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NUCLEAR REGULATORY COMMISSION

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License Renewal Draft Environmental
Impact Statement - Afternoon Session

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U.S. NUCLEAR REGULATORY COMMISSION

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NORTH ANNA POWER STATION, UNITS 1 AND 2

LICENSE RENEWAL

DRAFT ENVIRONMENTAL IMPACT STATEMENT

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PUBLIC MEETING

+ + + + +

TUESDAY,

JUNE 25, 2002

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LOUISA, VIRGINIA

+ + + + +

The meeting was held at 1:30 p.m. at the
Public Meeting Room, Louisa County Government
Building, 1 Woolfolk Avenue, Louisa, Virginia, Chip
Cameron, Facilitator, presiding.

PRESENT:

CHIP CAMERON, FACILITATOR

JOHN TAPPERT

OMID TABATABAI

ANDY KUGLER

EVA HICKEY

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1 ALSO PRESENT:

2 JACK WRIGHT

3 BILL MURPHEY

4 JERRY ROSENTHAL

5 MAJ. DONALD LOWE

6 DUFF GREEN

7 JACK DAVIS

8 JUD WHITE

9 JAMES KOGLE

10 PHIL GOODWIN

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A-G-E-N-D-A

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P-R-O-C-E-E-D-I-N-G-S

(1:30 p.m.)

1
2
3 FACILITATOR CAMERON: Good afternoon,
4 everyone. My name is Chip Cameron. I'm the Special
5 Counsel for Public Liaison at the Nuclear Regulatory
6 Commission, and I would like to welcome all of you to
7 the Commission's public meeting this afternoon.

8 The subject of the meeting today is to
9 talk about the draft environmental impact statement
10 that was prepared by the Nuclear Regulatory Commission
11 on the application by Virginia Power to renew the
12 licenses for Units 1 and 2 at the North Anna Nuclear
13 Station. And it is my pleasure to serve as your
14 facilitator for this afternoon's meeting.

15 And, very simply, that just means that I'm
16 going to try to help all of you to have a productive
17 meeting today. And usually what I like to do at this
18 point is just talk a little bit about meeting process,
19 before we get to the substance of today's discussions.

20 I would like to just talk a little bit
21 about the objectives of the meeting, and secondly the
22 format and ground rules of the meeting. And third to
23 just go over the agenda with you so that you know what
24 to expect, and also to introduce some of the key NRC
25 staff and expert consultant staff that we have working

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1 with us on this project.

2 We are here today to discuss this
3 document, which is the draft environmental impact
4 statement on the license renewal application. We do
5 have copies of this out in the foyer, for everyone.

6 We were here last year to get some
7 information from all of you on how to develop, how to
8 best develop this draft environmental impact
9 statement. And now we are here this afternoon to,
10 first of all, tell you what some of the preliminary
11 findings are, in this draft environmental impact
12 statement, and to answer your questions about that,
13 and any questions you have about the license renewal
14 process.

15 A second objective, is to listen to your
16 comments, your concerns, that you might have on this
17 environmental review that we are doing. And the
18 ultimate goal would be to use your comments, today, to
19 help us to finalize the draft environmental impact
20 statement.

21 We are also asking for written comments on
22 the draft environmental impact statement, but we
23 wanted to be here today to talk to you in person about
24 this. You may hear information from the NRC or our
25 experts, that will stimulate you to send in a written

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1 comment, or to help you prepare a written comment, if
2 that is what you want to do.

3 But I do want to emphasize that anything
4 you say here today is going to have the same weight
5 as any written comments. And we are taking a
6 transcript of the meeting, and that transcript will be
7 available on the NRC website, for those of you who
8 want to see it, and that will be our record of what
9 you say here today.

10 In terms of meeting format it pretty much
11 matches the two objectives that we have. We have a
12 first segment where we are going to ask the NRC staff
13 to give us some brief presentations on the license
14 renewal process, and on the environmental review
15 process.

16 Specifically after each of those
17 presentations we will go out to you to see if there
18 are any questions that we can answer about those
19 presentations.

20 The second segment of the meeting is where
21 we want to listen to you, to any of you who have a
22 more formal statement for us on the license renewal
23 issues, and we will ask you to come up here, if that
24 is comfortable, for you to make the statements.

25 In terms of ground rules, they are pretty

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1 simple. One, if you have a question during the first
2 phase of the meeting just signal me and I will bring
3 you this talking stick. And please just identify
4 yourself, and affiliation if appropriate, for the
5 stenographer.

6 There is a sign-up, there are sign-up
7 cards for making a formal statement, but that is just
8 to give us an idea of how many speakers we have. If
9 the notion seizes you, during the meeting, that you
10 want to come up and make a statement, just let me
11 know, and we will gladly accommodate that.

12 I would just ask that one person at a time
13 speak, so that we can not only get a clean transcript,
14 but obviously we want to give our full attention to
15 whomever has the floor at the time. So just one
16 person speaking at a time.

17 And, finally, I don't think we are going
18 to have time problems this afternoon, but I usually
19 ask people to just try to be as concise as possible,
20 which is difficult, I know, on complex issues such as
21 this.

22 But to try to be concise. And I'm setting
23 a five minute guideline for the prepared statements.
24 And that is a fuzzy boundary there, there won't be a
25 hook that comes out, except for the NRC Staff. But

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1 there won't be a hook that comes out at five minutes.

2 But if you could just try to keep it down
3 to five minutes, that will give us some assurance that
4 we will hear from everybody who wants to talk today,
5 and that we will get the information out to you that
6 we need to.

7 In terms of agenda, and speakers, after
8 I'm done I have asked John Tappert, who is right over
9 here, from the NRC Staff to just give you a few words
10 of welcome.

11 And John is the section leader, the
12 supervisor of the environmental review branch in our
13 Office of Nuclear Reactor Regulation. And John and
14 his staff are responsible for developing all of the
15 environmental reviews that are done for nuclear power
16 plant license renewal applications.

17 We are going to start with John, and I
18 wanted to tell you a little bit about the people who
19 you are going to hear today. John has been with the
20 agency for approximately 11 years. During those 11
21 years, before he became the environmental review
22 section chief, he was a resident inspector of nuclear
23 power plants for the NRC, of nuclear power plants up
24 in the NRC's Region 1.

25 He has a bachelor's degree in aerospace

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1 and ocean engineering, and he has a master's degree in
2 environmental engineering.

3 After John's welcome we are going to get
4 right into the substance of the discussion, and we are
5 going to go to Omid Tabatabai, who is right here in
6 the front row. He is the project manager for the
7 safety evaluation on the North Anna license renewal
8 applications. And he will explain what his
9 responsibilities are, and what that safety review is
10 all about.

11 And he has been with us for about three
12 years, and before that he was with the Department of
13 Energy, one, in the office of environmental safety and
14 health there, and also he worked in DOE defense
15 programs. And Omid has a bachelor's degree in applied
16 math, and a master's degree, I believe, in nuclear
17 engineering.

18 And he will give you an overview of the
19 license renewal process, generally. Then we will go
20 on to you for any questions that you have at that
21 point. Then we are going to get more specific, and we
22 are going to go to Mr. Andy Kugler, who is right here.

23 And he is the project manager for the
24 environmental review part of the North Anna license
25 renewal applications. And you are going to hear how

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1 that safety review and environmental review come
2 together to help the NRC make a decision on the
3 license renewal applications.

4 But Andy is in John Tappert's section,
5 again, Office of Nuclear Reactor Regulation. He has
6 been with the NRC for 12 years. He has worked for a
7 nuclear utility that operated a nuclear power plant.
8 So he has been in the private sector.

9 And his background is in mechanical
10 engineering, and again we will go out for questions on
11 the environmental review process. Andy is going to
12 cover the process for you.

13 Then we are going to get to the real
14 substance of today's discussion, and Eva Hickey, who
15 is right over here. And Eva is the project team
16 leader, and she can correct me on that, if that is the
17 wrong title, with Pacific Northwest National Lab. And
18 the NRC has contracted with the lab, and other
19 national labs, to help us do the environmental review.
20 And I think that Eva will tell you about some of the
21 expert disciplines that are involved in doing that
22 review.

23 Eva has a master's in health physics, and
24 she has over 20 years of experience with various
25 aspects of nuclear reactors, including emergency

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1 preparedness issues.

2 After Eva tells you about the preliminary
3 findings in the draft environmental impact statement,
4 we will go out to you, again, for questions. And then
5 we have one short subject, so to speak, but important.
6 Which is another aspect of the draft environmental
7 impact statement, and that is a look at the
8 possibility of severe accident and accident
9 mitigation. That is in the draft environmental impact
10 statement.

11 And Andy Kugler is going to do double duty
12 for us on that today, and he will go through that, we
13 will go to your for questions. And then we will get
14 to the second part of the meeting, which is to hear
15 from you.

16 And I would just thank you all for being
17 here today. This is an important decision that we
18 have to make, and we appreciate your assistance in
19 making that decision.

20 And there is a sign-up sheet up front. If
21 you haven't signed in, please do so, so that we can
22 get you any material that is related to this meeting.
23 And with that I think we are ready to hear from John
24 Tappert. John?

25 MR. TAPPERT: So welcome. As Chip said,

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1 my name is John Tappert, I'm chief of the
2 environmental section in the Office of Nuclear Reactor
3 Regulation. I would like to welcome you to this
4 meeting, and thank you for participating in our
5 process.

6 As Chip mentioned, said, there are several
7 things we would like to accomplish today, and I would
8 like to briefly reiterate the purposes of this
9 meeting.

10 First we would like to give you a brief
11 overview of the entire license renewal program, this
12 includes both the safety review, as well as the
13 environmental review, which is the principal focus of
14 today's meeting.

15 Second we will give you the preliminary
16 results of our environmental review, which assesses
17 the environmental impacts associated with extending
18 the operating license at the North Anna nuclear power
19 plant, for an additional 20 years.

20 Then we will give you some additional
21 information about how you can submit written comments
22 on the draft environmental impact statement, and also
23 information on the schedule for the balance of our
24 review.

25 At the conclusion of the Staff's

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1 presentation we will be happy to receive any questions
2 or comments that you may have on the draft
3 environmental impact statement.

4 But first let me provide some context for
5 the license renewal program. The Atomic Energy Act
6 gives the NRC the authority to issue operating
7 licenses to commercial nuclear power plants for a
8 period of 40 years.

9 For North Anna Units 1 and 2, these
10 operating licenses will expire in 2018, and 2020,
11 respectively. Our regulations also make provisions
12 for extending these operating licenses for an
13 additional 20 years as part of the license renewal
14 program.

15 Dominion has requested license renewal for
16 both of the North Anna plants. As part of the NRC's
17 review of these license renewal applications, we
18 conducted an environmental scoping meeting here last
19 October.

20 At that meeting we provided information on
21 the license renewal process, and also sought your
22 input on issues to be included in the environmental
23 impact statement.

24 As we promised at the scoping meeting, we
25 return here today to provide the preliminary results

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1 of our draft environmental impact statement. And,
2 again, one of the principal purposes of this meeting
3 today is to receive your questions and comments on
4 that draft.

5 And with that I would like to ask Omid to
6 give a brief overview of the safety review portion.

7 MR. TABATABAI: Thank you, John.

8 As Chip mentioned, my name is Omid
9 Tabatabai, and I'm the NRC project manager for the
10 safety review of the North Anna Units 1 and 2 license
11 renewal application.

12 The purpose of this meeting is to describe
13 the findings of the NRC's staff on environmental
14 review of the application, and to present to you the
15 preliminary results of that review.

16 I'm going to briefly describe the license
17 renewal process, and what are the next steps that the
18 NRC is going to take as far as this license renewal
19 application.

20 On this slide we show the nature of the
21 activities that the NRC staff is taking as far as the
22 review of this license renewal application. Each
23 license renewal application includes safety reviews,
24 environmental reviews, plant inspections, and also an
25 independent review of the application by the Advisory

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1 Committee on Reactor Safeguards.

2 I will be talking, briefly, on each of
3 these elements, and I will describe what are those
4 elements. Of course the environmental review Mr.
5 Kugler is the project manager, and he will go into
6 detail of that element of the review process. I will
7 be talking about the rest of those license renewal
8 elements.

9 As the safety project manager my
10 responsibilities are to coordinate all the evaluations
11 and reviews of the application for safety related
12 issues, for coordinating plant inspections, and also
13 providing Advisory Committee on Reactor Safeguards
14 with the Staff's evaluation on the safety review of
15 the application.

16 The governing rule for the safety review
17 is Part 54 of Title 10 of the Code of Federal
18 Regulations. In that rule, the NRC describes what are
19 the requirements of those license renewal application
20 reviews, and also it describes that environmental
21 review must be according to Part 51 of the Title 10 of
22 Code of Federal Regulations.

23 As far as plant inspections, we have
24 conducted two inspections at North Anna nuclear power
25 plant, one in October 2001, and the other one in

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1 February of 2002. The results of those inspections,
2 and the Staff's review as far as safety aspect of
3 those, we present all those results to the Advisory
4 Committee on Reactor Safeguards, and they write a
5 letter to the Commission, and they comment on what
6 action the Commission should take as far as the
7 renewed license goes.

8 This slide shows the license renewal
9 process in a flow chart format. In addition to that
10 there are opportunities for the members of the public
11 to participate in this process.

12 We have safety reviews, we have
13 environmental review, and also we have inspection. In
14 addition to that, on this slide we show opportunity
15 for the members of the public to participate in this
16 process, on those funny blocks. The members of the
17 public have opportunities to make comments and
18 participate in different meetings that NRC conducts.

19 For example, this meeting, the lower, as
20 you see, for the environmental review we have scoping
21 activities. The NRC staff prepared a draft
22 environmental impact statement, and the purpose of
23 this meeting is for the public to present them the
24 results of that review, and also get feedback from
25 them.

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1 And also, the public has the opportunity
2 to participate in ACRS reviews. It is open to the
3 public, you can come and make comments on that. And
4 also if there is any hearing, as far as this license
5 renewal application goes, there is a panel of
6 administrative judges that are called Atomic Safety
7 and Licensing Board, and there is a process for that
8 in NRC, that you can make comments on that.

9 All these three, inspection, environmental
10 safety, and ACRS, the results of all those, the
11 outcome of all those reviews goes to the Commission,
12 and they make the final decision as far as renewed
13 license goes.

14 This is a brief overview of the license
15 renewal process, and I'm here to answer, if there is
16 any question regarding safety review of the
17 application.

18 FACILITATOR CAMERON: Any questions for
19 Omid on the license renewal process, generally, or the
20 safety review? And if something occurs to you later
21 on in the program, obviously we can come back and pick
22 that up, too.

23 Omid, thank you very much, and let's go to
24 Andy Kugler for the environmental review process.

25 MR. KUGLER: Thank you, Chip. Good

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1 afternoon. Thank you for coming out this evening to
2 our meeting.

3 My name is Andy Kugler, and I'm the
4 environmental project manager for the environmental
5 review for the license renewal for the North Anna
6 application.

7 In that capacity, I'm leading a team of
8 reviewers from both the NRC and from our National
9 Labs, who are experts in various environmental areas.

10 The National Environmental Policy Act
11 requires agencies to take a systematic approach to
12 evaluating environmental impacts of any Federal
13 action. In this regard we consider both the impacts
14 of the action, and also any mitigation that might be
15 used to reduce those impacts. In addition, we look at
16 alternatives to the proposed action to determine
17 whether the environmental impacts of an alternative
18 might be lower.

19 The National Environmental Policy Act is
20 basically a disclosure tool. The intent of this is to
21 involve the public in our review process, and to gain
22 input from the public.

23 The NRC regulations indicate or state that
24 for license renewal we will prepare an environmental
25 impact statement. There are other tools that can be

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1 used under the National Environmental Policy Act.

2 And in that regard we are here to collect
3 comments, both at the scoping phase, when we were here
4 last October, and we also collect comments on the
5 draft of that environmental impact statement, which is
6 why we are here today.

7 In terms of how we make our decision, the
8 basic question is, is license renewal for these units
9 acceptable from an environmental perspective; should
10 we keep the option of running these units open?

11 I want to emphasize that should we, at the
12 end of this process, determine that we will renew the
13 licenses for North Anna, we will not be the ones who
14 decide whether or not the plants actually operate for
15 another 20 years. That is going to be determined by
16 the owners of the plant, and state, and other Federal
17 agencies.

18 So basically, what we are doing is we are
19 determining whether or not it is acceptable for them
20 to continue to operate.

21 This slide gives a little bit more detail
22 on the environmental review process. We were out here
23 last October for public meetings during the scoping
24 phase, when we were requesting input on what issues we
25 should consider in our review.

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1 After scoping, and after our review of the
2 environmental aspects of license renewal, we issued
3 the draft environmental impact statement which we
4 issued in May. This meeting is one part of the
5 comment period that is currently open on the draft.
6 The comment period runs until August 1st of this year.

7 We can take comments a number of different
8 ways, and this meeting is one method that we use.
9 After the comment period ends we will evaluate the
10 comments we receive, we will revise the draft as
11 appropriate, and then we expect to issue the final
12 environmental impact statement around December of this
13 year.

14 In this slide we are trying to give you an
15 idea of the different methods we used to collect
16 information for our review. As I mentioned, we were
17 here collecting public comments during the scoping
18 period. We also went on-site, and in the vicinity,
19 and looked at the environment around the plants, and
20 how the plant interacted with the environment.

21 We gathered information from the licensee,
22 from state, and other Federal agencies, and permitting
23 authorities. And, of course, we reviewed the
24 licensee's application.

25 In this slide I will try to give you an

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1 idea of the various areas of expertise that we draw on
2 in preparing the environmental impact statement. We
3 look at ecology, aquatic ecology and terrestrial
4 ecology. We look at water, air, and land use.

5 And some of those areas you might not
6 necessarily think about, we look at socioeconomics,
7 how the operation of the plant, or any of the
8 alternatives would affect the area in terms of
9 economics. And the area called environmental justice,
10 which is we consider whether or not the action of
11 license renewal would have a high adverse impact on
12 minority or low income populations in the area.

13 At this point I'm going to turn things
14 over to Eva Hickey. And what she is going to do is
15 explain the approach that we use in our review, and
16 the preliminary results that we documented in our
17 environmental impact statement.

18 Are there any questions on the
19 environmental review process?

20 FACILITATOR CAMERON: Questions for Andy
21 before we go into findings?

22 (No response.)

23 MS. HICKEY: Good evening, everyone. My
24 name is Eva Hickey, and I work with Pacific Northwest
25 National Laboratory. And I'm the team lead for the

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1 multi-disciplinary, multi-laboratory team, that has
2 been looking at the potential environmental impacts
3 for North Anna license renewal.

4 I have some of my team members here with
5 me tonight. And they, along with myself, will try to
6 answer any questions you have on our draft
7 supplemental environmental impact statement.

8 First let me talk about how we quantified
9 the impacts from the environmental issues that we
10 looked at. These impacts are consistent with the
11 Council on Environmental Quality. The first impact,
12 impact level, is small.

13 And that is defined as an effect that is
14 not detectable, or it is too small to destabilize, or
15 noticeably alter an important attribute of a resource.

16 Let me give you an example. The plant may
17 cause the loss of adult or juvenile fish in the intake
18 structure. That is where they pull water into the
19 plant for cooling. If the loss of fish is so small
20 that it cannot be detected in the lake, in this
21 instance, the impact would be considered small.

22 The next impact level is moderate. For
23 this, the definition is the effect is sufficient to
24 alter noticeably, but not destabilize important
25 attributes of the resource.

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1 So using our fish example, in this case,
2 if the losses at the intake cause the population to
3 decline, but then the population stabilizes, the
4 impact level would be considered moderate.

5 And, finally, the third is large. And
6 this effect is clearly noticeable and sufficient to
7 destabilize important attributes of the resource. So
8 in this case for our fish example, if the fish
9 population declined, and it did not recover, or
10 stabilize, the impact would be considered large.

11 Next let me take just a minute to explain
12 the analysis approach that we used for looking at the
13 environmental impacts. The Generic Environmental
14 Impact Statement for License Renewal, NUREG 1437,
15 identifies 92 environmental issues that are evaluated
16 for license renewal.

17 Sixty-nine of these issues are considered
18 generic, and these we call category 1, which means the
19 impacts are the same for all plants, or all reactors,
20 or for all reactors that have certain features, such
21 as plants that would have cooling towers.

22 For the other 23 issues referred to as
23 category 2, which we see here, these were not found to
24 be the same across all the plants. And so they
25 require a site specific analysis.

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1 Only certain issues addressed in the
2 Generic Environmental Impact Statement are applicable
3 to North Anna. And those are the issues that we
4 looked at during our review.

5 For the generic, or category 1 issues, we
6 looked to see if there was any information that was
7 considered new and significant. And if there was not
8 any, then we adopted the conclusions that are in the
9 Generic Environmental Impact Statement. For the site
10 specific, or category 2 issues, we did a thorough site
11 specific analysis.

12 To look for new and significant issues,
13 the site, during our meeting in our site visit in
14 October, we looked for new and significant issues. We
15 asked the public, during the public scoping period, if
16 they had any issues that they wanted us to look at,
17 and the licensee was also requested to discuss and
18 look for new and significant issues.

19 Now, I want to take just a few minutes to
20 cover some of the issues, and some of the findings
21 that we had from our analysis. In Chapter 2 of the
22 draft supplemental environmental impact statement, we
23 discussed the plant, and the environment around the
24 plant.

25 And then in Chapter 4, we discussed the

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1 environmental issues and what we found. Those issues
2 that we looked at are the cooling system, transmission
3 lines, radiological, socioeconomic, groundwater use
4 and quality, and threatened and endangered species.

5 I'm not going to go over all of these in
6 detail, I've tried to pick out just a few that I
7 thought would be of interest to the public. But if
8 there is any issues that I have not discussed, please
9 feel free to ask questions.

10 Also, if you do not have a copy of the
11 SEIS, we do have copies out in the hallway that you
12 are welcome to take a look at.

13 One of the issues that we look at in great
14 detail are the cooling system impacts. Here is a
15 drawing of the North Anna cooling system. Lake Anna
16 was actually created primarily to provide cooling
17 water for North Anna. And here you can see the main
18 body of the lake.

19 And then there are three dikes, and these
20 legs of the lake, or arms. This is the cooling ponds,
21 this is where the water is returned, and the water is
22 cooled before it is returned to Lake Anna. And this
23 is called the waste heat treatment facility.

24 In this diagram, you can see where the
25 cooling water is taken in from Lake Anna, goes up to

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1 the canal, and then it goes to the plant, and then it
2 is returned, and goes through the waste heat treatment
3 facility, before being returned to Lake Anna.

4 There are trash racks and traveling
5 screens that are used to prevent debris and fish from
6 entering the cooling system. There are a number of
7 category 1 issues related to cooling systems, and we
8 looked to see if there were any new and significant
9 information related to these issues. However, we did
10 not discover any.

11 The issues that the team looked at, on a
12 site-specific basis, include entrainment and
13 impingement of fish and shellfish, and heat shock.
14 And from our evaluation we determined that the
15 potential impacts were small, and additional
16 mitigation was not warranted.

17 I would like to take just a moment to talk
18 about radiological impacts. Now, radiological impacts
19 for license renewal are all considered category 1, but
20 I know a lot of times the public is interested and
21 concerned about this, so I thought I would take just
22 a minute to discuss it.

23 We looked at the effluent release and
24 monitoring programs during our site visits. We looked
25 at how the gaseous and liquid effluents are treated

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1 and released, and we also looked at how solid wastes
2 were treated, packaged, and shipped from North Anna
3 Units 1 and 2.

4 We looked at how the Applicant determines
5 and demonstrates that they are in compliance with the
6 regulations for release of radiological effluents.
7 And we determined that the releases are well within
8 limits, and the resulting off-site potential doses are
9 not expected to increase on a year to year basis
10 during the 20 year license renewal period.

11 We found that there is no new and
12 significant information related to radiological
13 impacts. And, therefore, we have adopted the
14 conclusions from the Generic Environmental Impact
15 Statement, and determined that the potential
16 radiological impacts are small.

17 Finally, I wanted to talk about the
18 threatened and endangered species. Now, on the North
19 Anna site there are no Federal or state listed
20 threatened and endangered species of aquatic or
21 terrestrial plants or animals.

22 However, there are a number of species
23 that occur in habitats similar to those found at North
24 Anna, and I have shown some of these here on this
25 slide.

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1 There is a mussel that could be found in
2 the rivers and streams in the counties located near
3 North Anna. Bald eagles have been seen in the area,
4 but there are no nests on the site.

5 And there are a couple of plant species
6 that are not found at North Anna, but live in the same
7 habitat in the local area. We concluded that the
8 impacts of continued operation on threatened and
9 endangered species are small. The conclusion is
10 preliminary pending the completion of our consultation
11 with the Fish and Wildlife Service.

12 I will talk a little bit about the fact
13 that we have looked, during our review, for potential
14 new and significant information related to the generic
15 issues. We did this during scoping, and we requested
16 that the licensee look at this, and we discussed that
17 during our site visit, and then the Staff also looked
18 at it while we were on our site visit, and doing our
19 other reviews.

20 Now, a couple of other issues that we've
21 looked at, and these can be found in chapters 6 and 7
22 of the draft SEIS, are those impacts from the uranium
23 fuel cycle and solid waste management, and the impacts
24 from decommissioning.

25 These issues are all category 1, and we

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1 did not find any new and significant information
2 identified and, therefore, we've adopted the
3 conclusions in the GEIS.

4 One of the other areas that we spent quite
5 a bit of time looking at is alternatives to, if North
6 Anna did not continue operation for an additional 20
7 years, what would the environmental impacts from the
8 alternatives be.

9 We looked at no-action, which is simply
10 that the power plant would cease to operate at the
11 time its license expires, or perhaps before, and then
12 be decommissioned.

13 We looked at impacts of new generation of
14 power, from either coal-fired, gas-fired, or even
15 potentially a new nuclear plant. We looked at the
16 impacts from purchased electrical power, and
17 alternative technologies, such as wind, solar, and
18 hydropower.

19 And then we looked at a combination of all
20 of these alternatives. For each of the alternatives
21 that we looked at, we did the same environmental
22 review using the same issues that we did for license
23 renewal.

24 Our preliminary conclusions for
25 alternatives is that the alternatives, including no-

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1 action alternative, may have environmental effects in
2 at least some impact categories, that reach either a
3 moderate or large significance.

4 With that I'm going to turn my discussion
5 back to Andy, unless anybody has any questions for me
6 at this point.

7 FACILITATOR CAMERON: Let's take some
8 questions on your presentation, Eva, before we go to
9 Andy.

10 MS. HICKEY: Okay.

11 FACILITATOR CAMERON: And if you could
12 just tell us your name, for the record, sir?

13 MR. GOODWIN: Phil Goodwin. You were
14 talking about environments, and also environments that
15 may not, for example bald eagles, you said there were
16 some nesting areas that could be utilized by bald
17 eagles, but there were no bald eagles there.

18 We've all heard about the project that was
19 shut down. Is there a possibility that even though
20 there are no endangered species here, that we may shut
21 down a project just because there is an environment
22 here that could be suitable, is that what we are
23 saying?

24 MS. HICKEY: I think I'm going to ask my
25 ecologist. Can you answer this question?

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1 MS. CARLSEN: My name is Tina Carlsen, I'm
2 an ecologist. How is that, is that better?

3 I think what Eva said, first of all, was
4 that there were no nests at the site. So there is
5 some potential habitat that bald eagles could go in
6 and put in nests at some point in the future. Right
7 now there are no nests.

8 And the fact that there is potential
9 habitat, in my understanding, that would require
10 consultation with Fish and Wildlife Service, and a lot
11 of different aspects to actually close down a site,
12 than just the fact that there is just potential
13 habitat there.

14 So I don't think that is a potential
15 problem down the road, but that would be something we
16 would consult with the various resource agencies,
17 with.

18 MR. GOODWIN: Well, it seems like we have
19 two different --

20 FACILITATOR CAMERON: Let's get you on the
21 record, sir.

22 MR. GOODWIN: It seems like we are hearing
23 two different things. We are saying that there may be
24 a potential site here, and that there is a concern,
25 but it won't shut down --

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1 MS. CARLSEN: Well, what we looked at was,
2 and what we found, is that there are no Federally
3 listed species on this site now. There are habitats
4 there that are similar.

5 Now, if we had actually found species we
6 would do an additional review to see if the additional
7 20 year license renewal would impact those species.

8 FACILITATOR CAMERON: And, Andy, did you
9 want to add something on this, too? Let's see if we
10 can get this perfectly clear.

11 MR. KUGLER: Well, what I was going to say
12 is that the fact that endangered species could be in
13 the area doesn't necessarily mean the project can't
14 continue to operate.

15 There are eagles all around the Surry
16 Power Station, which is another review we are doing.
17 And the state, and the Federal agencies, have
18 procedures for managing that resource so that you
19 don't impact the eagles.

20 So just the fact that they were in the
21 area, there are no known nests, but they pass through
22 the area, I think is what we believe. But just that
23 fact wouldn't necessarily mean the project can't
24 continue to operate.

25 FACILITATOR CAMERON: So I guess to try to

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1 summarize for you, is that even if there were
2 endangered species on the site, first of all, that
3 does not mean that would prohibit the facility from
4 operating.

5 If there are no species at the site, but
6 that there are habitats that could be used, perhaps,
7 by endangered species, that just puts us on alert,
8 basically, to be aware of that issue. I think that is
9 the summary.

10 MR. KUGLER: One other thing is that I
11 think there are certain cases where there are species
12 whose habitat is so limited that we have to be
13 extremely cautious. But the bald eagle has a very
14 broad range of habitats that they can live in, so I
15 don't think that would become an issue here.

16 FACILITATOR CAMERON: Okay, thanks, Tina
17 and Eva, and Andy. Other questions on the
18 environmental findings before we go to accident
19 mitigation?

20 (No response.)

21 FACILITATOR CAMERON: Okay, great. Thank
22 you Eva. And, Andy?

23 MR. KUGLER: One area of our review that
24 is a little bit different is postulated accidents.
25 And this is described in chapter 5 of the

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1 environmental impact statement.

2 We look at two basic types of accidents in
3 our review. The first type is called design basis
4 accidents.

5 And these are a broad range of events that
6 both the NRC staff, and the licensee, have evaluated
7 during initial licensing, to determine whether or not
8 the plant can withstand these events without undue
9 hazard to the health and safety of the public.

10 Now, a number of these postulated
11 accidents are never expected to occur at the plant,
12 they are fairly far-fetched accidents. But we still
13 evaluate them, because we use them to establish the
14 design basis for the plant, so that the plant is built
15 to withstand them.

16 The acceptance criteria for design basis
17 accidents can be found in Title 10 of the Code of
18 Federal Regulations, Part 50 and Part 100. And the
19 licensee must maintain these analyses acceptable
20 throughout the life of the plant, including any
21 license renewal term.

22 Severe nuclear accidents are the second
23 type of accident, and these are accidents that lead to
24 significant core damage. Now, the event may or may
25 not lead to releases off-site, but they all result in

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1 damage to the core of the reactor.

2 In the Generic Environmental Impact
3 Statement that Eva described earlier, we determined
4 that the impacts of the accidents themselves are small
5 at all sites. And the reason for this is because the
6 probability of these events are extremely low, and
7 that drives the overall risk down.

8 However, we also determined that we should
9 review mitigation alternatives that might reduce the
10 impacts of severe accidents if they have not
11 previously been evaluated. In the case of North Anna
12 we had not previously evaluated them, so we look at
13 them here in the draft environmental impact statement.

14 In the licensee's environmental report, in
15 developing it, they used various sources and
16 identified 158 potential candidate improvements for
17 mitigation alternatives.

18 Of these, 107 were eliminated either
19 because they had already been implemented at the
20 plant, or the licensee determined that they were not
21 applicable to this design. And the reason why they
22 would put them in the list, if they are not
23 applicable, when they make the list they take a very
24 broad look, they include a lot of things, and then
25 they start whittling it down. This way they are less

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1 likely to have an alternative that they wouldn't see.

2 Of the remaining 51, 42 were eliminated
3 using a bounding analysis in which they, basically,
4 did a rough estimate of how much it would cost, and
5 balanced that against the most benefit you could
6 possibly get from any improvement in determining that
7 it was not cost beneficial.

8 For the remaining nine candidates that
9 broad analysis, that rough analysis, didn't give a
10 clear answer, so they did a much more detailed
11 analysis, making a more detailed evaluation of the
12 cost of the improvement, and also of how much benefit
13 you would actually receive from it.

14 Using that analysis, the licensee
15 determined that none of the remaining nine candidates
16 were cost beneficial.

17 We reviewed the analysis that the licensee
18 performed, and we performed some independent analysis
19 of our own. We concluded that the methods and
20 implementation used by the licensee, were sound, and
21 that none of the candidate improvements were cost
22 beneficial.

23 The result isn't really that surprising,
24 because licensees have been implementing improvements
25 at the plant to mitigate severe accidents for a number

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1 of years. They were required, back in the early '90s,
2 to perform an analysis, and take a look at severe
3 accidents.

4 So it is not too big a surprise that we
5 might not find any at this stage, because they have
6 already implemented changes that would be cost
7 beneficial.

8 So the overall conclusion is that no
9 additional plant improvements are required at North
10 Anna Units 1 and 2 for the license renewal term for
11 severe accident mitigation alternatives.

12 And that concludes my discussion of
13 postulated accidents. I can take any questions at
14 this point. Yes?

15 FACILITATOR CAMERON: Let me get over
16 there with the microphone for you. And just give us
17 your name, sir.

18 MR. MURPHEY: Hi, my name is Bill Murphey,
19 I'm a resident here in Louisa County. My question is
20 a little bit complicated, and may go back to the
21 safety analysis that was done originally.

22 What I would like to focus on is the
23 accident at Davis Besse. And, in particular, the
24 following questions. My understanding is that NRC was
25 aware of this, people don't know, this is a question

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1 of corrosion in the reactor pressure vessel head by
2 boric acid.

3 Anyway, NRC was aware of the problem for
4 the last 20 years, it is not a new problem. There is
5 a man here who was a resident inspector. I would like
6 to know why the NRC inspection process didn't pick up
7 this corrosion problem years ago, that is the first
8 one.

9 Second is my understanding is that how
10 they did pick it up was with the filters in the
11 pressure, in the containment area, when the filter
12 change had to be increased from once a month to once
13 every 48 hours, something like that.

14 So the question is, what was the response
15 processed by the NRC given that information? How did
16 the resident inspector get that information? And more
17 importantly, when talking about accident mitigation,
18 what has been done to change that circumstance to
19 assure that it will not happen here?

20 MR. KUGLER: Well, I have some information
21 on that, I'm not sure I can answer all of your
22 questions entirely. Again, our review is, primarily,
23 on the environmental side, but I'm going to tell you
24 what I can, what I know.

25 The issue of us knowing about boric acid

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1 corrosion for 20 years, we've known about potential
2 for boric acid corrosion for many years. And there
3 are programs that were established that were intended
4 to prevent it from going very far. We were supposed
5 to be able to detect it before it caused significant
6 problems.

7 I'm not familiar with all the details of
8 what happened at Davis Besse. I know they had a
9 severe problem there, where corrosion went on for an
10 extended period of time, and caused substantial damage
11 on the reactor head.

12 Why their program didn't pick it up, I'm
13 not sure, I don't have that information. What has
14 been done since then, I know that we issued a bulletin
15 to all the licensees requiring them to check and make
16 sure that they didn't have a problem like this, and
17 explain to us where they stood on this.

18 In the case of North Anna, for other
19 reasons, they performed what is called a clean metal
20 inspection of reactor heads last fall, where they had
21 taken all the insulation off and looked at the vessel
22 head. And so they knew, at that point, they had no
23 problems with leakage and corrosion in that area.

24 The problem at Davis Besse had gone on for
25 some period of time, I'm not sure how long, I don't

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1 know if we have an idea at this point how long the
2 leakage had been going on, but it wasn't a short
3 period of time.

4 So the inspections are performed by the
5 licensee here, and they continue monitoring, provide
6 us with assurance that this vessel head is intact. I
7 don't know if we have any more information?

8 FACILITATOR CAMERON: Perhaps there is
9 also some information that we released on Davis Besse,
10 generally, that we could provide Mr. Murphey, that
11 tells him more about what happened at Davis Besse,
12 that might be helpful for him.

13 MR. KUGLER: I know there is a section of
14 our website that is specifically for that issue.

15 MR. TAPPERT: Right, that is just what I
16 was going to say, there is a website. If you go to
17 the NRC website, which is just www.nrc.gov, there is
18 a section that addresses what is going on at Davis
19 Besse. And that was a very serious event that
20 happened there.

21 And we have convened a lessons learned
22 task force to dig into the NRC's performance, and the
23 licensee's performance that led up to that situation.
24 The NRC is taking action. We found cracking on some
25 CRDM, control rod drive mechanism, heads down at

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1 Ocone last year.

2 And based on that we issued a bulletin,
3 which is one of our strongest regulatory documents, to
4 all PWR licensees to have them do inspections. And,
5 in part, that is what led to the discovery of the
6 condition at Davis Besse.

7 And we've also issued additional bulletins
8 this year to follow up on that.

9 FACILITATOR CAMERON: Thanks, John. Let's
10 go to -- Jerry, just give us your name.

11 MR. ROSENTHAL: It is Jerry Rosenthal, I'm
12 also here in Louisa.

13 I would like to follow-up on that. My
14 understanding is that the boric acid corrosion was
15 found on the reactor vessel head here, there were 19
16 spots on North Anna 1 and 2 that were found with boric
17 acid corrosion, that were addressed by Dominion.

18 And I would like to find out if that was
19 true.

20 FACILITATOR CAMERON: Okay. That sounds
21 like that would be a pretty important clarification to
22 provide people.

23 MR. KUGLER: I do have their written
24 response to our bulletin. It might take me a minute
25 to find where they discuss the actual result.

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1 FACILITATOR CAMERON: Can we -- Jerry, can
2 we give Andy a chance to make sure that he gets the
3 right information, and then we will go to the next
4 segment of the meeting. But before we adjourn this
5 afternoon, we will go back and discuss this. Is that
6 okay?

7 All right, good. Any other questions?
8 And we will go back to this. And, Mr. Murphey, do you
9 have a follow-up here? We will get you on the
10 transcript.

11 MR. MURPHEY: There are two parts to it.
12 The discussion that is going on right now is more on
13 the accident itself. What I would like to focus upon
14 is the NRC credibility, and the NRC inspection
15 process.

16 Remember in the beginning I said that we
17 had a man here who was a resident inspector. And the
18 question is, why didn't he pick it up, why didn't the
19 resident inspector at Davis Besse pick it up?

20 FACILITATOR CAMERON: Let's and I think
21 Mr. Murphey --

22 MR. KUGLER: That is part of the subject,
23 what the team is looking at this event is looking at.
24 They are not just looking at how did the licensee not
25 find this sooner, but they are also looking at why

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1 didn't we pick it up sooner. That is part of what is
2 being investigated.

3 FACILITATOR CAMERON: Is there, I think
4 maybe it would provide some more assurance to Mr.
5 Murphey if we just described a little bit, if we
6 could, what our typical inspection program is.

7 John already talked about the fact that we
8 did find, through our inspection program, a problem
9 with the so-called control rod drive mechanisms, and
10 that is in part what led us to discover the problem at
11 Davis Besse.

12 But, John, you've been out there. Can you
13 just provide a little bit more gloss for us on the
14 inspection program, with the idea, you've heard Mr.
15 Murphey's concern, maybe you can give him a little bit
16 more on that.

17 And after the meeting is over, too, if
18 perhaps we could talk to him some more about that, to
19 give him some assurance.

20 MR. TAPPERT: Yes, sure. The NRC
21 inspection program is a sampling program, where we
22 have basically -- we have two or three people on each
23 site. And they inspect the licensees to make sure
24 that they are following requirements.

25 Now, there's hundreds of employees, and

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1 thousands of activities going on at the plants. So
2 you can't possibly observe each one of these
3 activities. But with a sampling process we can gain
4 confidence of the ability of the licensee to do it.

5 Obviously this is one that we are looking
6 into, to see how this got so far, without anyone
7 picking up on it. We also rely on operational
8 experience. Which means that if you see something at
9 one plant, we go in and look at all the other plants.

10 And then that is very actively going on
11 right now, based on what happened at Oconee, and based
12 on what happened at Davis Besse, there is a very
13 vigorous program right now to address this problem in
14 the industry.

15 So you have a lot of things building
16 together to give you that safety net. I'm not sure if
17 that answers your question, but that is --

18 FACILITATOR CAMERON: And we will go back,
19 I think, the information in response to Jerry
20 Rosenthal's question may help along those lines.

21 And, Andy, if you could just look through
22 the documentation, and then when you are ready, before
23 we adjourn, we will go back and have a discussion on
24 that.

25 John, do you want to add anything?

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1 MR. TAPPERT: Yes, just that we did write
2 a bulletin to every licensee, and they responded to
3 that bulletin.

4 MR. KUGLER: Well, this is the first, this
5 is the Oconee bulletin.

6 MR. TAPPERT: Okay. And those documents
7 are all available, publicly, through the NRC website,
8 as well. We will get you that information.

9 FACILITATOR CAMERON: Okay, thank you.
10 Let's go to listening some more from all of you, on
11 these issues. Oh, you have some important
12 information.

13 MR. KUGLER: You have to let me finish.

14 FACILITATOR CAMERON: All right, sorry
15 Andy.

16 MR. KUGLER: He is trying to get rid of
17 me. Coming back to talk more of the environmental
18 impact statement as a whole, what we found is that the
19 impacts of license renewal for North Anna are small in
20 all impact areas. And this conclusion is preliminary,
21 as Eva mentioned, in the area of threatened and
22 endangered species, pending the conclusion of our
23 consultation with the Fish and Wildlife Service.

24 We also concluded that the alternatives to
25 license renewal, in at least some impact areas, that

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1 the impacts rose to the moderate and large
2 significance, in at least some areas.

3 And based on these results our preliminary
4 conclusion is that the adverse environmental impacts
5 of license renewal are such that it is appropriate to
6 maintain that option open, the option of license
7 renewal.

8 So where do we go from here? As I
9 indicated earlier, we issued the draft environmental
10 impact statement in April, the comment period began on
11 May 17th, and ends on August 1st, so we will accept
12 comments throughout that period.

13 Obviously this meeting is just one way to
14 submit comments, and I will talk a bit more about some
15 other ways that you can submit. And then we will issue
16 the final environmental impact statement by December
17 of this year.

18 I am the Agency's point of contact for the
19 environmental review, and here I've given you my phone
20 number. If you have any questions related to the
21 environmental review, please give me a call, I would
22 be happy to help you out.

23 I've also provided some information, here,
24 on where you can get access to related documents.
25 We've put the documents related to the environmental

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1 review in two libraries in this area. One is at the
2 Public Library in Mineral, and the other one is in the
3 Alderman Library, in the University of Virginia, in
4 Charlottesville.

5 In addition, the documents are available
6 on our website at www.nrc.gov. If you go to this
7 particular page, that is the environmental impact
8 statement itself. You can actually view the entire
9 environmental impact statement on line.

10 We've tried to provide a number of
11 different ways for you to give us comments. We've
12 always got the old standby, mail. And I will give you
13 the address here. You could also come by in person to
14 Rockville Pike. If you want to provide comments by
15 email, there is an email box that we've established,
16 just for this review.

17 And in addition, if you go to the
18 environmental impact statement on line, at the address
19 I showed you on the previous page, there is actually
20 an online comment form, you can submit comments that
21 way, as well.

22 So we try to give you as many options as
23 possible for submitting comments. And, of course, any
24 comments we receive today are included as well.

25 And that concludes my presentation. I

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1 want to thank you all for coming here this afternoon,
2 and taking time out to listen to us, and I will turn
3 things back over to Chip.

4 FACILITATOR CAMERON: I want to see if
5 there are questions from any of you on this final
6 piece. But, Andy, I think it might be helpful to give
7 people, at least as far as we know about it, what
8 happens after the final environmental impact
9 statement, and what sort of time line are we looking
10 at, there, for when a decision might be made?

11 MR. KUGLER: Actually there is probably a
12 little more information on the time line. But as Omid
13 explained earlier, there are multiple paths in this
14 process. We expect to issue our final environmental
15 impact statement by the end of the year. There will
16 also be a safety evaluation report written by Omid and
17 his colleagues, and there will be a letter of report
18 from the Regions on the inspection results.

19 And the Advisory Committee on Reactor
20 Safeguards will also prepare a report on their
21 evaluation. They take an independent look at the
22 work that was done to develop the safety evaluation
23 report. And then all of those parts are combined and
24 provided to the Commission.

25 I'm not sure, entirely sure of the

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1 schedule for that latter part.

2 FACILITATOR CAMERON: Do you have any
3 ideas on that, Omid?

4 MR. TABATABAI: Yes. Actually the
5 schedule goes up to July of 2003, that is the decision
6 the Commission will be making by then as to the
7 renewed license.

8 MR. KUGLER: The safety evaluation report,
9 can you give me a rough idea of the schedule on that?

10 MR. TABATABAI: The final safety
11 evaluation report is scheduled to be issued in
12 September of this year.

13 FACILITATOR CAMERON: Okay, let's go out
14 to Jerry. This is Jerry Rosenthal, again.

15 MR. ROSENTHAL: I wanted to go back to
16 postulated accidents for a quick question. I didn't
17 see any comments in there about terrorism, or the use
18 of, let's say, not going at the core, but using the
19 storage as a dirty bomb, for instance, as a potential
20 environmental impact on the lake, and downstream to
21 the Chesapeake Bay.

22 FACILITATOR CAMERON: Andy, Omid, do you
23 want to address that issue?

24 MR. KUGLER: Well, safeguard issues in
25 general are handled under the safeguards program, and

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1 this is an ongoing program that is not really included
2 in the review for license renewal, because the
3 licensee is required to maintain their safeguards
4 controls, and the security of the plant at all times.

5 And, obviously, in light of September
6 11th, there are a lot of questions about whether or
7 not we need to look again at how our security is
8 handled.

9 And that is in process. The agency has
10 established a new office that deals specifically with
11 safeguards and security. And they are in the process
12 of evaluating what changes will need to be made. But
13 it is really not included within the scope of what we
14 are doing.

15 MR. ROSENTHAL: My point, specifically, is
16 that we are in the middle of this process, so we don't
17 have the information. But it seems, if you are doing
18 an environmental impact you would go to look to do an
19 environmental impact were there an accident.

20 In other words, somebody sneaks by
21 whatever safeguards have been put in place, and
22 whatever safeguards are required by another agency.
23 Your job should be to look at the environmental impact
24 of a postulated accident.

25 And that is not included in this?

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1 MR. KUGLER: I understand what you are
2 saying. I guess what I'm saying is that what you are
3 describing isn't an accident, what you are describing
4 is an intentional act. And what we -- I understand
5 they are very similar, and in fact the results, the
6 analysis of accidents would be applicable to an event
7 of that type.

8 But then you start dealing with the
9 aspects of safeguards and security, and how is that
10 handled. That is really what your question goes to,
11 how they are handled. And that is not something that
12 is within our purview, in this review.

13 MR. ROSENTHAL: I'm not interested in how
14 the security is handled. I'm interested in what would
15 happen if something happened.

16 MR. KUGLER: I understand.

17 MR. ROSENTHAL: So we can just make the
18 assumption that you cannot predict everything that is
19 possible to happen. And so you should be looking at
20 consequences down the line. And especially severe
21 consequences.

22 MR. KUGLER: Those are evaluated. But
23 when we do our analysis, for instance, we are looking
24 at severe accident mitigation alternatives, one of the
25 things that comes into play is what is the likelihood

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1 of the event.

2 And when we start talking in security
3 space, we don't include that in this review. It is a
4 separate program that is managed at this new office in
5 the Agency. But we do evaluate what the consequences
6 of severe accidents are.

7 We look at that for all accidents, because
8 that is part of what we consider. I mean, when you
9 start talking about cost benefit, the cost is what is
10 going to happen if there is a severe event here; what
11 is it going to do to the area, what is it going to do
12 to economy? What is it going to do to the people
13 around here?

14 And so that is considered, included in
15 that that --

16 FACILITATOR CAMERON: Let's make sure this
17 is clear to everyone, because I think it may be a
18 little fuzzy. Based on what you said, it is my
19 understanding that when we do this particular severe
20 accident mitigation alternative analysis, for purposes
21 of license renewal, we only look at -- we don't look
22 at sequences that could be started by an intentional
23 act. Is that correct?

24 MR. KUGLER: We don't include sabotage as
25 an initiating event. What I'm saying is that the

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1 consequences that follow would be essentially the same
2 as other severe accidents.

3 FACILITATOR CAMERON: So, I mean, it has
4 to be clear to people that in this analysis we didn't
5 look at intentional acts. And I think that one of the
6 things that we probably have to consider, as a
7 comment, is the implication of what Mr. Rosenthal was
8 saying, is that perhaps intentional acts, intentional
9 initiating sequences should be looked at.

10 But the other thing that you are saying is
11 that we are looking at intentional acts. And, maybe,
12 John did you want to try to clarify this?

13 MR. TAPPERT: Yes. I don't know if we are
14 just muddying the waters here, or not. But what we
15 are here for today is we are assessing the impacts of
16 license renewal, which is operating this facility for
17 an additional 20 years.

18 Worrying about sabotage attacks, specially
19 in post 9/11 world is a today problem. It is not
20 something we are going to worry about in 2018, or
21 2020, it is something we need to address today.

22 And the Agency is addressing it today. We
23 formed a new office, we've issued orders to the 103
24 operating nuclear power plants, to implement
25 compensatory actions, to increase their security

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1 posture.

2 And we are also doing a top to bottom
3 review to find out what exactly is the threat in the
4 modern world today. So these things are things that
5 we are doing today, that aren't going to be tied to
6 license renewal, and that is why you are not going to
7 see those impacts in the document that we are sharing
8 today.

9 So two things, it is not in the document,
10 but we are addressing it.

11 FACILITATOR CAMERON: Okay.

12 MR. ROSENTHAL: Back to something that is
13 -- I saw, it said, the risk of a tornado is something
14 to ten to the minus fifth, the chance of it happening.
15 However, there is a chance that a tornado could hit
16 the North Anna Site, pick up a dry cask, hit the dry
17 cask storage facility, pick them up, and throw them
18 into the lake.

19 I assume that is --

20 MR. KUGLER: The casks are designed for --
21 I don't know -- a separate office handles the design
22 of the cask, but I know that they are designed for
23 events, I mean, they are not designed for
24 transportation, at this point, the ones that are here.

25 But they are designed to be able to

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1 withstand severe external events. I guess that would
2 be the best way to put it. These are not just, you
3 know, inside a can. But, yes, I mean when we
4 considered in the analysis is the likelihood and the
5 consequences.

6 FACILITATOR CAMERON: Just to be clear,
7 again, on this for everybody, including Mr. Rosenthal,
8 we said that intentional events, sabotage, for
9 example, is not included in the so-called SAMAs
10 analysis.

11 Are natural hazard events like tornadoes
12 included?

13 MR. KUGLER: Yes.

14 FACILITATOR CAMERON: Okay. At least those
15 are analyzed. All right, good. Any further questions
16 before we go on? And I promise you, we will get back
17 to a discussion on the issue that was raised before,
18 that is of concern to both Mr. Murphey and Mr.
19 Rosenthal.

20 Okay, let's go over to Mr. Murphey.

21 MR. MURPHEY: The last part of it. In
22 your analysis of severe accidents, did you include an
23 analysis of what would have happened at Davis Besse if
24 the pressure vessel had been breached?

25 MR. KUGLER: I am not certain that it

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1 includes specifically that item. What we do include
2 are events that go beyond the design basis, and the
3 need to evaluate the reactor vessel failure, to a
4 failure of the containment. Events of that type are
5 considered.

6 And, obviously, the consequences of an
7 event of that nature are extremely severe, which is
8 why we work so hard to make sure the likelihood is so
9 small.

10 FACILITATOR CAMERON: And just to be clear
11 on that, too, from my sense of the question, is when
12 we do a severe accident mitigation alternatives
13 analysis, and we are looking at initiating events, is
14 an event like what happened at Davis Besse usually
15 considered in the analysis as an initiating event?

16 I mean, I know it depends on the plant,
17 but we would capture that, wouldn't we?

18 MR. KUGLER: I'm certain we included
19 events that involve large breaks, which drained the
20 vessel rapidly, failure of vessel that leads to a
21 failure of the fuel, and considered some of the events
22 that the containment fails as well.

23 I would have to go back and talk with our
24 reviewers to find out specifically if they looked at
25 a breach of the vessel head, if you want to be that

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1 specific. But I'm certain breaches of the vessel, or
2 the piping to the vessel is considered.

3 FACILITATOR CAMERON: Okay, all right.
4 Thank you very much. Thank you for those questions,
5 too, they were good questions.

6 Omid, do you have one other thing to say?

7 MR. TABATABAI: I just wanted to tell Mr.
8 Murphey that there are several phases for accident
9 management, there are in-vessel accident management,
10 and they are all postulated in the risk assessment
11 analysis that the NRC has actually reviewed.

12 And the utilities have done those kind of
13 analysis. And there are engineering safety features
14 to cope with all of those accidents.

15 FACILITATOR CAMERON: Okay, thank you,
16 Omid, thank you Andy. Let's go to our speakers for
17 this afternoon.

18 And first we are going to go to Mr. Jack
19 Wright, who is a member of the Louisa County Board of
20 Supervisors, Supervisor Wright, do you want to come up
21 here?

22 MR. WRIGHT: I'm Jack Wright, I'm with the
23 Board of Supervisors of the southeastern portion of
24 the county. And to make sure that I'm concise, and I
25 put all my points in, I will basically read, and make

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1 sure I can see it.

2 First of all, North Anna is a good -- they
3 are good corporate citizens of Louisa County. They
4 are vital to the economic development of Louisa County
5 for these reasons: Employment opportunity, recreation
6 areas for many people and their families, development
7 that has been, and continues to be built around the
8 lake.

9 There are volunteer projects in which the
10 employees have participated, and these are many things
11 that they have done for the county, and assisted us
12 with.

13 The voluntary contributions the
14 corporation has made to many county projects, and not
15 least of all the tax revenue source to the county,
16 tremendous tax revenue.

17 It is a well managed corporation. They've
18 shown signs of this in so many ways, in the nine years
19 that I have lived here, which is a key to any kind of
20 good operation.

21 They are very safety conscious, which is
22 vital to our county of Louisa, and most of you have
23 just discussed this in some detail, but very safety
24 conscious.

25 We want them to continue as a part of

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1 Louisa County for many years to come. Thank you.

2 FACILITATOR CAMERON: Thank you, very
3 much, Mr. Wright. Next we are going to hear from two
4 officials from the safety and emergency preparedness
5 field. First of all we are going to go to Maj. Donald
6 Lowe, who is with the Sheriff's office in Louisa
7 County.

8 Please come up here.

9 MAJ. LOWE: Thank you, sir. Good evening,
10 ladies and gentlemen. I'm Maj. Lowe, from the Louisa
11 County Sheriff's office, and I'm just going to take a
12 couple of minutes of your time, and talk a little bit
13 about safety and security at North Anna.

14 I have been fortunate to have a
15 professional working relationship with North Anna, off
16 and on, probably for over the last 22 years, and also
17 fortunate enough to be able to experience a lot of the
18 programs that they have, in terms of security.

19 I have been through their security
20 training, I've been through a lot of safety training,
21 I've seen management's attitude, and commitment to
22 excellence in this field.

23 And I have to say that I'm extremely
24 impressed here, not only by the quality of people, and
25 the quality of programs that they have, but the

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1 attitude in general. I think that they are very
2 concerned about this county, and the safety and
3 welfare of this county.

4 And they are also good corporate neighbors
5 for us. The things that they do for our county in
6 terms of support to the county itself. And I know in
7 law enforcement agencies, and emergency services, and
8 other agencies, they have been tremendous in that
9 area.

10 And I think you can look at that, over the
11 last couple of weeks, it is just simply by the
12 volunteers that were walking up and down the streets
13 here, in the county, picking up bags and bags of
14 litter, that were on the side of the road, these are
15 volunteers. And that is all attitude.

16 The post 9/11 events naturally are a major
17 concern for us here. And I can say, without getting
18 into a grey area about safeguards stuff, that the
19 protection of North Anna is of paramount importance to
20 law enforcement agencies in this county, and
21 surrounding counties, and the Federal government.

22 And that we are aggressively pursuing all
23 our options, and anything that is available to us, to
24 make sure that North Anna is a safe place here. That
25 the security team down at North Anna is probably one

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1 of the best I've seen. And the leadership there is
2 excellent.

3 The training that they get in the security
4 training down there, in some areas, probably exceeds
5 what the normal law enforcement agency would probably
6 receive in some of those areas.

7 Again, I feel very comfortable with North
8 Anna being there. And I guess the only way I can kind
9 of prove my assertions up here is just to let you know
10 that over the last month or so, we finally finished
11 building our house two miles from North Anna.

12 And I feel very safe, and very happy, and
13 I tell you, it is a pleasure to not only work with
14 these people, but associate with them, and have them
15 be a part of the community here.

16 FACILITATOR CAMERON: Thank you very much,
17 Maj. Lowe.

18 Next we are going to go to Duff Green, who
19 is with the emergency operation center in Orange
20 County.

21 MR. GREEN: My name is Duff Green, I'm the
22 emergency management coordinator for Orange County,
23 Virginia.

24 Others have given the background. I'm
25 eighth generation native of Orange County. I'm a

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1 graduate from the University of Virginia with a major
2 in biology, and I appreciate the environmental concern
3 that the NRC has for North Anna.

4 But being a native, here for 74 years, I
5 have never seen a bald eagle. I served almost 20
6 years on the Orange County Board of Supervisors, the
7 following four years as chairman of the board.

8 I'm not employed by Dominion/Virginia
9 Power, I have no relatives who work there, and I do
10 not own any stock in this electric company. On the
11 other hand I've had an association with the North Anna
12 Nuclear Power Station since the late 1970s, when I
13 first went on the Orange County Board of Supervisors.

14 The reason for this being the fact that
15 Orange is considered one of the five risk counties
16 surrounding the power station, and the board of
17 supervisor's chairman, by Virginia law, is the
18 director of emergency management.

19 As the emergency management coordinator
20 one of my jobs is to study, train, and maintain plans
21 for a possible radiological accident that may occur at
22 the North Anna plant.

23 We hold numerous drills of all kinds in
24 cooperation with NAPS, and we make numerous visits to
25 the plant for training, and information. As an

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1 outsider I'm convinced that the North Anna Power
2 Station is an excellently run plant with highly
3 trained professionals in charge.

4 They keep my office informed on all
5 activities, even the most unimportant occurrences.
6 There are simulated drills by evaluators from the
7 Federal Emergency Management Agency.

8 North Anna Power Station has been an
9 outstanding neighbor in our community. It has been an
10 economic boon to Orange County for more than 30 years,
11 providing well paid jobs to many of our citizens.

12 My office is staffed by more than 30, all
13 volunteer men and women, and all the basic office's
14 expenses are paid by the County Board of Supervisors,
15 the only funding we receive in my office comes from
16 North Anna Power Station.

17 I have nothing but praise for this
18 Dominion/Virginia Power operation. Its open
19 communication, and its safety conscious employees.
20 Thank you.

21 FACILITATOR CAMERON: Thank you very much,
22 Mr. Green.

23 Before we go to some other members of the
24 community, we are going to hear from some officials of
25 Dominion/Virginia Power to talk, tell us a little bit

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1 about their rationale for license renewal, their
2 vision behind this.

3 And first we are going to go to Mr. Jack
4 Davis, who is the director of nuclear safety and
5 licensing at the North Anna station, and then he will
6 be introducing you to Jud White, who is the
7 environmental manager for Dominion. Jack?

8 MR. DAVIS: Thank you. Good afternoon,
9 ladies and gentlemen. I'm Jack Davis, and I'm the
10 director of nuclear station safety and licensing at
11 North Anna Power Station.

12 I would like to take this opportunity to
13 thank the Nuclear Regulatory Commission for holding
14 this important meeting to receive public comment on
15 the NRC's supplemental environmental impact statement
16 that supports Dominion's application for license
17 renewal for North Anna Power Station.

18 We welcome the public comment process, and
19 we believe that Dominion, Louisa County, and other
20 nearby communities all have a stake in the future of
21 North Anna Power Station.

22 As an employee of Dominion I'm excited
23 about the license renewal for North Anna. A renewed
24 license would not only be important to Louisa County
25 and Virginia, but also to me and 852 other North Anna

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1 employees, whose livelihood depends upon providing
2 safe and reliable electricity to the customers of this
3 state.

4 That is not to mention the future
5 employees that will be required to continue the safe
6 operation of the plant well into this century.

7 Currently, North Anna provides about 17
8 percent of the electric power used in Virginia. A
9 renewed license would ensure that we could continue to
10 provide that safe, reliable power, to our customers.

11 Additionally, renewed licenses would
12 assure the local community that it will continue to
13 reap the benefit of having a large employer in the
14 area, and Louisa County would continue to receive the
15 tax revenue from the station's operation.

16 Just as an aside, North Anna Power Station
17 has provided 170 million dollars in tax revenue to
18 Louisa County since the station started building some
19 30 years ago.

20 I would like to digress for just a moment,
21 and tell you a little bit about myself, and how I came
22 to be associated with North Anna Power Station. I
23 began my professional life in the nuclear Navy, during
24 which time I had the pleasure of three tours as
25 commanding officer -- first of the USS Baton Rouge, a

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1 nuclear powered attack submarine, then the Navy's
2 three reactor training facility, near Idaho Falls,
3 Idaho. And last, the USS L.Y. Spear, which is a
4 nuclear submarine repair ship.

5 I joined Dominion in the fall of 1997 as
6 the assistant superintendent of outage and planning.
7 And in the summer of 1999 I entered the senior reactor
8 operator license class, and received my license from
9 the Nuclear Regulatory Commission in October of 2000.
10 In November of that same year I assumed my current
11 duties at the station.

12 North Anna Power Station has a long
13 history of safe, reliable, and efficient operation.
14 Since the 1990s North Anna has consistently ranked as
15 the most efficient producer of nuclear generated
16 electricity in the United States, on a three year cost
17 average.

18 The station has also achieved, and
19 continues to achieve, high marks in safety and
20 security performance from the Nuclear Regulatory
21 Commission, and from the Institute of Nuclear Power
22 Operations.

23 During the period 1993 through 1997, the
24 Nuclear Regulatory Commission, in its oversight
25 program, then known as the systematic assessment of

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1 licensee performance report, graded North Anna as
2 having superior safety performance in all station
3 functional areas.

4 Under the NRC's new reactor oversight
5 process the results of which are updated quarterly, on
6 a quarterly basis, on the Commission's website, North
7 Anna continues to fully meet the NRC safety
8 cornerstone objectives.

9 Additionally, since 1991, the Institute of
10 Nuclear Power Operations has also consistently awarded
11 North Anna its highest marks for nuclear safety and
12 operational excellence.

13 As to environmental performance, our
14 commitment to environmental stewardship dates back to
15 the construction days of the power station in '60s and
16 '70s. North Anna Power Station was designed so that
17 the water that is used to cool the steam that
18 generates electricity, discharges into an innovative
19 3,400 acre system of lagoons that returns the water to
20 Lake Anna at nearly normal temperatures.

21 We also have a conservation effort that
22 focuses on protecting and enhancing fish populations
23 in the lake. Special structures of brush and cinder
24 blocks were constructed and sunk in the lake to
25 improve the fish habitat.

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1 Our biologists regularly sample, or
2 monitor the health of the fish population. And that
3 data is compared with data that was taken prior to our
4 first day of operation.

5 These comparisons have consistently shown
6 that North Anna Power Station is not harming the
7 lake's fish population.

8 In preparing North Anna's relicensing
9 application more than 50 individuals have spent,
10 literally, thousands of hours reviewing all
11 environmental aspects of continued plant operation.

12 The report concluded that continued
13 operation of North Anna Power Station beyond 40 years
14 will not negatively impact the environmental
15 surrounding of the plant.

16 In a moment Dr. Jud White, Dominion's
17 manager of environmental policy and compliance, will
18 share with you more about our environmental programs,
19 and review the findings of the NRC draft report.

20 Finally, I would like to thank you all on
21 behalf of Dominion for allowing us to do business in
22 Louisa County. We strive to be a good corporate
23 citizen, and have enjoyed the professional supportive
24 working relationship that we have with the county, and
25 the other local communities surrounding the station.

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1 As many of you know, Dominion has a long-
2 standing tradition of investing in the communities it
3 serves through volunteer and philanthropic activities.
4 Many of our employees demonstrate their commitment to
5 the community by participating in programs such as
6 Adopt a Highway, Thanksgiving Baskets for the Needy,
7 blood drives, supporting the area Boy Scouts, and many
8 other community activities.

9 Our volunteer programs and civic
10 participation are an essential element of Dominion's
11 corporate philosophy. We will continue our commitment
12 to our communities in the future.

13 Again, I appreciate the opportunity to
14 speak to you about North Anna Power Station's license
15 renewal. I would now like Jud White, if he would
16 provide you some more details on the environmental
17 aspects of our application. Jud?

18 DR. WHITE: Thank you, Jack. As Jack
19 said, my name is Jud White, I'm the environmental
20 manager at Dominion, with responsibilities for
21 environmental compliance activities at all of our
22 power stations in Virginia, as well as other states.
23 But it also includes the North Anna Power Station.

24 I have over 25 years experience in the
25 environmental field. My first ten years of my career

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1 I spent at North Anna, with responsibilities for
2 studies, environmental studies in the lake, as well as
3 the downstream North Anna River.

4 I do have a master's degree in Biology,
5 and a PhD in environmental policy. I was directly
6 involved and helped in assisting the Dominion nuclear
7 team, helping them prepare the license renewal
8 application to NRC. And, in particular, I helped
9 develop the environmental report to the NRC, and
10 coordinated with Federal and state environmental
11 agencies.

12 We commend the NRC in developing what is,
13 in my opinion, a high quality and professional draft
14 supplemental environmental impact statement. The
15 impact statement is a thorough, in my opinion, and
16 accurate scientific assessment of the potential
17 environmental impacts associated with the proposed
18 action.

19 We support and agree with the conclusions
20 of the NRC Staff that renewing the North Anna Power
21 Station operating license is a reasonable action that
22 will not result in any noticeable impact to the
23 environment.

24 Basically this means, as has been said
25 several times already, that the license renewal option

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1 is preserved, or remains acceptable for the power
2 station to continue to provide safe and reliable, and
3 clean electricity to the Commonwealth of Virginia.

4 We prepared, over a several year period,
5 and submitted to the NRC an extensive environmental
6 report for license renewal that was part of the
7 information used by NRC in developing their
8 supplemental environmental impact statement.

9 I say in part because it was just one area
10 where the NRC relied on information. They had other
11 sources including what was mentioned earlier, the
12 Generic Environmental Impact Statement, the extensive
13 consultation with Federal, state, and local
14 authorities, and environmental agencies, independent
15 review by the NRC Staff, National Laboratory
16 consultants, and the consideration of the public
17 comments during the scoping process, which was held
18 last fall, here.

19 Of particular note, relative to
20 information sources, Dominion proactively engaged in
21 discussions and meetings with key state, Federal, and
22 environmental agency staffs very early in the license
23 renewal process.

24 This helped ensure that all issues were
25 identified and appropriately addressed in the

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1 environmental review submitted to NRC. Dominion also
2 proactively communicated with environmental and other
3 pertinent stakeholders about license renewal.

4 This helped considerably, in my opinion,
5 in the development of a thorough and accurate report.
6 The report speaks specifically, and it has been
7 mentioned somewhat previously, about specific impacts
8 to fish, various aquatic resources, and is listed in
9 detail in the report.

10 The report goes back to studies that began
11 in the early '70s, even before the plant went
12 operational. The creation of Lake Anna, a key point
13 for this area, it created by damming up the North Anna
14 river, it created Lake Anna, which is a 9,600 acre
15 impoundment.

16 It basically ameliorated the effects on
17 the communities downstream from Contrary Creek, which
18 is a known source of acid mine drainage in the area.
19 And as a result of impounding the river, and creating
20 the lake, that impact was greatly reduced.

21 Also many of you who are fishermen
22 probably are well aware that Lake Anna continues to
23 rank high in the state as a trophy bass lake in
24 Virginia, which is a clear indication that the
25 underlying food chain, on which it depends, is healthy

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1 and stable.

2 Based on the review of all of the
3 historical information, including the annual
4 monitoring, which does continue today, the NRC
5 concluded that potential impacts to aquatic organisms
6 are small, and that additional mitigation is not
7 warranted, and we do agree with that finding.

8 To work with the NRC in evaluating the
9 current applicability of the Generic Environmental
10 Impact Statement, that information in it, as it
11 pertained to generic issues, requiring no further
12 review, Dominion developed an internal procedure, and
13 protocol, to identify any new and significant
14 information related to those issues that NRC
15 identified as generic.

16 As a result of that process no new
17 information was identified, but we did go through the
18 process, as it was important to do. This activity is
19 considered very important, in my opinion, in all
20 license renewal projects for verification of the
21 findings in the Generic Environmental Impact
22 Statement.

23 We also agree with the NRC findings that
24 the potential impacts of license renewal for the
25 remaining environmental issues evaluated separately in

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1 the impact statement are small, and of noteworthiness
2 is that a significant consideration is that there is
3 no new major construction or land disturbing activity
4 associated with this license renewal process.

5 As a result a lot of the impacts were
6 considered small. In essence current measures to
7 mitigate environmental impacts associated with
8 operations were found to be adequate.

9 Dominion, and its entire staff, its entire
10 environmental staff, takes pride in its environmental
11 performance, and its positive relationships with
12 environmental agency staffs, environmental
13 organizations, the general public, and community
14 neighbors.

15 It goes without saying that developing
16 that relationship takes time to foster, as well as a
17 major commitment by upper management for openness and
18 candor, which I'm proud that we have.

19 Examples of these relationships that we
20 have with the various groups and organizations,
21 including the Department of Environmental Quality, the
22 Virginia Department of Game and Inland Fisheries, Lake
23 Anna Civic Association, as well as Lake Anna Advisory
24 Committee, and the River Association.

25 In this license renewal process we want to

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1 ensure that we continue on this path, and not do
2 anything adversely impacting our future performance or
3 relationships with these groups.

4 Dominion believes that our obligation to
5 provide safe and reliable energy from nuclear power
6 extends well beyond this license renewal milestone.
7 Federal, state, and local oversight will continue to
8 test and challenge, just as it does today, our
9 standard of environmental excellence, and the conduct
10 of our daily business.

11 We welcome all comments on the contents of
12 this supplemental environmental impact statement,
13 during the comment period, and we look forward to
14 working positively and constructively with NRC staff.
15 Thank you.

16 FACILITATOR CAMERON: Thank you, Jud. We
17 are going to start with Mr. James Kogle, then we will
18 go to William Murphey, and then to Jerry Rosenthal.
19 Mr. Kogle?

20 MR. KOGLE: Good afternoon. I'm Jim
21 Kogle, I'm vice president of the Windwood Coves
22 Property Owners Association in Louisa County.

23 Windwood Coves represents a residential
24 community of approximately 260 properties, which about
25 50 percent are currently built up. We are a mixture

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1 of full time residents, and also some weekend people,
2 that are certainly enjoying the lake.

3 We are located about a mile north, if you
4 will, up lake from the plant. I have been associated
5 with Virginia Power since I went on our first Board of
6 Directors back in the mid-1960s, when Windwood Coves
7 was developed.

8 And I must say our experience with
9 Virginia Power has been nothing but absolutely
10 terrific. They have been wonderful neighbors, very
11 sensitive to the environment, sensitive to
12 recreational issues. And we certainly support, very
13 much, the relicensing effort of the power plant.

14 Thank you.

15 FACILITATOR CAMERON: Thank you Mr. Kogle.
16 Next let's hear from Mr. Murphey.

17 MR. MURPHEY: Hi, my name is Bill Murphey,
18 I'm a resident of Louisa County and, in fact, live
19 right on the lake myself.

20 First thing is I'm in favor of renewing
21 the license for North Anna. I think it is a safe
22 operation, I think it is a benefit to the population
23 as a whole, and Louisa County in particular.

24 Second is I would like to encourage NRC to
25 very carefully consider the credibility situation

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1 following the Davis Besse incident. And we ask, did
2 you analyze so and so? You said, yes, we analyzed it.
3 But it is your credibility that lets the public accept
4 that statement of analysis.

5 Third is actually the plant is a benefit
6 to the environment. Mr. Green hasn't seen any eagles,
7 but we have certainly seen them. There are a couple
8 that fish on Contrary creek, there is one that fishes
9 right across from us at the state park.

10 And at one time we were sitting out, and
11 there was one fishing right in front of our house. So
12 we know there are eagles there, we've seen them.

13 The second part of the environment is the
14 warm blooded part, and that is there is estimated that
15 there are about 500 beavers around the lake. That
16 population has remained constant over the past 20
17 years.

18 We have seen fresh water otters, muskrats
19 there as well. And so I would go to the other side
20 and say that the existence of the plant is actually a
21 benefit to the habitat of the wildlife, and has
22 increased the wildlife around in this area.

23 So the final close, we are in favor of
24 renewing the license, and thanks for the statement.

25 FACILITATOR CAMERON: Thank you, very

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1 much, Mr. Murphey. And let's go to Mr. Rosenthal.

2 MR. ROSENTHAL: I'm Jerry Rosenthal, I'm
3 the president of Concerned Citizens of Louisa County.
4 We have been an environmental organization dealing
5 with North Anna for over 25 years.

6 Been involved with the Concerned Citizens
7 since Virginia Power first proposed transshipping
8 waste from Surry, to store up at North Anna, which
9 they assured us if they did not get that waste moved
10 from Surry to North Anna, they were going to close
11 North Anna. Of course that never happened. We will
12 deal with that.

13 A few other quick notes. I'm a fifth
14 generation Virginian, I'm a stock owner on Dominion
15 Power, and I have a list of comments, and I'm going to
16 comment by the page number. And you can take it from
17 there, out of the book.

18 On page 2-10 it says: There is not going
19 to be increased liquid waste releases in the next 20
20 years. The question with all the releases, and the
21 stuff, the gaseous, the liquid, or the solid waste, is
22 we are talking about comparative versus cumulative?

23 There are going to be greater releases if
24 the plant is extended for 20 years. That is logical.
25 They are there, it is going to be operating. They may

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1 not be releasing more five years from now, than they
2 are releasing now, but cumulatively they will be
3 releasing more.

4 On 2-12, the low level compact for
5 radiological waste, is non-operational. Barnwell
6 promises to close to outside, people from outside
7 South Carolina. The low level waste is currently
8 stored on-site, including two generators, with no
9 plans to be cut and removed.

10 There are significant problems with
11 storage, disposal, and accumulation of low level solid
12 waste, radioactive.

13 I heard a person laugh about the chance of
14 a tornado striking the plant. What are the chances
15 that four airplanes would be simultaneously hijacked
16 and flown into public buildings? These same people
17 would have laughed a year ago if somebody had said
18 this. But we have to deal with possibilities.

19 On 2-27, and following the pages there,
20 they keep referring to Richmond County. Richmond
21 County happens to be all the way on the eastern part
22 of Virginia, not anywhere near here. All of the
23 comments related to the sociological stuff that relate
24 to Richmond County are ridiculous, they have nothing
25 to do, and they should not belong in there at all.

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1 On 2-41, Tradewinds they put in there as
2 a major employer, they folded. Actually the major
3 employment in the county, outside of Dominion Power,
4 are the schools and the government, which were not
5 mentioned at all.

6 In 4-4, they say thermal stratification to
7 the lake is not a problem, but on 4-16 it is noted in
8 the thing as pronounced in the lake. I'm not sure how
9 you can either have it pronounced and not a problem,
10 or maybe stratification is not a problem.

11 On 4-24, long term effects of exposure to
12 low level radiation has not been studied, we don't
13 have information. What are the effects for 30 years?
14 So we are having a hard problem to know how these
15 effects could be judged or estimated.

16 On 4-40 Virginia Dominion Power is
17 building a new building at the plant site, which is
18 going to affect water use and quality, as well as
19 discharge. That information is not included in here.
20 This new building was just announced this month.

21 On 5-5, the NRC and VEPCO's reports have
22 been challenged by many people, their mathematical
23 modeling. And I don't even need to go much further
24 than just saying that all of those mathematical models
25 are sort of bogus.

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1 In 6-3 and following, let's get the
2 figures right out there. How many tons of uranium are
3 going to be mined, how many tons are going to be
4 processed? What are the effects? They are saying,
5 right in there, 12 additional cancer fatalities are
6 going to be expected because of the renewal of this
7 license.

8 Who, in Louisa County, wants a member of
9 their family to be one of those 12? You live here in
10 the county, do you want a friend or a member of your
11 family, your grandchild, your child, to be one of
12 these additional 12 cancer fatalities?

13 What kinds of cancer, how many additional
14 cases of cancer? These are fatalities. They are
15 saying there is no significant impact, and we are
16 talking about 12 people who are going to die. That is
17 no impact?

18 There is a financial impact, there is an
19 emotional impact. Specifically, it is going to affect
20 the people who live up at the lake. I think they
21 should know that.

22 Go back to your association and tell them
23 that 12 additional people, there are 12 additional
24 cases of cancer, and see what type of support you get.

25 On 6-8, on-site spent fuel. The pool is

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1 not designed to hold the waste for more than X number
2 of years. And from its original design they've
3 already crammed more fuel in there than was originally
4 designed.

5 We need to have an analysis of what are
6 the effects of a concrete pool with another 20 years,
7 with all that radiation. The pads are limited.
8 Louisa County has the right to limit storage of waste
9 on those pads.

10 That was part of the conditional use
11 permit. If the county limits the waste storage on the
12 pads, what are the effects, where are they going to
13 put the waste?

14 If we are opening for 20 more years, and
15 the county doesn't allow it, where is that waste going
16 to be? If they don't allow it there, they are going
17 to have to have another one, and there is going to be
18 an environmental impact.

19 When we start talking about the 8-23,
20 natural gas, two new natural gas plants are already
21 being built in this area. One in Gordonsville, and
22 one in Fluvana. Another one is proposed in Gum
23 Springs.

24 These plants already have natural gas, and
25 transmission lines, and can produce up to 65 percent

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1 of North Anna's annual net output. The whole
2 discussion they had in there about putting a natural
3 gas plant at North Anna, and having to bring natural
4 gas lines from Gordonsville, and all this disruption,
5 it was just a waste of time and energy.

6 That wasn't going to happen. Dominion
7 already is one of the largest natural gas producers,
8 and marketers in the country. They are putting up
9 natural gas plants, they've cancelled, in the last
10 year, they've canceled more plants than had the output
11 of North Anna, that they had already announced.

12 There is a surplus of electricity right
13 now, and a surplus of plants. The plants are being
14 cancelled.

15 In 8-45 and following, again the
16 discussion, no one source has to replace all of North
17 Anna's production. Which was also noted earlier in
18 there, by doing things like reduction on demand, or a
19 combination. This entire section is fundamentally
20 flawed, logically and realistically.

21 And that is even noted, later, on page 8-
22 49. The Staff's conclusion that these things could
23 happen is seriously flawed. Dominion itself is
24 constructing new power plants.

25 And conservation and management demand

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1 could, by itself, save if they close North Anna, could
2 save all of the production that is going on right
3 there.

4 On 8-15, DOE Secretary Abraham has already
5 determined that Yucca does not have enough space for
6 the current waste that is being produced at the
7 nuclear power plants. They can't put the high level
8 waste away. And now we are going to add 20 more years.
9 Where is that going to go?

10 They don't have it, it is a fundamental
11 flaw, you can't produce it if you don't have a place
12 for it to go. Even with Yucca fully operational, they
13 can't take the waste from the nuclear power plants. It
14 is ridiculous to say we will do it, and then we will
15 deal with it later.

16 On 8-15 and 16, with MOX, Virginia Power
17 is not out of the contract, they have not signed out
18 of the contract on MOX. They bring the letter saying
19 they are not going to do it.

20 They flip flopped, lied, whatever you want
21 to say, three or four times about their use of MOX.
22 If MOX is used here, that changes the profile of the
23 storage, waste, and all accidents. And significantly
24 changes the environmental review.

25 Lastly, concerning security, I've been

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1 around the world since 9/11, and I can tell you this.
2 We are not prepared, we are not prepared for what is
3 going to happen, and we are not prepared for the
4 response.

5 It is a sad thing, America is a wonderful
6 open society, and we are just not ready. So I
7 encourage the NRC to take this very seriously, and
8 look at it, and try to deal with the real reality of
9 this new world since 9/11. Thank you.

10 FACILITATOR CAMERON: Thank you, Mr.
11 Rosenthal for those detailed comments.

12 Before I ask Andy to address the question
13 from before, we did get a letter from the Town Manager
14 here in Louisa, Mr. Morrison, who couldn't be with us
15 today, and we are going to attach that to the
16 transcript.

17 But because it has been submitted I
18 thought I would just read one main paragraph, for your
19 information. It doesn't mean anything more than that.
20 And this is from Mr. Morrison, Town Manager of the
21 Town of Louisa.

22 North Anna Power Station's commitment to
23 the environment is above reproach. Nuclear energy
24 itself does not produce any of the air emissions
25 associated with fossil fuel generation plants. Thus

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1 nuclear generation helps to protect the environment.
2 The company's conservation efforts focus on protecting
3 and enhancing fish populations, as well as migratory
4 birds through policies, procedures, and permits
5 obtained from the United States Fish and Wildlife
6 Service.

7 As good stewards to the environment,
8 Dominion biologists regularly monitor the health of
9 fish populations with no harmful results found. As I
10 perceive it, North Anna Nuclear Power Station is
11 environmentally safe, environmentally sound, and
12 environmentally responsible.

13 If you want to see the entire letter it is
14 on the transcript. And, Andy, I will just ask you to
15 make sure that we have a copy of this, also, to take
16 back to Rockville with us.

17 Now, Andy, do you have -- are you ready to
18 respond to the question that was asked previously?

19 MR. KUGLER: Jerry, you raised a question
20 related to the inspections of the vessel heads, and
21 results of that.

22 What I have here is a letter that Dominion
23 wrote back to us. This is in response to bulletin
24 2002-01. And I believe that bulletin was as a result
25 of -- that may be the result of the Davis Besse --

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1 But, at any rate, they have inspected the
2 vessel heads. And I think this may be what you were
3 referring to. On North Anna Unit 1 they did find some
4 boron deposits on the reactor vessel head.

5 And what I was saying was they didn't find
6 any wastage. In other words, there was boron there,
7 but it had not been corroded the metal. I guess I
8 believe that -- I'm not an expert in this area, but I
9 believe that they indicated that it had not been there
10 very long, or at least it had not had an environment
11 that encouraged the corrosion.

12 The boron deposits by themselves won't
13 corrode it, you have to have moisture. And normally
14 there is plenty of moisture in the containment, that
15 is the nature of it.

16 I'm trying to see what else I've
17 highlighted here. There it is, "Degradation (in other
18 words, wastage of the reactor vessel head base metal)
19 was not observed on the reactor vessel heads,
20 including the area around the penetrations that
21 required repair or evaluation after boric acid
22 residue/deposits were removed" when visual inspections
23 were performed.

24 I'm trying to see if there is anything
25 else. "In the case of North Anna Unit 1, and Surry

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1 Unit 1, even where leakage was suspected, no evidence
2 of reactor vessel head degradation was found and the
3 repairs that were completed should prevent future
4 leakage at the affected locations."

5 So do you know, were you referring to the
6 places where they found boron, is that what you were
7 referring to?

8 MR. ROSENTHAL: I had read in the internet
9 story, in response to Davis Besse, in which they
10 listed the reactors which they had found -- I mean, it
11 came from Reuter's, so it is hard to tell what they
12 really were commenting on.

13 But they had mentioned different reactors
14 around the country, and North Anna was in there, and
15 it said, I think they said 17 or 19 spots of boron
16 degradation. Now, I don't know if it is degradation,
17 or --

18 MR. KUGLER: Right. This report doesn't
19 list how many, but it does indicate there were places
20 where there were boron deposits, but there wasn't any
21 sign of where it actually corroded. That is the
22 report that we received.

23 FACILITATOR CAMERON: And I think those
24 are the facts in that report, and the term used was
25 deposits. Okay, thank you.

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1 Was there anybody else who wanted to make
2 a statement before we adjourn?

3 (No response.)

4 FACILITATOR CAMERON: We are going to be
5 here tonight at 7 o'clock for a meeting, open house at
6 6 o'clock, for those of you who might want to talk
7 with us.

8 But thank you for concern, comments,
9 detailed comments, your questions are always important
10 for us to heed the admonitions about the credibility
11 of our program. And so we thank you all. And we will
12 be here at 7 o'clock. We are adjourned.

13 (Whereupon, at 3:25 p.m. the above-
14 entitled matter was concluded.)

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