level of expertise and entrepreneurial spirit to
15 other business ventures that maybe we can't foresee at
16 this stage.

17 And again, within the context of Durham
18 region as a key energy supplier in the Province of
19 Ontario, as we look at the opportunities of a new build
20 east of here that a lot of these people will still -- a
21 lot of the employees will still be able to contribute to
22 the community and contribute to the availability of clean,
23 affordable and reliable power in the province.

24 **THE CHAIRMAN:** Okay, thank you very much.

25 **MR. SMITH:** Thank you.

1 **THE CHAIRMAN:** We've got to move on.

2 The next submission is an oral presentation
3 by the Pickering Nuclear Community Advisory Council, as
4 outlined in CMD H6.3.

5 Gentlemen, the floor is yours.

6

7 **10.H6.3**

8 **Oral presentation by the**
9 **Pickering Nuclear Community**
10 **Advisory Council**

11

12 **MR. VINCETT:** Thank you, Mr. Chairman, and
13 Members of the Commission.

14 For the record, my name is John Vincett and
15 I am the facilitator of the Community Advisory Council to
16 the Pickering Nuclear Generating Station.

17 I'm joined here today by two members of the
18 CAC, Mr. Jim Dike, a retired chief financial officer, a
19 resident of Ajax, plus commodore of the Frenchman's Bay
20 Yacht Club and a member of the Pickering Waterfront
21 Coordinating Committee; and Mr. Al Goodall, resident in
22 the area for more than 30 years and a retired
23 telecommunications manager who chaired the Pickering
24 Christian School for a decade and has been active on a
25 number of citizen committees in the community.

1 This presentation has received the approval
2 of all who were members of the council at the time of
3 writing, each of whom participated in a number of drafts
4 to arrive at a consensus document.

5 **MR. GOODALL:** For the record, my name is Al
6 Goodall.

7 The Pickering Nuclear Community Advisory
8 Council, CAC, thanks the CNSC for its invitation to
9 comment on Ontario Power Generation's application for a
10 five-year renewal of Pickering A's licence to operate.

11 We are very pleased to note that in the
12 last couple of years the Commission has tended to hold
13 public hearings in Durham region when the issue directly
14 affects this community. While we are not making a
15 specific recommendation regarding the licensing
16 application, we would like to comment on OPG's interaction
17 with the CAC on issues related to Pickering A.

18 A core vehicle for OPG dialogue with the
19 community, the CAC assists Pickering Nuclear Generating
20 Station in identifying and responding effectively to the
21 concerns of the community.

22 The group is made up of citizens,
23 representatives of the community organizations and members
24 of local government staff and agencies who examine a wide
25 range of issues associated with the station. Most members

1 report back to one or more constituencies, meetings are
2 open to the public, and a local media representative
3 attends regularly.

4 Minutes are posted on the OPG public
5 website and are available through public libraries in the
6 Durham region.

7 **MR. DIKE:** For the record, my name is Jim
8 Dike and I will continue the presentation.

9 In their dealings with the CAC, the
10 Pickering Nuclear managers have demonstrated honesty,
11 transparency and a commitment to excellence and openness
12 to the council input. A number of examples related to
13 Pickering A come to mind.

14 There are regular reports to CAC on
15 Pickering A worker safety and operational performance, the
16 achievements as well as the shortcomings. The reports are
17 communicated in a language we can understand and the
18 presenters provide complete and clear responses to our
19 questions and comments.

20 In the event the information required to
21 answer the questions is not immediately available, the
22 question is captured and carried to a subsequent meeting.

23 Each year the senior vice-president for
24 Pickering A shares the site's business plan with the
25 council, discussing key priorities and performance

1 targets.

2 In November 2007 we toured the Pickering
3 nuclear site and in an informative and enjoyable
4 experience the tour demonstrated to us the levels of
5 safety and the security at which Pickering A and B
6 operate.

7 All our questions were answered to our
8 satisfaction. We were impressed with the courtesy and
9 professionalism of all the employees we encountered,
10 indicating their pride and sense of loyalty.

11 In January of 2008 OPG brought a
12 representative of the Durham Regional Health to present
13 key findings from a report on radiation and health in the
14 Durham region.

15 We were satisfied and reassured to hear
16 from a third party that the Pickering and Darlington
17 stations were not identified as causing health impacts on
18 the population. We have been informed as milestones are
19 achieved in placing Units 2 and 3 in safe storage.

20 Over the years we have asked many questions
21 about the complexity of placing some units in safe storage
22 while other units are operating in the same plant and the
23 same operation.

24 Again, OPG representatives have always been
25 very forthcoming with their responses.

1 We are pleased to have the opportunity for
2 input into the Commission's deliberations and our
3 delegation would be pleased to answer any questions the
4 Commission may have.

5 Thank you.

6 **THE CHAIRMAN:** Thank you.

7 Questions, anyone?

8 I just -- a quick question. What was the
9 nature of the study from the Durham Regional Health
10 Department?

11 **MR. DIKE:** Radiation and health in the
12 Durham region.

13 **THE CHAIRMAN:** Right. So was it specific
14 to the Pickering area or it was for the whole region?

15 **MR. DIKE:** The whole region but they
16 concentrated in part on Pickering as well.

17 **THE CHAIRMAN:** So what made you feel --
18 what were the results in there?

19 **MR. DIKE:** The results were that there was
20 no impact from a health point of view with the result of
21 the station being there and its operation.

22 **THE CHAIRMAN:** The reason I'm asking is --
23 you know there are many other places in Canada and the
24 world -- there's always a fear of being a resident of a
25 community that is actually hosting a nuclear plant.

1 widely shared at that time. It was also a peer-reviewed
2 document by a number of experts in health and radiological
3 sciences.

4 **THE CHAIRMAN:** Thank you.

5 Mr. Jammal?

6 **MR. JAMMAL:** Thank you, Mr. President.

7 Just to confirm the fact that we are in
8 communication with Ottawa with respect to the -- or an
9 epidemiologist to get the facts if we were aware of the
10 study. My memory tells me that we were aware, but we'll
11 confirm.

12 **THE CHAIRMAN:** Thank you.

13 Okay. Let's move on. Thank you very much
14 for the presentation.

15 We'll move on to the next submission which
16 is an oral presentation by the Safe Communities of
17 Pickering and Ajax as outlined in CMD H6.4. I understand
18 that Mr. McKinnon will make the presentation.

19 Mr. McKinnon.

20
21 **10-H6.4**

22 **Oral presentation by**

23 **Safe Communities of**

24 **Pickering and Ajax**

25

1 **MR. MCKINNON:** For the record, my name is
2 Jim McKinnon. I represent the Safe Communities of
3 Pickering-Ajax. Thank you, Mr. Chairman and Members of
4 the Commission for allowing me to make this oral
5 presentation.

6 Our organization's mission is to make the
7 Ajax-Pickering area a safer place to live, learn, work and
8 play. And we support the -- our coalition supports OPG's
9 application for operating licence for a Pickering A
10 nuclear station because they have demonstrated that they
11 are very good corporate citizens. They have shown a strong
12 commitment to our board.

13 Number one, they've served our Safe
14 Communities of Pickering-Ajax since its inception in 1997.
15 They've provided direct financial contributions to support
16 our mission.

17 They've served on our leadership
18 table.

19 They've assisted with the costs of
20 programs such as "Heroes" which is a program that teaches
21 youth about smart risk. They also have helped us bring in
22 the program called "MADD" which is Mothers Against Drunk
23 Driving. Through those programs, we've been able to reach
24 a total of 1,600 students for each program in the Ajax-
25 Pickering area.

1 They've shown leadership by supporting
2 injury prevention and safety promotion programs in the
3 community.

4 The OPG provide financial and in-kind
5 assistance to more than 900 initiatives in their host
6 communities through their Corporate Citizenship Program,
7 and 270 of these initiatives were to health and safety
8 organizations.

9 Through collaboration, the OPG partners
10 with their host communities like the City of Pickering and
11 Clarington for community safety days.

12 One big program that we have is called the
13 Passport to Safety. This is in partnership with the
14 Workplace Safety Insurance Board.

15 OPG helped us to implement that program and
16 it supports youth workplace safety through Passport to
17 Safety which is made available to all young workers
18 joining their company for summer or co-op positions as
19 well as their employees' children. This is a computer-
20 based program and it helps eliminate injuries in the
21 workplace.

22 Water safety in the communities -- OPG runs
23 extensive water safety programs to encourage to stay clear
24 and stay safe around dams in hydro-electrical stations and
25 surrounding waters.

1 OPG is deeply committed to the safety of
2 their employees and they have a safety culture which is --
3 where employees are expected to build safety in every
4 task. This results in a high level of safety performance.

5 And last, but not least, which really
6 impresses me -- the OPG believes that a target of zero
7 injuries is achievable. This is not only good business
8 sense but it shows a commitment to protecting their
9 employees, sending them home in a healthy -- as healthy as
10 they arrived at work.

11 I'd be happy to answer any questions.

12 **THE CHAIRMAN:** Thank you.

13 Anybody questions?

14 Mr. Tolgyesi?

15 **MEMBER TOLGYESI:** Yes.

16 You were talking about this Passport to
17 Safety. It is something which is available to just for
18 employees of OPG or any other employer in the region?

19 **MR. MCKINNON:** That's open to any employer
20 in the region to participate in the program. It is
21 offered through schools to all the students. However,
22 employers can also apply to this program.

23 Since its inception in the Durham Region,
24 10,000 students have taken that program. We're
25 celebrating that this year.

1 **MEMBER TOLGYESI:** And it's available for
2 other regions also if somebody wants to have a program?

3 **MR. MCKINNON:** Yes, it's available
4 throughout Ontario.

5 **THE CHAIRMAN:** Thank you. Thank you for
6 the submission. I think we'll take one more before we'll
7 break for lunch.

8 And this is oral presentation by the North
9 American Young Generation in Nuclear, the Durham Chapter,
10 as outlined in CMD H6.5.

11 Two representatives -- the floor is yours.

12

13 **10-H6.5**

14 **Oral presentation by**

15 **The North American Young**

16 **Generation in Nuclear,**

17 **Durham Chapter**

18

19 **MR. MUSTAFA:** Good morning respected
20 Chairman, Members of the Commission, ladies and gentlemen.

21 I would like to thank you for the
22 opportunity to speak today on behalf of the North American
23 Young Generation in Nuclear, Durham Chapter leadership and
24 its members.

25 For the record, my name is Shehab Mustafa.

1 I am one of the founding members and the current Chair of
2 professional development for NAYGN Durham. And joining me
3 is Ms. Sinéaid Lagan, our chapter vice president.

4 We are pleased today to be able to provide
5 our chapter's support for the Pickering A Nuclear
6 Generating Station's operating licence renewal. I would
7 like to take this moment to briefly discuss the objectives
8 of NAYGN and provide a background about our Durham
9 chapter.

10 NAYGN is an international volunteer-driven
11 organization across the continent that aims to provide a
12 professional development for its membership, inform and
13 educate the public about nuclear science and technology,
14 and contribute to the exchange of information among
15 generations of nuclear professionals.

16 Currently there are over 80 local chapters
17 throughout Canada, the United States of America and
18 Mexico. Founded in 2005, the NAYGN Durham chapter
19 consists of nuclear energy professionals working in
20 Ontario's Durham region primarily at Ontario Power
21 generation's Pickering A, Pickering B and Darlington
22 Nuclear Stations, as well as their nuclear support
23 organizations.

24 NAYGN Durham's membership represents a
25 broad diversity of nuclear energy professionals and

1 disciplines including engineering, human resources,
2 radiation protection, health physics, training,
3 conventional safety, operations and maintenance, and
4 business services.

5 I'd like to turn the floor over now to Ms.
6 Sinéaid Lagan to outline our reasons of support today.

7 Sinéaid?

8 **MS. LAGAN:** Sinéaid Lagan, for the record.

9 The NAYGN Durham chapter strongly supports
10 the application for a five year operating licence of the
11 Pickering A Nuclear Generating Station.

12 This support is provided based on
13 excellence achieved in four key areas: Pickering A's
14 proven safety record, Pickering A's demonstrated
15 environmental stewardship, Pickering A's continuous
16 community leadership and the opportunities which Pickering
17 A provides for our NA-YGN membership to develop their
18 professional careers.

19 The first key area is safety record. As
20 nuclear energy professionals, we understand the unique
21 role of nuclear power and hold nuclear and conventional
22 safety as our overriding priority. We recognize and
23 appreciate the fact that no member of the public has been
24 harmed in nearly 40 years of Pickering A's operation.

25 Pickering A has maintained and safely

1 operated the station during the current five-year licence
2 period. Pickering A has a robust and reliable technology
3 designed to ensure nuclear safety. This is employed
4 through multiple levels of protection in accordance with
5 defence in-depth principles which ensures the safety of
6 the public, the environment and the employees is Pickering
7 A's top priority at all times.

8 Based on this proven technology combined
9 with the rigorous and extensive training programs, the
10 nuclear energy professionals who operate, inspect and
11 monitor the plant, NA-YGN Durham Chapter is confident that
12 Pickering A will continue to operate with the utmost
13 emphasis on safety.

14 Pickering A has demonstrated commitment to
15 both conventional and nuclear safety. Recently employees
16 at the station surpassed three million hours without a
17 lost-time accident. Pickering A continues to meet or
18 exceed the monitored safety and control performance
19 expectations.

20 In addition, OPG has received the
21 Electrical Utilities Safety Association awards for the
22 past five consecutive years. This award is bestowed for
23 effective safety management and strong safety culture. We
24 believe this is an unambiguous demonstration of the safety
25 culture that exists at Pickering.

1 The second key area upon which NA-YGN
2 supports Pickering A's licence renewal is environmental
3 stewardship. Apart from producing power safely, Pickering
4 A has demonstrated strong environmental stewardship.
5 Nuclear power generation provides large amounts of power
6 without the production of carbon dioxide, nitrous oxides,
7 sulphur dioxide and other air pollution particulates.

8 As members of the nuclear energy
9 profession, we feel engaged in being part of the solution
10 to address climate change while balancing the needs of our
11 communities for safe, clean, reliable power in an
12 environmentally responsible manner. Pickering A continues
13 to play a vital role in the sustainable generation of
14 electricity for our communities in Durham region and in
15 the Province of Ontario.

16 Pickering A's environmental performance
17 continues to be strong as demonstrated by continuously
18 keeping emissions well below the regulatory limits,
19 maintaining the ISO 14001 Standard and being recognized by
20 several local and international environmental awards and
21 certifications, such as the Durham Environmental Advisory
22 Council Jessica Markland Partnership Award and the Ajax-
23 Pickering Board of Trade Eco-Business Award.

24 **MR. MUSTAFA:** For the record, Shehab
25 Mustafa.

1 Our third reason for support is the role of
2 community leadership. Pickering A is an important and
3 active contributor to the community where many of our
4 members live. It produces electricity, economic and
5 employment benefits that improve the quality of life for
6 the citizens of Durham Region and across the Province of
7 Ontario.

8 The community looks to Pickering A and OPG
9 to provide strong leadership and support many of the local
10 community organizations. Pickering Nuclear invests more
11 than \$200,000 annually in community partnerships to
12 enhance educational opportunities, environmental
13 stewardship and community building. This community
14 leadership is recognized and well appreciated.

15 And our final reason is for the
16 professional development of our membership. NA-YGN Durham
17 aims to create opportunities for our members to become
18 engaging, empowering and evolving nuclear professionals
19 and to utilize our capabilities to positively impact the
20 industry in which we work and the communities in which we
21 live.

22 Many of these activities occur at Pickering
23 A and many of our members will be active participants in
24 the operation of Pickering A over the next five years.
25 Our members take pride in being nuclear energy

1 professionals working collaboratively to provide safe,
2 reliable, economic electricity to our colleagues, friends,
3 families in the region of Durham and to our fellow
4 citizens in the Province of Ontario.

5 Thus, a renewed five-year operating licence
6 would ensuring Pickering A's continuously demonstrated
7 successes in the areas of safety, environment and
8 community development is extended and will continue to
9 create further professional development opportunities for
10 our membership and other young professionals in the energy
11 sector of Ontario.

12 Hence, NA-YGN Durham offers its unequivocal
13 support respectfully for the Ontario Power Generation's
14 Pickering A application for a five-year operating licence.

15 We thank you again for this opportunity to
16 present on behalf of the NA-YGN Durham Chapter leadership
17 and members. Sinéad and I would be pleased to answer any
18 questions you may have of us at this time.

19 **THE CHAIRMAN:** Thank you.

20 The floor is open. Monsieur Harvey?

21 **MEMBER HARVEY:** Merci, Monsieur Président.

22 I don't know exactly how you work inside
23 your organization and how you come to reply to this.
24 Anyway, I just want to bring two points, the first one
25 being about the safety record. What's there is for -- I

1 think it's okay. On the first page, for example, the last
2 paragraph says Pickering A has robust and reliable
3 technology designed to ensure nuclear safety. I think we
4 recognize that, appreciate that.

5 But do you have any thought or point of
6 view, for example, on aging of components for the next 10
7 years of operation? Is this something which is an object
8 of discussion in your group? Can you say some words about
9 that?

10 **MR. MUSTAFA:** Thank you for the question.

11 I just want to clarify that we are an
12 organization of young professionals and we're speaking
13 today as members of a young professional organization.

14 Pertaining to your question, one of the
15 overriding principles for all of us is ensuring nuclear
16 safety. It's at the core of what we do and the core of
17 what we believe, and so ensuring that the public, the
18 workers and the environment are safe, that the three Cs of
19 reactor safety are maintained at all times is a
20 fundamental value that we practise and that we believe in.

21 And going forward over the life span of the
22 10 years, I'm sure and confident that our membership and
23 fellow young professionals will maintain that.

24 **MEMBER HARVEY:** Another point would be to
25 have your point of view on what has been put on the table

1 this morning in all the fish issue.

2 **MR. MUSTAFA:** Again, thank you for that
3 question.

4 While the fish entrainment question doesn't
5 directly impact our professional day-to-day
6 responsibilities, what we do know is that OPG has taken
7 the actions required of it and responded in a timely
8 manner to the requirements that were required by the CNSC
9 and has taken proactive measures to ensure that those are
10 met.

11 **MEMBER HARVEY:** Thank you.

12 **MR. MUSTAFA:** Thank you.

13 **THE CHAIRMAN:** Okay, thank you very much.

14 I would like to take I think 45 minutes.
15 Members, okay with that? So we'll reconvene at 1:30 and I
16 think that the next intervention is from Greenpeace
17 Canada.

18 Thank you.

19

20 --- Upon recessing at 12:48 p.m./

21 L'audience est suspendue à 12h48

22 --- Upon resuming at 1:31 p.m./

23 L'audience est reprise à 13h31

24

25 **THE CHAIRMAN:** Okay, I guess we are set to

1 continue. We'll move to the next submission, which is an
2 oral presentation by Greenpeace Canada as outlined in CMD
3 H6.6 and 6.6A.

4 Mr. Shawn-Patrick Stensil, the floor is
5 yours.

6
7 **10-H6.6 / 10-H6.6A**

8 **Oral presentation by**
9 **Greenpeace Canada**

10
11 **MR. STENSIL:** Mr. President, Commissioners,
12 thank you for this opportunity to present to you today. I
13 think the Commissioners, OPG and CNSC staff will all be
14 happy to hear that I won't refer to fish once in my
15 presentation to you today.

16 As you are probably aware, there's been a
17 common theme in Greenpeace's presentations to the
18 Commission over the past five years. Greenpeace has been
19 critical of the CNSC for being behind the curve in respect
20 to addressing reactor aging, specifically in regard to
21 adequate standards and transparent procedures for proving
22 life extensions.

23 While reluctant to admit it, the Commission
24 has through its actions, such as Regulatory Guide 360,
25 admitted that Greenpeace's criticism was basically

1 correct.

2 The CNSC's failure to anticipate and seek
3 non-industry input on addressing life extension concerns
4 from the outset; I would argue, however, has caused an
5 inconsistent and non-transparent approach to various life
6 extension projects.

7 Let's not make the same mistake with the
8 case of decommissioning. OPG's announcement which
9 Greenpeace supports, that the Pickering Nuclear Station
10 will close in 2020 presents new planning, public
11 participation and safety issues for the Commission.

12 Today Greenpeace would like to encourage
13 the Commission to get ahead of the curve for once in
14 preparing and consulting the public in regard to closure
15 issues and decommissioning of the first major nuclear
16 station in Canada.

17 More concretely, what are we asking the
18 Commission today?

19 First, because of shared safety systems,
20 OPG weighs the costs and benefits of operating the
21 Pickering Stations together. So should the CNSC,
22 especially in this end of life phase. Thus, align
23 Pickering A's licence with that of Pickering B in 2013.

24 Aligning the Pickering A and B licences
25 will allow the Commission to evaluate issues common to

1 both A and B such as decommissioning of the station
2 comprehensively and transparently. Specifically,
3 Greenpeace would like to request that the next licence
4 renewal hearing in 2013 the Commission commit to a
5 rigorous review of the end-of-life plan and the
6 decommissioning plan for the entire station, again getting
7 ahead of the curve for 2020.

8 Finally, similar to previous Greenpeace
9 requests, we ask that the Commission instruct staff and
10 OPG to report annually on the status of life limiting
11 components of the station and the safety assessments used
12 to justify them.

13 To begin, a quick rundown of some of the
14 issues in the outside world that are driving OPG's
15 business plans. To quote another regulatory agency that
16 Greenpeace presents to, the Ontario Energy Board, the
17 operating cost of the Pickering A reactor is, quote,
18 "maybe the worst of any nuclear station in North America."
19 While the Pickering B reactors may be slightly better, the
20 operating costs, quote, "are more than twice the U.S.
21 median and significantly above the Bruce station."

22 If operational costs continue to rise as
23 these reactors age, OPG seemingly has two options to
24 maintain profits: Cutback on the costs of safety
25 requirements if permitted by the CNSC or ask the Ontario

1 Energy Board to increase payments from ratepayers.
2 Greenpeace opposes both of those but in today's
3 presentation this concern about the conflict between
4 operational costs and safety is why Greenpeace asks the
5 Commission to increase transparency over the next decade
6 because there will be pressures there.

7 But why operate such expensive reactors?
8 OPG wants to continue operating Pickering A and B until
9 2020 and hope that new reactors will, one, both be
10 approved -- still in question -- and built in time to
11 maintain it's hold on the electricity market in Ontario.
12 If you think this sounds similar to the ongoing safety
13 soap opera surrounding -- running the aging NRU reactor
14 until some replacement source comes online, you're right.

15 Fortunately Pickering's generation may not
16 even be needed over the next decade. On screen, you'll
17 find a graph comparing Ontario's 2005 forecast for
18 electricity demand with actual demand and revised
19 predictions. The top line shows the government's 2005
20 electricity plan which rationalized refurbishing
21 everything and building additional reactors. The bottom
22 line shows you the independent electricity system's actual
23 numbers up until 2009 with their projection.

24 The North American Electricity -- Electric
25 Reliability Corp, NERC, predicts a 9.5 percent drop in

1 annual electricity consumption in Ontario by 2018, the
2 equivalent output of three Pickering reactors. So with a
3 little more effort on conservation or a little more
4 renewables we wouldn't even need this station or
5 replacement reactors.

6 All this is to say shutting the Pickering
7 reactors down even before 2020 won't lead to electricity
8 shortages and would arguably provide additional space on
9 the grid for green power development beyond the marginal
10 targets set by the province. It's not a concern of this
11 hearing, but something to keep in perspective. On the
12 other hand, nothing should stop the Commission -- or the
13 Commission should feel no pressure from being an assertive
14 regulator in this case.

15 Regarding the licence; at a recent
16 information meeting OPG held on its rate application to
17 the Ontario Energy Board -- OPG staff stated, quote:

18 "Units at Pickering are
19 interconnected. For technical and
20 economic reasons, two Pickering B
21 units need to be in operation for
22 Pickering A to be functional."

23 Given this, given OPG is assessing the
24 economic and safety case for operating the Pickering
25 reactors together, Greenpeace requests the Commission do

1 the same.

2 Greenpeace requests then that the
3 Commission align the Pickering A licence with the
4 Pickering B licence. This would mean a three year licence
5 rather than a five year licence. Looking forward a
6 decade, such an alignment makes sense as we enter the
7 shutdown and decommissioning phase, and a reality check in
8 response to some of the discussions this morning about
9 should it be a five or a seven year licence extension, we
10 used to do two year licence extensions all the time, just
11 until five years ago and now it seemed it's evaded
12 seemingly by both staff and OPG. We can do this, and it
13 makes sense.

14 An aligned licence would also allow the
15 Commission in 2013 to assess some of the issues around
16 potentially -- instead of just aligning the licence, to
17 combine them -- which was discussed this morning. But
18 that could be done in a transparent way and not between
19 just CNSC staff and OPG, which Greenpeace would support
20 the Commission looking into that.

21 Regarding the end of life plan, in May 2008
22 at the Pickering B hearings, Greenpeace asked the
23 Commission to require OPG to submit an end of life plan
24 for the Pickering Station. Our argument was simple but
25 had been overlooked by both OPG and CNSC staff. That is

1 OPG expected -- OPG expected to begin shutting down the
2 Pickering B reactors in 2014 for the refurbishment or
3 permanent closure due to aging and life limiting
4 components. If planning for this significant event wasn't
5 done well in advance, safety and public participation
6 could be victim.

7 One of our concerns at the time which was
8 raised by Commissioner Barnes this morning was a staffing
9 strategy and it's still a significant concern because we
10 really don't have a lot of details of that even today.
11 The Commission agreed with Greenpeace and required an end
12 of year plan by December 2009. OPG however failed to meet
13 this requirement. Greenpeace asked the Commission in
14 January 2009 in a letter for a status report on this
15 licensing requirement. Curiously, the CNSC did not
16 respond to this request until about an hour after OPG
17 announced the closure of the Pickering reactors in
18 February.

19 And to go off script a little bit here, I
20 must say the Commission is often accused of being biased
21 and this is one of those times where it leaves a bad taste
22 in your mouth. Greenpeace gave the Commission useful
23 information in 2009 that led to a licensing requirement
24 and then it seems, at the end, the Commission was acting
25 to protect the public relations interests of OPG above

1 being transparent with what the status of this licensing
2 requirement. And as we're hearing in the discussions
3 today, there's still a lot of road to go down in terms of
4 developing an end of life plan.

5 That said Greenpeace believes that an end
6 of life plan for the entire Pickering Station deserves
7 rigorous scrutiny. Greenpeace asks then the Commission to
8 require OPG to submit an end of life plan for the entire
9 station for review at a licence renewal in 2013.

10 Regarding decommissioning, similarly
11 Greenpeace would like to request that the Commission
12 direct OPG and Commission staff to hold a rigorous review
13 of OPG's decommissioning plans for the Pickering Station
14 in 2013. This is about getting ahead of the curve. 2015,
15 I think, is too late. This would allow enough time for
16 plans to be changed if technical or social acceptance
17 problems were identified.

18 Greenpeace understands that OPG has
19 outsourced much of its radioactive waste and
20 decommissioning division to the Nuclear Waste Management
21 Organization. It has also come to our attention that the
22 NWMO is in the process of reviewing its financial
23 estimates that underpin its decommissioning plan. These
24 would be available by 2013.

25 I would like to suggest that the NWMO's

1 findings should be of interest to the Commission and given
2 that Pickering will be the first significant nuclear
3 station to be decommissioned, the Commission should take a
4 special interest in planning and facilitating public input
5 about this plan.

6 Here I would like to throw out a
7 suggestion. Not for this licence, but for the future.
8 Let's have a debate on accelerated decommissioning.
9 Currently OPG's decommissioning strategies are driven by
10 putting off costs and putting off decommissioning, we lock
11 the doors for 30 or 40 years and then go in and do it;
12 it's about deferring costs.

13 As I understand, there are examples from
14 the United States where nuclear stations are cleaned up
15 much quicker than has been proposed here in Canada. We
16 should have a debate about this and get some other
17 international examples on the table well before Pickering
18 shuts down in 2020.

19 And if I may perhaps, this is an
20 undertaking for CNSC staff to go out there, look for those
21 best practices on delayed decommissioning versus
22 accelerated decommissioning that could be presented at a
23 meeting of the Commission beforehand where the public can
24 start to understand is this actually a good plan compared
25 to elsewhere in the world.

1 And, you know, on that matter, the City of
2 Pickering should have an interest in this because it could
3 mean more jobs in the 2020 period.

4 Life-limiting components. As the
5 Commission is aware, Green Peace is very concerned by the
6 safety of Canada's ageing nuclear stations. A
7 precautionary approach to safety uses public transparency
8 and scrutiny to assess safety claims made by OPG.

9 Such scrutiny can help identify
10 uncertainties and admissions that require further study.
11 What's more, the knowledge that their claims will be
12 subject to such claims and scrutiny is one of the best
13 motivators for OPG and CNSC staff to do their proper due
14 diligence in the first place.

15 Last year, however, in hearings on the
16 Bruce B licence renewal, the Commission agreed with Green
17 Peace that such reporting should take place. I raised
18 this at the 2008 Pickering hearing and it wasn't
19 acknowledged in the record of proceeding, but last year we
20 got a precedent.

21 I believe what motivated the Commission at
22 the time was the fact that Greenpeace revealed information
23 at the hearing that Bruce Power was planning refurbishing
24 the Bruce B reactors during the next licensing cycle,
25 which had not been mentioned by either CNSC staff or Bruce

1 Power.

2 While the actual refurbishment work would
3 have happened in the next licensing cycle, significant
4 planning and approvals would be required within the
5 proposed licensing period.

6 My hunch is that the fact that all of this
7 had been left unmentioned by staff and the licensee may
8 have annoyed some Commissioners -- and led you to include
9 this licensing requirement which is beyond shorter-term
10 fitness for service approach used by the Commission.

11 Going back to my opening remarks, the
12 Commission has tended to be behind the curve with regard
13 to addressing issues of reactor ageing, partly I think
14 because issues on the mid-term horizon haven't been raised
15 at the Commission level.

16 I think Greenpeace's request for regular
17 scrutiny of life-limiting components, estimates and safety
18 assessments will help the Commission not only ensure
19 safety, but frankly effectively plan and give direction to
20 staff.

21 Thus, based on the precedent set by the
22 Bruce B licensing hearing, Greenpeace would like to
23 request annual reporting of both the life-limiting
24 components for Pickering A and B. Again, we requested it
25 in 2008 and it was ignored.

1 In conclusion, Commissioner Barnes, I think
2 you summarized it best -- this is Greenpeace's concerns
3 best this morning in your opening comments. We're not
4 receiving much information about the end-of-life plan at
5 this hearing and the information we are receiving isn't
6 commensurate with the scale of the task ahead.

7 We're entering new territory with the
8 shutdown of Pickering. If Greenpeace has its way, you'll
9 be getting more decommissioning projects to oversee in the
10 near future.

11 I asked the Commission to ensure we have
12 the time and opportunities for public consultation to get
13 it right. A comprehensive and broadly-scoped licence
14 renewal in 2013 for both Pickering A and B makes sense.
15 At this hearing we can have a rigorous review of both the
16 decommissioning plan and the end-of-life strategy.

17 If we identify problems in 2013, we'll have
18 the time to address them transparently and effectively.
19 Safety and transparency require good planning.

20 And with that, I'll finish my presentation.

21 **THE CHAIRMAN:** Thank you.

22 The floor is open. Who wants to start?

23 Mr. Tolgyesi?

24 **MEMBER TOLGYESI:** I have two questions.

25 One is to the presenter.

1 One, you were showing on the graph, it's a
2 drop of power requirements, electricity requirements. It
3 is due to lower economic activities or it is due to better
4 efficiency or it is due to some alternative sources or
5 it's due to what?

6 **MR. STENSIL:** Very good question.

7 According to the independent electricity
8 system operator, part of it is, yes, in fact due to the
9 recession, but other aspects are the successive limited
10 conservation programs and the development of more
11 decentralized power we've seen since 2005.

12 What you should note about the graph is
13 that electricity demand went down before the recession and
14 what's also behind this is usually the history of
15 electricity forecasting in Ontario. They've always over-
16 estimated and that's when we've seen electricity plans
17 fail in 1990 and perhaps in 2007. They over-estimate to
18 rationalize demand and increased production in generation
19 and in just a few years then you see it all fall apart.

20 **MEMBER TOLGYESI:** And my second-last
21 question is to OPG and staff maybe. We heard about
22 accelerated decommissioning and clean-up which happens in
23 United States and maybe elsewhere. Could you comment on
24 that?

25 **MR. TREMBLAY:** Pierre Tremblay, for the

1 record.

2 Could you just repeat the question in terms
3 of what it is you're looking for?

4 **MEMBER TOLGYESI:** The presenter was talking
5 about accelerated decommissioning and clean-up plan;
6 clean-up which is following this shutdown of the station,
7 the power generator station.

8 **MR. TREMBLAY:** I see.

9 **MEMBER TOLGYESI:** And what I want to know
10 is if you have any clue or you know about that and what it
11 involves or how it is something you could implement or
12 use.

13 **MR. TREMBLAY:** For the record, Pierre
14 Tremblay.

15 Certainly our plans -- and I'll turn it
16 over to somebody to talk about it in more details, but
17 they have been benchmarked. We have looked at what's
18 going on internationally. I think it would be fair to say
19 that, in our view, the practices are mixed. There is some
20 accelerated, others not. So there are different
21 approaches being used out there.

22 Certainly it's in our interest, you know,
23 to the general theme here that we do proper planning and
24 understand how best to go about the various activities
25 that I would remind everybody are beyond the current

1 licensing period that we are talking about. In fact, OPG
2 will be setting up a Centre of Decommissioning Excellence
3 in the local community to garner good practices and learn
4 from others so that that proper planning can be done and
5 carried out.

6 So perhaps we can turn it over to John
7 Lotoski for more details.

8 **MR. LOTOSKI:** Thank you. For the record,
9 my name is John Lotoski. I'm the Engineering Director of
10 Nuclear Waste Management of OPG.

11 At the current time we have a preliminary
12 decommission plan, or PDP, that describes our
13 decommissioning approach and it's consistent with
14 regulatory practices. It's updated routinely as required
15 by those regulatory requirements and it provides an
16 overview of our approach to decommissioning and
17 demonstrates that decommissioning is feasible with
18 existing technology, and it also provides the framework
19 for a detailed decommissioning plan, or DDP.

20 At this time our detailed decommissioning
21 plan is scheduled to be issued in the 2017-18 timeframe.

22 **THE CHAIRMAN:** Mr. Graham?

23 **MEMBER GRAHAM:** That was my question, what
24 I was going to ask is could you have a detailed
25 decommissioning plan ready by 2013? You're saying 2017.

1 That's seven years from now. I find it a little
2 difficult. Why seven years? And I'm going to ask CNSC
3 staff if they feel that a seven-year timeframe is -- since
4 PDPs are developed over time and then you go through that,
5 why you would need seven years for a detailed
6 decommissioning plan for the Pickering unit.

7 **MR. LOTOSKI:** John Lotoski again, for the
8 record.

9 It's not that it requires seven years for
10 preparation of the detailed decommissioning plan. As we
11 understand it now, based on regulatory requirements, that
12 would be consistent with those requirements in submitting
13 that document at that time.

14 **MEMBER GRAHAM:** But if in considering this
15 licence and considering the licence whether they're
16 combined or not, whether it's in three years, five years
17 or eight years, whatever it is, but to look at all of the
18 aspects as a Commission, do you feel that you could have a
19 decommissioning plan, a detailed one ready a lot sooner
20 than 2017?

21 **MR. LOTOSKI:** Again, John Lotoski, for the
22 record.

23 I believe if we would be asked to have one
24 ready we could do that.

25 It would require additional effort of

1 course and defocus some of our other efforts at this time.

2 **MEMBER GRAHAM:** To staff my question is the
3 same. If we targeted 2013 or a date and had the annual
4 reporting as to the stepping stones and the steps as to
5 reaching those objectives, always come back and say well,
6 if we need more time, another six months or something --
7 but if we put some objectives in there or some conditions,
8 could they be lived up to with regard to staff's opinion?

9 **MR. RZENTKOWSKI:** Greg Rzentkowski, for the
10 record.

11 In the staff's opinion, yes that is
12 feasible. However, we have to evaluate that regulatory
13 requirement because normally a (inaudible) decommissioning
14 plan is required at the moment a licence application for
15 decommission of the facility is filed.

16 In this particular case we are not going to
17 have a licence to decommission the facility so we have to
18 have a look at our regulatory requirements and see what
19 needs to be improved in order to develop a proper
20 regulatory framework.

21 **MEMBER GRAHAM:** But it has been announced
22 that end of life dates have been set now and the
23 objectives have been set by OPG. And we do have, at the
24 time of issuing a licence they're asked to (inaudible)
25 preliminary decommissioning plan so a couple of the

1 factors are known.

2 And my question is, could we have a full
3 scale plan in place by 2013 and if it wasn't ready, I
4 mean, at least we have -- could we have annual reporting
5 as to how we're getting there?

6 **MR. RZENTKOWSKI:** In terms of developing
7 the plan I think we can have it ready. We are preparing
8 already our staff to initiate this work in about a couple
9 of years. Our staff is involved in the work of technical
10 group under IEAE so we are evaluating the current
11 operating experience regarding the decommissioning of
12 nuclear power plants and we are trying to build on lessons
13 learned and we are trying to obtain and understand the
14 best practices.

15 So I think we are in a position now to move
16 forward and I think two years is sufficient time to
17 develop the decommissioning plans, at least at the high
18 level.

19 **MR. TREMBLAY:** Pierre Tremblay, for the
20 record.

21 The current plan in the organization -- and
22 as driven by requirements as well -- is to update the
23 overall decommissioning plan that we have. Certainly, as
24 we move closer and we look at more details at what needs
25 to be done, that plan will get more specific.

1 The current plan of attack is to have the
2 plan in place and including a public consultation in
3 around the 2017 period which is beyond the current
4 operating licensing consideration and also -- but before
5 the operating period of the power plant, giving us several
6 years to modify and adjust.

7 That's the current plan and the basis on
8 which we have shared the operational plan for Pickering.
9 Further to that we've focused on operations and we want to
10 continue to focus on operations. And we've committed to
11 provide a detailed operational plan for Pickering B in
12 September. I believe that will be discussed in public in
13 December.

14 And further to that, with this licence
15 agreement to produce an operational plan to end of life
16 for Pickering A by the end of next year, and that too will
17 be subject to dialogue and input.

18 **THE CHAIRMAN:** Monsieur Harvey?

19 **MEMBER HARVEY:** Merci, Monsieur le
20 Président. Just one question.

21 It's related to one of the requests of
22 Greenpeace about the annual report on the life-limiting
23 components of the station. Is it something -- my question
24 is addressed to staff. Is it something that will be
25 already in the end report of NPP?

1 **MR. RZENTKOWSKI:** You mean in the current
2 report for 2010?

3 **MEMBER HARVEY:** Well, I mean in the future
4 here we will have an annual report on the stations. So in
5 the case of Pickering B, will we have something on the
6 life-limiting components of the station?

7 I mean, you are going to follow what will
8 be done by OPG and the inspections and the results on the
9 limiting components, aging components.

10 **MR. RZENTKOWSKI:** Yes, it's our intention
11 to provide a high-level summary. We have to provide a
12 high-level summary only because the CNSC doesn't normally
13 release the licensee documents. So for very specific
14 details of course the inquiry has to go directly to OPG.

15 But definitely in the NPP annual report we
16 will provide the high-level summary of the fitness of
17 service of structural systems and components.

18 **MEMBER HARVEY:** Does that answer your
19 question?

20 **MR. STENSIL:** I would request that, as I
21 said before, the safety assessments that justify these
22 high-level numbers -- we should have some scrutiny of
23 those.

24 And to give you an example that I referred
25 to previously about the end of life plan information I was

1 trying to get out of the Commission in January, OPG was
2 asked to release their letter to the CNSC to me. They
3 refused. And that's a difficulty with our regulatory
4 approach when the licensee can just claim commercial
5 confidentiality. You can't get the information out.

6 So I think there should be some level of
7 release of the safety assessments done that we can look at
8 so that we can say, are there uncertainties? Have they
9 admitted things? You can't do that from a high-level
10 study.

11 An example I would give is OPG has begun to
12 put summaries of their probabilistic risk assessments on
13 their websites so they should perhaps be looking at doing
14 something similar like that that they could proactively
15 release as well.

16 And would they be willing to do that?

17 **THE CHAIRMAN:** Go ahead. You want to
18 comment on this?

19 **MR. RZENTKOWSKI:** I thought this question
20 was directed to the OPG.

21 But of course I ---

22 **THE CHAIRMAN:** Safety is CNSC.

23 **MR. RZENTKOWSKI:** Safety is CNSC but the
24 release of the information at the very detailed level, the
25 information would belong to the licensee. It is really

1 the responsibility of the licensee.

2 **THE CHAIRMAN:** Wait, wait.

3 If there's a commercial confidentiality or
4 security issue, I agree, but if it's the status of your
5 pressure tube, it's not.

6 **MR. RZENTKOWSKI:** That's correct. The
7 status of the pressure tube is probably not commercial
8 information so it can be released. But we have to
9 understand that those disposition reports which are being
10 issued after every maintenance outage are probably five
11 inches thick so I'm not quite sure how we can summarize
12 this easily in the NPP annual report.

13 We definitely can provide a high-level
14 summary but we cannot provide all the details.

15 **THE CHAIRMAN:** I think that what is being
16 proposed here is -- if I understand correctly -- is there
17 going to be an end of life report? And that report in
18 fact is going to be tabled for Pickering B this year and
19 for Pickering A next year. And that report will have
20 enough detail in it for CNSC staff to assess and I assume
21 there's going to be some milestone on those things and
22 presumably some material from that can be usefully
23 monitored and reported publicly.

24 We shouldn't pre-empt until we see what's
25 in it but I assume there's got to be some sort of CNSC

1 public disclosure as to end of life progress to the end of
2 life.

3 **MR. RZENTKOWSKI:** Absolutely. The end of
4 life or continued operation plan or end of life plan --
5 those will be public documents. But in those documents
6 what OPG's going to outline -- it will be the approach to
7 assure safety of operation until the very last day of
8 operation. I don't think we will see the specific details
9 of the assessment of every single pressure tube.

10 However, we will see some area of the
11 fitness for service of structures system and components
12 and most likely also an aging management plan which has to
13 be developed in the way that the design and the licensing
14 basis can be maintained until the end of operations. And
15 that's something what we will consider.

16 We will evaluate and of course we will
17 provide comments. And we will use this plan later on to
18 develop our compliance program because we have to develop
19 a very diligent compliance program to make sure that in
20 fact fitness for service of all the system structure and
21 components will be adequate until the very last day of
22 operation.

23 **THE CHAIRMAN:** I think in that answer was a
24 "yes" somewhere to some of your question. We'll have to
25 see when we actually see the report itself.

1 **MEMBER HARVEY:** So maybe would you comment
2 on that or -- OPG?

3 **MR. TREMBLAY:** Pierre Tremblay, for the
4 record.

5 Certainly the discussion has been around
6 sort of validating and verifying the fitness for service
7 of the plant.

8 I'm not sure that we're talking about the
9 same things necessarily. There have been some requests
10 for detailed analysis and engineering analysis surrounding
11 the PRA. Some of those elements are security protected
12 and, as such, we've taken a position that we would not
13 disclose this information. However, we believe we've
14 agreed and have met and discussed summary information and
15 that's been provided to those who have been interested.

16 So in terms of the operational plans for
17 the facilities, those are commitments that we've made.
18 They'll be part of this licence that's specific to
19 Pickering A, which is the matter before this Commission.

20 We have committed to producing an
21 operational plan that will see Pickering A through 2020
22 and that, again, will be available for scrutiny,
23 discussion, dialogue and input from the public.

24 **THE CHAIRMAN:** Okay, we've got to move on.
25 Mr. Jammal, let's wait on this particular

1 area.

2 **MR. JAMMAL:** Yes, and I'll try to make it
3 in 30 seconds, sir.

4 A couple things:

5 We did send an official letter to OPG with
6 respect to the end-of-life plan. The detailed
7 requirements, the regulatory requirements and, to answer
8 your question and the Commission Member's question, those
9 we translated into the licence condition handbook as part
10 of our yearly update. We committed to the Commission.
11 There is a section with respect to the updates pertaining
12 to the licence conditions handbook and those updates will
13 be provided accordingly.

14 **THE CHAIRMAN:** Thank you.

15 Any more questions?

16 **MR. STENSIL:** One issue regarding -- well,
17 first of all, in the last discussion, to focus things, the
18 request was about life limiting components, not the PRA or
19 other issues. And that can be addressed in a lot of ways.
20 It could even be by providing a list of the references in the
21 CNSC document to OPG, documents that I could then use
22 access to information for, although I don't have a lot of
23 luck with OPG on access to information.

24 Secondly, regarding the decommissioning
25 issues, just to cite a precedent, before we get to the

1 detailed decommissioning plan, I think we need to have a
2 discussion about the overall strategy. That's what I was
3 getting at, the accelerated versus put it off until we can
4 pay for it some other day. And this is always an issue
5 with the nuclear industry, putting off costs.

6 To cite a precedent in Canada, as I recall
7 on the Chalk River site, there was some CNSC direction
8 about having a debate and public input as to whether it
9 should be accelerated or over 300 years, which is a little
10 crazy.

11 So there is a precedent for having some
12 discussion of that and I'm just proposing today that
13 perhaps we have it in 2013. I'm not sure what the entire
14 scope would be, but I think part of it is putting some of
15 these best practices from around the world in front of
16 Canadians and in front of the Commission and then we can
17 actually have an informed debate about whether OPG just
18 shuts its reactor down in 40 years once we're all retired.

19 **THE CHAIRMAN:** Okay, thank you.

20 Thank you very much.

21 Okay. We're moving to the next submission
22 which is an oral presentation by the Town of Ajax as
23 outlined in CMD H6.7 and I understand that Councillor
24 Renrick Ashby will make the presentation.

25 Go ahead, please.

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10-H6.7

**Oral presentation by the
Town of Ajax**

MR. ASHBY: Thank you, and thank you very much for this invitation.

For the record, my name is Renrick Ashby. I'm here in the capacity of a member of council for the Town of Ajax and I'm also representing the views of council and on behalf of the mayor.

Just for the record, I'll just note that I am a former member of the Citizen Advisory Committee of OPG, I believe from 2001 to 2006, and I am a former member of the Town of Ajax as a planner. I'm here on behalf of council.

I note that you do have a copy of our intervention and I'll just try to highlight the salient features of that.

We are in support and we base our comments on regular communications with OPG, active participation on Pickering Nuclear's Community Advisory Council, and a review of Canadian Nuclear Safety Commission site staff's assessment of the station's operation.

We understand OPG meets all the criteria

1 for a five year licence renewal. We also understand that
2 the station is being safely operated and maintained in a
3 manner that provides for health and safety of employees
4 and our community residents as well as mitigates any
5 environmental impacts.

6 OPG proactively communicates with the Town
7 of Ajax council and residents through face-to-face
8 discussions, public meetings such as community advisory
9 council and the Durham Nuclear Health Committee, community
10 newsletters, newspaper advertisements, and operating an
11 information centre.

12 They provide fulsome responses to any
13 questions or concerns that are understandable to the
14 general public.

15 Employees of OPG are active volunteers in
16 our community. They have held leadership positions with
17 the Ajax-Pickering Board of Trade, the United Way, the
18 Ajax-Pickering Hospital Foundation, the Ajax-Pickering-
19 Uxbridge Big Brothers and Sisters, Horizon House and the
20 Ajax Youth Centre.

21 On a personal note, I run an annual ride
22 for charity and OPG is an active participant and donator
23 in that program.

24 In light of its recent announcement to
25 continue to operating the Pickering Nuclear Generating

1 Station for another 10 years, followed by a safe storage
2 project and then decommissioning, the town will continue
3 working with OPG to enable it to fulfil its commitment; to
4 number one, to continue operating and maintaining both A
5 and B side with safety as their overriding priority;
6 invest \$300 million in additional inspections, maintenance
7 and its reactor systems; continue to operate and
8 communicate in an open and transparent manner; and
9 continue to be a positive economic driver in their host
10 communities and continue to be leaders in community
11 building.

12 In conclusion, based on the communication
13 with OPG and the Canadian Nuclear Safety Commission site
14 recommendation, the Town of Ajax supports OPG's request
15 for a five year renewal and for the Pickering Nuclear
16 Power Generation Station A operating licence.

17 For the record, I am here with Kevin
18 Heritage who is a policy coordinator with the Town of
19 Ajax.

20 **THE CHAIRMAN:** Thank you very much.

21 Any questions?

22 Well, thank you for the presentation.

23 **MR. ASHBY:** Thank you.

24 **THE CHAIRMAN:** We'll move to the next
25 submission which is an oral presentation by the City of

1 Pickering as outlined in CMD H-6.8 and 6.8A. I understand
2 we have Mayor David Ryan here with us.

3 Mayor, the floor is yours.

4

5 **10-H6.8 / 10-H6.8A**

6 **Oral presentation by the**

7 **City of Pickering**

8

9 **MAYOR RYAN:** Good afternoon, Mr. Chairman
10 and Members of the Commission.

11 For the record, my name is David Ryan,
12 Mayor of the City of Pickering. I am also Chair of the
13 Canadian Association of Nuclear Host Communities.

14 Joining me today from the City of Pickering
15 is Mr. Tom Melymuk, who is the Director of the Office of
16 Sustainability.

17 Firstly, I would like to acknowledge and
18 thank the Commission for holding these hearings in the
19 City of Pickering. As you have acknowledged, the city,
20 its residents, businesses and community groups are
21 arguably the primary stakeholders with respect to the
22 Pickering Nuclear Station.

23 As a host community, the city pays very
24 close attention to the activities and operations at the
25 station. In this regard I am very pleased to report to

1 the Commission that the city and OPG representatives have
2 an excellent working relationship and that we regularly
3 communicate about issues of mutual interest and
4 importance.

5 The city is also represented on the
6 Pickering Nuclear Community Advisory Council which
7 provides us with another venue for ongoing dialogue with
8 the OPG officials.

9 I'm here today to communicate Pickering
10 Council's resolution from its April 19, 2010 meeting --
11 namely, the City of Pickering supports the five year re-
12 licensing of Pickering A provided that Ontario Power
13 Generation continues its regular efforts in keeping the
14 city informed of business at its Pickering sites and;
15 secondly, that OPG initiates formal discussions with the
16 city regarding the impact on the city of the safe shutdown
17 and decommissioning of the nuclear station.

18 With respect to council's provisions I have
19 every confidence that OPG will maintain its open lines of
20 communications with the City of Pickering and its
21 residents.

22 Currently, we regularly receive informal
23 and formal communications on station activities and
24 industry issues with face to face discussions, e-mails,
25 letters, presentations and newsletters. And, as

1 previously stated, we also have representation on the
2 community advisory council that meets monthly.

3 Residents receive quarterly newsletters as
4 are placed in local newspapers and on local radio and
5 television stations.

6 OPG manages an information centre and there
7 are many events across our city.

8 Additionally, I wanted to provide the
9 Commission with some insight into how integrated the
10 nuclear station and its activities are, with respect to
11 the community and its future.

12 One of the greatest challenges facing all
13 of us is ensuring a sustainable future. The City of
14 Pickering takes this challenge extremely seriously. This
15 is why we have made a long term corporate commitment to
16 our sustainable Pickering program.

17 Sustainable Pickering has a simple but
18 challenging objective, namely the transformation of
19 Pickering from a suburban municipality to a sustainable
20 city. By this, we mean a city that grows and develops
21 over time in a way that simultaneously benefits the local
22 economy, the local government, and the local community.
23 When we look at the relicensing of Pickering A in relation
24 to our sustainable Pickering program, we arrive at a
25 number of important conclusions.

1 With respect to our local economy, the
2 Pickering nuclear station has been the economic hub of our
3 community for almost 40 years.

4 Moving forward, the City of Pickering
5 recognizes and accepts the important role nuclear power
6 plays in Ontario's long-term energy and economic future.
7 In this regard, we would like to assure the Commission
8 that the city is prepared to do its part. We are pleased
9 to continue being a supportive host community for nuclear
10 power production on the understanding, of course, that the
11 Province, OPG, and the CNSC continue to work with the city
12 to help us manage and address any challenges that come
13 with being a nuclear host community.

14 I would also like to mention to the
15 Commission that the Pickering station generates a
16 significant number of local economic benefits. The
17 station is Pickering's largest employer and has been since
18 it opened. The ongoing presence of a nuclear plant in our
19 community has also produced a number of positive, indirect
20 economic benefits, including the emergence of a strong
21 cluster of jobs in the energy, environmental and
22 engineering fields, which has helped buffer the city
23 somewhat from the serious effects of the recent economic
24 downturn.

25 In addition to these economic benefits, I

1 would like to draw the Commission's attention to the fact
2 that the Pickering station has made a strong commitment to
3 environmental and community sustainability. Over the
4 years, OPG has spearheaded a number of very beneficial
5 habitat restoration projects. We sincerely appreciate
6 their efforts in this regard and again wish to
7 congratulate them on winning the 2007 Corporate Habitat of
8 the Year Award from the Wildlife Habitat Council for the
9 outstanding work done by Pickering Nuclear staff and
10 volunteers on environmental projects in and around the
11 station.

12 The city would also like to thank OPG and
13 bring to the Commission's attention the important role the
14 station plays in supporting numerous community programs,
15 activities and events, including OPG's support of the
16 Ajax-Pickering Women's Shelter, the City of Pickering
17 Blooms Program, and our waterfront trail.

18 Pickering Nuclear invests more than
19 \$200,000 annually in community partnerships through
20 educational opportunities, environmental stewardship and
21 community building. In fact, we hold OPG in such high
22 regard, that we will be recognizing it with the Civic
23 Award for Local Business in an official ceremony on May
24 31st.

25 In conclusion, the City of Pickering

1 supports the relicensing of Pickering A. We are prepared
2 to continue our role as a willing host community in the
3 municipality for nuclear power, and we recognize that with
4 this role can come some unique challenges. We are
5 nevertheless very confident that in partnership with OPG,
6 the Province of Ontario and the CNSC, any challenges can
7 and will be addressed.

8 We look forward to working with you in the
9 future and thank you very much for giving me this
10 opportunity to address the Commission here in Pickering on
11 behalf of the City of Pickering Council. Thank you.

12 **THE CHAIRMAN:** Thank you. The floor is
13 open.

14 Your Honour, just one question; did you try
15 to attempt to quantify the impact of the shutdown on your
16 community? You mentioned you almost asked us about some
17 licence condition for OPG to dialogue with you about the
18 impact of that particular shutdown.

19 **MAYOR RYAN:** We are very confident that the
20 conversations will continue with OPG. I think we were
21 prudent in the structuring of our resolution in support of
22 the licensing to identify the need that that conversation
23 continue. It is continuing.

24 We have not been able to quantify, but we
25 have areas of concern with regard to the shutdown as it

1 impacts on the community. Our first concern obviously
2 would be for jobs in the community both directly related
3 to the operation of the station and to the spinoff jobs in
4 the industries at large.

5 We would have a concern for the ongoing
6 assessment base that the plant provides to this
7 municipality. And as a long-term partner with OPG and
8 PNGS, we anticipate and, indeed, expect that that would be
9 taken into account as the program moves forward.

10 **THE CHAIRMAN:** Okay, thank you very much.

11 **MAYOR RYAN:** Thank you.

12 **THE CHAIRMAN:** We will move now to the next
13 submission, which is an oral presentation by the
14 organization of CANDU Industries, as outlined in CMD H6.9.

15 Mr. Neil Alexander is to make the
16 presentation. The floor is yours.

17
18 **10-H6.9**

19 **Oral Presentation by the**
20 **Organization of CANDU Industries**

21
22 **MR. ALEXANDER:** Good afternoon, Mr.
23 President, Commissioners. I greatly appreciate the
24 opportunity to speak to you this afternoon.

25 We have provided to you a written

1 submission, which on second look I realize I excelled
2 myself in my verbosity. So I will not read it this
3 afternoon. I would just like to draw your attention to
4 some of the major points.

5 The Organization of CANDU Industries is an
6 industry association representing the supplies and goods
7 and services to the nuclear industry. We presently have
8 about 165 members and they employ about 30,000 people
9 providing support to the industry. It's typically the
10 workers of companies within the OCI that are contracted to
11 do side work at OPG, and they're working under the OPG
12 safety requirements to deliver the projects. And they are
13 reliant upon OPG working to the highest standards in order
14 to ensure their safety.

15 We understand that CNSC have done their
16 review of Pickering A, and they've found the performance
17 to be satisfactory. So we want to comment on those issues
18 that are possibly outside of the site that are affected by
19 performance at the site and to let the Commission know the
20 good work that that does.

21 I would like to talk about safety, the
22 positive impact on the Canadian business community,
23 contributions to the quality of life of Canadians and the
24 world environment and on electricity production costs,
25 that we heard a little bit this afternoon.

1 In terms of safety, these are very
2 challenging environments and this has meant that OPG has
3 put some very secure systems in place. Our member
4 companies actually learn from those systems and from
5 working with OPG and, therefore, the OPG safety systems
6 are not just ensuring the safety of Ontarians on their own
7 sites but are improving the safety of Ontarians on other
8 sites as well. And we feel that that is a very major
9 contribution that OPG are making to the health and
10 benefits of Ontarians.

11 The operation of the existing fleet at its
12 current size does enable the supply community to maintain
13 workforces at an appropriate level, to maintain the strong
14 safety culture, and to keep the economic incentive in
15 place to make sure that people are fully trained and
16 available to do the work that is required.

17 In terms of the positive impact on the
18 business community, OPG demand a lot of goods and services
19 and demand them at the very highest quality levels. This
20 means that our suppliers develop skills that are
21 appropriate not just to providing services to OPG but this
22 allows them to expand and to undertake work here and to
23 export it all around the world. And there is an example
24 in our written submission of the work of L-3 MAPPS that
25 are now a leading supplier of simulators not just to the

1 nuclear industry worldwide but to the power generation
2 industry worldwide, and that has huge benefits to the
3 economic wellbeing of Canada in general.

4 In terms of the health and wellbeing of
5 Ontarians, Canadians and people around the world, it's
6 very easy to look in isolation at the performance of one
7 plant but it's also important to look at the consequences
8 if it were not operating. The main challenges we see in
9 the world today to the environment are climate change.

10 We are also seeing effects from fossil fuel
11 consumption on acidification of our oceans. We are seeing
12 mercury and heavy metals rising to levels that are now
13 causing problems in the foods that we eat. The operation
14 of our nuclear plants offsets all of that other
15 environmental damage and, therefore, has a very positive
16 benefit to the world in general.

17 Finally, in terms of electricity production
18 costs, we heard from our friends, Greenpeace, this
19 afternoon who are trying to convince the world that when
20 we don't run nuclear plants, we are running windmills and
21 solar powered plants. And this is simply not the case.
22 If you look at the trends in the world today, if you're
23 not running nuclear power plants, you're burning fossil
24 fuels because those renewables are not actually reliable
25 forms of electricity.

1 There are also inconsistent arguments that
2 are coming out of Greenpeace that we'd like to observe.
3 There was an argument there that Pickering was an
4 expensive nuclear plant and, therefore, should be -- was
5 one of the more expensive nuclear plants. The alternative
6 that was provided were technologies that are vastly more
7 expensive than the continued operation of Pickering and
8 so, obviously, the benefits there are that if you have a
9 bulk base load supply of electricity at a reasonable cost,
10 you can actually then afford the luxury of some of the
11 renewables that do actually presently cost a lot more
12 money.

13 So in summary, we support the licence
14 extension for the Pickering plant. We would like the
15 Commission to take into account not just the operations
16 onsite but the consequences and benefits that the
17 continued operation of the plants bring.

18 Thank you very much.

19 **THE CHAIRMAN:** Thank you. Questions?

20 Mr. Tolgyesi?

21 **MEMBER TOLGYESI:** You're saying in your
22 first page of presentation that it's 165 companies and
23 over 300,000 people. It is mainly in Ontario?

24 **MR. ALEXANDER:** I'm sorry, it's 30,000
25 people.

1 **MEMBER TOLGYESI:** I'm sorry 30,000, yeah.

2 **MR. ALEXANDER:** Yes. It's largely focused
3 around the nuclear plants in Ontario, but there are
4 companies elsewhere in the country as well.

5 **MEMBER TOLGYESI:** Okay. Now, could you
6 give us an order of magnitude; how many are from
7 Pickering-Ajax area in terms of companies and terms of
8 people?

9 **MR. ALEXANDER:** I don't have that breakdown
10 with me. I can say that we have two major clusters of our
11 companies: One is in the Pickering-Ajax area; the other
12 is around the AECL facility in Sheridan Park. I don't
13 know the proportion between the two, but that's where the
14 two clusters exist.

15 **MEMBER TOLGYESI:** And they are supplying
16 not necessarily only from Pickering-Ajax, not necessarily
17 only Pickering A and B, but they could give services to --
18 I don't know -- Bruce or somebody else?

19 **MR. ALEXANDER:** Yes, and one of the things
20 we're very interested in and we see all the time is the
21 companies gaining experience from their operations at our
22 existing nuclear sites and then being able to sell their
23 capabilities elsewhere in the world bringing in export
24 opportunities for the country.

25 **MEMBER TOLGYESI:** And my last question is

1 to OPG. Could you give us, order of magnitude, what's
2 your spendings on supplies and goods, what you spend in
3 the area annually?

4 **MR. JAGER:** Glenn Jager for the record.

5 I don't have that figure at hand but we can
6 supply that later today.

7 **THE CHAIRMAN:** Thank you. Anybody else?

8 Just a quick question. You obviously --
9 the shutdown of Pickering will have an impact on the
10 supply chain and all your members. So it's like a two-
11 part question. First of all, can you help -- can you
12 supply expertise for shutting down and for
13 decommissioning? So that's one, this is on the positive
14 side.

15 On the negative side, are you anticipating
16 the number to go down quite significantly in this
17 industry, should this continue and there are not going to
18 be any new builds?

19 **MR. ALEXANDER:** So I think in answer to the
20 first question, there is expertise that already exists
21 around the world and the nuclear industry is very good at
22 working with organizations in other countries to bring
23 expertise in, should it be needed. So I'm confident that
24 we can deliver on the decommissioning phase of the
25 projects as well as we have during the operational phase.

1 On the second, it continues to be our hope
2 that Ontario will be building new reactors in the
3 foreseeable future and our anticipation is actually that.
4 We will see the nuclear supply community grow rather than
5 shrink.

6 **THE CHAIRMAN:** Thank you. Okay, thank you
7 very much.

8 Next submission is an oral presentation
9 from the Durham Strategic Energy Alliance, as outlined in
10 CMD H6.10. I understand that Mr. Lindeblom will make this
11 presentation. Go ahead, sir.

12
13 **10-H6.10**

14 **Oral presentation by the**
15 **Durham Strategic Energy Alliance**

16
17 **MR. LINDEBLOM:** Thank you and good
18 afternoon.

19 For the record, my name is Doug Lindeblom.
20 I am the Director of Economic Development and Tourism for
21 Durham Region and, in that capacity, I welcome the
22 Commission Members and everyone else here to Durham
23 Region, Ontario's energy capital.

24 I am also here before the Commission as a
25 member of the executive committee and secretary to the

1 board of the Durham Strategic Energy Alliance, also known
2 as the DSEA.

3 In 2004, Ontario Power Generation along
4 with ten other leaders in industry, government and
5 academia came together to discuss how to address Ontario's
6 emerging challenges in energy. Under those initial
7 discussions, the DSEA was formed, which is now a
8 membership based non-profit organization that has grown
9 from the original 11 founders to over 70 members.

10 The DSEA's mission is to promote the
11 development of sustainable energy solutions not only here
12 in Durham Region but across Ontario and beyond. Since its
13 formal inception in 2005, the DSEA has become a recognized
14 leader in the Province in this regard. DSEA members
15 represent the full energy cycle including generation,
16 conservation, transmission, manufacturing, education and
17 research and development. Our members now come from
18 across Southern Ontario, not just Durham and also
19 represent virtually all forms of sustainable energy
20 technologies.

21 My purpose here today is to advise the
22 Commission that without the leadership and support of
23 Ontario Power Generation and its employees, initiatives in
24 Durham such as the DSEA could not be developed and
25 sustained. OPG's active participation and leadership role

1 as a founding member and a provider of many hours of
2 volunteer and in-kind support to the DSEA Board and that
3 organization's programs and activities has been a critical
4 component of DSEA's growth and success.

5 OPG's significant presence not only in
6 Pickering but across Durham is viewed as a key component
7 of Durham's ability to attract investment and sustain a
8 viable and growing economy. The energy foundation created
9 through the nuclear industry has allowed Durham to
10 position and promote itself as Ontario's energy capital
11 and take advantage of the emerging energy related economy.

12 I will provide you here with just a few of
13 the many examples of concrete ways Ontario Power
14 Generation has furthered the promotion and development of
15 sustainable energy solutions of all kinds for Durham and
16 the many members of the DSEA.

17 For my first example, in 2008, OPG
18 sponsored the acquisition of two electric buses for the
19 University of Ontario Institute of Technology, another
20 DSEA member, for their use and research. UOIT announced
21 this donation at the first DSEA annual conference in 2008,
22 which was themed around the convergence of energy and
23 transportation. UOIT now allows these buses each year to
24 be used to transport annual conference attendees from the
25 GO station to the conference location promoting the use of

1 sustainable transportation.

2 Additionally since that time, the DSEA has
3 now become engaged in managing a pilot project on plug-in
4 electric vehicle charging stations in partnership with
5 seven other DSEA members. The project involves installing
6 test plug-in stations that will be monitored and studied,
7 utilizing leading edge wireless metering technology to
8 test both stationary and vehicle installed batteries.

9 OPG's initial leadership and generosity has
10 been a catalyst for actively developing and promoting
11 sustainable energy solutions among many partners.

12 For my second example, more recently, the
13 DSEA has engaged as the lead organization in an
14 application to the provincial Ministry of Research and
15 Innovation for a Durham-based research innovation centre.
16 Durham historically has been under-represented in the
17 technology commercialization network in Ontario, and the
18 proposal call last fall by MRI to revise and expand the
19 existing network is an excellent opportunity for Durham to
20 fill that gap.

21 The research innovation centre will service
22 not only energy entrepreneurs but those involved in
23 commercialization activities in all sectors. Jacquie
24 Hoornweg of OPG currently sits as DSEA's current President
25 and Chair, and her leadership role has been critical in

1 advancing DSEA's application on behalf of Durham. Not
2 only has she provided leadership to the board to encourage
3 the organization to take this bold step, she has
4 personally and directly been involved in the submission
5 development and ongoing negotiations with the Ministry to
6 conclude this important agreement.

7 Should we be successful, and I believe we
8 will be, Durham will be on the commercialization map in
9 Ontario playing a significant and elevated role to the
10 benefit of all those involved in technology development in
11 the Province.

12 To conclude, OPG continues to play an
13 ongoing and important role in developing sustainable
14 energy solutions in this community and the province. They
15 are a valuable asset and we very much encourage their
16 continued presence and engagement in the community. OPG
17 has made a commitment to the business community in
18 Pickering to continue to work on the sustainability of the
19 energy sector and prosperity of the community beyond the
20 life of the plant in Pickering.

21 On behalf of the Board of Directors of the
22 Durham Strategic Energy Alliance, I would like to thank
23 the Commission for this opportunity to speak in support of
24 OPG's licence renewal application.

25 **THE CHAIRMAN:** Thank you. Questions?

1 Thank you very much. We'll move now to the
2 next submission, which is an oral presentation by the
3 Durham Catholic District School Board, as outlined in CMD
4 10-H6.11, and I understand that Mr. McCafferty is here to
5 speak to us about it.

6 Go ahead, sir.

7
8 **10-H6.11**

9 **Oral presentation by**

10 **Durham Catholic District**

11 **School Board**

12
13 **MR. McCAFFERTY:** Mr. Chairman and fellow
14 Commissioners, I would like to thank you for allowing me
15 to make this oral presentation. For the record, my name
16 is Jim McCafferty. I am currently a resident of
17 Pickering, a trustee on the Durham Catholic District
18 School Board and currently the Chair of the Board.

19 Being a 32-year Pickering resident myself,
20 I can say that I am proud to live and I am proud to
21 promote the safety aspects of a Canadian design built
22 reactor system.

23 As a Pickering ratepayer and citizen of
24 Ontario, I believe that OPG contributes significantly to
25 our economy both as a local business and a big contributor

1 to local charities through fund-raising and staff
2 volunteers. A few examples are the United Way, Bowling
3 for Kids, Ajax-Pickering Santa Claus parades.

4 In addition, through OPG's production and
5 distribution of energy throughout the Ontario, the City of
6 Pickering is able to contribute to the economy of Ontario.
7 This is an important factor contributing to Pickering's
8 pride of citizenship.

9 My first-hand observations have shown me
10 the positive aspect that OPG has had on the quality of
11 life in our Pickering community. From a student/school
12 perspective, OPG has provided many learning opportunities
13 for our students through school and community programs. A
14 week of activities during March Break for children and
15 their families has proven to be very popular. Speaking at
16 local high schools to promote safety in the workplace, as
17 well as our co-op program, are examples of OPG's positive
18 contribution to local education.

19 Also, OPG has hired many of our graduating
20 students, thus providing them with local employment while
21 enabling them to continue to live in Durham region near
22 their families. In addition, many new residents are able
23 to live and work locally, which adds to our population
24 growth.

25 Since 1964 the Pickering plant has proven

1 to be a safe member of our industrial landscape. I
2 wholeheartedly support Pickering A's five-year licence
3 renewal application and I will entertain any questions.
4 Thank you.

5 **THE CHAIRMAN:** Thank you.

6 Questions? No, it looks very clear.

7 Thank you very much.

8 **MR. McCAFFERTY:** Thank you.

9 **THE CHAIRMAN:** The next submission is an
10 oral presentation by the Power Workers' Union as outlined
11 in CMD H-6.12 and 6.12A, and I understand that Mr. Peter
12 Falconer and Jordan Rock will make the presentation.

13 Go ahead.

14
15 **10-H6.12 / 10-H6.12A**

16 **Oral presentation by the**
17 **Power Workers' Union**

18
19 **MR. P. FALCONER:** Good afternoon, Mr.
20 President and Members of the Commission. As indicated, my
21 name is Peter Falconer and I am the vice-president of the
22 Power Workers' Union, Nuclear Sector.

23 Assisting me today is Mr. Jordan Rock. Mr.
24 Rock is a senior Power Workers' Union representative at
25 the Pickering site. We also have other Power Workers'

1 Union staff and elected officials present to assist if
2 necessary.

3 Today we will highlight some of the issues
4 that are included in our written submission. Our
5 presentation will cover the following areas: Canadian
6 Nuclear Safety Commission Safety Culture Report, Power
7 Workers' Union and Ontario Power Generation safety
8 initiatives, labour relations, staffing issues, Pickering
9 shutdown, followed by our summary and conclusions.

10 As you are aware, the audit found many
11 positive aspects but also some negative issues were
12 highlighted. We are supportive of independent audits as
13 they provide a fresh set of eyes that can often find
14 issues that otherwise may have been missed.

15 We have reviewed the audit and have had
16 discussions with Ontario Power Generation. Our concerns
17 are primarily in the area of workers not readily reporting
18 health and safety incidents. We have taken actions to
19 remedy this situation; for example, recommending to the
20 employer that the Power Workers' Union Joint Health and
21 Safety Committee members participate in crew safety
22 meetings to reinforce the culture of reporting all health
23 and safety incidents and other safety concerns.

24 The following health and safety processes
25 are currently in place between Ontario Power Generation

1 and the Power Workers' Union to resolve health and safety
2 issues. First of all, the Power Workers' Union members
3 are elected to the local joint health and safety
4 committee. These members are trained in health and safety
5 and the shopfloor workers have access to their
6 representatives on a day-to-day basis.

7 The role of the joint health and safety
8 committee is to identify and resolve workplace health and
9 safety issues. In addition to the local joint health and
10 safety committee, we also have a Joint Committee on
11 Radiation Protection. This is a committee that has Power
12 Workers' Union representatives from all OPG sites and
13 deals with radiation protection issues from a policy
14 level.

15 The Power Workers' Union also participates
16 on the joint working committee which deals with Ontario
17 Power Generation corporate health and safety issues and,
18 in addition, supports the local joint health and safety
19 committees across Ontario Power Generation. The Power
20 Workers' Union representatives on this committee are in
21 contact with the Pickering Joint Health and Safety
22 Committee on a regular basis.

23 Senior management and the Power Workers'
24 Union participate on the Joint Health and Safety Policy
25 Committee which, as the name implies, provides an overview

1 for all health and safety policies and strategies within
2 Ontario Power Generation. As we indicated in our written
3 submission, there are always issues in the workplace,
4 especially with the number of workers that are employed at
5 the Pickering site.

6 Overall, I can say that the union-
7 management relationship is generally good. However, there
8 are a number of avenues in place to deal with labour
9 relations issues that arise at the Pickering site. Power
10 Workers' Union officials meet with their management
11 counterparts at the plant on a regular basis to discuss
12 and resolve issues. Monthly meetings with the chief
13 nuclear officer and senior Power Workers' Union
14 representatives are held to facilitate open discussion on
15 health and safety and labour relations issues that require
16 senior management involvement to resolve.

17 On an ongoing basis the Power Workers'
18 Union meets with the employer to discuss staffing
19 recruitment and to ensure that all workers at the
20 Pickering A site are skilled and qualified for the work.
21 Some new staff have been hired to offset attrition but we
22 believe that more are required.

23 The Power Workers' Union is pleased with
24 the Canadian Nuclear Safety Commission's staff report that
25 identifies discussions are being held with Ontario Power

1 Generation to ensure that all workers on site are limited
2 to work 60 hours per week.

3 The announcement that the Pickering plant
4 will be phased out in 2020 will create some new
5 challenges. Some workers may view this announcement as an
6 opportunity to pursue seeking employment elsewhere in
7 Ontario Power Generation, while others may choose a
8 different employer. This could also be detrimental to
9 recruiting new hires, with the plant nearing the end of
10 its life.

11 The Power Workers' Union will continue to
12 work diligently with Ontario Power Generation to ensure
13 that staffing levels are maintained until the station is
14 shut down and placed in safe storage. The Power Workers'
15 Union will continue to ensure that the workforce is
16 trained, qualified and competent to perform work in the
17 station. Adequate staffing levels will be an ongoing
18 issue for all parties to bear in mind in the coming years.

19 After the announcement there was an initial
20 level of concern within the public domain in regards to
21 possible negative economic impacts in the community. The
22 Power Workers' Union feels that the economic impacts in
23 the area will be very minimal and with the prospect of
24 new-build nuclear at Darlington will cause significant
25 economic growth in the community.

1 The Power Workers' Union will ensure, as a
2 stakeholder, that plant material condition will not be
3 allowed to deteriorate and that workers' and public safety
4 will be maintained at the highest level. We also
5 encourage the Canadian Nuclear Safety Commission to
6 maintain a high level of vigilance in this regard.

7 In summary, the Power Workers' Union
8 supports the analysis and conclusions of the Canadian
9 Nuclear Safety Commission staff and in light of Ontario
10 Power Generation's performance during the current
11 licensing period, that Ontario Power Generation is
12 qualified to operate the Pickering Nuclear Generating
13 Station A for a five-year period.

14 We would be pleased to answer any questions
15 that you may have and I thank you for this opportunity to
16 talk to you.

17 **THE CHAIRMAN:** Thank you.

18 Questions? Dr. Barriault?

19 **MEMBER BARRIAULT:** Thank you, Mr.
20 Chairman.

21 In your written presentation on page 6, top
22 of the page, Item B, you make a comment that when an end-
23 date is recognized for a power plant, a philosophy is
24 always developed as to priorities of repairs and
25 replacement of plant components, et cetera. The incorrect

1 decision in this regard can have direct implications to
2 reliability as well as to worker safety. Do you want to
3 comment on that, if you wouldn't mind.

4 **MR. P. FALCONER:** Which section are we on
5 again?

6 **MEMBER BARRIAULT:** It's on your written
7 submission. It's on Pickering shutdown and it's on page
8 6, top of the page. It's Item B actually, top paragraph.

9 **MR. P. FALCONER:** I have it right here.
10 Thank you.

11 I'm sorry, what was your question again?

12 **MEMBER BARRIAULT:** What it goes on to say
13 is that when an end-date is recognized for a power plant,
14 a philosophy is always developed as to priority on repairs
15 and replacement of plant components, et cetera.

16 I guess a concern I have really is that if
17 this is an ongoing philosophy that develops when the end
18 is drawing near for a plant, I have serious concerns for
19 the safety of that plant. I guess it's the reason why I'm
20 asking that question. So if you don't mind expanding on
21 why you feel this is an ongoing thing?

22 **MR. P. FALCONER:** Peter Falconer, for the
23 record.

24 The reason that we flagged that in
25 particular was because there is a philosophy and there is

1 a temptation, if you like, when a plant has got an end-
2 date placed on it, that the temptation is to minimize what
3 you do.

4 So we wanted to flag that in our
5 presentation and in our written submission to you to
6 ensure that that does not happen, because a nuclear plant,
7 in our opinion, does not resemble many other industries
8 where there are opportunities to simply allow things to
9 deteriorate.

10 And that's why I say in our presentation we
11 make a point of raising the issue of plant material. We
12 will be ensuring that plant material condition maintains
13 at the highest level. The temptation is there, we're
14 aware of it, we wanted the Commission to be aware of it
15 and we're going to continue to make sure that the employer
16 is aware of that. There's no benefit whatsoever to
17 allowing the plant material condition to deteriorate and
18 we're not willing to let that happen.

19 **MEMBER BARRIAULT:** Does OPG want to comment
20 on that?

21 **MR. JAGER:** Glenn Jager, for the record.

22 I certainly appreciate PWU's support in
23 that regard. As I've said on both Day One and Day Two
24 presentations, we operate to excellence and the highest
25 standards. We benchmark and we use industry standards for

1 equipment reliability, component ageing and other
2 programs.

3 Those standards are not relaxed throughout
4 the operating period. We consistently monitor those
5 standards and the performance of the power plant. We're
6 also audited in that regard and we have external peer
7 review to ensure that we operate to those standards.

8 So again, we only operate to the highest
9 standards and, of course, the PWU members are operating to
10 those very same standards and we appreciate the support of
11 the PWU in that regard.

12 **MEMBER BARRIAULT:** I guess the concern I
13 have is that it appears to be a philosophy in industry in
14 general; this is what I'm hearing. And I guess what I'm
15 wondering is how do you prevent philosophy from evolving?
16 I guess you commented on that, but CNSC staff, how do you
17 prevent this kind of an issue from happening? I mean, do
18 you increase the inspections? Do you increase the
19 dialogue? What do you do to prevent this from happening?

20 **DR. RZENTKOWSKI:** Greg Rzentkowski, for the
21 record.

22 I think we have to respond to this question
23 at two levels. First is the safety culture. So safety
24 culture, to make sure that this philosophy, which is
25 mentioned here in the submission, doesn't really govern

1 the behaviour of the upper management which later can
2 affect in fact the fitness for service of major
3 components.

4 And we just perform the assessment of the
5 safety culture and we will continue to monitor the
6 situation to make sure the safety culture will be
7 maintained at the proper level.

8 The second level of my response is the
9 condition of structure system and components. Of course,
10 we have to be ensured that operational fitness of the
11 facility will be adequate up to the decommissioning of the
12 site. And of course this requires maintaining the proper
13 design and licensing base of the facility until the last
14 day of operation.

15 In other words, that means that safety is
16 not going to be compromised.

17 **MEMBER BARRIAULT:** Thank you very much.

18 **MR. TREMBLAY:** Just if I might add.
19 Pickering A is part of the OPG fleet and I think you may
20 have caught in Day One in terms of presentations, we very
21 much are setting challenging standards. Moving forward we
22 have a five-year business planning cycle and Glenn and his
23 team are committed to continuous improvement. We will be
24 expecting that out of the site and that includes an
25 improvement in the material condition in the performance

1 of the plan over the operating period.

2 **MEMBER BARRIAULT:** The biggest concern I
3 had was the philosophy and, you know, rather than the
4 actual implementation, how you're going to control that.
5 Thank you. Thank you very much.

6 **THE CHAIRMAN:** Mr. Graham?

7 **MEMBER GRAHAM:** Yes, the only question I
8 have is CNSC conducted this safety culture audit in 2009.
9 Was it done strictly by CNSC or was there a third party
10 involved?

11 The second thing is what was the reason you
12 did the audit? Was it just a periodic audit or were there
13 things flagged that you felt should be addressed?

14 **DR. RZENTKOWSKI:** I will direct this
15 question to Mr. Tom Schaubel.

16 **MR. SCHAUBEL:** For the record, Tom
17 Schaubel.

18 This evaluation was done by Sonja Haber,
19 who was a known expert in this field. I believe she's
20 done 40 similar evaluations at power plants throughout
21 North America. The evaluation was initiated because of
22 identified management problems found during the ISTB
23 deficiencies found in 2007, I believe it was, and a
24 commitment was made at that time to do such an evaluation.

25 **THE CHAIRMAN:** I-S-D ?

1 **MR. SCHAUBEL:** ISTB, inter station transfer
2 bus.

3 **THE CHAIRMAN:** Thank you.

4 **MR. SCHAUBEL:** But it's just been completed
5 today actually.

6 **MEMBER GRAHAM:** Thank you. Will there be -
7 - in this licensing period, will you be doing another
8 independent audit, in view of the fact that you did have
9 problems.

10 I'm always interested -- the applicant for
11 licences always talk about the great things; they don't
12 always talk about the things that -- the skeletons. And
13 it's nice -- that's what the role of CNSC is, to bring
14 this before the Commission. Will there be another audit
15 done during the licence period, whether it's a three or
16 five-year licence? And that is -- the question is to
17 CNSC.

18 **DR. RZENTKOWSKI:** I will ask Mr. André
19 Bouchard to respond to this question.

20 **MR. BOUCHARD:** André Bouchard, for the
21 record.

22 The first step into a normal compliance is
23 a follow-up, obviously. We did receive a corrective
24 action plan from OPG and a first piece of that action plan
25 is actually what the PWU included in their presentation

1 today, which were -- the key part was to increase the
2 dialogue between the workers and the management to get a
3 clear understanding for reporting of those hazardous
4 situations, which was the key part of the first
5 assessment.

6 The licensee is also expected to perform
7 self-assessment on a regular basis and on that part, as
8 well, CNSC has reviewed the methodology of OPG and we have
9 worked with them in enhancing the methodology and it would
10 reach actually the standard that CNSC live by.

11 With that self-assessment, we also are
12 committed to review the self-assessment and then from then
13 on we will be able to monitor the improvement or the
14 maintenance of their healthy safety culture.

15 **THE CHAIRMAN:** If I may just intervene
16 here. During this last 10 years -- I'm still concerned
17 about the observation that some employees do not raise
18 issues and we want to make sure that during the last 10
19 years, which I predict -- I think I'm safe in predicting
20 there's going to be some more issues being raised as a
21 path to management to welcome such input. So how do we
22 make sure that really does happen?

23 I'd like the three parties here to answer
24 that. Go ahead.

25 **MR. BOUCHARD:** CNSC is ready to perform

1 subsequent safety culture assessment as well. We also
2 monitor events, reports as well. Against our safety
3 culture framework which helps us have a sort of a
4 heartbeat at the station as well, without necessarily
5 going outside and reviewing everything.

6 The turnaround will take a little bit of
7 time, obviously, because workers have to be confident.
8 The issue was the confidence with regards to being able to
9 report problems without fear of retaliation. That will
10 not turn around on a dime, obviously, and it will take a
11 little bit of time to happen.

12 **THE CHAIRMAN:** OPG?

13 **MR. JAGER:** Glenn Jager, for the record.

14 Let me begin by first restating what I said
15 in Day One which is -- it's my personal belief that all
16 employees should be able to freely raise concerns and that
17 supervisors should be encouraging this and responding to
18 those concerns and that any employee that raises concerns
19 should get feedback on their concern and what's been done
20 about it.

21 In the course of reviewing the CNSC safety
22 culture assessment, we did engage Ms. Haber and met with
23 PWU and invited them, to have a dialogue with the CNSC
24 consultant. We had a good discussion about that. We also
25 went through the report and I would add that the report

1 did note a number of positives, in particular that all
2 personnel on site valued safety highly so it was a strong
3 value within the site.

4 The actions in response to the ISTB were
5 effective, which was one of the motivations for doing the
6 assessment, and that some of the frustrations in terms of
7 improving reliability and accountability had seen a
8 significant progress.

9 The report did identify that there was a
10 reluctance within certain portions of the organization to
11 raise some issues and that's the dialogue that we had with
12 the PWU and the CNSC consultant. We have taken some
13 actions along those lines in terms of discussions with
14 supervision and management in those areas and the workers
15 themselves.

16 I believe we're making progress there. I
17 fully agree with the recommendations that the PWU has
18 outlined in their intervention and we'll fully support
19 that.

20 So all-in-all, what I would say is our
21 safety culture as a whole and in general is very robust,
22 very strong, and that's borne out in part by the results
23 that we're able to achieve in personal safety,
24 radiological safety and the safe operation of the power
25 plant. So I think those things speak to the safety

1 culture that we have within the station.

2 Lastly I would say that we do our own
3 safety culture assessments on a three-year interval. We
4 have looked at the recommendations of the CNSC safety
5 culture assessment and have incorporated those into our
6 own assessment methodology and that three year interval,
7 by the way, is due at the end of this year so we'll be
8 commissioning and undertaking another safety culture
9 assessment shortly and within the next licensing period,
10 early in the next licensing period.

11 **THE CHAIRMAN:** Thank you.

12 You want to add anything?

13 **MR. P. FALCONER:** Peter Falconer, for the
14 record.

15 From the power workers' standpoint, we see
16 three areas. One is performance punishing and what I mean
17 by that is -- if someone raises a safety issue or a safety
18 concern that they shouldn't then be given a whole lot of
19 extra work to do just because they've raised that safety
20 concern.

21 In other words, if that safety concern is -
22 - something isn't working properly -- if they're then
23 assigned a whole lot of extra work to address that
24 particular issue, then that's going to cause people not to
25 want to do it.

1 So we've talked to the employer about that
2 and that should not be happening. If you raise a safety
3 concern it shouldn't put an extra burden on you as an
4 individual.

5 The second issue is retaliation. In the
6 safety culture review, there was a small group of folks
7 that identified that they felt there could be retribution
8 for bringing up safety issues. And so one of the things
9 we wanted to do, as I said in my oral report, was that we
10 wanted to bring our health and safety committees right
11 into the crews to talk to the crews and assure them that
12 retaliation would not be something that would be
13 acceptable and that if there were any issues they would
14 have support immediately in dealing with those kind of
15 issues.

16 And the third area is that actions be taken
17 in a timely and reasonable manner. It's not good enough
18 to simply have a health and safety issue identified and
19 for there to be very little communication or no semblance
20 of anything happening for a period of time.

21 There needs to be prompt action and even if
22 that action is simply that we're going out to do something
23 about it. We're researching it or whatever.

24 It's very important that people get
25 feedback in a timely fashion of where their health and

1 safety issue is and how it's being addressed.

2 **THE CHAIRMAN:** Thank you.

3 I think we need to move on. Quickie.

4 **MEMBER BARRIAULT:** Just a brief statement.

5 Are these perceived issues or are they real
6 issues in the sense that if you bring up safety issue
7 you're going to "punished for it"?

8 Is this just a perception or does this
9 actually exist? That's the concern I have.

10 **MR. P. FALCONER:** Peter Falconer, for the
11 record.

12 The problem with the plant where you have 2
13 to 3,000 people working is that reality and perception are
14 often the same thing because people talk at coffee shops
15 and if one person says, "Well, I think I'm going to get
16 such-and-such a situation happening to me if I bring this
17 up," then everybody starts believing it so it does become
18 a real situation.

19 The audit showed -- and that was opinions.
20 It wasn't necessarily somebody saying they had had either
21 retaliation or they had had anything happen to them, but
22 there was a perception out there that that could happen.

23 So we want to deal with that because if you
24 don't root that out and get it dealt with then it's
25 allowed to fester and grown bigger. So we wanted to get

1 at that, the root of that, and try and deal with it
2 through our health and safety reps.

3 **MEMBER BARRIAULT:** Because that begs,
4 really, the answer from management, really, of OPG -- how
5 do you deal with this kind of an issue and how do you
6 diffuse it because it's vitally important to do that.

7 **MR. JAGER:** Glenn Jager, for the record.

8 I fully agree. It is vitally important and
9 it -- I'm deeply concerned that that perception would
10 exist. The way to combat that as Peter has said is
11 communication, so get out with the crews and I've had a
12 number of face-to-faces and discussion with the crews.

13 So the recommendation from the PWU is a
14 good one, to have joint health and safety committee
15 members sit with the crews and get involved and
16 communication really is the key to resolving that
17 perception.

18 I can tell you that it is not real. I
19 don't know of any situation where punishment has occurred
20 as a result of raising a concern. But the perception is
21 something that would concern me greatly and something that
22 does need to be dealt with. And the key to that is
23 working through supervision, making sure they understand
24 my expectations there and also communicating with the
25 employees.

1 **MEMBER BARRIAULT:** Thank you.

2 Thank you, Mr. Chairman.

3 **THE CHAIRMAN:** Okay. Can we move on?

4 Anything else?

5 Thank you. Thank you very much.

6 We'll move on to the next submission which
7 is an oral presentation by the Society of Energy
8 Professionals, Local 160, as outlined in CMD H6.13. I
9 understand that the presentation is going to be made by
10 Victor Chetcuti.

11 **MR. CHETCUTI:** That's correct.

12 **THE CHAIRMAN:** Go ahead, please.

13

14 **10-H6.13**

15 **Oral presentation by**

16 **The Society of Energy**

17 **Professionals,**

18 **IFPTE Local 160**

19

20 **MR. CHETCUTI:** I'll have Mr. Joe Fierro
21 introduce himself first.

22 **MR. FIERRO:** I'd like to thank the
23 Commission for allowing the Society to be here today to
24 make this oral presentation.

25 Most of the information that will be in

1 Victor's oral presentation is similar to our written
2 presentation with a few more details.

3 The Society is proud to be here and I have
4 with me today Andy DiAndrea (phonetic) who is a unit
5 director at Pickering for the engineering people. And
6 Victor is a unit director for the operations and
7 maintenance people. And I am the Society vice president
8 for the OPG bargaining unit.

9 Now I'll turn it over to Victor.

10 **MR. CHETCUTI:** Yes, good afternoon,
11 Commissioners and good afternoon, President.

12 The Society represents over 8,000 members,
13 approximately 3,700 work at OPG with 2,700 members in the
14 nuclear business here at Pickering A. The highly-skilled
15 people we represent ensure nuclear safety by performing
16 work in operations, inspection and maintenance,
17 engineering, personnel training, project management, field
18 supervision, quality assurance finance and procurements.
19 Our highly skilled members are dedicated employees
20 committed to the nuclear safety of Pickering A. The need
21 for new younger staff was raised by the Society in 2004.
22 It was concerned about demographics.

23 OPG has listened and has increased regular
24 staff as well as hired more graduates, starting in 2004.

25 Hiring needs still continue as the program

1 allows younger employees and new grads to learn next to
2 experienced, knowledgeable senior staff.

3 For example, for the young grads they are
4 further trained in nuclear fundamentals and over a two-
5 year period, they work with different work groups before
6 being placed in their permanent positions.

7 The approximate 400 new grads hired since
8 2005 have helped create a pool of highly-skilled people to
9 fill entry-level and some intermediate positions.

10 These new hires are essential to alleviate
11 an aging demographic situation at OBG and to allow for a
12 smooth transition to continue safe operations of Pickering
13 A as the senior staff retire.

14 This is one of the essential elements to
15 ensure knowledge and experience transfer from the senior
16 staff to the junior staff. OPG needs to continue the good
17 work it has done in this area and continues to hire more
18 young grads each year since the number of people retiring
19 will continue to be high.

20 The Society first raised the issue of high
21 contracting-out levels as far back as 2002. Contracting-
22 out levels is still higher than we would like.

23 The Society continues to encourage OPG to
24 rely less on contractors and utilize to a greater extent
25 internal staff. As more grads and regular staff continue

1 to be hired and trained, regular staff are ready and
2 willing to take back work from contractors.

3 Since 2005, the Society and OPG have worked
4 hard to improve the situations with the authorized
5 operating staff. A joint team has been formed and it
6 meets regularly to address issues. The nuclear operator
7 and the supervisor licensing programs have been expanded
8 to allow more people to enter into the program to be
9 trained authorized operating staff.

10 Early signs are that this appears to be
11 working. Continued focus on increasing the number of
12 people in the program will generate a greater number of
13 new licensed staff.

14 The Society and OPG continue to work on
15 improving the safety culture of Pickering A. At most
16 meetings between the Society and OPG, safety is always the
17 first to be discussed. OPG continues to educate and
18 communicate improvements in the safety culture at
19 Pickering.

20 The Society and OPG will work to ensure
21 staff issues are addressed as we get closer to
22 reassessment of continued operations for Pickering A. The
23 Society will work with OPG to ensure work continuity until
24 the units are placed in a safe state and staff either
25 voluntarily retire or are reassigned. This will ease

1 employee stress thus to ensure dedicated and a loyal
2 workforce at the site.

3 Pickering A, Unit 1 had a very reliable
4 2009. Pickering A produced reliable, affordable
5 emissions-free electricity. Electricity from this nuclear
6 plant is less than a third of the price of offshore wind
7 power, one-tenth of the price of solar and half the price
8 of natural gas without the emissions.

9 Ontario needs and requires this affordable
10 form of electricity to allow for an economic development
11 to continue.

12 In conclusion, we expect to see a better
13 performance over the next five years as we have seen in
14 the last five with respect to Pickering A.

15 It is our members that maintain and operate
16 the plan, work to improve the performance of these units
17 and this is what they tell us. OPG needs to receive
18 adequate funding from the OEB to resource the operation of
19 these units.

20 OPG and the Society need to continue to
21 work together to address employee issues. OPG needs to
22 continue to work to engage, train and develop its
23 employees. The Society is confident that the Pickering A
24 units can safely run for another five years and beyond and
25 that is why we support the application to renew the

1 licence for another five years for the Pickering A
2 stations.

3 Thank you.

4 **THE CHAIRMAN:** Thank you.

5 Questions? Go ahead.

6 **MEMBER BARRIAULT:** Just one brief question.

7 On page 3 of your presentation, you've
8 mentioned a new program using First Nations and
9 Aboriginals as employees. Are you having success with
10 that program? Is it progressing satisfactorily?

11 **MR. FIERRO:** I think what that refers to is
12 the Society is working with those groups to try and engage
13 them into the energy sector and energy projects.

14 The majority of that discussion has
15 happened in hydro-electric because the majority of
16 Aboriginal people are in the North and that's where the
17 majority of the work is.

18 There has not been a lot specifically
19 related to the Pickering and the nuclear area because
20 there has not been a lot going on in that area of interest
21 to those groups right now. So we haven't been actively
22 talking to them about Pickering issues.

23 **MEMBER BARRIAULT:** Thank you.

24 **THE CHAIRMAN:** Mr. Tolgyesi.

25 **MEMBER TOLGYESI:** Yes. On the page 2, you

1 are saying there is absolutely no technical or safety
2 reasons to begin to wind-down these units. They could
3 operate very safely refurbished for another at least 10
4 years. You are talking about Pickering A or Pickering B?

5 **MR. FIERRO:** The Society believes that the
6 Pickering A units can safely run to at least 2026. That's
7 the current end date for those plants.

8 The reasons why they don't run beyond 2020
9 in this current proposal is because of issues related to
10 Pickering B. We believe that Pickering A is in good
11 shape. It just finished a major rehab and has only been
12 back for five years. It can easily run to 2026 and beyond
13 in the opinion of the Society and Society members.

14 We also believe that the Pickering B units
15 could potentially be rehabilitated or refurbished and
16 those also are not, you know, at the -- they are at the
17 end of life, as we say now, but they could be refurbished
18 and extended also if such a decision were to be taken.

19 **MEMBER TOLGYESI:** I think it could be
20 refurbished. It's a question of economy also. What is
21 OPG saying -- yes?

22 **MR. FIERRO:** Our belief is that a
23 refurbished Pickering unit, although perhaps more
24 expensive than new nuclear, would still be less expensive
25 than new natural gas.

1 So although new nuclear is still
2 preferable, refurbishing Pickering B is clearly more
3 economical than new natural gas units.

4 **MR. TREMBLAY:** Pierre Tremblay for the
5 record.

6 Not wanting to get into a political or
7 economic debate, I guess I would agree that the Pickering
8 A units, the life of the main components are the pressure
9 tubes and, as such, could continue to operate until 2020.
10 I think that's been part of our presentation. The
11 decisions with regard to the site are economic, not safety
12 related. Pickering A plant is a plant that has improving
13 material condition and we expect it to perform as such
14 over the next five years.

15 **THE CHAIRMAN:** Okay. Thank you very much.

16 Let's move on to the next submission, which
17 is a presentation by the Pickering East Shore Community
18 Association as outlined in CMD 6.15. And I understand
19 that Mr. Keith Falconer will make the presentation.

20 Go ahead, sir.

21

22 **10-H6.15**

23 **Oral presentation by the**

24 **Pickering East Shore**

25 **Community Association**

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MR. K. FALCONER: Good afternoon, Mr. President and Members of the Commission.

My name is Keith Falconer and I am President of the Pickering East Shore Community Association, known as PESCA.

Assisting me today is Mr. Walter Norwood. Mr. Norwood is the Secretary of our group.

We'd like to thank you for first giving us the opportunity to present our comments in support of OPG's application for the Pickering A five-year re-licence and as well for having the opportunity to speak with you in the City of Pickering giving the members of the community opportunity to comment.

I'd like to start by telling you something, a bit about our organization and whom we represent. PESCA is an apolitical community association representing the residents of Bay Ridges and the persons carrying on business in the community of Bay Ridges in Pickering, Ontario. Our community is the closest neighbour of Pickering Nuclear. We are also the oldest community association active in Pickering today.

Our boundaries are to the south to Lake Ontario, to the west to the Frenchman's Bay, and to the north the Highway of Heroes, the 401, and to the east to

1 Squires Beach Road. We represent approximately 6,000
2 residents in this location and about approximately 200
3 businesses.

4 Our goals are to promote and enhance the
5 cultural, civic, social and recreational life of Pickering
6 and, more particularly, within the PESCA boundaries
7 itself. All citizens within our area are automatically
8 members of the association at no cost to the individual.
9 PESCA is involved in representing the community and, as
10 such, we welcome and encourage the residents of our area
11 to either come to our monthly meetings and/or join the
12 executive.

13 As one of the major employers in Durham
14 region, the Pickering Nuclear Power Station is located in
15 Bay Ridges area where many local residents are employed
16 and directly or indirectly by OPG. The PESCA executive
17 does not claim to have any professional expertise in the
18 operations at the site but through a recent tour and
19 several presentations we have become more aware.

20 In an effort to demonstrate OPG's open
21 communication with the public, members of the OPG public
22 affairs department have addressed the PESCA executive from
23 time to time and have made public presentations at several
24 of our annual general meetings. At these meetings they
25 have gone to extreme lengths to satisfactorily deal with

1 the concerns and questions raised by the residents.

2 It is our opinion that OPG has made a
3 considerable effort to inform the local community about
4 the recent announcement of continued safe operation.
5 Explanatory literature was distributed to Pickering
6 households, elected officials and the media. Information
7 was published in the local newspaper and senior OPG
8 managers have made several presentations to the public.

9 PESCA believes that the community residents
10 want a greener environment, one that has a goal of
11 reducing carbon emissions as well as a reliable and
12 economic energy supply. The continued operation of
13 Pickering A will go a long way towards achieving this
14 goal. Pickering A has maintained and safely operated the
15 station during the current five-year licence period.

16 I'll now turn the presentation over to Mr.
17 Norwood. Mr. Norwood is a 42-year resident of Pickering
18 and Bay Ridges and brings with him a great deal of
19 involvement in the community.

20 Thank you.

21 **MR. NORWOOD:** Thank you, Keith.

22 Good afternoon, Mr. President, members of
23 the Association.

24 As indicated, my name is Walter Norwood. I
25 am the secretary of Pickering East Shore Community

1 Association. I thank you again for the opportunity to
2 speak to you in support of Pickering A.

3 To give you a little bit of history, I grew
4 up in West Hill, just maybe 10 minutes west of here,
5 adjacent to Pickering. We used to come way out here in
6 1963 on a date for maybe visit the drive-ins. The Odeon
7 Drive-In sat right here where we are now, right here in
8 Valley Farm Road. It's long, long gone. I don't think
9 anybody remembers that or the Tepee Drive-In. The local
10 burger shop, BM, didn't open till 1965. It's still there
11 now and doing very, very well in the community.

12 Pickering A was just starting construction
13 but had not been commissioned. We were here in Bay Ridges
14 in 1968 and people said, "Why were you here? There's
15 nothing here." Well, we like it that way. We watched the
16 traffic trying to exit that Liverpool Road. There was no
17 Brock Road exit at that time and there was no Whites Road
18 exit and the traffic getting off Liverpool was backed up
19 for miles every morning. I'm glad I was going the other
20 way.

21 In the 42 years that I and my family have
22 been here, we've seen a lot of changes. The plant helped
23 build this community and it's a shame to see it go. I'm
24 glad they went with the current design for the CANDU
25 plants. Those cooling towers which I have seen elsewhere

1 are ugly-looking things.

2 I've been in the electric industry for
3 quite a number of years and I was lucky to enjoy a number
4 of tours through the facility. The plant was always so
5 clean, so secure -- so many checks for visitors.

6 In February several members of our
7 executive attended a tour of the plant offered by the
8 public affairs staff. We were impressed with the facility
9 and the safety methods employed. It was such a great
10 learning opportunity that we will be encouraging other
11 residents and organizations to share in this educational
12 experience.

13 The part I liked best was security. I had
14 been through there a number of times over the past 30-odd
15 years. You could pretty much just walk in but when we
16 were there in February there was a fellow with a machine
17 gun standing there in a Darth Vader outfit, and another
18 great big gun on his hip. You couldn't move in that
19 place. As a result, as before mentioned, in the nearly 40
20 years no member of the public has ever been harmed as a
21 result of the Pickering operations.

22 It's important to mention that OPG
23 maintains a strong relationship with the community. As a
24 whole, OPG is a member of the Board of Trade, supports
25 local sports groups, charities, the hospital, the

1 RotaryFest, PESCA's Our Garden Awards we give out every
2 year, educational opportunities for students at the
3 information centre. They also award bursaries to high
4 school graduates, make presentations to City Council and
5 encourage employees to get involved with fund-raising
6 activities.

7 PESCA is an active member of OPG's
8 Community Advisory Council and their environmental
9 stewardship, Pickering Initiative. In addition, OPG
10 employees can be seen at many local activities
11 volunteering their time. A few examples are tree
12 planting. We just put in, what, 700 trees a few weeks
13 ago?

14 **MR. K. FALCONER:** M'hm.

15 **MR. NORWOOD:** And parades, helping senior
16 citizens. OPG and their staff are significant benefactors
17 to the community and major contributors to our local
18 economy. Their partnership with our community is
19 invaluable.

20 In addition, OPG has won recognition for
21 the sustainable environmental initiatives through awards
22 presented by the City of Pickering, Durham Region and the
23 Board of Trade. The support of Pickering's waterfront
24 development is a significant environmental contribution.

25 In summary, Pickering East Shore Community

1 Association supports the analysis and conclusions of the
2 CNSC in light of OPG's performance during the current
3 licensing period that Ontario OPG is qualified to operate
4 Generator Station A for a five-year period.

5 Another couple of just personal things. I
6 have had the opportunity to tour through one or two other
7 nuclear facilities. I went through Nine Mile Point in
8 New York State. They are a different type of
9 reactor than we have but they have three of those
10 huge 30-storey tall cooling towers which are a real
11 blight in the area.

12 I went through Hunterston in Scotland,
13 which also uses a different type of system. Now, in
14 Pickering we can walk -- and this is true, we just
15 went on -- we can walk right into the operating
16 room, control centre. In Hunterston you stand
17 behind bulletproof glass because of the IRA. They
18 like to blow things up. So we couldn't get in
19 there.

20 When you visit a nuclear station --
21 just look across Montgomery Park Road there. You'll
22 see Kinsmen Park. I was an active member of the
23 Pickering Kinsmen for I guess maybe 15 years. We
24 put an awful lot of community money into that park,
25 with baseball diamonds, tennis courts, the soccer

1 fields, gym equipment, and over the years our whole
2 family has enjoyed all the facilities in that park.

3 We also built Participark and Alex
4 Robertson Park, which is west. Even now my adult
5 son still plays mixed league baseball in that park
6 just north of the training centre, the learning
7 centre.

8 Thank you. Any questions? I'll be
9 glad to answer your comments, whatever.

10 **THE CHAIRMAN:** Thank you very much.

11 Mr. Graham?

12 **MEMBER GRAHAM:** Just an observation that
13 not all Irishmen will blow up power plants.

14 **(LAUGHTER/RIRES)**

15 **THE CHAIRMAN:** Anything else?

16 Thank you very much for this.

17 **MR. NORWOOD:** Thank you.

18 **THE CHAIRMAN:** We'll move to the next
19 submission, which is an oral presentation by the Canadian
20 Nuclear Workers' Council, as outlined in CMD 6.16 and
21 6.16A. A few representatives are here today and I
22 understand that Mr. Shier will make the presentation.

23 Go ahead, sir.

24

25 **10-H6.16 / 10-H6.16A**

1 **Oral presentation by**
2 **Canadian Nuclear Workers' Council**

3
4 **MR. SHIER:** Thank you, and for the record
5 my name is David Shier.

6 I'm the President of the Canadian Nuclear
7 Council. With me today is Mrs. Joanne Usher. Joanne is a
8 civil maintainer at the Pickering site and she is also a
9 member of our executive committee of the Canadian Nuclear
10 Worker Council.

11 We did have Mr. Keith Falconer with us but
12 he had to parachute out and help out with the last
13 presentation, so we won't be having him join us for this
14 particular presentation.

15 We're going to briefly cover -- a lot of
16 things we are talking about have been covered so we're
17 just going to go through it quickly. Especially with the
18 time of day and as it is coming into a long weekend, I'm
19 sure you'll want to get going as well as we do so we'll
20 speed ours up.

21 We're going to talk quickly on the health
22 and safety public perspective, the women's perspective and
23 quickly our conclusion and recommendations.

24 So as you've heard from the CNWC many times
25 before, worker health and safety is very important at this

1 site. We support the many processes in place at Pickering
2 A, and for workers to have their safety concerns
3 addressed. It's also important to note that workers have
4 rights under safety legislation as well as their
5 collective agreements which they can and do exercise on
6 occasion.

7 The fact that worker health and safety is
8 very high priority should help ensure the Commission and
9 the public that Pickering A is a very safe facility.

10 On public perspective, it's worth repeating
11 that workers at Pickering live in local communities and
12 many are involved with the community activities. They
13 serve as ambassadors for the plant as they are called upon
14 to answer questions about the facility from their
15 neighbours, friends, et cetera.

16 The Nuclear Worker Council always receives
17 good feedback especially in regards to health and safety
18 and plant cleanliness from labour leaders that we have
19 taken on tours of the Pickering power plant. We suggest
20 that, as we've heard from many of the other groups before
21 us here, that the Pickering community is very supportive
22 of the current plant.

23 Now I would like to ask Mrs. Usher to
24 provide you with some of her views on the working life at
25 Pickering as she has experienced over the years.

1 Joanne?

2 **MS. USHER:** Good afternoon, Chairman and
3 Members of the Commission.

4 My name is Joanne Usher and I have been
5 employed with OPG for more than 20 years. I'm an
6 executive member of the Canadian Nuclear Workers Council,
7 an executive member of Women in Nuclear Durham Region, a
8 woman in trades employed in a non-traditional job and an
9 active steward for the Power Workers Union.

10 I became involved with the Canadian Nuclear
11 Workers Council to communicate and inform the public from
12 a worker's perspective my thoughts about working in the
13 nuclear industry and its benefits. I'm also a member of
14 the Durham Region Labour Council which is another resource
15 I use as a unionized worker to communicate and provide
16 information to facilitate a better informed public about
17 the safety of our industry.

18 I personally believe that the nuclear
19 industry is one of the safest, if not the safest industry
20 in the world to work in. As a steward on a day to day
21 basis, I relate to and work with a lot of women in this
22 station. All workers have access to our Joint Health and
23 Safety Committee members and unionized representatives to
24 have their concerns addressed, the legal right and bargain
25 rights for the health and safety of our members and shares

1 an excellent safety culture.

2 I also believe that the public as a whole
3 needs to hear from the average worker in the industry just
4 how safe our industry is.

5 The business decision made by OPG not to
6 continue with the refurbishment plans for Pickering A and
7 B left workers with a lot of questions and uncertainty.
8 OPG provided workers with an opportunity to voice our
9 concerns and questions about the path forward for
10 Pickering and its workers. This was done through
11 management rollouts and an online question and answer
12 forum which all workers could participate in. These
13 information sessions along with ongoing communication all
14 help in putting the membership at ease.

15 Overall, speaking as a senior Pickering
16 employee who has worked for both Pickering A and Pickering
17 B, I believe that most employees are very proud of their
18 individual work accomplishments in producing safe, clean
19 reliable power for the province. OPG Pickering is a
20 diverse worksite and there are many opportunities for
21 personal, career and financial advancement. My job has
22 been a continuous learning experience for me personally
23 since I was hired by OPG.

24 My involvement with the Power Workers Union
25 has also given me a great deal of job satisfaction with

1 the ability to support my co-workers.

2 Speaking on behalf of the Canadian Nuclear
3 Workers Council, we therefore fully support the five year
4 renewal of the operating licence for the Pickering A
5 nuclear generating station.

6 Thank you.

7 **MR. SHIER:** Thank you, Joanne.

8 I'd just like to conclude that we believe
9 that the Commission should be assured that Pickering A
10 plant is a very safe facility and would also like to add
11 that a lot of the discussion today looking down the line
12 to the future about shutting down, so on and so forth, I'd
13 like to suggest that a 10-year period is a long time for
14 technology and we may find advancements at the end of that
15 10 years saying that we'll be looking at a whole different
16 picture and maybe ways to continue to operate the plant
17 with some new design reactors, so on and so forth. So I
18 don't think we should write that off.

19 I think we should look at the current time
20 in the next five year period as the important part right
21 now for the licence that it is a safe operation and we
22 fully support the application for the five year licence.

23 Thank you for your time, and naturally we
24 are prepared to answer any questions you may have.

25 **THE CHAIRMAN:** Thank you. Questions?

1 I've got one. Do you -- starting to hear
2 people starting to look for another job? I'm talking
3 about the younger generation, let's say. Ten years is a
4 long time but about recruiting to new -- since the
5 announcement of the shutdown, do you notice any less
6 interest in coming and working at Pickering or not?

7 **MR. SHIER:** Specifically we've heard basic,
8 you know, murmurs but I don't think at this time it may,
9 as other presenters have indicated, people may look at
10 that as something as a deterrent but I don't think we saw
11 any drop off in the number of applicants to any positions.
12 But as the time moves on and more -- it's perception --
13 the more they hear about the shutdown then that could be a
14 deterrent.

15 We know from other parts of our -- cross-
16 talking OPG now where they're shutting other plants down.
17 It was when people knew they were shutting down they
18 didn't want to come to the area because they -- why come
19 if you're, you know, only going to be there a short period
20 of time. So 10 years is a longer time than you normally
21 give notice but eventually that may create a problem. So
22 it is something that has to be considered.

23 **THE CHAIRMAN:** OPG? You notice any drop or
24 is it too early to tell?

25 **MR. TREMBLAY:** Pierre Tremblay for the

1 record.

2 Not to make light of it, but we're a very
3 popular organization in terms of employment. We have
4 many, many more applicants than we can select for our work
5 and our jobs and our engagement scores reflect a highly
6 engaged, motivated staff so not -- certainly in the long
7 run these are issues that we're going to increasingly have
8 to deal with. and we'll do so.

9 **THE CHAIRMAN:** Thank you.

10 Thank you for the presentation.

11 We'll move on to the next presentation
12 which is an oral presentation by the Greater Oshawa
13 Chamber of Commerce as outlined in CMD 6.23. And I
14 understand that Mr. Robert Malcolmson will make the
15 presentation. Go ahead.

16

17 **10-H6.23**

18 **Oral presentation by the**

19 **Greater Oshawa Chamber of Commerce**

20

21 **MR. MALCOLMSON:** Thank you very much, Mr.
22 President and Members of the Commission.

23 On behalf of the Greater Oshawa Chamber of
24 Commerce, I'm Bob Malcolmson the CEO and General Manager.

25 The Greater Oshawa Chamber of Commerce is

1 one of the largest business associations in Durham Region
2 and we have over 1,100 entrepreneurs, managers and
3 executives representing 860 businesses that employ close
4 to 40,000 people in Durham Region.

5 The Chamber feels the nuclear industry is
6 vital to both Ontario and Canada. It has familiarized
7 itself with the above noted application and supports the
8 application for renewal of the operation of Pickering A
9 for the further five year period.

10 Ontario Power Generation's program to
11 ensure the safety of the public and protection of the
12 environment supports this renewal.

13 In my introduction, the nuclear industry is
14 experiencing a renaissance as you well know around the
15 world in which billions of dollars will be spent on
16 hundreds of new plants around the world over the next 10
17 to 20 years. Ontario will only build likely two to four
18 new reactors in the foreseeable future. There are an
19 estimated 200 nuclear reactors in various stages in the
20 development around the world. For Ontario and Canada to
21 continue to play a leading role in the global nuclear
22 industry, the key stakeholders in the nuclear
23 manufacturing industry have a responsibility to work with
24 all levels of government in Canada to create a more
25 favourable climate to invest, and that includes Ontario

1 Power Generation.

2 In this document, we will look at three
3 areas; safety, positive impact on the Durham, Ontario, and
4 Canadian business community, contributions to the quality
5 of life of Durham residents and the Canadians, the world
6 environment, and Canada's standing as an environmental
7 nation.

8 Safety first. Canada and Ontario's nuclear
9 energy has demonstrated track record of safety innovation
10 and environmental stewardship. We understand that the
11 CNSC continuously monitors Pickering A and evaluates the
12 station in 14 safety control areas and that Ontario Power
13 Generation, in all these areas, has met or exceeded those
14 expectations.

15 We further understand that in the 40 years
16 of operation, no member of the public has been harmed as a
17 result of Pickering A's operation and that the station
18 recently exceeded three million hours work without a lost
19 time accident.

20 It is further understood that the station's
21 environmental performance is strong with emissions far
22 below regulatory limits and a collection of awards and
23 certificates demonstrates -- from international and local
24 recognition of OPG's contribution to sustainability.

25 The community impact. Relationship of

1 Ontario Power Generation has with -- and in this case --
2 the Pickering community and other Durham region
3 communities is very strong. Ontario Power Generation
4 works hard to maintain open and transparent communications
5 with local community residents and stakeholders through a
6 variety of outreach activities. The Greater Oshawa
7 Chamber of Commerce has constant contact with Ontario
8 Power Generation through various communication vehicles in
9 attendance at meetings.

10 Ontario Power Generation is one of the
11 largest employers in Durham region with a highly educated
12 and skilled job opportunities now and in the future. It
13 is a strong economic driver in Durham region through its
14 operations, projects, and leadership in the community.
15 Pickering Nuclear invests more than \$200,000 annually in
16 community partnerships to enhance educational
17 opportunities for youth, environmental stewardship and
18 community building.

19 Ontario Power Generation employees across
20 Durham region donate countless volunteer hours, as you've
21 heard previously from other speakers. Through its annual
22 charity campaign in 2009, more than \$900,000 was raised
23 for charities and community organization. I think that's
24 an admirable track record.

25 The business impact. Canada's and

1 Ontario's nuclear industry has a demonstrated track record
2 of safety, innovation and environmental stewardship of
3 which OPG is a stellar example. Pickering A station
4 provides a positive impact to the Canadian community
5 through encouraging development of capabilities that will
6 help win business globally. There are many benefits
7 arising from the success, in general, of the nuclear
8 industry, including significant tax dollars for Ontario
9 and federal governments. The potential worldwide market
10 is one trillion dollars and that would potentially add
11 about eighty billion dollars to Canada's GDP and create
12 five hundred thousand person years of employment. Nuclear
13 energy is important to Ontario and Canada.

14 The value of exporting manufacturing
15 opportunity also runs to some hundreds of millions of
16 dollars. There is significant employment across a wide
17 range of skills can be created. You've heard previously
18 from OCI. There's over 150 Canadian companies currently
19 employing well over 12,000 high tech workers in the
20 nuclear energy sector. Canadian companies have the
21 opportunity to become leading suppliers throughout the
22 nuclear renaissance, creating tens of thousands of jobs
23 and billions of dollars of GDP.

24 The brain gain. We heard that they are
25 involved with the UOIT; the retention of the Canadian

1 scientists and engineers; and potentially attractions of
2 hundreds of leading-edge international scientists. In
3 Durham region, the UOIT is the only -- has the only under-
4 graduate degree in nuclear engineering, and approximately
5 50 nuclear engineering graduates in each of the last two
6 years have been quickly absorbed into the industry. And
7 many of this year's graduates have already secured
8 employment. The UOIT is in partnership with the energy
9 companies in Durham region, Durham Strategic Energy
10 Alliance and is preparing to meet the challenge of more
11 and doubling the number of nuclear graduates in the next
12 few years.

13 Canada will and should become a world
14 leader in nuclear.

15 OPG is actively engaged with this community
16 of suppliers, and this was shown quite readily in the last
17 couple of months. OPG was deeply involved in the recent
18 Ontario -- OCI Third Annual OPG Supplier Day, where 76
19 companies came and worked and discussed their suppliers
20 and made presentations to OPG staff.

21 Canadian innovative design and
22 manufacturing of nuclear reactors has proven to be
23 competitive worldwide. Around the world, we are seen as
24 leaders in nuclear energy. The developing power houses of
25 China and India are looking to new nuclear capacity to

1 help secure the energy. They will need to fuel their
2 economic future.

3 In 2006, the United States implemented the
4 *Energy Policy Act* encouraging construction of new nuclear
5 plants. Many other countries such as France, the United
6 Kingdom and Japan have also adopted nuclear energy in
7 their public policy positions. Indeed, there are many
8 opportunities.

9 In conclusion, indeed, there are many
10 opportunities that nuclear energy can provide to Canada
11 and Ontario and has very few industries, such as OPG in
12 their own province that offer the potential of ongoing
13 long-term and wealth creation jobs. As the Chamber stated
14 to Premier McGuinty and to Prime Minister Stephen Harper,
15 Canada's technology future and especially in nuclear, is
16 at stake. Let's not make the same mistake with nuclear as
17 we did just 50 short years ago in 1959 when the government
18 cancelled the Avro Arrow crippling the domestic aerospace
19 industry and sending our engineers and scientists south.

20 At the Ontario Chamber and Canadian Chamber
21 Annual General Meetings in 2009, delegates overwhelmingly
22 agreed with the Greater Oshawa Chamber of Commerce that
23 both levels of government must zero in on the consequences
24 to the Canadian nuclear manufacturing sector. The Chamber
25 networks supported the Greater Oshawa Chamber of Commerce

1 resolution urging the Government of Ontario and Canada to
2 make it as a priority, a nuclear energy strategy that will
3 continue to provide jobs, investment and economic strength
4 for the Ontario and Canadian economy in the coming
5 decades.

6 The Pickering A station provides a large
7 quantity of base load electricity while maintaining
8 overall electricity prices at a level that business and
9 the general public can afford and allows Ontario Power
10 Generation to continue providing electricity without the
11 production of greenhouse gases arising from fossil fuel
12 consumptions.

13 The Greater Oshawa Chamber of Commerce
14 clearly supports the five-year licence extension of the
15 Pickering A station operated by Ontario Power Generation.
16 Ontario Power Generation shows all the elements of
17 managerial control necessary that this performance
18 continues throughout the next five-year licence period and
19 continues to operate the station within the licence
20 requirements and approve on safety and environmental
21 performance.

22 Thank you very much, ladies and gentlemen.
23 On behalf of the Chamber, we appreciate the opportunity
24 and I would be glad to answer any questions.

25 **THE CHAIRMAN:** Thank you. Questions?

1 I just have one, simple one, did you get
2 any reply from Premier McGuinty and the Prime Minister?

3 **MR. MALCOLMSON:** In actual fact, yes, the
4 Chamber heard from both of them. They are -- they heard
5 very loudly and clearly our position and trust me, we keep
6 reinforcing it every chance we get the opportunity to talk
7 to a minister or the Premier or the Prime Minister. They
8 know how serious this is. Ontario, OCI -- I mean the
9 CANDU Industries Organization and OPG, nuclear is
10 important to this country, and we can't give it away like
11 we did many, many years ago in another industry. So
12 they're hearing it. They just need to have a little bit
13 more of a push and we're going to keep at them.

14 **THE CHAIRMAN:** Okay, thank you very much.

15 I think this concludes the oral
16 presentations, submissions. And now we are going to be
17 moving to the written submissions.

18 Kelly?

19 **MS. MCGEE:** We will now move to written
20 submissions. There are 18 written submissions, which will
21 be read into the record of the hearing. We will proceed
22 with groups of submissions based on the scope and nature
23 of the interventions filed, and the Members will have the
24 opportunity to ask questions after each group.

25 The first group of submissions is from

1 representatives from government, municipal or community
2 organizations. CMD 10-H6.18 from the Durham Nuclear
3 Health Committee; H6.19 from Mark Holland, MP of Ajax-
4 Pickering; H6.20 from Joe Dickson, MPP of Ajax-Pickering;
5 H6.21 from the PineRidge Arts Council; H6.22 from Big
6 Brothers and Sisters of Ajax-Pickering; H6.24 from the
7 Regional Municipality of Durham; H6.26 from the United Way
8 of Ajax-Pickering-Uxbridge; H6.28 from St. Paul's On-The-
9 Hill Community Food Bank; H6.32 from Wayne Arthurs, MPP,
10 Pickering-Scarborough East; H6.34 from Durham West Arts
11 Centre; and H6.35 from the Whitby Chamber of Commerce,
12 which originally appeared of today's agenda as an oral
13 submission and the Chamber of Commerce has now asked that
14 the Commission receive it as a written submission.

15 **THE CHAIRMAN:** Thank you.

16 Any questions on any of those submissions?

17 Okay, thank you. Move on to the next set,
18 please.

19 **MS. MCGEE:** We will move to the next group
20 of written submissions from three businesses or
21 organizations: CMD-H6.29 from SNAP Pickering; H6.30 from
22 Veridian Corporation; and H6.31 from the Rouge Valley
23 Health System Foundation.

24 **THE CHAIRMAN:** Again, any questions?

25 Mr. Graham.

1 **MEMBER GRAHAM:** Just a question to OPG.
2 Laura Oliver, I believe she's involved in the community
3 radio or radio or the media, and I'm wondering she
4 mentions in her presentation about the environment and her
5 support to what OPG is doing in the environment. Has she
6 met or ever met with you with regard to the fish and the
7 discharge and the fish impingement and what mitigation
8 measures you're looking at. Has the news, the media ever
9 got involved in that?

10 **MR. JAGER:** Glenn Jager, for the record.
11 I'll ask Jacquie Hoornweg to comment on
12 that. It appears she isn't here so we'll have to get you
13 an answer.

14 **MEMBER GRAHAM:** I don't want to belabour,
15 but I'm just wondering has the media been involved in
16 reporting the concerns that came out of the review of
17 Pickering, renewal of Pickering-B at the time and so on?
18 Is the public aware; is the public aware of what's going
19 on there?

20 **MR. JAGER:** Glenn Jager, for the record.
21 Jacquie has just stepped in, but I can tell
22 you that in her community advisory committee where we do
23 discuss environmental issues, media is in regular
24 attendance at those meetings and regularly receives the
25 same updates as the community advisory committee, and I'll

1 turn it over to Jacquie for further comment.

2 **MS. HOORNWEG:** Jacquie Hoornweg, for the
3 record.

4 Just to confirm, we do have media, as Glenn
5 says, at our community council advisory meetings so they
6 hear all of the issues as the community hears. This is an
7 issue that's been well discussed, both through the process
8 of the Pickering B refurbishment studies and, in addition,
9 with the net installation and discussion about the path
10 forward on that.

11 **THE CHAIRMAN:** Anything else?

12 Thank you. Next set.

13 **MS. MCGEE:** The next three submissions are
14 from educational institutions. CMD H6.17 from Durham
15 College; H6.25 from the University of Ontario Institute of
16 Technology; and H6.27 from Scientists in School.

17 **THE CHAIRMAN:** Questions? Dr. Barriault?

18 **MEMBER BARRIAULT:** No, not a question.
19 Just a brief comment really. I think OPG is to be
20 commended for supporting such institutions. Thank you.

21 **THE CHAIRMAN:** Anything else?

22 On Scientists in School, they raise again
23 the question about the outreach and, as you know, we have
24 discussed this a few times before. In terms of your
25 tools, do you do anything for high school kids? I mean

1 that's where the level of ignorance about nuclear is
2 actually pervasive to society. If we don't do it for kids
3 in school, where are they going to learn about this stuff?

4 **MR. TREMBLAY:** Pierre Tremblay, for the
5 record.

6 Perhaps -- is Jacquie gone again? Okay.

7 Certainly, we have a number of programs to
8 interface with the schools. A simple thing that we could
9 talk about is take your kids to school. We obviously
10 support the program that brings obviously hundreds of
11 children to our facilities and gives them a chance to have
12 a look at how their moms and dads work.

13 We also have quite a number of outreach
14 programs in the schools and just before I turn it over to
15 Jacquie, you know, we went back and had a look at this
16 issue around how many people outside of sort of business
17 and industry people sort of go into the facilities. And
18 it was somewhat a pleasant surprise to realize that on a
19 year-by-year basis we have over 500 individuals that
20 toured and visited through the power plant. And they are
21 a variety of individuals, including community groups and
22 so on that we tour. But perhaps in terms of the high
23 school outreach, I can turn it back to Jacquie.

24 **MS. HOORNWEG:** For the record, Jacquie
25 Hoornweg.

1 Can I just ask for clarification on what
2 the original question was?

3 **THE CHAIRMAN:** Well, if a high school wants
4 to come and visit a nuclear plant, can they arrange it?

5 **MS. HOORNWEG:** For the record, Jacquie
6 Hoornweg.

7 We do do visits to the information centre,
8 which is onsite, and so any high school students that want
9 to come, we do accommodate through that. We have a number
10 of presentations as well as an interactive -- both at
11 Darlington and Pickering -- we have very interactive
12 activities at our information centres. As well, our staff
13 are there and facilitate presentations, talk to them about
14 different things, different parts of interest; so whether
15 it's about careers or whether its, you know, related to
16 their science curriculum.

17 In addition to that, we work very closely
18 with Scientists in Schools, an organization that goes out
19 to schools. And in addition to that, we also have summer
20 programs, March break programs. In fact, this past March
21 break we had more than 4,000 people, mostly children, at
22 our information centre over the period of the week,
23 including a day on the weekend, so that those parents who
24 work could bring their children with them on the weekend
25 to do Lego and other science activities at the info

1 centre.

2 So we have a lot of interaction. We don't
3 do tours per se specifically in the station for high
4 school students, but we look at a number of other ways to
5 ensure that they have a good interaction with our nuclear
6 stations.

7 **THE CHAIRMAN:** Mr. Tolgyesi.

8 **MEMBER TOLGYESI:** Just to make sure, if
9 you would like to spread information and knowledge on the
10 high schools across the province because nuclear energy is
11 a main source of energy in electricity in Ontario.

12 So do you have some tool kits that you
13 could send across the province to high schools and
14 distribute them, or to talk to the teachers who are doing
15 this scientific curriculum so they could explain across,
16 not only here but I don't know, somewhere in Timmins and
17 Kirkland Lake and other places?

18 **MS. HOORNWEG:** Jacquie Hoornweg, for the
19 record.

20 A very timely question. Over the last few
21 years, we have done a lot of work in this area and created
22 three box tool kits that we send out to teachers for
23 grades 3, 6 and 9. We worked with them with the
24 curriculum. We worked with the school boards and the
25 province on matching the tool kits to the curriculum, and

1 it provides resource materials for the teachers. It also
2 supplies them with materials to distribute to the students
3 in their classes.

4 This has been a very well received program
5 and we are continuing to develop it further.

6 **MEMBER TOLGYESI:** So if somebody is
7 interested, they just contact somebody at -- who should
8 they contact?

9 **MS. HOORNWEG:** For the record, Jacquie
10 Hoornweg.

11 There is information on our website. You
12 could also contact Monica Zeller, Z-e-l-l-e-r, at our head
13 office at 700 University. She manages the program for the
14 province, for across the province.

15 I would add too that we do work with our
16 unions and have developed programs on skilled trades and
17 the union groups themselves have done a lot of work in
18 this area and we work closely with them in facilitating
19 that in terms of getting out to other high school students
20 related to career opportunities and that way.

21 And in fact we are working with Dave Shier
22 of Nuclear Workers' Council who you just saw here not too
23 long ago on an upcoming visit with a number of high school
24 students who are going to visit the station and interact
25 with some of the different trade organizations and get an

1 understanding of what they do in their job.

2 **THE CHAIRMAN:** Okay. Thank you very much.
3 The last submission?

4 **MS. MCGEE:** The last submission is from
5 Mr. Dan Carter, CMD H6.33.

6 **THE CHAIRMAN:** Any questions? Okay, thank
7 you. We now going into the second round where the
8 Commissioners -- you want to -- okay. I think we need a
9 break. So let's take a very short break. Make it four
10 o'clock, right? Four or five. Four o'clock? This one is
11 slow on my watch. It's 4:05.

12 --- Upon recessing at 3:53 p.m./L'audience est suspendue à
13 15h53

14 --- Upon resuming at 4:08 p.m./L'audience est reprise à
15 16h08

16 **THE CHAIRMAN:** --- the home stretch, so to
17 say and we're going to the second round of questioning
18 starting with Dr. Barnes.

19 **MEMBER BARNES:** Maybe just a comment, Mr.
20 Chair, to build on what I started off at the beginning of
21 the day maybe on wider perspective.

22 It seems to me that the industry has had
23 maybe three big issues throughout its history. One is the
24 various environmental assessments to again show the
25 confidence of the systems to the public. Those have often

1 been long; some of the earlier ones were quite long. I
2 remember meeting here in Pickering, I don't know, a dozen
3 years ago with a set of binders that were about this
4 large; and then to convince the Commission and the public
5 that the operation of the facilities once built was a
6 satisfactory process and there was safety and you've
7 demonstrated a lot of this today looking back over the
8 plant.

9 The third, which I would say the industry
10 has not been good at has been solving the issue of waste
11 disposal. This has been an ongoing issue which has not
12 really been solved and therefore the public have a
13 perception that this is a problem that is not yet solved
14 even though the industry in Pickering here has been in the
15 business for 40 years and it may probably be a perception
16 but it's a question of when the work has been done in
17 order to prove that these things are in fact possible.

18 And the fourth one then I think is what we
19 were alluding to today and that's the decommissioning.
20 These are big facilities and the decommissioning clearly
21 is a challenge and we've had this discussion today about
22 ten years and for some people I think today ten years
23 appear to be a long time.

24 In my view, ten years can be a very short
25 time and if you leave things to the planning in an

1 uncertain world to the last few years as it were, say the
2 licence period after this one, you can be caught short and
3 particularly you can be caught short as I think Greenpeace
4 indicated in having appropriate dialogue and getting the
5 confidence of the public that in fact the decommissioning
6 is in hand.

7 We know all the technical aspects of it.
8 You engage the public in this part of this process and
9 again a confidence that, you know, if you storing
10 something for 30 years that is the best way to do it and
11 then, in fact, you can have just a short period of really
12 totally decommissioning and restoring the site. That
13 could be a challenge for people to understand how you
14 could do that in such a short period of time. I mean,
15 talking about the restoration part.

16 So I think, just to come back to one of the
17 issues before about the length of licence but I would
18 strongly urge that we consider -- and the intervenor and
19 the staff certainly consider -- this issue of the three
20 year licence to get things harmonized early and have an
21 early start at the whole aspect of decommissioning even
22 though there's a potential for extending it at some time
23 into the 2020s for potentially B but more especially for
24 A.

25 That's the only comment I have, Mr. Chair.

1 **THE CHAIRMAN:** Thank you. Anybody want to
2 comment on this? Comment on a comment?

3 **MR. TREMBLAY:** Pierre Tremblay for the
4 record.

5 I guess first and foremost, you know the
6 thing in our mind is clearly, you know, the safe operation
7 of the facility over the licensing period and we feel
8 that's best facilitated and focussed on through the five
9 year licence that we've demonstrated today and in Day One.

10 Having said that, we certainly recognize
11 and acknowledge the Commission's interest in providing
12 more insight and information. We think that can be
13 facilitated with the process that's been laid out in front
14 of us and with opportunities for discussion and dialogue
15 recognizing that there's a period of time ahead of us. We
16 are committed to providing robust plans and organizing for
17 success.

18 But, you know, in terms of resource plans,
19 retention strategies, decommissioning plans and concerns
20 over certainly impact that this facility which has been a
21 great benefit to the province and to the local area has
22 had so we acknowledge, recognize that and our view would
23 be that it can be facilitated within the process and we're
24 certainly committing to open and transparency as we move
25 forward.

1 **THE CHAIRMAN:** Thank you. Dr. McDill?

2 **MEMBER McDILL:** Thank you.

3 I realize our focus today is Pickering A
4 but as this end of life is in front of us I don't think it
5 can be looked at in isolation. We're mid-2010 now doing a
6 licence for A. There's a Joint Review Panel going on for
7 Darlington as it -- potentially leading to a new build.

8 In 2013 Pickering B comes up for its
9 penultimate or maybe ultimate licence; 2015 this facility
10 again if it's a five year licence; 2016 Darlington goes
11 into refurb; 2017 Pickering A and B starts producing
12 decommissioning documents and requests. There's an
13 unknown for a potential Darlington refurb.

14 So we as a Commission, we're very aware of
15 the technical and other challenges that come out of
16 refurbishment and they're ongoing.

17 We're aware of the technical and other
18 challenges of having one facility closing while a new
19 facility is still under design and build so I'm left at
20 the end of today with a sense of unease. I would prefer
21 to see earlier harmonization or synchronization or
22 parallel-ization of licences. I think it would offer some
23 comfort to the public. I'd prefer to see plans coming
24 forward sooner than later.

25 Thank you Mr. Chair.

1 **THE CHAIRMAN:** Thank you.

2 Dr. Barriault?

3 **MEMBER BARRIAULT:** Thank you Mr. Chairman.

4 If I can refer to OPG's slide 8 in your
5 presentation? It's your pie graph or pie chart and I'm
6 looking at public safety, radiological dose of public from
7 the Pickering nuclear plant and you show 0.1 percent of a
8 contribution compared to background.

9 I'm just wondering is that just at the
10 plant or is there a radius that we should be looking at
11 where we're getting this fallout if you want to. It
12 doesn't say where it comes from.

13 **MR. JAGER:** Glenn Jager, for the record.

14 That dose is the dose as a result of plant
15 operations in the Pickering area.

16 **MEMBER BARRIAULT:** How big a radius around
17 the plant, I guess, is what I'm asking?

18 **MR. JAGER:** Glenn Jager, for the record.

19 I'll ask Laurie Swami to comment on that.

20 **MS. SWAMI:** Laurie Swami, for the record.

21 The public dose is calculated based on
22 environmental measurements that are taken around the plant
23 and we test various aspects of the environment, the
24 drinking water supplies, foodstuff, air emissions, those
25 types of things ---

1 **MEMBER BARRIAULT:** I understand but ---

2 **MS. SWAMI:** --- and we calculate ---

3 **MEMBER BARRIAULT:** --- what radius?

4 **MS. SWAMI:** --- if we calculate a public
5 dose for a critical group and the critical group is
6 selected, based on the highest dose that someone would
7 receive living in a certain area around the Pickering
8 plant. So it's fairly close to the plant and it's looked
9 at as sort of the worst case, if you would. So it's a
10 very low number and it's certainly well within regulatory
11 limits.

12 **MEMBER BARRIAULT:** Oh no, I realize all
13 that. But I'm wondering how far from the plant do you
14 extend this testing? Is it five metres, 5,000 metres?
15 What is it?

16 **MS. SWAMI:** So the testing depends on the
17 type of media that's being tested, so we would test dairy
18 farms, for example, which are further from the site.

19 We would test foodstuff available to us
20 from gardens et cetera, so it's quite a broad program that
21 goes quite far out into the community.

22 **MEMBER BARRIAULT:** Okay. I'm asking again,
23 how far out in the community? Okay, somebody wants to
24 answer over here.

25 **MR. JAMMAL:** Thank you, Dr. Barriault. The

1 answer is the measurements are taken at the fence of the
2 facility.

3 **MEMBER BARRIAULT:** Okay.

4 **MR. JAMMAL:** So those background measures
5 are being done at the fence and we have on-site staff that
6 can confirm.

7 **MEMBER BARRIAULT:** Okay, thank you.

8 Sorry, my next question is regarding your
9 cobalt-60 sealed units and I guess -- where are they
10 coming from and how do you control the quantity and why is
11 it that you do not want to have them leak-tested? I guess
12 that's the question.

13 So we'll start off with OPG.

14 **MR. JAGER:** Glenn Jager, for the record.

15 I think we just need to correct -- again,
16 answer your question on how we arrive at the public dose,
17 and again I'll turn it back to Laurie Swami for that.

18 **MEMBER BARRIAULT:** Okay.

19 **MS. SWAMI:** Laurie Swami, for the record.

20 The public dose is calculated based on a
21 number of measurements and a pathway analysis for the
22 various types of media. It is a combination of many
23 measurements that would take place within either our
24 facility, at the site fence, and in the community itself,
25 and it's a calculated number for a particular individual

1 who would be hypothetically living in that location.

2 It's not specifically at the site boundary.

3 **MEMBER BARRIAULT:** To a place.

4 **MS. SWAMI:** Thank you.

5 **MEMBER BARRIAULT:** It's a projected level,
6 is what you're saying.

7 **MS. SWAMI:** It's a calculated level.

8 **MEMBER BARRIAULT:** That's great. Now, the
9 cobalt-60.

10 **MR. JAGER:** Glenn Jager, for the record.

11 Could I just ask you to rephrase that
12 question?

13 **MEMBER BARRIAULT:** I'm not going to let you
14 guys off the hook.

15 No, you have the sealed units for cobalt-60
16 and I'm wondering where do these units come from? They're
17 coming from outside the plant, I would imagine.

18 And so who sends them in? What quantities?
19 How do you control the volume? And I guess the next
20 question is that you do not want to have them, I guess,
21 leak-tested, or there's no need or whatever it is for
22 leak-testing.

23 So I'm just wondering -- I'm trying to get
24 a better understanding of all of this.

25 **MR. JAGER:** Glenn Jager, for the record.

1 Pickering B produces cobalt-60, which we
2 process over on Pickering A for eventual shipment to a
3 contractor or a customer. It's anticipated that those
4 cobalt-60 sources, the spent cobalt-60 sources, would be
5 received by us and stored in our facility and they would
6 actually be returned to the irradiated fuel bay or the
7 auxiliary irradiated fuel bay where we also store spent
8 fuel.

9 Because it's stored in the bay, the bay
10 filtration and purification systems are more than adequate
11 to handle any contaminants that might result from the
12 storage sources in the bay, given that it's sized to deal
13 with spent fuel. So that's the anticipated requirement
14 for the storage of cobalt-60 and hence it's been added to
15 our operating licence.

16 **MEMBER BARRIAULT:** So they're just coming
17 from these sources, period. They're not coming from
18 outside agencies or anywhere else?

19 **MR. JAGER:** Nordion is the actual
20 contractor or customer and it's the sources that we
21 originally ship coming back, so I don't believe that there
22 are any sources in addition to those.

23 **MEMBER BARRIAULT:** Okay.
24 CNSC, do you want to comment on this
25 please?

1 **MR. RZENTKOWSKI:** Greg Rzentkowski, for the
2 record.

3 Mr. Ramzi Jammal will respond to this
4 question.

5 **MR. JAMMAL:** Thank you, Greg.

6 The process of cobalt-60, if I may in 30
7 seconds -- there is the producer, which is the reactor,
8 and then there is the manufacturer, which is MDS Nordion,
9 and the CNSC at that point -- of course, there is a safety
10 case with respect to production, manufacturing and then
11 returning to -- for the waste facility.

12 You asked specifically about wipe-testing.
13 The wipe-testing as it comes into the facility from MDS
14 Nordion or the supplier must be in compliance with our
15 regulatory requirements as the sealed source is in storage
16 and transport and so on and so forth.

17 The waste management under OPG and it's
18 being put into the pool -- so the physical layout and the
19 capacity to test in the pool itself is a challenge, so
20 there are other mechanisms in place such as measuring the
21 pool water itself and so on and so forth to determine if
22 there is a leak.

23 But, however, the manufacturing of that
24 source is done through international norms to include the
25 leakage and encapsulations and so on and so forth.

1 **MEMBER BARRIAULT:** Thank you.

2 Thank you, Mr. Chairman.

3 **THE CHAIRMAN:** Thank you.

4 Mr. Tolgyesi.

5 **MEMBER TOLGYESI:** I have just one comment,
6 just to fully subscribe to Mr. -- the Chris comments while
7 he was talking about three issues and a challenge, that
8 for sure the three issues will be a confidence of the
9 public and communication, which is related, the question
10 of fish and of waste disposal.

11 And I think you have a challenge with
12 decommissioning, how you will plan that; how you will do
13 that; how you will communicate to stakeholders and to
14 other groups. There was a lady who was saying she is not
15 a stakeholder, she is -- but she wants to be involved, so
16 I think that that will be a challenge to complete this
17 work and properly plan and communicate and execute.

18 **THE CHAIRMAN:** Okay, thank you.

19 Monsieur Harvey?

20 **MEMBER HARVEY:** Merci, Monsieur le
21 Président.

22 I have few questions about the trip set
23 point methodology. It has been reported that the
24 technology, methodologies are already used. Is it used
25 only for Pickering A or it's used also for B and now all

1 the fleet of -- OPG fleet or reactors? This is my first
2 question as well as OPG or the staff. Maybe OPG could ---

3 **MR. JAGER:** Glenn Jager, for the record.

4 Again, I'll turn that over to Fred
5 Dermarkar for a comment.

6 **MR. DERMARAR:** Thank you. For the record,
7 Fred Dermarkar, Director of Engineering Services at OPG.

8 This methodology was actually developed in
9 2005 and used for the first time by Bruce Power. It was
10 then applied to Darlington and then to Pickering B and
11 then to Pickering A.

12 So the methodology that is in use in five
13 reactors -- five reactor designs in Ontario, in fact all
14 the reactors in Ontario.

15 **MEMBER HARVEY:** Okay. Now, if I take that
16 graph here that has been presented here, there is a mode
17 of operation for the future years or at least until 2015.

18 But I'm aware that there is a committee
19 working on that and there will be results coming from that
20 committee. So is it possible it could be the results
21 significantly modify what we see here? When will the
22 Commission be informed of those new results?

23 Well, could you just elaborate on that?

24 **MR. RZENTKOWSKI:** We committed already to
25 provide further advice to the Commission on the results of

1 this independent assessment of the proposed NOP
2 methodology. As I mentioned in my presentation, for the
3 time being we approved the results of the new methodology
4 because only certain aspects were approved for regulatory
5 application.

6 In terms of full applicability of the
7 methodology, we believe we will have the final answer by
8 the end of the year. How important will be the impact on
9 the predicted results? We believe that it will be rather
10 minor because for the time being we included only 2
11 percent penalty factor in the results of the new NOP
12 methodology.

13 We believe that this penalty factor is
14 sufficient to cover uncertainty related to the issues
15 which needs to be resolved for the full acceptance of this
16 methodology in the regulatory framework.

17 **MEMBER HARVEY:** What is that penalty?
18 That's the two-person per year or ---

19 **DR. RZENTKOWSKI:** No, no, no.

20 **MEMBER HARVEY:** Not two person. This is
21 the ---

22 **DR. RZENTKOWSKI:** To the prediction of the
23 methodology we apply simply 2 percent penalty to account
24 for the unresolved issues.

25 So it's rather minor because if you take

1 into account the fact that the difference between the old
2 and the new methodology is close to 20 percent of full
3 power operation, so this 2 percent uncertainty which needs
4 to be resolved is really a minor issue at the moment.

5 **MEMBER HARVEY:** But that wouldn't change
6 because the reactor will be operated at the maximum, so
7 even without the confirmation of the other questions.

8 **DR. RZENTKOWSKI:** Yes, yes, that's correct.
9 I think the final confirmation may eventually reduce the
10 results of the prediction by the new methodology. But
11 it's not going to impact the operating power because they
12 installed trip set points remain the -- the same.

13 **MEMBER HARVEY:** Okay, thank you.

14 **THE CHAIRMAN:** Thank you.

15 Mr. Graham?

16 **MEMBER GRAHAM:** Thank you, Mr. Chair.

17 I have a couple of questions but at the
18 outset, though, I do want to echo my colleagues, Dr.
19 Barnes and Dr. McDill, and their concerns that they
20 expressed earlier.

21 My first question around -- or my questions
22 that I didn't cover in round one were around emergency
23 preparedness and what -- we always were aware of what was
24 going on. But I'm just wondering, first of all, did they
25 ever erect those sirens that they were supposed to? That

1 would be my first question to OPG.

2 And the next one is -- and I can do a
3 couple right in a row -- maybe you could outline the
4 iodine tablets to schools. Is that program still in
5 existence?

6 And what is -- have you expanded your
7 emergency preparedness plans compared to what they were at
8 the last time of licensing?

9 **MR. JAGER:** Glenn Jager, for the record.
10 On all those issues I'll ask Jim Coles to comment.

11 **MR. COLES:** Good afternoon. For the
12 record, my name is Jim Coles. I'm the Director of Nuclear
13 Protection Programs and Training.

14 Your first question was with regard to the
15 sirens in the Pickering area, and I can tell you that that
16 work does continue to progress to this day.

17 Durham -- sorry?

18 **MEMBER GRAHAM:** In saying that, how many
19 have been erected out of the 26 that were supposed to? I
20 believe it was 26 at the time.

21 **MR. COLES:** Actually, back in 2006 the
22 direction given by -- as agreed to by EMO Commissioner
23 Fantino in the City of Pickering at that time; they agreed
24 to proceed with an installation of four. So those four
25 sirens have been installed and in fact testing was

1 completed.

2 **MEMBER GRAHAM:** I beg to differ. Checking
3 my notes from previous licences back as long as 10 years
4 ago, I thought there were a larger number than four and it
5 was only agreed to install four because there was concern
6 about property values and so on. I believe it was 26. Am
7 I correct or not?

8 **MR. COLES:** The original design, yes, did
9 recommend more than the four sirens that were approved to
10 proceed with installation. That's correct.

11 **MEMBER GRAHAM:** That was the question, and
12 I just want to know the facts. There were 26, I believe,
13 recommended. You say there were four installed. That's
14 the type of answer I wanted.

15 **MR. COLES:** I understand.

16 So the original recommendation was for 26
17 sirens and in 2006 the Province of Ontario and the City of
18 Pickering agreed to proceed with the installation of four
19 sirens, and then they would do testing and further
20 analysis to determine whether or not four sirens was
21 sufficient to do the job.

22 **MEMBER GRAHAM:** How often do they test and
23 have they obtained any information that they need four
24 more or anymore? What's the schedule?

25 **MR. COLES:** So as it stands right now, the

1 four sirens were installed and audibility testing and
2 functionality testing was completed last year. And at
3 this point in time, as of January 2010, Pickering Council
4 directed city staff to have further discussions with the
5 Region and obtain additional information on the number of
6 additional sirens and exact locations where they would be
7 required.

8 So Durham Emergency Management office
9 conducted site visits of possible siren locations in the
10 community and provided city staff with a report dated this
11 past 18th of March.

12 So at this point that report is in the
13 hands -- with the City of Pickering and is under review by
14 their consultant, Air Acoustics Engineering.

15 **MEMBER GRAHAM:** What was the
16 recommendation?

17 **MR. COLES:** The recommendation is for six
18 additional sirens and so the City of Pickering and Durham
19 Region staff are working cooperatively to define the exact
20 and most effective locations for those sirens.

21 **MEMBER GRAHAM:** Iodine tablets in schools;
22 have you expanded that, maintained it or decreased it?

23 **MR. COLES:** We continue to meet the
24 requirements under the provincial plan for iodine
25 distribution in the primary zone, including schools, and

1 so that program has been maintained in accordance with
2 that requirement.

3 Any questions further on iodine?

4 **MEMBER GRAHAM:** Yes. Is the Ontario
5 Ministry of Health and Long-Term Care -- are they involved
6 or are they part of the emergency preparedness plan and in
7 concurrence with the plan you have in place at this time?

8 **MR. COLES:** Emergency Management Ontario in
9 fact sets down the requirements for the iodine -- or
10 includes iodine distribution in the provincial plan, and I
11 have representation from EMO here with me today as well.
12 They could speak to that requirement if you so desire, but
13 I believe they'll advise you that they're satisfied with
14 how we've been able to meet the requirements of that plan
15 and the distribution of radio-iodines in particular.

16 **MEMBER GRAHAM:** Okay, leaving iodine
17 tablets aside and going to the overall plan of involving
18 hospitals, receptor hospitals in an emergency, has that
19 been worked out not only with Emergency Preparedness
20 Ontario but with the Ministry of Health and Long-Term
21 Care? Are they also satisfied with the plan that's in
22 place?

23 **MR. COLES:** I can tell you that Ontario
24 Power Generation and our community and regional and
25 provincial partners in emergency planning jointly

1 participate in exercises as mandated by the Provincial
2 Nuclear Emergency Response Plan.

3 We regularly interface at the community
4 level and at the regional level, and provincial level for
5 that matter, on working groups that discuss the
6 effectiveness and review the effectiveness of our
7 emergency plans. So when we have actual field exercises
8 in the field we have all those other stakeholders, such as
9 the Ministry of Health and the hospitals, participate in
10 those exercises.

11 And in fact we often meet -- to use your
12 example of the hospitals -- we'll meet with local hospital
13 representatives to review their plans and to make sure
14 that they're well integrated with ours.

15 **MEMBER GRAHAM:** Okay, thank you.

16 Question to OPG, also to OPG, is do you
17 have a medical doctor on staff at Pickering?

18 **MR. JAGER:** Glenn Jager, for the record.

19 Yes, we do have a medical doctor on staff
20 for OPG Nuclear.

21 **MEMBER GRAHAM:** Do you also have a
22 recreation director and other ones promoting good health
23 to employees, along with dietitians and so on?

24 **MR. JAGER:** Glenn Jager, for the record.

25 We have a wellness department which looks

1 at all those things and assists employees in employee
2 wellness. We also have a fitness facility at Pickering
3 which has a fitness director and they also contribute to
4 wellness of employees and can advise them on fitness and
5 healthy lifestyles.

6 **MEMBER GRAHAM:** That's all, Mr. Chair.

7 Thank you.

8 **THE CHAIRMAN:** Thank you.

9 Anybody else coming for a last chance to
10 ask any questions?

11 Well, thank you for this. My only
12 observation -- I'm going to say it very short -- if you
13 sense some frustration here, addressed to both CNSC and
14 OPG, is you'd think that after being in operation for 30
15 years some of those issues would have been nailed down a
16 long, long time ago. Fish is not a new phenomenon. End
17 of life is not a new phenomenon. Decommissioning is not a
18 new phenomenon. So some of the regulatory requirements to
19 deal with some of those issues should have been well
20 documented and understood now.

21 Things like sirens -- let's talk about 26.
22 We've been talking about sirens for a long, long time. I
23 just don't understand why it's so slow. Everything is so
24 slow. And I think that's the kind of frustration that you
25 hear. I think over the years you are now getting into the

1 last decade and some of those issues are starting -- I can
2 almost start hearing people say, "Well, why should we put
3 sirens if in 10 years from now we are not going to be in
4 business here?"

5 That's the kind of frustration that you
6 will hear from commissioners here.

7 Anyhow, thank you for your patience and for
8 your input.

9 Ramzi, I'm told you wanted to say
10 something? You always like to say the final thing, right?

11 **MR. JAMMAL:** No, sir. I'm always after
12 you, sir.

13 **THE CHAIRMAN:** Go ahead.

14 **MR. JAMMAL:** I just wanted to offer an
15 apology to the Commission Members this morning and
16 participants and attendees here. Us technical staff are
17 really coming in here because when the nuclear tech get
18 into a debate we lose track of time and unfortunately it
19 happened this morning.

20 In addition to being late there is a
21 message from all of our staff to Dr. Barnes. It's thank
22 you, sir, for serving on the Commission and on behalf of
23 all of our staff, we just thank you for your services.

24 **THE CHAIRMAN:** So this brings to a close
25 this public portion of the hearing. We are skipping on

1 the next one.

2 So I wish to thank everyone. I already did
3 that. And you'll hear from us in due course. Thank you.

4 --- Upon adjourning at 4:38 p.m.

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