

Official Transcript of Proceedings

NUCLEAR REGULATORY COMMISSION

Title: McGuire Nuclear Station, Units 1 and 2
License Renewal Draft EIS - Public Meeting
Afternoon Session

Docket Number: 50-369 and 50-370

Location: Huntersville, North Carolina

Date: Wednesday, June 12, 2002

Work Order No.: NRC-421

Pages 1-55

NEAL R. GROSS AND CO., INC.
Court Reporters and Transcribers
1323 Rhode Island Avenue, N.W.
Washington, D.C. 20005
(202) 234-4433

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

U.S. NUCLEAR REGULATORY COMMISSION

+ + + + +

MCGUIRE NUCLEAR STATION, UNITS 1 AND 2

LICENSE RENEWAL

DRAFT ENVIRONMENTAL IMPACT STATEMENT

+ + + + +

PUBLIC MEETING

+ + + + +

WEDNESDAY, JUNE 12, 2002

The meeting was held at 1:30 p.m. at the Central Piedmont
Community College, North Campus, 11930 Verhoeff Dr., Huntersville, North
Carolina, Chip Cameron, Facilitator, presiding.

PRESENT:

CHIP CAMERON, FACILITATOR

JOHN TAPPERT

RANI FRANOVICH

JIM WILSON

BECKY HARTY

BOB PALLA

BARRY ZALCMAN

ALSO PRESENT:

LOU ZELLER

ROBERT MAHOOD

BOB ANDERSON

JACK PEEL

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1	A-G-E-N-D-A	2
2		<u>Page</u>
3	Welcome - Facilitator Cameron	3
4	John Tappert	8
5	Overview of license renewal process	
6	Rani Franovich	10
7	Overview of Environmental review process	
8	Jim Wilson	15
9	Results of Environmental Review	
10	Becky Harty	20
11	Bob Palla	34
12	Information on Comment Process	
13	Jim Wilson	43
14	Public comments	
15	Jack Peel	47
16	Lou Zeller	48
17	Robert Mahood	51
18		
19		
20		
21		
22		

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

(1:30 p.m.)

1
2 FACILITATOR CAMERON: Good afternoon, everyone, and
3 welcome to our meeting today. My name is Chip Cameron, I'm the Special
4 Counsel for Public Liaison at the Nuclear Regulatory Commission, and I'm
5 pleased to serve as your facilitator for today's meeting, and in that role I will try
6 to help you, all of you, have a productive meeting this afternoon.

7 It is nice to be back with you, we were here last September
8 to talk about the scoping issues for the preparation of the environmental impact
9 statement on Duke Energy Corporation's application to renew the licenses for
10 Units 1 and 2 at the McGuire Nuclear Station.

11 And we are back today to discuss this document. This is the
12 draft environmental impact statement on the license renewal application for the
13 McGuire stations.

14 And our objectives today are to try to clearly inform you of
15 what the preliminary findings are in the draft environmental impact statement.
16 And to tell you a little bit about license renewal, the license renewal process at
17 the NRC, in general.

18 And, most importantly, we are here to listen to your
19 comments on issues raised in the draft environmental impact statement, and
20 to use those comments to help us to finalize the draft environmental impact
21 statement.

22 We are also asking for written comments on this draft
23 environmental impact statement, but we are here today to talk to you in person
24 about those particular issues.

25 And you may hear things today that will inform you in terms

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 of submitting further written comments, or they may stimulate you to send in
2 written comments to us.

3 But I want to emphasize that any comments that you make
4 today will carry the same weight as anything that is submitted to us in writing
5 on this draft environmental impact statement.

6 Basically our format today is we are going to have two
7 segments to the meeting. The first segment is to provide you with some
8 information, give you some context on the draft environmental impact
9 statement, and how it fits in to the NRC's license renewal application review.

10 So we are going to do some brief NRC presentations and I
11 will introduce those NRC, and our expert consultant, staff. In a few minutes we
12 are going to do those presentations.

13 After each one we will go out to you for questions that you
14 might have, and then the second segment of the meeting is to hear more
15 formally from you, from any of you who would like to make a more formal
16 statement to us today.

17 And all of those comments, as I said, become part of our
18 decision making process, and decision making record.

19 In terms of ground rules, if you have a question just signal me
20 and I will bring you this talking stick. And if you could give us your name and
21 affiliation, if appropriate, we will get you on the record.

22 We are keeping a transcript of the proceedings over here,
23 and that will be available on the NRC website, and also I think that we are
24 going to be able to provide a hard copy to anybody who needs it.

25 In terms of the formal comments, please sign up front, if you

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 haven't done so already. And that is just to give us an idea of how many
2 people we need to plan for who are going to speak today.

3 If you are seized by the urge to join us for formal comment,
4 just let me know. I would just ask that only one person at a time speak today,
5 so that we can give our full attention to that particular person, and also so that
6 we can get a clean transcript with only one person talking.

7 I would ask you to try to be concise in your questions, and
8 comments, during our interactive portion, because we would like to make sure
9 that we give everyone a chance who wants to speak today that opportunity.

10 I know that with one these complex and sometimes
11 controversial issues it is hard to be brief. But I would just ask you to try to do
12 that. When we get to the formal comment portion of the meeting, I'm going to
13 set a five-minute guideline for comments, and we have some flexibility there,
14 of course. But I would like to see if we could hold to that. If you do have a
15 prepared statement we can also attach that to the transcript today.

16 And depending on how many questions we get during our,
17 what I call, the interactive portion of the meeting, where we are talking to you,
18 instead of just listening to formal comments, we may have to end that at some
19 point, even though there are further questions, so that we can give people who
20 want to make formal comments a chance to do so.

21 And I'm going to get to some introductions here of the people
22 who are going to speak to you today. But I just wanted to thank you for being
23 here. The NRC has an important decision to make, not only on the license
24 renewal application, but also on the final environmental impact statement, and
25 I want to thank you for being here to help us with that.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 This is just one meeting. I would encourage you to talk to the
2 NRC staff. We also have expert consultants with us, who are helping us to
3 prepare the environmental impact statement. Talk to them, get to know them,
4 get their phone number, their e-mail addresses.

5 And if you have any questions or concerns any time during
6 this process, please contact them.

7 In terms of our agenda, I'm just going to have John Tappert,
8 in about a minute, come up and just give you a welcome. And I'm asking him
9 to do that because he is the section leader of the environmental group, where
10 all of the license renewal applications are evaluated at the NRC. And that is in
11 our Office of Nuclear Reactor Regulation.

12 And I want to give you some background on these people, so
13 that you know what their experience is, and I think that you will be interested
14 in that.

15 He has been with the NRC for 11 years, he has a Masters in
16 environmental engineering, and he actually was a resident inspector at nuclear
17 power plants in NRC's Region I.

18 After we hear from John we are going to go over to Rani
19 Franovich, who is right here. And Rani is going to give us an overview of the
20 license renewal process, generally, and we will go on to you for questions, if
21 you have questions about that process.

22 Rani is the project manager for the safety review on the
23 McGuire license renewal application. And you are going to hear that there is
24 a safety part of the review that the NRC does on the license renewal
25 application, and then there is an environmental part, which is why we are

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 specifically here today, to hear your comments on the draft environmental
2 impact statement.

3 But Rani is in the License Renewal Branch, again, in our
4 Office of Nuclear Reactor Regulation, and she has been with the NRC, also,
5 for 11 years. She happened to be the resident inspector at the Catawba
6 Nuclear station down here, in the neighboring state. And she has a Masters
7 in industrial and systems engineering from Virginia Tech.

8 After Rani, and questions, we are going to go to Mr. James
9 Wilson, who is right here. And Jim is the project manager for the
10 environmental review on the McGuire license renewal application. And he is
11 going to talk about the environmental review process for you.

12 Jim has been with the NRC for 27 years, and he has a
13 Masters in zoology from Virginia Tech, also.

14 Then we are going to get to the preliminary findings in the
15 draft environmental impact statement, and we are going to ask Becky Harty,
16 who is right over here, to tell us about that.

17 And Becky is the project team leader for the preparation of
18 the draft environmental impact statement. And she is with the Pacific
19 Northwest National Lab. That laboratory, and other laboratories, are helping
20 the NRC to prepare the environmental impact statement.

21 And you will hear a little bit about all of the areas of expertise
22 that are employed in the preparation of this impact statement. She is a senior
23 research scientist at the lab. She has 20 years experience in environmental
24 and health related studies, and she has a Masters in fisheries and
25 oceanographic sciences from the University of Washington, and Becky has

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 been involved in the environmental evaluation of several nuclear power plants.

2 Part of the environmental impact statement is to take a look
3 at potential accidents, and how those accidents can be prevented, or mitigated.
4 And we have one of our experts, from the NRC, with us today, Bob Palla, who
5 is right here.

6 He is a senior reactor engineer in something called the
7 Probabilistic Safety Assessment Branch. Again, he is in the Office of Nuclear
8 Reactor Regulation. And Bob is going to talk to us about that.

9 He has been with the NRC for 21 years, looking at severe
10 accidents at various types of plants, and he has a Masters in mechanical
11 engineering from the University of Maryland.

12 After Bob is done with any question-and-answer, we will bring
13 Jim Wilson back up to just make sure that you know when the comment period
14 expires for written comment, and how to file those comments, and to talk about
15 overall conclusions.

16 And I'm sorry if I took a long time with this, but we are ready
17 to go to John Tappert now. John?

18 MR. TAPPERT: Thank you, Chip. As Chip said, my name
19 is John Tappert, I'm the chief in the environmental section in the Office of
20 Nuclear Reactor Regulation. I, too, would like to welcome you to this meeting,
21 and thank you for participating in our process.

22 As Chip mentioned, there are several things we would like to
23 cover in today's meeting. First we would like to provide a brief overview of the
24 entire license renewal process.

25 This includes both the safety review, as well as the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 environmental review, which is the principal focus of today's meeting. Second
2 we would like to provide you the preliminary results of our environmental
3 review, which assesses the environmental impacts associated with extending
4 the McGuire nuclear power plant operating license for an additional 20 years.

5 And, finally, we would like to provide you with some additional
6 information about how you can participate in this process by submitting written
7 comments on the draft environmental impact statement.

8 At the conclusion of the Staff's presentation we would be
9 happy to receive any questions or comments that you may have on that draft
10 environmental impact statement.

11 But first let me provide some general context for the license
12 renewal process. The Atomic Energy Act gives the NRC the authority to issue
13 operating licenses to commercial nuclear power plants for a period of 40 years.

14 For McGuire Units 1 and 2, this operating license will expire
15 in 2021 and 2023. Our regulations also make provisions for extending these
16 operating licenses for an additional 20 years, as part of the license renewal
17 process.

18 Duke Energy has requested license renewal for both nuclear
19 power plants. As part of the NRC review of that license renewal application we
20 conduct an environmental scoping meeting here last September.

21 At that meeting, we provided information on
22 the license renewal process, and also sought public input on issues that should
23 be addressed in the environmental impact statement.

24 At that scoping meeting, we indicated we would come back
25 again, as we are today, to provide you with the preliminary results of that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 environmental impact statement.

2 One of the principal purposes of this meeting is to receive
3 your comments and questions on that draft. And with that I would like to ask
4 Rani Franovich to give a brief overview of the safety review portion of the
5 license renewal process.

6 MS. FRANOVICH: Good afternoon. As Chip indicated, and
7 John Tappert, I'm Rani Franovich, the project manager for the safety review of
8 the application for license renewal for McGuire Nuclear Station.

9 And Mr. Tappert stole some of my thunder, so I'm going to
10 reiterate some of the things he just stated. Please bear with us.

11 Before I talk about the license renewal process, and the
12 staff's safety review, I would like to talk about the Nuclear Regulatory
13 Commission, or the NRC.

14 The Atomic Energy Act of 1954 authorizes the NRC to
15 regulate the civilian use of nuclear material. The NRC's mission is three-fold:
16 to ensure adequate protection of public health and safety; to protect the
17 environment; and to provide for common defense and security.

18 The NRC consists of five Commissioners, one of whom is the
19 NRC's chairman, and the staff. The regulations enforced by the NRC are
20 issued under Title 10 of the Code of Federal Regulations, commonly called 10
21 CFR in the nuclear industry.

22 The Atomic Energy Act provides for a 40-year license term
23 for power reactors, but it also allows for renewal. That 40-year term is based
24 primarily on economic and anti-trust considerations, rather than safety
25 limitations.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Major components were initially expected to last for up to 40
2 years. However, operating experience has demonstrated that some major
3 components will not last that long, such as steam generators.

4 For that reason a number of utilities have replaced major
5 components, including the steam generators. And because components and
6 structures can be replaced, or reconditioned, plant life is really determined
7 primarily by economic factors.

8 Applications for license renewal are submitted years in
9 advance for several reasons. If a utility decides to replace a nuclear power
10 plant it can take up to ten years to plan and construct new generating capacity
11 to replace that nuclear power plant.

12 In addition, decisions to replace or recondition major
13 components can involve significant capital investment. As such these
14 decisions involve financial planning many years in advance of the extended
15 period of operation.

16 As Mr. Tappert indicated, Duke Energy Corporation has
17 applied for license renewal under 10 CFR Part 54, and requests authorization
18 to operate McGuire nuclear units for up to an additional 20 years. The current
19 operating licenses for McGuire will expire in 2021 and 2023, respectively.

20 Now I would like to talk about license renewal, which is
21 governed by the requirements of 10 CFR Part 54, or the License Renewal
22 Rule, which defines the regulatory process by which a nuclear utility, such as
23 Duke Energy Corporation, applies for a renewed operating license.

24 The License Renewal Rule incorporates 10 CFR part 51 by
25 reference. 10 CFR Part 51 provides for the preparation of an environmental

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 impact statement, or EIS.

2 The license renewal process defined in 10 CFR Part 54 is
3 very similar to the original licensing process in that it involves a safety review,
4 an environmental impact evaluation, plant inspections, and review by the
5 Advisory Committee on Reactor Safeguards, or the ACRS.

6 The ACRS is a group of scientists and nuclear industry
7 experts who serve as a consulting body to the Commission. The ACRS
8 performs an independent review of the license renewal application, and the
9 staff's safety evaluation, and they report their findings and recommendations
10 directly to the Commission.

11 The next slide illustrates two parallel processes. You will see
12 one at the top of the slide, the other toward the bottom of the slide.

13 The two parallel processes are the safety review process and
14 the environmental review process. These processes are used by the Staff to
15 evaluate two separate aspects of the license renewal application.

16 The safety review involves the Staff's review of the technical
17 information in the application for renewal to verify, with reasonable assurance,
18 that the plant can continue to operate safely during the extended period of
19 operation.

20 The Staff assesses how the Applicant proposes to monitor
21 or manage aging of certain components that are within the scope of license
22 renewal.

23 The Staff's review is documented in a safety evaluation
24 report, and the safety evaluation is provided to the ACRS for review, and an
25 ACRS report is prepared to document their review of the Staff's safety

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 evaluation.

2 The safety review process also involves two or three
3 inspections which are documented in NRC inspection reports. These
4 inspection reports are considered, with the safety evaluation report, and the
5 ACRS report, in the NRC's decision to renew their operating licenses.

6 If there is a Petition to Intervene, sufficient standing can be
7 demonstrated, and an aspect within the scope of license renewal has been
8 identified, then hearings may also be involved in the process. These hearings
9 will play an important role in the NRC's decision on the application as well.

10 At the bottom of the slide is the other parallel process, the
11 environmental review, which involves scoping activities, preparation of the draft
12 supplement to the generic environmental impact statement, solicitation of public
13 comments on the draft supplement, and then the issuance of a final
14 supplement to the generic environmental impact statement. This document
15 also factors into the Agency's decision on that application.

16 During the safety evaluation, the Staff assesses the
17 effectiveness of the existing or proposed inspection and maintenance activities
18 to manage aging effects applicable to a defined scope of passive structures
19 and components.

20 Part 54 requires the application to also include evaluation of
21 time-limited aging analyses, which are those design analyses that specifically
22 include assumptions about plant life, usually 40 years.

23 Current regulations are adequate for addressing active
24 components, such as pumps and valves, which are continually challenged to
25 reveal failures and degradation, such that corrective actions can be taken.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Current regulations also exist to address other aspects of the
2 original license, such as security and emergency planning. These current
3 regulations will also apply during the extended period of operation.

4 In August 2001, the NRC issued a Federal Register Notice
5 to announce its acceptance of the Duke Energy application for renewal of the
6 operating licenses for Catawba and McGuire.

7 This notice also announced the opportunity for public
8 participation in the process. The NRC received two Petitions to Intervene, one
9 from the Nuclear Information and Resource Service, and the other from the
10 Blue Ridge Environmental Defense League.

11 An Atomic Safety and Licensing Board, or ASLB, was
12 established to preside over the proceedings. In an Order issued on January
13 24th, 2002, the ASLB granted both petitions for a hearing, and admitted two
14 contentions.

15 The first contention pertained to the impact of anticipated
16 MOX, or mixed oxide, fuel on aging and environmental issues, and the second
17 pertained to the completeness of the severe accident mitigation alternatives,
18 or SAMA, analysis for station blackout events at ice condenser plants.

19 A third issue, concerning terrorism was forwarded to the
20 Commission for review. On February 4th, 2002, the Staff appealed to the
21 ASLB ruling and Duke also filed an appeal.

22 On April 12th, 2002, the Commission issued an order to
23 reverse the ASLB's ruling on the MOX issue. The Commission deferred its
24 decision on the two remaining issues, the station blackout SAMA issue and the
25 terrorism issue.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 More recently the Staff received 8 late filed contentions which
2 pertain to the SAMA issue. This concludes my summary of the license renewal
3 process, and the Staff's safety review.

4 At this time can I answer any questions?

5 FACILITATOR CAMERON: Yes. Rani has given us an
6 overview on the license renewal process, and specifically on safety review. Do
7 we have any questions for Rani at this point?

8 (No response.)

9 FACILITATOR CAMERON: Okay. And if during the rest of
10 the discussions, if questions come up, we can always go back to Rani, also.
11 But thank you very much, Rani.

12 And now we are going to go to Jim Wilson, who is going to
13 talk to us about the environmental review process. Jim?

14 MR. WILSON: Thank you, Chip. My name is Jim Wilson, I'm
15 the environmental project manager for the McGuire license renewal project.
16 I'm responsible for coordinating the efforts of the NRC Staff, and our
17 contractors from the National laboratories, to conduct and document the
18 environmental review associated with Duke Energy's application for license
19 renewal at McGuire.

20 NEPA, the National Environmental Policy Act, was enacted
21 in 1969. It is one of the most significant pieces of environmental legislation that
22 has ever been passed in this country.

23 It requires all federal agencies to use a systematic approach
24 to consider environmental impacts during certain decision-making proceedings
25 regarding major federal actions.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 NEPA requires that we examine the environmental impacts
2 of the proposed action and consider mitigation measures in areas where
3 impacts would be severe.

4 NEPA requires that we consider alternatives to a proposed
5 action and that we evaluate the impacts of those alternatives.

6 Finally, NEPA requires that we disclose all this information
7 and invite public participation to evaluate it. The NRC has determined that it
8 will prepare an environmental impact statement associated with the renewal of
9 an operating plant license for an additional 20 years.

10 Therefore, following the process required by NEPA, we have
11 prepared a draft environmental impact statement that describes the
12 environmental impacts associated with the operation of McGuire Station Units
13 for an additional 20 years.

14 That environmental impact statement was issued last month,
15 in May, and we are here today to receive public comments on the draft.

16 This slide describes the objective of our environmental
17 review, simply put, we are trying to determine whether the renewal of the
18 McGuire licenses is acceptable from an environmental standpoint.

19 This slide shows in a little greater detail the lower line of a
20 previous slide presented by Rani, the environmental review process at
21 McGuire. We received the application in June, issued a Notice of Intent in the
22 Federal Register in August, and invited the public to participate in the scoping
23 process in a couple of meetings in September of last year, here in Huntersville.

24 We also received public comments through e-mails and
25 letters. Also in September, we went to McGuire with a combined team of NRC

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 staff and personnel from four of the National Laboratories, with background in
2 the specific technical and scientific disciplines required to perform this
3 environmental review.

4 We familiarized ourselves with the site, we met the staff from
5 Duke to discuss the information submitted in support of the license renewal
6 application. We reviewed the environmental documentation maintained at the
7 plant, and we examined Duke's evaluation process.

8 In addition we contacted state, federal, and local officials, as
9 well as local service agencies, to obtain information on the area and on the
10 McGuire plants.

11 At the close of the scoping comment period, we gathered up
12 and considered all the comments that we had received from the public and
13 from state and federal agencies. Many of these contributed significantly to the
14 document that we are here to discuss today.

15 In January of this year, we issued a request for additional
16 information to make sure that any information we relied on in our decision-
17 making was on the docket, and to supplement the information not included in
18 the original application.

19 A month ago, on May 6th, we issued draft Supplement 8 to
20 the generic environmental impact statement for McGuire. This environmental
21 impact statement relies on the original generic environmental impact statement
22 to draw a portion of its conclusions.

23 The report was issued as a draft, not because it is
24 incomplete, but rather because we are in an intermediate stage in the decision-
25 making process. Right now we are in the middle of a comment period to allow

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 you, and other members of the public, to look at the draft document and to
2 provide any comments you may have on it.

3 After we gather these comments, and evaluate them, we may
4 decide to change portions of the environmental impact statement based on the
5 comments. NRC will then issue a final environmental impact statement for
6 license renewal at McGuire.

7 Are there any questions about what we are doing today, how
8 we worked on the environmental impact statement?

9 FACILITATOR CAMERON: Anybody have a question for Jim
10 before we go to the discussion of the preliminary findings in the environmental
11 impact statement? Hold on a minute, Jim, I think we have a question.

12 And just give us your name and affiliation.

13 MR. ZELLER: My name is Lou Zeller, I'm with the Blue Ridge
14 Environmental Defense League.

15 I thought of this question, just before you stood up Jim. It
16 actually maybe refers to the previous presentation, but before we got too far
17 along here I wanted to ask about the Commission's decision on April the 12th
18 to change, reverse, or alter the findings of the Atomic Safety Licensing Board.

19 How often does something like that happen, and where has
20 it happened?

21 FACILITATOR CAMERON: I'm not sure that either Jim or
22 Rani are prepared to answer that. And we do have a representative here from
23 our Office of the General Counsel, Susan Uttal.

24 And she may not have those statistics for you, Lou, but let me
25 see if Susan has anything she can offer on that. And if there is further

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 discussion you need to have, you may need to do it offline.

2 But, Susan, can you give us some information on Lou's
3 questions?

4 MS. UTTAL: I don't know the answer to that question.

5 FACILITATOR CAMERON: The answer to the -- there were
6 two questions, right, Lou?

7 MR. ZELLER: Yes.

8 FACILITATOR CAMERON: The second one was how often
9 does it happen. And I take it you are saying that you really don't have any
10 information on that?

11 MS. UTTAL: I don't have any information on that.

12 FACILITATOR CAMERON: The first part of that, Lou, was
13 just to make sure that Susan knows what it was, can you just -- you don't have
14 to repeat the whole thing, but just what the question part was.

15 MR. ZELLER: I'm just curious to find out, the procedure, or
16 the process, or perhaps there is a citation within the rules and regulations
17 which outline how a sitting Atomic Safety Licensing Board, or actually any other
18 board of that nature, would have a process underway as was described here
19 shortly, a while ago.

20 And the Commission, which set up that panel, to essentially
21 reverse, or alter, or have any saying before the procedure, before the process
22 had been completed.

23 FACILITATOR CAMERON: I think that that is a fairly simple
24 answer from a procedural point of view, relating to the authority of the
25 Commission to step into a proceeding and rule on something before the whole

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 thing is over.

2 Can you say anything about that, Susan? And, again, I don't
3 want to get us down into a big legal discussion, but so that you can do this with
4 Lou afterwards.

5 But perhaps you could just tell us some of the basics on that?

6 MS. UTTAL: Well, first of all I'm not sure of the relevance to
7 this particular meeting, to this information. Mr. Zeller's a party in the
8 proceeding, and in the requirements of Part 2 of 10 CFR, there is a specific
9 section that permits interlocutory appeals from decisions allowing the admission
10 of contentions, and that appeal be made to the Commission.

11 I don't happen to have the section in my mind at this time, but
12 it is provided under the regulations. So I would refer you to Part 2 of the
13 regulations, or perhaps you can ask your counsel about it.

14 FACILITATOR CAMERON: Okay. We always want to try to
15 provide some information on questions like that. And I think from what Susan
16 said, Lou, it is something called an interlocutory appeal, and there is basis in
17 the Commission's regulations for that, and we can explore that in more detail
18 later on.

19 But any other questions on either Rani's presentation, or Jim
20 Wilson's, before we go on to the preliminary findings?

21 (No response.)

22 FACILITATOR CAMERON: All right. Let's go to Becky
23 Harty, who is the senior research scientist project team leader from Pacific
24 Northwest Labs, to tell us about the preliminary findings. Becky?

25 MS. HARTY: Thank you. I wanted to tell you a little bit about

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the information gathering process, and the composition of the team, and then
2 I'm going to talk a little bit about the analysis process, and kind of step you
3 through the report really quickly.

4 As Jim mentioned, earlier, to develop the supplemental
5 environmental impact statement, we looked at the license renewal application,
6 and we also did a site audit, and he went into some detail on that, so I'm going
7 to pass over that part.

8 We talked with federal, state, and local agencies, and we also
9 talked to permitting authorities like the state, where we talked to them about the
10 water discharge permits, and also cultural and historic issues.

11 And we talked to social service local agencies, and we invited
12 the public, as was mentioned previously, to provide comments, which a number
13 of you did, and we looked at those comments.

14 For the review, we established a team that was made up of
15 members of the Nuclear Regulatory Commission Staff, and they were
16 supplemented by experts in various fields from National Laboratories, and this
17 slide gives you an idea of the areas that we looked at.

18 I'm going to step you through the process here. The generic
19 environmental impact statement for license renewal, which is NUREG-1437,
20 identifies 92 environmental issues that are evaluated for license renewal.

21 Now, of these 92 issues, 69 of the issues are considered
22 generic. And we use the term Category 1, which just means that the impacts
23 are the same for all reactors or for the same type of reactor which had certain
24 type of features, such as plants with cooling towers. So across the nation
25 those issues were generic for that type of plant.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 The other 23 issues, which we called Category 2 issues, the
2 NRC found for these issues that the impacts were not the same on all sites,
3 and therefore a site-specific analysis was needed.

4 Now, only 83 of the 92 issues that were addressed in the
5 GEIS are applicable to McGuire because of the design and the location of the
6 plant. For those generic Category 1 issues that are applicable to McGuire, we
7 needed to asses that impacts, we needed to look and see if there was any new
8 and significant information.

9 And if there was no new information then we adopted the
10 GEIS conclusion. And if there was new information that we found, then we
11 performed a site-specific analysis on those generic issues.

12 For the Category 2, or the site-specific issues, that were
13 related to McGuire, we did a site-specific analysis for all those issues. The
14 other thing we looked at was for potential new issues.

15 We looked at that when we were at the site, we looked at
16 available information, we looked at the comments from the public to see if there
17 was any new information that had not been disclosed in the generic
18 environmental impact statement, and if new issues were found, then we would
19 do a site-specific analysis, otherwise there was no additional analysis.

20 Now, how the effects were quantified. For each issue that
21 was identified in the GEIS, an impact level was assigned. And this is described
22 in Chapter 1, which is the introduction of the report.

23 These impact levels are consistent with the Council of
24 Environmental Quality's guidance for NEPA type analysis like this. To be
25 categorized as a small impact the effect would not be detectable, or would be

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 too small to destabilize or noticeably alter any important attribute of the
2 resource.

3 I'm going to give you an example. If the plant causes the loss
4 of adult and juvenile fish at the intake structure, if the loss of fish is so small
5 that it cannot be detected in relationship to the total population in the river, or
6 the lake, that the site is on, then the impact is small.

7 Now, for moderate, if it is going to be categorized as a
8 moderate impact, it would have to show that the effect is sufficient to alter
9 noticeably, but not to destabilize the important attributes of the resource.

10 I'm using the fish example, again, if the losses at the intake
11 cause the population to decline, and then to stabilize, we would say that the
12 impact was moderate, because it did cause a change, but it stabilized.

13 And, finally, for an impact to be considered large, the effect
14 would be clearly noticeable, and sufficient to destabilize the important attributes
15 of the resource.

16 I'm using the fish example, again. If the losses at the intake
17 caused the fish population to decline to the point where it cannot be stabilized,
18 then it continually declines, then we would say that the impact is large.

19 Now, in Chapter 2 of the report we discussed the plant and
20 the environment around the plant, and in Chapter 3 we briefly discuss that the
21 licensee had not identified any plant refurbishment activities.

22 And then in Chapter 4 we looked at the potential environmental
23 impacts for an additional 20 years of operation at the McGuire Nuclear Station.
24 And the issues that the team looked at, in Chapter 4, are the cooling system,
25 transmission line impacts, radiological impacts, socioeconomic, groundwater

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 use and quality, and impacts on threatened or endangered species.

2 I will take just a few minutes to identify the highlights of this
3 review. And then if you have any specific questions on things on the
4 document, or other parts of the review that I don't cover in the highlights, feel
5 free to ask.

6 One of the issues we looked at, closely, and discussed in
7 some depth in Chapter 4, is the cooling system for the McGuire Nuclear
8 Station. And this is an aerial view of the station. You can see the station right
9 here, you can see the Cowan's Ford Dam there.

10 There is an intake structure, the low level intake structure is
11 just right off the side of the dam. There is an upper intake structure in this area
12 here. This is the discharge canal, a small body of water, this large body is Lake
13 Norman, and the larger body down at the bottom, which looks larger but is
14 actually smaller, is the standby nuclear service water pond.

15 During our visit last September, and during our review of the
16 information we obtained, we looked at the Category 1 issues, which I talked
17 about earlier, as being the generic issues.

18 And we did not identify any new or significant information for
19 any of the Category 1 issues, either during the scoping process, or during our
20 review of the information.

21 The Category 2 issues that are related to the cooling system
22 that the team looked at, in depth, include the entrainment in the impingement
23 in fish and shellfish, heat shock, and the potential for detrimental public health
24 impacts from heat loving microorganisms that might grow in the lake as a result
25 of the thermal discharge.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 And in all cases the potential impacts were determined to be
2 small, and no additional mitigation was warranted.

3 Now, this next slide talks a little bit about radiological impacts.
4 This is a Category 1 issue, it is generic for all the plants. Because it is often a
5 concern to the public, I wanted to take just a few minutes to discuss it, and how
6 we determined that there were no new and significant information related to the
7 radiological impacts.

8 During the site visit we looked at the effluent release and the
9 monitoring program. We looked at how the gaseous and liquid effluents were
10 treated and released, and we looked at the program for treating, packaging,
11 and shipping solid waste.

12 This information is in Chapter 2 of the report. We also looked
13 at how the applicant demonstrates and determines that they are in compliance
14 with the regulations for release of radiological effluents.

15 This slide shows you the near and on-site radiological
16 monitoring locations that the licensee uses. There is a number of other
17 monitoring stations that are beyond the site of the boundary, and beyond this
18 figure. And these are locations where Duke looks at water, milk, fish, food
19 products, and shoreline sediments, and samples those for radiological impact.

20 The releases from the plant, and the resulting off-site
21 potential doses are not expected, from the analysis, from the information and
22 the resulting analysis that we did, to increase on a year to year basis during the
23 20 year license renewal term.

24 We didn't find any new and significant information during our
25 review, the scoping process, or the evaluation of other available information.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

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

The last issue I would like to discuss from those evaluated in Chapter 4 is that of Threatened and Endangered species. A description of the terrestrial and aquatic ecology of the area and the potential of endangered and threatened species at the site is given in Chapter 2, but in Chapter 4 we look specifically at these Threatened and Endangered species.

There are no federally listed aquatic species that occur near the McGuire site. The only federally or state listed threatened and endangered aquatic species with any potential to inhabit the waters near McGuire is the Carolina heelsplitter, which is a mussel.

It is located in Union County, which is southeast of the site, and it has not been found to be present in the vicinity of the site, and we wouldn't really have expected it, anyway, because it tends to occur in streams, rather than in impounded waters like Lake Norman.

There is three other species of mussels occurring in the area that are considered to be sensitive species, but they were not reported as being found in the southern quadrant of Lake Norman.

We also have a picture of the bald eagle, here. They are known to nest at Lake Wylie, which is downstream of McGuire, and Lake James, which is upstream. And they are known from the Catawba River area. And occasionally one flies over the Lake Norman area, but there have been no known nest sites within 60 miles of the site.

We also have a couple of plants. This plant here, in the picture, Schweinitz's sunflower, it is endangered. And there is the Georgia aster, which is a candidate species for listing. And they have been found on

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 adjacent property, but they are not located at the McGuire site.

2 So there were no federally or state listed species in the
3 McGuire exclusion area, or even along the associated transmission lines.

4 For all the issues that the team reviewed we found that there
5 was no new and significant information that was identified either during the
6 scoping process by the licensee during their development of the environmental
7 review, or by the Staff during our analysis.

8 And we also looked at issues for the uranium fuel cycle and
9 solid waste management, and for decommissioning. These are discussed in
10 Chapter 6 and 7 of the report.

11 And we also found that there was no new and significant
12 information that was identified for either of these issues. These are both
13 Category 1 issues, and were evaluated generically in the generic environmental
14 impact statement.

15 And we didn't find anything that would bring out new
16 information related to these, specifically at McGuire.

17 We also evaluated the potential environmental impact
18 associated with McGuire not operating, in Chapter 8. We looked at a no-action
19 alternative, which is a scenario where the NRC would not renew the operating
20 licenses for McGuire, and then when the plant ceases operation Duke would
21 decommission the facility.

22 We looked at new generation from coal fired, gas fired, new
23 nuclear, we looked at purchased electric power, we looked at nine alternative
24 technologies, such as wind, solar, hydro power, fuel cells, municipal solid
25 waste, or other biomass derived fuels.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 We looked at delayed retirement of other existing facilities,
2 as well as utility sponsored conservation, and then we looked at a combination
3 of these alternatives.

4 And for each alternative we looked whether the technologies
5 could replace the baseload capacity of McGuire, and whether it could be a
6 feasible alternative to renewal of the plant licenses.

7 And if they did look like they were feasible alternatives, then
8 we looked at the same type of issues for those alternatives, that we did at the
9 plant.

10 We looked at things like land use and ecology, and
11 socioeconomic. And the preliminary conclusions, which are given in the draft
12 report, including the no-action alternative, may have environmental effects in
13 at least some impact categories that reach moderate or large significance.

14 Anyway, that is it for my presentation. Are there any
15 questions at this time?

16 FACILITATOR CAMERON: Yes, two.

17 MR. ZELLER: I have a question about the impacts which
18 have to do with the collective off-site radiological impacts from the fuel cycle
19 high level waste, and spent fuel.

20 It says here, in the document, within the Category 1 issues,
21 that they are not assigned a significance level, and it also says back in Section
22 8, under the Category 2 analysis for the draft statement, that they are not
23 assigned a significance level there, either.

24 Where are they considered, and why not? In a coal plant an
25 analogy might be, you know, what comes out of the smoke stack is certainly

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 part of the environmental impact as waste material.

2 FACILITATOR CAMERON: And, Becky, do you understand
3 the question? This is, maybe, a Category 1 issue that was not assigned an
4 impact. Do you understand the question?

5 MS. HARTY: Yes, these are Category 1 issues that were
6 discussed in the generic environmental impact statement, and they weren't
7 assigned a significance level there.

8 FACILITATOR CAMERON: So, in other words, if no
9 significant new information was found to cause us to alter the Category 1
10 finding, then there would be no --

11 MS. HARTY: Then there is no further analysis. If there was
12 information that we discovered during our analysis at McGuire that caused us
13 to say, yes, that is new information, significant information, then we would have
14 re-analyzed that issue and looked at further depth. And at that point we may
15 have assigned it a significance level.

16 MR. ZELLER: I understand, but maybe I didn't make myself
17 clear, for neither Category 1 nor Category 2, for generic or site-specific impacts
18 were significant levels attached to high level waste and spent fuel impacts. It
19 says it right here.

20 MS. HARTY: Right. But this is only a Category 1 issue.
21 Where are you reading, exactly?

22 MR. ZELLER: I'm inside of this book.

23 MS. HARTY: Can you give me a page?

24 MR. ZELLER: Yes, it is on Page iii, in the beginning, and
25 then also on Page 8-49, under the summary of alternatives considered.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 FACILITATOR CAMERON: It may be a question of how the
2 particular sentence was written, but let's see if we can get to the bottom of that.

3 MS. HARTY: Let me take a stab at this, and if somebody
4 from the NRC is more familiar with this, then you may ask them the basis for
5 this.

6 For Category 1 issues, they usually assign a single
7 significance level for all the issues across all the plants it is always small,
8 moderate, or large. And this particular disposal may be a case, from my
9 understanding of this, where they did not assign the small, moderate, or large,
10 but they still said it was generic across all the plants.

11 Now, I don't know if I'm quite answering your question or not.
12 It is something that you don't really get into unless you decide there is new and
13 significant information at that plant, which throws it out of -- which takes it from
14 the Category 1 where it can just stay generic, to where you have to do a site-
15 specific analysis, and then you would assign a specific, or a significance level
16 at that point.

17 FACILITATOR CAMERON: I guess that, let me ask Jim
18 Wilson if he has any further explanation of this, because I gather from Lou's
19 question that it was not just the Category 1 issue, because I think that is
20 understandable.

21 There is a reference, though, to Category 2, and no specific
22 finding be attached. And --

23 MS. HARTY: Well, I don't see that it referenced the Category
24 2, and maybe that is in the abstract.

25 FACILITATOR CAMERON: Because I think that is the heart

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 of Lou's point. Let's go to Barry and see. This is Barry Zalzman, NRC staff.

2 MR. ZALCMAN: Let me try and put this in perspective.
3 When Becky laid out the Commission's structure for determining Category 1
4 issues, we established certain criteria that may be common for all plants, that
5 may be common for plants of a specific design, or that have certain attributes.

6 It turns out for the cases that you are identifying the
7 conditions are as discretion determined, even though it may not be the same
8 at all plants, it was still going to categorize it as a Category 1 issue.

9 I think that is the complexity that you are struggling with right
10 now, we are trying to eliminate that in the executive summary. And if you go
11 into Chapter 6 I think you probably are going to have the best representation
12 where we bring together the findings within the guidance, or we actually talk to
13 the issues where the condition, even though it didn't meet the initial criteria for
14 Category 1 determination, elected to make it a Category 1 for that issue.

15 FACILITATOR CAMERON: Let me just, at a minimum,
16 suggest that the NRC take that as a comment on this draft EIS to, at minimum,
17 make it clear exactly what is going on so that the reader can understand it,
18 okay?

19 MS. HARTY: Sounds good.

20 FACILITATOR CAMERON: All right. Other questions before
21 we go to the severe accident aspect of it? Yes, sir.

22 MR. ANDERSON: My name is Bob Anderson. I just have a
23 question concerning the definitions of small, moderate and large. As far as
24 your take on if the effect is to be large, is it your -- are you wanting to make a
25 change so that it goes down to the small level?

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. HARTY: I guess the best way of saying that is if it is
2 large, you look at possibilities for mitigation. And in the case that we were in
3 (license renewal), we only had small impacts.

4 So we didn't find any areas where we needed to suggest any
5 mitigation.

6 MR. ANDERSON: Because that goes to your last slide, but
7 on alternatives it said that some of the alternatives also include no-action. And
8 some of the no-action are currently in the moderate or large significance.

9 And if they are currently in the large then are you taking a
10 look at those issues?

11 MS. HARTY: That is a very good question. Let me actually
12 run down the -- I have a nice list here.

13 In Chapter 9, actually there is a table in 9-1 where we look at
14 the proposed action versus the no-action alternative, and then there are four
15 other alternatives, coal fired generation, natural gas fired, new nuclear, and
16 then a combination of alternatives.

17 And to give you something specific we said, okay, for
18 example if we -- if they decided not to renew the license at McGuire, but they
19 needed to replace the energy anyway, and they decided let's put in a coal fired
20 generation plant; when you get to issues such as land use, the land mass that
21 is there for McGuire, they would end up having to take out some trees, maybe
22 buy some additional land, or something like that.

23 And, actually, the footprint of the plant will be larger than what
24 it is now. So that is going to impact the land use, it is going to impact the
25 ecology, and those impacts would be moderate or large.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 And at that time, if they did come in and say, we are going to
2 use a coal fired plant instead of a nuclear power plant, the same EIS process
3 would start all over.

4 Pardon? Oh, you are right, that wouldn't be a federal action.

5 MR. WILSON: We looked at the -- we laid out the
6 alternatives and we found significance levels that, for some issues, reached
7 moderate or large impact. We didn't look at mitigation to reduce the impacts
8 of the alternatives. We looked at the impacts of McGuire operation, which were
9 found to be small for all issues, and no mitigation is required.

10 We didn't go through the same process for each of the
11 alternatives to the McGuire continuing-operation option. Is that clear?

12 We look at mitigation for the proposed action. We don't look
13 at mitigation for alternatives. We look at mitigation if it happened as an
14 operating impact at McGuire.

15 MR. ANDERSON: There again maybe I'm reading this
16 wrong. But when it says including no- action alternatives, no-action to me
17 means that it stays the same.

18 MS. HARTY: No-action means that they don't renew the
19 licenses, and that the plant has been decommissioned.

20 FACILITATOR CAMERON: So that is the key, I guess, is
21 how you define a no-action alternative?

22 MS. HARTY: And for that, for the no-action alternative, I will
23 just tell you that on the impacts that were small or moderate on
24 socioeconomics, because the plant is no longer going to be here, and the
25 influence of the economics of the area, on an environmental justice.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 FACILITATOR CAMERON: Maybe, again, just in terms of --
2 maybe it is clear from reading the draft EIS what no-action alternative means.
3 But if it isn't we should make sure that there is no confusion about that.

4 Let's go to the second part. Thank you very much, Becky.

5 MS. HARTY: Sure.

6 FACILITATOR CAMERON: And let's go to the second part
7 of our preliminary findings. And this is Bob Palla from the NRC Staff who is
8 going to talk about severe accident mitigation.

9 MR. PALLA: I'm Bob Palla with the Probabilistic Safety
10 Assessment Branch of the Office of Nuclear Reactor Regulation.

11 And let me just jump ahead here. Just, in the way of
12 background, in the way that the document, the GEIS supplement is laid out,
13 Section 5, or Chapter 5.1 discusses, briefly, the design basis accidents, and
14 severe accidents.

15 And then in Section 5.2 severe accident mitigation
16 alternatives are described. And, just briefly in the way of summarizing, in
17 Section 5.1 the Commission found the probabilistic weighted consequences of
18 severe accidents to be small for all plants.

19 And the Staff, as part of their review of McGuire, did not
20 review, did not identify any significant new information with regard to
21 consequences from severe accidents.

22 Accordingly the Staff concludes that there are no impacts of
23 severe accidents beyond those that were already discussed in the generic
24 environmental impact statement, the NUREG-1437.

25 Now, in accordance with the license renewal regulations,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 alternatives to mitigate severe accidents must be considered for all plants
2 where such an analysis has not already been performed. In essence the
3 review of severe accident mitigation alternatives, otherwise referred to as
4 SAMAs, is a Category 2 issue, and is looked at as a plant-specific issue.

5 And the analysis of severe accident mitigation alternatives is
6 provided in Section 5.2 of the GEIS supplement, I'm probably calling that the
7 wrong thing, but the generic environmental impact statement, in our
8 supplement for McGuire.

9 This is a summary, but I want to give you a little bit of
10 background, before, about the process by which we identify potential plant
11 improvements.

12 The purpose of the severe accident mitigation assessment
13 is to ensure that plant changes that have the potential to further reduce risk at
14 the plant are identified and systematically evaluated.

15 Now, these improvements include design changes, could be
16 procedure changes, training enhancements. They are both, the changes could
17 either prevent core damage, or they could mitigate the effects of core damage,
18 given that core damage will occur you can still do things that would reduce the
19 consequences.

20 So our scope is to look at both prevention and mitigation, and
21 we include consideration of hardware procedure, and other types of changes
22 like that.

23 The approach that we use, we base much of our study on
24 information provided by the licensee. We have a heavy focus on the use of the
25 probabilistic safety assessment study.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Now, the probabilistic safety assessment study, sometimes
2 referred to as PSA, or the name PRA, probabilistic risk assessment has also
3 been used, they are used interchangeably.

4 But what that study does is it looks at the different systems
5 in the plant that could be used to provide adequate core cooling and
6 containment integrity. And it looks at different ways that the systems would
7 need to fail in order to result in a sequence preceding to core damage.

8 So you try to identify the severe accident sequences, and
9 identify and characterize the consequences, the effects on the environment,
10 frequently expressed in terms of person-rem for the various types of releases
11 that could occur.

12 Now, when we look at the severe accident mitigation
13 alternatives the very first step is to characterize the plant risk and, basically,
14 where is that risk coming from, what kind of sequences contribute to the risk.

15 And, you know, what kind of combinations of things must go
16 wrong in order to fail the core cooling, or to fail the containment. And that
17 probabilistic safety assessment study gives us a very good focus on where one
18 should, you know, emphasize and search for plant improvements.

19 So the first step is to characterize the overall risk and the
20 leading contributors. The second step is to identify design improvements that
21 could further reduce risk.

22 And, in effect, we look very closely at the, as I say, the PRA
23 results, the dominant sequences, the so-called cutsets in PRA jargon, it is
24 basically the combinations of things that have to fail.

25 And by reviewing those that suggest ways that one could

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 improve risk, or reduce it. Also there is a heavy emphasis on looking at similar
2 types of studies that were done for other plants.

3 For example, and most relevant in this case, there was a
4 similar study done for the Watts Bar plant several years ago, and that was used
5 as a source of information. Potential improvements were identified in the Watts
6 Bar study, and they were looked at specifically in the McGuire SAMA analysis
7 as well.

8 An additional source of information of potential improvements
9 comes from NRC study which was built upon the review of what we call the
10 individual plant examinations.

11 In the 1990s there was a requirement for all plants to perform
12 an individual plant examination. We refer to it, commonly, as the IPE. But, in
13 effect, it is a PRA. And one was done for every plant.

14 And this is used to identify vulnerabilities to severe accidents
15 in those plants. And what the NRC did is reviewed all of the individual plant
16 examinations, and collected those insights into a report called NUREG-1560.

17 And this was a source document used by Duke and
18 considered by the NRC in assessing severe accident mitigation alternatives.
19 In many of those individual plant examinations various licensees identified
20 potential improvements, and they were considered also as part of the McGuire
21 SAMA evaluation.

22 Now, once one has taken those first two steps and identified
23 the risk, identified ways that you might reduce the risk, the third step is to
24 quantify the risk reduction potential, and the costs for each of these potential
25 improvements.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 The risk reduction, in general, is done in a very bounding and
2 conservative way. The risk reduction is, generally, underestimated, and the
3 costs are generally overestimated. These would be the costs that a licensee
4 would have to expend to implement.

5 These are, generally, overestimated, just for purposes of
6 getting the analysis done and not spending a lot of money on developing a cost
7 estimate, it could take a lot of resources.

8 So the general approach is to make a conservatively high
9 cost estimate that frequently omits several of the factors that would contribute
10 to costs, such as maintenance, and surveillance. These are, typically, costs
11 that a licensee would incur, but they are not generally given much attention in
12 developing cost estimates.

13 So you would now have a set of severe accident mitigation
14 alternatives, each one with a cost estimate, and each one with a risk reduction
15 estimate.

16 And the fourth, and really the last major step of this process
17 is to look at whether implementation of the improvement is justified. And for
18 this purpose we used an NRC guidance document that deals with regulatory
19 analysis, and how that should be carried out.

20 There are a number of NUREG reports that describe the
21 basic assumptions that are used there. And, in effect, what you do is you are
22 converting, you are determining the value of averted risk, and you put this all
23 in terms of dollars, and then you can compare the dollars of averted risk to the
24 cost of the enhancement.

25 And in doing so it gives you a common basis for comparing

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 costs and benefits. And one would then be able to make a reasoned decision
2 about whether it is worth implementing the fix.

3 What we looked for, in order to justify a fix, is that it would be
4 cost-beneficial, number one criteria; it would need to provide a significant risk
5 reduction potential, second key consideration.

6 And then for purposes of license renewal the real action here
7 is to look at the 20 years of additional life of the plant. And we focus on
8 whether these improvements actually deal with the aging effects that occur
9 during the 20 year license renewal period.

10 So it is really kind of a three-tiered criteria that we use there
11 to make a judgement.

12 And now I can proceed to the slide that is on the screen,
13 there, and summarize the essence of what was done in the McGuire analysis.
14 Fifteen candidate improvements were evaluated through the systematic use of
15 the PRA, and the review of these other analysis, as I've described.

16 Seven of these related to reducing the core damage
17 frequency. These would be termed preventive SAMAS. And eight of the
18 improvements related to improving containment performance, given a core
19 damage event, these eight SAMAs would reduce the consequences by
20 improving the containment's ability to deal with those types of events.

21 Based on the use of the regulatory analysis guidelines, and
22 consideration of the risk reduction and the costs of each of these SAMAS, the
23 NRC Staff determined that one SAMA appears to be cost-beneficial. Although
24 it does not relate to aging, it does appear like it would be cost-beneficial.

25 I will discuss this a bit more in a moment. This SAMA deals

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 with providing backup power to the hydrogen control system. Ice condenser
2 plants are equipped with a hydrogen control system which is a number of
3 igniters, like 60 or so igniters, distributed throughout the plant.

4 These are powered from the AC power sources off-site, and
5 the on-site diesel generators. What we looked at here is the availability of that
6 system, during station blackouts.

7 A key concern is that in a station blackout this system is not
8 available because it is dependent on the AC power. And, by definition, once
9 you've reached station blackout conditions, these main line power sources are
10 not available.

11 So the potential improvement here is to provide a backup
12 means of power, such as a portable generator that is independent of these
13 other main diesel generators, and could be used on an ad hoc basis could be
14 hooked up to supply the igniters with power.

15 Now, this is not as simple as it may seem, because there is
16 a question about whether the air return fans in the containment building need
17 to also be provided from a backup power source.

18 These air return fans mix the containment environment, the
19 hydrogen air steam mixture inside containment is basically mixed with, through
20 the use of the fans.

21 And in a station blackout if you didn't power the fans, but only
22 powered the igniters from a backup power source, it becomes, really, a
23 technical question whether that is as effective as if you power the fans.

24 There might be greater hydrogen gradients, the distribution
25 within the containment might not be as uniform as if the fans were operating.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 And, potentially, that could be not as effective as if the fans were operating.

2 So what Duke's claim is, is that it would be more prudent to
3 power both the fans and the igniters. Their belief, really, is that you shouldn't
4 power the igniters without powering the fans at the same time.

5 So, in effect, what that does is it makes the SAMA, the plant
6 improvement we are talking about, is really a combination of two things. It
7 would be powering the igniters, and powering the fans.

8 That changes the costs of the improvement and, according
9 to the Duke PRA, it would not be cost-beneficial to provide both of those
10 systems with backup power.

11 Now, in the Staff's assessment we basically looked at two
12 situations in making our judgement. And it appears that, to back up a second,
13 there was a study done by Sandia National Laboratory that related to direct
14 containment heating. And that study suggests that the containments could be
15 vulnerable in a station blackout.

16 They had different assumptions. In effect the assumptions
17 in the Sandia study were substantially different than the assumptions in Duke's
18 PRA.

19 And, as part of our review we looked at the effect if one used
20 the Sandia assumptions in concert with the PRA, and what would that do to the
21 benefit side of the equation.

22 And we found, and we reported in the GEIS supplement for
23 McGuire, we show the results of this, that the benefits could be substantially
24 greater if the containment was modeled in accordance with the assumptions
25 made in the Sandia study.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Now, a second thing that we also considered is whether, in
2 fact, the fans need to be supplied from the backup power as well. There really
3 isn't a good technical basis, one way or the other.

4 The existing information is not conclusive whether fans need
5 to be provided, you know, in order to have a safe situation. And we think there
6 is a very good chance that one could make a case that you don't need to
7 actually provide the air return fans with backup power, that igniters alone would
8 be effective in the station blackout sequences.

9 And under that assumption this improvement would be cost-
10 beneficial. So, in effect, we've identified a potential improvement that is
11 potentially cost-beneficial. It will depend, really, on whether the air return fans
12 have to be supplied at the same time as providing the backup power to the
13 igniters.

14 And we have identified, NRC has a generic safety issue that
15 has been underway. It was identified as a result of the -- it is a rulemaking that
16 is ongoing as part of hydrogen control. And it was in recognition of the Sandia
17 study.

18 We are looking at this generically for all operating plants, for
19 operating ice condenser plants, looking at this issue to determine if it needs to
20 be, basically, made for all the operating plants as an operating plant issue.

21 So, to conclude with this statement, we are looking at
22 hydrogen control system backup power as a generic issue. It is not an aging
23 related issue, so we don't expect to require anything to be done as part of
24 license renewal, but it is being looked at as a generic issue.

25 None of the remaining candidates, candidate plant

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 improvements, were identified as being cost-beneficial.

2 And the overall conclusion is that additional plant
3 improvements to further mitigate severe accidents, are not required at McGuire
4 as part of license renewal, and that the improvements related to hydrogen
5 control are being further evaluated as a current operating plant issue.

6 Any questions?

7 FACILITATOR CAMERON: Okay, thank you Bob. Are there
8 questions before we go to Jim Wilson for the overall conclusion, in the draft, I
9 would emphasize the draft environmental impact statement.

10 (No response.)

11 FACILITATOR CAMERON: All right, thank you very much
12 Bob, for that in-depth description and analysis. Now we are going to go to Jim
13 Wilson.

14 MR. WILSON: To summarize, the impacts of the proposed
15 action (that is, license renewal at McGuire) are small for all impact areas. The
16 impacts of the alternatives to license renewal range from small to large.

17 Therefore, the Staff's preliminary conclusion is that the
18 impacts of license renewal at McGuire are acceptable from an environmental
19 standpoint.

20 A quick recap of current status... We issued the draft
21 environmental impact statement for McGuire license renewal on May 6th. We
22 are currently in the middle of a public comment period that is scheduled to end
23 on August 2nd.

24 We expect to address the public comments, including any
25 necessary revisions to the draft environmental impact statement, and issue a

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 final environmental impact statement in January of next year.

2 This slide is to provide information on how to access the draft
3 environmental impact statement for McGuire. You can contact me directly at
4 the phone number provided, I will send you a copy.

5 There are a number of copies out in the lobby, you can pick
6 one up on your way out. In addition, the library at the University of North
7 Carolina, at Charlotte, has copies for you to look at, and the document is
8 available on the web at the address given.

9 The last slide gives details on how to provide and submit
10 comments on the draft. This comment period, as I said before, goes until
11 August 2nd. You can submit comments by writing directly to the address given.

12 You can send them to this email address here,
13 McGuireEIS@nrc.gov, or you can bring them in person to our headquarters in
14 Rockville. Chip?

15 FACILITATOR CAMERON: Okay. Before we go to our
16 formal comment, are there any comments for Jim on the overall conclusion, or
17 any of the schedule process?

18 One point, Jim, that may help us bring full circle back to the
19 front is that you indicated that the final environmental impact statement would
20 be ready in January of next year.

21 And then that gets -- what happens with the final
22 environmental impact statement in terms of the overall decision-making
23 process?

24 MR. WILSON: What happens at that point is that if you leave
25 your address with one of the receptionists in the lobby, we will mail you a copy

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 of the final environmental impact statement so that you can look through it.

2 Once we issue it, it undergoes a 30-day review by EPA under
3 CEQ guidelines to see if they identify any problems with it. After that, it can be
4 considered by the Commission as part of its basis for issuance of the proposed
5 action.

6 Then the final environmental impact statement will go along
7 with the safety evaluation report, the inspection findings, and the report from
8 the ACRS and all of these will be taken into consideration by the Commission
9 in making a final decision.

10 FACILITATOR CAMERON: So it all gets married up, okay.

11 We did, I think we have a clarification, or an answer for Lou
12 Zeller's question from before. I'm going to ask Barry to help us with that.

13 MR. ZALCMAN: Thanks, Chip. Again, this is Barry Zalcman,
14 with the Staff.

15 I just wanted to add, for the record, so that others that may
16 have heard the question raised by Mr. Zeller have some frame of reference, so
17 that they can draw a conclusion regarding this.

18 In no way it diminishes our obligation to make sure that our
19 environmental impact statement is written in plain and clear language, so we
20 are taking back that issue.

21 But I would refer the readers to the generic environmental
22 impact statement, which is a base document, on which site-specific
23 supplements are created.

24 The base document provided the basis for the license
25 renewal rule that was made part of Part 51 in 1996, the generic environmental

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 impact statement is a support document to that.

2 If I could refer users of the GEIS to Section 6.2.4, which deals
3 with conclusions associated with uranium fuel cycle and solid waste
4 management issues. The radiological, and I am going to read this from the
5 document, "radiological and nonradiological environmental impacts of the
6 uranium fuel cycle have been reviewed."

7 Later in that section it goes on with: "The doses are very
8 small fractions of regulatory units, and even small fractions of natural
9 background exposure to the same population. Thus standards exist that can
10 be used to reach a conclusion as to the significance of the magnitude of the
11 collective radiological effects.

12 "Nevertheless, a judgement as to the regulatory NEPA
13 implication of this issue should be made, and it makes no sense to repeat the
14 same judgement in every case.

15 "The Commission concludes that these impacts were
16 acceptable, and that these impacts would not be sufficiently large to require the
17 NEPA conclusion for any plant. that the option of extended operations under
18 10CFR54 should be eliminated.

19 "Accordingly, while the Commission has allowed a site a
20 single level of significance for collective effects of the fuel cycle, this issue is
21 considered Category 1." That is as far as I'm going to read into the record.

22 More importantly, the issue that you had raised deals with
23 categorization, meaning is it a Category 1 or Category 2, non-significance, the
24 Staff has, in fact, considered the significance. Thank you.

25 FACILITATOR CAMERON: Thanks, Barry. And can you

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 make sure that Lou has those specific page citations so that, and context on --

2 All right, thank you all very much for listening. And now we
3 want to listen to you. And I'm going to ask Jack Peel, who is the manager of
4 engineering at the McGuire station 2 for Duke Energy Corporation, to talk to us
5 about Duke's vision and rationale in proceeding with the license renewal
6 application. Jack?

7 MR. PEEL: Thank you very much, Mr. Cameron. My name
8 is Jack Peel, and I'm manager of engineering at the McGuire site.

9 On behalf of Duke Power I would like to express public
10 thanks and admiration for our employees. And I'm referring to the employees
11 not only located at McGuire site, but also elsewhere in our company, for their
12 excellent efforts, over the years, to make McGuire successful for an operating
13 period of 21 years to date.

14 And I would be remiss in not also recognizing our license
15 renewal project team, some of those members are here listening today. I
16 appreciate the work they have done to create our application, and to squire it
17 along in the review cycle.

18 I assure you that we strongly believe that the McGuire plant
19 is a worthy candidate for license renewal.

20 I want to thank the Nuclear Regulatory Commission for
21 having developed a process which is thorough and effective. That process has
22 been described by at least two of the speakers before me.

23 After reviewing, really just a cursory review of the draft
24 supplemental environmental impact statement would reveal the thoroughness
25 of the work that the NRC and the National Labs have done.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 After reviewing the draft statement, and I'm referring
2 specifically to Supplement 8, Duke Power agrees with the conclusions of that
3 draft. Now, we intend to do more detailed technical reviews in the weeks
4 ahead, and we will fulfill, if we have any comments, we will provide them in
5 writing, and fulfill the schedule date that Mr. Cameron mentioned, which is
6 August 2nd of this year.

7 Most importantly I want to express thanks to our neighbors
8 here in the local community who have been so supportive of our operations
9 over the years. We, at McGuire, have made a sincere effort to be a good
10 neighbor.

11 We take public safety very seriously. Public health and safety
12 is our number one priority, and that is our unwavering commitment.

13 So we are glad to have the opportunity to go through this
14 license renewal process; we are proud of our employees, proud of our plant,
15 and proud of our operating history, and I thank you for your attention.

16 FACILITATOR CAMERON: Thank you very much, Jack.
17 Now we will go to Lou Zeller of the Blue Ridge Environmental Defense League,
18 and then we will go to Mr. Robert Mahood.

19 MR. ZELLER: Thank you. My name is Lou Zeller, I'm on the
20 staff of the Blue Ridge Environmental Defense League.

21 I have just two brief overviews that I would like to present
22 here today, with regards to this license renewal.

23 One has to do with the provision of potassium iodide to
24 residents living within the ten mile exclusion zone. It is noted here, in the draft
25 report for comment, Supplement 8, that Duke completed a comprehensive

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 effort to identify and evaluate the potential cost benefit plans enhancements to
2 reduce the risk associated with severe accidents at McGuire.

3 As a result, Duke concluded no additional mitigation
4 alternatives are cost-beneficial. Among these analysis are averted public
5 exposure costs.

6 Recently there has been a lot of concern about off-site
7 exposures from accidents. And, of course, the provision of such tablets as
8 these here, the potassium iodide tablets to the public.

9 Of course these are available, actually the Nuclear
10 Regulatory Commission has stockpiled several million doses of these, and an
11 800,000 appropriation, which I think would make the cost of this virtually zero.

12 The radioactive iodine-131 isotope contributes a major
13 constituent in nuclear plant accidents. We could look back to Chernobyl, for
14 example, 150 miles from the site iodine-131 was detected.

15 In that case, the Food and Drug Administration decades ago,
16 and continues to say that it is a safe and effective method. Oak Ridge National
17 Laboratory Paul Zann saying that provision of iodine prevents 99 percent of the
18 damage to the thyroid.

19 In recent Nuclear Regulatory Commission publications it does
20 talk about a rule regarding potassium iodide in emergency planning. This is
21 from May the 13th of this year.

22 That licensees have the obligation to confirm that off-site
23 authorities have considered the use of potassium iodide as supplemental
24 protective action for the general public.

25 It also makes a supplemental point here, and I'm reading

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 from the NRC, it will also require the licensees to use this information in
2 developing protective action recommendations for off-site agencies.

3 I have two questions for the record. One, has Duke Energy
4 fulfilled the Nuclear Regulatory Commission requirement with regard to off-site
5 authorities?

6 And, two, how has Duke used this information in protective
7 action recommendations? I see nothing to that effect in the document before
8 us today.

9 The other issue has to do with the one that I raised during the
10 presentations, and it has to do with high level waste. On advice of the staff I
11 did go back to reread Chapter 6 here about single significance levels, which are
12 not assigned to high level waste.

13 Within Chapter 6 it merely, I think, begs the question,
14 because there is no analysis, and only a recapitulation of the regulatory limits.
15 And I think Barry Zalzman read something read something from the generic
16 environmental impact statement which essentially says the very same thing.

17 In that the Commission, and this is again from Page 6-5 in
18 supplement, in Supplement 8 to the draft of today, it says: The Commission
19 concludes these impacts are acceptable, and that the impacts would not be
20 sufficiently large.

21 I would submit that the lack of a single significance level at
22 this point, and this is a lone exception, so far as I can tell, every other impact
23 in this document is considered small.

24 The impacts here are not small, they are not moderate, they
25 are large. And there seems to be a reluctance to say large impacts in this

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 case, particularly in the case before us, which is license renewal extension.

2 The high level waste would increase, the impacts would
3 increase for an additional 20 years. I think that before this process can move
4 forward there must be a better analysis of the impacts from high level waste.

5 It is not reassuring to me that the staff does not consider a
6 change in its position necessary with regards to high level waste disposal, and
7 consideration of the Category 1 issue.

8 I wonder what it would take, considering that the document
9 here mentions the possibility of 1,000 premature cancer deaths world-wide, for
10 a 100,000 metric ton repository.

11 Thank you very much.

12 FACILITATOR CAMERON: Thank you, Lou. Let's go to Mr.
13 Mahood. And I hope I've pronounced your name correctly.

14 MR. MAHOOD: You certainly have. It is a rare pleasure,
15 thank you.

16 The whole strange thing about this process is that you are still
17 completely bound by regulations, the original regulations from about 1954, I
18 suppose with some revisions.

19 And you talk about there being no new information, no new
20 information, and for the most part I think that is perfectly true within the sort of
21 frame of reference.

22 But what I would submit to you is that while there may be no
23 new information, there are a couple of new circumstances that I don't think can
24 be ignored when the time comes to consider whether to go on with the nuclear
25 industry.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 One of these, which is specific to McGuire, and also to
2 Catawba plant, is that we have had an enormous population explosion here,
3 and it is not stopping, it is continuing to go on. Whereas we have not had
4 anything like an enormous improvement in the evacuation routes.

5 And hardly anyone in this region believes that they could
6 actually get out. And FEMA doesn't seem, which is the agency that is most
7 responsible, or supposed to be responsible for this, seems to be thinking
8 entirely in pre-9/11 terms.

9 Because when you have a meltdown, if you start with a
10 problem with the plant, and then you try to correct it, and then you find you are
11 not succeeding, and so you send out the first warning, and then you are still not
12 succeeding, and you send out a secondary, tertiary, quaternary warnings, and
13 so on, you've got hours, and hours, and hours of this to start evacuating some
14 things first, and all that.

15 But if a plane is driven into your spent fuel deposits, whether
16 they are in dry casks, or in pools of water, they are outside the containment
17 domes.

18 So all the things that you've been saying about how strong
19 the domes are, and how -- what great safeguards you have against operational
20 failures, become completely irrelevant in the case of an attack by even a fairly
21 small plane, a moderately small plane on the spent fuel containment.

22 And it seems to me that that would have, if that happened,
23 it would have something of an environmental impact, in that there is about 20
24 or 30 times as much fissionable material outside of your highly fortified domes,
25 as there is inside of them.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 I also note, just to back up what I said about evacuation, that
2 Mr. Wayne Broome, I believe the name is, who is the local official that would
3 do the evacuating, or take charge of evacuation here, talks entirely in pre-9/11
4 terms.

5 He says, well, we figure we can get everybody out in under
6 six hours, provided that first we had cleared the lakes, we had cleared the
7 schools, and we cleared all the businesses.

8 Well, that is kind of sort of a leisurely scenario that you have
9 in a meltdown, but you don't have that in an instant attack on a plant, on the
10 spent fuel depositories.

11 I called the Charlotte Mecklenburg schools, and I found that
12 they thought it would take them about an hour, or an hour and a half to
13 evacuate. When I pinned them down I found out, because this is sort of
14 unbelievable, to get everybody in the region out of the schools in an hour and
15 a half, or something like that, when it takes buses many, many hours on the
16 roads to get the kids to and from school every day, in three shifts.

17 And he said, yes, but we only need to evacuate a ten mile
18 radius. Well, you know, that would be totally inadequate in such an accident.
19 Well, not accident, but such an attack.

20 He also said that the private schools, of which there are many
21 around here, were not included in the plans, they all have plans of their own.
22 I called one of the private schools, got the secretary, and asked what their plan
23 was.

24 And she said, their safety man wasn't there, so I would have
25 to wait for him to get back. And I said, well, what if the attack happened right

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 now and your safety man isn't here? You must have the plan, it must be there.

2 And so she looked for it, and she couldn't find it. She said it
3 was in her drawer, but she couldn't find it. The principal wasn't there, either.
4 And then she got mad and pretty much hung up on me.

5 So you can see that this region is just not prepared for an
6 eventuality like that. And the change in circumstances as to the population
7 density, this is going to keep on changing.

8 So here this renewal comes up 20 years from now. What do
9 you think it is going to look like around these plants 20 years from now?

10 It seems to me that it would be the responsible thing to do,
11 to make some recommendations to the communities around here, to the
12 governments around here, to put a moratorium on any further building in your
13 evacuation zone, until the roads can be improved to the point where a quick
14 evacuation is possible.

15 And it seems to me that somebody needs to take this
16 responsibility, whether it is Duke Power, whether it is the NRC, or whether it
17 is FEMA, somebody needs to be advising local governments that they can't go
18 on just packing people around these plants indefinitely, if you want to go on
19 operating for another 40 years.

20 Thank you.

21 FACILITATOR CAMERON: Thank you very much for that
22 information and those recommendations, Mr. Mahood.

23 And I think that is all that we have in terms of formal
24 comments for this afternoon session. We will be back tonight for a 7 o'clock
25 meeting, and a 6 o'clock open house.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 And, for your information, we are going to be doing a similar
2 set of meetings on the Catawba Nuclear Power Plant on June 27th at the Rock
3 Hill, South Carolina City Hall.

4 And thank you all for being here, and send us your written
5 comments if you so desire. There are copies of this document out on the desk,
6 and we are adjourned. Thank you.

7 (Whereupon, at 3:12 p.m. the above-entitled matter was
8 concluded.)

9
10
11
12
13

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701