

1           **ONE-DAY HEARING**  
2           **Environmental Assessment Guidelines for the**  
3           **construction of the Darlington used fuel dry**  
4           **storage facility**

5                           THE CHAIRPERSON: We will now  
6           proceed with the one-day hearing on the  
7           Environmental Assessment Guidelines, the scope of  
8           project and assessment, for the construction and  
9           operation of the Darlington used fuel dry storage  
10          facility in Clarington, Ontario.

11                           Since Dr. Barnes is absent today,  
12          he will not participate in the decision on the  
13          matter.

14                           I will introduce the Commission  
15          members that are with us today.

16                           On my left is Mr. Graham and Dr.  
17          Giroux. On my right is Ms MacLachlan.

18                           The public was invited to  
19          participate either by oral presentation or written  
20          submission. June 6 was the deadline set for  
21          filing by intervenors. The Commission has  
22          received two interventions in this matter.

23                           I would like to turn the floor  
24          over to Ms Maloney, from the Commission staff, to  
25          present CMD Document 02-H14.

1 Ms Maloney.

2

3 **02-H14**

4 **Oral presentation by CNSC staff**

5 MS MALONEY: Good morning, Madam  
6 President, Members of the Commission.

7 I am Cait Maloney, Director  
8 General of the Directorate of Nuclear Cycle and  
9 Facilities Regulation. With me are Dr. Richard  
10 Ferch, Director of Wastes and Geosciences  
11 Division, and Mr. Don Howard who is a project  
12 officer in that division. Mr. Howard is a Project  
13 Officer for Ontario Power Waste Management  
14 Facilities.

15 Ontario Power Generation has  
16 applied to construct and operate a used fuel dry  
17 storage facility at its Darlington site.

18 The Canadian Environmental  
19 Assessment Act requires that an environmental  
20 assessment be carried out prior to a licensing  
21 decision being made on that issue. Therefore,  
22 draft guidelines for that environmental assessment  
23 have been prepared for your consideration.

24 I will now ask Mr. Howard to  
25 present the CMD.

1 MR. HOWARD: Thank you, Mrs.  
2 Maloney.

3 Good morning, Madam President and  
4 Members of the Commission.

5 For the record, my name is Don  
6 Howard, from the Waste and Geosciences Division.  
7 I am the Project Officer for the Darlington Used  
8 Fuel Dry Storage Project.

9 CMD 02-H14 addresses the  
10 guidelines for the environmental assessment of the  
11 proposed Darlington used fuel dry storage  
12 facility.

13 Ontario Power Generation has  
14 expressed its intent to construct and operate a  
15 used fuel dry storage facility at the Darlington  
16 nuclear generating station which will process and  
17 store spent fuel produced at the Darlington  
18 station only.

19 As a result of the licensing  
20 action Ontario Power Generation is requesting the  
21 CNSC to make, CNSC staff has determined that an  
22 environmental assessment under the Canadian  
23 Environmental Assessment Act is required.

24 Part of the process for the  
25 environmental assessment is the establishment of

1 the environmental assessment guidelines. The  
2 guidelines are presented to the Commission for  
3 approval.

4 This presentation will focus on  
5 the process CNSC staff followed in developing the  
6 guidelines and how the guidelines fit into the  
7 overall environmental assessment process leading  
8 to a decision under the Canadian Environmental  
9 Assessment Act on the likelihood of significant  
10 adverse environmental effects.

11 Appendix A to this CMD provides  
12 further details on the proposed guidelines.

13 In the development of the attached  
14 proposed guidelines, CNSC staff has taken into  
15 consideration previous environmental assessments,  
16 direction provided by the Commission on these  
17 assessments and public comments.

18 At this time CNSC staff would like  
19 to, however, propose that one of the bullets in  
20 Section 9.2.2, under "Project Description", of the  
21 attached guidelines be modified for clarity and  
22 consistency with previous environmental  
23 assessments.

24 The bullet currently states that  
25 the project description should provide information

1 on:

2 --the key components of the  
3 facility that are relevant to  
4 the management of  
5 malfunctions and accidents  
6 that may occur during  
7 operation.

8 We propose that this bullet be  
9 modified as follows:

10 --the key components of the  
11 facility and its physical  
12 security systems (excluding  
13 prescribed information) that  
14 are relevant to the  
15 management of malfunctions  
16 and accidents that may occur  
17 during operation.

18 The presentation will provide some  
19 background information on Ontario Power  
20 Generation's proposed construction and operation  
21 of the Darlington used fuel dry storage facility  
22 before going on to discuss the environmental  
23 process that has been established by CNSC staff.

24 An overview of the environmental  
25 assessment guidelines will then be provided. This

1 will include a discussion on the public  
2 consultation conducted in developing the  
3 guidelines.

4 Finally, the presentation will  
5 outline the remaining steps in the environmental  
6 assessment process and conclude with the CNSC  
7 staff recommendation concerning the guidelines.

8 The proposed Darlington used fuel  
9 dry storage facility will be a new Class 1B  
10 nuclear facility located within the boundary of  
11 the Darlington nuclear generating station.

12 Ontario Power Generation proposes  
13 to transfer used spent fuel bundles that have been  
14 cooled for a minimum of 10 years in the Darlington  
15 nuclear generating station water-filled storage  
16 bays into dry storage containers for processing  
17 and storage at the proposed Darlington used fuel  
18 dry storage facility. The dry storage containers  
19 will be a standard container type currently used  
20 for the storage of spent fuel at the Pickering  
21 waste management facility and the proposed Western  
22 waste management facility near Tiverton, Ontario.

23 The Darlington used fuel dry  
24 storage facility will consist of a processing  
25 building and approximately three storage

1 buildings, each of which will house 500 dry  
2 storage containers. Construction of the storage  
3 buildings will be phased in as additional storage  
4 space is required.

5 The processing building will  
6 include the systems for processing of the dry  
7 storage containers, such as helium gas filling,  
8 welding, X-raying, vacuum and painting systems.

9 The Darlington used fuel dry  
10 storage facility will be completely enclosed  
11 within its own security fence.

12 I would now like to discuss the  
13 process used by the CNSC for managing an  
14 environmental assessment under the Canadian  
15 Environmental Assessment Act.

16 All applications for a new licence  
17 are reviewed by CNSC staff to determine whether an  
18 assessment is required under the Canadian  
19 Environmental Assessment Act, commonly referred to  
20 as CEAA.

21 After reviewing Ontario Power  
22 Generation's proposal and project description,  
23 CNSC staff concluded that a screening  
24 environmental assessment was needed. The  
25 rationale for this is provided in the EA

1 guidelines.

2 The CNSC is a responsible  
3 authority, under the Canadian Environmental  
4 Assessment Act, for this project. CNSC staff  
5 consulted with other federal agencies to confirm  
6 the CNSC was the sole responsible authority in  
7 this case and to determine if any agency wished to  
8 participate as an expert federal authority.

9 It was established that no  
10 provincial environmental assessment requirements  
11 applied to this project. However, CNSC staff has  
12 and will continue to consult with the appropriate  
13 provincial agencies.

14 As a responsible authority, the  
15 CNSC has an obligation to set the scope of the  
16 assessment as well as ensuring that the assessment  
17 is conducted and that the screening report is  
18 prepared.

19 To define the scope of the project  
20 and set the scope of the assessment, CNSC staff  
21 has prepared a guidelines document. This document  
22 was prepared with input from federal agencies,  
23 provincial agencies and the public. The  
24 guidelines document is presented to the Commission  
25 for approval.



1                   After the guidelines are set, they  
2 will guide Ontario Power Generation in completing  
3 an environmental assessment study which will have  
4 been delegated to them pursuant to the provisions  
5 of the Canadian Environmental Assessment Act.  
6 They are also conducting a public consultation  
7 program, which is outlined in Appendix D of the  
8 CMD.

9                   A screening report will be  
10 prepared by CNSC staff after the environmental  
11 assessment study has been reviewed by federal and  
12 provincial technical specialists and finalized.  
13 CNSC staff will solicit public comments on a draft  
14 screening report before the final report is  
15 submitted to the Commission for a decision under  
16 the Canadian Environmental Assessment Act.

17                   The guidelines identify the scope  
18 of the project that will be considered in the  
19 assessment. It includes the following elements:  
20 the construction of the used fuel dry storage  
21 facility; the operation of the structures within  
22 the used fuel dry storage facility; modifications  
23 to the storage bays at the station to accommodate  
24 the transfer of wet to dry storage of used fuel;  
25 and the handling and transport of the dry storage

1 containers from the station to the storage  
2 facility.

3 The guidelines also describe the  
4 basis for carrying out the assessment and focus  
5 the assessment on relevant issues and concerns.  
6 Specific direction to Ontario Power Generation on  
7 the content of the environmental assessment study  
8 is also provided.

9 To develop the guidelines, CNSC  
10 staff reviewed the project description prepared by  
11 the proponent and produced a first draft version  
12 of the guidelines following a standard format.  
13 CNSC staff then consulted with other federal and  
14 provincial departments and agencies.

15 After the scope was revised, CNSC  
16 staff consulted with the public on the draft  
17 guidelines.

18 For the EA project to construct  
19 and operate a used fuel dry storage facility at  
20 the Darlington nuclear generating station, the  
21 following public consultation steps were taken.

22 A public registry was established.  
23 This includes all correspondence and documents  
24 related to the environmental assessment.

25 Ontario Power Generation conducted

1 a number of information sessions. Also, Ontario  
2 Power Generation conducted workshops with a number  
3 of stakeholders in the local community.

4 CNSC staff made the draft  
5 guidelines available to the public in February of  
6 2002. CNSC staff attempted to ensure that all  
7 identified stakeholders, including the  
8 municipality of Clarington and the seven first  
9 nations in the region were provided with a copy of  
10 the draft guidelines. The draft guidelines were  
11 also available at a number of public locations in  
12 the local area.

13 A comment period of 30 days was  
14 established to allow for stakeholders and the  
15 general public to provide written comments on the  
16 guidelines.

17 The CNSC received comments from  
18 five individuals or groups. Copies of the  
19 comments are provided in the CMD.

20 CNSC staff reviewed all the  
21 comments and provided responses to each. These  
22 are included as Appendix B of the CMD.

23 After reviewing the comments, a  
24 revised guidelines document was prepared, which is  
25 Appendix A of this CMD.

1                   Key issue No. 1, long-term  
2 management of used fuel, resulted in those  
3 specific changes to the guidelines. The long-term  
4 management of radioactive waste, including  
5 irradiated nuclear fuel, is being developed  
6 through a separate federal policy and legislation  
7 as noted in the environmental assessment  
8 guidelines. Long-term waste management is  
9 therefore not included in the scope of this  
10 assessment.

11                   Key issue No. 2, environmental  
12 effects, did not result in changes to the  
13 guidelines. The purpose of the environmental  
14 assessment is to assess the proposal with a view  
15 to ensure that it is not likely to cause  
16 environmental effects.

17                   There were five minor changes to  
18 the guidelines as a result of the comments. Those  
19 are detailed in Appendix B of this CMD.

20                   After the guidelines are set by  
21 the Commission, CNSC staff will ensure that the  
22 final EA guidelines are made public by posting the  
23 final EA guidelines on the CNSC web site and that  
24 copies are forwarded to all federal authorities,  
25 provincial agencies and identified stakeholders.

1                   Ontario Power Generation will then  
2 complete the environmental assessment study report  
3 and submit it to the CNSC staff for technical  
4 review.

5                   CNSC staff and other federal and  
6 provincial reviewers will review this report to  
7 determine its technical acceptability. In the  
8 event of deficiencies being identified, a study  
9 will be returned to Ontario Power Generation for  
10 revision.

11                   CNSC staff will then prepare a  
12 draft screening report which will be made  
13 available for public comment.

14                   After the public comments are  
15 considered, a final screening report will be  
16 submitted to the Commission.

17                   In conclusion, CNSC staff  
18 recommend that the Commission approve the  
19 environmental assessment guidelines for the  
20 proposed Darlington used fuel dry storage facility  
21 as presented in Appendix A of CMD 02-H14.

22                   This concludes the presentation.  
23 Thank you.

24                   MS MALONEY: Thank you. As  
25 indicated that concludes staff's presentation. I

1 have asked Dr. Ferch to co-ordinate staff  
2 responses to questions you may have.

3 THE CHAIRPERSON: Thank you.

4 Ms Maloney, before we go forward,  
5 I note that the requirements of the Commission  
6 today are for us to be satisfied or not satisfied  
7 with regard to referrals pursuant to section 25 of  
8 the Canadian Environmental Assessment Act at this  
9 time. Does the staff have a recommendation with  
10 regard to this referral at this time?

11 MR. HOWARD: The intent is CNSC  
12 staff has proposed that we refer to the proponent  
13 the conduct of the environmental assessment.

14 THE CHAIRPERSON: So you are not  
15 recommending that we have a referral to the  
16 Minister of the Environment at this time, that was  
17 the question, pursuant to section 25?

18 MS MALONEY: Correct. Staff is  
19 not making that recommendation.

20 THE CHAIRPERSON: With the  
21 agreement of Commission Members I would like to  
22 turn to an intervenor at this time before we open  
23 the floor for questions.

24 We will then move to the oral  
25 presentation as an intervenor by Ontario Power

1           Generation as noted in Document CMD 02-H14.1.

2                           I will just remind OPG that there  
3           is a 10-minute guideline for intervenors. I will  
4           call upon Mr. Nash.

5                           Mr. Nash?

6

7           **02-H14.1**

8           **Oral presentation by Ontario Power Generation Inc.**

9                           MR. NASH: Thank you.

10                           Good morning, Madam President and  
11           Members of the Commission. Thank you for this  
12           opportunity to make a presentation which will be  
13           brief.

14                           I am Ken Nash, Vice-President,  
15           Nuclear Waste Management. Kurt Johansen, Manager  
16           of Environmental Assessment and Donna McFarlane,  
17           Director of Public Affairs, are here to assist in  
18           answering any questions that you may have.

19                           The purpose of this project is to  
20           provide interim used fuel dry storage to allow the  
21           Darlington reactors to operate for the planned 40-  
22           year life.

23                           The capacity that exists in water  
24           pool storage facilities is almost 350,000 fuel  
25           bundles, and the additional capacity to achieve a

1 40-year life that we need is 530,000 fuel bundles.

2 The first stage of this storage  
3 capacity is needed by 2007.

4 The proposed dry storage system is  
5 a repeat of the Pickering dry storage system which  
6 has been in operation since 1996. The dry storage  
7 system which is now being built at our Western  
8 waste management facility will be in service by  
9 the end of 2002.

10 The proposed storage container,  
11 the closure well, the testing and monitoring  
12 systems are all intended to be identical. The  
13 Western dry storage safety assessment and the  
14 Pickering dry storage system performance show that  
15 these systems have a very large margin to safety  
16 compared to the regulatory requirements.

17 --- Pause

18 THE CHAIRPERSON: I will note  
19 for the record that the Commission Members do have  
20 copies of these photographs, but to the degree  
21 that you can reproduce them --

22 MR. NASH: Yes, I will continue.

23 The picture that you have in front  
24 of you shows the Pickering dry storage facility in  
25 the foreground of the overall picture that you



1        have there. This facility has a capacity for  
2        about 10 years' worth of used fuel production from  
3        the eight Pickering reactors. There we have it  
4        there.

5                    The next view is of the used fuel  
6        dry storage facility which is now under  
7        construction at the Western waste management  
8        facility. This facility will accommodate used  
9        fuel from the Bruce reactors.

10                   The next picture is one of the dry  
11        storage containers inside of the Pickering storage  
12        facility.

13                   The next picture, as mentioned  
14        earlier, the Darlington system, is intended to be  
15        a repeat of the Pickering and Western dry storage  
16        systems right down to the automated welding  
17        equipment, as shown in this picture.

18                   On the final slide I do have, this  
19        is an aerial view of the Darlington site showing  
20        the preferred location for the Darlington dry  
21        storage facility. That is the dotted rectangle  
22        shown there right in the centre of the picture.  
23        This represents the land area to be occupied by  
24        the project, if approved.

25                   A final point that I do want to

1 make is that OPG agrees that the environmental  
2 assessment guidelines as proposed are appropriate.

3 Thank you.

4 THE CHAIRPERSON: Thank you.

5 I will note at this time that we  
6 have received a written submission from the  
7 Corporation of the Municipality of Clarington as  
8 noted in CMD Document 02-H14.2 and, based on that,  
9 the presentation by staff and the two, one oral,  
10 one written, submissions that we have received on  
11 this matter, the floor is now open for questions  
12 from the Commission Members.

13 Dr. Giroux.

14 **02-H14.2**

15 **Written submission from the Corporation of the**  
16 **Municipality of Clarington**

17 MEMBER GIROUX: Thank you.

18 A question to staff first.  
19 Referring to page 2 of your CMD, you state that  
20 you have received a draft description of the  
21 proposed facility and that you have commented on  
22 it and then you have later received the final  
23 project.

24 My question is, what sort of  
25 feedback did you give to OPG on their draft

1 document?

2 MR. HOWARD: Yes, we initially  
3 received the project description from Ontario  
4 Power Generation. After staff reviewed and  
5 provided some minor comments on the project we  
6 asked them to give us some more specific comments  
7 on the actual possible location within the  
8 Darlington nuclear generating station, comments of  
9 that nature.

10 We provided those comments to  
11 Ontario Power Generation and then they resubmitted  
12 the project description at that time, but the  
13 comments were more of clarification than anything  
14 else. It was just to more precisely identify what  
15 the project was.

16 MEMBER GIROUX: Thank you.

17 The other question concerns the  
18 timing of the flow of information. I noted in the  
19 documents that OPG is planning to hold workshops  
20 and this will help them determine valued ecosystem  
21 components, and staff would be consulting or has  
22 been consulting I think with the draft guidelines.  
23 Presumably you have the results of some of the OPG  
24 meetings.

25 I am not clear about the timing of

1 the operations here, the staff consultations, the  
2 draft guidelines and the workshops from OPG.  
3 Could you clarify?

4 MR. HOWARD: Yes, OPG had  
5 consulted workshops with the local community on  
6 the valued ecosystem components. CNSC staff  
7 attended one of the workshops as an observer.  
8 These occurred prior to the CNSC staff going out  
9 with the proposed guidelines for public comment.  
10 So the workshops that CNSC staff attended as an  
11 observer occurred before we actually went out to  
12 the public for comment on the guidelines.

13 MEMBER GIROUX: There has to be a  
14 preliminary decommissioning plan at some point. I  
15 think it is mentioned somewhere that the expected  
16 life is 50 years, is that correct, for the  
17 facility?

18 My question anyway is, what will  
19 be the basic assumption for storage or disposal of  
20 the used fuel after 50 years in the preliminary  
21 decommissioning plan?

22 MR. FERCH: This is Richard Ferch  
23 of the Wastes and Geosciences division.

24 The preliminary decommissioning  
25 plan is a requirement for the licensing, which

1 will occur at the end of the environmental  
2 assessment process. In that preliminary  
3 decommissioning plan we would expect to see the  
4 proponent describe what its plans were at the end  
5 of the proposed 30 or 50 year lifetime, how it  
6 would then decommission the plan.

7 Since we don't yet have either the  
8 completed licence application or the preliminary  
9 decommissioning plan, it would probably be  
10 inappropriate for me to comment on exactly what  
11 those plans might be right now.

12 MS MALONEY: I might just add that  
13 typically 50 years is what we have been looking at  
14 in other facilities, so that is of the order of  
15 that time.

16 MEMBER GIROUX: But the used fuel  
17 will still be there after 50 years and it has to  
18 be treated. But I understand that it is premature  
19 to look at this.

20 This is a final question and this  
21 might be to OPG. It is more technical.

22 You described the process of  
23 moving the used fuel within the containers from  
24 the used fuel bay to the building. On the  
25 container that you have you have a temporary lid

1 and you have just shown us a picture of the  
2 automatic welding for the final lid.

3 This seems to me to be one  
4 critical operation as you remove the temporary lid  
5 and put on the final lid. How is that done in  
6 terms of protecting the workers?

7 MR. HOWARD: We would do it in the  
8 same way that we actually operate at Pickering and  
9 is planned at the Western waste management  
10 facility supporting the Bruce reactors. The lid  
11 is put on the container in the water pool, and  
12 that is in fact the permanent lid.

13 You are correct in saying that for  
14 the transfer from the water pool to the dry  
15 storage facility the securing of the lid is of a  
16 temporary nature. That is done by a very large  
17 clamp that is fixed around the lid and the base of  
18 the container. So as a temporary clamp that is  
19 used to secure the lid on its passage between the  
20 water pool and the dry storage facility where the  
21 clamp is removed. Because the lid is resting on  
22 top of the container the lid is not removed. Then  
23 the container is welded up.

24 THE CHAIRPERSON: Ms MacLachlan?

25 MEMBER MacLACHLAN: Thank you.

1                   This is a question to staff. On  
2 page 7 of the draft guidelines, under the heading  
3 "Assessment of Siting Alternatives", the request  
4 for assessment of alternatives is restricted  
5 essentially to four particular sites. I am  
6 wondering if you could discuss the issue of  
7 alternatives for me and why there is no  
8 requirement for the applicant to address  
9 alternative methods for storage or alternative  
10 ways to carry out the project, the project being  
11 to provide for interim storage of used fuel, and  
12 whether or not there were any requirements or  
13 discussions associated with alternatives to  
14 storage on site versus off site.

15                   MR. RIVERIN: For the record my  
16 name is Guy Riverin. I am an EA specialist with  
17 the Processing Facilities and Technical Support  
18 Unit.

19                   The proposal that was made by  
20 Ontario Power Generation is to store their waste  
21 on site. They looked at various alternatives in  
22 terms of siting this facility which they will be  
23 assessing.

24                   Storing off site at the present  
25 time, I don't believe that there are any proposals

1 or any issues or any -- there is no such disposal  
2 being done or storage being done off site at the  
3 present time. The long-term disposal of waste is  
4 an issue that is being discussed for the future.  
5 A bill just in fact passed parliament in terms of  
6 disposal.

7 MEMBER MacLACHLAN: I am sorry. I  
8 must not have been very clear.

9 Essentially my question, I will  
10 boil it down to the request in the guidelines for  
11 a discussion of alternatives is restricted to the  
12 four sites. I wanted to hear input from staff as  
13 to why there was no requirement for a discussion  
14 of alternative methods for carrying out the  
15 project, which is interim storage of used fuel.

16 I understand your response on the  
17 issue of off site versus on site. I will just  
18 leave it to that one issue.

19 MS MALONEY: The simple answer is  
20 that under the Environmental Assessment Act there  
21 is no requirement under screenings for there to be  
22 a discussion of alternate methodologies. We are  
23 required to consider the proposal as presented and  
24 to work with that. That is what we have been  
25 doing.



1                   MEMBER MacLACHLAN: I realize what  
2                   the requirements are and the discretion, the  
3                   difference between what is required and what is  
4                   discretionary. I was looking for some feedback on  
5                   whether or not there had been a discussion of  
6                   alternative methods.

7                   MR. FERCH: This is Richard Ferch,  
8                   the Director of Wastes and Geosciences Division.  
9                   In this context, I don't believe there was a  
10                  discussion of alternative technologies, if you  
11                  will. Dry storage on site has in fact always been  
12                  part of the long-term plan for the generating  
13                  station. It was always envisaged that at a  
14                  certain period in the lifetime some of the fuel  
15                  would be stored dry on site. The other obvious  
16                  alternative would be to expand the wet storage on  
17                  site. That was not requested as an alternative  
18                  method in this EA.

19                 MEMBER MacLACHLAN: Thank you.

20                 THE CHAIRPERSON: Ms MacLachlan,  
21                 do you think it would be helpful for OPG to  
22                 comment on that, since they have been looking at  
23                 the sites, or not?

24                 MEMBER MacLACHLAN: Yes, I would  
25                 because I haven't participated in this, in any of

1 the Darlington applications before. I would like  
2 to have a discussion about alternative ways of  
3 carrying out the project, which is the storage of  
4 used fuel.

5 MR. NASH: Yes, we are happy to do  
6 that. We see that the project is really an  
7 extension of the existing storage practices. When  
8 we built the generating stations we provided  
9 storage capacity for somewhere between 15 and 20  
10 years. The intention was that it will be a  
11 disposal repository or we would extend the storage  
12 systems.

13 A number of years ago, before we  
14 constructed a Pickering dry storage system, the  
15 company looked at various ways that this might be  
16 done, extending storage, and for a number of  
17 reasons environmental protection, safety, long-  
18 term durability and finally cost and the modular  
19 way that dry storage systems can be expanded, the  
20 company took a strategic decision that future  
21 expansions of on site storage would be to use dry  
22 storage technology in dry storage containers.

23 Probably based on that strategic  
24 decision and the successful operation of the  
25 Pickering dry storage facility, basically, when it

1           came time to provide additional storage capacity  
2           for the Bruce reactors, we decided to basically  
3           replicate that system. That is in the final stage  
4           of construction now. Of course now we come to  
5           Darlington, so that is the chain of events and the  
6           thinking that went into the use of the dry storage  
7           container.

8                            From our perspective, it is a  
9           standardization, it is a proven system, and the  
10          questions for us internally are where best to  
11          locate the facility in terms of environmental  
12          protection, safety, land use and questions like  
13          that. The study of alternatives, from our  
14          perspective, is limited to that particular  
15          question.

16   12:00 p.m.

17                                       MEMBER MacLACHLAN: Thank you.

18                                       THE CHAIRPERSON: Mr. Graham.

19                                       MEMBER GRAHAM: My first question:  
20          Is there a low level waste disposal site on the  
21          site there now, or is low level waste transported  
22          to other facilities?

23                                       MR. NASH: The second option is  
24          correct. We transport the low and intermediate  
25          level waste from Darlington to our western waste

1 management facility which is Tiverton.

2 MEMBER GRAHAM: So there is no  
3 waste disposal site. This is proposed to be a  
4 completely new facility?

5 MR. NASH: Correct.

6 MEMBER GRAHAM: Will this  
7 facility, and I do not want to get into licensing  
8 questions, I just want to get into the guidelines,  
9 but will this facility be within the security  
10 confines of the existing plant? You gave a sketch  
11 and I could not really tell by the sketch or the  
12 overview whether it was within the security fence  
13 and the security of the area or whether there had  
14 to be separate security?

15 MR. NASH: It's in the licensed  
16 property and the outer perimeter which has  
17 security around it, but it is not in the protected  
18 area of the Darlington generating station and  
19 there will be additional protected area --

20 MEMBER GRAHAM: Security will be  
21 part of that.

22 The other question I have is with  
23 regard to the type of canister or type of storage  
24 container that will be used. Has there been any  
25 long term technology assessing I guess the

1           robustness or whatever it is with regard to  
2           earthquake and all these other things? Has there  
3           been any long-term testing or technology anywhere  
4           else in the world on these containers?

5                       MR. NASH: The long-term integrity  
6           of the dry storage container?

7                       MEMBER GRAHAM: Yes.

8                       MR. NASH: The Pickering safety  
9           report addresses that question, the integrity of  
10          the fuel in dry storage, the integrity of the  
11          density concrete, the welding systems under  
12          inspection maintenance programs around it. We  
13          periodically do inspection and maintenance on  
14          these things. We also have an aging management  
15          program which looks at these questions.

16                      There are studies that are now  
17          under way linked to the question of the long-term  
18          management of nuclear fuel waste as required by  
19          the federal government. We will look at how long  
20          beyond 50 years could these dry storage containers  
21          actually be durable for. We do have through our  
22          own studies a high level of confidence that they  
23          will at least meet the 50-year design life and how  
24          long beyond that is a secondary question that will  
25          be studied through the Nuclear Fuel Waste Act.

1                   As regards international studies  
2                   that international bodies have carried out, dry  
3                   storage is basically a well accepted technology  
4                   from our perspective. Many of those stations  
5                   throughout the world that do not have portable  
6                   capacity or disposal facilities in place are  
7                   extending storage use in dry storage mainly using  
8                   dry storage technology.

9                   MEMBER GRAHAM: But the dry  
10                  storage technology that is being proposed for this  
11                  project is it a patented technology or is it one  
12                  that has gone through the rigours of being used in  
13                  other sites or is it a new type of --

14                 MR. NASH: I think, generally  
15                 speaking to be fair, dry storage in Canada is  
16                 usually -- the main components of it are steel and  
17                 concrete. This is a steel and concrete dry  
18                 storage container.

19                 Dry storage systems in parts of  
20                 the world are generally using solid metal  
21                 containers more or less. The reason for that is  
22                 that CANDU fuel is not as hot. It does not  
23                 produce as much heat as PWR fuel.

24                 MEMBER GRAHAM: The containers  
25                 that you are talking about, they would be

1 constructed off site. Is that correct?

2 MR. NASH: Yes. Those are  
3 constructed at a manufacturing plant in Niagara  
4 Falls.

5 MEMBER GRAHAM: A question to CNSC  
6 staff: Does CNSC staff have inspectors there at  
7 all times while these are being manufactured?

8 THE CHAIRPERSON: I just caution  
9 that we are getting into licensing discussions.

10 MEMBER GRAHAM: Yes.

11 THE CHAIRPERSON: So could the  
12 reply be brief, please, and confined to issues  
13 that will be addressed.

14 MEMBER GRAHAM: That's what I  
15 said, that I had to be careful.

16 MR. FERCH: This is Richard Ferch,  
17 Waste and Geosciences Division. No, we do not  
18 have on-site continuous inspection, but we do  
19 conduct audits of the manufacturing.

20 MEMBER GRAHAM: A question that I  
21 do not think is related to licensing and that is  
22 what is the weight of these containers when they  
23 are full?

24 MR. NASH: It is approximately 70  
25 tonnes.

1                   MEMBER GRAHAM:  When they are  
2                   filled.

3                   So at the end of 30, 40 years if  
4                   they are to be moved to a permanent site can they  
5                   be transported on the highway?

6                   MR. NASH:  These particular  
7                   containers that we have adopted as dry storage  
8                   containers are built to a standard that meet the  
9                   off-site transportation safety requirements,  
10                  design requirements.  In fact, we do hold a  
11                  separate licence for transportation off-site.

12                  MEMBER GRAHAM:  Not to move too  
13                  far along.  That will come another day.  I presume  
14                  we will have another chance.

15                  The other question I had was with  
16                  regard to assessment of emergency preparedness.  
17                  Is this addressed in the scoping?  This is to  
18                  staff.

19                  MR. RIVERIN:  Yes, it is under  
20                  malfunctions and accidents.

21                  MEMBER GRAHAM:  Thank you.

22                  THE CHAIRPERSON:  I have a  
23                  question for the record that will address the  
24                  written submission of the Municipality of  
25                  Clarington.  Could the staff talk about the



1 request that the municipality made to be kept  
2 informed and involved in the process? What  
3 exactly will be the process by which the  
4 stakeholders will be informed and involved in the  
5 future?

6 MR. HOWARD: For the record, Don  
7 Howard.

8 In my presentation this morning I  
9 indicated that all stakeholders will be  
10 communicated with directly, but they will be  
11 provided with the final EA guidelines directly.  
12 The municipality is one of the stakeholders that  
13 have been identified. So they will be kept  
14 informed of every step along the way of this  
15 process.

16 THE CHAIRPERSON: Thank you.

17 Further questions?

18 This completes the record for the  
19 public hearing on the Environmental Assessment  
20 Guidelines for the construction and operation of  
21 the Darlington Used Fuel Dry Storage Facility in  
22 Clarington, Ontario.

23 The Commission will deliberate and  
24 will publish its decision in due course. It will  
25 be posted on the CNSC website, as well as

1 distributed to participants.

2 We will be taking a one-hour  
3 break. At 1:11 p.m. we will be back in our seats.

4 Thank you very much