

1 **HEARING DAY ONE**

2 **Possible referral to a CNSC Designated Officer of**
3 **an application by Bruce Power Inc. to authorize an**
4 **amendment to the operating licence to permit**
5 **refuelling of Bruce NGS-A Unit 3 and 4 reactors**

6 THE CHAIRPERSON: The next hearing
7 is with regards to a possible referral to the CNSC
8 designated officer of an application by Bruce
9 Power Inc. to authorize an amendment to the
10 operating licence to permit refuelling of Bruce
11 NGS-A units 3 and 4 reactors.

12 This is a one-day hearing. The
13 notice of the public hearing 2002-H-18 was
14 published on September 20, 2002. The public was
15 invited to participate either by oral presentation
16 or written submission. November 27 was the
17 deadline set for filing by intervenors. The
18 Commission received four requests for
19 intervention.

20

21 **02-H27.1**

22 **Written submission from Bruce Power Inc.**

23 THE CHAIRPERSON: I would like to
24 start this hearing by calling on Bruce Power Inc.
25 regarding CMD 02-H27.1. Bruce Power will not be

1 making a formal presentation, my understanding is,
2 with regard to this CMD, but Mr. Hawthorne, do you
3 have anything you would like to add to the CMD at
4 this point this time?

5 MR. HAWTHORNE: I think at this
6 time, Madam President, we are comfortable there is
7 enough content in the CMD itself and we don't wish
8 to make any additional comments. Thank you.

9 THE CHAIRPERSON: Thank you.

10 02-H27

11 Oral presentation by CNSC staff

12 THE CHAIRPERSON: Then I would
13 like to turn to the CNSC staff presentation before
14 I open the floor for questions. I will then turn
15 to Mr. Blyth for the staff presentation as
16 outlined in CMD document 02-H27.

17 Mr. Blyth.

18 MR. BLYTH: Thank you very much,
19 Madam President.

20 For the record, my name is Jim
21 Blyth, Director General, Power Reactor Regulation.
22 With me are Mr. Jim Douglas and Mr. Phillip
23 Paquette, who is a Project Officer in our Bruce
24 Compliance and Licensing Division. He is based in
25 Ottawa. Mr. Paquette will be presenting the staff

1 CMD. Thank you very much.

2 MR. PAQUETTE: Merci, monsieur
3 Blyth. Bonsoir, mesdames la presidente, mesdames
4 et monsieur de la commission. (French)

5 The purpose of this hearing is to
6 assist the Commission in deciding whether to refer
7 Bruce Power's application to load fuel to a
8 designated officer for a decision.

9 Since 1998 the Bruce A station has
10 remained shutdown without any fuel in the
11 reactors. In November 2001, Bruce Power applied
12 for a licence amendment to permit the restart of
13 Bruce A units 3 and 4. The restart of these units
14 would require the loading of new fuel in these
15 reactors.

16 Bruce Power has identified that it
17 could save as much as 45 days in their restart
18 schedule if it could load fuel in advance of the
19 actual authorization to restart. As a result,
20 Bruce Power has applied for a licence amendment to
21 obtain authorization to load fuel into Bruce A
22 units 3 and 4 reactors as soon as possible.

23 Bruce Power has acknowledged that
24 the permission to load fuel would be entirely
25 would prejudice to any decision by the Commission

1 on the application to restart Bruce A.

2 In response to Bruce Power's
3 application to load fuel, CNSC staff has informed
4 Bruce Power that the CNSC could not take any
5 action that would allow the restart project to go
6 ahead until the CNSC had fulfilled its obligation
7 under to Canadian Environmental Assessment Act.

8 Once these obligations are met,
9 the CNSC may consider amending the licence to
10 authorize the loading of fuel. Because a
11 designated officer has delegated authority to
12 amend power reactor operating licences, a
13 designated officer could make the amendment that
14 would authorize fuel loading. This would provide
15 the flexibility that Bruce Power is seeking.
16 However, this would also mean that the fuel
17 loading aspect of the Bruce A restart project
18 would no longer be addressed in the public forum.

19 To preserve transparency in this
20 licensing process, without losing the flexibility
21 that is being sought by Bruce Power, CNSC staff
22 has decided to bring before the Commission in a
23 public hearing Bruce Power's request that a
24 designated officer considers its fuel loading
25 application.

1 The licence amendment proposed by
2 Bruce Power would authorize the loading of natural
3 uranium fuel bundles into the fuel channels of
4 units 3 and 4. The reactors would be maintained
5 in a guaranteed shutdown state until the
6 Commission authorizes the restart of the Bruce A
7 units 3 and 4.

8 There is no significant
9 radiological risk associated with loading natural
10 uranium fuel. If, following fuel loading, the
11 Commission were to decide not to authorize the
12 restart of the Bruce A units 3 and 4, the fuel
13 could be removed from the units without
14 significant radiological consequences and the fuel
15 would not require any special storage provision.

16 The main risk associated with fuel
17 loading is the risk of an unintentional reactor
18 power increase while the reactor is required to be
19 shutdown. During outages, nuclear power reactors
20 are maintained in a guaranteed shutdown state
21 through the application of a number of physical
22 and administrative barriers which safeguard
23 against unintentional increase of reactor power.

24 Bruce Power will maintain the
25 reactors in a guaranteed shutdown state during and

1 after the loading of fuel. CNSC staff considers
2 that the overall risk associated with the loading
3 of fuel is small.

4 CNSC staff recommends that the
5 Commission refer to a CNSC designated officer for
6 a decision Bruce Power's application for the
7 amendment of the Bruce A licence to permit the
8 loading of fuel into Bruce A units 3 and 4
9 reactors. If the Commission agrees that a
10 designated officer can proceed to consider Bruce
11 Power's application to load fuel, the designated
12 officer could not consider amending the licence as
13 proposed until the Commission has fulfilled its
14 obligation under the Canadian Environmental
15 Assessment Act in respect of the Bruce A restart
16 project; Bruce Power has demonstrated that the
17 process to guaranteed the shutdown of the reactors
18 meets CNSC requirements; and Bruce Power has
19 demonstrated that Bruce Power's personnel is
20 qualified to operate the station safely.

21 It is understood that any decision
22 by a designated officer in respect of this
23 application is without prejudice to any decision
24 the Commission may make on the application to
25 restart the units following the public hearing

1 that is planned to be held in January and February
2 2003.

3 Thank you, Madam President and
4 Members of the Commission for your attention. I
5 will now turn the presentation back to Mr. Blyth.

6 MR. BLYTH: Thank you very, Mr.
7 Paquette. I have asked Mr. Paquette to turn the
8 microphone back to me because I believe that the
9 Commission Members may want to consider another
10 prerequisite to authorizing fuel loading.

11 When this CMD was written, it was
12 staff's expectation that the issue of financial
13 guarantees for the Bruce reactors would have been
14 resolved by this time. While significant progress
15 has been made in resolving these issues, we do not
16 yet have full resolution. For this reason, the
17 Commission may want to consider that having
18 adequate financial guarantees acceptable to the
19 CNSC staff in place before loading fuel might also
20 be an appropriate condition to place on fuel
21 loading.

22 The reason we are bringing this to
23 your attention is the financial guarantees for the
24 Bruce B reactors are largely intended to provide
25 monies to allow for defueling of the reactors in

1 the event that they cannot returned to service at
2 any reasonable time. If Bruce Power should
3 proceed to load fuel and for some unforeseen
4 reason financial guarantees are not put in place
5 in a timely manner or there was a need to defuel
6 that reactor, the loading of the fuel in one or
7 two of the Bruce A reactors would put an
8 additional load on the task of putting the
9 station, the six reactors, in a safe shutdown
10 state. When they are not fuelled, they are not
11 reactors, and that issue isn't of concern.

12 The risk is small, but staff
13 believes that it was important to bring that to
14 the attention of the Commissioners and
15 Commissioners may want to consider additional
16 constraints on staff with respect to approving
17 fuel loading.

18 Thank you very much.

19 THE CHAIRPERSON: Mr. Blyth, just
20 to clarify, then. On the CNSC staff
21 recommendations that Mr. Paquette put forward, in
22 the written material that we received, there was
23 three proposed conditions before the designated
24 officer would move forward. That included the
25 Commission agrees with the findings of the EA

1 screening report, which is what we are considering
2 today, that Bruce Power had made adequate
3 provision for shutdown guarantees, Bruce Power and
4 its personnel are shown to be qualified.

5 You are asking the Commission to
6 consider a fourth condition that the financial
7 guarantees for Bruce B or the licensing condition
8 for Bruce B in terms of financial guarantees would
9 be in place. Is that correct?

10 MR. BLYTH: Adequate financial
11 guarantees for Bruce A and B would have to be in
12 place. The three conditions in the presentation
13 remain.

14 We are talking about adding a
15 fourth condition, which is the financial
16 guarantee, but the amount of that guarantee may be
17 greater than the amount that is currently called
18 for in the licence because that amount applies to
19 four units, and now we are introducing two
20 additional units.

21 THE CHAIRPERSON: Just to clarify
22 that, we haven't gone through the licensing
23 hearing for Bruce A. So would you know what the
24 financial guarantees would be required for Bruce A
25 in that time period?

1 MR. BLYTH: My expectation is the
2 logical thing would be to prorate based on the
3 Bruce B guarantees, but that would be subject to a
4 discussion with Bruce Power and coming to a mutual
5 understanding of what was adequate. I do not know
6 the amount.

7 THE CHAIRPERSON: Because this is
8 new information, I think that Mr. Hawthorne may
9 wish to comment on this because this wasn't part
10 of the CMD.

11 MR. HAWTHORNE: Thank you, Madam
12 President.

13 There are a number of things to be
14 considered here. Firstly, the financial
15 guarantees and the quantum of the financial
16 guarantee is related to the ability to withstand a
17 six-month interruption with no source of revenue
18 and still meet all the operational costs of the
19 site.

20 The operational costs of the site
21 remain the same whether there are four units
22 operating, six unit operating or eight units
23 operating under our current structure.

24 The quantum was calculated on our
25 ability to meet salary costs, et cetera, for the

1 staff and it isn't a pro rata application based on
2 a number of operational units. That wasn't how we
3 calculated the quantum. That is the first point
4 of qualification.

5 The second issue, obviously I do
6 understand the concern the Commission have over
7 the guarantees and I can truly understand the
8 Commission's position on this. I guess I am not
9 resistant to that to the extent that it would
10 matter if I was. I truly understand the staff's
11 position on this and I do recognize the
12 Commission's concerns. So it would be wrong of me
13 morally to resist that position, having said that
14 safety first is our prime motto.

15 I don't frankly believe
16 necessarily that the loading of the fuel doesn't,
17 in itself, increase the risk. We all between us
18 have acknowledged the strong safety operational
19 performance of the site. As such, I guess there
20 has been a degree of tolerance by the Commission
21 and staff to an ability to post guarantees. That
22 has been tied largely to an understanding of the
23 very low probability of such an event occurring.
24 The activities on Bruce A, which frankly, my
25 layman's view of saying it is equivalent of

1 filling your tank with gas and you have no engine
2 in it or someone has taken the keys. It is
3 guaranteed it can't move.

4 To a certain degree, I have to say
5 that I have always viewed the refuelling of the
6 reactor, and I don't believe there is a technical
7 disagreement between ourselves and staff, as not
8 an environmental event in itself. It is simply a
9 case of moving fuel in preparation. There is more
10 than just a timing issue related to it.

11 One of the things that staff are
12 well aware of is in part of the inspection and
13 readiness of the reactor for service, we have been
14 repositioning all the fuel springs on the fuel
15 channels. Leaving those channels empty doesn't
16 allow us to actually stabilize that situation. So
17 part of the logic for refuelling was actually to
18 help stabilize the springs that we had realigned
19 as part of the restart project.

20 Clearly there is a problematic
21 impact associated with the deliberations today. I
22 do share the Commission's concern about our
23 inability to pose guarantees, and so I do accept
24 that that certainly is a reasonable concern to be
25 taken into consideration here to the extent that

1 the Commission believe that refuelling the reactor
2 actually makes that more of an issue.

3 THE CHAIRPERSON: I also would
4 just like to note for the sake of transparency
5 that the issue of the financial guarantees -- and
6 correct me if I am wrong here, Mr. Blyth -- will
7 be a subject for the CNSC meeting agenda for
8 tomorrow. Is that correct?

9 MR. BLYTH: That is correct, Madam
10 President.

11 THE CHAIRPERSON: I will open the
12 floor to questions on this matter from the
13 Commission Members, but the issue of the actual
14 financial guarantee per se will come up tomorrow.

15 So we are talking in this case
16 about the refuelling and the conditions.

17 Mr. Graham.

18 MEMBER GRAHAM: I promise that I
19 won't mention the financial guarantees because I
20 have some questions tomorrow on that.

21 I have a series of questions first
22 of all to Bruce Energy. The spring alignment, was
23 this something that you were given the authority
24 to go ahead and do by CNSC or is this something
25 you took on your own to do? I realize there is a

1 cost and you are saying now you got them there, it
2 puts CNSC behind the eight ball, but was this
3 something that you look took on your own to do?

4 MR. HAWTHORNE: Can I just say I
5 wouldn't in any way have inferred that the CNSC
6 led me to believe I would get approval on this and
7 that is why I did it. That wasn't the context
8 under which I made the statement.

9 One of the things that we have
10 obviously been doing here is a very extensive
11 examination and inspection of all the in-vessel
12 components. It was known that the conditions
13 under which the plant was laid up had resulted in
14 flow still being through the fuel channels when
15 they were empty. The result of that would be
16 spring movement. So part of our readiness, as
17 well as inspecting the condition of the tubes, was
18 to position the springs. It is part of our
19 restart readiness. It isn't a change to the
20 guarantee shutdown defuelled state. It is merely
21 the readiness of the plant.

22 MEMBER GRAHAM: It wasn't done,
23 then, in anticipation of a designated officer
24 going ahead with this?

25 MR. HAWTHORNE: No, there was no

1 relationship between the two things.

2 Frankly, I should say that if you
3 ask me honestly why we are in the position of
4 making this request, frankly it is that we had
5 hoped that the environmental hearings would have
6 taken place before now. Perhaps that was our risk
7 and perhaps we are overly optimistic. Had the
8 hearings taken place in a more advanced program,
9 then we would clearly have reached the EA approval
10 before our need to refuel had been triggered.

11 As a result of the time it has
12 taken, and I am not criticizing anyone, I am just
13 observing, as a result of the time it has taken to
14 get the EA to this stage, this part has become
15 critical path in our program and, in an attempt to
16 recover that, we have made the request of the
17 designated officer.

18 MEMBER GRAHAM: If this was
19 approved, how soon and by date would you start
20 refuelling?

21 MR. HAWTHORNE: Clearly the
22 reservations of staff identify the deliberations
23 of the Commission on the EA as one of the issues
24 in that. I have some views that perhaps that
25 isn't a requirement. It is a recommendation, on

1 the basis that the designated officer and, indeed,
2 CNSC staff have confirmed that their officer has
3 that authority and that fuelling is not an
4 environmental event in itself.

5 In theory, if a designated officer
6 felt we met the other requirements, which is
7 guaranteed shutdown state and safety qualified
8 staff, then in theory the designated officer could
9 give us approval and we believe we could provide
10 those assurances today and fuel tomorrow.

11 That is the simplest answer. We
12 are, as far as we are concerned, are fuel ready
13 today but we do acknowledge that part of this
14 recommendation also includes awaiting the outcome
15 of the Commission's deliberations.

16 MEMBER GRAHAM: One further
17 question, and Madam Chair, if you want to rule me
18 out of order on this, I will accept that. It has
19 nothing to do with financial guarantees but is the
20 financial ability of Bruce Energy to do the
21 refuelling and to do the project, nothing to do
22 with shutdown stage, but my question would be are
23 you on budget and have you the finances in place
24 to go with the capital expenditure?

25 MR. HAWTHORNE: That is certainly

1 a very reasonable question. One of the things
2 that we have said is that Bruce Power is
3 financially strong in its own right and capable to
4 manage its own project without any need for day-
5 to-day financial support. We are not receiving
6 support.

7 All of our restart projects are
8 funded from revenues from the Bruce B facility.
9 The fuel is already on site. If you look at the
10 expense of Bruce A restart program, we are about
11 85 per cent through our budget spend. The
12 remainder of our costs are largely on own staff
13 salary costs. So we are certainly financially
14 able to complete this project regardless of any
15 outcome for British Energy.

16 MEMBER GRAHAM: So you are not
17 having the cost overruns that may be seen at other
18 nuclear plants on restart like Pickering, you are
19 not experiencing that?

20 MR. HAWTHORNE: No.

21 MEMBER GRAHAM: This may have been
22 given at the last meeting which I had to leave
23 early, but I would like to ask: What was the cost
24 of starting units 3 and 4?

25 MR. HAWTHORNE: We believe the

1 total cost is \$400 million. There is a \$50
2 million element -- well, in fact, 70 per cent of
3 that cost relates to staffing costs, but it is a
4 \$400 million project.

5 THE CHAIRPERSON: Dr. McDill.

6 MEMBER McDILL: Thank you. From
7 an engineering perspective, one of the reasons you
8 want to load fuel is to get the pumps running. Is
9 that correct?

10 MR. HAWTHORNE: Yes.

11 MEMBER McDILL: In all the years
12 that CANDU has been going, have we not yet created
13 a set of false fuel bundles of the correct mass
14 and dimension to ship around and test these
15 things?

16 MR. HAWTHORNE: Clearly it is not
17 beyond the wit of man to design such a thing. We
18 are talking about a very large number of fuel
19 channels here. The reality is that there are some
20 126 systems to be commissioned as part of our
21 testing and restart readiness.

22 At this point in time we have
23 commissioned about 28 of those systems. Putting
24 fuel in the reactor allows us to test a
25 significant number more. Frankly, whilst this

1 argument might not carry a lot of weight with you,
2 I honestly believe that as we go to the licensing
3 hearings in January and February, the more we are
4 able to report systems in service, commissioned
5 and working, the more confidence we should be able
6 to give the Commissioners that there is more
7 practice than theory behind our argument on
8 fitness for service.

9 So part of my logic would be the
10 more we can advance without changing our
11 guaranteed shutdown state, which is clearly the
12 key element to this licence, the more certainty we
13 can provide this Commission and its staff as to
14 the overall health of the asset.

15 MEMBER McDILL: You said you
16 wanted to test another, was it 123? How many did
17 you just say?

18 MR. HAWTHORNE: I think I said
19 overall in terms of the number of systems that
20 have to be commissioned as part of the overall
21 return to service there are 126 systems.

22 Clearly, what we are seeking to do
23 is to test as many of those and to provide
24 confidence as to their fitness for service as part
25 of their return to power.

1 MEMBER McDILL: For how many of
2 those approximately 100 and some do you need fuel
3 in an inactive or in a shutdown state?

4 MR. HAWTHORNE: I can't give you
5 an exact number. I believe it is about 42 to 45.
6 It is of that order.

7 MEMBER McDILL: Thank you.

8 THE CHAIRPERSON: Mr. Douglas, do
9 you have a comment on that?

10 MR. DOUGLAS: I was just agreeing
11 with Mr. Hawthorne. It must be around 40,
12 something like that.

13 THE CHAIRPERSON: Further
14 questions. Dr. Giroux.

15 MEMBER GIROUX: Three questions.
16 The first one, I would come back to what Mr. Blyth
17 was mentioned, that part of the cost -- and I am
18 not addressing the financial guarantees --
19 included defuelling. I am not sure, but I had
20 understood that the six-month shutdown included
21 the fuelling. I just wanted to ask Mr. Hawthorne:
22 Was that also your understanding?

23 MR. HAWTHORNE: The logic for the
24 six-month period was both Bruce Power and staff
25 believe that in the worst case scenario, where the

1 reactors are taken out of service, two
2 possibilities occur. Something major happens to
3 the facility which requires six months of activity
4 in order to put them back into service or the
5 event is so penal on the operation that we spend
6 those six months defuelling the reactors to put
7 them in a shutdown state. It was intended to
8 cover both eventualities, frankly.

9 MEMBER GIROUX: Thank you. That
10 is clear.

11 The second question again to Bruce
12 Power, in your written brief you mentioned that
13 there is no risk because if you don't get
14 permission for the licence to operate the two
15 units, you can take the fuel out and transport the
16 fuel to Bruce B. Wouldn't the fuel be at least
17 activated if it goes into the reactor? Is the
18 reactor completely uncontaminated at this time?

19 MR. HAWTHORNE: Clearly, the fuel
20 would be contaminated as compared to irradiated.
21 Two different issues. Obviously, contaminated
22 fuel can be handled. The radiated fuel we have a
23 different issue, clearly.

24 MEMBER GIROUX: The final question
25 to staff: Your recommendation, I take it, is that

1 you would wait for the Commission's decision on
2 the environmental assessment to be announced
3 publicly before you proceeded?

4 MR. BLYTH: That is correct. Our
5 understanding is that until the Commission has
6 rendered a decision on the environmental
7 assessment because the refuelling was part of the
8 environmental assessment, that we could not
9 proceed and would not proceed to order fuel
10 loading.

11 MEMBER GIROUX: Mr. Hawthorne,
12 that is part of your timetable also?

13 MR. HAWTHORNE: Frankly, that is
14 the disappointing piece of this. I believed we
15 had reached some understanding that loading of
16 fuel is not, in itself, an environmental event.
17 It is linked to the EA purely on the basis that
18 there is language in our EA that talks about a
19 shutdown defuelled state.

20 We believe that there is the
21 potential for the Commission, if they chose so to
22 do, to acknowledge the technical merit in the
23 argument that there is not an environmental event
24 related to fuelling the reactor and expect the
25 designated officer to exercise his technical

1 judgment in that area. We believe we have had
2 discussions with staff that support our view that
3 there is no environmental element related to
4 fuelling the reactor.

5 So clearly from our point of view
6 it would be disappointing if the deliberations on
7 the hearing took some time, resulting in some
8 delay.

9 MEMBER GIROUX: The point is that
10 if we accept the recommendation of staff and then
11 deliberate and make a decision even tonight or
12 tomorrow on the EA, there is a delay of three
13 weeks maybe or four weeks because of the holiday
14 season before the decision is made public. I
15 don't see staff acting on inside knowledge that
16 maybe the EA has been accepted until this becomes
17 public.

18 I am sure this is what staff has
19 in mind.

20 THE CHAIRPERSON: The question may
21 be that, based on that timetable, Mr. Hawthorne,
22 of the decision being released, with the reasons
23 for decision as per our normal practice for the EA
24 and that a decision at that time would also be
25 released about the DO status, would that still be

1 an advantage in terms of timing for you over
2 waiting?

3 MR. HAWTHORNE: Frankly, the issue
4 for me is, whilst I acknowledge the financial
5 guarantee as a credible reservation that the
6 Commission have, you will hear me talk tomorrow
7 about how confident I feel about being able to
8 provide those guarantees, but, clearly, regardless
9 of how I may or may not do that in an expedited
10 fashion, what I am being told, if I accept this
11 recommendation is that there is a technical belief
12 that there is no environmental significance to
13 loading the fuel. I view the loading of fuel as
14 purely a commercial risk, the same as the \$350
15 million that was spent to date.

16 If we load the fuel and
17 subsequently the Commissioners decide not to
18 accept the EA, then we would still be in a
19 position to reverse that, purely a commercial
20 loss. Similarly, if we go to the first and second
21 hearings and fail to gain approval, there is an
22 entire commercial loss. Frankly, it is a
23 commercial loss we are prepared to risk on the
24 basis that we believe we have a very restart case.

25 I guess my simple logic to the

1 Commission is that on the basis that there is no
2 technical justification to suggest that fuelling
3 the reactor is an environmental event, that we be
4 permitted to take the commercial risk and fuel the
5 reactor in the effort to try and expedite our
6 program.

7 THE CHAIRPERSON: First of all, I
8 think it is very important just to clarify Dr.
9 Giroux's remarks. Staff get the results of the
10 Commission's decisions just at the same time as
11 everybody else. So they don't have insider
12 information.

13 Maybe I can just clarify perhaps
14 my question, Mr. Hawthorne, for you.

15 The staff have put originally
16 three and now four provisions on this DO request
17 that you have. If we go through those matters --
18 and correct me if I am wrong here -- I am just
19 trying to summarize, you would recommend to the
20 Commission or you would request of the Commission
21 that only three of the four conditions would be in
22 place before the DO would be allowed to go, i.e.
23 adequate provision for shutdown guarantees, that
24 Bruce Power and its personnel are shown to be
25 qualified, and the posting of the financial

1 guarantees.

2 And you would request of the
3 Commission, I don't want to put words in your
4 mouth here so just tell me if I am wrong here, you
5 would request that the Commission not await the
6 findings of the EA screening report before
7 releasing its decision in this matter.

8 Is that a correct summary?

9 MR. HAWTHORNE: That is correct,
10 Madam President. If I can just say that when I
11 read this CMD and the recommendation, it talks
12 about the Commission fulfilling its obligations
13 under the Canadian Environmental Assessment Act.
14 Clearly, the Act does not require a hearing such
15 as we have gone through here today. Certainly
16 there has been a lot of value in doing that and I
17 wouldn't in any way suggest that there hasn't
18 been.

19 I guess my view was that the staff
20 recommendation and the hearing today reflects
21 consideration of the position. I guess if there
22 is a difference between our view, my view would
23 be, having gone through the hearing reflected that
24 consideration and that would have been sufficient
25 to satisfy the document as written. So it is not

1 an attempt to do a U turn. It is an attempt to
2 say that I believe having the hearing today, which
3 is frankly why the CMD, in my mind, came after it
4 and a separate session was to say we have
5 satisfied our obligations by having the hearing, a
6 designated officer can do this.

7 I fully understand that there will
8 be a deliberation on the EA and I wouldn't in any
9 way preempt the outcome of that. But we, Bruce
10 Power, are prepared at their own financial risk,
11 to take the opportunity to refuel the reactor on
12 the basis of satisfying the in plant conditions,
13 with the addition of the financial guarantee.

14 THE CHAIRPERSON: Further
15 questions.

16 Dr. Barnes.

17 MEMBER BARNES: Building on that,
18 I would like to ask staff if they have any comment
19 on any fundamental objection if that first
20 recommendation was removed?

21 MR. BLYTH: Just a second. I
22 would like to consult with my colleagues, please.

23 MEMBER BARNES: For the record,
24 that is the one referring to the EA.

25 MR. BLYTH: Mr. Paquette is going

1 to address your question.

2 MR. PAQUETTE: If I understand,
3 you would like to know if the Commission could
4 accept the recommendation with only the three
5 conditions that Madam President has mentioned.

6 The reason why staff believe that
7 it is not possible is as follows. The Canadian
8 Environmental Assessment Act says that the project
9 authority has to consider the screening report and
10 the comments made on the screening report, and
11 conclude that the project is unlikely to have
12 adverse environmental effects before it can make
13 any licensing decision to allow the project to go
14 ahead.

15 I am not reading exactly, but this
16 is what CEAA says.

17 THE CHAIRPERSON: Dr. Barnes.

18 MEMBER BARNES: Doesn't the phrase
19 let the project go ahead as a start-up of units 3
20 and 4, as opposed to the actual mechanical
21 loading?

22 MR. BLYTH: The scope of the
23 project is to refuel and restart the reactors.
24 Refuelling is explicitly identified as part of the
25 project and, for that reason, it is staff's belief

1 that the Commission must render a decision before
2 we can act with respect to refuelling.

3 THE CHAIRPERSON: Maybe this is an
4 unfair question, but knowing that there was a
5 designated officer possible on this, you chose to
6 bring it before us because of transparency. So
7 that would have been the same qualifications that
8 you, as a DO, would have had with or without this
9 hearing?

10 MR. BLYTH: Absolutely. Even in
11 the absence of the hearing, I could not legally, I
12 believe, authorize refuelling without having your
13 decision on the environmental assessment.

14 THE CHAIRPERSON: If my colleagues
15 agree on the Commission, I would like to move
16 ahead with the interventions that we have on this
17 and this would give us a chance to look at those
18 or do you want further questions at this point?

19 Dr. Barnes.

20 MEMBER BARNES: Just a comment.
21 Perhaps after the interventions, since I think
22 this is an important issue, we should consider
23 whether it is worth deferring the hearing until
24 tomorrow, in which we will hear some additional
25 information anyway. I know this might affect that

1 some of the intervenors won't be able to stay over
2 but if we hear them tonight as opposed to conclude
3 the hearing. I just raise that as a suggestion.
4 This is sort of a new scenario that is coming up.
5 We might want to allow staff to have some time.

6 THE CHAIRPERSON: However, I just
7 remind the Commission of the actual question that
8 is before it which is the designation of the DO,
9 not the specifics with regards to the loading
10 itself. It is the designation of the DO.

11 I would like to go through the
12 interventions, Dr. Barnes, and the way that we can
13 do the wording for the ending of it is that, if
14 necessary, we can revisit this.

15 With the permission of the
16 Commission, I will just go ahead to the
17 interventions.

18 Ms MacLachlan, do you want to ask
19 questions before the interventions?

20 MEMBER MacLACHLAN: I will ask
21 questions of the staff later.

22

23 **02-H27.4**

24 **Oral presentation by Citizens for Renewable Energy**

25 THE CHAIRPERSON: First of all,

1 then, we will go to the intervention from Mr.
2 Kleinau as Coordinator of the Citizens for
3 Renewable Energy on this issue. It is 02-H27.4.

4 Mr. Kleinau.

5 MR. KLEINAU: Thank you very much
6 for the time to intervene here in this regard. In
7 our original submission, we raised the point that
8 should the Commission, in spite of the
9 interventions, decide to accept the EASR, we
10 vigorously oppose its delegating the decision for
11 refuelling the reactors to a designated officer.

12 We see proof of our contention
13 right here. The pressure that Bruce Power is
14 putting on CNSC staff and eventually on the
15 Commission to let them go ahead.

16 The Bruce A reactors are licensed
17 in a defuelled guaranteed shutdown state.
18 Refuelling, in our mind, would need an amendment
19 to the licence. In other words, we can't see
20 anybody going ahead and doing the refuelling and
21 at the same time say, well, we are still not
22 starting up the reactors.

23 Then what we kind of come back to
24 is in the Bruce Power written submission it says
25 here under "Socioeconomic Considerations:"

1 "The supply of an additional
2 1500 megawatts of clean
3 generation capacity early in
4 2003..."

5 They already give you the date
6 where they are saying we have that capacity
7 available. This is something that we cannot
8 accept. It says here:

9 "...that will assist meeting
10 the demands of the Ontario
11 marketplace and support the
12 stabilization of the IMO grid
13 during periods of peak
14 demand."

15 Nuclear power is actually just a
16 base power provision. So if there is a higher
17 demand, there still has to be coal fired
18 generation to meet that higher demand or power
19 brought in from other jurisdictions. This
20 certainly doesn't go well with us.

21 The other thing is that CNSC
22 staff, in their comments, were saying on page 3
23 the main risk associated with fuel loading is the
24 risk of an inadvertent reactor criticality event
25 during or after the loading of the fuel.

1 Bruce Power is going to have a
2 shutdown system available to possibly avert
3 something critical like that. That is certainly a
4 very big concern of ours that something like that
5 could happen. At that point, I would like to find
6 out if Bruce Power is considering installing the
7 booster fuel assemblies, together with the fuel,
8 because these would be required to restart.

9 We can't see, for instance, with
10 February 14 being a fixed date where the plant has
11 to be sold and has to be changing ownership, that
12 anything like that could even go ahead, you know,
13 the refuelling.

14 What is going to happen on the
15 14th? Is there going to be another operator?
16 This kind of uncertainty is something that we have
17 to have addressed.

18 The other thing is I have to
19 address this condition on the shutdown state
20 requirement guarantee. That is a licence
21 condition that is written into the licence. It
22 has been going on for five, maybe six months now
23 that the Commission is looking for the guarantee
24 that this money is available. It still doesn't
25 seem to be available. How much longer is the

1 Commission going to wait?

2 THE CHAIRPERSON: Mr. Kleinau, I
3 specifically said that would be a subject of the
4 meeting tomorrow. If you have other matters to
5 raise, please do so.

6 MR. KLEINAU: In other words, we
7 very strongly request, first of all, that we have
8 to have a full notification of the decision on
9 this environmental assessment by the Commission
10 and also before the Commission makes a decision on
11 designating an officer to permit the refuelling,
12 that there will be another full public hearing to
13 address issues that have not been addressed in
14 this environmental assessment. They are serious
15 issues and we are very concerned about that.

16 I have this CMD 00-M17 here in
17 front of me, which is a Commission document in
18 regard to designating designated officers. I have
19 gone through it and practically any Director
20 General can do any designation, amendment, any
21 kind of certification, and this is something that
22 really concerns us.

23 Thank you very much. That is the
24 end of my submission, presentation.

25 THE CHAIRPERSON: Thank you very

1 much, Mr. Kleinau. Are there any questions or
2 comments for Mr. Kleinau? Thank you very much,
3 sir.

4

5 **02-H27.5**

6 **Oral presentation by Canadian Nuclear Association**

7 THE CHAIRPERSON: We would like to
8 move, then, to the oral presentation by the
9 Canadian Nuclear Association as outlined in 02-
10 H27.5. Mr. Clark is with us this afternoon.

11 MR. CLARK: Thank you very much,
12 Madam Chair.

13 For the record, my name is Bill
14 Clark. I am the President of the Canadian Nuclear
15 Association. My colleague, Allan Shpyth, Director
16 of Environmental Affairs at the Canadian Nuclear
17 Association had made a presentation to you earlier
18 this afternoon on the Bruce Power environmental
19 assessment issue. He had planned to speak on the
20 Bruce refuelling issue as well this evening but,
21 unfortunately, he had to leave because of personal
22 commitments this evening. So I am taking his
23 place.

24 I will be mercifully very brief.
25 As we heard earlier today from an environmental

1 assessment perspective, the proposed restart and
2 operation of the two Bruce A units are unlikely to
3 have a significant adverse environmental impact.
4 Recognizing this, the Canadian Nuclear Association
5 would also encourage the Commission to delegate
6 authority to approve refuelling to an appropriate
7 designated officer of the Commission. Such
8 delegation is consistent with the Commission's
9 policy in this area and a reasonable action in
10 consideration of the environmental assessment
11 results.

12 The association notes that such
13 delegation does not predetermine the outcome of
14 the subsequent licensing hearings on approval to
15 operate the two units, but it does allow for the
16 possibility of a timely restart of the two
17 reactors and the resulting environmental and
18 economic benefits offered by the restart of units
19 3 and 4 of the Bruce A Nuclear Generating Station.

20 Thank you for the opportunity to
21 address this important topic.

22 THE CHAIRPERSON: Thank you, Mr.
23 Clark. Are there any questions for Mr. Clark?

24 Yes, Dr. Giroux.

25 MEMBER GIROUX: Sir, do you have

1 any views on the additional recommendation from
2 staff that we just heard that this be linked to
3 the financial guarantee requirements?

4 MR. CLARK: I do not actually this
5 evening. I would rather talk with my folks and,
6 if we something to submit, we could perhaps later
7 on do so.

8 THE CHAIRPERSON: Actually, Mr.
9 Clark, that wouldn't be a possibility. It will
10 just be this opportunity.

11 MR. CLARK: This is in terms of
12 the financial guarantees for tomorrow, the
13 discussion tomorrow?

14 THE CHAIRPERSON: No, on the
15 condition that was added.

16 MR. CLARK: I am sorry. No, I
17 have no comments to offer.

18 THE CHAIRPERSON: Thank you very
19 much, Mr. Clark.

20

21 **02-H27.2**

22 **Written submission from Maureen Laporte**

23 THE CHAIRPERSON: We will now then
24 move to the next intervention, which is a written
25 submission from Maureen Laporte as outlined in CMD

1 02-H27.2.

2 Are there any questions or
3 comments from the Commission Members with regards
4 to this written submission?

5

6 02-H27.3

7 **Written submission from The Corporation of the**
8 **Township of Huron-Kinloss**

9 THE CHAIRPERSON: The next
10 submission is from the Corporation of the Township
11 of Huron-Kinloss as outlined in CMD 02-H27.3.

12 Are there any questions or
13 comments from the Commission Members with regards
14 to this written submission?

15 On that basis, I am now going to
16 open the floor again for questions of a more
17 general nature from the Commission Members. I
18 just wish to reserve the right to have an in
19 camera with the Commission Members before we
20 finalize this hearing.

21 Are there questions at this point?

22 Ms MacLachlan.

23 MEMBER MacLACHLAN: Thank you.
24 This is a question to Bruce Power. The submission
25 that we have received here as 02-H.27.1 is not on

1 letterhead, it is not dated, it is not signed and
2 it is not clear. I guess one of the things that
3 is not clear about it is the whole issue of a
4 timetable. It gives the impression that really
5 the reactor design and the spacers are one of the
6 main drivers behind supporting a designated
7 officer to permit refuelling.

8 I would like a bit of fix on
9 timetable because we don't have anything in front
10 of us that indicates the period of time. We have
11 an oral comment from staff suggesting that Bruce
12 Power has suggested it would take 45 days to
13 refuel. But if you could provide us with one, the
14 period of time it would take to refuel and, two,
15 how does that have an impact on restarting units 3
16 and 4?

17 MR. HAWTHORNE: Of course. I
18 guess I should start by perhaps referring to one
19 of Mr. Kleinau's comments because it is in fact
20 accurate that we do indeed have a publicized
21 program and plan for restarting these units.

22 I don't know why anyone would be
23 surprised that we actually have a program planned
24 because that is how we have actually managed the
25 project. So, of course, we have an expectation of

1 restart dates. Currently those dates are April
2 for the first unit and June for the second. We
3 have made no secret of that and we have publicized
4 it widely.

5 We do know that in order to be
6 successful, we have to go through three regulatory
7 hearings. The one we have gone through today, the
8 one that has already been identified as January
9 15, and a third one which is February 26.

10 Following a successful outcome,
11 which of course we must plan for, we understand
12 there are a number of activities between the final
13 deliberations of the Commission after the second
14 hearing and restart. In order to reach that
15 program, we took a view, many, many months ago on
16 what the program looked like overall. Our view
17 would have been that on the basis of our own
18 activities that we knew we had to do, very
19 detailed and obviously pretty comprehensive, we
20 took a view that understanding the EA requirements
21 and the rules therein, that it would be possible
22 for a designated officer, on the basis that the
23 staff have submitted their report, the screening
24 report and recommended to the Commission
25 acceptance of it, that that would in fact have met

1 the obligations that staff had in order to
2 exercise a designated officer rights.

3 So our program right now assumes
4 that we will be able to restart almost immediately
5 from now. We understand it will take us about
6 three days from today to guarantee the other
7 conditions, demonstrate to the full extent of the
8 requirement to the CNSC staff that we are truly in
9 guaranteed shutdown state and that we are in fact
10 fully trained to do this activity. It is in no
11 one's interest not to meet those things.

12 But it was our expectation,
13 frankly, that having seen the staff's
14 recommendation to the Commission that recommends
15 adoption of our EA submission, that we would in
16 fact receive that report. So to the extent that
17 we don't get the approval for three weeks, then
18 that is three weeks lost program time against our
19 program.

20 The refuelling activity is a
21 series of activities. We would refuel one reactor
22 and then we would move on to the second reactor.
23 So a delay in beginning refuelling is a delay on
24 the restart of the first reactor. It is just a
25 series of activities as the critical path.

1 MEMBER MacLACHLAN: Thank you.
2 What about the period of time from refuel to
3 restart, aside from regulatory approvals?

4 MR. HAWTHORNE: Aside from
5 regulatory approvals, it is kind of hard to say
6 that we can ignore the regulatory approvals
7 because we understand there are a number of other
8 tests that we have to pass.

9 Clearly, in order to bring other
10 parts of the system into service, we need to pass
11 the regulatory approvals and we understood that
12 fully. So they are built into the program. In
13 each case, we understood that we can do a certain
14 amount of recommissioning of the plant while it is
15 still in guaranteed shutdown state as we move
16 towards this.

17 We fully understand that there is
18 a significant commercial exposure to this, as
19 there is for any operator who has to do a
20 significant amount of work to meet the very
21 rigorous assessment requirements, and that is a
22 risk we take and we fully understood that.

23 I guess our view would be that
24 after the final hearing, it would be a matter of
25 five or six weeks maximum between receiving the

1 final result from the Commission and bringing our
2 first unit to service.

3 MEMBER MacLACHLAN: If I may ask
4 staff what is your feedback on that kind of time
5 frame? Is that what you would foresee in the best
6 of all possible worlds?

7 MR. DOUGLAS: Yes, I think it is
8 fairly accurate.

9 MEMBER MacLACHLAN: Let me ask you
10 this, because the issue isn't necessarily the
11 timetable. The issue is the authority being
12 delegated to a designated officer. Are there any
13 other activities that a designated officer would
14 authorize prior to the Commission authorizing
15 restart of the reactors?

16 MR. DOUGLAS: All we are asking
17 for is to be allowed to authorize the loading of
18 the fuel. We have considered the safety concerns
19 of this, and they are using a guaranteed shutdown
20 state, which is used commonly throughout the
21 industry during outages. So, from a risk point of
22 view, there is a slight increase in risk because
23 it is not defuelled any more. But they add
24 chemical to the moderator, which prevents any
25 neutronic taking place and the shutdown system is

1 available as well.

2 THE CHAIRPERSON: That was a
3 technical question I was going to ask. When you
4 say you add a chemical to the moderator, that is
5 what you are referring to as the over poisoned
6 guaranteed shutdown state?

7 MR. DOUGLAS: Yes, that is
8 correct. In the jargon of the industry it is
9 called poison. It is a chemical called gadolinium
10 nitrate which is added to the moderator, and it
11 absorbs neutrons.

12 MEMBER MacLACHLAN: Thank you.

13 THE CHAIRPERSON: Mr. Hawthorne, I
14 am just reading your written submission, 02-H27.1.
15 I realize that perhaps the issue is around the
16 comment that you make under "Background," which is
17 sort of paragraph 3. I will read this. It is
18 available as a CMD.

19 "As a consequence of the word
20 'refuel' within the project
21 description..."

22 Meaning that it was in the
23 description of the environmental assessment,
24 "...the loading of fuel could
25 not commence until the

1 Commission had accepted that
2 an environmental assessment
3 had been completed."

4 Perhaps the issue is around the
5 fact accepted versus the fact that a decision has
6 been released. Is that correct?

7 MR. HAWTHORNE: That is exactly
8 the issue, Madam President, yes.

9 THE CHAIRPERSON: With the
10 patience of the people in the room, I would like
11 to call an in camera for the Commission and just
12 have a chance to confer with our legal counsel on
13 this subject. We don't expect this to be more
14 than ten minutes, but we do feel that it is
15 important. So we ask for your indulgence.

16 --- Upon recessing at 7:55 p.m.

17 --- Upon resuming at 8:20 p.m.

18 THE CHAIRPERSON: Thank you very
19 much all of your for patience as we conferred in
20 camera and discussed the next areas.

21 I will first of all ask Commission
22 Members if they have any further questions to the
23 CNSC staff or Bruce Power.

24 That is fine then.

25 This completes the record for the

1 public hearing in the matter of the authority of
2 the CNSC designated officer to authorize an
3 amendment to the operating licence of Bruce Power
4 to permit refuelling of Bruce NGS-A Units 3 and 4
5 reactors.

6 The Commission will deliberate and
7 will publish its decision in due course. It will
8 be posted on the CNSC website and will be
9 distributed to participants.