

1 **Ontario Power Generation Inc.:**
2 **Application for Acceptance of a**
3 **Revision to the Value of their**
4 **Financial Guarantee, and Request**
5 **for Amendment of OPG's Class I**
6 **Nuclear Facility Licenses in**
7 **Ontario**

8
9 **MR. LEBLANC:** This is a one-day public
10 hearing. The Notice of Public Hearing 2007-H-15, was
11 published on August 20, 2007. The public was invited to
12 participate by written submission. CNSC staff requested
13 an extension to file their submissions, CMD 07-H22.

14 October 2, 2007, was the deadline set for
15 filing by interveners. The Commission received one
16 request for intervention from Bruce Power.

17 October 25, was the deadline for filing of
18 supplementary information. Supplementary submissions were
19 filed by OPG, Bruce Power and CNSC staff.

20 **THE CHAIRPERSON:** The Commission received
21 CMD 07-H22.2A from Bruce Power informing the Commission
22 that Bruce Power was no longer seeking an adjournment of
23 this proceeding. I wish to check with Mr. Saunders that
24 this is a proper interpretation.

25 **MR. SAUNDERS:** Frank Saunders, Bruce Power,

1 for the record.

2 Yes, based on the staff's recommendations,
3 Bruce Power is happy to accept those recommendations and
4 deal with this issue in our own licensing process.

5

6 **07-H22.1 / 07-H22.1A / 07-H22.1B**

7 **Written submission from**

8 **Ontario Power Generation Inc.**

9

10 **THE CHAIRPERSON:** Thank you.

11 Therefore, we will proceed with the
12 consideration of the application of Ontario Power
13 Generation that's before us today.

14 To begin with, the Commission members have
15 read the written submission by OPG and as outlined in
16 Commission Member Documents 07-H22.1, 07-H22.1A,
17 07-H22.1B.

18 I will turn to Mr. Ken Nash who is with us
19 this afternoon, the Senior Vice-President.

20 I understand, sir, you have a presentation,
21 and the floor is yours.

22 **MR. NASH:** I appreciate this opportunity to
23 make a presentation.

24 For the record I'm Ken Nash, Senior
25 Vice-President, Nuclear Waste Management. With me today

1 are Fred Long, Vice-President, Financial Planning and
2 Colleen Sidford, Treasurer, both of OPG. We also have:
3 Karen Sadlier-Brown, Assistant Deputy Minister; Malle
4 Hanslep, Legal Counsel, both of the Province of Ontario.

5 This presentation will provide a brief
6 overview of OPG's reference plans and cost estimates for
7 managing all of the nuclear waste and decommissioning
8 liabilities produced as a result of operating 20 reactors,
9 all of these reactors owned by OPG.

10 I will also outline OPG's plans to meet the
11 CNSC financial guarantee requirements by providing access
12 to segregated funds established specifically to meet OPG's
13 long-term obligations and by guarantee from the Province
14 of Ontario.

15 We are providing consolidated plans,
16 estimates and financial guarantees for all Class I
17 facilities owned by OPG and this includes the Pickering A
18 and B and Darlington reactors. It also includes Bruce A
19 and Bruce B reactors which are operated by Bruce Power.
20 It includes the Pickering, Western and Darlington waste
21 management facilities and all used fuel and low and
22 intermediate level waste.

23 OPG is responsible under a lease agreement
24 with Bruce Power for the eventual decommissioning of
25 Bruce A and B. It's also responsible for all used fuel

1 and low and intermediate level waste produced by Bruce A
2 and B and for providing the necessary CNSC decommissioning
3 guarantee to support the decommissioning of Bruce A and B.

4 I might add at this point that OPG is not
5 responsible for providing an accelerated shutdown
6 guarantee.

7 On the next overhead, the reference plan
8 for low to intermediate operational waste is interim
9 storage at the Western waste management facility followed
10 by permanent storage in the deep geologic repository
11 planned on the Bruce site. The reference plan for used
12 fuel is interim storage at Pickering, Western and
13 Darlington waste management facilities followed by
14 permanent storage in the deep geologic repository starting
15 in 2035.

16 Financial plans for decommissioning are to
17 place the reactors into safe store after permanent
18 shutdown followed by dismantling 30 years later.

19 The estimated life cycle cost for managing
20 all of the used fuel and low to intermediate level waste
21 created to the end of 2008 and decommissioning all Class I
22 facilities is \$23 billion or about \$10 billion present
23 value.

24 The reference plans forming the basis of
25 these estimates are consistent with international

1 practice. Almost all of the estimates have been prepared
2 by external experts and all include contingency. The
3 economic indices used have been developed by external
4 experts and the cost estimates are being compared for
5 consistency with other jurisdictions.

6 The cost estimates are first prepared on a
7 constant dollar basis assuming expenditures occur today.
8 They are then escalated to the projected year of
9 expenditure using economic forecasts and then discounted
10 to determine the present value of future costs. The
11 present value represents the funds that will be needed
12 today to manage the nuclear waste and decommissioning
13 liabilities in accordance with the defined reference
14 plans.

15 Our assumptions on reactor decommissioning
16 are a permanent shutdown of Pickering A by 2027, Bruce A
17 by 2036 and that all other reactors operate for a nominal
18 40 years after start up.

19 After permanent shutdown, the reactors are
20 then placed in safe storage and dismantling starts
21 normally 30 years later. The first activity after
22 permanent shutdown is to remove all of the fuel from the
23 reactor core. In the case of Pickering II and III, this
24 activity is currently being carried out under the existing
25 licence of Pickering A.

1 All cost estimates for reactor
2 decommissioning have been prepared by TLG Services. TLG
3 have significant experience in the United States.

4 The total cost estimate for 20 reactors is
5 almost \$10 billion or \$3.7 billion present value.

6 The Nuclear Waste Management Organization
7 proposal for adapted phase management was selected by the
8 Government of Canada in June this year. OPG has
9 conservatively assumed that there will be a deep geologic
10 repository in service by 2035 and fuel will start to be
11 transferred at this point.

12 It should be noted that this is a financial
13 planning assumption and is not a target that has been
14 established by the NWMO.

15 The cost estimate for the repository was
16 prepared by engineering consultants and the cost estimates
17 were then independently reviewed. The estimates include
18 all of the costs necessary to develop the repository
19 including the costs currently being incurred by the NWMO.

20 The total estimate is \$12 billion or
21 \$5.4 billion present value. This is the estimated cost of
22 managing a total of 1.96 million fuel bundles projected to
23 be in storage at the end of 2008.

24 The planning assumptions for low and
25 intermediate waste is to initially store at the Western

1 waste management facility followed by permanent storage in
2 the deep geologic repository planned at the Bruce site.

3 The estimate for the deep geologic
4 repository was prepared by engineering consultants. As
5 with used fuels, the estimate includes the cost of
6 developing the repository, including the cost of the work
7 under way to support OPG's licensing application.

8 The estimate for storage until placement in
9 the repository is based on OPG's actual experience.

10 The total cost estimate is \$1,075,000,000
11 or almost \$800 million present value. This is the cost of
12 the lifecycle management of all low and intermediate level
13 waste expected to be in storage at the end of 2008.

14 Turning now to the funding side of the
15 equation, OPG, under agreement with the Province of
16 Ontario, established two funds to pay for the long-term
17 costs of decommissioning and waste management. The
18 decommissioning fund provides for the activities to manage
19 nuclear facilities after permanent shutdown including
20 decommissioning and dismantling. It also includes the
21 long-term management of low and intermediate level waste
22 including the deep geologic repository planned on the
23 Bruce site.

24 The used fuel fund provides for long-term
25 management of used fuel, including the development work

1 currently under way and being carried out by the NWMO. It
2 also includes investments held in the *Ontario Nuclear*
3 *Funds Waste Act Trust Fund* established in 2002 pursuant to
4 the *Nuclear Fuel Waste Act*.

5 OPG is in full compliance with the funding
6 obligations as defined by the Ontario Nuclear Funds
7 Agreement and we expect to make contributions to these
8 funds until 2036.

9 There are significant controls and
10 oversight applied to these funds by both OPG and the
11 Province of Ontario. The funds are overseen by a
12 dedicated committee of the OPG board of directors and by
13 the board of the Ontario government's financing authority.

14 Changes in baseline reference plans and
15 cost estimates must be approved by the Minister of
16 Finance. Disbursements require approval of OPG and the
17 province and must be consistent with the reference plans
18 approved by the minister.

19 As an example, authorization was given by
20 the OPG board and the Ontario financing authority and the
21 province to withdraw almost \$20 million in 2007 from the
22 decommissioning fund for the development of the deep
23 geologic repository on the Bruce site.

24 Conservative fund investments are managed
25 in a manner consistent with a large Canadian pension fund.

1 The funds are held in third party trustee accounts
2 segregated from OPG and there are annual third party
3 valuations and audits.

4 The proposed guarantee is identical in
5 structure to that already in place and approved by
6 CNSC. First, this comprises a CNSC financial surety
7 and ONFA access agreement providing CNSC access to
8 the Ontario nuclear funds and, second, the provincial
9 guarantee agreement providing a guarantee to CNSC by
10 the Province of Ontario.

11 The calculated financial guarantee
12 requirement, as of January 2008, is almost \$10 billion.
13 It is proposed to satisfy this guarantee by providing
14 access to the Ontario Nuclear Funds. These funds,
15 including the *Nuclear Fuel Waste Act Trust Fund* have a
16 projected value of almost \$9.2 billion as of January 2008.

17 A provincial guarantee of \$809 million will
18 be provided to satisfy the remainder of the financial
19 guarantee requirement. The precise value of the
20 provincial guarantee will be determined based on the
21 actual fund balance as of the first business day in
22 January.

23 The guarantee requirement is expected to
24 grow annually and by 2011 is projected to be
25 \$11.6 billion. It's also expected by 2011 that the value

1 of the fund balances will exceed this requirement and the
2 provincial guarantee will not be needed.

3 This fund growth incorporates planned
4 contributions and planned disbursements and the projected
5 returns on investments.

6 OPG will continue to submit an annual
7 report to the CNSC staff identifying any changes in plans
8 or cost estimates and hence the guarantee requirement.
9 The value level of the accumulated funds will also be
10 reported to provide assurance that the financial guarantee
11 requirements continue to be satisfied.

12 In summary, OPG's planning assumptions are
13 consistent with international practice and are
14 conservative. Cost estimates are prepared by qualified
15 external experts and contain contingencies. The proposed
16 financial guarantee consists of dedicated segregated funds
17 representing 90 per cent of the incurred liability.

18 The remainder of the guarantee requirement
19 will be met by the provincial guarantee and this is the
20 same financial guarantee structure as is currently in
21 place.

22 Finally, OPG will continue to provide
23 annual reports to provide further assurance that the
24 guarantee remains valid and whole.

25 Thank you for your attention. We are ready

1 to answer any questions. Thank you.

2 **THE CHAIRPERSON:** Thank you, Mr. Nash.

3 We will now turn to the CNSC staff. The
4 submissions are filed in CMDs 07-H22, 07-H22.A.

5 I will turn to Mr. Barclay Howden, who is
6 the Director General responsible for this file.

7 Mr. Howden, you have the floor, sir.

8

9 **07-H22 / 07-H22.A**

10 **Written submissions from**

11 **CNSC staff**

12

13 **MR. HOWDEN:** Thank you very much.

14 Good afternoon, Madam Chair and Members of
15 the Commission. For the record my name is Barclay Howden.
16 I'm the Director General of the Directorate of Nuclear
17 Cycle and Facilities Regulation.

18 With me today are Mr. Don Howard, Director
19 of the Wastes and Decommissioning division, and Mr. Robert
20 Barker, Project Officer within this division responsible
21 for this issue, along with the rest of our CNSC licensing
22 team.

23 Ontario Power Generation, owner of five
24 nuclear power generating stations and three waste
25 management facilities has applied to revise the value of

1 its financial guarantee for these facilities and has also
2 applied for license amendments to reflect the revisions to
3 its preliminary decommissioning plans and the new
4 financial guarantee.

5 I will now ask Mr. Barker to present an
6 overview of the information and recommendations prepared
7 by CNSC staff.

8 **MR. BARKER:** Thank you Mr. Howden.

9 My name is Robert Barker and I'm a Project
10 Officer with the Waste and Decommissioning Division.

11 The presentation today will address the
12 Applicant's request, background and assumptions, OPG's
13 updated decommissioning plans and its proposed financial
14 guarantee, the proposed amendments to OPG's licences,
15 staff's assessment in relation to the *Canadian*
16 *Environmental Assessment Act* and the Cost Recovery Fees
17 Regulations and staff's conclusions and recommendations.

18 OPG has, for all of their class one nuclear
19 facilities in Ontario, applied for acceptance of their
20 updated preliminary decommissioning plans and cost
21 estimates, acceptance of the proposed financial guarantee
22 and amendments to all of their licenses to update the
23 licence conditions regarding decommissioning and financial
24 guarantees.

25 Facilities covered by this proposal include

1 the Darlington, Pickering A and B and Bruce A and B
2 nuclear generating stations and the Darlington, Pickering,
3 and Western Waste Management Facilities.

4 OPG's financial guarantee proposal covers
5 decommissioning of the five OPG-owned nuclear generating
6 stations and decommissioning of the three OPG-owned waste
7 management facilities and costs associated with both used
8 fuel and low and intermediate level radioactive waste
9 management.

10 OPG's current financial guarantee is
11 comprised of the segregated funds established pursuant to
12 the Ontario Nuclear Funds Agreement, a trust fund
13 established pursuant to the *Nuclear Fuel Waste Act* and a
14 provincial guarantee pursuant to the Provincial Guarantee
15 Agreement.

16 OPG is proposing that these mechanisms be
17 reaffirmed in the proposed new financial guarantee with
18 the exception of that the new provincial guarantee will
19 only be required for the next three years.

20 Based upon OPG's annual report of January
21 2007, the value of the total liability for future
22 decommissioning in constant dollars is \$20 billion or, in
23 present value terms, \$7.7 billion dollars.

24 Currently the financial guarantee in effect
25 represents a value of \$9.6 billion including the

1 provincial guarantee which expires December 31st, 2007.

2 Current working assumptions in relation to
3 OPG's proposal include in-service dates for repository for
4 nuclear fuel waste at 2035 and in-service dates for a deep
5 geological repository for low-level and intermediate-level
6 radioactive waste at 2017 and Bruce Power plans to
7 rehabilitate Bruce A resulting in a new end of station
8 life at 2036.

9 Additionally, OPG has decided to
10 permanently shut down Pickering Units 2 and 3 and end of
11 life dates for Units 1 and 4 are now projected to be 2021
12 and 2027.

13 As per the current submission, reactor
14 decommissioning assumes safe storage for 30 years prior to
15 the dismantling of facilities.

16 In March of this year, OPG submitted
17 updated preliminary decommissioning plans for its five
18 nuclear generating stations followed by updated
19 decommissioning plans for its three waste management
20 facilities in April.

21 CNSC staff conducted reviews of these
22 submissions in relation to CNSC guidelines set out in the
23 CNSC Regulatory Guide, G-219, Decommissioning Planning for
24 Licence Activities, and CNSC staff concluded that the
25 decommissioning plans were acceptable and met the

1 requirements of G-219.

2 In relation to the proposed financial
3 guarantee, OPG is proposing a five-year review cycle and
4 continuing contributions to the ONFA and NFWA trusts.

5 The ONFA and NFWA Trust Fund values will
6 exceed the decommissioning liability by January 1st, 2011.
7 So OPG is proposing a provincial guarantee value of \$809
8 million which will terminate on December 31st, 2010.

9 Since the proposed provincial guarantee
10 will expire on December 31st, 2010, and to ensure that the
11 Commission is aware of the status of OPG's financial
12 guarantee leading up to the expiry of this guarantee, if
13 the Commission accepts staff's recommendations, CNSC staff
14 is proposing to update the Commission with a status report
15 on the financial guarantee in the fall of 2010.

16 For 2008, OPG estimates that the
17 decommissioning of its five nuclear generating stations
18 and its three waste management facilities and the cost of
19 used fuel and low and intermediate-level radioactive waste
20 management will represent a constant value liability of
21 \$23.3 billion dollars or a present-value liability of
22 almost \$10 billion.

23 In relation to the period continuing
24 through to 2012, OPG estimates its present-value liability
25 at \$12.2 billion.

1 By the end of the period in which the
2 proposed fund provincial guarantee will expire, OPG
3 estimates that its decommissioning liability will be \$11.6
4 billion while the value of the ONFA and NFWA Trust will
5 slightly exceed that.

6 For 2012, the Trust value will exceed OPG's
7 projected decommissioning liability by an estimated \$316
8 million.

9 OPG's proposals were reviewed by the
10 Ontario Financing Authority on behalf of the Province of
11 Ontario. Staff from the Authority participated with OPG
12 and its consultants in the review of this proposal and in
13 the review of the economic indices used to calculate the
14 net present value of OPG's liabilities.

15 They also retained an external consultant
16 with experience in used fuel and nuclear waste management
17 to provide additional expert review and advice.

18 CNSC staff has reviewed OPG's proposal and
19 has concluded that it is consistent with the criteria set
20 out in Regulatory Guide G-206, Financial Guarantees for
21 the Decommissioning of Licensed Activities.

22 CNSC staff notes that if the Commission
23 accepts CNSC staff's recommendations, two agreements will
24 require signing by the CNSC to keep the financial
25 guarantee in effect.

1 The first is a replacement Provincial
2 Guarantee Agreement and the second a first amending
3 agreement to the CNSC Financial Security and ONFA Access
4 Agreement.

5 CNSC staff additionally notes that the
6 Schedule A to both draft agreements provided by OPG in its
7 submission reference the construction licence for the
8 Darlington Waste Management Facility.

9 CNSC staff advises that the draft
10 agreements should be updated by OPG with reference to the
11 Darlington Waste Facility Operating License or WFOL-W4-
12 355.00/2012 which was recently issued by the Commission on
13 October 24th, 2007.

14 In relation to OPG's application for
15 licence amendment, OPG has applied to update the
16 conditions found in their licences regarding
17 decommissioning and the financial guarantee.

18 CNSC staff is recommending the amendments
19 as described in CMD 07-H22.

20 The revised decommissioning conditions
21 serve several purposes. They update the preliminary
22 decommissioning plan reference documents. They entrench
23 OPG's commitment to provide an annual report on the
24 financial guarantee to the CNSC and they continue to
25 require that the financial guarantee remains valid, in

1 effect and sufficient.

2 In relation to the amendment request,
3 requirements for an application for amendment of the
4 licence are found in sections 3 and 6 of the General
5 Nuclear Safety and Control Regulations and additional
6 information in respect of Class I Nuclear Facilities is
7 found in section 3 of the Class One Nuclear Facilities
8 Regulations.

9 Section 7 of the General Nuclear Safety and
10 Control Regulations allows for the incorporation by
11 reference in an application of any information that is
12 included in a valid, expired or revoked licence.

13 CNSC staff has reviewed the application and
14 OPG's supporting information and concludes that OPG has
15 provided the information required by the regulations.

16 In relation to the *Canadian Environmental*
17 *Assessment Act*, paragraph 24(2) of the NSCA is listed as a
18 trigger under the Law List regulations in respect of the
19 amendment of a licence. Therefore, there is a trigger
20 under the CEAA for their proposed approval. There are no
21 other CEAA triggers pursuant to subsection 5(1) of the
22 CEAA that involves the CNSC.

23 Although the amendment of a licence is
24 included in the Law List Regulations, the requested
25 amendment does not involve any proposed undertaking and is

1 therefore not a project as defined in section 2 of the
2 CEAA.

3 The CNSC staff concludes that there is no
4 requirement for an environmental assessment pursuant to
5 the CEAA for the proposed licence amendments.

6 And in relation to the CNSC cost recovery
7 fees regulations, CNSC staff reports that OPG is in good
8 standing.

9 CNSC staff concludes that the preliminary
10 decommissioning plans as submitted by OPG are acceptable
11 and consistent with the guidance set out in Regulatory
12 Guide G-219 and the financial guaranteed cost estimates,
13 as submitted by OPG, are acceptable and consistent with
14 the guidance set out in Regulatory Guide G-206, and that
15 the proposed financial guarantee, as submitted by OPG, is
16 acceptable and consistent with the guidance set out in
17 Regulatory Guide G-206.

18 CNSC staff concludes that an environmental
19 assessment pursuant to the Canadian *Environmental*
20 *Assessment Act* is not required for the proposal to amend
21 all of OPG's Class One Nuclear Facilities Licences as set
22 out in the CMD.

23 And CNSC staff concludes that OPG is
24 qualified to carry out the activities that the amended
25 licence will authorize and will, if the licences are

1 amended, make adequate provision in carrying out those
2 activities for the protection of the environment, health
3 and safety of persons and the maintenance of national
4 security and measures required to implement international
5 obligations to which Canada has agreed.

6 Therefore, CNSC staff recommends that the
7 Commission accept the assessment of CNSC staff, that the
8 preliminary decommission plans meet the guidance set out
9 in Regulatory Guide G-219, and accept the assessment of
10 CNSC staff that the financial guarantee cost estimates are
11 acceptable and are consistent with the guidance set out in
12 Regulatory Guide G-206, and accept the assessment of CNSC
13 staff that the proposed financial guarantee comprised of
14 the CNSC financial security and ONFA Access Agreement, as
15 amended by the first amending agreement and the proposed
16 provincial guarantee agreement as submitted by OPG, is
17 acceptable and consistent with the guidance set out in
18 Regulatory Guide G-206.

19 Staff recommends that the Commission accept
20 the assessment of staff that an environmental assessment
21 pursuant to the *Canadian Environmental Assessment Act* is
22 not required for this proposal to amend all of OPG's Class
23 One facilities licences in order to update the conditions
24 referring to the decommissioning and financial guarantee
25 provisions, as set out in the CMD, and accept the

1 assessment of CNSC staff that OPG is qualified to carry on
2 the activities that the amended licences will authorize
3 and will in carrying out those activities make adequate
4 provisions for the protection of the environment, the
5 health and safety of persons and maintenance of national
6 security and measures required to implement international
7 obligations to which Canada has agreed.

8 CNSC staff recommends that the Commission
9 amend all of OPG's Class One Nuclear Facility Licences to
10 update the conditions referring to the decommissioning and
11 financial guarantee provisions, as set out in the CMD,
12 pursuant to subsection 24(2) of the *Nuclear Safety and*
13 *Control Act*.

14 Thank you.

15 **MR. HOWDEN:** Thank you, Madam Chair.

16 Barclay Howden speaking.

17 This concludes our presentation and staff
18 is prepared to respond to questions.

19 **THE CHAIRPERSON:** Thank you.

20 I would also like to note that the
21 Commission has read the written submissions by Bruce
22 Power, noted in Commission Member Documents 07-H22.2 and
23 07-H22.2A.

24 Mr. Saunders, is there anything you would
25 like to add to this document?

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07-H22.2

**Written submission from
Bruce Power Inc.**

MR. SAUNDERS: Frank Saunders, for the record.

No, there is nothing further to add. As I said, the recommendations that staff have put forward actually resolve our issues in that they will provide time for us to work through the resolution process we already have in place with OPG.

Thank you.

THE CHAIRPERSON: Thank you.

If you would just like to remain there, just in case there are questions from the Commission.

I'd like to start then with Mr. Graham.

MEMBER GRAHAM: Thank you, Madam Chair.

I have several questions, but at the outset, CNSC staff have outlined in their presentation today and the slides, certain conditions regarding the proposed amendments with regard to OPG's obligations and so on.

Question to OPG: Are you in agreement with all those -- all the criteria that was laid out today by

1 CNSC staff?

2 **MR. NASH:** This is Ken Nash, for the
3 record.

4 Yes, we are.

5 **MEMBER GRAHAM:** Thank you.

6 My second question is the status of the
7 fund. Is that fund under the management of OPG and yearly
8 reporting to CNSC or how is that fund set up? Who was the
9 initial management of the fund?

10 **MR. NASH:** I'll pass that question to one
11 of my colleagues.

12 **MS. SIDFORD:** For the record, Colleen
13 Sidford.

14 That fund is managed by OPG, or
15 administered by OPG, but jointly by the province. In
16 other words, the province has all the decision-making,
17 fifty percent decision-making in the fund management. We
18 have a joint committee.

19 **MEMBER GRAHAM:** So I guess other than
20 reporting to CNSC on an annual basis, is there another
21 mechanism where because they're the provincial rep in
22 finances involved and so on, is there reporting through
23 the Auditor General or the legislative committee, Public
24 Accounts or so on to that fund? Or I guess, because the
25 province has an interest in this, do they have another

1 obligation of reporting also?

2 **MS. SIDFORD:** For the record, Colleen
3 Sidford.

4 I gave you that the fund management has an
5 oversight committee of the Board of OPG and the province
6 also has a board oversight on the fund. But perhaps I'll
7 turn the question over to Karen Sadlier-Brown to answer in
8 terms of further oversight.

9 **MEMBER GRAHAM:** I guess it's the reporting
10 process of scrutinizing and so on that I was wondering.

11 **MS. SIDFORD:** We also report in the OPG
12 financial statements, the status of the fund.

13 **MEMBER GRAHAM:** I guess that clarifies
14 that, Madam Chair.

15 Another question I have to OPG is with
16 regard to, I think in your presentation you said there was
17 \$20 million taken from the fund regarding the deep
18 geological waste management or whatever it's called, with
19 regard to that project and \$20 million has been taken out
20 of the fund for that.

21 Have you taken any money or will you be
22 taking any money from the fund with regard to the removal
23 of fuel at Pickering A in the process of decommissioning
24 those units that are being decommissioned?

25 **MR. NASH:** It's Ken Nash, for the record.

1 The answer to that question is yes. Funds
2 have been drawn down for the purposes of defuelling the
3 Pickering reactors. All this has been done under
4 predefined rules with predefined oversight.

5 I'd like to clarify that the scope of the
6 decommissioning fund is much broader than those activities
7 that would occur under a decommissioning licence.

8 For instance, and perhaps sort to speak to
9 the principles that we use and then the specifics in the
10 case of Pickering 2 and 3.

11 The funding principles are that we
12 establish a plan and then we develop a cost estimate for
13 executing that plan. We then go on to build the fund
14 consistent with the plan and the estimate. When it's time
15 to actually carry out the work or execute the work
16 consistent with that plan, the funds then become eligible
17 to draw down from the fund for that purpose.

18 If we look at the specifics of Pickering 2
19 and 3, and the purpose of the decommissioning fund, the
20 purpose of the decommissioning fund is defined in the
21 Ontario Nuclear Funds Agreement and that is the planning
22 and execution of work on reactors after their permanent
23 shutdown.

24 And that includes the preparation of the
25 plans that you have in front of you today and the cost

1 estimates that are in front of you today, and any work
2 that's necessary after the permanent shutdown of the
3 reactors.

4 As also pointed out there that the work on
5 the long-term management of low and intermediate level
6 waste, including the development and licensing and
7 construction and eventual operation of that facility is
8 defined as being an eligible cost in the decommissioning
9 fund and the decommissioning fund has been established on
10 that basis.

11 In the case of Pickering A, the baseline
12 reference plan does include almost all of the costs to be
13 incurred after the reactors are permanently shut down, and
14 this, of course, includes defuelling the reactors as one
15 of the necessary safety activities to place the reactors
16 into a guaranteed non-operational state. We do not
17 classify that activity as decommissioning.

18 Therefore, when the Board of Directors
19 decided to permanently shut down Pickering 2 and 3, the
20 removal of the fuel became an eligible cost for the
21 purposes of withdrawal from the fund from the
22 decommissioning fund. This was -- it also required the
23 approval of the Province of Ontario to demonstrate that it
24 was consistent with the plans approved by the minister.

25 It's also worth noting that the parties

1 have withdrawn funds from the decommissioning funds that's
2 been there since its inception. It was planned on that
3 basis. For instance, for a number of years we've
4 withdrawn money to carry out TLG cost estimates and
5 develop that deep geologic repository.

6 The Ontario Nuclear Funds Agreement is in
7 its entirety available on the Internet. Withdrawals from
8 the funds are all in accordance with criteria that is
9 defined in ONFA with a closely monitored oversight and
10 approval of the province in every step of the way, so this
11 is a planned and controlled activity.

12 **MEMBER GRAHAM:** Fine. I wasn't questioning
13 whether it was right to do it or not, I just wondered if
14 it was there.

15 Thank you for the answer.

16 Two other questions I have. One is the
17 figures we saw today put forward by yourselves and by CNSC
18 staff, those are net, I believe those would be net after
19 any funds may be taken out for the deep geological studies
20 or for the de-fuelling of Pickering A's 2 and 3. These
21 figures we see are net figures after the funds are
22 adjusted each year and so on for certain programs. Is
23 that correct?

24 **MR NASH:** Ken Nash for the record.

25 Just to clarify. For instance, the

1 \$9.2 billion projection as of January 2008 takes into
2 account the fund contributions this year and the fund
3 drawdowns this year. As we report that on an annual basis
4 through the annual report provided to the CNSC it would
5 also account for those changes in the fund balance.

6 **MEMBER GRAHAM:** One other question,
7 Madam Chair, before I refer to my colleague.

8 CNSC staff, do you approve the amount of
9 funds required for specific projects before they're drawn
10 down?

11 **MR. HOWDEN:** Barclay Howden speaking.

12 I'll ask Bob Barker to reply to that.

13 **MR. BARKER:** Bob Barker for the record.

14 No, CNSC staff does not approve any
15 withdrawal of funds from the accounts by OPG.

16 **THE CHAIRPERSON:** I would just like to
17 clarify that what we are talking about is an annual report
18 to CNSC staff. Sometimes there is a mixture between the
19 two and I think it would be incorrect to say that the CNSC
20 Commission receives an annual report that would be I think
21 a reporting burden that would be considered a little bit
22 onerous, I think.

23 Referring now to Dr. McDill.

24 **MEMBER McDILL:** Thank you.

25 I think Mr. Graham covered most of my

1 questions. There's one left of mine. Not a problem.

2 One last question, and that of course is
3 always based on assumptions. I have a suspicion that
4 perhaps this has been asked before, but nevertheless this
5 is what's in front of us today.

6 These funds are sufficient to cover
7 anything that might happen if the in service date of 2017
8 for Western Waste Management's deep geological repository
9 for low and intermediate waste is not ready and the
10 alternates can be covered some other way, similarly with
11 the deep geological repository for 2035.

12 **MR. NASH:** For the record Ken Nash.

13 The cost estimate on which the
14 decommissioning fund is based is based on the assumption
15 that the repository will be in service 2017. Should that
16 facility be delayed by any significant amount we would
17 oblige to reassess what the cost estimate would be -- I
18 would add though -- and report that to CNSC. If it is
19 very significant we report it as it occurred. If it was
20 relatively minor we would perhaps include that in the
21 future annual report. But I would also add that the
22 impact of a delay is not necessarily to increase cost.
23 The present value of the repository, of construction of
24 the repository, would diminish but we would incur
25 additional costs for the interim storage period. So it's

1 not clear that the costs would actually -- the present
2 value costs would go up. If there was a significant delay
3 we would be obliged and would report to CNSC staff.

4 **MEMBER McDILL:** At what point do you
5 suppose you would be obliged to begin changing the
6 estimates on the basis of a potential delay; 2017 is a
7 decade out, right? You know, in five years if things
8 aren't moving forward would there be a reassessment at
9 that point, for example?

10 **MR. NASH:** For the record Ken Nash.

11 I think that would be reasonable that if
12 it's late one year I don't think it will materially
13 trigger a re-estimating of the life cycle costs. If it
14 slipped by five years I think that would certainly require
15 us to re-estimate the lifecycle costs.

16 **MEMBER McDILL:** Can we have staff's comment
17 on that please?

18 **MR. HOWARD:** Don Howard for the record.

19 CNSC staff is working closely with OPG on
20 the geological repository and is also working with the
21 NWMO on their project which is scheduled for 2035. So
22 basically with the collaboration that we have any
23 slippages can be identified fairly early and we would know
24 about that.

25 **MEMBER McDILL:** Thank you, Madam Chair.

1 **THE CHAIRPERSON:** Thank you.

2 I have a few questions. On staff's
3 Slide 24 you talk about the guidance of two documents,
4 G-219, G-206. We're looking at basically a five-year
5 cycle for this, for the financial guarantees. Do you
6 expect any material changes in the guidance that would
7 alter the framework under which we're looking at this
8 financial guarantee during that period of five years.

9 **MR. HOWARD:** Don Howard for the record.

10 We are currently starting a project looking
11 at these two guides. They are several years old right
12 now. I think they came into existence somewhere shortly
13 after the new Act in 2000, so we are undertaking a look at
14 these documents to revise them. At this point, we're
15 still very early in the process. We are at present not
16 expecting any impacts, but again we're still early in the
17 review process.

18 **THE CHAIRPERSON:** I note that the staff --
19 I believe in your oral report, Mr. Barker's oral report,
20 it talked about a proposal to report back to the I guess a
21 type of mid-term report in fall 2010 on the financial
22 guarantees and then there would be as well this annual
23 report to the CNSC staff. Certainly the Commission could
24 access that if there was a need to do that or whatever.

25 Did I hear correctly? I just want to make

1 sure we put that in the record of decision.

2 **MR. BARKER:** Thank you. Bob Barker for the
3 record.

4 First of all, I would like just to
5 emphasize the annual reports being submitted to CNSC
6 staff. They are reviewed by staff on an annual basis and
7 the staff committed to the Commission at a previous
8 financial guarantee hearing if there was anything that was
9 coming out of line staff would be presenting an update to
10 the Commission in relation to an SDR. That is the first,
11 point, I would like to mention in relation to OPG's annual
12 reports.

13 In relation to the proposal by staff to
14 provide a status report in the fall of 2010, in the fall
15 of 2010, that is correct. I think it would be useful and
16 the Commission would appreciate to be advised of the fund
17 value prior to the expiry of the provincial guarantee.

18 **THE CHAIRPERSON:** If I could though I think
19 what might be the best thing to do is to put that burden
20 on OPG to report to the Commission, if you could, about
21 that time period and then the staff could comment. It
22 just puts the shoe on the right foot. Would there be any
23 problem with that, Mr. Nash?

24 **MR. NASH:** Ken Nash for the record.

25 We can undertake to do that.

1 **THE CHAIRPERSON:** Thank you very much.

2 I would like to then now move to Bruce
3 Power's documents, which was CMD 07-H22.2A, the
4 supplementary information. And, Mr. Nash, you made
5 reference to it in your opening remarks and I would just
6 like to clarify with staff the specific comments that are
7 made on decommissioning requirements.

8 And, the comments that are made is that it
9 -- and this is just to check on my understanding of this -
10 - is that the Bruce licence addresses the decommissioning
11 requirements set out in condition 11, and they do not look
12 at the operational-financial guarantee requirements
13 established in condition 12.

14 Am I correct in that reading?

15 **MR. BARKER:** Yes; Bob Barker for the
16 record.

17 The conditions 11(1), (2) and (3) in the
18 Bruce Power's operating licence conditions were
19 essentially similar to the decommissioning financial
20 guarantee conditions in OPG's existing licences.

21 The operating guarantee is in another
22 section of the licence and staff is not -- staff is not
23 suggesting that they be reviewed in -- well, at least
24 reviewed in relation to the requirement of them being
25 needed.

1 **THE CHAIRPERSON:** Mr. Saunders, would you
2 like to comment on that?

3 **MR. SAUNDERS:** Yes; Frank Saunders, for the
4 record.

5 Yes; Bruce Power is not requesting any
6 change in 12.6 or 12.2 at this time. We were simply
7 serving notice that we expect to have that discussion in
8 relation to our own re-licensing.

9 **THE CHAIRPERSON:** Okay; and I believe that
10 was -- Mr. Nash, was your comment, earlier. That they --
11 that it is not to do with -- or, perhaps I misunderstood.
12 You didn't make a comment, then, on this CMD?

13 **MR. NASH:** Ken Nash for the record.

14 I'm assuming here we're talking about the
15 requirement that Bruce Power has by the CNSC, should there
16 be one, for an accelerated shutdown. I view that as
17 purely a matter between CNSC and Bruce Power.

18 We would like to clarify that
19 decommissioning plans for nuclear reactors and their end-
20 of-life management is fundamentally different than plans
21 for accelerated shutdown and, therefore, the financial
22 guarantee that OPG is providing for decommissioning cannot
23 be extended for the purposes of an operational guarantee,
24 required for accelerated shutdown.

25 That will be our position.

1 **THE CHAIRPERSON:** So I think we're all on
2 the same wavelength, and we won't get involved in any
3 discussions between OPG and Bruce Power; that's not the
4 role of the Commission. We don't, I -- presume to do
5 that.

6 Any further questions? Yes, Mr. Graham?

7 **MEMBER GRAHAM:** One of clarification, to
8 CNSC staff.

9 In your slide number six, you show the
10 provincial guarantee at \$1.5 billion and on your slide 14
11 you show it at \$809. Is that because there's a difference
12 of one year -- one is 2007, the other is 2008? Or -- what
13 is the difference, there?

14 Slide six is a background current financial
15 guarantee, provincial guarantee 1.5. And then, when you
16 come over and look at the proposed financial guarantee
17 five-year value, you're showing it at 809. Why -- is it
18 the one year difference, or what is the -- what's the
19 rationale?

20 **MR. BARKER:** Bob Barker for the record.

21 The slide six is actually referring to
22 OPG's existing financial guarantee. And in fact --
23 because the existing provincial guarantee is 1.5 billion
24 and it hasn't changed over five years, in fact -- so, OPG
25 is actually over-programmed for the value of the financial

1 guarantee.

2 **MEMBER GRAHAM:** So in other words, you're
3 saying 1.5 is in place -- is legislated in place, but
4 they're really only requiring -- the requirements would be
5 809. Is that what you're saying?

6 **MR. BARKER:** The 1.5 is in place, now; the
7 requirements for 2008 will be 809.

8 **MEMBER GRAHAM:** One further question to OPG
9 ---

10 **THE CHAIRPERSON:** Perhaps we'd just make
11 sure that OPG and the province agree with that statement
12 by Mr. Barker, and -- I don't want -- to have -- to
13 mislead anybody.

14 **MEMBER GRAHAM:** So I was going to add one -
15 - the question I have is, do you concur with that
16 agreement?

17 **MR. NASH:** Ken Nash for the record.

18 Yes; from OPG's point of view, we concur
19 with that.

20 **MEMBER GRAHAM:** And does the provincial
21 government also concur?

22 **MS. SADLIER-BROWN:** Yes, we do concur with
23 it.

24 I would only note that -- as Mr. Nash
25 indicated on his slides, that the actual value of the

1 guarantee will be determined as of the 1st of January,
2 when we are aware of the value of the funds, at that
3 point.

4 **MEMBER GRAHAM:** My other question was going
5 to be, will that 1.5 billion continue to be in place even
6 after -- there may not -- there may even be lesser amounts
7 than the 300 -- or 3 or 400 million; or even when there's
8 not a dependency on the provincial government. Will that
9 still remain in place, as a safety net?

10 **MS. SADLIER-BROWN:** Karen Sadlier-Brown for
11 the record.

12 The financial guarantee from the province
13 will be the residual amount available. In other words, it
14 will be the difference between the value of the funds and
15 the amount required by the CNSC. And that amount may or
16 may not be the 809, but it will be determined based on the
17 value of the funds at the end of the year, which would be
18 the most appropriate time to do the valuation.

19 **MEMBER GRAHAM:** And, if -- I don't want to
20 put words in your mouth but, if the observation would be -
21 - is, at the present time, it can go up to 1.5 billion and
22 not exceed that; is that correct?

23 **MS. SADLIER-BROWN:** At the present time, it
24 can go up to 1.5, that's correct.

25 Karen Sadlier-Brown for the record; excuse

1 me.

2 **MEMBER GRAHAM:** Thank you.

3 Just one other question I have, Madam
4 Chair, is roughly, what is the fund yielding a year?

5 **MS. SIDFORD:** For the record, Colleen
6 Sidford.

7 The fund has a guaranteed rate of return
8 and it's guaranteed by the province for the used fuel
9 fund, which is a real rate of return of 3.25 percent, plus
10 an inflation factor.

11 And, the decommissioning fund -- it's the
12 real return on the fund, which is essentially the same
13 target rate but could be more or less.

14 **MEMBER GRAHAM:** How much in excess of 3.2?
15 That's what I was referring to.

16 **THE CHAIRPERSON:** Sorry Mr. Graham, this is
17 now outside the terms of reference of the Commission, so
18 you don't have to answer that question.

19 **MEMBER GRAHAM:** I just want to be like old
20 Gordon Sinclair ---

21 **THE CHAIRPERSON:** Further questions?

22 Well, thank you very much, then. With
23 respect to this matter, I propose the Commission confer
24 with regards to the information that we have considered
25 today and then determine if further information is needed,

1 or if the Commission is ready to proceed with the decision
2 and we'll advise accordingly.

3 And thank you all very much; and again, my
4 apologies for being late in starting this afternoon. And
5 this brings to the close the public hearings of the
6 Canadian Nuclear Safety Commission. And thank you very
7 much for your attendance.

8 Thank you.

9 --- Upon adjourning at 3:57 p.m.