

# Official Transcript of Proceedings

## NUCLEAR REGULATORY COMMISSION

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Title: Draft EIS for the North Anna ESP Site  
Public Meeting

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
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PUBLIC MEETING TO COLLECT COMMENTS  
ON THE DRAFT ENVIRONMENTAL IMPACT  
STATEMENT FOR AN EARLY SITE PERMIT (ESP)  
AT THE NORTH ANNA ESP SITE

+ + + + +

THURSDAY,

FEBRUARY 17, 2005

+ + + + +

The workshop was convened at the Forum of  
the Louisa County Middle School Auditorium, 1009 Davis  
Highway, Mineral, Virginia, at 7:00 p.m., Francis  
"Chip" Cameron, facilitator, presiding.

PRESENT:

- FRANCIS "Chip" Cameron, Facilitator
- JACK CUSHING, License Renewal and Environmental  
Impact Project Manager
- ANDREW KUGLER, Section Chief, License Renewal  
and Environmental Impact
- MARYANN PARKHURST, Pacific Northwest National  
Laboratory

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PRESENT (Continued):

BELKYS SOSA, New and Test Research Reactors,  
Safety Project Manager

RICHARD EMCH, Environmental Impact Section,  
Senior Project Manager

I N D E X

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

PAGE

Introduction, Francis "Chip" Cameron . . . . . 6

Welcome, Andrew Kugler . . . . . 13

Safety Review for Early Site Permits,  
 Belkys Sosa . . . . . 18

Environmental Review Report, Jack Cushing . . 22

Review of Draft Environmental Impact Statement,  
 Maryann Parkhurst . . . . . 36

Milestones of the Review, Jack Cushing . . . . 62

Statement on behalf of Dominion Power, Eugene  
 Grecheck . . . . . 66

Public Comment:

Paxus Calta . . . . . 71

Sam Forrest . . . . . 74

Aviele Thiel . . . . . 77

Asa Vegodski . . . . . 79

Sue Chase . . . . . 81

Dr. Jim Brian . . . . . 85

Bill Bardune . . . . . 91

Adel Wood . . . . . 95

Richard Diamond . . . . . 96

Ben Sloane . . . . . 97

Jerry Rosenthal . . . . . 101

Brendan Hoffman . . . . . 103

I N D E X (Continued)

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

PAGE

Public Comment (Continued):

Rena Martin-Errick . . . . . 106

Rebecca Faris . . . . . 108

Michele Boyd . . . . . 120

Lisa Shell . . . . . 118

Richard Ball . . . . . 124

Virginia Rovnyak . . . . . 129

Jennifer Conner . . . . . 133

Jay Bolan . . . . . 134

Sama Dilbaoy Leon . . . . . 137, 194

Brian Buckley . . . . . 141

Arjun Makhijani . . . . . 143

Scott Peterson . . . . . 148

Bill Murphy . . . . . 152

Dick Clark . . . . . 153

Delbert Horn . . . . . 157

John McCoy . . . . . 162

Jim Riccio . . . . . 164

Louis Zeller . . . . . 167

Brianne Boylan . . . . . 170

Seamus Allman . . . . . 171

Sue Frankel-Streit . . . . . 174

Tyla Matteson . . . . . 176

I N D E X (Continued)

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

PAGE

Public Comment (Continued):

Bill Casino . . . . .	178
Paul Gunter . . . . .	181
Jana Cutler . . . . .	185
Donald Day . . . . .	188
Elena Day . . . . .	190
Robert Singleterry . . . . .	192
Terry Lilley . . . . .	194
J.M. Montague . . . . .	196
Todd Flowers . . . . .	198
John Cruickshank . . . . .	200
Fred Gruber . . . . .	203
Kurt Flage . . . . .	204
Jim Adams . . . . .	207
Closing Remarks, Andrew Kugler . . . . .	

P R O C E E D I N G S

(7:04 p.m.)

1  
2  
3 MR. CAMERON: Well, good evening,  
4 everybody. Thank you, thank you, thank you for all  
5 being here tonight with us to help the NRC in its  
6 decision making on this important matter.

7 My name is Chip Cameron, and I'm the  
8 Special Counsel for Public Liaison at the Nuclear  
9 Regulatory Commission, and it's my pleasure to serve  
10 as your facilitator for tonight's meeting, and  
11 basically my job is to try to make sure that all of  
12 you have a productive meeting tonight.

13 The subject is the draft environmental  
14 impact statement that the NRC has prepared as part of  
15 its evaluation of an application that we received for  
16 an early site permit. We received this application  
17 from Dominion Energy for a potential new reactor at  
18 the North Anna site.

19 And I just want to go over a couple of  
20 things about meeting process before we get into the  
21 substance of our discussions tonight. First of all,  
22 I would like to talk about format; then to just go  
23 through some simple ground rules for the meeting; and  
24 finally to introduce the NRC speakers who will be  
25 talking to all of you tonight.

1           Our format is going to be basically a two-  
2 part format, and those two parts match up with our  
3 objectives tonight for the meeting. The first part is  
4 to give all of you come information on the NRC's  
5 process for reviewing these early site permit  
6 applications. And we have a few NRC speakers that are  
7 going to tell you about that process.

8           And we also want to give you information  
9 on what the findings, what the analysis is in the  
10 draft environmental impact statement that we prepared  
11 on this application, and I want to emphasize the word  
12 "draft" because it's not going to be finalized until  
13 we evaluate all of the comments that come in from the  
14 public, the comments that we hear tonight, the written  
15 comments that are submitted on this draft  
16 environmental impact statement.

17           Only after that evaluation will the  
18 environmental impact statement be finalized.

19           So we have some brief presentations.  
20 We'll have a little time for some questions from you  
21 on the process and on the findings in the draft  
22 environmental impact statement.

23           Then we're going to move into the second  
24 part of the meeting, which is our opportunity to hear  
25 from you on these issues. Your advice, your concerns,

1 your recommendations on the draft environmental impact  
2 statement, the process in general.

3 We also are taking written comments on  
4 these issues, and the NRC staff will explain how you  
5 submit written comments, but we wanted to be here with  
6 you tonight personally, and it's just wonderful to see  
7 such a great turnout, and again, thank you for being  
8 here.

9 Anything that you say tonight will carry  
10 as much weight as a written comment that we have  
11 received, and as I noted earlier, we are taking a  
12 transcript of the meeting.

13 In terms of ground rules, I would just ask  
14 that one person speak at a time for a couple of  
15 obvious reasons. One is that so we can give our full  
16 attention to whomever has the floor at the time.

17 You're going to hear a lot of information  
18 tonight not only from the NRC, but from fellow members  
19 of the audience. So we want to hear that. We're here  
20 to listen, and I think we're all here to listen to  
21 those comments. So one person at a time, and that  
22 will allow Habte to get a clean transcript so that  
23 we'll know who is speaking.

24 I would ask you to introduce yourself to  
25 us when you speak and to give us any affiliation, if

1 that's appropriate, so that we know who you're  
2 affiliated with, and I would just ask you to be  
3 concise. We have a lot of people who want to talk  
4 tonight, and I want to make sure that everybody who  
5 wants to speak gets an opportunity to speak.

6 We have to be out of the school, by the  
7 school's rules, by 11 o'clock tonight, and we need to  
8 pack up. So we're going to go at least till 10:30,  
9 and then we're going to have to try to get out of  
10 here. Hopefully we can hear from all of you.

11 I'm asking everyone to follow a three-  
12 minute rule, a guideline in terms of their  
13 presentation. I know that is short, but it will allow  
14 us to get everybody on, I hope. And three minutes, I  
15 think, is just enough time to summarize your main  
16 points, and that's going to accomplish two important  
17 objectives for us, one of which is it's going to alert  
18 the NRC staff to the important issues that we need to  
19 start evaluating right away, and that we want to talk  
20 to you about further after the meeting.

21 The NRC staff and our experts will be here  
22 after the meeting. They're going to be listening to  
23 what you say, and hopefully they'll have a chance to  
24 talk to you after the meeting.

25 But besides alerting the NRC to these

1 issues, it's going to alert all of you to issues of  
2 concern on this subject. So three minutes.

3 If you have a prepared statement that you  
4 want us to attach to the transcript, we can do that.  
5 We do have comment forms if you want to put some more  
6 comments down tonight and leave them with us. And of  
7 course, there will be the written comments that you  
8 can submit, and the staff will be telling you more  
9 about that.

10 And I guess the last ground rule is that  
11 we just try to all be courteous towards one another.  
12 These are extremely important issues. People have  
13 strong feelings on one type or the other. So I would  
14 just ask you all to respect each other's views.

15 And another aspect of that is we're all  
16 guests in this community, and there are people who are  
17 from outside the community who are concerned about  
18 these issues, and just please afford them the courtesy  
19 of guests in the community.

20 And with that, let me introduce the NRC  
21 staff who's going to be talking to you, and then we  
22 can get on with this. We're going to have three brief  
23 -- and I asked the staff to be brief so that we can  
24 get to you as soon as possible -- three brief  
25 presentations on process.

1                   One is basically a welcome from Mr. Andy  
2                   Kugler of the NRC. Andy is the Section Chief for the  
3                   License Renewal and Environmental Review Program at  
4                   the NRC. Any environmental assessment or impact  
5                   statement for a reactor issue, be it an early site  
6                   permit, license renewal or whatever, Andy and his  
7                   staff is in charge of that. He's been with us for  
8                   about 15 years. He was with the Naval Submarine  
9                   Program, worked for a nuclear utility, a Bachelor's  
10                  from Cooper Union, and we have other Cooper Union  
11                  graduates in the audience, I think. He had mechanical  
12                  engineering from Cooper Union and a Master's in  
13                  technical management from Johns Hopkins.

14                  Next we're going to go to Belkys Sosa, who  
15                  is the Project Manager for the safety review on this  
16                  early site permit, and she's going to explain what  
17                  that is to all of you. She's new to the NRC, been  
18                  with us two years.

19                  Before that she was also connected with  
20                  the nuclear submarine program, and she has a  
21                  Bachelor's in nuclear engineering from the University  
22                  of Maryland.

23                  Then we're going to go to a final process  
24                  piece, and that is Mr. Jack Cushing from the NRC.  
25                  He's the Environmental Project Manager, the person who

1 supervises putting together this draft EIS that we're  
2 going to talk about tonight. Jack has been with the  
3 NRC for six years. He was a licensed operator or a  
4 nuclear power plant, the Maine Yankee plant, I  
5 believe, and he's a graduate of the Massachusetts  
6 Maritime Academy, mechanical -- or, no.

7 MR. CUSHING: Marine engineering. Okay.

8 Then we're going to go out and see if  
9 there's any questions about process.

10 Then we're going to get to the heart of  
11 the matter in terms of the findings in the draft  
12 environmental impact statement, and we have the team  
13 leader for that effort, Maryann Parkhurst right here,  
14 who is from Pacific Northwest National Laboratory.  
15 She's the head of a team of experts that the NRC has  
16 assisting us in preparing this environmental impact  
17 statement.

18 She has a Bachelor's in chemistry from the  
19 University of New Mexico, Master's in ecology from  
20 Washington State University, and a Master's in  
21 radiological sciences from the University of  
22 Washington. Thank you, Maryann.

23 And we're looking forward to talking to  
24 you this evening after the meeting, and please, this  
25 is just one meeting. This is just one point on a

1 spectrum. The staff, they're going to give you some  
2 contact information, phone numbers, E-mails. If you  
3 have questions, concerns, any time just please feel  
4 free to contact the NRC staff, and they'll be very  
5 responsive to your concerns.

6 And with that, I'm going to ask Andy.  
7 Would you like to lead off for us? Thank you.

8 MR. KUGLER: Thank you, Chip.

9 And I want to thank you all for coming out  
10 this evening for a meeting on the draft environmental  
11 impact statement for the North Anna early site permit.  
12 I appreciate the effort it has taken to come here, and  
13 I certainly appreciate the size of the turnout, which  
14 exceeded our expectations.

15 I hope that you find that the information  
16 we provide for you tonight is helpful to you to under  
17 the process that we're going through. We also look  
18 forward to listening to your questions, answering your  
19 questions, and listening to any comments you might  
20 have.

21 Because of the large number of people, as  
22 Chip mentioned, we'll try and keep our presentation  
23 brief.

24 I would like to start by saying a few  
25 words about the NRC. We are an independent regulator,

1 independent agency. We do not promote, build or  
2 operate nuclear power plants. That's not our job.  
3 Our job is to regulate the civilian use of nuclear  
4 materials here in the United States, and that would  
5 include the regulation of nuclear power reactors.

6 Our job is also to insure the protection  
7 of public health and safety, to protect the  
8 environment, and also to promote the common defense  
9 and security.

10 I'd also like to mention that we have at  
11 least two resident inspectors at each site, including  
12 North Anna. At this site we have a senior resident  
13 inspector, Mark King, and a resident inspector, Gerald  
14 Wilson. These individuals are assigned to this site.  
15 They live in this area, and they're there to monitor  
16 operations on a day-to-day basis and insure the plants  
17 are operated safely.

18 Next slide, please.

19 In this slide we display the overall  
20 process for licensing a new reactor under Part 52.  
21 This is in Title X of the Code of Federal Regulations,  
22 and these are our regulations for how to license a new  
23 reactor.

24 If a company wants to request a combined  
25 license to build and to operate a new reactor, one of

1 the ways that they can do that is to reference an  
2 approved early site permit and to reference an  
3 approved design.

4 Use of these early approvals means that  
5 the design and siting issues or many of the design and  
6 siting issues will have already been reviewed and  
7 resolved at an earlier stage.

8 And if the NRC does approve a combined  
9 license at a plant, we would be monitoring the  
10 construction of the plant and verifying key attributes  
11 before the plant is allowed to operate.

12 Dominion's request for an early site  
13 permit is the first that the NRC is reviewing. If the  
14 early site permit is approved, Dominion could some day  
15 request a combined license and reference that early  
16 site permit.

17 Next slide.

18 Now, before we go into any of the specific  
19 issues, I'd like to touch briefly on the nature of an  
20 early site permit and what is allowed under such a  
21 permit.

22 An early site permit is basically a site  
23 suitability review. The staff evaluates if this  
24 location is suitable for the construction and  
25 operation of a new nuclear power plant or plants.

1           If approved, the permit does not give  
2 Dominion permission to build a plant. In order to  
3 actually build it, as I mentioned, they would have to  
4 apply for a license to do so, and that would be a  
5 separate review, and we would perform another  
6 environmental review of that application.

7           However, under the early site permit,  
8 Dominion can conduct certain site preparation  
9 activities and limited construction activities if the  
10 early site permit include an approved site redress  
11 plan. And we have preliminarily concluded that the  
12 site redress plan that Dominion provided would be  
13 acceptable.

14           The site redress plan is there for a  
15 specific purpose. If construction at the site or pre-  
16 construction activities were carried out at the site  
17 and then Dominion decided not to build a plant, the  
18 site redress plan would be used to return the site to  
19 an environmentally stable and aesthetically acceptable  
20 condition.

21           Some of the activities that would be  
22 allowed under a site redress plan would be things like  
23 building roads, building support buildings,  
24 excavation, things of that nature. However, no  
25 construction of systems or components that are

1 important to nuclear safety would be allowed under the  
2 early site permit.

3 Next slide.

4 Why would an applicant want an early site  
5 permit? What does it do for them? If the early site  
6 permit is approved, it gives the applicant a piece of  
7 property where siting issues or most siting issues  
8 have been resolved for a period of up to 20 years.

9 Having these issues resolved early reduces  
10 the uncertainty a utility might face if they decide  
11 they do want to build a plant. And when a company  
12 thinks about an investment as large as building any  
13 sort of power plant, the less uncertainty that they  
14 face at the construction stage, the better. So that's  
15 a value that a utility would see in an early site  
16 permit.

17 That completes my remarks on the basis of  
18 an early site permit.

19 Chip.

20 MR. CAMERON: Okay. Thank you. Thank you  
21 very much, Andy.

22 Before we go to our next speaker, I think  
23 it's appropriate to introduce Mr. Bill Beckner from  
24 the NRC who is right here. Bill is the Director of a  
25 program called New Research and Test Reactors at the

1 NRC, and Bill and his staff are in charge of the early  
2 site permit process. So I just wanted to introduce  
3 him.

4 And now we're going to go to one of Bill's  
5 staff to talk to us. This is Belkys Sosa, who's going  
6 to tell you a little bit about the safety review that  
7 are done on these early site permits.

8 Belkys.

9 MS. SOSA: Thank you.

10 This figure lays out the major steps in  
11 the review process for an early site permit  
12 application. Opportunities for public involvement in  
13 the process are depicted in yellow.

14 As reflected here, the first opportunity  
15 for public involvement occurred before we received the  
16 application. We were here in April of 2003 to explain  
17 the early site permit process.

18 The North Anna early site permit  
19 application was received in September of 2003, which  
20 initiated a review by the staff. As the figure shows,  
21 the ESP application includes two major reviews: the  
22 safety review and the environmental review.

23 The top portion of the figure shows the  
24 review process related to site safety. This review is  
25 conducted in accordance with the requirements of the

1 Atomic Energy Act and the Commission regulations.

2 The safety review involves an evaluation  
3 of site safety issues and plans for coping with  
4 emergencies independent of the review of a specific  
5 NOPER plant design. In other words, the review will  
6 address the site acceptability to safely host one or  
7 more nuclear units.

8 After the NRC develops the safety  
9 evaluation report or the SER, it will be reviewed by  
10 the Advisory Committee on Reactor Safeguards, or ACRS.  
11 The ACRS is an independent advisory group of technical  
12 experts that advises the Commission.

13 The ACRS will hold public meetings during  
14 its review of the application, as well as the staff  
15 safety evaluation report. The ACRS will report  
16 directly to the Commission the results of their review  
17 of the application, as well as comments on the staff's  
18 review and provide recommendations. The ACRS report  
19 is provided directly to the Commission and is  
20 considered by the Commission on their decision for the  
21 early site permit application.

22 After the NRC staff and the ACRS complete  
23 their respective safety reviews, the NRC will issue a  
24 Federal Register notice announcing the mandatory  
25 public hearing. The safety evaluation report will be

1 one of the items considered in the hearing.

2 The lower portion of the figure reflects  
3 the environmental review process conducted by the  
4 staff in accordance with the National Environmental  
5 Policy Act, or NEPA.

6 Early in the review process we conduct  
7 scoping activities. In other words, this is where we  
8 decide the issues that should be included in the  
9 environmental review.

10 We held scoping meetings here in December  
11 of 2003, and the purpose of today's meeting is to  
12 inform you of the results of the NRC's review and to  
13 receive your comments on the draft environmental  
14 impact statement.

15 You will hear more on this from the  
16 Environmental PM, Mr. Cushing.

17 The key aspects of the site safety review  
18 are evaluation of site characteristics as they relate  
19 to the safety of a plant, as well as emergency plan.  
20 The staff will determine whether the site is  
21 physically suitable for a new nuclear plant.

22 In addition, the staff will determine  
23 whether there are any significant impediments to  
24 successfully implementing an emergency plan.

25 The draft safety evaluation report was

1 made available to the public January 11th, 2005, and  
2 it is posted on our Website, [www.nrc.gov](http://www.nrc.gov). A copy of  
3 it is also available at the public library here in  
4 Louisa County, as well as the Public Document Room at  
5 the NRC's headquarters in Rockville, Maryland.

6 There are approximately 30 open items on  
7 the draft safety evaluation report. Open items are  
8 issues where the applicant will need to provide  
9 additional information for the staff to be able to  
10 complete the review.

11 When we resolve the open items, we will  
12 issue the final safety evaluation report.

13 Here's my contact information. If you  
14 have any questions on the safety evaluation report,  
15 please feel free to contact me any time.

16 The draft safety evaluation report, as I  
17 mentioned, is available at the library across the  
18 street. I also brought a number of copies on CD with  
19 me here today. So if you are interested, please see  
20 me after the meeting. I'll be more than happy to  
21 provide you a copy.

22 And before I conclude my presentation, I'd  
23 like to mention that we will be conducting public  
24 meetings next week on the 23rd at the NRC's  
25 headquarters in Rockville, Maryland. This meeting is

1 to discuss open items with the applicant. The public  
2 is invited to observe the meetings, and they will be  
3 an opportunity for public comments during the agenda.

4 In addition, the following week, March 2nd  
5 and 3rd, there will be another public meeting with the  
6 ACRS, the Advisory Committee on Reactor Safeguards,  
7 regarding the draft safety evaluation report.

8 Thank you, and at this time I'd like to  
9 turn to the next presentation.

10 Chip, I don't know if you have --

11 MR. CAMERON: Yeah, let's go to Jack  
12 Cushing, and if you want information about the  
13 meetings that Belkys mentioned, please talk to her,  
14 but if it's possible for us to perhaps just write  
15 these down and put these on a Website so that it's  
16 easy for people to find out, we'll try to do that.

17 Jack Cushing, the Environmental PM,  
18 Project Manager.

19 MR. CUSHING: Thank you, Chip.

20 Good evening. My name is Jack Cushing,  
21 and I am the Environmental Project Manager for the NRC  
22 review of the North Anna early site permit.

23 I'm going to spend some time tonight  
24 explaining the environmental review process and  
25 explaining how you can get involved in our review

1 schedule.

2 The National Environmental Policy Act, or  
3 NEPA as it is also known, requires all federal  
4 agencies to use a systematic approach to consider  
5 environmental impacts during certain decision making  
6 proceedings. It is a disclosure tool that involves  
7 the public. It involves a process which information  
8 is gathered to enable federal agencies to make  
9 informed decision, and then as part of that process we  
10 document the information and we invite the public to  
11 participate.

12 In accordance with NEPA, an environmental  
13 impact statement is required for any proposed action  
14 that may significantly affect the human environment.  
15 The Commission has determined that an environmental  
16 impact statement will be prepared for an early site  
17 permit.

18 Next slide.

19 This slide shows the environmental review  
20 process in a little more detail. There are certain  
21 steps that we at the NRC are required to follow during  
22 an environmental review. The first step is the notice  
23 of intent. That lets the public know that we're going  
24 to prepare an environmental impact statement, and the  
25 notice of intent for this early site permit was

1 published in the Federal Register on November 24th.

2 The notice of intent initiates the scoping  
3 process, which is an opportunity for public  
4 participation, and we held a public meeting here in  
5 December 2003 as part of that process.

6 At the meeting we received public  
7 comments, which are included in Appendix A of the  
8 draft environmental impact statement.

9 That same week as our public scoping  
10 meeting, our review team visited the site and  
11 conducted a site audit. We also issued formal request  
12 for additional information to document that key  
13 information that we used in our environmental impact  
14 statement.

15 When we completed our review, we issued  
16 the draft environmental impact statement for public  
17 comment on December 10th, 2004. The comment period  
18 ends on March 1st, 2005.

19 Now, this report is a draft, not because  
20 it's incomplete, but because we are at an intermediate  
21 stage in the review process, and part of that process  
22 is being here tonight to hear your comments, and we'll  
23 capture those comments and take them back with us and  
24 evaluate them. We also want to help you formulate  
25 your comments tonight.

1           This draft document will be considered in  
2 the hearing process as one input for the final agency  
3 decision on whether to grant the early site permit.

4           Next slide.

5           As you can see from this diagram, the  
6 staff sought input from a number of different sources,  
7 including the application, federal, state, and local  
8 agencies, the site audit, and the public through your  
9 comments.

10           We looked at a number of issues, including  
11 the environmental impacts of construction and  
12 operation of reactor or reactors at the North Anna ESP  
13 site, and we also looked at alternative sites.

14           In addition, we looked at alternate  
15 cooling systems and possible mitigation measures,  
16 which are things that could be done that would  
17 decrease the environmental impacts of construction and  
18 operation at the site.

19           There are certain issues that need not be  
20 considered in the ESP environmental review, and those  
21 were need for power and alternative energy sources.  
22 The regulations specify that need for power does not  
23 need to be considered in the environmental review.

24           In addition, the Commission has determined  
25 that alternate energy sources don't need to be

1 considered at this stage.

2 Now, deferral of these issues is  
3 acceptable because the issue at hand is site  
4 suitability. In other words, is this site acceptable  
5 for one or more nuclear plants?

6 Now, if the applicant chooses not to  
7 address these issues, and Dominion did not, then they  
8 would have to be addressed if and when an applicant  
9 requests a construction permit or a combined license.  
10 So before a plant is actually built these issues will  
11 be evaluated.

12 Next slide.

13 Now, to prepare for the review, we  
14 assembled the team of NRC staff with backgrounds in  
15 specific technical and scientific disciplines to  
16 perform these environmental reviews.

17 In addition, to supplement the technical  
18 expertise of the staff, we engaged the assistance of  
19 experts from Pacific Northwest National Laboratory to  
20 insure that we have a well rounded knowledge base to  
21 perform this review.

22 Our team is made up of approximately 20  
23 people with a broad range of expertise as reflected in  
24 this figure.

25 Next, Maryann Parkhurst, the team leader

1 from Pacific Northwest National Lab, will discuss what  
2 we found during our review.

3 Now, before I turn it over to her, are  
4 there any questions on the review process?

5 MR. DIAMOND: Yes.

6 MR. CAMERON: Okay. Yes, sir, we need to  
7 get you on the microphone. Okay? So I'm going to  
8 bring this up here to you, and if you could just  
9 introduce yourself to us and ask the question.

10 MR. DIAMOND: Thank you.

11 My name is Richard Diamond. I'm a local  
12 citizen.

13 My question is: does any of this process  
14 take any account into security issues raised by 9/11?

15 MR. CUSHING: At the early site permits,  
16 the staff does not evaluate security issues. At the  
17 combined license, they will be required to have a  
18 security plan, a full and complete security plan.

19 MR. CAMERON: And perhaps, Andy or Jack,  
20 do you want to just, since it is a very important  
21 concern to everyone, can you just give us a little  
22 rundown on what the NRC does generally, apart from  
23 these types of applications?

24 MR. CUSHING: All right. For like  
25 existing reactors since September 11th, the NRC

1 increased their security requirements. They increased  
2 the standoff distance from the plant. That's how  
3 close vehicles can get to the plant.

4 They also increased the frequency of the  
5 force-on-force drills and made them more robust as  
6 well. Now, the force-on-force drills are where we  
7 test the security response of the security force at  
8 the plant, and we've also coordinated with the  
9 Department of Homeland Security and increased  
10 communications with all the licensees as well.

11 MR. CAMERON: And, Andy, anything you want  
12 to add or is that sufficient?

13 MR. KUGLER: Well, I was just going to  
14 say, as Jack mentioned, security will be reviewed in  
15 detail if we receive an application for an actual  
16 license to construct and operate a plant. At this  
17 stage what we do look for is that there are no reasons  
18 to believe a plant could not be developed at this  
19 site. So it's a fairly limited review, but it's just  
20 to make sure that the site would not prevent the  
21 development of a security plan.

22 MR. CAMERON: Okay. Let's go to this  
23 gentleman right here. Yes, sir.

24 MR. MAKHIJANI: Arjun Makhijani.

25 PARTICIPANT: Hello, Arjun.

1 MR. MAKHIJANI: Good to see you.

2 I have two quick questions.

3 MR. CAMERON: Could you --

4 MR. MAKHIJANI: I'm Arjun Makhijani from  
5 the Institute for Energy and Environmental Research.

6 Does the applicant actually submit to you  
7 a soft copy of the site permit to PNNL or the NRC for  
8 your use, or do you only get a hard copy?

9 MR. CUSHING: We get both electronic and  
10 paper copies, if that was your question.

11 MR. MAKHIJANI: Yes.

12 MR. CUSHING: Yes, we do.

13 MR. MAKHIJANI: And can you identify for  
14 me the sections in the draft environmental impact  
15 statement that were listed or close to listed without  
16 clear attribution from the early site application  
17 directly into the DEIS?

18 MR. CUSHING: Well, our review relies on  
19 the application as part of the licensing action. The  
20 application is part of the licensing basis, and that  
21 is what we evaluate.

22 Now, as you see in our draft environmental  
23 impact statement where we did use information, we  
24 reference the environmental report, and that's in the  
25 reference section.

1 MR. MAKHIJANI: I actually did not see it,  
2 which was the cause of my question.

3 MR. CAMERON: Okay. Let me just repeat  
4 that for the transcript, is that Arjun couldn't  
5 identify specifically which portions of the draft  
6 environmental impact statement were drawn verbatim, I  
7 guess, from the --

8 MR. MAKHIJANI: Close to verbatim.

9 MR. CAMERON: -- close to verbatim from  
10 the applicant's environmental report.

11 And perhaps if, Jack, you and Maryann  
12 could talk to Arjun and talk about this issue.

13 MR. CUSHING: Right. I have a copy of the  
14 draft.

15 MR. CAMERON: All right.

16 MR. CUSHING: And I will go through that  
17 with you.

18 MR. CAMERON: Okay, great. Other process  
19 questions? Yes, ma'am.

20 MS. CRAWFORD: Hi. My name is Barbara  
21 Crawford.

22 The second speaker, the woman over here,  
23 I'm sorry. I didn't get your name.

24 MR. CAMERON: Belkys.

25 MS. CRAWFORD: Oh, you can't hear me.

1                   You mentioned that there were 30 open  
2 items which have to be resolved before a final  
3 environmental impact statement can be issued. What  
4 are those 30 open items?

5                   MS. SOSA: Yes. This is in reference to  
6 the safety evaluation report. If you -- and I have a  
7 copy of it. I can -- it's in the first section of the  
8 safety evaluation report. There is a table that goes  
9 item by item what they are.

10                  MS. CRAWFORD: Well, what's out there in  
11 the whole --

12                  MS. SOSA: It's the environmental, the  
13 draft environmental impact statement, which is the  
14 subject of today's meeting.

15                  MS. CRAWFORD: Right.

16                  MS. SOSA: I guess it's a bit confusing,  
17 I know, but that's the reason why we have two separate  
18 presenters. The safety valuation report is one  
19 portion of the review, and the environmental impact  
20 statement is a --

21                  MS. CRAWFORD: Are those 30 open items  
22 listed in that big tome that's out there in the hall?

23                  MS. SOSA: No.

24                  MS. CRAWFORD: Okay. How do we get hold  
25 of that?

1 MS. SOSA: The draft safety -- environment  
2 evaluation report --

3 MS. CRAWFORD: Yes.

4 MS. SOSA: -- which is what I'm  
5 responsible for, I have it on CD if you would like a  
6 copy.

7 MS. CRAWFORD: Okay. I can get that from  
8 you after the meeting?

9 MS. SOSA: Yes, yes.

10 MS. CRAWFORD: Okay. Then my other  
11 question was in terms of this slide right here, "team  
12 expertise," who were your experts in aquatic ecology?

13 MR. CUSHING: Duane Nietzel from Pacific  
14 Northwest Laboratories was the expert in aquatic  
15 biology. Our hydrologist, which is a different water  
16 issue, was Lance Field from Pacific Northwest Labs.

17 Lance is right here.

18 MS. CRAWFORD: Okay, okay. And  
19 socioeconomics, environmental justice. I don't even  
20 understand what you mean in terms of team expertise  
21 for that one. Could you explain that?

22 MR. CUSHING: Sure. I'd be more than  
23 happy to. Now, socioeconomics is the impact of the  
24 plant on the economy and the social services of the  
25 community. That goes into, you know, the business,

1 also the services that would be required,  
2 construction, education. You know, more people would  
3 potentially be moving into the area, those types of  
4 things. That's socioeconomics.

5 Now, environmental justice, we look to see  
6 if there's any significant adverse impacts that would  
7 affect minority and low income populations to a  
8 greater extent than the general population.

9 MS. CRAWFORD: And who were the experts in  
10 socioeconomics and environmental justice?

11 MR. CUSHING: John Jacks.

12 MS. CRAWFORD: Who?

13 MR. CUSHING: John Jacks was his name. In  
14 our draft environmental impact statement, we list the  
15 various contributors and their area of expertise.

16 MS. CRAWFORD: And is it clear --

17 MR. CUSHING: Yes.

18 MS. CRAWFORD: -- what their contribution  
19 was to the team expertise?

20 MR. CUSHING: Yes. We list their names  
21 and the areas that they were responsible for.

22 MS. CRAWFORD: Okay.

23 MR. CAMERON: Okay, and you know, Maryann  
24 and Lance and others, if you can provide some more  
25 information on that after the meeting.

1                   Let's take one more process question and  
2 then move on to Maryann. Okay. Let's take this young  
3 lady, and then we'll take you quickly, and then we'll  
4 go on.

5                   Go ahead, and introduce yourself, please.

6                   MS. SESHAWN: My name is Mia Seshawn, and  
7 I'm a high school student in Charlottesville.

8                   My question is about one of the earlier  
9 slides that you showed, combined licenses, early site  
10 permits, and standard design certifications. Two of  
11 the things on the slide say "early slide permit" and  
12 "standard design certification." And on the bottom of  
13 the page it says "or equivalent process," and I was  
14 just curious what the equivalent processes would be.

15                  MR. CAMERON: Thank you, Mia.

16                  MR. CUSHING: Let me go back to slide "or  
17 equivalent process."

18                  Now, the standard design certification,  
19 what that is is somebody, a vendor, has submitted  
20 their design that has been evaluated. Now, that's a  
21 certified design. It has been through the review  
22 process.

23                  An equivalent would be if they submitted  
24 a design that hadn't been reviewed. We would do an  
25 independent review of that application, and we would

1 write a much larger safety evaluation because the  
2 issues hadn't been looked at previously.

3 MR. CAMERON: Okay. Thanks, Jack.

4 We're going to go to this gentleman for a  
5 final question, and the staff will be available after  
6 the meeting for questions.

7 Yes, sir.

8 MR. MCGARRY: Kevin McGarry, EPA.

9 You had mentioned in your presentation  
10 that the EIS here doesn't need a purpose and need  
11 because this is a suitability --

12 MR. CUSHING: No, I didn't say it didn't  
13 need a purpose and need. I said we didn't need to  
14 look at need for power.

15 MR. MCGARRY: Okay. You're saying that it  
16 does have a purpose and need?

17 MR. CUSHING: Yes, it does have a purpose  
18 and need.

19 MR. MCGARRY: Okay. Then I take I take  
20 that back.

21 MR. CAMERON: Thanks, Kevin. It's good to  
22 have the EPA here.

23 Maryann, are you ready to give us a  
24 summary of the draft EIS? And then we'll go to  
25 everybody for questions on that.

1 Maryann Parkhurst, team leader, Pacific  
2 Northwest National Lab.

3 MS. PARKHURST: Good thing I'm in heels.  
4 (Laughter.)

5 MS. PARKHURST: One of the last questions  
6 here actually leads into my first slide. I can't tell  
7 from here. This will be Slide 15.

8 Okay. Dominion's plant parameter  
9 envelope. Now, what is this plant parameter envelope?  
10 It's a surrogate for actual design parameters where  
11 the utility hasn't yet selected a design.

12 In this case, Dominion had not selected a  
13 specific plant design per the proposed Units 3 and 4.  
14 Instead, the Dominion staff submitted in their  
15 application a plant parameter envelope -- which I'll  
16 probably call PPE. Excuse me for using the acronym.  
17 That's the way we handle it here -- as a surrogate for  
18 an actual design. Their PPE is a set of parameters  
19 that Dominion believes bounds the design  
20 characteristics of the plant that they would  
21 eventually, should they choose to, submit an  
22 application for their license.

23 In other words, the parameters represent  
24 the maximum values of composite characteristics and  
25 are not specific to any particular design.

1                   So why would Dominion use a PPE? Well, it  
2 allows them right now to deter till later making a  
3 decision on a reactor design, until they decide  
4 whether to go ahead with an application.

5                   Dominion selected characteristics from  
6 five lightwater reactors to gas-cooled reactors in  
7 developing this PPE.

8                   Next slide, please.

9                   Using the PPE parameters, the assessment  
10 team evaluated the construction and operation impacts  
11 for the North Anna early site permit plants for topics  
12 that I'll discuss a little later.

13                  As part of the overall review, we also  
14 evaluated Dominion's site redress plan. Now, on the  
15 left side, we looked at the North Anna site and then  
16 the redress plan. In bringing it down, Andy talked a  
17 little bit about the redress plan. It would insure  
18 that the site would be returned to environmentally  
19 stable and aesthetically acceptable condition in the  
20 event that the ESP were approved and that Dominion did  
21 some work on the site and then did not pursue or was  
22 not approved for a construction permit or combined  
23 license.

24                  We also evaluated environmental impacts  
25 for the alternative site. That's on the right side of

1 the slide, which in this case included Dominion's  
2 Surry site and the Department of Energy's Savannah  
3 River site in South Carolina, as well as the  
4 Portsmouth gaseous diffusion plant in Ohio.

5 Then towards the middle of the slide, we  
6 compared the impacts of the North Anna ESP sites with  
7 the alternative sites.

8 After finding that no alternative site was  
9 obviously superior to the North Anna ESP site, our  
10 preliminary conclusion is that ESP should be issued.

11 Next slide, please.

12 Now, for each of the issues, and, again,  
13 I'll discuss them in a later couple of slides, an  
14 impact level is assigned. These impact levels of  
15 small, moderate, and large are based on or are  
16 consistent with the Council of Environmental Quality  
17 guidance for a NEPA analysis.

18 Next slide, please.

19 Now, here's the major categories of the  
20 issues we looked at. These primary issues include  
21 land use. In this case the proposed units would be  
22 located adjacent to Units 1 and 2 and within the North  
23 Anna exclusion boundary.

24 We looked at air quality and air  
25 emissions, threatened and endangered species, as well

1 as the terrestrial and aquatic resources, but  
2 threatened and endangered species we looked at, now,  
3 within the county's bordering Lake Anna or the North  
4 Anna River, there's a mussel that's federally listed,  
5 and one additional species that's a candidate for  
6 listing.

7 However, no protected species have been  
8 found in Lake Anna or on the North Anna Power Station  
9 site.

10 Additionally, the impacts to North Anna  
11 River aquatic communities are expected to be small.

12 Someone asked about socioeconomics  
13 earlier. Here's a little bit more information there.  
14 We break it down into some major categories, including  
15 the physical impacts, the demographics, and the  
16 community characteristics, and then we also look into  
17 the historic and cultural resources and the  
18 environmental justice issue.

19 The final one shown here is human health.  
20 We looked both at radiological and at non-  
21 radiological, both public and occupational sorts of  
22 issues, including in this case noise effects,  
23 electromagnetic, and so on, of radiation.

24 Next one, please.

25 DR. BRIAN: Could I interrupt right there

1 because the next slide you're leaving out your Chapter  
2 5 on accidents.

3 MS. PARKHURST: Let's go to the next  
4 slide, please, and I think we'll answer that one.

5 MR. CAMERON: Dr. Brian, can we just in  
6 the interest of time, let's let Maryann get through  
7 her presentation and just please note your questions,  
8 and then we'll come back and we'll take all of the  
9 questions then.

10 And, Maryann, we'll go to Dr. Brian first  
11 after you're done.

12 MS. PARKHURST: I think we're going to get  
13 to it, like I say, on this next slide.

14 MR. CAMERON: Okay, good.

15 MS. PARKHURST: But we also reviewed the  
16 environmental impacts of accidents, uranium fuel  
17 cycle, and waste management, transportation, and the  
18 eventual decommissioning.

19 Highlighting a few of our review items,  
20 let's go to the next slide, and we'll talk about Lake  
21 Anna usage. As probably all of you in this room know,  
22 Lake Anna is an artificial reservoir created in 1971  
23 by Virginia Power as a source of cooling water for the  
24 North Anna Power Station.

25 The lake is divided into two distinct

1 water bodies, the reservoir and the waste heat  
2 treatment facility, which is a series of three cooling  
3 lagoons.

4 North Anna was initially licensed for four  
5 nuclear units, of which only two were built. Lake  
6 Anna currently provides cooling water for Units 1 and  
7 2, and Dominion proposes to use Lake Anna for once  
8 through cooling of Unit 3.

9 Dry tower cooling is proposed for Unit 4  
10 because water and energy balance studies of Lake Anna  
11 suggest that the lake would support one, but not two  
12 units with once through cooling.

13 Virginia Power owns the land around the  
14 lake up to the 255 high water mark. The land adjacent  
15 to Lake Anna has become increasingly residential.  
16 Lake Anna is a popular recreation destination, and the  
17 dam itself provides downstream flood control.

18 The North Anna River below the dam is used  
19 for municipal water supplies and provides an aquatic  
20 environment that supports recreational fishing.

21 Next slide, please.

22 In our evaluation of the water use of Lake  
23 Anna to support cooling of Unit 3, we modeled the  
24 discharge of waste heat and its effects on evaporation  
25 and on lake levels and lake temperatures. Our

1 conclusions of this modeling were that the impact of  
2 the proposed Unit 3 on water use were small during  
3 normal water years.

4 During severe drought years, we concluded  
5 that the impacts were moderate. We further determined  
6 that if Dominion goes forward with an application for  
7 a construction permit or a combined license, a  
8 verification that the actual discharge design is  
9 within the plant parameters envelope must be  
10 conducted.

11 Next slide, please.

12 During our visit with you last year, we  
13 learned how important the striped bass recreational  
14 fishing in Lake Anna is to many in this area. So we  
15 undertook an evaluation of this planted species  
16 separate from the evaluation of the native aquatic  
17 species for some background here. The striped bass is  
18 not native to this area. It's in what's called the  
19 put-grow-and-take fishery that is stocked annually.

20 The striped bass actually prefer cooler  
21 water than Lake Anna, and as a result they're one of  
22 the most thermally sensitive fish species in the lake.

23 And we concluded from our analysis that  
24 the impacts on fishing resulted from heat stress to  
25 fish, to the striped bass, would be small during the

1 cooler months in non-draught years. Impacts on  
2 fishing resulting from heat stress during the draughts  
3 without mitigation would likely be moderate.

4 Some of the mitigation measures include  
5 stocking more fish, stocking larger fish, managing the  
6 fishery to provide more catch opportunities of large  
7 fish, which probably a lot of the fishermen would like  
8 in any case.

9 Next slide, please.

10 Radiological impacts is something that I  
11 think very many people are interested in. We  
12 evaluated the exposure to the public and to the  
13 workers. We also looked at the impacts to biota, and  
14 in each case found that they were within limits and  
15 within the biota work that were found to be  
16 acceptable.

17 I want to talk a little bit more. You  
18 know, our conclusion here is that the radiological  
19 impacts from construction and operation would be  
20 small, and I want to talk a little bit more about this  
21 issue because I know it is interesting, like I say, to  
22 so many of us.

23 Cancer is a very real concern to all of  
24 us. The statistics show that roughly one in four  
25 people in the United States contract some form of

1 cancer. So we've all been touched by it either  
2 personally or someone in our family or at least  
3 someone we know. Cancer is not uncommon.

4 Radiation exposure is a very well studied  
5 health risk. There have literally been thousands of  
6 studies looking for links between radiation exposure  
7 and cancer. No credible study has shown health  
8 effects below does of 10,000 millirem.

9 For prospective, the average dose to an  
10 individual in the United States from background  
11 radiation sources is around 300 millirem. So that's  
12 300 millirem versus 10,000 millirem.

13 Now, NRC's regulatory limits, the  
14 regulations limits the maximum exposure that any  
15 member of the public can get from the boundaries of  
16 the different nuclear power plants, and the maximum  
17 calculated exposure for this plant is below seven  
18 millirem.

19 Now, like I say, background sources  
20 average in this country is about 300. So that gives  
21 you a perspective. At the boundary areas it['s that  
22 much lower with distance from the plant.

23 In a 1990 study, the National Cancer  
24 Institute, which is part of the National Institutes of  
25 Health, published a study entitled "Cancer in

1 Populations Living Near Nuclear Facilities." This  
2 study found no evidence of systematically higher  
3 cancer risks in the area near nuclear power plants.  
4 The counties near the North Anna site were included in  
5 this study.

6 Next slide, please.

7 I mentioned that we also looked at  
8 alternative plan -- well, we talked about alternative  
9 plant cooling technology. We also looked at  
10 alternative sites.

11 As part of our analysis of water usage for  
12 cooling Units 3 and 4, we evaluated once through  
13 cooling as well as wet and dry cooling towers for heat  
14 dissipation. Although wet cooling towers would reduce  
15 temperatures discharged into the waste heat treatment  
16 facility, compared with once through cooling wet  
17 cooling towers would significantly increase  
18 consumption use of North Anna for Unit 3, use of Lake  
19 Anna.

20 As I mentioned before, dry cooling towers  
21 are proposed for Unit 4. They would largely eliminate  
22 the impact on water consumption and waste heat  
23 discharge. However, these benefits come at a high  
24 price in energy efficiency, and as a result dry  
25 cooling towers are not proposed for Unit 3.

1 I need some water up here.

2 MR. CAMERON: We're getting you come.

3 MS. PARKHURST: Ah, thank you. I could  
4 use it as I'm almost completed through here.

5 We looked at alternative sites. As I  
6 mentioned, there were four sites selected for  
7 evaluation here. The first one is the Surry Power  
8 Station, again, owned by Dominion, the three sites  
9 with regard to North Anna in the evaluation. So we've  
10 got the Surry Power Station, the Portsmouth gaseous  
11 diffusion plant, and this is in Ohio, a Department of  
12 Energy Site, and we also evaluated the Savannah River  
13 site in South Carolina.

14 Next one, please.

15 We did the same kind of impact evaluation,  
16 and then we compared the impacts of the alternative  
17 sites to the North Anna ESP site. Our preliminary  
18 conclusion is that all sites appear to have potential  
19 for siting a nuclear plant or plants. Although there  
20 were minor differences among the sites, none of these  
21 differences was sufficient to determine that any of  
22 the alternative sites is obviously superior to the  
23 North Anna ESP site.

24 Therefore, our preliminary conclusion from  
25 the environmental perspective is that the early site

1 permit be granted.

2 Chip.

3 MR. CAMERON: Okay, and now we are getting  
4 you some water.

5 And, Dr. Brian, was your question  
6 answered? Do you want to ask it again?

7 DR. BRIAN: Yes, I'd like to ask a  
8 somewhat related question, and that's on Slide 16 and  
9 Slide 25, where you're considering the alternative  
10 sites.

11 I would think at this point in your  
12 environmental impact assessment you'd also look at the  
13 no action option.

14 MS. PARKHURST: We certainly did look at  
15 it in the document. We don't happen to have it in  
16 this particular slide. It's busy enough, I'm afraid,  
17 as it is.

18 DR. BRIAN: I guess my question is: at  
19 what point would you be able to say, "No, we don't  
20 want a reactor here. It's not a good idea. Nothing  
21 is better than the proposal"?

22 Is there some point where you could turn  
23 it down?

24 MS. PARKHURST: NRC may, if they have  
25 basis for it certainly can.

1 Jack, do you want to speak to that one?

2 MR. CUSHING: Sure. Basically we would  
3 turn down the application if when we did our  
4 evaluation and you remember the flow chart where we  
5 compared the North Anna site to the alternate site; if  
6 one of the alternate sites, our evaluation of it  
7 showed that it was obviously superior, then we would  
8 probably have rejected the application.

9 MR. CAMERON: And there could be other  
10 reasons for rejecting the application also.

11 MR. CUSHING: Right. There could be.  
12 That's a lower threshold than, say, if the site was  
13 totally unsuitable we would rejected it as well.

14 DR. BRIAN: I guess the basis for my  
15 questions --

16 MR. CAMERON: And, Dr. Brian, we need to  
17 get you on the record here. Okay?

18 DR. BRIAN: Thank you.

19 The basis for my question is that with  
20 this early site permit, you're recommending approval  
21 for it, and I'm wondering at what stage it could be  
22 turned down in the future, or if this is kind of  
23 opening the door, and the next thing you know the  
24 whole thing is too late to say no.

25 MR. CUSHING: Well, first of all, the

1 draft environmental impact statement is a preliminary  
2 recommendation, and if you remember our flow chart,  
3 the draft environmental impact statement is only one  
4 input to the final decision.

5 There's two other steps. There's a  
6 hearing that will be held, and that hearing will be on  
7 the safety as well as the environmental issues.  
8 That's before the Atomic Safety and Licensing Board.

9 And following that hearing, it will go to  
10 the Commission, and the Commission will make its  
11 decision based on the input from the hearing and from  
12 the Advisory Committee on Reactor Safeguards. So they  
13 could turn that down at those points.

14 MR. CAMERON: Okay. Thank you.

15 Let's go to this gentleman back here.  
16 Yes, sir.

17 MR. SLOANE: Ben Sloane from Goochland  
18 County.

19 With regards to the radiological health  
20 protection, is considerations for hormesis theories  
21 impractical to interject into dose populations in  
22 considerations or is it strictly the accepted LNT or  
23 some other method?

24 MR. CAMERON: And, Maryann, people may not  
25 know some of those terms, and I don't want to get into

1 a big deal, but if you could in answering it explain  
2 what this is all about -- to me and everybody else.  
3 No, don't worry about it.

4 MS. PARKHURST: And if Rick Emch is here  
5 and wants to add to my comments, please do so.

6 Radiation hormesis is a theory that  
7 suggests that there's been many studies out there  
8 where the control group actually survived longer than  
9 those -- excuse me -- where those that were exposed to  
10 low levels of radiation survived longer than those in  
11 the control group, and so that you actually -- it's  
12 kind of like with vitamins. If you take vitamins --  
13 you laugh. I think I probably ought to start over  
14 here.

15 (Laughter.)

16 MS. PARKHURST: Let me go with one that  
17 you might know a little bit more about. He mentioned  
18 the linear no threshold theory. This is a theory that  
19 was intended to be used for modeling high exposures,  
20 and it said they looked for a correlation between the  
21 doses in the cancer, the risk for cancer, and then  
22 what they have done, they've used it by simply  
23 drawing a linear line down through zero, and this is  
24 what's called the linear no threshold theory.

25 It doesn't work very well in the low dose

1 area, and there's, in fact, the radiation hormesis  
2 theory that suggests that there is actually a positive  
3 benefit to health at the very low levels.

4 Like I say, the NRC is not using this as  
5 the basis for their analysis. I'm responding to the  
6 gentleman's comment. That's what the radiation  
7 hormesis is looking at. There's a number of  
8 possibilities as to what could cause it if it's real.

9 MR. CAMERON: Maybe you should say that  
10 again about the NRC.

11 MS. PARKHURST: The NRC is not using the  
12 theory concerning radiation hormesis in its analysis.  
13 We are using the linear no threshold theory, which is  
14 very conservative on the lower end. It's probably  
15 fairly good at the upper end, but it's very  
16 conservative at the lower end and should be very  
17 protective of health.

18 MR. CAMERON: Okay. Thank you, Maryann.

19 Let's go up to this gentleman in the back.  
20 Yes, sir. And please introduce yourself to us.

21 MR. McDONALD: Norris McDonald. I'm with  
22 the African American Environmentalists Association.

23 I wanted to ask a question about the  
24 environment in this room. I think the lie meter signs  
25 are so disrespectful. I've been at hearings all over

1 the country, and normally protest signs aren't allowed  
2 in the formal hearing.

3 And I've also been chairman of a county  
4 ACLU, and I do believe in free speech, but I would  
5 hope we could conduct this hearing in a civil manner  
6 and remove the signs.

7 (Applause.)

8 MR. CAMERON: Okay. I'm going to --

9 PARTICIPANT: It's too hot in here.

10 MR. CAMERON: Yeah, I thought that maybe  
11 that's where you were going, but you had a more  
12 important point.

13 What we're going to do is we're going to  
14 open up this sliding door and that will allow some  
15 ventilation in, and thank you for your point, sir. We  
16 do have rules for our meetings about signs that are on  
17 sticks or anything like that that may be harmful to  
18 people, but if people want to hold up signs if they're  
19 not blocking anybody's view or hitting someone, then  
20 we let them do that and we may be getting close to the  
21 edge here, but I would just ask the people who have  
22 the signs to just exercise a little bit of discretion  
23 with them, but you do not have to turn them in.

24 (Applause.)

25 MR. CAMERON: Okay? We want to take a

1 couple more questions so that we can get to hearing  
2 more of you. I'm going to go back here and then over  
3 to this gentleman back here.

4 Let me see if I can get this up to you,  
5 sir, and if you could just introduce yourself to us.

6 MR. HERRING: Yeah, my name is Jeff  
7 Herring, and I'm from Charlottesville.

8 I understand that one reason for rejecting  
9 this application is that one of the three alternate  
10 sites had been obviously superior. It's not clear to  
11 me how those three sites were selected for this  
12 process. It seems like they're putting up sites you  
13 couldn't compare it to and possibly some that were  
14 superior.

15 MS. PARKHURST: I think Jack is going to  
16 respond to this one.

17 MR. CUSHING: Well, we have requirements  
18 and guidance for the applicant selecting alternative  
19 sites, and basically they have to define their region  
20 of interest where they would actually operate and want  
21 to produce power.

22 And they also have to select realistic  
23 sites. So if you noticed, all of the sites they  
24 selected hosted nuclear facilities so that they've  
25 already passed a certain level of screening as far as

1 being able to host a nuclear facility.

2 So they're very realistic selections. So  
3 that's how the process for selecting sites is  
4 performed, and we evaluated whether they performed a  
5 realistic review in their application, and then we  
6 independently reviewed the alternate sites themselves.

7 MR. CAMERON: Okay. Thanks, Jack.

8 And, again, I would just ask the NRC staff  
9 and our experts to keep track of these questions, and  
10 after the meeting is over, you may be able to provide  
11 more information on that to the person who asked it.

12 Let's go to this gentleman right here.

13 MR. DAY: Thank you.

14 My name is Donald Day. I'm a nuclear  
15 physicist at the University of Virginia, and I have a  
16 couple of questions about your comments that include  
17 the linear no threshold theory.

18 You said that there have been no studies  
19 that would indicate that 10,000 millirem would induce  
20 cancers in the population, and according to the linear  
21 no threshold theory that's simply not true.

22 And furthermore, your comments about the  
23 effluence of radioactivity around a nuclear power  
24 plant and comparing that to what is normal terrestrial  
25 or environmental radiation does not take into

1 consideration the particular chemical characteristics  
2 of the effluents at nuclear power plants and their  
3 tendency to localize themselves in body organs.

4 So I think it's misleading to sort of  
5 dismiss normal operations around a nuclear power plant  
6 as a consequence to the public, and I also think it's  
7 a mistake or just an error on your part to suggest  
8 that 10,000 millirem distributed to the population  
9 would not induce any cancers.

10 At the nuclear accelerator where I work,  
11 I carry a badge with me all the time, and through my  
12 20 years of experience, the doses that I'm allowed to  
13 get at these accelerators keeps declining, and from  
14 the beginning of U.S. regulations there never has been  
15 a reversal of the amount of radiation that somebody is  
16 being allowed to get in normal work. It keeps  
17 declining.

18 And as our education increases, we may  
19 find that occupational doses have to be reduced once  
20 again.

21 Thank you.

22 (Applause.)

23 MS. PARKHURST: In response to the first  
24 part, your very first comment as far as linear no  
25 threshold being a study, that's a modeling -- that's

1 not a study. The studies, the health studies do not  
2 find deleterious effects at that level.

3 Certainly doses, as you're stating, the  
4 legal levels have been going down for conservatism.  
5 It's really, you know, we do learn more, but it's  
6 conservatism that it has gotten larger.

7 Rich, I'm going to let you handle the  
8 rest, and if we want to talk about like chemical in  
9 water emissions, Lance perhaps can take a crack at  
10 that.

11 MR. EMCH: Hi. My name is Rich Emch. I'm  
12 a health physicist with the Nuclear Regulatory  
13 Commission.

14 You mentioned several things, sir. I'm  
15 going to try to cover them all, but if I miss any,  
16 please let me know.

17 We're not really here to debate you  
18 tonight. We're really here to hear what you have to  
19 say, but I'll try to give some information.

20 The Nuclear Regulatory Commission believes  
21 in linear non-threshold theory. What Maryann was  
22 talking about, however, is that there have been  
23 thousands, literally thousands of studies done,  
24 credible studies, and that there has been no  
25 identified damage to humans below 10,000 millirem.

1           Now, there are reports by ICRP, NCRP and  
2 others where they talk about the potential for  
3 radiation to cause cancer, just like there are a lot  
4 of other things in life that can cause cancer. And,  
5 in fact, in their report that we put out, there is a  
6 discussion of what the potential risks in terms of  
7 fatal cancers, birth defects and things like that;  
8 there's a discussion of that in there that uses the  
9 internationally known estimators for that.

10           And basically the concept is that while  
11 there has been no reported -- no damage below 10,000  
12 millirem, there is a belief that there is a certain --  
13 there is the potential for some damage to be  
14 associated with any amount of radiation exposure.  
15 Okay?

16           Now, we did evaluate -- we do evaluate not  
17 only whole body exposure. We evaluate dose to the  
18 organs as well. You'll find all of that discussed in  
19 the report as well.

20           As far as the comparison to natural  
21 background, we're using it to give you a general idea,  
22 you know. Is this thing bigger than a bread box,  
23 smaller than a house, that sort of thing? And we  
24 believe that it is quit small compared to the kinds of  
25 exposures that we all get from living on the earth.

1 For example, not all of that 300 is from  
2 whole body exposure. Some of it is from radionuclides  
3 that are in your body and mine. Some of it is from  
4 radon that all of us inhale to some degree by living  
5 on this earth. That's the kind of thing we're talking  
6 about, sir.

7 MR. CAMERON: Okay. Thank you.

8 Let's have another question here and then  
9 see if we can move on to commenting. May be will take  
10 you and then you.

11 MR. DRIBBLE: Hi. I'm Ray Dribble, and I  
12 live here in Louisa County.

13 My question is about the heat load on the  
14 lake. I just want to understand something. For a  
15 nuclear plant to, say, make 1,000 megawatts  
16 electrical, the reactor must create, say, 3,000  
17 megawatts thermal. Is that about right?

18 And the difference between those two,  
19 2,000 megawatts, is waste heat. Is that about right?

20 MR. KUGLER: That's in the ballpark, yes.

21 MR. DRIBBLE: Okay. So using round  
22 figures, there are two we'll call them 1,000 megawatt  
23 electrical units sitting on Lake Anna. The cooling  
24 lagoons are roughly 4,000 acres.

25 MR. KUGLER: I think it's 3,400.

1 MR. DRIBBLE: All right. The load on that  
2 portion of the cooling lagoons is roughly a megawatt  
3 per acre. Do you propose to increase that heat load  
4 to, say, one and a half megawatts?

5 And is there any other body of water in  
6 this country that a test will absorb that kind of  
7 energy load, artificial energy load?

8 MR. KUGLER: This is Andy Kugler.

9 I'm not sure I can answer the latter part  
10 of the question as to whether other bodies of water  
11 received heat load because there are a lot of other  
12 power plants out there that are not nuclear, and I'm  
13 not familiar with all of the cooling systems.

14 One of the things I've seen in working on  
15 nuclear power plants is every cooling system is done  
16 differently. What happens at this plant is the  
17 cooling lagoons are actually part of the plant.  
18 Technically it's not part of the lake. It all belongs  
19 to Dominion. It's part of the plant, and it removes  
20 part of the heat.

21 In other words, right now for the current  
22 plants roughly half of the heat load that comes out of  
23 the plant and into the waste heat treatment facility  
24 is dissipated before it flows into the lake through  
25 Dike 3. When a third unit is added, it would no

1 longer be half. So a larger proportion would end up  
2 being in the lake.

3 And I believe in the document we discuss  
4 roughly what the heat loads would be coming into the  
5 waste heat treatment facility and into the lake. I  
6 believe we have that information in the report and you  
7 can take a look at that.

8 MR. DRIBBLE: I'm familiar with the lake,  
9 but the lake often reaches in excess of 100 degrees  
10 surface temperature.

11 MR. KUGLER: On the hot side.

12 MR. DRIBBLE: That's right.

13 MR. KUGLER: Yes.

14 MR. DRIBBLE: And each reactor currently  
15 adds about seven and a half degrees to that surface  
16 temperature.

17 MR. KUGLER: Well, if they add a third  
18 unit that uses once through cooling, what they would  
19 be doing is increasing the flow rate. I don't know if  
20 I can describe this easily where people could  
21 understand it, but the differential temperature, the  
22 intake temperature versus what comes out at the other  
23 end would be roughly the same for the third unit.

24 So the actual temperatures I don't believe  
25 are significantly higher coming out of the plant, but

1 there's more flow. There's a lot more flow. Okay?

2 PARTICIPANT: And it's how we do that  
3 flow.

4 PARTICIPANT: Dilution.

5 MR. KUGLER: Essentially dilution.

6 MR. CAMERON: All right. Let's get -

7 MS. PECK: My name is Heather Peck from  
8 Albemarle County.

9 Now, am I correct in understanding that  
10 there was no discernment at all done that the NRC  
11 required or that Dominion provided (a) for a need for  
12 power and (b) for alternative energy sources to this  
13 project, this proposal?

14 MR. KUGLER: That's correct. At this  
15 stage what we're looking at is would the site be  
16 suitable. We're not determining whether they can  
17 actually build it. So at this stage they are not  
18 required to address whether they need the power and  
19 whether or not there are other better alternative  
20 energy sources.

21 However, if they decide they do want to  
22 build a plant and they request a license to do so from  
23 us, at that time they have to provide that information  
24 and we will evaluate it.

25 MS. PECK: Well, as a taxpayer and

1       respecting very highly the expertise that you've  
2       invested in this process up to now, tens of hundreds  
3       of thousands of dollars, I'm a low income and middle  
4       income taxpayer who's actually paying her taxes. Now  
5       I'm concerned about a priori never establishing (a) a  
6       need for power or (b) alternative energy sources.  
7       This is really a deep concern and a common sense  
8       problem, and you know, I'm looking for -- you know,  
9       we're looking at the situation in the budget in  
10       Washington, and this doesn't make much sense to me as  
11       a taxpayer.

12                       (Applause.)

13               MR. CAMERON: Thank you very much.

14                       Maybe you can, you know, talk more to  
15       Heather about that after. I think we need to move to  
16       Jack to go through this and then so that we can go  
17       into the public comment period.

18                       Jack, can you talk to us about that?

19                       And as I said, Maryann and others will be  
20       here to talk to people about this in more detail.

21                       Thank you, Maryann.

22               MR. CUSHING: All right. Well, thank you  
23       everyone, and those were good comments.

24                       And I'd like to go over some of the  
25       milestones now of the review. We issued the draft

1 environmental impact statement in December. The  
2 comment period runs to March 1st. After that we will  
3 review and disposition your comments, and that may  
4 result in modifying the final environmental impact  
5 statement.

6 And we expect to issue that final  
7 environmental impact statement in August of 2005. At  
8 that point a hearing is scheduled for February of  
9 2006, and the Commission decision will follow in June  
10 of 2006 it looks like.

11 Now, I'm the agency point of contact, and  
12 you can reach me at this phone number. And this also  
13 shows where the draft environmental impact statement,  
14 it's available at the library in Louisa, and it's also  
15 available on our Website.

16 We did have some copies out front. I  
17 don't know if they've all been picked up, but if they  
18 haven't, you're certainly welcome to take one.

19 And next slide.

20 And again, provide comments by March 1st,  
21 and you can do that by three ways outside this  
22 meeting. You can do it by mail to the address  
23 provided, if you happen to be in Rockville, Maryland.  
24 I think this the least convenient way to do it, but  
25 you could drop one off if you're there in person.

1 Give me a call, and I'll come down and pick them up.

2 And the best way, and I've gotten hundreds  
3 of comments this way, is by E-mail to this address.

4 So there's one other method. During this  
5 meeting if you do not wish to come up to the  
6 microphone or speak, we did provide comment sheets.  
7 Write down your comment, make sure I get them or an  
8 NRC staff member gets them, and we'll make sure they  
9 get into the transcript so that we can evaluate them.

10 Okay. Thank you very much, and I  
11 appreciate your effort in coming out tonight, and I  
12 hope we informed you a little bit of what we did  
13 during our review.

14 MR. CAMERON: Okay. Thank you. Thank you  
15 very much.

16 (Applause.)

17 MR. CAMERON: Okay. We're going to go to  
18 public comment in a minute here, and you can come up  
19 to the podium or I can bring you this cordless  
20 microphone. I am going to have to -- and I apologize  
21 in advance for having to be a little bit inflexible  
22 about this speaking time here, but Sue did you have a  
23 quick question about commenting?

24 PARTICIPANT: I do have a quick question,  
25 yes.

1 MR. CAMERON: Okay.

2 PARTICIPANT: My question to Jack, I  
3 guess, is or to the staff that's here: what value --  
4 can you give us an idea of what value you put on  
5 public comment, please?

6 MR. CUSHING: Public comment is an  
7 integral part of our process, and there's two points  
8 at which we actively seek public comment. The first  
9 is during the scoping process, and the public comments  
10 help shape the issue that we look at during our  
11 review.

12 So when we came out here during scoping we  
13 asked for public comments, and that helped us in our  
14 review. Now that we've written our draft  
15 environmental impact statement, the comments we get  
16 tonight we'll capture, we'll put in our final, and we  
17 will evaluate those comments. And it does end up  
18 modifying our final environmental impact statement.

19 MR. CAMERON: And, Jack, for Sue and the  
20 rest of the people, when we do issue the final  
21 environmental impact statement, will they be able to  
22 see where the document has been changed because of  
23 comments?

24 I'm not talking about individual comment  
25 response to individuals, but will they be able to look

1 at that document and say, "Hey, someone brought this  
2 issue up. We looked at it, and either we changed  
3 things or we found that perhaps it is a concern"?  
4 Will they be able to tell?

5 MR. CUSHING: Yes. What we do with your  
6 comments is we have another appendices where you'll  
7 see your comments, and in that appendices we'll  
8 evaluate your comment right there, and then at the end  
9 of it, we'll state whether it changed the  
10 environmental impact statement or whether it didn't.

11 So you will be able to look up and find  
12 your comment and find out if it did change our  
13 environmental impact statement.

14 MR. CAMERON: Okay. Thank you.

15 There's one issue that always is a concern  
16 to people with these early site permits, and I think  
17 Heather's comments really go to this point, and as a  
18 backdrop information for you before we go to public  
19 comments, it may be useful to just hear from Dominion  
20 really briefly about what their plans are here and why  
21 they're doing it.

22 I'm going to ask Gene Grecheck, Vice  
23 President, Dominion. Do you want to? Why don't  
24 you -- well, why don't you just talk from there?  
25 That's better.

1 MR. GRECHECK: All right. Thanks. Chip.  
2 Good evening. My name is Gene Grecheck,  
3 and I'm Vice President of Nuclear Support Services for  
4 Dominion.

5 Again, I'd like to thank the NRC for  
6 having this forum for us to all discuss the draft  
7 environmental impact statement, and really I'd like to  
8 thank all of you local residents who are interested  
9 enough in this subject because this is a complex  
10 subject, and it's something that does require some  
11 attention. So I'm glad that you all have the  
12 opportunity to come out and express your opinion and  
13 listen to the NRC's review.

14 I think it's probably worthwhile just to  
15 explain briefly, you know, why we submitted our  
16 application for an early site permit and the reasons  
17 for that.

18 As you heard, we do not have any plans at  
19 the moment to build a nuclear plant at North Anna.  
20 What we're doing here is keeping the option open. We  
21 are looking forward toward where the energy that  
22 Virginia is going to need in the future is going to  
23 come from, and as we look at the various options, one  
24 of those options is nuclear.

25 So what we needed to determine is whether

1 the North Anna site is a place where we could build a  
2 nuclear plant in the future if it became advisable to  
3 do that.

4 And at that time we'll certainly look at  
5 what quantities of energy are required, what the  
6 various generating options are, what the market for  
7 electricity looks like. All of that will be taken  
8 into account prior to a decision to proceed.

9 Now, the reason that we would consider  
10 nuclear as one of the options for Dominion is because  
11 we do operate several nuclear units at the present  
12 time. We have four units here in Virginia. We have  
13 two in Connecticut. We've been operating plants for  
14 30 years. We have a great deal of experience with  
15 that, and so between the safety of our existing  
16 operations and our environmental record, this is  
17 something that we feel very confident with. This is  
18 something that we feel we've developed a long  
19 experience and relationship with the local  
20 communities. So we'd like to continue them.

21 Now, as I said, the decisions that need to  
22 be made about where energy is going to come from are  
23 very, very complex. No matter what kind of energy we  
24 decide to use or you decide to use, there are always  
25 going to be impacts. There are impacts from any

1 energy source.

2 So that evaluation is part of what took  
3 place for the nuclear option as part of this early  
4 site permit application.

5 As a matter of fact, if you just look over  
6 the last year and a half, we submitted this  
7 application in September of 2003. Just in that last  
8 year and a half, just look at a couple of the things  
9 that have happened. As a matter of fact, just about  
10 all of the electricity that has been added to the  
11 United States grid in the last several years is being  
12 generated by natural gas.

13 So what has been the result of that?  
14 There has been tremendous price volatility in the  
15 price of natural gas. The price of gas has been  
16 varying maybe 30 or 40 percent, and the result of that  
17 in many parts of the country is that industries that  
18 depend on natural gas are actually leaving the  
19 country. In the southern part of the United States,  
20 they're closing plants and they're all moving to  
21 Mexico because they're not able to afford the natural  
22 gas price variations that are occurring.

23 Now, where is this natural gas coming  
24 from? Most of it in the future will be imported into  
25 the United States in the form of liquified natural gas

1 from various parts of the world, which are the same  
2 parts of the world that right now we are concerned  
3 about the stability of our petroleum supply.

4 So as we look toward the future we say,  
5 you know, everything that we've been adding over the  
6 last five or six years has been natural gas. Is that  
7 really the right thing to do?

8 Also, this week many of you I'm sure have  
9 heard on the news that the Kyoto Protocol was put into  
10 effect around the world. The United States is not  
11 participating in that. The Kyoto Protocol limits the  
12 amount of carbon dioxide that can be put into the  
13 atmosphere because of the concerns of the impact of  
14 carbon dioxide on global temperatures.

15 Again, the U.S. is not participating. If  
16 the United States does choose to participate, then  
17 once again we need an energy source that does not  
18 involve putting carbon dioxide into the air.

19 So as we look at that and we try to make  
20 the decisions, we also see what's happening around the  
21 world. In the last couple of weeks, Finland has just  
22 broken ground on a new nuclear unit. That will be  
23 their fifth unit. The French have just announced that  
24 they're going to be building new units. The Chinese  
25 are out for bids for a number of units that they say

1 they're going to need over the next ten years.

2 So there's a growing awareness around the  
3 world that if we're going to be generating power in an  
4 environmentally responsible way, nuclear is one of the  
5 options.

6 So, again, at this point we are not  
7 announcing or we are not saying that we're going to  
8 build. We are trying to maintain an option. We think  
9 that the environmental review that has been done has  
10 been done well. It is done adequately. We appreciate  
11 the NRC's detail review, and I appreciate your  
12 comments tonight, and we'll be listening carefully to  
13 listen to what your concerns are.

14 Thank you.

15 (Applause.)

16 MR. CAMERON: Thank you.

17 We're going to go to our first public  
18 comment. Paxus Calta.

19 MR. CALTA: Hi. My name is Paxus Calta,  
20 and I'm a Louisa resident, and I work with the Nuclear  
21 Information and Research Service.

22 And I have some good news and I have some  
23 bad news. First the good news. The good news is that  
24 there aren't going to be any new nuclear power plants  
25 built at the North Anna facility.

1 (Applause.)

2 MR. CALTA: And there's several reasons  
3 for this. In September of 2002, there was a major  
4 nuclear revival conference in Washington, D.C. The  
5 nuclear construction outfits were there. The  
6 utilities were there. The regulatory commission was  
7 there. Almost everybody was there. Missing were  
8 investors. Not one showed up.

9 That wasn't because they weren't invited.  
10 It is because nuclear power is a very bad investment.  
11 The Department of Energy itself reports that the  
12 average nuclear power plant built in the United States  
13 ran 400 percent over budget.

14 Now, some of my nuclear friends in the  
15 room would say, "Well, those are the old reactors."

16 What about the new stuff? Two reactors  
17 just went on line in the Czech Republic in 2004. They  
18 are now selling electricity at 60 percent of what it  
19 costs them to make it.

20 Nuclear energy has been historically and  
21 continues to be a terrible investment.

22 The process of building these reactors at  
23 North Anna is going to take a long time, and there are  
24 a number of talented people breaking ground, just  
25 completing the process. There are a number of

1 talented people in this room who are determined to  
2 make that process take as long as possible.

3 Now, the bad news. During that period of  
4 time the Nuclear Regulatory Commission is going to  
5 continue the process that it has been going through  
6 for the last few years and continue to shove its  
7 regulatory responsibility off onto the nuclear  
8 industry.

9 At the same time, the nuclear operators  
10 are going to continue to cut costs in the highly  
11 competitive electricity market by reducing their staff  
12 at nuclear facilities as much as they possibly can.  
13 You can tell possibly where this is going.

14 I want to read you a short quote. "The  
15 Nuclear Regulatory Commission should have but do not  
16 identify or prevent the corrosion at Davis Besse  
17 because its oversight did not generate accurate  
18 information on plant conditions."

19 That's not from an environmental  
20 organization. That's the U.S. General Accounting  
21 Office, and they're reporting on the near accident  
22 that happened 30 miles from Toledo, Ohio.

23 Basically we got lucky. Three-eighths of  
24 an inch of stainless steel that was bulging and  
25 fatigued stopped an accident of major proportion in

1 Ohio. The first accident that happens in the United  
2 States during the period of time that this process is  
3 going on will stop the additional reactors at the  
4 North Anna nuclear power plant, just like the accident  
5 at Three Mile Island canceled 100 reactors that were  
6 on order at that time.

7 Some of my anti-nuclear colleagues here  
8 were very distressed to see so many pro nuclear people  
9 here. I completely disagree. I am very happy that  
10 the pro nuclear people are here because the more that  
11 we talk about this issue, the more I'm convinced that  
12 we won't build new reactors.

13 And as one last piece of good news that I  
14 want to give you, and I'm, oops, 15 seconds over, I  
15 want very quietly the people who are opposed to this  
16 reactor to raise their hands.

17 (Show of hands.)

18 MR. CALTA: That's the really good news.

19 Thank you.

20 (Applause.)

21 MR. CAMERON: Okay. Thank you very much,  
22 Paxus.

23 We're going to go to Mr. Sam Forrest, and  
24 then we're going to go to Aviele.

25 Sam Forrest. Go ahead, Sam.

1 MR. FORREST: Thank you, Mr. Chairman.

2 I'm Sam Forrest from Louisa.

3 And, again, I am opposed to nuclear power  
4 anywhere on earth for three reasons. One, the power  
5 plants are safe until they fail, and then they can be  
6 catastrophic. Everything fails. Your car is going to  
7 fail. Your body will fail. Even stars fail. These  
8 plants will fail, and someone will have to deal with  
9 it.

10 Two, to create nuclear waste and put it on  
11 the earth is an unconscionable act. There is no  
12 permanent, safe way to deal with it. The science to  
13 render it harmless is immature and incomplete.

14 Three, that nuclear power is cheap is a  
15 fiction. It's cheap at the meter, but if the tax  
16 subsidies are included, it is more expensive, and  
17 remember taxes are ultimately taken at the point of a  
18 gun.

19 The summation of information is that  
20 nuclear energy is an irrational pursuit. It's a bad  
21 idea. So why after a 20-year hiatus is this great  
22 push to impose upon us this devil? Your charge  
23 charges you to protect, the citizens. In these times  
24 when people are vulnerable and hunkered down and need  
25 you the most, you betray their trust. You have

1 returned to plunder the very people you are charged to  
2 protect, and I think somebody stands to make a lot  
3 money.

4 Now, Mr. Chairman, that was my original  
5 speech, but the other day I ran into Bill Murphy and  
6 had lunch with him, and he refuted everything I said.  
7 Raise you hand, Bill.

8 Anyway, however, we did come to one --  
9 raise your hand. Smart man -- we did come to one  
10 agreement, some common ground, in short, to build a  
11 fuel reprocessing plant. Now, I understand this does  
12 not fall within your purview. I argue that it does.  
13 Presently the abundance of spent fuel is hazardous to  
14 my nation's well-being.

15 You are charged with protecting me.  
16 Protect me from that. An analogy for the present  
17 system is that if it were gasoline, you would put one  
18 gallon in the tank and eight gallons on the ground.  
19 The present system is truly irrational.

20 So first develop a processing plant. Get  
21 the technology right before you build any more power  
22 plants. The power plants would be far more palatable  
23 to people like me.

24 And finally, don't build it with tax  
25 dollars. Use private money. I want the person who

1 turns on the switch to pay the penalty, and he'll be  
2 more inclined to conserve.

3 So please take this message back to  
4 Washington.

5 Thank you.

6 (Applause.)

7 MR. CAMERON: Thank you very much, Sam.

8 Aviele. And this is Aviele Thiel?

9 MS. THIEL: Hello. Thank you for the  
10 opportunity of talking tonight.

11 My name is Aviele Thiel. I'm with the  
12 People's Alliance for Clean Energy.

13 I'm very concerned about this entire  
14 process. It's a new process the government has  
15 initiated. It's a streamlined process. These two  
16 reactors that Dominion is applying to build are the  
17 first to be applied for under this process, and I  
18 believe this is an abrogation of the democratic  
19 system.

20 For one, I'd like to refer back to what  
21 you've mentioned, the safety evaluation review. The  
22 opportunity for public comment on the safety  
23 evaluation review is February 23rd, I believe, and  
24 then March 2nd and 3rd.

25 Now, in order for the public to make

1        comments on this critical aspect of the application  
2        Dominion is putting forth, one would have to leave  
3        one's job and go up to Washington, D.C., and that's  
4        exactly what I intend to do, and I'm, frankly, very  
5        resentful of having to do that, and I think it's very  
6        indicative of this whole process.

7                Once a year we get a time to talk among  
8        the community about this important issue, and I don't  
9        think it's enough. And there are very many issues  
10       that are not getting adequate study, such as the waste  
11       issue. We have tons of nuclear waste in our backyard,  
12       only less than 100 yards away from our precious Lake  
13       Anna, and this waste is unlikely to be taken away  
14       anywhere because Yucca Mountain repository is mired in  
15       lawsuits. It's a political hot potato.

16                This waste is probably going to be here  
17       and our responsibility, and as you know, 9/11 has  
18       presented us with serious, new chances for terrorism.  
19       And I do not think it is wise for our community to  
20       allow these two new nuclear reactors to be built and  
21       more waste to be brought into our midst.

22                Thank you very much.

23                (Applause.)

24                MR. CAMERON: Thank you, Aviele.

25                Next we're going to go to Asa Vegodski.

1 MS. VEGODSKI: Vegodski.

2 MR. CAMERON: I'm sorry for mispronouncing  
3 that.

4 MS. VEGODSKI: My name is Asa Vegodski.  
5 I'm 11, and I come from Albemarle County, and this is  
6 just a speech that I wrote up when I heard about these  
7 two more nuclear reactors being built, and it's just  
8 about the government and some of the reasons why I  
9 don't think they should build it.

10 And so I think nuclear power is a really  
11 bad kind of power, maybe one of the worst invented,  
12 and I don't know if the people who even run these  
13 power plants know what they're doing to the  
14 environment because it just seeps through the ground  
15 and gets to people's backyards and other animals and  
16 beings.

17 And I think the government could probably  
18 change the energy policies if they wanted to, and  
19 there is a lot of things I think they could change,  
20 especially the kind of energy that we use. And I  
21 think the best kinds are probably solar, hydro, and  
22 wind.

23 (Applause.)

24 MS. VEGODSKI: And these are the reasons  
25 I think nuclear power is really bad.

1           One, nuclear power uses too much water.  
2           The nuclear reactors must draw on significant amounts  
3           of water in order to operate and avoid a meltdown. Up  
4           to 2.5 billion gallons a day are used to cool the  
5           current nuclear reactors.

6           Think of the mass drought us Virginians  
7           had in 2003. We couldn't even flush our own toilets.  
8           Think of how many toilets we could flush with 2.5  
9           billion gallons of water.

10           (Applause.)

11           MS. VEGODSKI: Two, nuclear power would  
12           disrupt marine ecosystems. In addition to the power  
13           plant's drawing water from Lake Anna, the power plants  
14           would also discharge water back into the lake. The  
15           discharged water can be 25 degrees higher than the  
16           rest of the lake and contain chemicals, heavy metals,  
17           cleaning solvents, biocides, and radioactive  
18           contamination.

19           Three, nuclear power plant sites contain  
20           and store large amounts of the most deadly substance  
21           known to man, nuclear waste. There is no known safe  
22           method of containing nuclear waste. This waste will  
23           eventually leak and poison our beautiful lakes,  
24           oceans, and land, destroying many ecosystems and  
25           causing many diseases.

1           Also, if we are truly concerned about  
2 terrorists, isn't this a great temptation for them?

3           I'd like to keep our world safe, healthy,  
4 and beautiful for my generation and my children's  
5 generation. How about you?

6           This is my opinion. What's yours?

7           (Applause.)

8           MR. CAMERON: Thank you. Thank you, Asa,  
9 for taking the time to put the preparation into those  
10 remarks. Thank you very much.

11           Sue Chase. And then we're going to go to  
12 Dr. Jim Brian after Sue.

13           MS. CHASE: Good evening. I second Asa.

14           (Applause.)

15           MS. CHASE: I signed up to speak this  
16 evening. I'm Sue Chase, and my affiliations, I guess,  
17 quickly are I'm on the board of the Charlottesville  
18 Center for Peace and Justice. I live in Albemarle  
19 County about 50 miles from the North Anna plant.

20           And that fact is now a source of concern  
21 to me knowing that the Nuclear Regulatory Commission  
22 seems willing to accept this draft EIS, which  
23 according to Public Citizen, People's Alliance for  
24 Clean Energy and others, neglects to address crucial  
25 safety issues. And here are some of the issues that

1 concern me greatly.

2 The issue of storing radioactive spent  
3 fuel rods. Well, this is my take on it. We've heard  
4 some this evening and probably will hear more, but  
5 these rods are not really "spent." They are just not  
6 efficient anymore. They're still radioactively hot.  
7 So they must be stored in pools of water to keep them  
8 cool.

9 As more and more of these rods are stored,  
10 the pools get crowded, and the danger of exposed rods  
11 increases. Exposed rods can spontaneously ignite, and  
12 the resulting fire spreads radioactive particles into  
13 the air.

14 Also, low water levels increase this  
15 danger. The Spotsylvania County Planning Board is  
16 right to be concerned about this, and so are we.

17 Second, the issue of accidents. Are  
18 nuclear power plants safe from meltdowns, as in  
19 Chernobyl, or partial meltdowns, as in Three Mile  
20 Island?

21 Nothing assures me that meltdowns of any  
22 kind can't happen again.

23 Third, the issue of terrorist attack. Who  
24 can assure us that a plant won't be bombed, invaded  
25 or hit by a plane, and that the fuel rods won't be

1 exposed resulting in a devastating fire? No one.

2 In 2003, Senator Harry Reid said that the  
3 NRC had done nothing to improve safety and security at  
4 our nation's nuclear power plants. The NRC's response  
5 at that time was since it couldn't calculate the risk  
6 of terrorist attack, it would not consider it a risk  
7 factor in opening new power plants.

8 Fourth, the issue of evacuation plans. In  
9 order to build a nuclear power plant, there must be an  
10 evacuation plan approved by the NRC, as I understand  
11 it. Unfortunately the NRC accepts evacuation plans  
12 that can't work, and here are two examples.

13 One, at the time of the Three Mile Island  
14 accident, 3,400 people were ordered to evacuate. One  
15 hundred and forty-four thousand tried to leave  
16 clogging highways all the way to New York. Not  
17 workable.

18 Two, when the Shoreham Nuclear Power Plant  
19 on Long Island was being built in the early '80s, the  
20 Long Island Lighting Company's evacuation plan called  
21 for residents to evacuate to upstate New York.  
22 Upstate New York residents were interviewed about this  
23 and some said they would shoot Long Islanders on  
24 sight.

25 (Laughter.)

1 MS. CHASE: They really did.

2 This same plan called for decontaminating  
3 fleeing vehicles with Handiwipes and spray Fantastik.  
4 I know this because I lived there at the time and  
5 heard these very words spoken by power company  
6 officials at an NRC hearing.

7 The plan also called for evacuating people  
8 according to their license plate numbers. One day the  
9 even numbers could go. The next day, the odd numbers.

10 Studies have shown that in the event of a  
11 nuclear accident, emergency workers would leave their  
12 duties and go home to rescue their families. The same  
13 for school bus drivers. So calling these evacuation  
14 plans acceptable is without merit.

15 And, by the way, we kept the Shoreham  
16 plant from opening.

17 (Applause.)

18 MR. CAMERON: Let me ask you to just wrap  
19 up.

20 MS. CHASE: Okay. The fifth issue which  
21 I won't get into in detail because my time is up are  
22 the zones that are around Ground Zero in case of a  
23 meltdown, the ten mile evacuation zone. A 17.5 mile  
24 fatality zone, but those people are not in the  
25 evacuation plan. You see where I'm getting at. A 50

1 mile peak injury radius.

2 So given all the issues I've mentioned  
3 here I'll conclude by recommending that nuclear  
4 fission power plants be retired, and to that end I  
5 kindly, respectfully, and most seriously urge anyone  
6 working for the Nuclear Regulatory Commission to seek  
7 other employment where you can use your talents to  
8 provide people with safe energy and a clean  
9 environment.

10 Thank you.

11 (Applause.)

12 MR. CAMERON: Thank you, Sue. Thank you.  
13 Good night.

14 We're going to go to Dr. Jim Brian, then  
15 Mr. Bill Bardune, and then we're going to go to Dick  
16 Clark and --

17 MR. CLARK: I can wait until the end.

18 MR. CAMERON: All right. Dr. Jim Brian.

19 DR. BRIAN: I appreciate the opportunity  
20 to take part in this environmental impact assessment  
21 discussion, and I'd like to point out that these  
22 environmental impact assessments are valuable to us  
23 probably more than most of us realize.

24 They were established by the National  
25 Environmental Protection Act of 1969, by bipartisan

1 support, and the requirement of these is to pay  
2 attention to what we're doing to the environment. If  
3 we have a project, what is the reality of its effects  
4 on the environment?

5 And these environmental impact assessments  
6 at this point are under some danger of disappearing  
7 from our communication, and I think that as much as  
8 anything we're concerned about we need to be paying  
9 attention to the openness of communication about our  
10 reality.

11 So I do appreciate all of the information  
12 that the NRC has provided us this evening. I  
13 appreciate the viewpoints on both sides of this issue.

14 I do have some concerns about the  
15 realities proposed in this environmental impact  
16 statement, and with the shortage of time I'll just  
17 stick to one aspect, but due to the subject of this  
18 724 page environmental impact statement, after I just  
19 read a part of it I couldn't wait to see how it  
20 handled the risk of severe accidents.

21 So I turned to Chapter 5.10.2 on severe  
22 accidents to see how this analysis was made, and I  
23 know that the NRC has put great efforts into risk  
24 assessments, especially since Three Mile Island, and  
25 including in this North Anna environmental impact

1 assessment.

2 Much of this work, including the analysis  
3 in this EIA is based on probabilistic risk  
4 assessments. With a probabilistic risk assessment,  
5 you identify various risks, determine how likely each  
6 is to occur, and add the various risks together to get  
7 an overall picture of the risk of serious accident.

8 When I read a summary of this, it said the  
9 risk is small, and I said this is a pretty simplistic.  
10 This is kind of like a yellow code or an orange code  
11 or one of these codes that we heard so much about last  
12 summer. It's pretty simplistic. Where do they come  
13 up with this?

14 And then I read further, and it said,  
15 well, the risk is less than one year in a million that  
16 there would be an accident in a reactor like this, and  
17 I said this doesn't make sense. So I looked at it  
18 more to see how they're adding these things together  
19 and coming up with such low risk.

20 Now, I'm not an expert in risk assessments  
21 or statistics or nuclear reactors, but in my own  
22 scientific work and work helping graduate students  
23 analyze and present their data, I often observe data  
24 that just didn't make sense and analyses that had to  
25 be wrong, and I tried to encourage my students then to

1 open their eyes.

2 I think it's a sound practice that if your  
3 data doesn't make sense, look at your data again. If  
4 your analysis doesn't fit with reality, take another  
5 look. Look for obvious mistakes. Reexamine your  
6 assumptions.

7 And the assessment that a severe accident  
8 is likely in less than one in a million years does  
9 need reexamination.

10 The biggest problem with probabilistic  
11 risk assessments is when you overlook factors that, in  
12 fact, are real and don't think are factors that prove  
13 to be important risks. For example, before the  
14 accident at Three Mile Island, no one realized that  
15 there needed to be some clear way to know when the  
16 pilot operator relief valve for cooling water was open  
17 and the cooling water was flowing away from the  
18 reactor instead of towards it.

19 None of many technical factors would have  
20 been included in any probabilistic risk assessment for  
21 the Three Mile Island Reactor No. 2. They were risks,  
22 but no one knew it.

23 But much more than a missing pressure  
24 gauge and unexpected challenges in cooling the reactor  
25 core, the major cause of all major nuclear accidents,

1 the major, inescapable, clearly identified cause,  
2 including Three Mile Island, Chernobyl, the reactors  
3 that have gone bad in Japan is human error.

4 Not only human error has been the cause,  
5 but overlooking human error was identified as a  
6 persistent pattern by both the NRC and the nuclear  
7 industry in the forced core meltdown analysis of Three  
8 Mile Island Reactor 2. Everyone who looked at that  
9 accident after it happened pointed out that human  
10 error and overlooking the relevance of human error to  
11 reactor safety or danger were the main ingredients in  
12 the recipe for disaster, and everyone agreed that we  
13 should not overlook human error again.

14 I believe the NRC developed at that time  
15 a serious and systematic program for lessons learned  
16 in looking back at the Three Mile Island accident, and  
17 tried to make sure that this didn't happen.

18 MR. CAMERON: Dr. Brian, can I ask you to  
19 just wrap up, please?

20 DR. BRIAN: Yeah.

21 MR. CAMERON: Thank you.

22 DR. BRIAN: I can't find human error as a  
23 factor specified in this probabilistic risk  
24 assessment. Why human error should be left out  
25 mystifies me.

1 Another thing that mystifies me is that  
2 apparently the analysis of terrorism was done by  
3 regulations proposed in 1996, and we need to be up to  
4 date on this. It's bizarre that our government was  
5 raising the possibility of terrorism every few days  
6 last summer and fall, and that now somehow this branch  
7 of government, the NRC, overlooks it in this analysis.

8 MR. CAMERON: And, Dr. Brian, we can  
9 attach your -- can we attach that to the transcript?

10 DR. BRIAN: I'll send another, more  
11 complete copy.

12 MR. CAMERON: Thank you. Thank you very  
13 much.

14 (Applause.)

15 MR. CAMERON: The full text of Dr. Brian's  
16 comments will be available as a public comment. Thank  
17 you very much.

18 Bill Bardune.

19 PARTICIPANT: What is your background,  
20 sir?

21 MR. CAMERON: Yes?

22 PARTICIPANT: What is Dr. Brian's  
23 background?

24 MR. CAMERON: Could you just do that  
25 quickly for us?

1 DR. BRIAN: I'm a forester. I have a  
2 Ph.D. in forestry and environmental studies, and I  
3 have done quite a bit of work on the environmental  
4 impact assessments and believe that it's a terrific  
5 opportunity for paying attention to reality.

6 I'm not an expert in any way in nuclear  
7 science or statistics or risk assessment.

8 MR. CAMERON: Thank you.

9 This is Mr. Bill Bardune.

10 Bill.

11 MR. BARDUNE: Bill Bardune. Thank you.

12 Over the last year and a half I've had the  
13 opportunity to study the ESP process. However, this  
14 evening my comments represent my personal opinions and  
15 my wife.

16 We respect the opinions of others. I know  
17 that it takes courage to stand up for what you believe  
18 in. I'd like to make three quick points.

19 One, I favor a goal of energy independence  
20 in this country. I think it's a goal that everyone  
21 would want. Nuclear power supplies 20 percent of our  
22 nation's energy. Coal-fired plants is 51 percent,  
23 which causes problems as you know, and natural gas is  
24 17 percent of our energy.

25 By the way, in France, 80 percent of their

1 energy is produced by nuclear power.

2 Building a nuclear power plant is  
3 expensive. It could be, as somebody said, hundreds  
4 and it's probably in the billions, but I think it's  
5 going to take ten years to build the plant from the  
6 time you begin the process.

7 And the ESP is simply a beginning of the  
8 process from what I've discovered.

9 What about alternative sources of energy?  
10 Well, for a fact, we have heard that Dominion has  
11 already invested in what's called liquified natural  
12 gas. I wouldn't doubt that if Dominion found the  
13 right spot to build a wind farm with windmills that  
14 could produce enough energy and make a profit they  
15 would do it.

16 Anyway, if all of the energy initiatives  
17 were to succeed, you've got to ask yourself the  
18 question will America be better off. Will we get  
19 closer to the goal of financial or -- excuse me -- of  
20 energy independence?

21 Today we import 60 percent of our crude,  
22 and the demand is growing. The United States uses 20  
23 and a half million barrels of oil a day. If you  
24 combine China, Japan, and the former Soviet Union,  
25 collectively they currently use 15.5 million.

1       However, the demand is three times greater in those  
2       countries right now than it is here.

3               The 1.3 billion Chinese are not going to  
4       want to keep riding bikes.

5               (Laughter.)

6               MR. BARDUNE: They are hungry for the oil,  
7       as you know in many cases.

8               Hundreds of articles have made the point  
9       that the day of reckoning is coming to us when the  
10      required source of energy may not be sufficient to  
11      meet the demand. So unless we increase the supply  
12      here domestically, the question is: are we going to  
13      be ready when that happens?

14              Will we start from scratch at that  
15      particular point to develop new energy sources when  
16      really it's already too late?

17              By now we should all understand clearly  
18      that those impacts that were reported in the NRC  
19      report will affect some of us temporarily or  
20      permanently, and we need to weigh those impacts up  
21      against the goal. We need knowledge that those who  
22      live and enjoy recreation on the warm side of the lake  
23      will experience about a three percent increase in the  
24      temperature, and that change in temperature will be  
25      most noticeable during the hottest summer months.

1           The lake level on the cold side is going  
2 to be lower, and it's going to last longer during  
3 periods of drought conditions.

4           So what does that mean to me and perhaps  
5 to some of you? Well, maybe that year I won't be able  
6 to boat. Maybe I'll only boat 15 times rather than  
7 30, but I personally feel that sacrifice is worth it  
8 to achieve the goal of independence.

9           Recent polls show that over 65 percent of  
10 the people support construction of nuclear power  
11 plants. You may not share this point of view, and do  
12 you know what? That's what makes America great. None  
13 of us here are enemies. We're together, and I believe  
14 each one of us has the goal to seek positive solutions  
15 to the problems that we face as a nation.

16           Although I've been chairman of an ESP  
17 committee, I have never voiced my personal opinion  
18 until this evening. Ultimately, you must decide your  
19 own personal position, make them known, go forward  
20 with your decision, and don't look back in the rear  
21 view mirror.

22           Thank you.

23           (Applause.)

24           MR. CAMERON: Thank you very much, Bill.

25           We're going to switch to another medium.

1 We have Adel Wood who is an artist with us, and she's  
2 going to say a few words to us, but she's also going  
3 to illustrate that through some graphics.

4 Adel.

5 MS. WOOD: Thank you so much.

6 Well, I've got two timers here. My name  
7 is Adel Wood. I live in Ivy, Virginia. I have a  
8 daughter in college, and I have a degree from Virginia  
9 Tech in liberal arts and science curriculum, and a  
10 sculpture degree from VCU.

11 It's my understanding that no matter what  
12 side of the fence we're on in terms of spent nuclear  
13 fuel, whether we want more produced or we don't, one  
14 thing we can agree on is we really care about our  
15 descendants that will come in the future. We don't  
16 want them to get hurt by spent nuclear fuel.

17 From a World Watch Institute bulletin, I  
18 found that a major constituent of nuclear waste is  
19 Plutonium is 239 that can cause harm to living tissue  
20 for a quarter of a million years or 12,000  
21 generations.

22 So I have symbolically created in two  
23 minutes to compress 12,000 generations into flickers  
24 from strobe light and every second there will be ten  
25 flickers, and every flicker will represent 200 years

1 or ten generations. That would be in the last 200  
2 years from Thomas Jefferson when he was President 200  
3 years ago, today until now.

4 So this is my love letter to all of our  
5 descendants in the future, that we really do care.  
6 That's something we can agree on, that we don't want  
7 them to be hurt.

8 In every thousand generations we're going  
9 to hit the chimes.

10 (Presentation.)

11 (Applause.)

12 MR. CAMERON: Thank you very much, Adel.  
13 I think that that gives us a lot to think about even  
14 in addition to nuclear power. So thank you very much.

15 We're going to go to Mr. Diamond.

16 MR. DIAMOND: Thank you.

17 I'm a citizen. I live about 25 or 30  
18 miles west of here. One of my concerns is that I've  
19 seen and heard about a study or more than one study  
20 that has shown that if you live within 50 to 100 miles  
21 of Lake Anna, you have statistically a higher rate of  
22 cancer, and now maybe somebody else in this room can  
23 talk more about that. I'm not an expert, but that's  
24 a great concern to me as a parent.

25 As a homeowner, I'm concerned about my

1 property values. I don't understand why we in Central  
2 Virginia have to house four nuclear reactors. It  
3 seems like that's just inviting a terrorist attack.  
4 It seems that the two that we have is probably enough,  
5 and with the problem of nuclear fuel, it's probably  
6 too much.

7 My only other point has to do with  
8 credibility. When I came in tonight I saw signs that  
9 apparently Dominion had put up saying "clean power,"  
10 and to talk about nuclear power with nuclear waste the  
11 most dangerous substance that we can possibly have on  
12 this earth, and it's a substance that we don't know  
13 what to do with it, and to talk about that is clean  
14 makes me think I cannot believe anything that Dominion  
15 Power has to say to me.

16 Thank you.

17 (Applause.)

18 MR. CAMERON: And thank you, Mr. Diamond.

19 Is Mr. Sloane here, Ben Sloane? Oh, hi.

20 There you are.

21 (Laughter.)

22 MR. CAMERON: Okay. Go ahead.

23 MR. SLOANE: Representatives from the NRC,  
24 fellow citizens -- this is kind of a rush.

25 (Laughter.)

1 MR. SLOANE: -- my name is Ben Sloane. I  
2 live in Goochland County, in Maidens, Virginia. My  
3 home is approximately 24.7 miles south of the North  
4 Anna containment buildings.

5 I'm a father of three children, president  
6 of a software company based in Goochland, a concerned  
7 citizen and an environmentalist, and also a Dominion  
8 Power utility customer.

9 I speak in support of the conclusions  
10 reached by the draft NRC EIS for the North Anna early  
11 site permit with comments. Every power source has  
12 economic and environmental costs, and there is no such  
13 thing as zero risk. Being a victim of high methyl  
14 concentrations in my blood due to eating fish from our  
15 local grocery stores and seafood markets, I'm acutely  
16 aware of the environmental problems induced by  
17 effluent from coal generated plants.

18 From casually and professionally studying  
19 the concepts from coal fly ash composition using  
20 particle accelerators to other power sources, to the  
21 accidents at Three Mile Island and Chernobyl -- and I  
22 was actually at Three Mile Island, not part of, but  
23 after the accident in April of 1979 -- I have  
24 concluded that nuclear power has significantly lower  
25 environmental and economic cost than coal-fired, other

1 fossil fuels, and other means of generating  
2 electricity for our transmission grid.

3 Some of the world's top environmentalists,  
4 including Wyeth-Ayerst, James Lovelock, Patrick Moore  
5 who is the co-founder or one of the co-founders of  
6 Greenpeace, Bishop Hugh Montefiore who is a long time  
7 board member of the Friends of Earth, also agree.

8 Sixty-two years ago last December 2nd, a  
9 team led by Nobel Prize winner Enrico Ferme created  
10 the first manmade fission reactor at the University of  
11 Chicago. However, the first nuclear fission reactors  
12 on our planet were natural and occurred in Africa  
13 millions of years ago.

14 We live in a naturally radioactive world  
15 and universe. The food we eat contains naturally  
16 occurring potassium and carbon. The sun is a fusion  
17 reaction that constantly bombard our planet with  
18 radiation and high energy particles. Our earth is  
19 kept alive by the natural radioactive decay below its  
20 crust. In fact, even some recent theories suggest  
21 that there's a fission reactor at the core of our  
22 earth that keeps it alive.

23 Disposal of radioactive waste is not an  
24 environmental or technical problem. Both North Anna  
25 and Surry Power Stations safely store used fuel at

1 their sites.

2           Ultimately I would agree with the  
3 gentleman who spoke earlier. Used nuclear fuel  
4 recycling should be implemented to provide energy for  
5 hundreds of thousands of years. Unlike other energy  
6 generating processes that put waste directly into the  
7 air, water, and on our surfaces, nuclear power wastes  
8 are contained, accounted for, and managed.

9           In fact, I will argue that nuclear power  
10 is the only energy source which takes full  
11 responsibility for all of its waste and fully costs  
12 them in its product of electricity. This itself gives  
13 rise to a negative perception. Since the wastes are  
14 retained rather than being discharged into the  
15 environment and forgotten, many are stored in  
16 particular places, and they are represented  
17 incorrectly as an unsolved problem.

18           Whether you consider the 103 safe and  
19 productive operating commercial nuclear plants making  
20 electricity or the hundreds of reactors and nuclear  
21 power submarines, cruisers, and aircraft carriers that  
22 protect our nation, nuclear power provides significant  
23 benefits to the United States and others worldwide.  
24 It generates 20 percent of our electrical needs. In  
25 France it's 78 percent. Other nations, including

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1 China, India, South Africa, and Finland are  
2 aggressively building new plants as I speak.

3 Nuclear power decreases are needed for  
4 foreign oil and provides us with the best future means  
5 to generate hydrogen to potentially provide a new  
6 fossil fuel, independent, and environmentally friendly  
7 means of powering our vehicles. Let us resolve to use  
8 the appropriate energy sources based on its true  
9 market costs and benefits.

10 As a customer of Dominion Power and to the  
11 men and women who work there, thank you for beginning  
12 this long and arduous process and necessary process,  
13 and than you all very much for allowing me to speak  
14 and express my thoughts.

15 (Applause.)

16 MR. CAMERON: Thank you very much, Ben.

17 Let's go to Jerry Rosenthal, then shift a  
18 little bit geographically and hear from Brendan  
19 Hoffman, Public Citizen.

20 This is Jerry Rosenthal.

21 MR. ROSENTHAL: Thank you.

22 I'm Jerry Rosenthal. I live here in  
23 Louisa. I've been active in dealing with North Anna  
24 for almost 30 years, and many, many NRC hearings and  
25 stuff, and I'm really glad to see so many people here

1 from all viewpoints, and it's nice not to just be here  
2 with me and Chip.

3 (Laughter.)

4 MR. ROSENTHAL: I have a problem with the  
5 ESP, a fundamental problem with it. It's a fixed and  
6 static permit that's going to be there for 20 years  
7 for a completely fluid situation. It doesn't seem  
8 that you would want something fixed when what it's  
9 regulating is changing.

10 Let's look on both the environmental and  
11 safety basis. How many things have changed in the  
12 last 20 years and will change significantly in the  
13 next 20?

14 For example, the population growth right  
15 around the lake, the water usage, the road usage for  
16 evacuations, all of these things have changed. They  
17 don't know how they're going to change again.

18 We've seen an explosion at the lake, and  
19 we don't know what's going to happen. If it continues  
20 like this, we're going to be confronted with  
21 continuous problems, and here they want to give a  
22 blank permit for 20 years.

23 It's fundamentally wrong in this  
24 permitting thing to exclude security and terrorism,  
25 the ultimate waste disposal, the waste storage on

1 site, alternative sources, and the need for power.

2 Now, as a taxpayer of our country and a  
3 shareholder in Dominion, I'm dismayed to hear Dominion  
4 say that they're going to go ahead and spend hundreds  
5 of millions of dollars not to build the plant. That's  
6 unbelievable. This money could be well spent on many  
7 positive ways to either conserve energy, energy  
8 efficiency, or to build a plant which is actually  
9 going to produce energy.

10 But here he says we're not building a  
11 plant. We're just going to take your money and spend  
12 my shareholder money not to do it.

13 Dominion has many economic,  
14 environmentally, and acceptable ways to produce or  
15 save energy. Let them do that, and let them leave us  
16 in peace.

17 (Applause.)

18 MR. CAMERON: Thanks, Jerry.

19 And Brendan, do you want to come down  
20 front?

21 MR. HOFFMAN: Sure.

22 MR. CAMERON: Okay.

23 MR. HOFFMAN: My name is Brendan Hoffman.  
24 I'm with Public Citizen.

25 I'd like to play a little bit off of what

1 Jerry was talking about and other folks have addressed  
2 as well, many of the issues that are not involved in  
3 this early site permit process, such as analyzing a  
4 need for new generating capacity here in Virginia,  
5 analyzing alternative forms of meeting our generating  
6 needs.

7           Something that wasn't on the slides that  
8 we saw earlier that was on slides last year when I was  
9 here at the scoping meeting was what the impact was  
10 going to be on the cost of power in Virginia. You  
11 guys right now have a cap on your electricity base in  
12 Virginia. That's going to be lifted in 2010, which is  
13 before these plants, if they're built, which I believe  
14 they will, too; before they're built, those rate caps  
15 are going to come off, and any cost overruns on this  
16 plant are going to be borne by shareholders and by  
17 ratepayers. That's something you guys need to keep in  
18 mind.

19           And I'd also like to talk a little bit  
20 about why exactly Dominion is spending this much money  
21 if they have no intention of going forward with  
22 actually building plants, and I agree that it's a  
23 travesty from the perspective of the taxpayers  
24 because, as you know, taxpayers are picking up half of  
25 the tab for Dominion to go through this process, the

1 application process, not only for the early site  
2 process, but you may or may not be aware that Dominion  
3 is also simultaneously pursuing this combined  
4 operating license.

5 They haven't submitted the application  
6 yet, but they're already spending taxpayer money.  
7 They asked the Department of Energy for \$250 million  
8 to help them prepare this application and submit it  
9 and get it reviewed.

10 So I agree that as a taxpayer, Dominion  
11 should not be spending this money, especially if they  
12 have no intention of building these reactors, but one  
13 of the reasons they can afford to do this is because  
14 I would like to read a couple of statistics on the  
15 economics of nuclear power.

16 Over the last 50 years, according to the  
17 Congressional Research Service, nuclear energy has  
18 received \$74 billion in subsidies just for research  
19 and development. That's 56 percent of all research  
20 and development costs on energy. That's compared to  
21 \$14.6 billion that's been spent on research and  
22 renewables and 11.7 billion that's been spent on  
23 research into energy efficiency.

24 According to the Department of Energy,  
25 nuclear power is projected to be more expensive than

1 coal, more expensive than gas, and even more expensive  
2 than wind, not just now but through the year 2025.  
3 It's going to continue to be the most expensive method  
4 of generating electricity.

5 And one last issue that I'd like to touch  
6 on briefly we've heard a little bit about energy  
7 independence and the idea that nuclear power is going  
8 to get us off foreign oil, and I personally believe we  
9 shouldn't just get off foreign oil, but maybe oil in  
10 general, and if more of us were riding bicycles we  
11 could help do that.

12 But nuclear power is not going to make a  
13 meaningful dent in our oil consumption. According to,  
14 again, the United States Department of Energy figures  
15 here, in 2003 the percentage of oil that was used in  
16 the United States on generating electricity, 2.1  
17 percent, and that's total. Not all of that was  
18 imported even.

19 That compares to 70 percent of all  
20 petroleum use in this country on transportation. So  
21 if you're interested in achieving energy independence,  
22 nuclear power is not going to get us there.

23 Thanks.

24 (Applause.)

25 MR. CAMERON: Okay. Thank you. Thank

1 you, Brendan.

2 We're going to go to Rena Martin-Errick.

3 Hi, Rena. Here you are.

4 MS. MARTIN-ERRICK: Thank you.

5 My name is Rena Martin-Errick. I live in  
6 Louisa County. I'm 81 years old, and I hope to  
7 continue to have a healthy, productive life.

8 I care about the risks of nuclear power on  
9 a personal level and on a global level. I need to say  
10 specifically to NRC folks here that I don't believe  
11 you when you say the issue of terrorist attacks on the  
12 plant will be addressed in another part of the  
13 process.

14 After September 11th, the Nuclear Energy  
15 Institute commissioned an expert study which found  
16 that existing reactors in the United States were safe  
17 from that 9/11 type of attack, but the experts assumed  
18 these large jets would slow down by over 300 miles per  
19 hour before hitting the reactor, exactly the opposite  
20 behavior of the actual 9/11 attackers.

21 Just last night Yahoo.news reported, and  
22 I quote, "Speaking with one voice, President Bush's  
23 top intelligence and military officials said Wednesday  
24 that terrorists are regrouping for possible new  
25 strikes against the United States."

1           So I don't believe you when you say you  
2 have the ability to protect the public and insure our  
3 safety.

4           I don't believe you when you say the issue  
5 of nuclear waste will not be an ongoing and increasing  
6 problem. None of the waste from these new reactors  
7 will go to Yucca Mountain, which is already full  
8 beyond its capacity. There is no other permanent high  
9 level waste dump site even being considered at this  
10 point, much less built.

11           So the highly toxic and dangerously  
12 radioactive waste will stay in our county, yet the  
13 problem of nuclear waste transport from North Anna  
14 actually gets worse day by day since the nuclear waste  
15 steadily increases and must somehow, some day be  
16 removed.

17           Expanding the plant by two reactors would  
18 double this problem and increase the risk to all of  
19 us, many generations from now included. Too many lies  
20 for too many years have been told to us about nuclear  
21 power. I cannot start believing you now. So my  
22 simple message is: don't issue this permit.

23           (Applause.)

24           MR. CAMERON: Thank you, Rena.

25           We're going to go to Rebecca Faris and

1 then we're going to go to Michele Boyd.

2 Rebecca. Hi, Rebecca. Do you want to go  
3 up there?

4 MS. FARIS: Before I make my remarks I'd  
5 just like to talk for a second about a couple of  
6 things that I've heard mentioned tonight that really  
7 concern me.

8 With the idea of nuclear accidents on  
9 everybody's mind, I'd just like to say that there is  
10 release of radioactivity from these two existing  
11 plants on a daily basis in the form of tritium, if I'm  
12 pronouncing that correctly, the radioactive isotope  
13 that goes into the water and comes out as part of the  
14 process.

15 And as I understand it, there are five  
16 annual releases of radioactivity every year, which  
17 we're not told about, and the results of that I'm not  
18 sure we're aware of.

19 I also want to mention the idea of  
20 radioactivity and, again, forgive me because I'm not  
21 an expert, but I think that it is disingenuous to  
22 suggest that the radioactive environment is natural  
23 because, as I understand it, there are over 200  
24 radioactive isotopes that are created in the process  
25 that do not exist in nature, and so these are outside

1 of our natural world.

2 And like someone mentioned before, a lot  
3 of them act as analogues to nutrients so that they end  
4 up in our bodies.

5 Perhaps some of you, like me, were raised  
6 in the 1950s when we were taught that the answer to  
7 all of society's needs for clean, safe, cheap,  
8 unlimited energy was to be found inside the atom.  
9 This is a hideous, perverted lie.

10 I am a teacher, and I have learned over  
11 the past year that there is no magic in the fissioning  
12 of the atom. There is horrible death, and there is  
13 the potential for complete planetary destruction, and  
14 there is heat, enormous amounts of heat, hundreds of  
15 times what's needed to boil water.

16 Yeah, that's right. All of this is about  
17 boiling water which changes to steam that turns the  
18 turbines that generate the electricity. We're not  
19 against electricity. We're not against folks making  
20 a living or a county tax basis. I want to know when  
21 we all bought into the idea that having enough energy  
22 to meet our needs meant that we also had to have  
23 terrorist threats or lethal poisoning of radioactivity  
24 for tens of thousands of years.

25 This is not an either/or proposition.

1 We can do both. If we shut down nuclear today, we  
2 would not have return to living in dark caves rubbing  
3 sticks together to start fires. When we turn to wind  
4 and solar for our electricity, the power companies  
5 will still make profits. People will still be  
6 employed. Taxes will still be paid.

7 But make no mistake. We are against  
8 breathing air full of radioactive particles, drinking  
9 water that poisons instead of gives life, eating food  
10 that gives our children cancer for untold generations.  
11 How do you explain the fact that we seem to be more  
12 willing to protect our fragile psyches from looking  
13 honestly at the horror we are creating than doing  
14 whatever we have to do to protect our babies?

15 We must stop hiding behind "we'll fix it  
16 tomorrow" or accidents never happen. We must speak  
17 openly of the truth that we are talking about the end  
18 of life on this planet and perhaps the end of life  
19 throughout the whole universe. We don't really know.

20 Because whether or not it comes by  
21 terrorism or leukemia or poisoned air and water or the  
22 destruction of our DNA, death is the inevitable end of  
23 this madness that is nuclear. We can do better, you  
24 all. We can do better.

25 Don't you believe that these guys and

1 ladies are smart enough and capable enough to figure  
2 out ways to boil water that aren't suicidal? I do.

3 (Applause.)

4 MS. FARIS: I know we're smart enough.  
5 Life is not just about money and power. We have to  
6 remember that life is about laughter and music and  
7 fighting with our spouses and making up, and it's  
8 about raising our children to be good people and  
9 living long enough to hold their children in our arms.

10 How have we forgotten that? This earth  
11 does not belong to us alone. We've borrowed it from  
12 our children and from their grandchildren and from  
13 their grandchildren, too.

14 I ask everyone working for the NRC and for  
15 Dominion Virginia Power to join us today, to do  
16 everything we can to stop our rush toward unparalleled  
17 catastrophe. When future generations look back, let  
18 them not curse our names. Rather, let them say that  
19 this was the day; let them say that this was the  
20 place; let them say that our voices were the voices  
21 that returned the human race to sanity. Because if  
22 not now, when?

23 If not here, where?

24 And if you not and me, then who?

25 (Applause.)

1 MR. CAMERON: Okay. Thank you very much,  
2 Rebecca.

3 And we're going to go to Michele Boyd at  
4 this point.

5 MS. BOYD: Well, that is a tough  
6 presentation to follow. I would like to just say that  
7 I appreciate all of the comments that people have made  
8 about their concerns about cost, waste, and safety,  
9 and security around nuclear power. My comments are  
10 going to revolve more around the lake itself. I'm  
11 going to talk about some of the water impacts of  
12 building its reactor.

13 The purpose of an early site permit is  
14 supposedly, quote, to assess whether a proposed site  
15 is suitable for a nuclear reactor. Yet the draft EIS  
16 for the North Anna ESP fails to consider or to fully  
17 acknowledge numerous environmental issues that  
18 indicate the site is not suitable for additional  
19 reactors.

20 For example, crucial data for making  
21 informed analyses are not known, including, quote, a  
22 reliable water budget of North Anna. What does that  
23 mean? That's how much water is flowing in and flowing  
24 out. This means they don't really know how much water  
25 is flowing in or flowing out.

1 Nor have measurements been taken on the  
2 velocity of the water flow within the lake. Yet the  
3 NRC staff admits in the draft EIS that these data are  
4 necessary for both understanding the hydrodynamics of  
5 the lake and to calibrate the models.

6 With such inadequate data about the lake's  
7 hydrology, how can NRC staff conclude that the impacts  
8 of another once through reactor on the lake will be  
9 small?

10 In addition, many of the necessary  
11 analyses about mitigating these potential impacts are  
12 being postponed to the COL stage, the combined  
13 construction and operation license stage. For  
14 example, Dominion did not have to provide any  
15 information on the practices and procedures to  
16 minimize the impacts of adding additional hot water to  
17 the lake.

18 Other decisions are left until after the  
19 NRC has already granted the ESP, such as whether the  
20 State of Virginia or the Commonwealth of Virginia,  
21 rather, would permit Dominion to even increase its  
22 effluent discharges into the lake.

23 What then does an ESP really indicate  
24 about site suitability? Another reactor of the size  
25 that Dominion is proposing would reduce the lake level

1 affecting fish habitat and water based recreational  
2 uses of the lake, especially in drought years. It  
3 would significantly increase the temperature of the  
4 lake and downstream, which would, again, affect the  
5 aquatic life, in particularly the habitat of the  
6 popular striped bass.

7 It would also reduce the water flow  
8 downstream, which would again affect aquatic life in  
9 the river and increase further conflicts over water  
10 use by downstream counties.

11 And finally, it would more than double the  
12 number of aquatic life killed in the intake pipe.

13 In the 2002 drought, the water level  
14 dropped to 245 feet above mean sea level. That  
15 doesn't mean much to me either, but this is about five  
16 feet lower than normal. Boats could not be launched  
17 from ramps on the lake. The back yards of homes  
18 around the lake were mud flats.

19 Had a third reactor been a once through  
20 reactor, the same kind that they're proposing, been  
21 built and operating in October of 2002, the lake level  
22 would have dropped another two feet, and the reactors  
23 would have had to shut down. This is from the draft  
24 EIS itself and from Dominion.

25 In response, Dominion has asked to allow

1 the third proposed reactor to operate until the lake  
2 level drops down to 242 feet above mean sea level.  
3 Not only would this lowering of the shutoff point  
4 increase the risks during plant operations. It would  
5 also increase the impacts on the lake and downstream.

6 The NRC must gather all of the necessary  
7 information about the lake and do all of the necessary  
8 analyses before making conclusions about whether there  
9 is sufficient water in Lake Anna to operate another  
10 once through reactor.

11 Thank you.

12 (Applause.)

13 MR. CAMERON: Thank you. Thank you,  
14 Michele.

15 We're going to go to Lisa Shell now and  
16 then we're going to go to Richard Ball, Sierra Club.

17 Lisa.

18 MS. SHELL: Mr. Chairman, can I be  
19 allowed the same five or six minutes as some of the  
20 previous speakers? Mr. Chairman.

21 MR. CAMERON: Yes.

22 MS. SHELL: May I be allowed the same five  
23 or six minutes as the other speakers.

24 MS. SHELL: They haven't been going five  
25 or six minutes. They've been going four, but go

1 ahead.

2 MS. SHELL: Okay. I'll take the short  
3 version then.

4 My name is Lisa Shell, and I live in  
5 Richmond. I'm a nuclear engineer with degrees from  
6 the University of Missouri-Roll and the Massachusetts  
7 Institute of Technology and have worked in the nuclear  
8 industry for ten years.

9 When I first chosen nuclear engineering as  
10 a career path, I was fascinated by the science and  
11 inspired by the opportunity to contribute to an  
12 industry that benefits our society, our health, our  
13 economy, and our environment. Like many of you, the  
14 one issue that concerned me the most was nuclear  
15 waste. So as I progressed in my education, I began to  
16 concentrate more on waste management and have spent  
17 most of my career focused on spent nuclear fuel  
18 management.

19 I'm also the Vice President of the North  
20 American Young Generation of Nuclear, NAYGN, and a  
21 member of the local Virginia section who put out a lot  
22 of the signs tonight. Many of the local members who  
23 are here tonight are residents of Louisa or other  
24 immediately surrounding counties.

25 NAYGN was formed in 1999 as an

1 organization that unites young professionals that  
2 share a personal conviction that nuclear science and  
3 technology make important and valuable contributions  
4 to our society.

5 As nuclear technology relates to  
6 electricity generation, we wanted to tell everyone the  
7 success story that is nuclear power in our country.  
8 Nuclear energy is safe, clean, and reliable as an  
9 important part of a balanced energy mix.

10 Furthermore, the local NAYGN is here to  
11 show our support for the ESP process as a means to  
12 guarantee an open and thorough evaluation of future  
13 nuclear projects while insuring the timeliness and  
14 predictability of the process.

15 In particular, as nuclear professionals  
16 and as concerned local citizens, we concur with the  
17 NRC's conclusion that environmental impacts would not  
18 prevent issuing an early site permit for the North  
19 Anna site.

20 The environmental report of Dominion's ESP  
21 application and the NRC's draft environmental impact  
22 statement demonstrate in great detail what has become  
23 patently obvious in an area of increasing concerns  
24 about global warming, air pollution, environmental  
25 protection and industrial safety.

1           That is, in spite of the misinformed and  
2 skewed claims of the small minority of career anti-  
3 nuclear activists, nuclear power has perhaps the  
4 smallest impact on the environment, including water,  
5 land, habitat, species and air resources. And life  
6 cycle emission analyses show that per kilowatt hours,  
7 the impact of nuclear energy is among the lowest of  
8 any form of electricity generation, including wind and  
9 solar.

10           And as an aside, though we are not here to  
11 debate the issue of spent nuclear fuel, I would like  
12 to add that as an engineer who has years of experience  
13 working and performing research in the management of  
14 nuclear waste, I can say with confidence that the  
15 problems of transportation and disposal are political  
16 and not technical.

17           I was tempted to begin presenting a list  
18 of facts and figures here, but I'd rather save the  
19 full technical treatment for my time to speak is  
20 limited. The matter of nuclear power here in Virginia  
21 has become an emotion issue. So I want to share with  
22 my friends and neighbors some of my own experiences  
23 along with some of the facts, and here are the things  
24 that I know.

25           I    have seen scare tactics and

1 misinformation that characterized the campaign of  
2 career anti-nuclear ideologues. Recently two  
3 venerated leaders of the Green, James Lovelock of the  
4 United Kingdom and Patrick Moore, founder of  
5 Greenpeace, publicly criticized such distortion of the  
6 facts. Lovelock has said that the fears these types  
7 of anti-nuclear organizers have about the safety of  
8 nuclear energy are irrational and exaggerated, his  
9 words.

10 Moore has said that such groups have  
11 abandoned science and logic in favor of emotion and  
12 sensationalism.

13 I have found that in many cases, the  
14 misinformation campaign is intentional. Ten years ago  
15 I met a scientist with the National Resources Defense  
16 Council at a public hearing. He must have assumed  
17 from my casual appearance that I agree with his  
18 position. This man told me that even if DOE and the  
19 NRC could convince him technically that Yucca Mountain  
20 was safe, he wouldn't tell his constituency that  
21 because it would undermine their goal of forcing the  
22 shutdown of all nuclear power plants.

23 More recently I was stunned when a  
24 physicist speaking for PACE led people to believe that  
25 extracting plutonium and making a bomb from spent fuel

1 like that at North Anna was about as easy as a high  
2 school chemistry experiment.

3 Korea and other nuclear idealogues  
4 continue to try like Dr. Mangano to scare the public  
5 even though his tooth fairy study has been debunked by  
6 the likes of the Center for Disease Control, the  
7 National Institutes of Health, The New York Times, and  
8 the Health Department's of New York, Connecticut, and  
9 Illinois, just to name a few.

10 A young engineer and former colleague of  
11 mine was mere miles from the Three Mile Island plant  
12 at the time of the 1979 accident. She and many of her  
13 high school classmates were born near TMI in the year  
14 following the problems at Unit 2. She told me that  
15 they are always perplexed by the exaggerated claims  
16 made by anti-nuclear idealogues. She told me that  
17 they would read stories alleging all sorts of alarming  
18 effects, and they would laugh and wonder what the  
19 brouhaha was all about.

20 And though I'm not speaking for Dominion  
21 here tonight, I can tell you my experiences as an  
22 employee. Now, I wouldn't claim they're perfect. I  
23 would certainly like a higher salary, but my boss  
24 isn't here tonight.

25 (Laughter.)

1 MS. SHELL: But I have found the  
2 management to be uncompromising when it comes to  
3 safety and ethics. As an engineer, Dominion has been  
4 constantly reinforced to me that I'm not only  
5 encouraged, but required to bring to management's  
6 attention immediately any safety or efficacy concern.

7 And in practice I have done so,  
8 particularly in my former position overseeing the  
9 fabrication of spent nuclear fuel casks. Even if  
10 addressing my concerns meant schedule delays or  
11 additional costs, even if at the end my concern was  
12 unfounded, I have always have the support of my  
13 management in pursuing questions of safety, design,  
14 and ethics.

15 And engineers and management are far from  
16 the last or only lines of defense. In addition the  
17 inherent and design safety features of the plants, I  
18 know the people that make them work. I have called  
19 through spent fuel casks with some of the dedicated  
20 inspectors whose full-time jobs are to monitor the  
21 fabrication of Dominion's critical equipment. I  
22 personally know some of the operators and their  
23 incredible attention to detail, safety and peer  
24 checking every time they move fuel. Those they  
25 haven't always made my job easy, I personally know

1 that thoroughness of the people that write and review  
2 procedures, and my list could go on.

3 And the nuclear ideologues like to say it  
4 only takes one person to make a mistake for there to  
5 be a catastrophic event. Not only us that patently  
6 false, but the opposite is true. If there was  
7 something seriously wrong with the plant, it would  
8 take only one person to shut it down.

9 And that brings me to the last item I want  
10 to address. For several months now I've listened to  
11 anti-nuclear extremists claim that severe accidents  
12 can happen at power plants at any time, and that  
13 nuclear power poisons the public and the environment.

14 I realize that they are implying one of  
15 two things. They are implying either that all of us  
16 who work in the nuclear industry are clueless idiots  
17 that blindly go about our own sinister jobs or that we  
18 are are all greedy mercenaries in collusion with the  
19 corporations for which we work.

20 In fact, last Saturday and here tonight at  
21 a meeting organized by PACE, Public Citizen, and IRS  
22 in Breedle, the leaders explicitly charged me with  
23 either ignorance or greed. Either they are insulting  
24 my intelligence and my education or they're insulting  
25 my character and integrity. Either way I am

1 personally offended.

2 My health and safety net of my family and  
3 friends always come first. I also believe that we as  
4 society must be good stewards of the environment. I  
5 would not work in this industry if it violated these  
6 principles, and I believe I speak for most, if not  
7 all, of the nuclear professionals here tonight.

8 Thank you.

9 (Applause.)

10 MR. CAMERON: Okay. Thank you very much,  
11 Lisa.

12 Richard, is Richard Ball here from Sierra  
13 Club? Richard Ball.

14 MR. BALL: Thank you. Thank you for  
15 allowing me to appear here.

16 I want to just summarize a few things in  
17 the couple of minutes at my disposal. The Sierra  
18 Club, the national Sierra Club --

19 PARTICIPANT: Pull the mic closer, please.

20 MR. BALL: Is that better?

21 Okay. The Sierra Club has opposed nuclear  
22 power but conditionally for many years dating back to  
23 the '70s, but the Virginia Chapter of the Sierra Club,  
24 all 18,000 members we represent here tonight, I'm the  
25 energy issues chair of the Virginia Chapter, and we

1 took a resolution several months ago opposing approval  
2 of additional reactors at Lake Anna or certification  
3 of that site is suitable for new units.

4 I wanted to just -- a number of people  
5 have touched on a number of points. So I'll just try  
6 to summarize a little bit what I think are the  
7 highlights. We think that the draft environmental  
8 impact statement, while it is voluminous and treats  
9 many issues in detail, nonetheless has some very  
10 serious deficiencies in that it doesn't treat some  
11 issues adequately. I'll mention a couple of those as  
12 I go on.

13 I don't know where in the process that the  
14 spent fuel issue is going to be treated, but I think  
15 it's essential in your new staged process, but I think  
16 it is essential that that issue be treated within the  
17 context before an early site permit is given because  
18 it's a major issue for the site because, in effect,  
19 and as some other speakers have referred to, because  
20 of the problems with Yucca Mountain, we are now  
21 instead of just -- nuclear reactors in general, and  
22 North Anna in particular, will now instead of just  
23 becoming temporary holding areas before they ship the  
24 waste off to a permanent repository, are going to  
25 become semi-permanent repositories.

1           And so you have to look at the process of  
2 citing a reactor here now as a process of generating  
3 a semi-permanent; we don't really know how long, but  
4 certainly for many decades, many decades before there  
5 will be another solution, a repository for high level  
6 radioactive waste.

7           Right now that is not in the environmental  
8 impact statement. I would be happy to find out where  
9 it is going to appear as a matter of information.

10           The other problem I wanted to turn to, and  
11 you have heard one of the previous speakers, Michele  
12 Boy and several others, address it quite a bit. The  
13 water issue is a very site specific issue. It's one  
14 of the ones that is not a generic issue. It's very  
15 specific to this site, and I think if you look at the  
16 -- and there is considerable information provided even  
17 if there are some holes in it, and to some extent the  
18 draft environmental statement do analyze the impact on  
19 water discharge as it would result from a third  
20 reactor, and that would be true whether it uses once  
21 through cooling or evaporative cooling. It's going to  
22 use a lot of water.

23           It appears to me in viewing the  
24 implications of that that this site already is  
25 inadequate. The water resources are already

1 inadequate for this site, and I think the best numbers  
2 on that if you look at the percentage of time that the  
3 Virginia Department of Environmental Quality's  
4 discharge permit is violated -- perhaps "violation" is  
5 the wrong term, but you have to understand that the  
6 department wanted a minimum discharge of 40 cubic feet  
7 per second, and except under drought conditions,  
8 whatever "drought" means, it can go down to 20 cfs.

9 If you look at the historical of the  
10 historical of the two reactors, it is that the history  
11 of the hydrological response is that 44 percent of the  
12 time, they're discharging less than 40 cubic feet per  
13 second, and five percent of the time they're  
14 discharging even less than the 20 feet per second,  
15 which was only supposed to be under drought  
16 conditions.

17 You have to seriously question whether you  
18 can call something drought if it's happening 44  
19 percent of the time. Those numbers, projected numbers  
20 under a third unit, cooling of a third unit, would  
21 realize to 52 percent of the time when you'd be  
22 discharging less than 40 cubic feet per second.

23 MR. CAMERON: Richard, I hate to interrupt  
24 you.

25 MR. BALL: Okay.

1 MR. CAMERON: But could you just wind up  
2 for us?

3 MR. BALL: Yeah, okay.

4 And 12 percent of the time less than 20.

5 Now, my main point is that if you look at  
6 the draft environmental impact statement, it does not  
7 really analyze the impact of that on the downstream  
8 uses in any detail, and I think the logic where they  
9 reached a conclusion that that would be a small impact  
10 most of the time and only moderate part of the time;  
11 there's no real analysis to support why you would  
12 reach that conclusion.

13 MR. CAMERON: Thank you.

14 MR. BALL: I think that those are serious  
15 issues, and I think that I would add just one more  
16 quick point. Putting off some of the issues, as other  
17 people have referred to, to the time of the COL, the  
18 construction license, could be disingenuous, and you  
19 have a new process you're doing here, the staged  
20 process that's being tried out.

21 Now, that could have some benefits to it  
22 doing it that way, but if it's used in a manner that  
23 varies certain issues, if you get a site permit before  
24 you're really addressed all the important issues that  
25 go into site suitability, that could be viewed as

1 undermining that whole process.

2 And I think your process is going to be  
3 judged on the way that you handle these issues, and  
4 I --

5 MR. CAMERON: Thank you.

6 MR. BALL: -- would be extremely cautious.

7 MR. CAMERON: Thank you for those very,  
8 very specific comments. Thank you very much.

9 (Applause.)

10 MR. CAMERON: We're going to go --  
11 Virginia, are you going to come down here? And it's  
12 Virginia Rovnyak?

13 (Laughter.)

14 MR. CAMERON: Close enough? All right.  
15 Okay.

16 MS. ROVNYAK: My name is Virginia Rovnyak.  
17 I live in Albemarle County. I'm also a member of the  
18 Charlottesville Center for Peace and Justice.

19 I submit that a Lake Anna site is not  
20 suitable for a nuclear reactor. The War on Terrorism  
21 is a top priority for this administration. President  
22 Bush devoted 40 percent, four, oh, percent, of his  
23 State of the Union message to the War on Terrorism.

24 You, the NRC, are a part of the  
25 government, and you have a part in the war on

1 terrorism. The proliferation of nuclear reactors does  
2 not mesh with the goal of preventing a disastrous  
3 terrorist strike on the United States.

4 Last summer, Dr. Philip Zelikoff, who was  
5 the Executive Director of the 9/11 Commission, was  
6 asked this. The 9/11 Commission report blames a lack  
7 of imagination for failing to anticipate the  
8 terrorists would crash domestic planes into domestic  
9 targets. What imaginings now keep you awake at night  
10 having gone through all of that?

11 Dr. Zelikoff replied, "I think we're very  
12 worried now, as some people were then, about the use  
13 of unconventional weapons, especially nuclear or  
14 biological weapons by a terrorist organization. There  
15 are also some different ways of conducting a  
16 conventional attack that might use aircraft that are  
17 less well guarded or some other parts of the  
18 transportation system. We said a little about that in  
19 the report."

20 Yesterday Porter Goss, the Director of the  
21 CIA, testified before the Senate Select Committee on  
22 Intelligence and said, "Islamic extremists are  
23 exploiting the Iraqi conflict to recruit new, anti-  
24 U.S. jihadists. These jihadists who survive will  
25 leave Iraq experienced and focused on acts of urban

1 terrorism."

2 Two days ago the Deputy Secretary of  
3 Homeland Security, Admiral James Loy, testified before  
4 that same Senate committee. He listed energy  
5 facilities as being among the areas of greatest  
6 concern. He said that real measurable progress had  
7 been made for them, The trouble is that the  
8 terrorists are also working on the problem, and I'm  
9 sure you will agree that they have been a lot more  
10 creative than the defenders.

11 Admiral Loy said, "We think that we are  
12 most likely to be attacked by a vehicle borne,  
13 improvised explosive device. However it remains very  
14 clear that our primary adversaries continue to seek  
15 weapons of mass effects with which they intend to  
16 strike us. A strike on a nuclear facility that is  
17 upwind of Washington would certain achieve a mass  
18 effect."

19 I have a poster I'll show to you now. It  
20 is a mere 75 miles from Lake Anna to the center of  
21 Washington as the wind blows, and the wind does blow  
22 in that direction quite often. Over and over again on  
23 weather maps in most, the wind is blowing into  
24 Washington from a southwesterly direction.

25 And the two dots, that's Lake Anna and

1 that's Washington, and Lake Anna is southwest of  
2 Washington.

3 For example, on Monday night at 6:25 p.m.,  
4 the wind in Washington was coming out of the south-  
5 southwest at 11 miles per hour, and the prediction for  
6 Monday night was "winds southwest."

7 Tuesday morning, winds were out of the  
8 south-southwest in Washington, and prediction for the  
9 day on Tuesday was "winds out of the south-southwest."

10 Tuesday evening, 11:00 p.m., winds are out  
11 of the south-southwest, and the prediction for Tuesday  
12 evening was winds out of the south.

13 Radioactivity --

14 MR. CAMERON: Virginia, can you just wrap  
15 up for us, please?

16 MS. ROVNYAK: Okay. You have a part to  
17 play. You have been warned by the government, by the  
18 President, by Homeland Security, the CIA, and the 9/11  
19 Commission report that the threat of a terrorist  
20 attack is very real. You should not be authorizing a  
21 new reactor near any metropolitan area, especially  
22 Washington, which is a prime symbolic target. You  
23 should not renew permits for current reactors, and you  
24 should shut down the Indian Point reactor that is a  
25 mere 35 miles from Times Square.

1 Thank you.

2 (Applause.)

3 MR. CAMERON: Thank you very much,  
4 Virginia.

5 We're going to go to Jennifer Conner and  
6 then to Jay Bolan.

7 Jennifer.

8 MS. CONNER: Thank you.

9 MR. CAMERON: That's quite an entrance,  
10 Jennifer.

11 (Laughter.)

12 MS. CONNER: Hi. I'm Miss Radioactive.  
13 I'm here with the beauty queens for nuclear waste.  
14 Unfortunately my fellow beauty queens, Miss Property  
15 Devaluation, Miss Meltdown and Ms. Partial Meltdown,  
16 were unable to be here. So I'll be speaking on their  
17 behalf also.

18 In my mind it's simple. The NRC and  
19 Dominion are determined to build more nuclear  
20 reactors, and that means more nuclear waste, and  
21 that's great.

22 (Laughter.)

23 MS. CONNER: Nuclear power is expensive,  
24 radioactive, and totally unreasonable and illogical,  
25 just like me.

1 (Laughter.)

2 MS. CONNER: I want to thank the NRC and  
3 Dominion for streamlining this process so that we can  
4 look forward to future outbursts of radioactivity in  
5 our environment and future nuclear waste dumps.

6 Look for me in the beauty pageant or  
7 nuclear disaster -- I mean reactor nearest you.

8 Bye.

9 (Applause.)

10 MR. CAMERON: Okay. Thank you.

11 Next we're going to go to Mr. Bolan, Jay  
12 Bolan. And then we'll go to Sama Dilbaoy Leon.

13 MR. BOLAN: I have to follow that. Tough  
14 job.

15 My name is Jay Bolan. I live on Lake Anna  
16 on the hot side. You walk out the back of my hard and  
17 you walk into the water on the hot side.

18 I'm speaking only for myself and nobody  
19 else. I'm concerned about the water temperature and  
20 the water level. I swim in the back of my property in  
21 the months of August and July, sometimes early  
22 September. The water is pretty warm. It's okay for  
23 swimming for me. My wife doesn't care much for it,  
24 but if it were any warmer, it wouldn't be so great.

25 During the drought year, the water was

1 down very low, and so that would be a problem, too.

2 A point that sometimes is made is that the  
3 hot side of the lake is the waste heat treatment  
4 facility. It's owned by Dominion, and the  
5 implication, although it's never stated, is that the  
6 people that live there don't have much to say about  
7 anything.

8 I don't think that's right. Maybe I'm  
9 misstating Dominion's position, but that area of the  
10 lake has been pretty heavily populated. It's pretty  
11 heavily used for all kinds of recreation fishing. So  
12 I don't think the construction of these plants, if it  
13 creates problems for people that live there, I don't  
14 think those problems can be ignored, and I hope that  
15 Dominion doesn't ignore them.

16 The water temperature being what it is, it  
17 wouldn't take much of an increase to make that part of  
18 the lake unusable during certain months of the year:  
19 July, August, early September. If that happens or  
20 even if the public thinks it's going to happen, if  
21 there's a public perception that that part of the lake  
22 is going to become unusable for the period of the year  
23 when most people want to use it, that's going to  
24 diminish property values quite a bit, including mine,  
25 and for a lot of other people also.

1                   Now, in terms of it actually affecting me,  
2 I'm probably not going to be around, certainly not on  
3 Lake Anna, if these new reactors are built. So it  
4 won't affect me in terms of using the lake, but it  
5 could affect me and a lot of other people if the  
6 public believes that there's going to be a problem  
7 with that part of the lake and then when I go to sell  
8 my house, which would provide, you know, a good bit of  
9 my net worth for my retirement the rest of my life, my  
10 needs might be pretty great during that period. I  
11 won't get as much for my property, and that's a  
12 concern for me.

13                   So what I would ask of NRC and Dominion  
14 would be to somehow publicly reassure people if you do  
15 build these reactors that you're not going to do  
16 anything to make the lake significantly less usable  
17 than it is now. I think if that were done, I think  
18 you wouldn't have the problem with the perception and,  
19 therefore, with the potential lowering of the property  
20 values.

21                   I think as long as people know that you're  
22 going to be able to use the lake normally and they  
23 feel confident about that, then you don't have this  
24 potential problem.

25                   Thank you very much.

1 (Applause.)

2 MR. CAMERON: Thank you. Thank you very  
3 much, Mr. Bolan.

4 And this is Sama?

5 MS. LEON: Good evening. My name is Sama  
6 Dilbaoy Leon, and I am a member of the American  
7 Nuclear Society, and I am one of the founding members  
8 of the North American Young Generation in Nuclear.

9 I have a Ph.D. in nuclear engineering.  
10 So, yes, I am a nuclear engineer, and as such, I am  
11 extremely proud of the very significant contribution  
12 that nuclear science and technology makes every day to  
13 improve our quality of life.

14 This contribution is most time very quiet,  
15 unglamorous, and very much behind the scenes, and most  
16 people truly aren't aware of it.

17 In particular, I think that nuclear power  
18 is an unsung hero, that every day it generates more  
19 than 35 percent of the electricity in Virginia,  
20 safely, cleanly, inexpensively, and reliably.

21 I am an active environmentalist. I share  
22 the concerns about minimizing human impact on the  
23 planet, and I certainly want to preserve natural  
24 resources for future generations. As a Young  
25 Professional in Nuclear, I know that nuclear power is

1 the most environmentally sound, large-scale option for  
2 new energy investment.

3 Nuclear power minimizes environmental  
4 impact by using a small land area and a small amount  
5 of fuel to produce a large energy output.

6 Furthermore, it accomplishes these without  
7 releasing any hazardous emissions, and the byproducts  
8 of nuclear power are the most manageable of energy  
9 waste burn-ups being thoroughly contained in  
10 retrievable and reusable.

11 I cannot really understand how any serious  
12 environmentalist after thoroughly reviewing the facts  
13 can realistically dismiss the measurable, positive  
14 contribution of existing nuclear power plants and the  
15 potential in the future role of new nuclear power  
16 towards the sustainable development of humankind. I  
17 insist I am talking about the unbiased review of  
18 facts, not wandering (phonetic) half truths and out of  
19 context, misinterpreted data.

20 Yesterday, February 16, 2005, the Kyoto  
21 protocol finally entered into force. After eight  
22 years of tedious negotiations, more than 140 countries  
23 from all over the world have right beside the accord,  
24 have committed to reduce the greenhouse gas emissions  
25 in an attempt to curb climate change and minimize the

1       disastrous blowout consequences.

2                   Even though the United States is not a  
3       signatory to the Kyoto Treaty, it is still committed  
4       to reduce the greenhouse gas intensity of the U.S.  
5       economy.

6                   So all of these countries that certify  
7       this Kyoto Protocol, having gone home, is the  
8       realization that it will be impossible for them to  
9       exceed this emission that was established targets  
10      without having nuclear power as an important part of  
11      their mix.

12                   For example, Tilden (phonetic) is breaking  
13      ground with a new nuclear reactor, and China has plans  
14      to build 20 more, and Sweden has nuclear phase-out  
15      plans and wants to keep their cooler nuclear reactors  
16      on for as long as they can.

17                   In the U.S. studies show that it's not  
18      possible to maintain the existent percentage of  
19      unlimited energy sources, let alone increase this  
20      percentage, with the contribution of nuclear power.  
21      That means that just to maintain the current level of  
22      economic development and environmental quality, we  
23      will need to be build new nuclear power plants.

24                   I commend Dominion for the interactive  
25      draft in planning for expected increases in energy

1 demand over the coming years, while considering  
2 sources that minimize the environmental footprint, as  
3 well as the economic burden on Dominion's estimates.

4 I also support the ESP process as a means  
5 to warrant the open and thorough evaluation of future  
6 nuclear projects while insuring the timeliness and  
7 predictability of the process.

8 And finally, I want to voice my support to  
9 granting Dominion Resources an early site permit to  
10 construct new nuclear reactors at its North Anna site.

11 Thank you.

12 (Applause.)

13 MR. CAMERON: Thank you. Thank you, Sama.

14 We're going to go to Brian, Brian Buckley,  
15 and then we're going --

16 PARTICIPANT: What was her address?

17 MR. CAMERON: Did you state your address?

18 MS. LEON: (Speaking from an unmicked  
19 location.)

20 MR. CAMERON: Okay. Sorry.

21 Brian, yeah, and then we're going to go to  
22 Arjun and then to Scott Peterson, and it is ten  
23 o'clock, and we have a lot more people, and we have to  
24 finish at 10:30. As soon as we get done with these  
25 people, we'll talk about that.

1 MR. BUCKLEY: Thank you. Thank you for  
2 your comments. Both of the Young Nuclear Physicists  
3 especially enlightened me in some way, but my  
4 questions about nuclear waste still remain. Since we  
5 all want a cleaner earth and a cleaner environment,  
6 and yet we have this waste that we have to contain,  
7 and we're hoping to bring thousands and thousands of  
8 miles across the country to bury into Holy Land that  
9 people have promised will not cross their border.

10 No amount of money, no amount of jobs, no  
11 amount of tax breaks for Nevada has convinced them  
12 that nuclear energy is profitable. So if it's not  
13 good enough for them, I don't see how or why it is  
14 good enough for us here.

15 I think last week's board meeting or  
16 Planning Commission meeting, the head guy, the  
17 Commissioner, said that we need to see North Anna as  
18 a nuclear repository site. Envision this because it's  
19 very possible that that nuclear waste will never leave  
20 Lake Anna.

21 I also do not only want to blame or point  
22 fingers at the NRC or Nuclear Physicists or Dominion.  
23 I think it's in our hands as well, as citizens, as  
24 sharers of the earth to come up how we live our life.  
25 We need to practice conservation. We have minds. We

1 shouldn't sort of fall at the feet of these physicists  
2 and say, "Please help us. Please help us. We're  
3 powerless. Turn on our lights."

4 I think we've all been empowered to a  
5 degree with a way to live, and we could all live more  
6 environmentally, and I think everyone wants a cleaner  
7 and better and safer earth, and if we could all work  
8 towards that instead of waiting for the engineering  
9 messiah to come and save us from darkness.

10 Thank you.

11 (Applause.)

12 MR. CAMERON: Thanks, Brian.

13 We are going to at least 10:30. Arjun is  
14 going to come up and talk now. I don't know if we're  
15 going to get to everybody because we have to be out of  
16 here by 11. There were a number of people who came in  
17 tonight and signed up for the first time.

18 There is a comment sheet if you want to  
19 write some comments down. There's an opportunity for  
20 written comments, but we're going to keep going until  
21 absolutely the last moment.

22 Arjun, and then we're going to go to Scott  
23 Peterson, and then we're going to keep going.

24 MR. MAKHIJANI: Yeah, I'm Arjun Makhijani.

25 I'm President of the Institute for Energy and

1 Environmental Research in Takoma Park, just outside of  
2 Washington, D.C. I have a Ph.D. in nuclear fusion  
3 from U.C.-Berkeley, and I'm old and bald, and it was  
4 a long time ago.

5 (Laughter.)

6 MR. MAKHIJANI: While a student there, I  
7 also did the first ever assessment of the energy  
8 efficiency potential of the U.S. economy. I worked in  
9 industry, including helping design two uranium mills  
10 which sparked my environmental passions later on when  
11 I discovered that there were no real protections from  
12 the trailing. This was in the '60s.

13 I did a study right after September 11th.  
14 I stopped everything I was doing because I was very  
15 concerned about many of the things that have been  
16 talked about.

17 I'm very concerned about greenhouse  
18 emissions and acknowledge that nuclear power doesn't  
19 emit greenhouse. I think trading carbon dioxide  
20 reductions for plutonium is not a very good bargain,  
21 and so I published -- but I like to present positive  
22 alternatives. You can find on the Website of the  
23 institute, ieer.org, a study that I did called  
24 "Securing the Energy Future of the United States."  
25 You're welcome to look at it, and if there are any

1 technical critiques, they're certainly welcome.

2 My wife, who is a scientist, and I are  
3 doing a similar study for France currently, which is  
4 a tougher job.

5 I was a little surprised to hear that you  
6 don't know of any studies that show radiation health  
7 effects under ten rads. I point you to Alice  
8 Stewart's studies that -- you had your turn. I'd  
9 point to Alice Stewart's studies in the 1950s that  
10 showed fetal effects, leukemia increases from X-rays  
11 given to pregnant women.

12 One of the problems that we have noticed  
13 is that radiation protection has been for standard  
14 men, understandable back then when nuclear workers  
15 were mostly men, but there are populations out there  
16 and we think that we ought to remember that we come  
17 from pregnant women and not from standard men.

18 (Laughter.)

19 MR. MAKHIJANI: In that regard, I found my  
20 colleague, Brian Smith, especially, a bright young man  
21 who appears to be in physics from MIT, found a rather  
22 startling defect in the EIS, and I brought some baby  
23 food for the contractor, four bottles here, for the  
24 contractor, for the NRC staff, for the administrative  
25 judges, and for the Commission because it says here

1 on page 5-61 that no infant doses were calculated for  
2 the vegetable or meat pathway as infants do not  
3 consume these foods.

4 Well, I checked -- may I enter this as  
5 part of the unusual comments?

6 (Laughter.)

7 MR. MAKHIJANI: Because I did a survey of  
8 all the mothers, including my wife, and I also looked  
9 at the NRC guidance, NRC Regulation 1.109. I looked  
10 at the EPA guidance. I looked at the NCRP reports,  
11 and all of them admit that infants consume consider  
12 amounts of vegetables and meat.

13 (Laughter.)

14 MR. MAKHIJANI: And so if they are  
15 belonging to a non-vegetarian family, that is.

16 Now, we found some pretty serious  
17 problems. This is very serious in the EIS, and I'm  
18 going to formally request that the NRC should redo the  
19 draft environmental impact statement because of  
20 certain inadequacies.

21 I mentioned the problem of plagiarism, and  
22 I did ask our librarian, the professional librarian,  
23 whether there was plagiarism in this report, and you  
24 can correct me if I am wrong. Let me read the  
25 question of aquatic ecology came up. This is from the

1 early site permit application.

2 "Several species of residential and  
3 migratory wading birds and water fowl utilize Lake  
4 Anna. Virginia Power biologists have documented," et  
5 cetera. "Several species of residential and migratory  
6 wading birds and water fowl use Lake Anna."

7 I would like to know whether you actually  
8 start with the permit application in the computer and  
9 edit it in certain parts or whether the draft  
10 environmental impact statement is a fresh look at the  
11 environmental impacts of the proposed plants.

12 In the one place where -- there are no  
13 citations here. there are no citations here. I can  
14 point you to the migrant labor. Migrant workers are  
15 typically members of minority -- migrant laborers are  
16 -- there's some attempt at changing some of the words  
17 -- are typically members of minority, et cetera.

18 I won't go on, but --

19 MR. CAMERON: Okay, and I --

20 MR. MAKHIJANI: I'll put these into the  
21 record.

22 MR. CAMERON: Arjun, I guess we're --

23 MR. MAKHIJANI: One minute.

24 MR. CAMERON: -- we're going to have to  
25 ask you to wrap up.

1 MR. MAKHIJANI: We did find -- we did find  
2 references to Dominion in the infant thing, and I  
3 regard -- this table that infants don't eat vegetables  
4 is directly from Dominion. That may be Dominion's  
5 opinion, but it shows a shocking lack on the part of  
6 NRC and its contractor that they have not paid  
7 attention to EPA, NRC, or any of the rules in  
8 evaluating the NRC site application, and I am very  
9 skeptical that the safety analysis which claimed that  
10 confirmatory and independent evaluations have been  
11 done, have actually been done, and we would like to  
12 see all of the input data, the runs, the output data,  
13 in electronic and hard copy files.

14 We are sending an FOIA request to the NRC  
15 and extremely troubled by -- I would like to know that  
16 there was an independent evaluation and that this  
17 plagiarism did not occur and what the explanation is.

18 but so long as this observation stands, I  
19 think this draft environmental impact statement should  
20 be scrapped and the NRC should start over and produce  
21 its own evaluation as required by law and under the  
22 rules that we should be operating.

23 thank you.

24 (Applause.)

25 MR. CAMERON: Thank you. Thank you,

1 Arjun. As always, very well prepared, and we'll look  
2 forward to those comments.

3 MR. PETERSON: Good evening. I'm Scott  
4 Peterson. I'm a Dominion customer in Northern  
5 Virginia, and I'm also Vice President of the Nuclear  
6 Energy Institute, and it's my pleasure to join you  
7 this evening.

8 I'd like to applaud Dominion for pursuing  
9 an early site permit at North Anna, for its efforts to  
10 preserve the options to make prudent future choices  
11 for our electricity, not only today, the electricity  
12 challenges we have today, but also the challenges our  
13 future generations are going to have.

14 When 11 year old ASA is 30, we're going to  
15 need 45 percent to 50 percent more electricity than we  
16 have today, even assuming efficiency and conservation.  
17 So we're going to need more renewables, more than the  
18 two percent of electricity that we get today from wind  
19 and solar. We're going to need more nuclear, more  
20 than the 20 percent that we get today from nuclear  
21 energy. We're going to need electricity from all the  
22 sources we can get to meet the high tech economy, the  
23 growing population and the quality of life that we  
24 would like for our children at that time.

25 The diversity of supply, including

1 nuclear, helps keep us on an energy reliable and  
2 affordable track and helps reduce our dependence on  
3 foreign energy supplies. And Dominion isn't alone in  
4 this endeavor. There are other companies in the  
5 energy industry that are pursuing early site permits  
6 and testing other NRC licensing processes to build  
7 new reactors in the future.

8 And these efforts are broadly supported by  
9 the public, by policy makers, Republicans, Democrats,  
10 independents alike, as Mr. Sloane said, by leading  
11 environmentalists across the world.

12 Simply put, it makes sense for Dominion to  
13 take this step to explore options for serving millions  
14 of customers in Virginia, including my family who's  
15 going to depend on reliable, affordable, and clean  
16 electricity.

17 Nuclear energy helped back oil out of the  
18 electricity sector in the 1970s and the 1980s by  
19 essentially replacing oil in electric generation. We  
20 think it can do the same thing in the transportation  
21 sector by making hydrogen to operate fuel cell  
22 vehicles, another way to make us less dependent on  
23 foreign sources of oil.

24 Nuclear power is the only large scale,  
25 emission free electricity source that we have today

1 that can be readily expanded to meet our growing  
2 economy. Several people have said nuclear power does  
3 not emit greenhouse gases. Last year alone nuclear  
4 energy prevented 700 million tons of carbon from going  
5 into the atmosphere. That's the equivalent of taking  
6 all the carbon out of nine out of ten cars on the road  
7 across America.

8 I want to just mention security for one  
9 minute because it has been raised by several speakers.  
10 Our industry is one of the few industries that's  
11 regulated by the federal government in the area of  
12 security. Since 9/11, we've updated our security  
13 requirements according to the NRC's mandates twice,  
14 most recently in October of last year.

15 And we meet security requirements because  
16 it's important not only to protect our workers, but to  
17 protect their families and their neighbors. That's  
18 why we do it. We have three ways that we protect our  
19 plants, our workers, and our neighbors: structural  
20 security at our plants, very strong structures;  
21 technological security with access detection  
22 equipment; and we have human security, 8,000 well  
23 trained, well armed officers at 64 sites across the  
24 country. Three ways, three redundant ways to protect  
25 our plants.

1           Even with expanded conservation and  
2           efficiencies, as I said before, we're going to need 45  
3           percent more electricity over the next 20 years.  
4           Today more than 100 nuclear power reactors are  
5           important to America's energy diversity mix. They  
6           provide us with reliable electricity, affordable  
7           electricity, safe electricity, and emission free  
8           electricity.

9           There's one more issue that I wanted to  
10          address in 30 seconds I have left perhaps, and that's  
11          something that has not been raised in this forum, but  
12          it's important to our electricity supply, to our  
13          environment, and to keep us out of further conflict  
14          over energy, and that's one of the most important  
15          recycling programs we have in the world today.  
16          Nuclear plants by the end of this year will have  
17          rendered 10,000 warheads useless by taking uranium out  
18          of those Russian warheads and using it as fuel to  
19          power U.S. cities.

20          That's a significant nonproliferation goal  
21          that we're achieving today and rendering warheads that  
22          used to be aimed at our cities useless and now using  
23          them to power our cities.

24                   Thank you very much.

25                   (Applause.)

1 MR. CAMERON: Thank you, Scott.

2 Bill Murphy, and then we're going to go to  
3 Dick Clark.

4 MR. MURPHY: I'll just talk from here and  
5 make one simple point. We've been talking about the  
6 nuclear power plant, and that's what the Nuclear  
7 Regulatory Commission has to address, but I think the  
8 societal concern is a little bit broader. We are  
9 really asking do you want a nuclear plant or do you  
10 want a fossil fuel plant.

11 You say, oh, solar, wind. You need all of  
12 the solar and wind that you can get in place. So go  
13 ahead and do that anyway, but the choice between  
14 nuclear and coal.

15 The coal plant for 1,500 megawatts puts  
16 out 13 million tons of carbon dioxide every year and  
17 enough sulphur to make 8,000 tons of sulfuric acid.

18 There was cutoff of the nuclear power  
19 program in 1979. At that time we had 100 plants. If  
20 we had increased through the nuclear power program at  
21 four percent per year the same as the rest of the  
22 economy has increased, we'd have 200 plants today. We  
23 would have 40 percent of our power from nuclear  
24 instead of 20 percent, and we would have far beyond  
25 met all of the Kyoto requirements that are in the

1 treaty.

2 So you can fight against nuclear power,  
3 but you trade it for global warming.

4 Thank you.

5 (Applause.)

6 MR. CAMERON: Thanks, Bill.

7 We're going to go to Dick Clark and just  
8 let's try to keep to three minutes, and I'll need to  
9 talk to the NRC staff.

10 MR. CLARK: My name is Dick Clark. I'm  
11 speaking here tonight as the President of the Oak  
12 Ridge Homeowners Association. It's one of their  
13 approximate 150 subdivisions on Lake Anna. I'm also  
14 a property owner here for over 35 years.

15 First of all, I want to thank the NRC  
16 staff for having this, coming here tonight and hold  
17 this public comment hearing. It demonstrates that the  
18 NRC is interested in obtaining the citizen input into  
19 environmental, as well as the safety issues regarding  
20 the proposed regulatory action.

21 First of all, I reviewed, of course, the  
22 new reg., 1811, and as a former AEC/NRC environmental  
23 project manager, I was responsible for preparing many  
24 of the draft and final EISEs for construction permits  
25 and operating licenses.

1                   And incidentally, Maryann, Batelle Pacific  
2 Northwest Lab provided a lot of support on man of the  
3 FESes. I always liked going out to Hanford in  
4 Richmond. You always got to go to Seattle by that  
5 way.

6                   Furthermore, as a former project manager  
7 responsible for preparing the safety evaluation  
8 reports for licensing certain nuclear plants, I think  
9 really you covered about as much as you could  
10 regarding the safety issues in Section 5 based on the  
11 limited information available on the assumed plant  
12 parameter.

13                   To wrap it all up, based on my review, I  
14 have concluded that any environmental impacts  
15 associated with the preparation and preliminary  
16 construction activities -- and I'm emphasizing that --  
17 allowed by 10 CFR 5010 -- you know the rules -- are  
18 minor and will not result in any adverse environmental  
19 impact, and I really recommend the draft be issued as  
20 a final.

21                   I meant to emphasize that that conclusion  
22 only has to do with, as you said, the increased or the  
23 impacts associated with the pre-construction ones,  
24 Jack.

25                   My main concern has to do with really,

1 Jack, I don't really think you really adequately  
2 addressed the effect of the increased temperatures in  
3 the waste heat treatment section and in Section 3.22.  
4 Maybe you didn't have the data available, frankly, and  
5 that was in the DEQ database, but there really will be  
6 a moderate, not just a small environmental impact, and  
7 we've done a lot of research on this, Jack, I think,  
8 because the temperature in that -- and you may not  
9 have had this data actually -- many times between June  
10 and August, particularly, the temperatures we have  
11 actually measured with real accurate Hydrolab  
12 instruments and whatnot can very accurately measure  
13 down to a tenth of a degree Fahrenheit. The  
14 temperature has often run from 93, 96 degrees.

15 And at present when you raise that another  
16 four degrees, you're talking about 100 degrees, and  
17 according to most ecologists that I know, when you get  
18 above 100 degrees that's pretty much lethal for many  
19 of the species of fish.

20 But anyway, that's the only thing. Really  
21 I echo Scott's thing that I'm real just happy that  
22 Dominion Power is interested in nuclear power because  
23 I really think we need it, and again, Jack, Andy, and  
24 Richard, thanks very much for coming tonight.

25 Good luck on the safety evaluation.

1 Thanks very much.

2 (Applause.)

3 MR. CAMERON: Thanks a lot, Dick.

4 We're going to try to keep going until the  
5 last minute before we have to pack up. We have  
6 several more speakers, and I would just encourage all  
7 of you if you think that your points have been made by  
8 previous speakers, think about whether you could fill  
9 out a written comment form tonight or submit written  
10 comments.

11 Yes, ma'am.

12 PARTICIPANT: Well, if there are so many  
13 people that still want to speak, can I suggest that  
14 perhaps you set up a second, third and maybe a fourth  
15 public hearing in areas that are in Central Virginia  
16 so that people may make comments and this session  
17 could continue? Because I think that this is not only  
18 important for Central Virginia, but I think it's  
19 important for Virginia. I think --

20 MR. CAMERON: We're not getting it. Okay.  
21 The suggestion is that we --

22 PARTICIPANT: I think we should have  
23 hearings in Charlottesville. I think you should have  
24 them in Richmond. I think you should have them in  
25 Fredericksburg. I think there's a very --

1 (Applause.)

2 MR. CAMERON: Okay. The comment is, for  
3 the record, that we should have additional public  
4 meetings in other parts of the Commonwealth of  
5 Virginia, and it's a comment, and we will consider it.

6 Thank you.

7 PARTICIPANT: Well, please consider it  
8 very seriously.

9 MR. CAMERON: Okay. All right. How about  
10 Delbert, Delbert Horn and John McCoy. Delbert or  
11 John.

12 MR. HORN: Delbert.

13 MR. CAMERON: Delbert, all right. And,  
14 John, are you here?

15 MR. McCOY: Over here.

16 MR. CAMERON: Okay. Delbert and John  
17 McCoy.

18 Delbert.

19 MR. HORN: Good evening. I'm Delbert  
20 Horn. I'm a resident of Goochland County and a  
21 Dominion Power employee.

22 It's great to see so many people here  
23 tonight concerned about the environment. I read on  
24 Public Citizens' Website that the higher water  
25 temperatures will threaten the striped bass population

1 in the lake. I was curious. So I read the  
2 environmental impact statement. I learned that the  
3 Department of Game and Inland Fisheries introduced  
4 striped bass to Lake Anna, and they have to restock  
5 100 to 2,000 striped bass every year at considerable  
6 expense because the creeks and river that feed the  
7 lake just aren't deep enough or fast enough for  
8 spawning runs.

9 You see, without spawning runs, a self-  
10 sustained striped bass population just isn't possible  
11 regardless of lake temperature.

12 What's interesting though is that Public  
13 Citizen, a government watchdog group, isn't blowing  
14 the whistle on the state government for supporting an  
15 artificial striped bass population. Instead they  
16 filed a legal contention that Dominion will make the  
17 lake less comfortable for the striped bass that the  
18 state dumps into the lake every year.

19 On the Blue Ridge Environmental Defense  
20 League Website, Lou Zeller claims the death rate for  
21 children age one to 14 almost doubled in the  
22 surrounding counties after North Anna started up. He  
23 claims the data suggest these children were harmed by  
24 radioactive emissions from the plant.

25 Mr. Zeller referenced the CDC Website as

1 his data source. So I went on line myself to check  
2 out the numbers, and I encourage all of you to do the  
3 same.

4 While the Blue Ridge Website says the  
5 death statistics exclude accidents, homicides and  
6 suicides, what I saw at wonder.cdc.gov proved  
7 otherwise. Zeller's before numbers did correctly  
8 exclude accidents, but his after numbers did not.  
9 This is how Lou makes these numbers appear to actually  
10 double.

11 After North Anna's opening, Mr. Zeller  
12 counted in the one to four year old group one case of  
13 death by criminal neglect and three cases of burning  
14 by conflagration. Lou, they died in a fire.

15 In the five to 14 year old group, Mr.  
16 Zeller's statistics included two accidental drownings,  
17 one hanging, and one handgun incident. Additionally,  
18 the non-accidental deaths that he counted included  
19 four cases of meningitis, one case of influenza, and  
20 an unspecified intestinal obstruction.

21 Mr. Zeller said, "Something is killing  
22 people here at an alarming rate." He also concluded,  
23 "I believe the high death rates are clearly related to  
24 the nuclear power plants at Lake Anna."

25 Well, Mr. Zeller, North Anna isn't burning

1 or drowning our children or giving them meningitis.  
2 What's truly alarming here is your sloppy use of  
3 statistics and your clear attempt to scare these  
4 people into thinking that North Anna is killing our  
5 children.

6 What I find interesting about your  
7 outrageous claim though is that you did not file a  
8 legal contention for those deaths you say were clearly  
9 related to North Anna. Instead, the contentions filed  
10 with the Licensing Board by Public Citizen and the  
11 Blue Ridge Environment Defense League talk about the  
12 thermal comfort of the striped bass that are dumped  
13 into Lake Anna every year.

14 So I have to conclude, Mr. Zeller, that  
15 you either don't care about our children or you just  
16 care about the striped bass visitors more. Either  
17 way, it doesn't reflect well on the Blue Ridge  
18 Environmental Defense League now, does it?

19 Let me put the risk oriented approach of  
20 these groups into perspective. The Sierra Club  
21 Website said it best, and I paraphrase. Why on earth  
22 would any idiot build a device that could kill  
23 thousands of people?

24 Rebecca, since North Anna opened, over  
25 21,000 Virginians have died in motor vehicle

1 accidents.

2 MS. FARIS: Delbert, I --

3 MR. HORN: It's not as romantic as your  
4 environmental doomsday scenario --

5 MR. CAMERON: I must ask you to try to  
6 wrap up now.

7 MR. HORN: Okay.

8 MR. CAMERON: Okay?

9 MR. HORN: It's not as romantic as the  
10 environmental doomsday scenario that these people are  
11 talking about tonight, but dead is dead. With these  
12 automobiles with their poor safety record and your  
13 obvious concerns about risk, why on earth would you  
14 own and drive one?

15 You see, highway safety is an area where  
16 somebody can make a positive impact on a real threat,  
17 not a perceived threat to public safety. Instead,  
18 most of these interest groups here tonight are more  
19 interested in butchering cause of death statistics and  
20 scaring people, all the while looking out for the  
21 comfort of the striped bass that the State of Virginia  
22 dumps into Lake Anna.

23 MR. CAMERON: Okay, Delbert. I think --

24 MR. HORN: Thank you.

25 MR. CAMERON: -- we have to wrap up.

1 (Applause.)

2 MR. CAMERON: And we're going to go to Jim  
3 Riccio and Lou Zeller next, and this is -- no, I'm  
4 sorry, John. After you.

5 MR. McCOY: Okay. Thank you.

6 MR. CAMERON: John McCoy.

7 MR. McCOY: Thanks.

8 Good evening. I'm John McCoy. I'm a  
9 member of the public from Lynchburg, Virginia.

10 I took vacation time this afternoon and  
11 drove up here, or more accurately, I carpoled up here  
12 with three of my friends.

13 PARTICIPANT: A little louder please or  
14 pull the mic up.

15 MR. McCOY: Need I repeat what I said  
16 before?

17 PARTICIPANTS: No.

18 MR. McCOY: I follow the environmental  
19 energy and nuclear press in some detail, and over the  
20 past couple of years I've been reading the press and  
21 have been impressed by the trend I've seen that favors  
22 construction of new nuclear power plants. There are  
23 various things behind this.

24 The first reason is the support that  
25 nuclear power is gaining from a variety of

1 environmentalists. I'll read briefly from James  
2 Lovelock, who has been mentioned previously. He says,  
3 "Nuclear energy from its start in 1952 has proved to  
4 be the safest of all energy sources."

5 That was in 2004, mind you, after the  
6 9/11/2001 incidents.

7 More recently, this year, Patrick Moore  
8 writes as follows: "nuclear energy is the only non-  
9 greenhouse gas emitting power source that can  
10 effectively replace fossil fuels and satisfy global  
11 demand."

12 Plain words, and while some might quibble  
13 about whether it's completely free of greenhouse gas  
14 emissions, that is his view as really one of the  
15 founding members of Greenpeace.

16 The second thing that has struck me  
17 recently is the progress being made in waste  
18 management. I worked on the Yucca Mountain project  
19 from 1993 until 2001, and those were tough years. We  
20 grappled with a lot of issues about disposal of  
21 nuclear waste. Is the mountain stable enough? Will  
22 it erode on us? Is it dry enough? What type of  
23 packages should we put in there? What should we make  
24 them from? How thick should the walls be? How much  
25 can we put in each package? Should we place them

1 vertically or horizontally? How should we build the  
2 packages?

3 It was a lot of work, and that work is  
4 finally coming to fruition this year with the DOE  
5 scheduled to submit a license application to the NRC  
6 before the end of 2005.

7 There are numerous other reasons which  
8 I'll only mention here since I have limited time.  
9 Fossil fuel prices rising recently. Increased  
10 electricity demand. Air pollution.

11 For me, all of these events, all of these  
12 developments point to one thing. It's time for us to  
13 build a new generation of nuclear plants. Approving  
14 an early site permit for the North Anna site is an  
15 important step in that direction, and I think that it  
16 should be done. Let's do it.

17 (Applause.)

18 MR. CAMERON: We're going to go to Jim  
19 Riccio and then we're going to go to Lou Zeller and  
20 then we're going to Brianne Boylan.

21 MR. RICCIO: Hi. My name is Jim Riccio,  
22 and unlike Patrick Moore, I do work for Greenpeace,  
23 and unlike James Lovelock, I'm not willing to jump out  
24 of the global warming flying pan into the nuclear  
25 fire.

1 (Applause.)

2 MR. RICCIO: Now, unlike some of our other  
3 colleagues here, I'm not going to even address the  
4 EIS, and I'm afraid that you all had to participate in  
5 really a charade. All the NRC has been able to  
6 determine is that what they're going to place on this  
7 site will not be as dangerous as the two reactors that  
8 already exist there. Dominion does not even know the  
9 reactor design it wants to build.

10 Why? Because the minute they mention that  
11 they have a reactor design, Wall Street will think  
12 it's an intent to construct, and they will short your  
13 stock. Your own CEO stated it best. Hedge funds will  
14 be knocking over each other trying to short your  
15 stock. The minute Wall Street thinks you're going to  
16 build a nuclear power plant, your bonds turn to junk.  
17 That's Dominion's own CEO. That's not the  
18 environmentalists.

19 And let's address risk for a moment. We  
20 can't talk about waste. We can't talk about terrorism  
21 because it's not addressed in your EIS. We can't talk  
22 about significant mitigation design alternatives,  
23 which is required by law because they don't have a  
24 design.

25 Now, it's really easy to say, "Oh, it's

1 not going to be as dangerous as North Anna," but do  
2 you know what? Right now the nuclear bureaucrats in  
3 Washington are paving the way to allow construction of  
4 reactors that lack the very containment domes that  
5 they were lauding after 9/11.

6 Now, I'm not saying that Al Qaeda  
7 terrorists are going to attack North Anna. I don't  
8 know that, but I do know one thing. The NRC has not  
9 done the job.

10 If you looked after 9/11, how were we  
11 attacked? We were attacked by the air. What has NRC  
12 done in its inestimable wisdom? They've shored up our  
13 defenses from the ground. Nothing has been done to  
14 secure these plants from airliner attack.

15 Now, North Anna isn't as bad off as one-  
16 third of the reactors out there that are designed by  
17 G.E. They've got no protection. These guys have a  
18 dome.

19 Now, we don't know that the next reactor  
20 that they're going to build there will even have that  
21 dome, and in fact, that dome would drive up your  
22 costs, and I would think possibly your CEO wouldn't  
23 want to drive up your costs. Just a guess.

24 Now, I've already taken up too much of  
25 your time, and there has been many articulate speakers

1 here, and I'm very appreciative of all their comments,  
2 even those from the nuclear industry, but look at your  
3 won numbers. It wasn't the anti-nuclear movement that  
4 really beat back, you know, your reactors. It was  
5 your own inability to manage construction and  
6 operating costs of your own reactors.

7 Forbes Magazine called you the greatest  
8 managerial disaster in the history of American  
9 business. I don't suggest we go down that path again.

10 (Applause.)

11 MR. CAMERON: Thank you, Jim.

12 And now Lou Zeller and then Brianne.

13 MR. ZELLER: Thank you, Chip.

14 My name is Lou Zeller, and I'm on the  
15 staff of the Blue Ridge Environmental Defense League.

16 I've heard a lot tonight about the Kyoto  
17 Protocol, more than I expected, I must admit. I guess  
18 it's fair to assume that not only Dominion, but the  
19 Nuclear Energy Institute are lobbying in favor of the  
20 framework convention for greenhouse gases and for the  
21 Kyoto Protocol; is that correct?

22 I assume that the utility and the  
23 institute sent a letter to the -- I'm sorry. Just a  
24 minute, Mr. Peterson.

25 Yeah, well, I assume you sent a letter to

1 the President in 2001 when he abrogated the treaty,  
2 which we are obliged to follow.

3 MR. CAMERON: I think, Lou, why don't you  
4 just, you know, give us your comments.

5 MR. ZELLER: Okay.

6 MR. CAMERON: Because I think we have a  
7 lot of people to go, and we could spend a lot of time  
8 on this one.

9 MR. ZELLER: You're right.

10 MR. CAMERON: I think your point is made.

11 MR. ZELLER: You're quite right. I think  
12 we should eschew homonyms.

13 But there is one comment I do need to  
14 address in terms of the data which I am presenting  
15 more tonight about the ongoing death and disease,  
16 which shows up in the public record in the nine-county  
17 area around the North Anna plant.

18 Now, the contentions that were mentioned  
19 earlier about striped bass are because the Atomic  
20 Safety and Licensing Board, before which we have  
21 brought our contentions, has whittled down our  
22 contentions to those remaining, which included effects  
23 on striped bass and wake effects.

24 Our contentions from the beginning have  
25 been based on a whole variety of factors, primarily

1 human health.

2 Today, again, the Blue Ridge Environmental  
3 Defense League calls upon the Nuclear Regulatory  
4 Commission for a comprehensive health study before the  
5 federal government issues an early site permit for new  
6 nuclear plants at North Anna. BREDL recommends death  
7 and disease studies be done in Albemarle, Culpeper,  
8 Fluvanna, Goochland, Green, Louisa, Madison, Orange,  
9 Spotsylvania Counties, and Charlottesville because of  
10 data showing significantly higher death rates in the  
11 nine-county area.

12 Records show that death rates rose sharply  
13 soon after Dominion Virginia Power's North Anna  
14 nuclear reactors began operation, and those effects  
15 continue to the present time.

16 Thank you.

17 (Applause.)

18 MR. CAMERON: Thank you. Thank you very  
19 much, Lou.

20 And we are attaching prepared remarks to  
21 the transcript, as well as having them submitted as  
22 formal comments.

23 Brianne, and then we're going to go to  
24 Seamus, Seamus Allman.

25 MS. BOYLAN: So I'm one of several

1 residents within that 17.5 mile fatality zone, and I'm  
2 also a business owner in Louisa County.

3 Whew, I feel really frustrated with this  
4 process. The fact that we're giving Dominion the  
5 protection of a 20-year bank on a site and so much  
6 changes in 20 years. We're protecting the corporate  
7 interest and ignoring the safety of residents,  
8 workers, fish, and the environment in future  
9 generations, and the reason why fish and other animals  
10 are good for us to look at is because a habitat  
11 that's not safe for fish is not safe for humans.

12 Furthermore, an authentic environmental  
13 impact statement must take into account waste. There  
14 is no suitable site for nuclear waste, and as such,  
15 there is no suitable site for nuclear reactors. I  
16 don't want the additional tons of radioactive shit  
17 stored in my back yard. I don't want it stored in an  
18 American Indian reservation in Utah. I don't want  
19 unsafe radioactive waste lasting thousands of years  
20 and posing new terrorist targets to be in anyone's  
21 back yard.

22 We can do better than this. Don't create  
23 something you can't make safe. Until you can clean up  
24 an old mess, don't make a new one.

25 Thanks.

1 (Applause.)

2 MR. CAMERON: Thank you, Brianne.

3 And this is Seamus -- Seamus. Sorry.

4 MR. ALLMAN: My name is Seamus Allman.

5 I'm a resident of Louisa County.

6 First of all, I do believe that this  
7 process is a farce. The NRC has streamlined it for  
8 the purpose of limiting public participation. That's  
9 why hearings about a new reactor in Mineral, Virginia  
10 are more likely to occur in Rockville, Maryland.  
11 That's why important issues like nuclear waste and  
12 terrorism are left out of the discussion.

13 This administration's clear policy is to  
14 ignore scientific fact and protect Wall Street's  
15 bottom line over the environment and public health.

16 The first myth of nuclear power is that  
17 it's cheap. It is made to seem that way by the  
18 subsidies the government gives to the industry. This  
19 hemorrhage of cash has totaled nearly \$100 billion  
20 over the last 50 years. These subsidies are in  
21 actuality a redistribution of tax money from working  
22 people to rich corporations so they can avoid the true  
23 cost of doing business.

24 The only reason the nuclear industry can  
25 even afford its insurance is that the Price Anderson

1 Act limits liability ridiculously below the likely  
2 cost of an accident. It would cost prohibitive for  
3 the industry to be insured against the actual cost of  
4 a meltdown.

5 The Yucca Mountain repository, if it ever  
6 truly opens, will have cost over \$60 billion. Forbes  
7 Magazine wrote in February '85 -- I'll just continue  
8 the quote that was mentioned earlier -- "only the  
9 blind or the biased can now think that most of that  
10 money has been well spent." That's money spent on the  
11 nuclear industry.

12 The second myth of nuclear power is that  
13 it's clean. The mining and refining of uranium,  
14 transportation of fresh and spent fuel, construction  
15 of reactors and of the waste repository all create  
16 carbon emissions. Uranium enrichment uses 93 percent  
17 of the chloroflorocarbon or CFC gas made annually in  
18 the U.S. CFCs are greenhouse gases that trap  
19 thousands of times more heat than carbon dioxide.

20 Saying that it's clean ignores the fact  
21 that it creates hundreds of thousands of pounds of  
22 highly radioactive waste that must be safely stored  
23 for tens of thousands of years. If we are to use  
24 Yucca Mountain, all of these tons of waste must be  
25 transported across the country, but any new reactors

1 can't us Yucca. It will be at capacity before it even  
2 opens.

3           Saying it's clean ignores the routine  
4 release of radioactive gases that build up inside the  
5 reactor building. Filters catch some of these, but  
6 some gases get through, like Xenon 135, which decays  
7 into Cesium 135, which is an isotope with a three  
8 million year half-life.

9           Radioactive tritium, an isotope of  
10 hydrogen, is released every day into the warm side of  
11 the lake and the air above it in the form of water and  
12 water vapor.

13           The North Anna Power Station uses  
14 2,736,000 gallons of water per day. Airborne tritium  
15 can be inhaled and absorbed, and tritiated water is  
16 incorporated into the food chain.

17           Radioactive corrosion products stick to  
18 the interior of the reactor vessel and slough off into  
19 the cooling water, which is then released into the  
20 lake.

21           Fission products also enter the cooling  
22 water from leaks in the fuel rods which are allowed by  
23 government regulations and which contain the  
24 equivalent radioactivity of 1,000 Hiroshima bombs.

25           There is no such thing as a safe dose of

1 radiation, and background natural radiation does exist  
2 and we can't do anything about it, but knowing that  
3 exposure to radiation causes cancer and that cancer  
4 rates have increased since the power station came on  
5 line, why would we want to expose ourselves further?

6 (Applause.)

7 MR. CAMERON: Thank you, Mr. Allman.

8 Sue Frankel-Streit, and then we'll go to  
9 Tyla Madison.

10 Do you want to use this or do you want to  
11 go up there?

12 MS. FRANKEL-STREIT: Thanks.

13 Hi. My name is Sue Frankel-Streit, and I  
14 live here in Louisa County. I have three kids.

15 And I'd like to say to Lisa and the other  
16 folks from Dominion that I'm here to express my  
17 outrage, but I'm not here to call anyone an idiot, and  
18 I hope that my opinion is not taken as that because  
19 that is not the intention at all.

20 But I am outraged that Dominion is  
21 considering adding new reactors to Lake Anna. I love  
22 Louisa, and I know many people do because it's  
23 beautiful. It's healthy. It's a great place to raise  
24 kids. We're in unchlorinated water.

25 And yet it's very disturbing to me that

1 the way we get all of our power, from our lights in  
2 our living rooms to our freezers at Food Lion, is at  
3 a nuclear plant that's continually producing toxic  
4 waste that we have no permanent, safe way to deal  
5 with.

6 And when I heard tonight that one of the  
7 ways that Dominion protects us from terrorists is to  
8 hire armed guards to patrol the lake that doesn't make  
9 me feel safer, and if our current power source has to  
10 be guarded by a virtual private army, I think we  
11 should start looking for a new power source.

12 If our power source is creating waste  
13 that's going to be harmful to the earth for the next  
14 hundred thousand years, then I think we need to find  
15 a new power source.

16 And if the only say that citizens of this  
17 county have about the radioactive waste being created  
18 here and stored in our community is three minutes to  
19 speak at one hearing or two hearings where no  
20 decisions are made and some questions aren't going to  
21 get answered, then I think we need a new process.

22 And I'm asking the NRC to refuse to grant  
23 this permit to Dominion. I'm asking Dominion to  
24 please pour your resources into sources of energy that  
25 are really clean and safe and efficient.

1                   And I'm asking myself and citizens of  
2                   Louisa to be loud and consistent in our demands for  
3                   safe power and in cutting back our own energy use and  
4                   in our own experiments with alternative power.

5                   It really doesn't matter how great a place  
6                   this is to live if our children and our world are  
7                   being exposed to radiation and to the potential of  
8                   catastrophic nuclear disasters.

9                   Please don't build more reactors in this  
10                  community and please change this process so that  
11                  everyone can be heard from.

12                  Thank you.

13                  (Applause.)

14                  MR. CAMERON: Thank you. Thank you very  
15                  much.

16                  MS. MATTESON: My name is Tyla Matteson.  
17                  I'm speaking in opposition to the permit for two  
18                  nuclear reactors.

19                  We know that nuclear power is not safe for  
20                  citizens and the environment. Otherwise why can you  
21                  not find a private insurance company to fully insure  
22                  against the costs of a major nuclear accident? Why  
23                  are citizens told that they cannot raise issues on  
24                  nuclear reactor security and nuclear waste?

25                  What will happen to the local economy

1 property values if reactors impair fishing and  
2 recreational uses of Lake Anna? Should they be closed  
3 or partially closed for security purposes?

4 What will happen to the recreation on the  
5 Monkey River downstream, such as kayaking and  
6 canoeing, which Lake Anna feeds into, when the low  
7 flows occur?

8 What will happen to the fish and to humans  
9 as they recreate on the lake when the temperatures  
10 increase, causing possible harmful bacteria and algae  
11 to continue to live all winter long and not die off in  
12 a natural winter cycle?

13 What thorough studies have been conducted  
14 on the plant and animal ecology both at the lake and  
15 downstream on the Monkey River and further downstream  
16 to the York River and the Chesapeake Bay, all impaired  
17 water systems, and with the bay at 27 percent of its  
18 historical percentage?

19 Thank you.

20 (Applause.)

21 MR. CAMERON: Okay. Thank you, Tyla.

22 We're going to go to Bill Casino, then  
23 Paul Gunter, then Jana Cutler.

24 Bill Casino.

25 MR. CASINO: Good evening. My name is

1 Bill Casino and I live in Lynchburg, Virginia, and I'm  
2 a nuclear engineer.

3 I had made this little speech up. I  
4 thought I was going to be able to contribute something  
5 that everybody here would be interested in listening  
6 to, but after hearing everybody's comments here, the  
7 stuff I wrote on this paper is not applicable.

8 I want to apologize to you guys because  
9 I'm not going to address the North Anna permit  
10 directly. I want to make a few points about something  
11 that I hear over and over and over again that is  
12 clearly one of the underlying fears that most of you  
13 have, and I'm in a unique position to speak on that,  
14 and it is everybody's concern about the longevity and  
15 the toxicity of nuclear waste.

16 None of us are proud of the fact that  
17 there's 70,000 metric tons of radioactive nuclear  
18 waste stored on sites all over the nation. It's not  
19 the way things were supposed to be, but of course, the  
20 best plans often go awry.

21 The original vision back in the '50s and  
22 the '60s when the Atoms for Peace and all the great  
23 minds were visualizing this new renaissance of power  
24 for our nation, they didn't do this off the cuff  
25 without thinking long term. There was a plan. There

1 was a very well thought out fuel cycle that was to be  
2 implemented, which was unfortunately derailed by  
3 fears, uninformed fears, that occurred in political  
4 arenas in the late '70s.

5 I'd like to share with you the vision of  
6 the future that many of us are working on. I happen  
7 to be working on future reactor technology projects  
8 which is remarkably similar to what was originally  
9 envisioned back in the '50s.

10 Nuclear power can and will be a renewable  
11 power source. The original vision was that we would  
12 mine a sufficient amount of uranium to feed a nuclear  
13 fuel cycle, which would eventually become self-  
14 perpetuating. The vision was that after a certain  
15 period of time we would be able to stop mining natural  
16 uranium because we were developing technologies which  
17 generated their own fuel.

18 Imagine, if you will, a car that creates  
19 two gallons of fuel for every gallon of fuel that it  
20 consumes. It's called breeder reactor technology. It  
21 was well into development in the '60s and '70s, and we  
22 certainly hope to revive that effort in the future.

23 The vision is that we'll have reactors  
24 burning fuel, generating these highly controversial  
25 and highly toxic waste forms, but then that we will

1 reprocess these waste forms into usable fuel for other  
2 reactors. Therefore, this material will not linger  
3 around for potential negative things to happen to us  
4 for generations to come. In fact, the energy will be  
5 consumed and the remnants left over will be moderately  
6 dangerous for a couple of hundred years, which is  
7 certainly well within our realm of responsibility to  
8 handle properly.

9 Let's see. What can I add to this?

10 It's unfortunate that fear doesn't allow  
11 us to keep an open mind and think about the future.  
12 There was a gentleman over here to my right who  
13 mentioned he didn't think it was wise for us to sit  
14 around and wait for the technology messiah to come  
15 along and save us from our problems. I'd like to just  
16 make a personal observation about human nature.

17 I, from my personal opinion, I think we  
18 actually rather like technology and power and being  
19 able to, being empowered to improve our caliber of  
20 life. So we certainly would like to, all of us, I  
21 think, share the same goal even though we have  
22 different ideas of how to achieve that goal; we would  
23 all like to live comfortably, safely, and not have our  
24 technological endeavors endanger us or generations to  
25 come.

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1 I guess as a closing statement I'd like to  
2 say please have faith in mankind's ability to be  
3 responsible to do what's best for society. Certainly  
4 don't not watch what's going on. I think it's  
5 crucially important that we have watchdog  
6 organizations, people checking and double checking to  
7 make sure that people are doing what they ought to be  
8 doing and things don't happen improperly.

9 I believe that we can do what's right, fix  
10 this problem. It won't be fixed in the next ten  
11 years, but I do believe that the future is bright and  
12 that we can overcome this problem, and we will be  
13 better off in the long run.

14 Thank you.

15 (Applause.)

16 MR. CAMERON: Paul Gunter.

17 MR. GUNTER: Thank you.

18 My name is Paul Gunter. I'm with the  
19 Nuclear Information Resource Service.

20 And the draft environmental impact  
21 statement has trivialized the known and potentially  
22 harmful environmental impacts of nuclear waste  
23 generation, and there are two areas I'd quickly like  
24 to address: the so-called low level radioactive  
25 waste, and the high level radioactive waste, primarily

1 the irradiated fuel.

2 The report states at Section 6.1.1.6,  
3 radioactive wastes, and to boil it down really quick,  
4 they say that there's no release to the environment  
5 that's expected.

6 It is worth noting that in this same  
7 section the staff has admitted that, quote, "It has  
8 been assumed that all of the gaseous and volatile  
9 radionuclides contained in the spent fuel are released  
10 to the atmosphere before the disposal of the  
11 radioactive waste.

12 Now, it's relevant to this EIS and  
13 certainly to this community that that off-gassing  
14 occurs to your air and water and is part of the so-  
15 called disposal process. The noble gases of  
16 radioactive xenon and krypton with half-lives of  
17 minutes and hours decay into radioactive fallout of  
18 strontium and cesium particulate with half-lives on  
19 the orders of decades and millions of years.

20 It is the surrounding community that is  
21 the cumulative disposal grounds for these radioactive  
22 isotopes.

23 The draft EIS further states for the high  
24 level radioactive waste that, quote, "There is some  
25 uncertainty with respect to the regulatory limits for

1 the off-site releases." And they go on to say that we  
2 assume that these limits are developed.

3 And I would point out the word "assume."  
4 And they go on to say that the waste confidence  
5 decision with that assumption that a repository can  
6 and likely be developed which will comply with such  
7 regulations.

8 Now, they say that the consequence will be  
9 acceptable and small, but I submit that while this may  
10 look good on paper, it is not based in reality. The  
11 EIS fails to quantify the uncertainty which they have  
12 identified, which continues to plague this industry  
13 and the nuclear waste question since the first couple,  
14 maybe cannot be considered small or acceptable when  
15 talking about the permanent contamination of our air,  
16 land, water, and gene pool.

17 Now, some of this uncertainty has to be  
18 taken into account about the excess to Yucca Mountain.  
19 It has been referenced here, but we did a "back of the  
20 envelope" calculation, and with North Anna 1 and 2  
21 alone, the excess to Yucca Mountain with a 60-year  
22 license is 1,162 metric tons excess to Yucca Mountain.

23 With the addition of North Anna 3 and 4,  
24 and that's with a 40-year license on those two units,  
25 it goes up to -- well, that's 2,346. So we're talking

1 about an excess here of 3,508 metric tons.

2 The NRC is equally dismissive in its  
3 treatment in the EIS for the disposal of so-called low  
4 level radioactive waste, and I think it's important to  
5 get to the point here that Virginia will lose its  
6 queue in disposal of this so-called low level  
7 radioactive waste at Barnwell, South Carolina, year  
8 2008.

9 So effectively the current units will have  
10 all of this orphaned waste and nothing is planned for  
11 the waste for the three and four. It's not even  
12 contemplated.

13 So how is it that the EIS reduces this  
14 concern to small and acceptable when, in fact, it  
15 doesn't even fully evaluate the uncertainty associated  
16 with not having any place to put even the low level  
17 radioactive waste.

18 But in closing, I just wanted to say isn't  
19 it peculiar that as long as these poisons stay in the  
20 fuel rods, that they are considered high level, but  
21 when they leak out of the fuel rods, which is a common  
22 occurrence, into the water that circulates around the  
23 fuel and throughout the reactor and they're filtered  
24 from that water and they go into the pores of the  
25 concrete base mat and they irradiated and activate

1 the metal that surrounds that. Then they become so-  
2 called low level radioactive waste.

3 The same plutonium contamination that is  
4 high level in the fuel is dubbed low level when it  
5 leaks out, and these are the kinds of uncertainties  
6 that should not be accepted and, in fact, this  
7 community needs to stand with the communities around  
8 the country that are tired of being dumped on by the  
9 operation of these reactors.

10 Thank you.

11 (Applause.)

12 MR. CAMERON: Thank you, Paul.

13 Is it Jana?

14 MS. CUTLER: Correct.

15 MR. CAMERON: Good, and then we're going  
16 to go to Donald and Elena Day.

17 Jana.

18 MS. CUTLER: It's Jana. Good evening. My  
19 name is Jana Cutler, and I live in Albemarle County,  
20 and I've been authorized by the Green Party of  
21 Virginia to speak here tonight.

22 The Green Party of Virginia is one of 51  
23 state Green Parties in the United States, including  
24 the D.C. Statehood Green Party, and the Green Party of  
25 the United States is affiliated with Green Parties in

1 over 90 countries worldwide.

2 The Greens are a worldwide movement and  
3 each Green Party on the planet is opposed to building  
4 new nuclear reactors.

5 We object to the secret meetings during  
6 which the Bush administration formulated the current  
7 energy policy, including the renewed push for nuclear  
8 energy which brought us all here tonight.

9 The Green Party denies President Bush's  
10 recently stated contention that nuclear power is a  
11 safe, clean, and renewable energy source. Nuclear  
12 power is not clean, nor is it safe, nor is it  
13 renewable.

14 A clean, safe, renewable energy resource  
15 might be solar or wind power.

16 We deny that any process that produces  
17 waste so toxic that it remains a threat to human  
18 health for tens of thousands of years is clean.

19 We oppose opening any further nuclear  
20 reactor power plants, including the two proposed for  
21 North Anna, in my neck of the woods, and we oppose  
22 transporting nuclear waste across the country through  
23 thousands of neighborhoods. We oppose Chernobyl on  
24 wheels.

25 The 2004 Green Party of the United States

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1 platform calls for the dismantling of all currently  
2 active nuclear power plants within five years. One  
3 down, four to go, and there will be no new reactors.

4 I believe that siting two new reactors at  
5 the North Anna area constitutes a terrorist threat.  
6 When the U.S. was attacked on September 11th, the  
7 terrorists didn't need to go to Iraq to find those  
8 weapons of mass destruction. They used our technology  
9 against us.

10 By licensing and building additional  
11 nuclear power plants, we are further increasing the  
12 risk of another terrorist attack.

13 Nuclear power is not safe. It is not  
14 clean. It is not renewable. And since the NRC is  
15 charged with protecting the public's health, I urge  
16 you to consider these facts and deny Dominion's early  
17 site permit. There are too many risks to approve the  
18 environmental impact statement. The future of us all  
19 depends on it.

20 Thank you.

21 MR. CAMERON: Thank you very much.

22 (Applause.)

23 MR. CAMERON: We'll go to Donald Day.

24 MR. DAY: Thank you.

25 I'll abandon the prepared comments because

1 I don't want to take up too much of your time, but I  
2 just do want to refer to a couple of things I've heard  
3 tonight.

4 In particular, I want to start off, which  
5 I hope is a constructive criticism of the NRC, and  
6 that has to do, again, with Maryann Parkhurst's  
7 comments about lack of harm of a radiation dose of ten  
8 rads, or 10,000 millirems.

9 I mean, she chose to emphasize this, that  
10 there's no studies that show any health effects for  
11 exposure to 10,000 millirems, but she knows and I know  
12 that if Dominion Power reported that one of their  
13 workers at North Anna received 10,000 millirems, there  
14 would be an immediate investigation, and at the end of  
15 that process, there would be a considerable fine.

16 And Gene Grecheck or Lisa Shell, if they  
17 were in charge of that activity, they would probably  
18 end their careers unceremoniously.

19 So I think it's important for the NRC to  
20 rein in that sort of activity because, on the one  
21 hand, suggesting that radiation is harmless while  
22 their own policies which are designed to protect  
23 workers are based on the knowledge that radiation is  
24 not harmless.

25 We heard a lot tonight, actually three

1 times, about Finland and China. All of a sudden,  
2 Finland. You know, a couple of years ago it was  
3 France was our enemy. Now it's Finland and China are  
4 the examples by which we should meld our national  
5 policy.

6 But I'll read the names of a few other  
7 countries. Perhaps you've heard of them. Sweden,  
8 nuclear power is phased out. Norway, it's banned.  
9 Germany, they have a commencement for phasing it out.  
10 Spain, there's a moratorium on nuclear power.  
11 Denmark, it's banned. Austria, it's banned.  
12 Australia, it's banned. Portugal, they've never had  
13 a program. The United Kingdom, it's moribund.  
14 Ireland, it's banned. Greece, it's banned. Italy,  
15 it's banned.

16 And guess what. All of those countries I  
17 mentioned have infant mortality rates less than the  
18 United States and life expectancy that is greater than  
19 the United States. I can't make the connection, the  
20 absolute connection, but just because someone says  
21 that Finland is building a nuclear reactor means that  
22 we have to rush off and build two here in Central  
23 Virginia is an absolute absurdity.

24 So I'll conclude by saying, as you well  
25 know, even though I am a nuclear physicist, I have a

1 Ph.D. in nuclear physics, my life line is connected  
2 with the research of nuclear physics; I'm opposed to  
3 these reactors because this is an insensible national  
4 policy to build our energy future without paying  
5 enough attention to conservation in our homes, in our  
6 businesses, and in our transportation sector.

7 Thank you very much.

8 (Applause.)

9 MR. CAMERON: Thank you, Donald.

10 And we're going to go to Elena Day.

11 MS. DAY: My name is Elena Day. I'm with  
12 the People's Alliance for Clean Energy.

13 And I just want to give this to you as  
14 what, the representative of the NRC? This is a letter  
15 that we began circulating two days ago that opposes  
16 any plans by Dominion to build any new nuclear  
17 reactors at its North Anna Nuclear Power Station in  
18 Virginia.

19 And I am not going to read through it. It  
20 is two pages long and lists the reasons why, and with  
21 two days over 130 organizations in this country have  
22 already signed this circulating letter, and also over  
23 100 individuals. That's in two days.

24 I think you're going to find a lot of  
25 opposition wherever you are, Virginians, and, you

1 know, their cohorts or whatever in the nuclear  
2 industry, in the NEI.

3 I would urge you to be good corporate  
4 citizens. Stop feeding at the taxpayer trough. Take  
5 that money and look at renewable energies. Look at  
6 conservation technologies, and stop this insanity of  
7 trying to build two new nuclear plants in Central  
8 Virginia. Because you see opposition here now. It's  
9 going to continue. It's going to continue as the  
10 debate intensifies in Central Virginia, as it  
11 intensifies in Virginia, and as it intensifies across  
12 our country, because people want to be involved in  
13 their energy future. they don't want a decision  
14 coming down from Washington, D.C., that is, you know,  
15 coercive, that has been coerced by the Bush  
16 administration and the nuclear energy industry and  
17 their lobbyists and friends in Congress.

18 And one more thing. Hold this, please.

19 (Laughter.)

20 MS. DAY: In the late '70s, early '80s, I  
21 was with Piedmont Alliance for Safe Energy. This was  
22 our tee shirt: "safe energy alternatives." That's  
23 what we advocated, the wave of the future.

24 Now I'm with People's Alliance for Clean  
25 Energy. You still haven't done it. Got you on it,

1 Dominion. Be a good corporate neighbor. Do it.

2 (Applause.)

3 MR. CAMERON: Thank you. Thank you,  
4 Elena, and we'll put this on the transcript.

5 And we're going to go to Mr. Robert  
6 Singleterry and then Terry Lilley.

7 Robert, do you want to go up there?

8 MR. SINGLETERRY: I'll take the  
9 microphone.

10 MR. CAMERON: All right.

11 MR. SINGLETERRY: A lot of the things I  
12 was going to say have already been said, but I just  
13 wanted to say who I am. I'm Robert Singleterry, and  
14 why should I be addressing you?

15 (a) I'm a liberal.

16 (b) I have a B.S., M.S., and Ph.D. in  
17 nuclear engineering. I worked at E.I. Hatch, a  
18 nuclear power plant. I put in safety parameter  
19 display systems in the nuclear power plants. I went  
20 to graduate school, became a reactor designer. I  
21 worked at Argonne National Laboratory West.

22 I am now a civil servant with an unnamed  
23 organization that's part of the government, but I do  
24 space radiation engineering.

25 I have no vested dog in this fight. I

1 don't care, except for one very important thing: my  
2 pocketbook: I also live within 12 miles of the Surry  
3 Power Plant.

4 So we have reactor versus what? Coal and  
5 oil? Wind, solar? A miracle -- I mean, fusion? No.

6 I just got my natural gas bill: \$114,  
7 \$114 last month. I wasn't even there for half of it.  
8 My electric bill was \$30. My wife lives in Lynchburg.  
9 Her electric bill was \$50, and we have no natural gas  
10 there.

11 So my question is: why is Dominion  
12 spending the last four years putting in purely natural  
13 gas plants? Please, I can't afford it.

14 We need more nuclear power. There's a lot  
15 that I could go into. I just spent the last two years  
16 as a Fellow within the organization I work with  
17 teaching. I could go on for two hours lecturing about  
18 the pluses and the minuses of nuclear power. Don't  
19 have the time. So I won't do that.

20 But I would like to leave you with a very  
21 important point that nobody has seemed to have made  
22 here tonight. Solar and wind will not produce  
23 baseline power, period.

24 (Applause.)

25 MR. SINGLETERRY: Period. You can't

1 produce baseline power? We need something else.

2 That's all there is.

3 Now, they're great at producing peak power  
4 and maybe we should consider them for that, but for  
5 base power, we need nuclear power, and that's just the  
6 end of that argument.

7 (Applause.)

8 MR. CAMERON: Okay. And for those of you  
9 who are curious about what agency Mr. Singleterry  
10 works for, he may be available after the meeting to  
11 talk with you.

12 (Laughter.)

13 MR. CAMERON: But do you want to just say  
14 something really quickly?

15 MS. LEON: Yeah, I just wanted to say that  
16 we found out yesterday that base was having a petition  
17 asking for people to sign up against nuclear power.  
18 so we, NAYGN, started yesterday the same thing, and  
19 here we are handing the NRC right now an envelope for  
20 540 signatures.

21 (Applause.)

22 MR. CAMERON: Okay. Thank you.

23 Is Terry Lilley here? Thank you Sama.  
24 Terry.

25 MS. LILLEY: I'm Terry Lilley. I live in

1 the City of Charlottesville. I have a degree in  
2 environmental science. I have a seven year old son,  
3 and I'm very passionate about the health of our world.

4 It's obvious the enormous amount of time,  
5 money, and energy that's been put into what Dominion  
6 says is just one option, and I'm wondering how much is  
7 being spent to seek alternatives.

8 This could be an opportunity for Dominion  
9 to be an innovative force in seeking true clean  
10 energy. Nuclear is being touted as clean, and I think  
11 we need to redefine that term.

12 It does reduce CO<sub>2</sub> emissions, but I don't  
13 feel that waste that lasts for hundreds of thousands  
14 of years is clean.

15 Nuclear power perpetuates us living in  
16 fear, fear for our environment, our safety, our  
17 health, and our future. And it is imperative that we  
18 consider need, how to reduce our need, and  
19 alternatives in this process.

20 I saw a very interesting sign outside when  
21 I was walking in that said "A Day without Radiation Is  
22 a Day without Sunshine." I think that if we harness  
23 the sun, something that come sup on a daily basis,  
24 that we need to get more creative in this process, and  
25 if we bring the sun closer to the earth in our back

1 yards, we will fry.

2 (Applause.)

3 MR. CAMERON: Thank you, Terry.

4 We're going to go to Mr. Montague, and Mr.

5 Todd Flowers.

6 Is Mr. Montague here?

7 MR. MONTAGUE: Here.

8 MR. CAMERON: Okay, and Mr. Flowers, are

9 you still here? Oh, great. Okay. This is Mr.

10 Montague.

11 MR. MONTAGUE: Good evening. My name is

12 Joe Montague. I live in Richmond, Virginia.

13 I work for my wife and three children.

14 (Laughter.)

15 MR. MONTAGUE: I am employed by Dominion

16 Generation. I am affiliated with the American Nuclear

17 Society and the North American Young -- yes, I said

18 "young" -- Generation of Nuclear. I'm a mentor.

19 (Laughter.)

20 MR. MONTAGUE: I am thankful for the  
21 opportunity to participate in this democratic process.

22 I'm a nuclear engineer with 27 years' experience and

23 I have a graduate degree in environmental economics.

24 In that capacity, I have studied and examined Dominion

25 Generation's exploration of a wide variety of

1 alternative energy sources and alternative fuels,  
2 including peat, solar, photovoltaics, wind power,  
3 tidal, and nuclear power.

4 In that capacity, I have reviewed the  
5 draft environmental impact statement for the North  
6 Anna early site permit. I have found it thorough,  
7 well written, with sound conclusions, and see no basis  
8 for not approving the environmental impact statement  
9 and the early site permit.

10 That's on a professional level. On a more  
11 personal level, in the run-up to this meeting, it has  
12 been insinuated and stated that I and my co-workers  
13 are either fools or complicit in the poisoning of the  
14 people and the environment. As a counter to that  
15 premise, that assertion, I wish to enter into the  
16 record a statement issued under -- this is without  
17 permission -- issued under the official letterhead of  
18 the Department of Veteran Affairs.

19 "On behalf of the recreation therapy and  
20 patients from the nursing home care unit at Maguire VA  
21 Medical Center, I would like to extend a warm thank  
22 you to you and to your fellow staff members at  
23 Dominion Virginia Power for the holiday party on  
24 December 22nd, 2004. The party was a great success.  
25 Food, singing and gifts were very much enjoyed.

1                   "Moreover, the kindness shared and the  
2 spread was invaluable. Your continued commitment and  
3 compassion are indeed making a difference in the lives  
4 of our hospitalized veterans. Thank you. We look  
5 forward to working with you in 2005."

6                   And that's sincerely from the staff of the  
7 Department of Veterans Affairs at the Hunter Homes  
8 Maguire Medical Center in Richmond.

9                   Thank you very much.

10                  (Applause.)

11                  MR. CAMERON: Thank you, Mr. Montague.

12                  And this is Todd Flowers?

13                  MR. FLOWERS: Yes, I'm Todd Flowers, and  
14 I reside in the City of Richmond, although I lived in  
15 Albemarle County for a couple of years, and I spend  
16 many summer afternoons on Lake Anna enjoying the  
17 recreation facilities there.

18                  I'm here tonight to voice my support for  
19 one of the most misunderstood technologies of today's  
20 time, the generation of electricity using nuclear  
21 energy, and specifically for my support of the early  
22 site permit at North Anna.

23                  And I'm going to abbreviate what I had  
24 planned on saying to night because it's getting late,  
25 and I know everyone wants to go home, but I come to

1 you tonight not only as a proud employee of Dominion,  
2 as a past chairman of the Virginia Section of the  
3 American Nuclear Society, as an active member of the  
4 North American Young Generation in Nuclear. I'm  
5 compelled to speak not to my allegiance to these  
6 organizations, but as a reassured citizen.

7 I'm reassured because our nation needs  
8 more baseload energy generation, and tonight's hearing  
9 is one step to a process that brings us closer to  
10 resolving our need for more clean, economical, and  
11 reliable power.

12 I emphasize baseload generation because  
13 many opponents to nuclear power seem to miss this  
14 significant factor. I agree that solar and wind power  
15 should continue to provide more and more power as a  
16 percentage share of total power generated. Although  
17 these technologies are maturing, getting a large  
18 concentration of energy is not possible due to the  
19 distributed nature of the ultimate energy source, the  
20 sun and the wind.

21 Even when solar and wind power is applied  
22 to its fullest extent, these sources cannot meet the  
23 country's overall demand for electricity. The only  
24 environmentally conscious solution to adding baseload  
25 generation is nuclear power.

1 I am an environmentalist, and I cannot  
2 comprehend how some people who claim to be  
3 environmentalists have not realized nuclear energy's  
4 environmental value.

5 I agree with the draft environmental  
6 impact statement that concludes that there are no  
7 environmental impacts from the possible future  
8 construction and operation of a nuclear power plant in  
9 North Anna that should prevent issuing an early site  
10 permit.

11 I applaud Dominion for taking the steps  
12 necessary to insure nuclear energy remains an option.

13 Thank you.

14 (Applause.)

15 MR. CAMERON: And now we're going to go to  
16 Mr. Robert Cruickshank.

17 MR. CRUICKSHANK: John.

18 MR. CAMERON: John Cruickshank.

19 MR. CRUICKSHANK: You can't hold me to  
20 three minutes.

21 Good evening. My name is John  
22 Cruickshank. I live in nearby Albemarle County, and  
23 I'm speaking as a representative of the Piedmont Group  
24 of the Sierra Club.

25 Our group has 1,158 members in the City of

1 Charlottesville and the Counties of Louisa, Green,  
2 Fluvanna, Culpeper, Orange, and Albemarle.

3 We urge the Commission to take a stand  
4 against the construction of additional nuclear power  
5 plants at the North Anna site. Here are some of our  
6 reasons.

7 More nuclear plants will have serious  
8 consequences to water temperature and water levels at  
9 Lake Anna and the rivers that flow from it. Decreases  
10 in the downstream release of water will adversely  
11 affect the wildlife of the streams in the York River  
12 watershed, including the North Anna and the Potomac  
13 Rivers. This will be particularly critical during  
14 periods of drought.

15 There are already high levels of PCBs,  
16 polychlorinated biphenyls, in the lower lake. These  
17 chemicals are known to cause cancer and nervous system  
18 disorders.

19 This situation is likely to worsen if a  
20 nuclear plant is constructed and becomes operational.

21 The drastic increase of traffic during  
22 construction of the power plants will crowd our  
23 highways and pollute our air.

24 There is no approved plan for the disposal  
25 of highly radioactive spent fuel that will be

1 generated by new power plants. It will most likely be  
2 stored at North Anna indefinitely in spent fuel pools  
3 and dry casks, and these will pose a serious health  
4 and security risk for the people of Virginia.

5 There is no demonstrated need for the  
6 additional energy that these nuclear reactors would  
7 supply. Our government and our power production  
8 companies should instead establish aggressive policies  
9 for energy conservation and clean renewable energy  
10 production.

11 I walked into this room. It's 35 degrees  
12 outside and it's about 80 degrees in here. It has  
13 gotten a little better now. Thank you. But I'm  
14 wondering is this an efficient use of energy? I think  
15 that's an example of how Americans live and how they  
16 waste energy.

17 We do not believe that nuclear power is  
18 safe. This might be said about other means for  
19 generating electrical energy, but the world has  
20 witnessed the consequences of a nuclear disaster. It  
21 simply is not worth the risk.

22 Earlier we had a young man walking around  
23 in here, and we had Asa speak, and it made me think  
24 that we're here. I probably by the time this is  
25 built, I may be -- or if it's built -- I may be near

1 the end of my life, but we have to be good stewards  
2 for this earth. We need to be thinking about them.

3 And almost every major environmental group  
4 in the world is opposed to nuclear power.

5 Thank you.

6 (Applause.)

7 MR. CAMERON: Thank you very much, Mr.  
8 Cruickshank.

9 We're going to have to close down soon,  
10 but I was wondering is Mr. Waksmunski (phonetic),  
11 George Waksmunski here?

12 (No response.)

13 MR. CAMERON: And, Fred Gruber, you had  
14 an admonition for the NRC staff. Why don't you just  
15 briefly give it?

16 MR. GRUBER: I came here with a lot of  
17 concerns. I think all but one of them have been  
18 addressed and I won't belabor that one.

19 I'm an analyst by background, some might  
20 think a psycho analyst. No, I'm a business analyst.  
21 I live by facts. What strikes me as the enormous  
22 responsibility that you have to answer the questions  
23 that were raised here tonight, provide the facts that  
24 will give the populous the confidence that these  
25 nuclear facilities could be constructive for the

1 generations to come.

2 I'm sorry to say I believe that most  
3 people in the United States no longer trust our  
4 government in their whole hearts. They're fearful of  
5 one thing or another. They're fearful of bureaucrats.  
6 I pray that you are not bureaucrats abiding by the  
7 wishes on high in doing what you think they want.

8 Look in your hearts. Listen to your  
9 conscience. I hope you're scientists as opposed to  
10 administrators. Explore all the concerns that the  
11 people have expressed here, and please, give us the  
12 valid answers.

13 And if the answers are factual, the final  
14 decision will stand out for you to announce.

15 Thank you.

16 (Applause.)

17 MR. CAMERON: I think that's a fitting  
18 closing. Does someone who did sign up to speak that  
19 has a real burning desire to get one more comment in  
20 here?

21 MR. FLAGE: I have a burning desire.

22 MR. CAMERON: Okay. Let's make it a  
23 short, short burn.

24 (Laughter.)

25 MR. FLAGE: A short burn? Oh, well, I'll

1 leave that where it is.

2 My name is Kurt Flage. I live in  
3 Goochland County. I live there with my wife and two  
4 children.

5 I just wanted to speak to you tonight. I  
6 graduated from the University of Illinois in 1980  
7 about the time, just afterwards, of Three Mile Island  
8 and in nuclear engineering. I spent ten years in  
9 Pittsburgh at Bettis (phonetic) Atomic Power  
10 Laboratory. Some of you might know that as a facility  
11 that provides engineering for naval reactors program.  
12 And I spent the last 15 years, since 1990, with  
13 Dominion at the corporate offices in Glen Allen,  
14 Virginia as a nuclear safety analyst.

15 I really want to speak to you because, you  
16 know, this is the first opportunity that I have had to  
17 be in a forum like this in my lifetime, and so I have  
18 concerns about this sort of thing going on. I am  
19 gratified of the number of people who have taken the  
20 time to go through the ESP and make relevant comments,  
21 comments I think that the NRC needs to go back and  
22 review and understand, and I believe come to a proper  
23 answer to.

24 And so you know, that's where I leave us.  
25 I think there's two things that I'd like to make a

1 point of. One is I've got a brother who has a B.S. in  
2 forestry, an M.S. in soil science, and a Ph.D. in  
3 agricultural engineering. He spends his time in the  
4 South Florida Water District managing water flow into  
5 the Everglades. Okay?

6 My family is environmental. We grew up  
7 recycling stuff, when they had the glass plates. When  
8 it first flared up, you grab all of your glass and you  
9 go and you take it and you put it there. We've been  
10 that way since I was a little person, you know.

11 So you know, to get this idea in mind  
12 that, you know, people who are nuclear engineers, who  
13 work for Dominion aren't environmentalists by nature,  
14 that's just not true. Boy, we really want to have the  
15 right thing happen here. We want to see a solution  
16 found.

17 And the other thing is I have two  
18 children. I am very concerned about their well-being  
19 growing up. If I thought nuclear power was not the  
20 right way to go, by golly, I wouldn't be in this  
21 industry. I'd be doing something else.

22 Thank you.

23 (Applause.)

24 MR. CAMERON: I thank you very much.

25 We're going to go right here for a final

1 comment, and then a quick close from Andy.

2 Yes, sir.

3 MR. ADAMS: A lot of people have also said  
4 what I wanted to say, but one thing has come up, and  
5 that's the human scale perspective on nuclear garbage.  
6 There's a lot of bureaucratese that was used to talk  
7 about it, but it boils down to what the plant puts out  
8 is garbage. We don't have those breeder reactors.  
9 It's a nice dream. It's not going to be realized for  
10 a long time, if ever.

11 So in the meantime nuclear plant garbage  
12 is highly concentrated, highly reactive, and will be  
13 dangerous for 10,000 or more years.

14 To put it in perspective, if the first  
15 nuclear power plant had been built and started  
16 producing radioactive garbage about the time Jesus had  
17 been born, we'd only have to guard that garbage for  
18 another 8,000 years.

19 On the other hand, Dominion's North Anna  
20 plant has a life span of 60 to 100 years, and if I  
21 understand the laws correctly, Dominion has no legal  
22 responsibility to treat or make that waste go away.

23 As taxpayers, it's our responsibility.  
24 That bill will come due, and it will be high.

25 So if we continue, let's increase that

1 waste that we have to dispose of, and let's increase  
2 what our descendants are going to have to pay for or  
3 not.

4 MR. CAMERON: Could you introduce  
5 yourself?

6 MR. ADAMS: I'm Jim Adams, and I live just  
7 over on the other side of Louisa.

8 MR. CAMERON: Okay, and, Andy, before you  
9 close out, I just want to thank everybody for their  
10 fortitude and their thoughtful and heartfelt comments  
11 we heard and your courtesy. That was very, very much  
12 appreciated on a particularly strongly felt issue.

13 Andy Kugler.

14 MR. KUGLER: This won't take more than  
15 half an hour.

16 (Laughter.)

17 MR. KUGLER: No, but seriously, I want to  
18 thank you all for coming out and for sticking with us.  
19 It has been a very long meeting, but there has been a  
20 lot of good discussion, and we appreciate all of the  
21 comments we have gotten. Believe it or not, I know  
22 some people don't think we will, but we really do  
23 appreciate hearing your comments.

24 I do want to thank also the school system  
25 here for supporting us and staying around late.

1 (Applause.)

2 MR. KUGLER: And also the local law  
3 enforcement folks who hung around with us as well.

4 (Applause.)

5 MR. KUGLER: If you do think of anything  
6 after the meeting, the comment period is open until  
7 the 1st of March. The slides present information on  
8 how to provide comments to us, and there's multiple  
9 ways to do that. Please do so.

10 If you have any questions, Jack Cushing's  
11 name and phone number and Belkys' phone number are on  
12 the slides as well.

13 We do have meeting feedback forms if  
14 you've got the will to let us know how we did and if  
15 there are things that we can do better. Those forms  
16 are just outside the door here, and you can mail them  
17 back. They're prepaid postage.

18 So thank you and please drive safety going  
19 home.

20 (Whereupon, at 11:30 p.m., the meeting was  
21 concluded.)

22

23

24

25