

Official Transcript of Proceedings

NUCLEAR REGULATORY COMMISSION

Title: William States Lee III Nuclear Station, Units 1 and 2
Draft Environmental Impact Statement Public Meeting:
Afternoon Session

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1 UNITED STATES OF AMERICA
2 NUCLEAR REGULATORY COMMISSION

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4 PUBLIC MEETING TO DISCUSS
5 DRAFT ENVIRONMENTAL IMPACT
6 STATEMENT FOR THE COMBINED
7 LICENSES APPLICATION FOR
8 WILLIAM STATES LEE III
9 NUCLEAR STATION UNITS 1 AND 2

10 + + + + +

11 Thursday, January 19, 2012

12 + + + + +

13 Auditorium
14 Restoration Church International
15 1905 North Limestone Street
16 Gaffney, South Carolina
17 1:00 p.m.

18
19 BEFORE: GEORGE SMITH, Facilitator
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23
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25
26

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P R O C E E D I N G S

MR. SMITH: All right. My name is George Smith, and this is Susan Salter. We'll be your facilitator for the meeting this afternoon.

Just a couple of quick notes to get started. Okay. For today's meeting, as facilitator, our role is to help the meeting along, to make sure it moves smoothly. So we're going to ask a couple of things of you. In order to keep the meeting on time first, I'm going to ask that during the question and answer session that you hold your questions down and -- to a three to four-minute time period.

And we want to let everyone know that the meeting today is being transcribed by Brenda in the back. So in order for Brenda to accurately transcribe the meeting we want to ask that everyone hold their sidebar conversations down, if you need to talk. If you can't, please go out into the lobby outside. Because we want to get your comments transcribed accurately.

In addition, we want to ask that everyone now place their telephone or the cell phones in the courtesy mode or vibrate. And if you have to have a conversation, please do. But please take it out to the lobby. And also, again, far away enough from the

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1 door so we won't hear the conversation. Because
2 again, Brenda is transcribing. And we also want the
3 audience to be able to hear the conversations that are
4 going on here in the facility.

5 Speaking of which, if you need to go to
6 the rest rooms, the rest rooms are out in the lobby.
7 You go to your right and you'll see the signs for the
8 rest rooms. You can see the exit signs that are
9 posted if we need to leave the facility, also.

10 Now, the purpose of the meeting is to
11 discuss the results of the Draft Environmental Impact
12 Statement related to the Combined License Application
13 for Unit 1 and 2 of the Lee Nuclear Station. During
14 the meeting you may hear reference to the
15 Environmental Impact Statement as an EIS or Draft EIS,
16 which means the Draft Environmental Impact Statement.

17 The agenda for the meeting includes the
18 presentation by the NRC staff and the Army Corps of
19 Engineers to review the environmental review process
20 and the preliminary results of the Draft Environmental
21 Impact Statements. Now, once the -- their
22 presentations are complete we'll have that ten to 15-
23 minute question and answer session. And then
24 afterwards we'll move -- well, Susan will take you
25 into the public comment period.

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1 Now, Susan and I both have microphones.
2 So during the question and answer period we'll come to
3 you and provide the microphone so you can -- if you
4 have any comments. As a reminder if you wish to make
5 comments you can let us know by completing a yellow
6 card. And they have the yellow cards in the lobby
7 which you can fill out. Now, some individuals
8 have already filled out yellow cards or they've
9 contacted the NRC to say, hey, that they want to make
10 statements. So we have those individuals on the list
11 and also, we've had some individuals to show up and
12 they fill out the yellow cards. So we'll have the
13 yellow cards and we'll call you to let you know
14 that -- when you can come up to make your comments.
15 And that's during the comment period.

16 Again -- and by filling out the yellow
17 cards, it accomplishes a couple things. First, we can
18 accurately have your name transcribed. And also, we
19 can accurately take your comments down. And we want
20 to give everyone an opportunity to make their
21 comments. So the yellow cards give us -- it gives us
22 an opportunity so where we can place the names how we
23 received them and allow you to make your comments.

24 One of the things that we do ask is that
25 you not make the comments from the audience. We're

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1 going to have you to come up to the podium and you can
2 make your comments. Again, if you make the comments
3 from the audience then, you know, you won't get
4 accurately transcribed. And also, the rest of the
5 audience may not be able to hear your comments. So
6 again, if you want to make comments please fill out a
7 yellow card. We'll call you. We'll give you an
8 opportunity to -- so you can be heard. And we'll have
9 you to come up to the podium.

10 Okay. With all that, I'd like to turn the
11 meeting over to Mr. William Burton. Mr. William
12 Burton is the chief of the Environmental Projects
13 branch in the Division of New Reactor Licensing in the
14 NRC's Office of New Reactors.

15 MR. BURTON: Okay. Thank you, George.

16 Can everybody hear me? Okay. Good.

17 First off, yes, as George said, my name's
18 William Burton but I always tell folks William was
19 really my granddaddy. I prefer to be called Butch.
20 Most people know me as Butch. I want to welcome you
21 also to the first of two public meetings to give the
22 NRC staff an opportunity to share with you our
23 preliminary findings and recommendations with regard
24 to our environmental review of the proposed Lee
25 Station.

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1 Before we get into some of the formal
2 stuff I wanted to let you know a little bit about the
3 NRC or the Nuclear Regulatory Commission. The NRC was
4 actually created back in the 1970s for the specific
5 purpose of regulating the civilian use of reactors and
6 radioactive materials to ensure public health and
7 safety, common defense and security and to protect the
8 environment. This is our mission. We do not advocate
9 for or against the use of radioactive materials.
10 That's a public policy decision that's left to the
11 American public through your elected representatives.

12 Our job is to ensure that any use of
13 radioactive materials is done safely. We've pursued
14 this mission for over 30 years and will continue to do
15 so.

16 Next slide, please.

17 Actually, a quick question. We've been
18 here a couple of times before. We did a couple of
19 scoping meetings back in 2008 and another one in 2010.
20 Quick show of hands people who attended either one of
21 those. Oh, okay. Very good. Well, welcome back.

22 If you recall, when we had those meetings
23 one of the things that we said to you at that point,
24 we were right in the very beginning of our review.
25 And the purpose of those meetings were to sort of

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1 scope out and gather information from the public who
2 lived in the area to try and see what were some of the
3 pertinent issues to help us focus our review. And
4 during that time we said that, you know, at one point
5 we were going to come back following our review and
6 share some of those results with you. That's why
7 we're here this afternoon.

8 We've got several objectives for today's
9 meetings. They include describing the NRC's process
10 for performing our comprehensive, thorough and
11 systematic review to determine the environmental
12 impacts associated with building and operating the
13 proposed Lee units. Most of that portion of the
14 presentation will be familiar to the folks who came to
15 the previous scoping meetings.

16 We're also going to be sharing with you
17 the schedule of activities that remain to complete our
18 review, providing as I said, our preliminary findings
19 and recommendations, sharing with you how you can
20 provide your comments to us on our Draft Environmental
21 Impact Statement and most importantly, we'll be
22 spending time this afternoon listening to you as you
23 provide some of those comments to us.

24 That's pretty much all I had to say. So
25 what I'll do now is I'll turn it over to Ms. Sarah

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1 Lopas, who is the lead project manager overseeing the
2 staff's review for the Environmental Impact Statement.

3 Sarah?

4 MS. LOPAS: Hi, everybody. My name is
5 Sarah Lopas. I'm the environmental project manager
6 for the Lee Nuclear Station environmental review. If
7 this is your second, third or even fourth meeting here
8 with us thank you for your past participation. Thank
9 you for coming out today.

10 Both the NRC and the U.S. Army Corps of
11 Engineers were last here back in June of 2010. And
12 that was for our supplemental Pond C scoping meeting.
13 So I want to briefly go over why we're here again
14 today, which is what Butch got into a little bit, and
15 a little bit of the history of the Lee Nuclear Station
16 review.

17 Back in December 2007 Duke submitted an
18 application for two combined licenses to construct and
19 operate two AP1000 reactors at the Lee Nuclear Station
20 site in Gaffney. That's about eight miles southeast
21 of where we are right now. The combined licenses, if
22 they're granted, would give Duke the authorization to
23 both construct and operate those reactors.

24 The NRC staff is conducting two concurrent
25 reviews right now for that application review, an

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1 environmental review and a safety review. We have our
2 safety project manager here today, Mr. Brian Hughes.
3 So if there any safety-related questions you can speak
4 to Mr. Hughes after the meeting. Today we're focusing
5 just on the environmental review and the Draft
6 Environmental Impact Statement.

7 Next slide, please.

8 The Army Corps of Engineers, Charleston
9 District, is a cooperating agency on the Lee Nuclear
10 Station environmental review. Together the NRC and
11 the Army Corps make up the Lee Environmental Review
12 Team. And the purpose of our collaboration was to
13 develop a single EIS that met the purpose for both our
14 purposes for both of us. We have separate licensing
15 and permitting processes that we both must go through.

16 To develop the Draft EIS the NRC and the
17 Army Corps Team reviewed Duke's environmental report
18 and the Make-Up Pond C supplemental environmental
19 report. We conducted visits to the Lee Nuclear
20 Station site, the Make-Up Pond C site and the three
21 alternative sites. We've held audits at Duke's
22 headquarters.

23 We've met with local officials and
24 representatives and state and federal resource
25 agencies like the South Carolina Department of Health

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1 and Environmental Control, who are here today,
2 Department of Natural Resources, who are also here
3 today, the U.S. Environmental Protection Agency
4 Atlanta Regional Office, who joined us for a
5 government-to-government meeting yesterday.

6 We gathered information through our
7 scoping periods back in 2008 and 2010. And we also
8 sent Duke 224 requests for additional information,
9 which all those can be found on our public web site.
10 So if you need to find that information come see me
11 after the meeting and I can point you in the right
12 direction. We used all this information to publish
13 our Draft EIS which was published on the 13th of
14 December.

15 I'm now going to ask Richard to come up
16 and present his slides. Richard Darden is the senior
17 project manager and senior biologist for the Army
18 Corps of Engineers.

19 MR. DARDEN: Thank you, Sarah.

20 Well, just a brief aside really from the
21 slides that the NRC is presenting. A brief aside
22 about our agency, the Corps of Engineers. As they
23 mentioned, we're a cooperating agency on the EIS with
24 the Nuclear Regulatory Commission. So I just wanted
25 to talk to you a little bit about the Corps of

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1 Engineers and our role.

2 Could we advance, please. Thank you.

3 The Corps of Engineers, if you know or
4 don't know, is a federal agency that has specific
5 responsibility for waters, waters of the United
6 States. And we administer a portion of the Clean
7 Water Act, the portion called Section 404, which
8 addresses the regulation of the placement of dredge
9 material or fill material within waters of the United
10 States, including wetlands. And that would bring us
11 into this project because the proposed project would
12 involve a number of wetland and stream impacts. So
13 the Corps of Engineers has a federal action in this
14 project.

15 So we are working with the Nuclear
16 Regulatory Commission in preparing the draft and final
17 Environmental Impact Statement. The NRC is -- has
18 been mentioned as the lead federal agency. And the
19 Corps of Engineers is serving as the cooperating
20 agency, working together to produce one document that
21 would meet the needs of both agencies for the federal
22 actions, decisions and licenses that we would do.
23 This is -- the final EIS that would be produced in
24 this project would be the environmental document on
25 which our permit decisions would ultimately be based.

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1 Could we go ahead. Thank you.

2 The one thing that I always try to
3 remember and perhaps over-stress, but public
4 involvement and the participation of the public in the
5 process is critical. It's very important. It's
6 required certainly. But beyond that it's incredibly
7 important to us. And so this meeting today is part of
8 that public participation that's built into the NEPA
9 process and that we all feel is very important.

10 In terms of the project, we do have a
11 permit application in our office from Duke Energy for
12 this project. And in terms of impacts to the waters
13 of the U.S., which of course, the Corps of Engineers
14 would have regulatory authority, we've characterized
15 the proposed impacts in kind of a couple, a few
16 categories here, the Lee Nuclear Station site itself
17 and then the area of the proposed Make-Up Pond C and
18 then other facilities that are part of the project,
19 transmission lines, pipelines, railroad spur, et
20 cetera. And you can see in the Draft EIS document
21 what those proposed impacts are.

22 You can also visit the public notice that
23 we've put out on our web site that addresses the
24 permit application. The permit application has
25 incredibly more detail about the proposed effects to

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1 waters of the U.S. and the project overall. And so I
2 really do encourage you to take advantage of looking
3 at the permit drawings, the mitigation plan and
4 their -- and that -- and those drawings to learn as
5 much as you may want to know or more about what's
6 proposed.

7 And then just a final comment that the
8 USACE's permit decision is independent of the Nuclear
9 Regulatory Commission license decision. We will
10 likely make our permit decision before the NRC makes a
11 license decision. But certainly, we will not make a
12 permit decision until after the EIS has been
13 completed.

14 And with that, the Corps of Engineers is
15 available after the meeting to talk with anybody who
16 may have a question or a comment. And I'll turn it
17 then back over to Sarah for the rest of the program.
18 Thanks.

19 MS. LOPAS: Hey, Wayne? Are the slides on
20 some sort of automatic moving forward or no? If you
21 could just hang off on advancing until I say, Next
22 slide, that would be helpful.

23 This slide shows our step-wise approach
24 and how we meet our responsibilities under the
25 National Environmental Policy Act. Before each one of

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1 these milestones, NRC will publish a notice in the
2 Federal Register, which I'm sure most people don't
3 tend to read on a regular basis. But we -- our Public
4 Affairs Office will release a press release at each
5 one of these milestones, too.

6 We started the review back in March 2008
7 with a Notice of Intent to conduct scoping and
8 preparing EIS. That started our first 60-day scoping
9 period. It was back during that first scoping period
10 that the South Carolina Department of Natural
11 Resources submitted a comment regarding drought
12 conditions in the Broad River. And this caused Duke
13 to re-examine their water availability and determine
14 that a supplemental source of cooling water would be
15 needed to allow the Lee Nuclear Station to operate
16 during periods of low flow in the Broad River.

17 In September 2009 Duke submitted their
18 supplement to the environmental report. That
19 discussed the environmental impacts of developing
20 Make-Up Pond C. The Army Corps of Engineers and the
21 NRC came back here in June, 2010 to have a second
22 supplemental scoping meeting on Make-Up Pond C and
23 what folks thought of that.

24 All of our past scoping comments and past
25 responses to those comments can be found in our two

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1 Scoping Summary Reports that we published. And then
2 the in-scope comments and responses, those are found
3 in Appendix D of our EIS.

4 The Draft EIS was published on December
5 13, as I mentioned earlier. On December 21 we
6 published our Notice of Availability in the Federal
7 Register. And then the EPA published their own Notice
8 of Availability on December 23. That EPA notice
9 started the clock on our 75-day comment period. So
10 that's the 45 days that we're required to put out our
11 documents for comments and then it's plus two 15-day
12 extensions. So 75 days. The comment period is open
13 until March 6.

14 Once we get the comments -- all the
15 comments in we start processing those comments. And
16 we will start to change or make any edits or tweaks to
17 our analysis in the Draft EIS based upon your comments
18 that we receive. And that includes anything that we
19 hear from you today or later tonight. We expect to
20 issue our final EIS in October of 2012. And all the
21 Draft EIS comments that we get will be in Appendix E
22 and our responses will be in Appendix E of the finale
23 EIS.

24 Next slide, please.

25 This is just a simplified Table of

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1 Contents of our Environmental Impact Statement. So we
2 start off by describing the current environmental
3 setting and the proposed projects. Then Chapters 4
4 and 5 go into our analysis of impacts for the various
5 phases of the project. We look at -- in Chapter 8 we
6 look at the need for power in the region. Chapter 9
7 looks at alternatives to the proposed project.
8 Chapter 10 we conclude with the NRC's preliminary
9 conclusion.

10 Next slide, please.

11 This slide shows the resource areas that
12 we considered in the Draft EIS. To prepare our EIS
13 the NRC has assembled a team with various backgrounds
14 in different scientific and technical disciplines.
15 The NRC has also contracted with Pacific Northwest
16 National Laboratory. They assisted us in preparing
17 the EIS.

18 Today we have Mr. Lance Vail with us.
19 Lance is our team hydrologist who looked at surface
20 water quality and use, which I know is kind of an
21 issue here. As we mentioned earlier, Richard Darden,
22 the Army Corps of Engineers provided technical
23 expertise with regard to waters of the U.S.

24 And in the interest of time today I'm only
25 going to discuss a few of the resource area

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1 conclusions. So that's why I really encourage folks
2 to pick up a copy, either a CD or a paper copy out
3 there before you leave today. And you can also access
4 the IES on line. You might find that some of your
5 questions or comments are already answered or
6 addressed in the EIS.

7 Next slide.

8 This slide is just how impacts are
9 quantified. And the NRC has established three impact
10 category levels, small, moderate and large. And
11 really, this helps us just explain the effects of the
12 proposed project in consistent terms throughout all
13 the resource areas. And I'm going to -- the next few
14 slides are going to highlight some of those resource
15 areas.

16 Next slide, please.

17 An important resource area that we
18 evaluated was surface water resources. The NRC
19 evaluated ground water and surface water, use and
20 quality impact, scoring both building Lee Nuclear
21 Station and Make-Up Pond C and operation of the
22 station. These analyses are contained in Sections 4-2
23 and 5-2 of the EIS.

24 The next two slides are just going to
25 focus on surface water use during operation. Duke

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1 wouldn't use any ground water during operation of the
2 plant. I'll begin with Duke's water management plan.

3 Oh, can you go back? Thanks.

4 I'll begin with Duke's water management
5 plan as it's presented in Duke's August, 2011
6 application to the South Carolina Department of Health
7 and Environmental Control for a national pollutant
8 discharge elimination system permit for the station.
9 To minimize impacts to the Broad River Duke proposes
10 to withdraw water from Make-Up Ponds B and C instead
11 of the river during drought conditions.

12 As the table on this slide summarizes,
13 when Broad River flows are greater than 538 cubic feet
14 per second all Lee Nuclear Station's operational water
15 needs would be withdrawn from the river. When flows
16 in the river drop below 538 cubic feet per second an
17 increasing proportion of the station's consumptive
18 water needs would be withdrawn from Make-Up Ponds B
19 and then C as river flows approach 483 cubic feet per
20 second. Consumptive water means that water that's
21 evaporated away and doesn't get returned to the river.
22 When Broad River flows are less than 483 cubic feet
23 per second all consumptive water withdrawals would
24 come from Make-Up Ponds B and then C. Non-consumptive
25 water would still be withdrawn from the river. So

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1 non-consumptive water means that water that gets
2 returned to the river as part of the station
3 discharge.

4 And a note about the 483 cubic feet per
5 second flow value. The 99 Islands Reservoir is a part
6 of the Broad River that's formed by the 99 Islands dam
7 and hydroelectric station. And this is where the Lee
8 Nuclear Station river intake would be located. The 99
9 Islands hydroelectric station is licensed by the
10 Federal Energy Regulatory Commission. And 483 cubic
11 feet per second is the minimum flow that's allowed in
12 the 99 Islands Reservoir, as dictated in the license
13 for that hydroelectric station.

14 Okay. Next slide now.

15 Under normal conditions and under Duke's
16 water management plan, Lee Nuclear Station withdrawals
17 from the Broad River would represent about 4 percent
18 of the Broad River mean annual flow and consumptive
19 use would be about 3 percent of mean annual flow.
20 Duke would need to comply with Environmental
21 Protection Agency regulations governing the location,
22 design, construction and capacity of the Lee Nuclear
23 Station cooling water intake structure.

24 The EPA regulations are designed to
25 protect aquatic organisms and their habitats by

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1 minimizing adverse impacts associated with cooling
2 water intakes. One aspect of the EPA regulations is a
3 requirement that would limit Lee Nuclear Station to
4 withdrawing a maximum of 5 percent of the mean annual
5 flow of the Broad River. To comply with this
6 requirement and to protect aquatic biota as the rules
7 intend, Duke has proposed an alternative to the 5
8 percent mean annual flow limitation. It's important
9 to note that EPA regulations do allow for Duke to
10 propose alternative methods for meeting the goal of
11 protecting the aquatic environment.

12 Following a drought event where Duke was
13 required to withdraw water from the Make-Up Ponds Duke
14 would eventually need to refill those ponds with water
15 from the river. Duke has requested an alternative to
16 the 5 percent mean annual flow limitation because
17 there would be times when Duke would be withdrawing
18 water from the river for normal station operation
19 while at the same time withdrawing water from the
20 river to fill up those ponds again. It's during this
21 combined two withdrawals that Duke might not meet the
22 5 percent mean annual flow limitation.

23 So instead, Duke proposes to only refill
24 the ponds, Make-Up Ponds B and C, during the months of
25 July through February to minimize impacts to aquatic

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1 biota. It would be during this time where there'd be
2 less, you know, spawning and biological activity going
3 on in the river. Furthermore, Duke would monitor
4 these withdrawals to ensure that river flows never
5 fall below that 483 cubic feet per second minimum flow
6 which is allowed at 99 Islands Reservoir. Assuming
7 these conditions and Duke's adherence to their water
8 management plan the Review Team concluded that surface
9 water impacts to the Broad River from operation of the
10 plant would be minimal.

11 Next slide.

12 The Review Team also evaluated impacts to
13 local wildlife and their habitat on the Lee Nuclear
14 Station site and vicinity, including Make-Up Pond C.
15 Our evaluation covered species such as the federal
16 candidate species, the Georgia Aster and two state-
17 ranked species, the Loggerhead Shrike, which is a type
18 of bird native to the southeastern U.S. and the
19 southern adders tongue fern. I knew I was going to do
20 that - that's a tongue twister.

21 Anyway, the Review Team consulted with the
22 South Carolina Department of Natural Resources and the
23 U.S. Fish and Wildlife Service's southeastern office
24 regarding impacts to federal and state species. With
25 the Army Corps' expertise the Review Team also looked

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1 at impacts to wetlands, open waters and streams, as
2 Richard showed before.

3 The Review Team determined that building
4 the proposed Lee Nuclear Station, including Make-Up
5 Pond C, two new transmission lines and a railroad spur
6 would result in noticeable impacts to aquatic and
7 terrestrial resources. These impacts are driven
8 primarily by the creation of Make-Up Pond C, which
9 would involve the inundation of 620 acres of
10 terrestrial and stream habitat in an area off site
11 from the Lee Nuclear Station. Additional land would
12 be cleared as a buffer around the pond.

13 And in total, 1,115 acres of habitat would
14 be altered, including the loss of 830 acres of forest
15 and 12.7 miles of creek habitat. While these numbers
16 are substantial, the noticeable losses of habitat
17 would not destabilize the terrestrial and aquatic
18 ecosystems across the Piedmont region. And
19 compensatory mitigation would be required by both
20 state and federal agencies.

21 In section 5-3 of the EIS the Review Team
22 determined that impacts to terrestrial and aquatic
23 resources from operation of Lee Nuclear Station would
24 be small. This includes impacts to aquatic organisms
25 in the Broad River due to thermal, chemical and

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1 physical effects from station discharge and physical
2 effects from the river intake system.

3 Next slide.

4 As part of the NRC's staff's analysis, we
5 evaluated potential radiological doses to workers
6 during construction, doses to members of the public
7 and plant workers during operation and doses received
8 to wildlife. NRC regulations limit concentrations of
9 liquid and gaseous effluents released during plant
10 operations as part of limiting doses to members of the
11 public. NRC regulations also implement the
12 Environmental Protection Agency's standard of 25
13 millirem per year of whole-body dose for the entire
14 fuel cycle.

15 The NRC provides further guidelines that
16 licensees are expected to maintain dose to the public
17 as low as reasonably achievable by limiting the whole
18 dose to 3 millirem for liquid effluents and 5 millirem
19 for gaseous effluents generated during the operation
20 of each nuclear power reactor.

21 An average individual's effective
22 radiation dose from nuclear power plants is likely to
23 be about one-tenth of 1 percent of the annual
24 radiation dose exposure from both background and man-
25 made sources as shown on this slide. Therefore,

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1 impacts on all three groups, members of the public,
2 plant workers and wildlife would be small since Duke
3 must continue to comply with NRC and EPA regulatory
4 limits.

5 Next slide.

6 Chapter 7 of the EIS is devoted to
7 analyzing cumulative impacts on all the resource areas
8 that we looked at in Chapters 5 and 4. The Review
9 Team looks at cumulative impacts because greater
10 impacts on certain resource areas may result when
11 environmental effects from the proposed action are
12 combined with effects from other past, present and
13 future projects or actions. Cumulative impacts can
14 occur from individually minor but collectively
15 significant actions taking place over a period of
16 time.

17 Some of the projects we looked at are
18 listed on this slide. Table 7-1 in the EIS has a
19 comprehensive list of all the projects we looked at.
20 The reason why I highlighted V.C. Summer Units 2 and
21 3, the proposed Cliffside Steam Station, hydroelectric
22 facilities on the Broad River and its tributaries and
23 small manufacturing facilities that discharge
24 wastewater to the Broad River is because these are all
25 examples of projects that could impact surface water

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1 quality and use in the Broad Rover basin. So this is
2 one example of cumulative impacts that the NRC looked
3 at.

4 The NRC Review Team determined that
5 noticeable adverse impacts could occur in the resource
6 areas of land use, surface water use, terrestrial and
7 aquatic ecology and historic and cultural resources.
8 We also noticed that there would be noticeable impacts
9 with regard to traffic around the Lee Nuclear Station
10 site and with regard to global greenhouse gas
11 emissions.

12 Next slide.

13 Chapter 9 of the EIS is a long chapter and
14 rightly so. This is a chapter that contains the
15 Review Team's evaluation of alternative energy
16 sources, alternative sites and alternative system
17 designs, as well as looking at the no-action
18 alternative.

19 In our alternative energy analysis the
20 Review Team evaluated generation of base load power,
21 which is power that's continuously produced except
22 during times when the plant is down for repairs or
23 scheduled maintenance. We examined a combined cycle
24 natural gas plant alternative which would use less
25 water than a nuclear plant of comparable size. We

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1 looked at a coal-fired plant and combinations of
2 energy sources such as natural gas, wind and solar
3 combined with a sizeable amount of energy conservation
4 to meet the Lee Nuclear Station's proposed electrical
5 output of 2,200 megawatt-electric.

6 Given today's technologies, the NRC
7 determined that none of the feasible base load
8 energies would be environmentally preferable or would
9 meet the purpose and need of the proposed project.

10 The Review Team also looked at the Lee
11 Nuclear Station site compared to three alternative
12 sites within Duke's service area of North Carolina and
13 South Carolina. Primarily because each site would
14 have required an even larger storage cooling water
15 reservoir, we determined that none of the alternative
16 sites were environmentally preferable to the Lee
17 Nuclear Station site.

18 Next slide.

19 Another important part of the Review
20 Team's evaluation of alternatives is looking at system
21 design alternatives. The Review Team considered a
22 variety of heat-dissipation systems and circulating-
23 water system alternatives. The proposed circulating-
24 water system for Lee Nuclear Station site is a closed-
25 cycle system that would use mechanical draft cooling

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1 towers for heat dissipation. And Make-Up Pond C would
2 provide supplemental cooling water during drought
3 conditions.

4 Because development of Make-Up Pond C is a
5 primary driver of adverse environmental impacts
6 associated with the Lee Nuclear Station the Review
7 Team carefully examined whether other system designs
8 could eliminate the need for Make-Up Pond C by
9 requiring less cooling water or by getting cooling
10 water from another source. In particular, the NRC
11 examined a combination wet-dry hybrid cooling system,
12 as well as expansion of Make-Up Pond C, which is
13 already there at the site. The Review Team identified
14 no alternatives environmentally preferable to the Lee
15 Nuclear Station plant systems design.

16 Next slide.

17 In Chapter 10 of the Draft EIS the NRC
18 makes our preliminary recommendation to the
19 Commission. The recommendation is based on the
20 environment impacts, mitigation measures and the fact
21 that no alternative site, alternative base load energy
22 source or alternative system design would be
23 environmentally preferable. Based on the results of
24 our environmental review the preliminary
25 recommendation to the Commission is that the combined

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1 licenses for Lee Nuclear Station Units 1 and 2 be
2 issued. The preliminary recommendation is for the
3 environmental review only. The safety review is
4 ongoing and we expect that review to be completed in
5 November, 2012 with the issuance of a final safety
6 evaluation report.

7 Next slide.

8 This slide just discussed access to the
9 Draft EIS. You can certainly call me at that number,
10 email me and I'll be happy to mail you a CD or a hard
11 copy if we have any left. I definitely encourage you
12 to pick up a CD or hard copy if you -- on your way
13 out. And you can take as many as you like because we
14 don't want to bring anything home with us. You can
15 also go -- you can go to that web site. That web
16 site's there. And there will be two PDF volumes you
17 can download. And if you're in the area the Cherokee
18 County Public Library has a hard copy and a bunch of
19 CDs that you can look at, as well.

20 Next slide.

21 So as Butch mentioned earlier, the main
22 purpose of today's meeting is to listen to everybody's
23 comments and get those on the record so we can take a
24 look at this and respond to them. Many of you have
25 already signed up, either through the cards out front

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1 or have contacted me ahead of time. If you're not
2 comfortable speaking in front of a crowd, which I can
3 totally sympathize with, you can submit your comments
4 in many ways.

5 You can submit a written comment today if
6 you'd like to do that. If you picked up this packet
7 there is actually a comment form inside this packet
8 towards the back that you can fill out and you can
9 submit it to Adrienne, who's out at our front desk.
10 You can mail written comments if you want to go home
11 and think a little bit more and put together some
12 supporting materials and put together some more
13 thought on this. You can mail handwritten things to
14 us at that address up there. You can fax those things
15 to us.

16 You can email your comments to
17 lee.colaEIS@NRC.gov. Note that you won't get a
18 response from that email address. That's just kind of
19 where we get all our comments to come in. You can
20 also go to regulations.gov. And that's an easy way to
21 do it, too. And just search for that docket number,
22 NRC-2008-0170. And just please note that we would
23 like to get all of our comments by March 6. So that
24 gives you a good month-and-a-half to give good thought
25 about what you'd like to say.

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1 So with that, I'm going to hand the
2 microphone back over to George. Thank you for
3 listening.

4 MR. SMITH: Okay. Before going into the
5 public comment period the NRC staff would want -- will
6 allow you to ask questions or any kind of
7 clarifications you may have from the presentations
8 you've just hand. Susan and I both have microphones.
9 We'll walk around to allow you to make your comment.
10 We ask that you raise your hand. We'll come to you.
11 And we're looking at about a brief, 15-minute question
12 and answer comment period. And also, if you could
13 state your name and if you represent an organization,
14 if you can state that, also. Because again, as a
15 reminder, the meeting is getting transcribed. So we
16 want to capture that information.

17 Are there any questions at this time?
18 Okay. Susan will go first and --

19 MR. ADAMS: My name is Rod Adams. And I
20 write for Atomic Insights. I'd like to ask how much
21 money did Duke have to pay for this services of
22 investigating the environmental impact.

23 MS. SALTER: Don't know if the NRC staff
24 has the estimates on how much?

25 MR. BURTON: Yes. That's a number we

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1 can't give you quite yet because we're not done yet.
2 Generally, it's a fairly good piece of change. I'll
3 say that. But I think in terms of Duke's overall
4 budget, if any of you know anything about the total
5 cost, if they're actually going to build and operate a
6 plant, it runs into the billions of dollars. Our
7 review probably, I would say, would ultimately be on
8 the order of millions, a fraction of that. But we
9 don't have any final numbers for you just yet. Okay?

10 MS. SALTER: Will that be published at
11 some point or --

12 MR. BURTON: That's not a figure that we
13 normally publish in any kind of official document, but
14 it is information that's available. So probably, you
15 know, once we put out the final Environmental Impact
16 Statement, we can probably -- if you contact us, we
17 can probably pull some figures for you. But it's not
18 normally something that we would regularly publish.

19 MS. CLARK: My name is Brita Clark. I'm
20 here with Physicians For Social Responsibility of
21 Western North Carolina. I want to know -- I'm
22 concerned about the thermal load on the Broad River.
23 And how many power plants are there at present that
24 are taking water from the Broad River, and how much
25 will this add to that?

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1 MR. VAIL: My name is Lance Vail. And I'm
2 with Pacific Northwest National Laboratory, and we
3 helped on the thermal review. We did do an assessment
4 of the thermal impacts associated with this particular
5 plant. That's discussed in Chapter 5. And that's
6 specific to the plant. In Chapter 7 we also discuss
7 about other plants that are operating on the system.

8 However, I don't think we have a -- you
9 know, a specific estimate of the thermal load of
10 all -- of other plants operating on the system. That
11 number in the EIS. From the numbers we saw it
12 appeared that the temperatures of the Broad River
13 around that site and stuff were actually
14 atmospherically controlled. And so it was the
15 temperatures that you would expect for a river at that
16 location with the atmospheric thermal loading and
17 controls.

18 MS. SALTER: Any other questions?

19 MR. SMITH: No questions? Oh, sorry.

20 MS. CONARD: Hi. My name is Sky Conard.
21 And I represent the Green River Watershed Alliance in
22 Polk County, North Carolina. We're part of the Broad
23 River basin, which this Lee Energy Plant would be a
24 part of, also. I guess my question is you all were
25 talking about utilizing surface waters for plant

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1 operation and you would -- that would be your supply.
2 Are you also looking into purchasing regional water
3 supply systems? Are you thinking of eventually, you
4 know, or maybe now requiring some of that -- some of
5 those waters as supplement? So it would be, you know,
6 the pipes, the -- what's in the water systems
7 presently.

8 MR. VAIL: Yes. This is Lance Vail again.
9 We don't analyze what's not in the application. And
10 so I think you are discussing something about
11 purchasing water and stuff. That would actually be
12 outside the scope of the review of what we would do in
13 the EIS. We evaluate the application that is
14 presented to us.

15 MR. SMITH: Any other questions?

16 MS. SALTER: One more. A follow-up over
17 here.

18 VOICE: The -- you know what? Never mind.

19 MS. SALTER: Okay.

20 MR. HOWARTH: My name's Robert Howarth.
21 I'm with the Western North Carolina Physicians For
22 Social Responsibility. On the use of water with --
23 when the flow is below the 400 and whatever it was,
24 80-some cubic feet and you go -- get into using ponds,
25 the pond water and then you use Pond B and then you

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1 use Pond C, in the case of extreme drought how many
2 days, months, et cetera is -- are available using
3 those to do what would have to be done to keep the
4 plants operating properly?

5 MR. VAIL: Hi. This is Lance Vail again.
6 Basically, what we looked at was a extended period of
7 record based on a reconstruction of 85 years of
8 record. We looked at that period and we basically,
9 based on our analysis and Duke's independent analysis,
10 they would be able to continue operation through those
11 periods. And of particular interest was the period of
12 the recent drought that was experienced in South
13 Carolina to ensure that they could make it through
14 that period without having to cease operations.

15 MR. HOWARTH: Yes. I don't hear any
16 numbers there. And I -- would you look at average or
17 mean values over 85 years? Do you look at the
18 worst --

19 MR. VAIL: We looked --

20 MR. HOWARTH: -- portion of 85 years?

21 MR. VAIL: We basically have an 85-year
22 daily record of what the flows would be in the Broad
23 River and then we simulate operation. That operation
24 is considered assuming that the plants are operating
25 100 percent through that entire 85-year time period.

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1 And we determined that there would not be a loss of
2 ability to generate during those periods. So
3 basically, if you're looking at that historic period
4 of record there is not a failure.

5 Now, that's not to say that you're not
6 going to have a drought worse than the drought that
7 you've had in the past or that in the future there may
8 be additional demands on the water system and stuff
9 that would result in a loss of water supply. But it's
10 important to remember that this water supply is only
11 for the plant to continue generating electricity.
12 It's not for safe operation of the plant.

13 MR. SMITH: Are there any other questions?

14 State your name and organization.

15 MR. HUGHES: My name is Brian Hughes. And
16 I'm the lead safety evaluator for the application. We
17 can get you those numbers. If you see me at the end
18 I'll get your contact information and I can provide
19 those numbers. I don't want to give them off the top
20 of my head. But it's -- one pond is so many days and
21 the other pond is almost double those numbered days.
22 But we have a very good approximation of the exact
23 number of days. And we can provide that to you. It's
24 just -- I don't have it at the tip of my fingers at
25 this time. But if you can give me some contact

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1 information I'll certainly provide that to you.

2 MR. SMITH: I'll let her make a --

3 Have you made a comment yet? I'm sorry.

4 MS. THOMAS: I --

5 MR. SMITH: Oh, go ahead.

6 MS. THOMAS: I just wanted to ask --

7 MR. SMITH: What's your name, Ma'am?

8 MS. THOMAS: Ruth Thomas. And I was -- I
9 have trouble hearing. I couldn't hear what he said.

10 MR. SMITH: Can you -- here. I'll bring
11 the -- use this microphone.

12 MR. HUGHES: Hi, Ruth. My name is Brian
13 Hughes with the NRC. And I am the -- I'm in charge of
14 the safety review for the application. And what I
15 said was that we have those numbers. I will provide
16 them but I don't have them up in -- up here right now.
17 No. I am with the Nuclear Regulatory Commission, and
18 we are the independent agency reviewing the
19 application.

20 MS. THOMAS: Can you speak up?

21 MR. HUGHES: Well, thank you. I'll try to
22 speak up for you.

23 MR. SMITH: Okay. Thank you.

24 MS. CONNOLLY: I'm Mary Ellen Connolly.
25 I'm from York County. And I'm here as an individual

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1 today. You didn't say anything about the possibility
2 of energy savings that we could get if we retrofitted
3 our buildings, if we, you know, used different kinds
4 of light bulbs and all of these kinds of things that
5 so many of our other power companies are looking at.
6 Was that taken into consideration in the EIS?

7 MR. MUSSATTI: Hi. My name is Dan
8 Mussatti, and I was in charge of the analysis that was
9 done for the need for power. A good part of the
10 analysis that we do for the need for power is to look
11 at the alternatives that are available as a way of
12 being able to offset any future demand. And the
13 energy efficiency programs that Duke is taking part in
14 right now and that are available and that are being
15 developed these days were a large part of that
16 analysis. Chapter 8 of the Environmental Impact
17 Statement will give you a description of that.

18 There's also a discussion of the energy
19 efficiency and demand management programs that plays a
20 role in the -- Chapter 7, which is our -- excuse me --
21 Chapter 9, which is our alternatives chapter when we
22 talk about alternative generating technologies.

23 Just as a brief answer as to what those --
24 the results of those sorts of programs would do is
25 that we realized that there is a -- an ability for

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1 people to change their behavior or change their light
2 bulbs and these sorts of things to be able to save
3 some electricity. But given the growth in general in
4 the area that is served by Duke in this area, that
5 the -- it would not be enough to completely offset
6 that growth. So that was part of the answer that
7 you'll see in the -- if you read Chapter 8.

8 MR. SMITH: Oh, one moment.

9 MS. CONNOLLY: How much of the energy
10 produced in this plant is going to be used locally and
11 how many -- how much of it is going into the grid to
12 sell to other parts of the United States?

13 MR. MUSSATTI: We can't speak for Duke is
14 exactly how this is going to happen. And the answer
15 is very complicated because outside of Texas and a
16 part of Florida, generally the southeastern part of
17 the United States is all part of a gigantic grid where
18 the electricity that's produced in one area may be
19 needed in another area at a moment just for balancing
20 and to make sure that the grid is continuously
21 working.

22 But Duke, in their environmental report
23 which formed the basis for our analysis, stated that
24 they would need the power here for their own service
25 area. And we agreed with the analysis that was done

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1 by the State of North Carolina and the State of South
2 Carolina in analyzing what they were planning on
3 doing. So we based our analysis upon the analysis
4 that was done by these people that really understand
5 power structure in the area, where the power's going,
6 who needs the power and how that's all put together.

7 So the short answer, I think, is that most
8 of the power is going to be used here according to
9 Duke, but at any given moment that electricity may be
10 as far away as Kentucky or Illinois. Does that answer
11 the question?

12 MS. CONNOLLY: Thank you.

13 MR. SMITH: Oh.

14 VOICE: I'd like to --

15 MR. SMITH: One moment. We just want to
16 make sure her comment gets transcribed.

17 VOICE: That's what I'm asking for.

18 MS. CONNOLLY: So basically you're using
19 Duke's numbers and agreeing with those without
20 checking, basically?

21 MR. MUSSATTI: Not exactly. When we do
22 our analysis, we don't understand the area very well
23 at all. So what we do is rely upon the analysis
24 that's done by the Applicant -- in this case Duke --
25 to give us a starting run at what we're going to do in

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1 our Environmental Impact Statement. We independently
2 verify everything that's in their analysis. It's --
3 every one of the sections of the Environmental Impact
4 Statement is this way except for Chapter 8, which is
5 the need-for-power chapter.

6 In that case what we do is we look for
7 somebody that is an independent group that does
8 analysis in the area and they don't have the same sort
9 of motivations as the Applicant does for, you know,
10 giving us the information.

11 In this case it was the State of North
12 Carolina and the State of South Carolina's Public
13 Utilities Commissions which manage electricity in the
14 states because they want to make sure that the lowest
15 rates are available and electricity is always
16 available for these people. And they're not really
17 looking for any one particular organization or one
18 particular corporation to be able to provide that.
19 They're just making sure that the welfare of the
20 people is being taken care of.

21 We also look at the National Electrical
22 Reliability Commission, which is divided into large
23 blocks of states for management purposes. And that's
24 to make sure that we don't have brown outs and
25 blackouts. When there's trouble with, like in Texas,

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1 where just a couple of winters ago they were using so
2 much electricity to try and heat homes there that they
3 hadn't anticipated. They were in trouble of having
4 brown outs. California had brown outs and blackouts
5 several years ago because of power needs.

6 To minimize that they do extensive
7 analyses based upon input from all of the power
8 generators in the United States to make sure that the
9 grid is always balanced. So we're relying upon that
10 information, not upon something that the Applicant,
11 Duke, has done themselves. And in our analysis what
12 we did is we independently looked at things and then
13 said, Yes, we agree that Duke did -- came to the right
14 conclusion, that there is a need for power. But we
15 didn't use their numbers.

16 MR. SMITH: Okay.

17 MR. MUSSATTI: Does that help?

18 MR. SMITH: I'm sorry.

19 MR. MUSSATTI: No. I'm just making sure
20 that I answered the question.

21 MR. SMITH: We have about five minutes
22 left in the question and answer period.

23 MS. THOMAS: I --

24 MR. SMITH: I'm sorry. If you can state
25 one more time because it's getting transcribed.

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1 MS. THOMAS: Oh. It's Ruth Thomas. And I
2 wanted to know when I'm going to be able to give my --

3 VOICE: Comment.

4 MS. THOMAS: Because I have to get back --
5 the political --

6 MR. SMITH: Okay. We're going to
7 transition to the comment period. Susan will start
8 it.

9 MS. SALTER: Okay. So we're going to move
10 into the comment period. And I think a lot of you
11 have indicated that you've been here before or you've
12 participated in public meetings before. And this is
13 really the time for the NRC to listen to your
14 comments. We have - the meeting is supposed to go
15 till 4:00. And we have about 25 or so speakers.

16 So we should have enough time if everyone
17 can try to be as concise as possible. If you can keep
18 your comments to, you know, four minutes or so, I
19 think we should have plenty of time to get to
20 everybody. I know some people don't need as much as
21 four minutes and other people need a little bit more.
22 So we have some flexibility. But, you know, if you
23 really start to go over we'll probably ask you to wrap
24 it up. The nice thing about this room is that there's
25 a digital clock in the back. So try to take note when

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1 you come up what time it is and, you know, try to keep
2 your comments within that four-minute or so time
3 frame.

4 We've scheduled speakers based on when you
5 signed up more or less. We've been collecting cards.
6 And I know a lot of people signed up earlier. So
7 that's kind of how the list is put together.

8 And, Ms. Thomas, you are coming up just
9 after -- I believe we had someone from Duke that
10 wanted to make a comment, Dhiaa Jamil. All right.

11 And then after Mr. Jamil we'll have Ruth
12 Thomas, Ellen Thomas and then Otis Rawl. And I'll try
13 to announce, you know, speakers that we have coming up
14 so you know when you're going to be on deck. But --

15 MR. JAMIL: Thank you. It's my pleasure
16 to provide comments today. And I particularly want
17 to -- make sure you can hear me -- particularly want
18 to thank the NRC for providing the opportunity for the
19 public to provide comments. It's certainly a
20 milestone day for the Lee project. And glad to be
21 here.

22 My name s Dhiaa Jamil. I am the chief
23 generation officer for Duke Energy. And I'm also the
24 chief nuclear officer. Many of you know that Duke
25 uses a very comprehensive, integrated planning

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1 approach to ensure we can continue to safely and
2 reliably meet the electricity needs for our customers,
3 both now and in the future.

4 The integrated planning considers many
5 variables, including projected energy use, existing
6 generation resources and planned retirement, energy
7 efficiency. So I was speaking about the integrated
8 approach that we use. This planning approach
9 considers many variables, including projected energy
10 use, existing generation resources and planned
11 retirements, energy efficiency and the addition of new
12 generation, including renewable resources.

13 We're fortunate to have a diverse
14 portfolio of generation stations with nuclear, of
15 course, serves as a part of that fuel mix in the
16 Carolinas for over or nearly 40 years. Many of you
17 know that we operate five stations in the State of
18 South Carolina, five units in the State of the South
19 Carolina.

20 Two of the units are the Catawba units in
21 York County, South Carolina and three of the units are
22 the Oconee Nuclear Station, which is the Oconee County
23 of South Carolina. These two stations, along with two
24 other units, the McGuire units in North Carolina,
25 provide approximately half of the electricity used by

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1 our customers in the Carolinas and have collectively
2 generated more than 1.5 billion megawatt hours of
3 electricity since they've started operation.

4 Let me pause and tell you just briefly
5 about the performance of those assets. Our nuclear
6 capacity factor in 2011 was approximately 93 percent,
7 making 2011 the 12th consecutive year our capacity
8 factor was more than 90 percent. For those of you not
9 familiar with the term, capacity factor is units of
10 reliability. It's basically the amount of electricity
11 generated from a unit or a facility compared to the
12 amount of electricity that can be generated if the
13 unit was operating all the time.

14 As part of our plan to serve our
15 customers' future electricity need it's important that
16 we make sound decisions now on their behalf. This
17 includes our decision to submit a combined
18 construction and operating license application to the
19 NRC for the Lee station and to continue project
20 development activities.

21 The units planned for Lee Nuclear will
22 have a combined output of more than 2,200 megawatts,
23 enough generation to reliably serve thousands of homes
24 for decades. Additionally, Lee Nuclear will help
25 support economic development in the region with

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1 potential for thousands of construction jobs and 800
2 to 1,000 well-paying, full-time jobs during station
3 operation. It will also create other jobs in the
4 local area to supply the needed goods and services and
5 support of the work force.

6 We have worked on development activities
7 for Lee Nuclear. We've engaged local residents to
8 evaluate ways to address potential traffic issues.
9 We've carefully analyzed and re-analyzed options for
10 water storage to support plant operation while
11 minimizing environmental and downstream users, in
12 fact. We've undertaken detailed sighting studies for
13 transmission routes and shared this information with
14 the community. We've partnered with local
15 organizations and schools on community projects and we
16 have provided project updates for community members.

17 We've also worked to ensure safety and
18 security will be our highest priority for this
19 proposed station just as it is for our current nuclear
20 stations. Following the tragic events in Japan last
21 year after the earthquake and the devastating tsunami,
22 the nuclear industry, including Duke Energy, undertook
23 immediate actions and continues today implementing
24 longer term recommendations to ensure our nuclear
25 stations remain in a high state of readiness to

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1 respond to potential emergency events. This focus on
2 safety will continue as our top priority.

3 Nuclear energy currently plays and will
4 continue to play a key role in meeting our nation's
5 electricity needs. Duke Energy remains firmly
6 committed to nuclear energy and to keeping Lee Nuclear
7 Station an option for our customers in the future.
8 Thank you once again for giving me this opportunity.

9 MS. SALTER: Okay. Thank you. Our next
10 speaker is Ruth Thomas.

11 Now, we're going to ask people to come up
12 to the microphone to make their comment. But if you
13 would not -- if you want me to bring the microphone
14 there --

15 MS. THOMAS: No.

16 MS. SALTER: She can go up? Okay.

17 When you come up to the microphone please
18 remember to state your name again for our transcriber.
19 And then also, if you have an organization that you're
20 affiliated with and you want to mention that, please
21 do that, as well.

22 MS. LOPAS: I'm thinking it might be
23 easier for folks to just hand hold the microphone.
24 That way you don't have to fuss with the height and --

25 MS. SALTER: Yes.

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1 MS. LOPAS: -- you can speak into it and
2 speak clearly for our transcriptionist.

3 Hi, Ruth.

4 MS. SALTER: And after -- we did have a
5 little change. After Ms. Thomas we're going to go to
6 Sky Conrad [sic] and then Otis Rawl. And we've moved
7 Ellen Thomas down at her request.

8 MS. THOMAS: Well, I need both. Testing,
9 testing. Can everybody hear me?

10 VOICE: Yes.

11 MS. THOMAS: How about way back there?
12 Okay. Good. Because I want to talk to each one of
13 you. My name is Ruth Thomas. And anytime you stop
14 hearing me raise your hand. I'm with an organization
15 called Environmentalists, Incorporated, which you
16 probably have not hear of. But the time we might have
17 spent promoting ourself we've been challenging nuclear
18 power.

19 A small group of us are working together
20 in preparing comments on the Nuclear Regulatory
21 Commission's Draft Environmental Input -- no. I'm
22 live. Anyway, their document, which is this. And
23 it's about the Lee proposed. And let me -- can you
24 hear me?

25 Gosh, what can you do the microphone

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1 because I don't know as I can shout any larger? Oh,
2 put it up close? Oh. You going to hold it?

3 MR. SMITH: I'll hold it.

4 MS. THOMAS: Okay. Oh, that is better.
5 Now, all I got to do is figure out how I can read
6 this.

7 Anyway, as I showed you, this is the cover
8 on both of the two documents. I used to bring the
9 documents with me but they're so heavy I can't lift
10 them. And right on the top they identify the mandate
11 of the Nuclear Regulatory Commission, Protecting
12 people and the environment. It doesn't say anything
13 about money coming in to the area or jobs or what a
14 great benefit it is. It says, Protecting people and
15 the environment. So in our reviewing the document we
16 looked at it from that objective.

17 On the first page of the Executive
18 Summary, Volume 2, the statement is made that the
19 purpose of the NRC's Environmental Review of Duke's
20 plans for the Lee plant at that proposed -- of that
21 proposed design and that proposed location that it be
22 without unacceptable adverse impacts on the human
23 environment. Once we knew what the mandate was and
24 how the Environmental Impact Statement should be
25 prepared we began reading the comments and concerns

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1 that the people made in Appendix D of Volume 2.

2 And while we're speaking of purpose, what
3 has been my purpose for over 40 years? To do
4 volunteer work on this study and trying to find out
5 about nuclear. I didn't get any money out of it. I
6 was a volunteer. Well, I think the thing that upset
7 me the most was when I read about radiation and how it
8 was the most harmful to children and babies. And I
9 thought, They don't have anybody to stand up for them.
10 I've got to do something. And so I have.

11 I've read numerous -- gone over, reviewed
12 numerous Environmental Impact Statements, I've gone to
13 meetings like this. None of them were quite this big.
14 And as I said, I appreciate the comments that people
15 made at the scoping meeting. At the time I was not
16 able to do anything like that because I had had
17 several falls.

18 One of the comments that impressed me was
19 by Laura Sorenson, and she was talking about the
20 uranium miners and how they had large number of
21 cancers among the miners. And they were, of course,
22 concerned about that. And eventually the United
23 States government -- I'm not sure how they did this --
24 but they paid them money towards their doctors' bills,
25 which was an admission that the cause of their cancer

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1 was from their exposure in the mines.

2 Now, I think what impressed me the most
3 was that these miners were misled into thinking that
4 there was nothing wrong, that you -- they would come
5 to no harm from the work that they did. And now the
6 NRC's response to this -- they did acknowledge that
7 they hadn't done very well in protecting the miners.
8 That was in the '50s and the '60s and maybe it went on
9 to the '70s.

10 And on -- oh, let's see -- and they
11 identified a method that was being used now where it
12 didn't have as many detrimental effects on the
13 workers, which was called -- I don't know -- is that
14 Latin? -- in situ or something -- leaching method.
15 But they never did explain the difference as far as
16 exposure. They never did explain in this what they
17 did. Did they use water? Did -- was that a problem?
18 So I'm glad that they worked on something. But it
19 does seem like they needed to tell us more about it.

20 Now, they also referred -- oh, these
21 responses also refer you to sections of the
22 Environmental -- Draft Environmental Impact Statement.
23 And the uranium fuel cycle impacts included also
24 transportation, decommissioning -- and I don't know
25 whether there was anything else in there. But, I

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1 mean, the calculations. Now, this is -- their
2 determinations on this were based on calculations,
3 models, predictions. I couldn't see where they used
4 any what I call real evidence of what had happened at
5 places where they were exposed -- people were exposed
6 and what levels it was and what caused it.

7 And they came to the conclusion --
8 quote -- "The NRC staff," -- that's on page 6-5,
9 Volume 1 -- "considered fuel cycle options." In other
10 words, they -- in -- evaluated the one for -- the ones
11 through with no reprocessing and the one where they
12 would do reprocessing. Well, now, they did classify
13 that spent nuclear fuel -- let's see -- after it was
14 removed was considered radioactive -- highly
15 radioactive waste. But they concluded -- this is
16 another quote -- The no recycle option -- they would
17 treat the waste and it would -- as radioactive waste
18 and it would be stored at a federal repository. But
19 there is no federal repository that exists.

20 There are all sorts of things. I haven't
21 read the whole statement. Maybe somebody here has and
22 could enlarge on that. But it obviously is not
23 usable. And it seems that it must be leaking.
24 Although they haven't -- as far as I know -- put
25 radioactive material there, I'm sure they would attest

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1 that it was something else first.

2 Now, if these two units are built in
3 Gaffney the waste that the two units would produce
4 would be staying right there. I think they did
5 predict that they might have another repository by
6 2038 or something like that. Oh, let's see. Well,
7 for many years the answer to anybody who expressed
8 concern about the radioactive waste was told, Oh,
9 well, it's not a problem, it will be sent to Yucca
10 Mountain in Nevada. That promise has proven to be a
11 myth. Gosh, am I going to get through all this? You
12 see, I've been at it a long time.

13 MS. SALTER: You can also provide a
14 written statement.

15 MS. THOMAS: Yes. I know it. But that's
16 not as effective. They're not going to read it. But
17 they're right here. So I'm going --

18 MS. SALTER: Yes.

19 MS. THOMAS: -- to talk to them.

20 MS. THOMAS: Well, you --

21 MS. THOMAS: And --

22 MS. SALTER: You just do need to -- take
23 your time.

24 MS. THOMAS: I was concerned about the
25 children. But, you know, as I've gotten older -- and

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1 I'm real old -- those people that were children --
2 individuals that were children when I started this,
3 they're the age of so many of the people here and so
4 many of the people like you. They've grown up. But
5 there's another group coming along. And I don't want
6 them to have to live with this.

7 Now, I -- where is that thing? Oh, I do
8 an environmental impact statement. I don't just start
9 at the front and start reading. I'd never get
10 through. I look at the reference list. And it's a
11 big one. I figure --

12 MR. SMITH: One moment.

13 MS. THOMAS: I estimate that there's
14 approximately 1,000 references on there. Well, that's
15 very impressive. But when you look at it you find a
16 lot of them are regulations that the Nuclear
17 Regulatory Commission passed. They're also their
18 documents. There are also lots of reports and so
19 forth from Duke. And there are a few Environmental
20 Impact Statements.

21 But the one I was most particularly
22 interested in was the one on the Allied General
23 Reprocessing Plant that was planned before many of you
24 were born in 1971 and two. I took part in that, as
25 did many other people and many organizations. I was

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1 the authorized representative of three different
2 citizens groups. And that went on for close to five
3 years. And so there was a lot of evidence brought
4 out.

5 And it was the best kind of evidence
6 because you had a chance to cross-examine the
7 witnesses. And boy, if there isn't a -- if that isn't
8 a wonderful way to find out what is true, what -- the
9 difference between public relations type statements
10 and what -- and the real evidence. And I was
11 fortunate enough to be one of the people that did a
12 good bit of the cross-examination.

13 Now, why was this important -- this
14 evidence important? Because it brought out evidence
15 about the dangers of the radioactive material, of
16 plutonium, of what it takes to contain these deadly
17 materials. It -- and I had a chance to ask the
18 transportation man for Allied General. And his answer
19 was, They seek to get absolute containment. Now,
20 absolute containment from people, from materials
21 against the weather and against everything else,
22 that's not going to happen every day all the time.
23 I'm going to -- when I send in more comments I'm going
24 to include that testimony that I gave.

25 And I've lost track where I am. But one

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1 thing I want to bring out is there's so much in the
2 newspaper and other publications. Ocone --

3 MS. SALTER: Ms. Thomas, I hate to
4 interrupt you and I know you have a lot of important
5 things. But maybe pick a couple more points and maybe
6 wrap it up in the next couple minutes. Because we do
7 have a number of people that want to speak. And we
8 don't want to run out of time --

9 MS. THOMAS: Well, I'm sure --

10 MR. SMITH: -- before everybody gets a
11 chance.

12 MS. THOMAS: -- you do. But I want to
13 hear from the people?

14 Do you want to hear more of what I have to
15 say?

16 VOICE: No.

17 MS. SALTER: Well, I think, you know, just
18 in fairness to everyone that we do have a time limit.
19 And we have given you, you know, much more time,
20 maybe, you know, 15 more minutes that we had planned
21 to give anyone. So, you know --

22 MS. THOMAS: Well, I --

23 MS. SALTER: And again, we appreciate
24 it --

25 MS. THOMAS: -- I would --

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1 MS. SALTER: -- and want to hear what you
2 have to say. But just can you maybe wrap it up in the
3 next minute or so? Maybe pick another topic that you
4 really want to stress and then provide your comments
5 in writing?

6 MS. THOMAS: Each time there's an accident
7 or a mishap or whatever you want to call it, leak, you
8 hear that lessons learned -- the nuclear industry has
9 learned a lesson, now they're going to do better. The
10 lesson that should have been learned from some of
11 these things, especially the one in Japan, is we ought
12 not to be continuing with nuclear power if we can't
13 handle the waste and having all these problems.

14 (Applause)

15 MS. THOMAS: Thank you. Better way of
16 doing it. And the --

17 MS. SALTER: Can we maybe move on to our
18 next speaker now? It was --

19 MS. THOMAS: What?

20 MS. SALTER: I think we need to move on to
21 our next speaker. So we'll ask you maybe to take your
22 seat and to make sure that, you know, all of your
23 comments you provide in writing. And there's the
24 information on the slide about how you can do that.

25 MS. THOMAS: If any of you want to donate

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1 time to me.

2 MR. SMITH: If there's some time later on,
3 Ma'am, you can get your --

4 MS. SALTER: Well, she had --

5 MR. SMITH: Yes.

6 MS. SALTER: The written comments. Okay.
7 Thank you very much.

8 So our next speaker --

9 Thank you.

10 Next commentor is going to be Sky Conard.
11 Sorry about that. I had the wrong spelling last name.
12 And then we're going to go to Otis Rawl and then Don
13 Richardson.

14 So, Ms. Conard, if you want to make your
15 way to the microphone.

16 And again, after that we'll go to Otis
17 Rawl and Dr. Richardson.

18 MS. CONARD: Okay. Mike check. Is this
19 close enough? You want to come hold this for me?

20 MS. SALTER: You can take it out, too if
21 you want.

22 MS. CONARD: Okay. Well, I'll just leave
23 it there.

24 I'm not real good at this, talking in
25 front of people. But --

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1 VOICE: Can't hear you.

2 MS. SALTER: Yes. It's really hard.

3 MS. CONARD: You can't? Okay.

4 MS. SALTER: You kind of have to --

5 MS. CONARD: Okay.

6 MS. SALTER: -- really get it up to your
7 mouth.

8 MS. CONARD: My name is Sky Conard.

9 MS. SALTER: That's good.

10 MS. CONARD: I represent the Green River
11 Watershed Alliance in Polk County, North Carolina.
12 And like I said, we are part of the Broad River basin,
13 which will be part of what this proposed Lee Nuclear
14 plant will be a part of, as well. Our alliance -- I'm
15 the founder of it. And the whole reason that I
16 founded it was to protect and to plan for our
17 watershed. And we are a sub-basin of the Broad River
18 basin, which is known as -- to the Department of Water
19 Resources, a 1.1.

20 I went -- Ellen Thomas alerted me to --
21 that this plant might be built. And she shared with
22 me that the demand of this plant would require, I
23 think she said, 47 million gallons a day. And I just
24 got confirmation that you think it's about 50 million
25 gallons a day.

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1 And I simply -- being that I'm trying to
2 protect the water quality and quantity, I -- that
3 number -- it just didn't mean anything to me. It's
4 like, I don't know, is that a lot, is that not a lot,
5 what do the people need, what are the -- what is the
6 demand for the public in this entire Broad River
7 watershed so that I can compare what demand this
8 nuclear plant will require. And especially in
9 light of global warming, whether you believe that or
10 not, there's certainly, you know, climate changes and
11 droughts in 2002, 2007, 2008. And they're getting
12 longer. And we've had no snow. And, you know, so I
13 think this is a very real pattern that we're seeing
14 here. So I'm very concerned about supply and demand.

15 And so, anyway, I decided -- I work with
16 the DENR up in North Carolina, with Department of
17 Water Resources and also the Department of Water
18 Quality. And then I figure, Well, this is in South
19 Carolina, and part of the Broad River watershed is
20 down in South Carolina so I know DHEC manages all
21 that, so maybe they would have some numbers for me.
22 But I didn't get any luck with talking to the -- with
23 the DHEC people to get some real numbers on what is
24 the demand of the people in this watershed, in this
25 Broad River basin, except from North Carolina.

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1 I talked to Steve Reed, a section manager
2 for the Broad River basin of the Division of Water
3 Resources in North Carolina. And he gave me -- he had
4 to hustle to get some statistics. And he came up with
5 this, he and his team. He said that -- and just keep
6 that 50 million gallons a day in your head to compare
7 it to so we can compare apples to apples in using that
8 unit of measurement, millions of gallons a day
9 demand -- he said that in just the water supply
10 system's use, which is all the water piped -- okay --
11 on all the water systems just through pipes through
12 the Broad River basin and all of North Carolina and
13 including Gaffney, South Carolina was -- the
14 requirement was 51 million gallons a day that was used
15 by human beings from piped in systems -- water
16 systems.

17 That amount -- if you're saying, Well, is
18 that the total use of the entire basin, no, you've got
19 people on wells and you have ground water. So we're
20 not even including that. I'm just simply telling you
21 that the water in the pipes that are being supplied to
22 this basin, 51 million gallons are used, which is
23 exactly what this plant will probably need.

24 And then I'm concerned about this so-
25 called filling Pond C. It is a 638-acre lake that is

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1 116 feet deep. It is a reservoir which is going to be
2 created. They're going to dig a hole in the earth to
3 fill it with water from the Broad River. I have no
4 idea how many cubic square feet of water that is. I
5 don't know what that would contain. But it would
6 be -- this obviously translates to a huge, inordinate
7 demand of water from the Broad River, water that is
8 essential and sustains the region's people and all
9 living things.

10 The Clean Water Act of 1972 and the
11 constitution of every state says that the people own
12 the fisheries and the waterways. This is based on a
13 public trust doctrine that says -- and this is fact,
14 this is a law, it's an ancient law but it was codified
15 into the Clean Water Act of 1972 -- I guess in 1972 --
16 that everybody has the right to use the waterways but
17 nobody can use them in a way that diminishes their use
18 and enjoyment by others.

19 I think the proposed Lee Nuclear Plant
20 will effectively diminish the public use and resource
21 rights of the Broad River. Is this powerful entity,
22 Duke Energy, actually privatizing our public asset of
23 water? I'm asking the question. It seems to me that
24 this is a violation of environmental laws. It's
25 certainly challenging this environmental law.

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1 And this was all brought to my -- I'm not
2 making this stuff up. I read it -- actually, Robert
3 Kennedy, Jr. is the founder of the Waterkeepers. And
4 he -- this comes from him. And he's just quoting
5 environmental law. And this is what the Southern Law
6 Institute -- you know, this is how they operate. This
7 is what they believe and what they use.

8 The region's citizens and governing
9 agencies who do water supply planning need to strongly
10 reject this flawed proposal that, number one, would
11 severely diminish the public's basin water supply.
12 Number two, it would forever alter this watershed's
13 course and its ecosystem. I wanted
14 validation of that. So I spoke to South Carolina
15 naturalist Pat McMillan, who's on TV, who states that
16 the endangered plant species called the rocky shoals
17 spider lily will be negatively impacted. And why?
18 Because of the water flow fluctuations and the water
19 quantities available in the Broad River downstream.
20 Also endangered is the Carolina fantail darter fish.

21 And, anyway so back to the point of why I
22 think that we should reject this proposal. Number
23 three, I'm concerned about that Duke Energy would be
24 poised to further drain our water resources by
25 purchasing neighborhood established or future water

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1 supply systems such as the Broad River Water
2 Authority, the Inman Campobello Water District and the
3 proposed Polk County South Water Department where I'm
4 in, the surface waters in my back yard, which are Lake
5 Adger and its supplier, the Green River which drains
6 then into the Broad River -- so this is all part of
7 the same system.

8 I believe that these voices -- these
9 waters need a voice to advocate keeping them clean and
10 keeping them just where they are in Polk County, North
11 Carolina. And that is why I'm here today. And thank
12 you very much for listening.

13 (Applause)

14 MS. SALTER: Thank you. Did you want to
15 drop off written comments or -- okay. Great. Thank
16 you.

17 Okay. Just a couple quick reminders. You
18 know, I know people like to show support for what
19 they're hearing up here. But it does interfere with
20 the ability to get an accurate transcription. So just
21 try to keep that in mind and try to keep the noises
22 and sounds from the audience to a minimum. That would
23 be a big help for us.

24 The next speaker is Mr. Otis Rawl. And
25 then we'll have Dr. Don Richardson, followed by Steve

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1 Gilman.

2 MR. RAWL: Thank you very much. My name
3 is Otis Rawl, and I'm president and CEO of the South
4 Carolina Chamber of Commerce, and I want to welcome
5 the NRC review team to South Carolina.

6 I hope you're enjoying our fine state, and
7 we look forward to working with you in the future.
8 I'm here representing 60,000 businesses and 73 state
9 chambers of commerce across the state in support of
10 the Lee Nuclear Station project moving forward.

11 There's no one single factor or answer for
12 solving our energy needs. We know that we've got to
13 continue to work on renewables as well as conservation
14 efforts, but the creation of nuclear power as a
15 sustainable energy source is promising and will be one
16 of South Carolina's greatest assets of the future.
17 Nuclear power is the most viable and affordable bridge
18 to energy independence for South Carolina and the
19 region.

20 The business community understands the
21 need of expanded energy capacity in the state as
22 population continues to grow in South Carolina and
23 across the southeast. Energy costs represents one of
24 the highest costs of businesses on a daily basis. The
25 availability of energy is at the cornerstone of many

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1 of our businesses' success.

2 It is estimated between now and 2025, the
3 Palmetto State's population will increase by more than
4 a million people. Anticipated growth around the Port
5 of Charleston, with the increase in distribution
6 facilities and big boxes and the increased population
7 growth will result in an estimated need of 5,000
8 megawatts of energy by 2025. If we continue pressing
9 forward with the energy we have today, our resources
10 will not be sufficient to shoulder the increased
11 demand. Current statistics show our state energy
12 reserve margins are shrinking each year. If not
13 addressed, they are positioned to place the state at a
14 huge economic disadvantage as early as 2014.

15 Business and residents are extremely
16 supportive of expanding nuclear capacity in the state.
17 There are no other alternatives currently available or
18 as reliable as nuclear in providing baseload power in
19 a carbon-free manner. The next generation of nuclear
20 technology builds and improves on proven safe and
21 secure nuclear power plant designs.

22 The construction of the new nuclear
23 station also has an economic benefit for our state.
24 Two thousand South Carolinians will be employed during
25 the construction process, in addition to an estimated

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1 700 full-time workers, not to mention the spinoff that
2 we'll receive from local businesses that will receive
3 income and support from the jobs created around the
4 facility.

5 South Carolina's research universities are
6 focusing on hydrogen research for the automotive
7 industry, and it relates directly to the nuclear
8 energy and particularly nuclear plants as clean energy
9 for South Carolina and the nation, creating a new
10 segment for our economy.

11 There has been discussions around Pond C
12 which is critical to the Lee Nuclear Station's
13 success. After many years of debate in South Carolina
14 over the regulation and permitting of surface water,
15 the business community and the environmental community
16 came to an agreement last year to regulate surface
17 water withdrawals. Let me say that again. The
18 business community and the environmental community in
19 our state came to an agreement last year to regulate
20 surface water withdrawals. That agreement was
21 subsequently passed by the South Carolina General
22 Assembly.

23 As Duke Energy's Lee Nuclear Station comes online and
24 produces power for the residents and businesses of
25 South Carolina, there are now laws and regulations in

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1 place that will preserve minimum flow levels in rivers
2 and streams to protect the ecological integrity of
3 those streams and rivers. Duke Energy was a key
4 player in helping to pass this legislation.

5 I think we all agree that conservation is
6 the cornerstone of protecting South Carolina's natural
7 resources, but throughout the energy debate we also
8 must realize that businesses are not the enemy. The
9 key is striking a healthy balance, one that protects
10 our national resources without stifling needed
11 economic development that creates jobs and prosperity
12 for our citizens.

13 As we continue to focus on economic
14 development and creating jobs, we must not lose sight
15 of the fact that one of the determining factors for
16 businesses considering locating or expanding in our
17 state is low cost, efficient and reliable energy. The
18 nuclear facility in Cherokee County would bring
19 billions of dollars of investment to our state, create
20 thousands of jobs for our citizens, produce reliable
21 energy for our businesses, and most importantly, do it
22 in a carbon-free emission way.

23 We strongly encourage continued forward
24 progress on the construction and operating license to
25 Duke Energy in a timely manner.

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1 I thank you for your time, and we surely
2 appreciate all the work that you do. Thank you.

3 MS. SALTER: Thank you.

4 Next speaker is Dr. Don Richardson. Is he
5 here? He had signed up earlier, I think. Tonight,
6 okay.

7 So then Steve Gilman, and then we'll go to
8 Kayla Robbs and Katie Hicks, so those will be our next
9 speakers.

10 So Mr. Gilman, remember just to introduce
11 yourself, and if you're affiliated with an
12 organization and you'd like to state that, please do
13 so as well.

14 MR. GILMAN: Okay. Can everyone hear me?
15 That's a strange question because you wouldn't be able
16 to answer me if you couldn't.

17 My name is Steve Gilman. I live in
18 Asheville, North Carolina. I'm on the board of
19 directors at the Physicians for Social Responsibility.
20 I'm a project manager with a focus on consulting and
21 information technology, a specialty on commercial
22 projects.

23 There is no long-term solution for
24 disposal of radioactive waste from nuclear power
25 plants. Personally, I'm not opposed to research

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1 addressing this topic. Until there is a long-term
2 solution for disposal of radioactive waste from
3 nuclear power plants, I'm hoping we give high priority
4 to not building additional nuclear power plants.

5 I truly appreciate the welcome I receive
6 here today from NRC staff. Thank you for having these
7 public hearings and keeping an open mind on this
8 important environmental topic. That's it.

9 MS. SALTER: Thank you.

10 Kayla Robbs. I think this was an earlier
11 sign-up too, so maybe we'll move her down and if she
12 shows up I'll give another chance before we close.

13 Katie Hicks, and then we'll have Brian
14 Crissey, followed by Lewis Gossett.

15 MS. HICKS: Hi. I'm Katie Hicks. I'm the
16 assistant director of Clean Water for North Carolina,
17 a nonprofit organization working with communities for
18 clean water and environmental justice.

19 We're opposed to the construction of all
20 new nuclear reactors for many reasons, including
21 massive water use and generation of toxic radioactive
22 waste and increased demand for fuel where mining has a
23 massive record of health impacts on poor and
24 indigenous communities. But today I'll focus on three
25 aspects of the draft environmental impact statement

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1 for the proposed reactors: Make-up Pond C, impacts to
2 the Broad River, and environmental justice
3 considerations.

4 The draft EIS does not adequately show
5 that Make-up Pond C's capacity will suffice to
6 maintain plant operation and protect water quality and
7 flow in all possible drought scenarios, so we believe
8 its negative impacts outweigh its benefits. Pond C's
9 creation would displace residents of up to 86 homes
10 and mobile homes, mostly low income folks. I visited
11 a few of them earlier today. The average per capita
12 income of residents who would be displaced is below
13 \$16,000. The pond's creation would also result in
14 complete loss of rare and valuable Piedmont riparian
15 habitat along London Creek.

16 The question was brought up earlier about
17 how long the water supply would last. I just did some
18 simple back of the envelope calculations based on the
19 draft EIS and they indicated that if withdrawals from
20 Pond C are made necessary by drought that that pond's
21 supply would last, more or less, about 90 days. Since
22 climate science predicts that many parts of the world
23 will experience longer and deeper droughts than ever
24 in the coming years, Duke Energy's drought contingency
25 plans are insufficient considering both the high level

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1 of uncertainty regarding the length of future droughts
2 in the Broad River basin.

3 The proposed reactor's water withdrawals
4 and degradation of the Broad River are another concern
5 that would place further strain on an already strained
6 river basin. In addition to the roughly 47 million
7 gallons of water per day the plant would withdraw,
8 we've calculated that the Broad would lose roughly 5-
9 1/2 billion gallons of water each year due to forced
10 evaporation of heated water downstream of the plant.
11 Discharges of hot water, heavy metals and possibly
12 traces of radiation could place stress on the aquatic
13 community, and massive withdrawals and toxic
14 discharges are also a potential threat to drinking
15 water supplies downstream. The draft EIS indicates
16 that the City of Union's drinking water intake is just
17 21 miles downstream of the proposed discharge.

18 Finally, the draft EIS does not adequately
19 address the range of environmental injustices we feel
20 that this plant could create. The assessment included
21 in the EIS only looks at demographics in the
22 surrounding 50-mile radius as a whole, failing to
23 include any pockets of low income or minority
24 residents who could be selectively and
25 disproportionately impacted by the facility. For

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1 example, the residents I visited earlier today
2 displaced by Pond C would be mostly low to mid income,
3 meaning relocating could be even more difficult for
4 them. The residents of Union, whose water supply
5 could be threatened by withdrawals and discharges to
6 the Broad, could also be looked at in terms of those
7 demographics. Those are just a few examples of the
8 many direct and indirect ways in which this plant
9 could severely impact vulnerable communities and
10 populations.

11 In conclusion, Clean Water for NC opposes
12 construction of the William States Lee Nuclear
13 Station. We support the energy conservation
14 alternative in Section 9.2.1.3 of the draft EIS.
15 Despite the NRC's claim that this method isn't a
16 reasonable alternative, our extensive research has
17 shown that demand reduction through energy efficiency
18 programs is the most cost-effective and job-creating
19 strategy for meeting our energy needs.

20 Thank you for your time.

21 MS. SALTER: Thank you.

22 Our next speaker is Brian Crissey. I hope
23 I'm saying that right, but again, announce yourself
24 when you get up to the microphone so we make sure we
25 have a good pronunciation of your name. Then we'll do

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1 Lewis Gossett, followed by Mary Ellen Connolly.

2 MR. CRISSEY: Can you hear me all right?
3 Hello.

4 MS. SALTER: It's on. You've got to hold
5 it close.

6 MR. CRISSEY: Okay. I'm Brian Crissey,
7 and you got my name right and that's good.

8 My background in this goes back a number
9 of years. My doctorate is in mathematical sciences
10 from Johns Hopkins. My first position out of graduate
11 school was with the National Academy of Sciences, and
12 I was a staff member of the Committee on Nuclear and
13 Alternative Energy Systems between the then current
14 time and year 2010, and we looked in detail at supply
15 issues, demand issues, environmental issues, and
16 synthesizing the whole thing together. It was a two-
17 year project, it put out a report about as thick as
18 the ones you have out there on the table and it was an
19 amazing thing. Of course, hardly anybody read it
20 because it was so big.

21 As the money ran out, the staff was
22 whittled down to just a few remaining nuclear
23 engineers, and the conclusions of the whole project
24 were switched around in the summary. The project
25 concluded, as Ms. Hicks said, that the most cost-

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1 effective way to approach the energy supply and demand
2 and environmental issues around energy is energy
3 efficiency. It produces more jobs, it's safer, it has
4 a bigger impact per unit of dollar and energy than any
5 of the other approaches. This was the major
6 conclusion, until you read the summary of the report
7 and the paragraph which showed up in the news which
8 was: National Academy of Sciences concludes it's all
9 nuclear and coal from here on out. That was not our
10 conclusion, but that's what came out into the media.

11 So with that, I realized what it is that
12 we are up against, and we're up against a very strong,
13 entrenched industry with its own ideas about what is
14 best for us, and we're not being asked. We were asked
15 to be here today and we appreciate that opportunity.
16 It's good to have an opportunity to say something.
17 But if this is a democracy and I asked how many are in
18 favor of this project raise your hands and so we took
19 a vote and the nuclear option lost here, what effect
20 would that have? Zero. We have no power. These are
21 empty words. I would hope that the words that we have
22 here today in this opportunity actually will have some
23 impact as we go into the future.

24 I will not address myself to the main
25 issues, the main objections to nuclear power in this

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1 project that you will hear from many other people
2 today, the danger of nuclear power, the water use, the
3 cost of it, the lung cancer in uranium miners and the
4 nuclear waste issues and the particular issues about
5 reactor design. A lot of those issues are important
6 and need to be dealt with, they're all important, but
7 there's kind of a major background issue, it's like
8 how come we're not talking about the elephant in the
9 room.

10 There's two cases: environmental impact,
11 business as usual, and Fukushima. They are two
12 separate cases. I hear all kinds of analysis about
13 business as usual, job well done, great, traffic
14 pattern analysis, that's great. How much use was that
15 in Fukushima? It was not. We have here at this time
16 in 2012 a decision point societally where many things
17 are changing, things that are unsustainable are
18 failing, options are being created to perhaps allow
19 courageous people in societies to make other choices
20 than we have made in the past.

21 In the past we have made choices on the
22 energy issue that have resulted in centralized energy
23 production, such as this proposed pair of plants, that
24 has a low probability of utterly massive destruction.
25 The alternate approach which is seen more

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1 realistically in the ideas around energy efficiency
2 and solar and wind and other renewables. These are
3 energy options which have a high probability of almost
4 no impact, plus a lot of employment opportunities, and
5 they are sustainable.

6 And this word sustainable brings me to the
7 focus of what I'm going to say here Looking around at
8 the website for Duke Energy, it's a good thing just to
9 go look at their mission and their values and see
10 whether what we are proposing actually is consistent
11 with that. Here is Duke's mission: We make people's
12 lives better by providing gas and electric services in
13 a sustainable way, affordable, reliable and clean.
14 Now, there's four real good words that should be
15 looked at. This requires us constantly to look for
16 ways to improve, to grow and reduce our impact on the
17 environment. Can we talk to the Fukushima people
18 about that? Is this what we are doing?

19 We look at the part of the website about
20 Duke's mission. We'll go into more detail about that
21 in just a moment. We look at the values at that
22 website: safety, caring, integrity, openness,
23 passion, and respect. All good words. I want to look
24 at each one of these, look at the important words in
25 the mission, apply them to the proposal at hand, and

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1 see what direction that might lead us.

2 MS. SALTER: Mr. Crissey, I just want to
3 remind you of our time constraints. We have a lot of
4 people that want to comment, we are running a little
5 bit behind schedule, so maybe just a couple more
6 minutes and wrap it up.

7 MR. CRISSEY: I'm against it, so that's
8 it.

9 MS. SALTER: I'll give you another couple
10 of minutes if you want.

11 MR. CRISSEY: Those words. Let me just,
12 let me just say a few things quickly about these
13 words.

14 Affordable, \$14 billion and a price tag
15 that is likely to increase. The ones that I've been
16 familiar with over the years, I was deeply involved in
17 trying to stop the Clinton Nuclear Power Plant in
18 Illinois back many years ago, it was said this is
19 going to be efficient, it's going to be \$1 billion,
20 turned out to be \$4-. I mean, these prices
21 continually go up, this was \$11-, now it's \$14-,
22 what's it going to be later? Where is the line item
23 that includes the cost of proper, with integrity,
24 waste management? That's off-loaded, that's not shown
25 in the costs. Who pays for that? Well, the

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1 taxpayers. Well, that's still us. But talk about
2 integrity? These costs are not being included.

3 What about the costs of, for example,
4 evacuating Charlotte which is within the 50-mile
5 radius that we asked Americans in Japan to leave when
6 Fukushima was melting down. Where are the costs for
7 that? Oh, that won't happen because our design is
8 safe. And the Japanese, who have been dealing with
9 earthquakes forever, have major earthquakes all the
10 time and their buildings sway back and forth on big
11 shock absorbers, their design was safe and Fukushima
12 was a major disaster amounting to at least \$235
13 billion so far and still counting, getting larger
14 because there's going to be Fukushima disease, there's
15 going to be genetic downsides to this, it's going to
16 go on and on, get worse and worse. So don't worry
17 about it, there's insurance.

18 1957 Price Anderson Act limits the
19 liability of the nuclear industry to \$11 billion,
20 after which what do you have? Bailout. Who's in
21 favor of a bailout proposal for the insurance for the
22 disaster possibility for this plant? How many of
23 those politicians running in the State of South
24 Carolina right now come out and say, Well, I'm really
25 in favor of bailouts? No. Bailouts are not good.

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1 You've got a 10 percent, 5 percent, 10 percent
2 coverage of the potential disasters from something
3 like Fukushima happening here. Now, Fukushima was
4 \$235 billion and counting, they had four of the six
5 reactors in operation, two of them would be accounted
6 for with the plant here, so maybe half of the damages
7 at Fukushima could be estimated, \$117 billion, maybe
8 \$120 billion. If you're covering maybe 10 percent of
9 that with the Price Anderson Act, you basically have
10 no insurance plus bailout, and that doesn't work.

11 MS. SALTER: I do need to ask you to wrap
12 it up.

13 MR. CRISSEY: We will wrap it up.

14 There's issues here on all these ideas. I
15 will put my comments in written form and supply them.
16 One of Duke's values is openness, open to change and
17 new ideas. We need to drop old think and adopt new
18 think, look at these things all over again.

19 Nuclear waste, one of the words here is
20 integrity. Integrity and nuclear waste, do those go
21 in the same sentence? We can walk men on the moon and
22 we don't know what to do with nuclear waste? I mean,
23 come on. I'm no expert but I can tell you what to do
24 with nuclear waste, and Duke Power can do it by
25 themselves. You can take the nuclear waste and

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1 glassify them, you can surround that glass tube in
2 concrete, you can surround that with a torpedo-shaped
3 rifling design made out of depleted uranium from the
4 military, take it out in the middle of the ocean above
5 the trenches that are descending into the center of
6 the earth and let it go and it will drill itself into
7 the bottom of the ocean and over time it will go to
8 the center of the earth. Okay, so that costs
9 something. So what? Integrity is one of the words
10 that it is in the mission statement here.

11 MS. SALTER: I'm not sure we have time to
12 go over all of the words.

13 MR. CRISSEY: I'm not doing that, I just
14 chose one.

15 So anyway, when you look at the price
16 issues, imagine that what's being discussed here is
17 really not honest, these are not the honest prices.
18 It doesn't include proper management of the waste and
19 it doesn't include proper paying for evacuations and
20 things like this. There are things that are missing
21 in the prices.

22 And finally, I want to say that times are
23 changing and I think times have changed already. If
24 anybody knows who Molly Catchpole is, raise your hand.

25 MS. SALTER: Mr. Crissey, we really need

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1 to move on, so I'm going to ask you to take your seat.

2 MR. CRISSEY: Look up Molly Catchpole and
3 do some innovative thinking. Where this goes is that
4 the public is reclaiming its power and it's doing this
5 by using the internet to coordinate the power of the
6 people to affect corporations. Molly Catchpole used
7 online petitions to stop Bank of America from charging
8 people \$5 a month for a debit card, stopped Verizon
9 for requiring people to pay \$2 every time they pay
10 online. The same idea goes like this: the petition
11 goes out in the world and it says I am a rate-payer of
12 Duke Power, if Duke has not backed out of the William
13 States plant proposal by the beginning of December
14 this year, then I will, providing a million other
15 customers of Duke also sign this position, I will not
16 pay Duke's bill.

17 MS. SALTER: I really do need to ask you
18 to put the microphone down on the stand.

19 MR. CRISSEY: I'm done.

20 MS. SALTER: Thank you very much.

21 Our next speaker is Lewis Gossett, and
22 then we'll have Mary Ellen Connolly, and then Louis
23 Zeller.

24 MR. GOSSETT: Thank you. My name is Lewis
25 Gossett and I'm the president of the South Carolina

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1 Manufacturers Alliance. We represent over 400
2 facilities around the state, employers as large as
3 6,000 or 7,000 folks and as small as three or four.
4 We've been around for over 110 years or 115 years. We
5 started out as the Textile Manufacturers Association
6 and evolved in the mid '90s to general manufacturing.

7 With all of these kinds of presentations
8 that I make, I always start out with this statement,
9 and that is if we've got all the jobs we need in South
10 Carolina, if we've got all the prosperity we need --
11 and some people do -- if we've got all that, if we are
12 where we want to be and we are certain about our
13 children's and our grandchildren's futures, then we
14 don't need additional power plants. There's no
15 question about that, we've got all we need. The
16 problem is for the manufacturing community in South
17 Carolina that's not the case. Go back and look at the
18 past 20 years and what's happened with manufacturing
19 in South Carolina and what's happened with our economy
20 in general.

21 I actually served in the Beasley
22 administration and regulated Duke Energy from the OSHA
23 perspective, not the nuclear facilities, because
24 that's the fed responsibility, but from the state's
25 responsibility. And at that time thing were going

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1 pretty well here. Despite the down trend in the
2 textile and the apparel industries things were not so
3 bad. Unemployment was around 4 percent, at the most,
4 and things looked good for the future.

5 We saw some real different things happen
6 three or four years ago, particularly in manufacturing
7 in this state, and there's a reason why our
8 unemployment was so much higher than it was in other
9 places and it was because we were so dependent on
10 manufacturing and we'll continue to be dependent on
11 manufacturing, but we got hit as hard as anyone and
12 we're still recovering from it. The good news is over
13 the past year, two, maybe going back as far as into
14 2009, my members have started to rebuild and started
15 to reinvest, and they've got ideas about continuing to
16 do that, but I can assure you that one of -- if not
17 the key -- factors in their decision-making process is
18 reliable, affordable energy. Got to have abundant
19 energy in order to do it.

20 And my members have made those
21 assessments. They make those assessments every time
22 they make economic development decisions, and I get to
23 be in a lot of those meetings. My friend, Otis Rawl,
24 of the state Chamber does as well. We know,
25 importantly, why South Carolina wins projects, and

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1 just as importantly, we know why South Carolina loses
2 projects, and believe me, Duke Energy's provision of
3 power to the upstate has been a key, if not the key,
4 component to the growth of manufacturing in this area.

5 I'm going to talk about just several of
6 the things that you've heard because they tie into
7 what I want to say so that you'll understand from our
8 point of view what really matters and how these
9 decisions will be made in the future.

10 I heard somebody say a few years ago, when
11 we were talking about how these projects, the nuclear
12 plants, would be funded, say that we're very fortunate
13 in South Carolina that 40 or 50 years ago, a couple of
14 generations ago there were some very wise people who
15 made decisions about power provision in this part of
16 the state, and we've been benefitting from those
17 decisions for a long time. And now because of
18 forecasted need -- and by the way, that need
19 forecasted not just by Duke Energy but by my members,
20 the manufacturers, that will provide the best jobs in
21 South Carolina -- because of forecasted need, we've
22 got to make decisions again, and we believe nuclear
23 energy is a good way to do that.

24 I've heard talk about cost. From our
25 perspective, cost is a big deal, believe me. We will

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1 be paying the lion's share of the cost of these
2 facilities, and my members understand that, and they
3 have had a lot of give and take with Duke Energy over
4 that fact, regarding the nuclear plants in particular.
5 That's not an easy thing for us to look at, but it's
6 something that has been a big issue for us and we
7 understand that this is money that should be invested
8 at this time in these facilities.

9 Let me say this, I've got one member in
10 the State of South Carolina who spends \$180 million a
11 year on electricity for one facility, one facility
12 \$180 million. That facility employs almost 700 people
13 making over \$80,000 a year each. I've got another
14 member right down the road from them that spends about
15 \$125 million on electricity and they employ 900 people
16 making almost \$100,000 a year each, line employees
17 making that kind of money. They understand what a big
18 power bill is all about, and they also have been in
19 the business of energy conservation for a long time.
20 In fact, we tell our friends on the environmental side
21 of the aisle that we're glad they finally joined us
22 because we've been doing it for a very long time.

23 When you spend that kind of money, you
24 look for ways to save on a regular basis, and folks,
25 they've run out of ways, by and large, they've run out

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1 of ways. In order to see the kind of expansion and
2 growth we're going to want to see in the manufacturing
3 base in South Carolina, we've got to have new
4 capacity, and this is the best way, in our minds, to
5 have that.

6 I will say this, if you've got to look at
7 things like safety and health, which this organization
8 should do and which I have spent a lot of time doing
9 through my career, there's no better place to start
10 than Duke Energy. Again, I regulated them. I've
11 worked with them over time, I'll admit that up front
12 and disclose that to you, but I've also regulated
13 them, and they set the standard for health and safety.
14 They have reliably and safely operated one of these
15 facilities just down the road from where I was born
16 and raised in Greenville County. They've operated one
17 over in Oconee County for a long time, no issues.

18 I think it's a little disingenuous to
19 compare what we're getting ready to see to Fukushima,
20 and from the manufacturers' perspective, we don't see
21 that comparison. We understand the differences in
22 technology, we understand the differences in
23 geography, and we know that we're talking about apples
24 and oranges when we discuss this.

25 We are very quickly losing our competitive

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1 edge in this country with nations in other parts of
2 the world that 20 or so short years ago we didn't
3 think about. I visited China in 1986, and let me tell
4 you, they were not an economic threat to this country
5 at all, any way, shape or form. The Shanghai I
6 visited in 1986 doesn't look anything like what it
7 does today. They're eating our lunch, they are taking
8 our jobs, but maybe, just maybe we're starting to see
9 a few new words creep into our vernacular. The word
10 restoring, the word expansion, the word plan, the word
11 growth. Those are starting to come back and we'll
12 only take advantage of them if we have built the kinds
13 of facilities that Duke Energy is proposing here.

14 It's absolutely important that we
15 understand that these plants will be built. Make no
16 mistake about it, there will be nuclear plants built
17 in this world. They will be built in China and in
18 India and in other places that understand that it's
19 the key to prosperity and the key to bringing the jobs
20 that my members provide.

21 Let me say this as I close. We've let
22 other situations like Fukushima, a silly movie from 30
23 years ago, and a few other things full of
24 misinformation, and quite frankly, facts that just
25 don't make sense keep us from pursuing a reasonable

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1 and responsible way of providing energy. Believe me,
2 folks, if we let our manufacturing base continue to
3 deteriorate, if we don't do what's necessary to
4 encourage it, there are plenty of places in the world
5 that will do it for us, and they will take those jobs
6 and they will continue to take those jobs and they
7 will have the prosperity that we once had.

8 A lot of folks talk about how we are
9 looking at the first generation in this country that
10 might not do better than the previous generation.
11 That's not necessarily going to happen, we don't have
12 to accept that as our fate, but we've got to plant the
13 seeds, we've got to have the ability to provide power
14 to manufacturing facilities so that they can provide
15 the jobs that are absolutely desperately needed in
16 this part of South Carolina.

17 Thank you.

18 MS. SALTER: Thank you.

19 Next speaker, Mary Ellen Connolly, and
20 then we have Louis Zeller, and then Rod Adams. About
21 halfway through the meeting, not quite halfway through
22 our speakers, so just remind everyone to try to stay
23 to our time limit.

24 MS. CONNOLLY: I'm good. I can probably
25 talk loud enough. I'm an old school teacher and I

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1 don't think anybody will miss what I've got to say.
2 My name is Mary Ellen Connolly and I live in York,
3 South Carolina, and I own a business property in
4 Cheraw, South Carolina which is a small town about six
5 miles east of the proposed Lee plant on Ninety-Nine
6 Islands.

7 I'm opposed to this facility. I have a
8 long history of involvement with the nuclear power
9 industry. I testified first at the Catawba plant
10 that's on the Catawba River and I haven't changed my
11 opinions one bit over the years.

12 The Broad River does not belong to Duke
13 Power or any other company or any other entity, it
14 belongs to the people of this area, it belongs to the
15 people of the United States. The flow of the river
16 has already been greatly stressed due to permits
17 already given to many industries and municipalities
18 along its journey from the mountains to the sea. The
19 oxygen content of the water is already greatly reduced
20 and will be further degraded by the emission of hot or
21 warm water by this facility.

22 The Broad River, as its name suggests, is
23 a broad but not a deep river. In times of drought,
24 which we have had in recent years, and low rainfall,
25 as we continue to endure with no end in sight, you can

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1 often see rocks from the river bottom protruding above
2 the water level. Anyone could probably walk across
3 the river from rock to rock in the dry summer months.
4

5 York County has been for years in a heated
6 and expensive battle with North Carolina over water
7 rights to the Catawba River on the eastern boundary of
8 York County. It is only a matter of time that we will
9 have to go to the Broad on the western boundary of our
10 county as a water supply. If there is no water or if
11 the water is severely degraded, where will our water
12 supply come from? There is a hydroelectric plant in
13 Lockhart just south of the proposed site. This plant
14 will be impacted by the loss of water supply to their
15 generators. There can be no greener energy than
16 hydroelectric, yet we jeopardize the future of this
17 existing plant. It is my understanding that Duke
18 Energy intends to buy and dismantle this plant.

19 South Carolina is in one of the most
20 active earthquake zones in the nation, and I have a
21 USGS map showing -- and I'll leave a copy of this --
22 where the earthquakes have occurred in the United
23 States in the last 200 or so years. Oddly enough,
24 these same areas of South Carolina are where many of
25 the nuclear plants are located. Have we learned

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1 nothing from Fukushima? Just the spent fuel rods
2 stored at these facilities pose risks. With no
3 storage facility and none in sight, we continue to
4 play Russian Roulette with our future and the future
5 of generations to come.

6 The southeast is blessed with an abundance
7 of sunny days and could more easily than much of the
8 nation use this resource to develop solar energy. We
9 can limit the amount of energy needed by sensible
10 energy use, retrofitting older, energy-inefficient
11 buildings and homes, along with many other energy-
12 saving tactics. We do not need these expensive and
13 dangerous facilities.

14 As many Germans have said, and I quote, we
15 cannot control these facilities and mankind cannot
16 make these safe. Germany, who is home to some of the
17 best engineers in the world, and one of the best
18 economies in the world, for those who think that this
19 is such an economic boon, has decided to cease using
20 nuclear power. According to German sources, they will
21 be completely energy self-sufficient within ten years.
22 I think it's interesting to note that Mr. Gossett said
23 that we are losing our competitive edge. I would like
24 for him to tell that to the German citizens and tell
25 them that they need to have some more nuclear power.

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1 He also said that he worked with and
2 regulated Duke which is another problem with these
3 facilities. Many of the people leave Duke Power and
4 regulate Duke Power. It's hard to stand back and say
5 that you're doing something wrong when you're a former
6 employee and an insider with the company itself.

7 Last, but no means least, we have lost any
8 confidence that we may have had in the Nuclear
9 Regulatory Commission. I cite just a few of the
10 reasons why:

11 A) After the Browns Ferry fire, new
12 regulations were put into play. As of today, 30 years
13 later, 47 nuclear plants are not in compliance with
14 these regs, including Browns Ferry.

15 B) Indian Point, New York is built on an
16 earthquake fault with 17 million people within 50
17 miles of this plant.

18 C) The North Anna Plant was determined to
19 be seismically under-designed. The NRC asked for
20 upgrades but did not require them. The owners did not
21 comply.

22 I just picked up -- and this is off my
23 written comments -- the radioactive waste brochure
24 that was outside, and under the NRC responsibilities
25 it says the NRC is responsible for licensing and

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1 regulating the receipt and possession of high level
2 waste, including spent fuel as well as reprocessing
3 waste, at privately owned facilities -- and it goes
4 on, but basically it says that they're going to take
5 care, make sure that that waste is taken care of. In
6 1982, I believe it was, the act was passed in Congress
7 to have a Nuclear Regulatory site -- or a DOE site --
8 excuse me -- that would take this waste. As of today,
9 30 years later, it still has not been built, and yet
10 we are expected to sit back and say we trust you, we
11 trust you to do it right, we trust you to listen to
12 our complaints, we trust you to listen to our
13 concerns, and we have lost the feeling that you do
14 just that.

15 We know that the push for energy in this
16 country is great and we know that safety should be
17 your first concern, not jobs, not the energy that is
18 expended or may be expended in the future that
19 couldn't be brought in from other sources, but you
20 need to look at what needs to be done for the people
21 of this area and we're concerned about this.

22 I also have on the earthquake thing, there
23 has been an earthquake, it was January 9 of 2012, it
24 was located near Charleston at that point, but this is
25 the map that shows the clusters of the earthquakes,

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1 and this is a list from the USGS of the earthquake
2 history of this area. There's been one in Pendleton,
3 Pickens, all over. This is a dangerous plant and we
4 need it stopped now.

5 Thank you.

6 MS. SALTER: Thank you. Did you want to
7 leave any of that for the NRC? Thank you. You can
8 leave it at the front desk.

9 Our next speaker is Louis Zeller, and I
10 think Mr. Zeller wants to use a flip chart, and I'm
11 just going to defer to the NRC, is that okay? So we
12 just would need to get maybe that for the transcriber,
13 the paper afterwards.

14 So we're going to go to Mr. Zeller, then
15 Rod Adams, and then Conrad Schuler -- so then we'll go
16 to Robert Howarth.

17 MR. ZELLER: All right. Thank you very
18 much. My name is Lou Zeller and I'm the science
19 director with Blue Ridge Environmental Defense League.
20 We were founded in 1984. We have chapters in seven
21 states, and the nearest one to this spot would
22 probably be either Chester County, South Carolina or
23 perhaps York County. We also have other chapters in
24 the Palmetto State.

25 I'm here today to speak against this

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1 proposal. Blue Ridge has weighed in with
2 administrative legal actions for the last several
3 years and much of what we have learned has come from
4 talking to technical experts, nuclear engineers, other
5 experts in this field. And one number was pulled out
6 of the environmental report which kind of struck me,
7 and that is 2,100,000 gallons, 2.1 million gallons of
8 radioactive wastewater would be discharged annually
9 from this plant into the Broad River. This is an
10 average number over the lifetime of the plant, 2
11 million gallons per year. The rate could be as much
12 as 50 times higher, according to the environmental
13 report submitted by Duke Energy. That is if there is
14 no accident and nothing bad happens.

15 But what I really want to talk about today
16 is the reactor which Duke Energy plans to build, and
17 this is an AP-1000 Westinghouse reactor. The reactor
18 that Westinghouse has designed and that Duke has
19 selected is supposedly an inherently safe design. In
20 order to make the reactor cheaper to build and
21 simplify, they eliminated a lot of pumps and piping in
22 order to bring this design to fruition. This is the
23 containment building here that I have drawn, it's a
24 dome-shaped structure, and this would be the power
25 plant, the reactor vessel inside.

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1 There is also at the top of this reactor a
2 water tank of about 800,000 gallons which weighs about
3 3,334 tons, suspended on top of this reactor. Now,
4 this reactor is a modular design, it's put together in
5 pieces, and one of the Nuclear Regulatory Commission's
6 own people reviewing this design came to the
7 conclusion that because of the modular construction --
8 again, another cost-saving measure instead of casting
9 it in one piece -- it would shatter like glass,
10 according to Dr. John Mott, because of the modular
11 construction.

12 In addition to that, I mentioned the water
13 tank up here which is supposed to provide gravity flow
14 in case of loss of power, which is one of the
15 principal things that destroyed the Fukushima Nuclear
16 Power Plant. So instead of having to pump water up
17 from below with electric power provided by generators,
18 you have a gravity-fed system. Well, that sounds
19 good, but 3,300 tons of water balanced on top of a
20 structure which itself, for example, the reactor
21 vessel itself weighs about 400 tons compared to that
22 over 3,000 tons of water balanced at the top of this
23 reactor, you have an unstable situation because the
24 reactor itself is not only modular constructed which
25 could shatter like glass, you also have the heavy

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1 weight at the top. This is not inherently safe, this
2 is inherently dangerous.

3 Another so-called safety feature, I've
4 drawn a double shell here, and that is to, according
5 to the design, allow air to circulate freely between
6 the steel shell and the concrete shell on the outside.
7 You might could see that this air circulates out and
8 then leaves the top of the reactor. This is an
9 annular ring, it's called, which basically surrounds
10 the whole structure. There's a gap in here which is a
11 departure from earlier designs which had the steel and
12 the concrete touching.

13 What's the problem? This so-called safety
14 feature leads to new fundamental weaknesses which have
15 not been addressed in the licensing and the approval
16 of AP1000, and that is this: this steel shell inside
17 is subject to corrosion. Dr. Rudolph Houser has
18 pointed out that this is not a good system because
19 paints and other corrosion protection features are
20 only guaranteed for a period of about ten years,
21 according to the manufacturer. Then it's up to who
22 applies the paint to meet the regulations. So he
23 recommended against the use of this entire
24 construction method.

25 What can happen here if you have an event

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1 within the reactor where there is an escape of
2 radioactive steam filling up the building and you have
3 a gap anywhere in this shell, it would join the normal
4 circulation of air like a syphon effect, sucking air
5 from inside the radioactive gases inside that building
6 through that annular gap between the steel and the
7 concrete, exiting out to the atmosphere. A nuclear
8 power vessel, a containment structure is supposed to
9 do that, it's supposed to contain it.

10 So this is the design which Duke Energy
11 has proposed, Westinghouse has designed, the Nuclear
12 Regulatory Commission has proposed and which business
13 leaders in South Carolina are apparently inviting in
14 without question. This is the reactor, this is the
15 danger which you are inviting in to Cherokee County.

16 If no bad things happen, earthquakes in
17 this region -- which it's famous for -- or some other
18 type of internal disaster does not happen, you still
19 have 2.1 million gallons of radioactive water being
20 discharged, according to the company's figures
21 provided to the NRC, 2.1 million gallons of water, if
22 none of these events happen, every single year into
23 the Broad River.

24 We oppose the environmental impacts, we
25 oppose the public health impacts, as well as the

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1 problematic and dangerous use of nuclear energy in
2 this part of the world. I think we should follow the
3 lead of some of the most advanced technological
4 societies on earth, Japan, Germany, and phase these
5 out, certainly not build a new one.

6 Thank you very much.

7 MS. SALTER: Thank you.

8 Our next speaker is Rod Adams, and then
9 we're going to have Robert Howarth, and then Paul
10 Bogar.

11 MR. ADAMS: Hello. My name is Rod Adams.
12 I write a blog called Atomic Insights that's been on
13 the web since 1995.

14 I started studying nuclear energy in 1982
15 when I started attending the Nuclear Power School in
16 Orlando, Florida at that time. I learned most of my
17 nuclear knowledge by serving on submarines that were
18 stationed in Charleston, South Carolina. I don't live
19 in Charleston anymore, I live in Virginia. I'm
20 employed at a company that is designing small modular
21 reactors to supply clean, emission-free electricity in
22 the United States. When I say emission-free, this is
23 electricity that is clean enough or power sources that
24 is clean enough to operate inside a sealed submarine.

25 A lot of people in this room have talked

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1 about nuclear waste. One of the things that people
2 don't understand about the used nuclear material that
3 comes out of our current basically second generation
4 nuclear power plants is it comes out with about 95
5 percent of its potential stored energy still
6 remaining. We don't have a waste problem, we have a
7 resource that can be passed on to future generations.

8 I want to give you a little bit of
9 inspiration, at least it's inspiration for me and has
10 been since I was eight years old and first learned
11 about nuclear energy. My father came home and showed
12 me this little pellet, something very similar -- it
13 wasn't exactly this one because I lost that original
14 one. This pellet is a simulated fuel pellet. In our
15 current early technology of nuclear energy, it
16 releases as much heat energy as burning a ton of coal.
17 A ton of coal would fill up a pickup truck, a big
18 pickup truck. Instead, we have these little pellets
19 that we put in the fuel rods.

20 Nuclear power plants operate for 18 months
21 on three truckloads of commercial nuclear fuel.
22 Instead, if a same size power plant was burning coal,
23 it would require 100 train carloads of coal every
24 single day. That's about 10,000 tons of coal and it
25 releases 40,000 tons of CO2 into the atmosphere, as

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1 opposed to a nuclear plant which releases no CO2 into
2 the atmosphere. Yes, there's a little CO2 involved
3 with mining, but when you're mining real concentrated
4 material, you don't use much to move it around the
5 world.

6 The cost of commercial nuclear fuel today
7 is 65 cents per million BTU. Now, a lot of people
8 don't deal in million BTUs, but that's the market that
9 we use for natural gas in the U.S. If you look on
10 Bloomberg, you'll see that cheap natural gas, the
11 stuff that everybody is so excited about, costs \$2.75
12 per million BTUs today. Back in 2008 when the
13 manufacturers in South Carolina were having so much
14 trouble, part of the reason they were having trouble
15 in 2008 was the cost of natural gas had skyrocketed up
16 to about \$14 per million BTU. Compare that to 65
17 cents per million BTU from commercial nuclear fuel,
18 and that price has been relatively stable, even not
19 adjusting for inflation, for about 25 years.

20 There's no projection that that cost will
21 go up because that cost includes the cost of disposal,
22 it includes the cost of enriching the material, it
23 includes the cost of mining, transporting, storing and
24 interest on the investment during that time.

25 I'm sitting in this room here and one of

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1 the things I want to pass on to you, I just retired
2 after 33 years of Naval service, Naval Academy and
3 some reserve time included, but mostly active duty.
4 One of my jobs during the active duty time was to
5 supply the analysis for the amount of money it cost to
6 maintain ships and submarines and to train people to
7 operate on ships and submarines. I happen to have the
8 access information as to what the Navy, which has been
9 operating nuclear powered ships for 50 years, does
10 with its used nuclear fuel. It takes it to a place in
11 Idaho in the desert and stores all of the used nuclear
12 fuel from all of the ships and submarines that have
13 been powered by nuclear energy in one place. That one
14 place is smaller than this room.

15 If you took all of the commercial nuclear
16 fuel that the U.S. has been producing in 104 reactors
17 that have been providing 20 percent of our electricity
18 for the last 20 years and before that supplied a
19 little bit less as we were building up, you could put
20 all that commercial fuel in the size of one Super
21 Walmart, one Super Walmart. Compare that to the
22 alternative, in the U.S. today, yes, I'd say we can
23 reduce some use of electricity, maybe, but we burn a
24 billion tons of coal and 6 trillion cubic feet of
25 natural gas to produce electricity. Why, if you're

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1 going to conserve, would you shut down the cleanest
2 source of electricity instead of those dirty sources
3 first?

4 One of the things that people also say is
5 the nuclear industry is so big and powerful. I can
6 tell you, I'm in the nuclear industry today, I work
7 for Babcock & Wilcox Company, I'm not here for Babcock
8 and Wilcox Company, I'm here for myself, I took a day
9 of vacation to come here and share with you why I'm
10 passionate that this has got to be an energy source
11 that we use to enable our children.

12 My granddaughter is two years old, my
13 great-grandmother lived to be 101, my grandmother
14 lived to be 97. Right now there's people in the U.S.
15 that say we have a huge supply of natural gas that's
16 going to supply us forever. I've done the numbers,
17 all of the natural gas that we have today in the U.S.,
18 if we burn it at the rate we burn it today, will last
19 90 years. We have 2,170 trillion cubic feet, we burn
20 24 trillion cubic feet a year, do the math, 90 years.
21 I expect my granddaughter will be alive 90 years from
22 now and I certainly don't want to turn over a country
23 that has depleted all of its methane because people
24 were afraid of something that even at Fukushima not
25 one single person, not one was killed by radiation,

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1 not one. 18,000 people were killed by tsunami, a huge
2 swath of Japanese territory was destroyed by a tidal
3 wave, all of the video that you keep seeing is video
4 of the damage done by salt water, not by radioactive
5 material.

6 I'm shaking up here. I'm going to turn
7 over my time, whatever time I've got left. Thank you.

8 MS. SALTER: Okay. Our next speaker is
9 Robert Howarth -- hope I'm saying that right -- Paul
10 Bogar, and then we'll have Brita Larsen Clark. Is
11 Robert Howarth here. Again, then Paul Bogar, and then
12 Brita Larsen Clark.

13 MR. HOWARTH: Good afternoon. I'm Robert
14 Howarth from Asheville, North Carolina. I'm also
15 retired. My career was in electro-optical
16 engineering. I have a master of science degree in
17 engineering. I'm a member of the Western North
18 Carolina Physicians for Social Responsibility, and a
19 member of the Union of Concerned Scientists.

20 Today I want to emphasize one overriding
21 concern and that is that we citizens for a long time
22 have been misled by nuclear proponents claiming that
23 nuclear energy is clean and less expensive than other
24 sources of energy. I say this because I recently
25 became aware of EROEI analysis, energy return on

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1 energy invested. That analysis illustrates in a study
2 that of 20 feasible energy sources considered, 14 are
3 superior to nuclear. EROEI, also known as Net Energy,
4 has been defined as the energy delivered by an energy-
5 obtaining activity compared to the energy required to
6 get it. In other words, how much energy you get out
7 of something divided by the amount of energy you put
8 into it to get it.

9 This is an overall efficiency assessment
10 and it constitutes a whole system consideration. In
11 the case of nuclear from the extraction of ore at its
12 source, its transportation and processing, the
13 construction and operation of the delivery plant, and
14 the cost of any subsequent waste handling and/or
15 disposal. This, I believe, is looking at the whole
16 picture, the way it really is.

17 The same study did a carbon footprint
18 comparison and it showed that nuclear had the third
19 highest carbon footprint among the same 20 candidates,
20 worse only than conventional coal and tar sands. I
21 have the references here. It's true nuclear doesn't
22 produce CO2 when the plant is working, however, if you
23 look at all the energy that's required putting into
24 it, building it, dismantling it, the whole ball of
25 wax, the carbon footprint of nuclear is not good.

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1 I contend that the EROEI analysis should
2 be applied to all projects, especially those that are
3 dependent on taxpayer support. I am concerned that
4 EROEI appears to have been ignored in your work in the
5 EIS. While I recognize that the mission of NRC is not
6 to determine national energy policy, I do think you
7 would be obliged to recommend the use of EROEI as a
8 powerful tool toward your goal of, quote, recommending
9 a new plan for America's nuclear future.

10 As far as the economics, I believe that
11 investing millions of dollars required to bring online
12 a nuclear power plant is not a good investment.
13 History demonstrates that cost always exceeds initial
14 estimates, financing is dependent on government
15 subsidy in the form of liability insurance -- we heard
16 about that already today, Price Anderson, what-have-
17 you -- and the five to ten year or more construction
18 time is too long. Other alternative means of power
19 generation can be brought online in less time, provide
20 many more construction jobs for many more companies,
21 are less risky, and do not require a large taxpayer
22 liability subsidy, and do not hold a threat to my
23 health, your health, our children's health and
24 ecological health that is posed by the operation of
25 nuclear plants and the centuries of storing toxic

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1 radioactive waste.

2 I think we have to look at a better
3 alternative. I'm happy to say that the United States
4 Department of Energy, on January 12, 2012, seven days
5 ago, released two groundbreaking information resources
6 on national hydrowave and tidal energy resources.
7 According to those reports, which are called the most
8 comprehensive of their kind to date, these water power
9 resources, if developed, could supply one-third of the
10 total U.S. energy demand by 2030. That's not so far
11 away. It would take four or five years before this
12 place could come online if it was built, and I hope
13 it's not.

14 But hydrowave and tidal are among the best
15 of the 20 sources in the EROEI analysis that I cite,
16 and they are all greatly superior to nuclear, both in
17 terms of what you get out for what you put in and in
18 carbon footprint, and hydrowave and tidal are free.
19 These are all greatly superior to nuclear, they're
20 being used in other countries as well as some here.
21 Holland uses tidal and wave generation of electricity
22 and has for some years. The technology is there, it's
23 safe, it works. And another thing nice about it is
24 all of these waterborne, tidal and ocean doesn't take
25 anything out of our rivers and doesn't put anything in

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1 them.

2 All of these can support baseload demand,
3 and that is one of the reasons we've seen things like
4 solar, and rightly so, solar is weak on baseload
5 demands and wind power is sporadic, but tides, waves
6 are pretty darn stable and pretty long lasting. So
7 pursuing this, thanks to the U.S. Department of
8 Energy's recent work, this shows us a better path, and
9 I would hope that we would pay attention and put our
10 money, resources, energy and efforts in that manner.

11 Thank you.

12 MS. SALTER: Thank you.

13 Our next speaker is Paul Bogar, and then
14 Brita Larsen Clark, followed by Mark Farris.

15 MR. BOGAR: I'd like to thank you for the
16 opportunity to speak today. My name is Paul Bogar. I
17 represent the Greater York Chamber of Commerce, and as
18 you may know, chambers of commerce represent the
19 business community, and I would like to take a few
20 minutes to talk about the community impact of having
21 Duke Energy Nuclear Station in your backyard. In York
22 County we have Catawba Nuclear Station. The station's
23 economic impact is great, and I don't believe anyone
24 would argue that the money brought in by having a
25 nuclear station in Cherokee County would benefit the

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1 county and the residents of that county.

2 There are four benefits that I'd like to touch
3 on briefly, if I could. One is jobs. Cherokee
4 County, as of November, had 12 percent unemployment.
5 The 4,000 jobs plus that would be available for
6 construction and the 800 jobs for station operation
7 would provide that 12 percent an opportunity to
8 improve their lives and their families' lives. So we
9 would support that effort.

10 Economic impact. While there are those
11 people living in Cherokee County who would acquire one
12 of these construction or operation jobs, those funds
13 would be available within the community to support
14 other community activities. In addition to that
15 economic impact, there would be millions of dollars
16 that Duke would pay in property taxes that would go to
17 improve schools and also cover operating expenses.
18 Those dollars would also be available to the county to
19 use for services for the needs of their community and
20 the people of the community and also to retire debt.

21 We spoke earlier about growth. In the
22 2010 census South Carolina grew by about 15-plus
23 percent, Cherokee County grew by 5 percent, and York
24 County which is just right across the Broad River,
25 grew by 37 percent. This influx in population

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1 necessitates additional power sources to meet those
2 people's residential needs and also to meet industry's
3 needs, so the nuclear plant would provide those
4 sources.

5 We talked about service and reliability
6 and low cost. For 100 years Duke Power Company has
7 provided power to the Piedmont region of North and
8 South Carolina. During that time they've operated
9 hydro plants, they've operated fossil plants, both
10 coal and gas-fired plants, they've also operated
11 nuclear plants, and during that time Duke has provided
12 reliable, cost-efficient power to this area and they
13 would continue to do so, every indication is there for
14 that.

15 As a chamber representative, I believe
16 building this nuclear plant would be good for this
17 region. The jobs, tax revenue and potential overall
18 economic impact must be exciting to this community
19 that has a need, as we all do. As a member of the
20 York County community, I appreciate the entire package
21 that Catawba Nuclear Station has brought to the table
22 for the county residents. Truly, the plant does
23 support and help with the community efforts, and I
24 believe Lee Nuclear Station would do also that for
25 Cherokee County.

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1 Thank you for giving me the opportunity to
2 speak.

3 MS. SALTER: Thank you.

4 All right. We have about seven speakers
5 left, so we'll probably go over maybe 10-15 minutes,
6 as long as everybody can try to keep their comment to
7 about four minutes. So just let you know that may be
8 looking to have other commitments that you need to
9 leave, that's kind of what our time schedule is
10 looking like.

11 So our next speaker is Brita Larsen Clark,
12 so I call her down, and then Mark Farris and Jim Cook
13 will follow.

14 MS. CLARK: Hello. I think I can keep
15 this under four minutes. There's a lot of points I
16 can make but I think a lot of this has been gone over
17 already. I just want to talk a little bit more about
18 the problems with nuclear radiation.

19 In the industry the idea of the standard
20 man, the standard person and what amount of ionizing
21 radiation would be a threshold level for it, I just
22 want to comment about that, that women are about 50
23 percent more vulnerable to nuclear radiation than men
24 are, having more reproductive tissue, and children and
25 babies, I don't think I need to tell anybody about

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1 with their rapidly growing bodies, they're much more
2 vulnerable to it also.

3 Nuclear contamination begins with the
4 mining of the uranium, it goes through the processing
5 of the uranium, the transportation, when it's used in
6 the reactors, the storing of the nuclear waste,
7 transporting it, and then dealing with the
8 decommissioned reactors when it's all over. All along
9 the line, even on the best of circumstances, there's
10 going to be some leaking of radiation. It is, as a
11 friend of mine said, like the Midas Touch in reverse.

12 The other issue I want to bring up is my
13 concerns about the Broad River and the cumulative
14 effects of the thermal contamination. I didn't get an
15 answer to my question about how many power plants are
16 along the Broad River, but there are several, and then
17 there's other industries and things that are dumping
18 heat into the river. I don't think there's any way
19 that this cannot affect the ecosystem of the river,
20 and if it gets hot enough, the water can't be used for
21 cooling anymore. Several years ago when there was a
22 real heat wave in Europe, they had to close down some
23 of their nuclear power plants because the water wasn't
24 cool enough to cool the reactors.

25 So those are my two points. Thank you.

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1 MS. SALTER: Thank you.

2 What I'd like to do is kind of just
3 announce the rest of the speakers that we have. Just
4 in case we've missed someone, you can come up and let
5 me know. We've got all the cards and all the folks
6 that signed up earlier, but just in case. Our next
7 speaker is going to be Mark Farris, and then we have
8 Jim Cook, Jose Razzo, Rob Youngblood, Irma Howarth,
9 and Ellen Thomas. So if your name is not on there and
10 you signed up to speak, just come and see myself or
11 George.

12 MR. FARRIS: Good afternoon. My name is
13 Mark Farris. I live in Rock Hill, South Carolina.
14 I'm the director of economic development for York
15 County. I appreciate the opportunity to speak to you
16 today and to talk about this facility and the
17 potential benefits that could accrue to our area. I'd
18 like to split my comments up into two areas, one
19 personal and one professional.

20 Personally, I can attest to the positive
21 impact of a nuclear facility's construction and
22 operation in the community. I grew up in York. I was
23 fortunate to be able to grow up where I did, about
24 seven miles from the nuclear facility there, and saw
25 many of my classmates employed in high-paying jobs

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1 during the construction of the facility. After
2 graduation, by the grace of God and a scholarship, I
3 was able to go to college at Clemson and several of my
4 classmates there are now gainfully employed at the
5 Catawba facility and have been for decades. The
6 facility itself employs over a thousand people and has
7 been a stable and one of our most reliable and
8 community-oriented employers in the county.

9 For many years the Clover School District,
10 in which the facility is located, led the state in
11 average valuation per pupil. The positive impacts
12 from the tax revenue for those units has created one
13 of the best school systems in the state by almost any
14 measure. But what we don't realize in York County we
15 actually share millage, and so all four of our school
16 districts have benefitted directly from the tax
17 revenue created from that facility. We have the best
18 school district in the State of South Carolina, and a
19 lot of it is largely attributable to Duke Energy and
20 the other companies that have invested in our
21 community.

22 I and my family personally reside within
23 seven miles of the facility and I would be within 25
24 miles of this facility, and aside from the clear water
25 vapor that you see on a cold winter's day, we feel

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1 very safe in our home. The Catawba unit operates in
2 relative anonymity, in fact, until you measure the
3 positive economic impact. York County, as was
4 mentioned earlier, is the fastest growing county in
5 the State of South Carolina, and it's safe to say the
6 Catawba units have had no negative impacts on our
7 quality of life in the area. In fact, it's improved
8 the quality of life.

9 Professionally, my job is to create new
10 jobs in York County and attract new business and
11 industry. While South Carolina certainly has its
12 problems, we have many advantages for the attraction
13 of business. One of the key advantages is the cost of
14 electricity. Many of our new and expanding companies
15 look for that in terms of their qualifications for
16 bringing those new jobs to our community. Companies
17 who use significant amounts of electricity are
18 attracted, in fact, by the affordable power. We have
19 one of the lowest power rates per kilowatt hour of any
20 region in the nation. If we are to continue to
21 compete globally, as somebody mentioned earlier, we're
22 going to have to have additional capacity for
23 electrical production, and this new unit will
24 certainly help us maintain that advantage.

25 In the last several years the Charlotte

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1 area has become a haven for nuclear engineering.
2 Shaw, Areva, Mitsubishi, Toshiba and Fluor have all
3 announced hundreds of new jobs, new high-paying jobs
4 in the nuclear industry. The positive impact on York
5 County schools has, again, made us one of the best
6 school districts in the state and Charlotte region,
7 and that makes it easier to do my job by creating
8 higher technology companies to the area who seek
9 better educated workers.

10 I wish we were here today talking about an
11 alternative energy source that could solve our
12 problems. Solar, biomass, wind, they all are good
13 options. Duke, in fact, has continued to lead the
14 effort in finding alternative energy sources. I also
15 wish we could live a more sustainable lifestyle and
16 have capacity issues solved by diligence and energy
17 conservation, but the fact is that won't happen. We
18 have three major choices: coal-fired units,
19 hydroelectric, and nuclear to satisfy those increasing
20 demands. Of those three, I choose nuclear.

21 I've been around long enough to remember
22 the proposed concept to dam the Broad River. It was
23 met with outrage by the local citizens. In 1988 I was
24 at a hearing much like this and thank goodness we had
25 York County Sheriff's deputies there. The outrage

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1 associated with another hydroelectric project paled in
2 comparison to the discussion we've had here today.
3 I've also seen resistance to other coal-fired units.
4 In fact, worried myself about flash, burned
5 hydrocarbons and acid rain. And I've also seen
6 nuclear operations provide thousands of megawatts of
7 reliable power in North and South Carolina with very
8 limited environmental impact.

9 As I tell my children, life is about
10 choices. There's no form of power generation with
11 zero impacts on our environment, not even wind and
12 solar. However, we simply can't ignore the needs and
13 demands. We have, frankly, kicked that can down the
14 road for too long in our nation. If for no other
15 reason than national security, we will need to provide
16 a viable and immediate solution to what could be a
17 pending crisis of increasing electricity demand. The
18 recent financial fiasco will pale in comparison to the
19 economic impact if we're unable to meet the future
20 energy demands.

21 We can't wish away a problem, and when
22 faced with a choice, I believe the Lee facility will
23 be the most efficient and less environmentally
24 impactful situation we have to sustain our economy,
25 security and overall quality of life we now enjoy.

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1 Thank you.

2 MS. SALTER: Thank you.

3 Our next speaker is Jim Cook, and then
4 followed by Jose Razzo, and then Rob Youngblood.

5 MR. COOK: Thank you. My name is Jim
6 Cook, and I work with the Cherokee County Development
7 Board. And as I can tell so far, I think I'm the
8 first one that actually lives, born and raised here in
9 Cherokee County, and I'd like to thank everybody for
10 coming here today and we welcome you here.

11 You've heard a lot of smart people talk
12 about different things, pros and cons of all this. I
13 won't try to out-debate any of them. What I will tell
14 you that here in Cherokee County we're for this
15 project, we think it will bring jobs. Jobs are
16 important, believe it or not. We have a high
17 unemployment rate, 12 percent right now, and with the
18 construction of the Lee nuclear facility and the
19 concurrent operation, we think it will be good for us
20 job-wise.

21 Economic development, it's my job, much
22 like Mark's, to try to bring business and industry
23 here to Cherokee County, and we know that this
24 facility will help Duke Energy be able to provide
25 those low rates that are vital. You've heard why

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1 they're important, why manufacturers want to go
2 different places, and more and more energy costs are
3 driving the train on that.

4 And last but not least, I live right here
5 in Cherokee County, I live on the Broad River, I live
6 right across from where this thing is going to be
7 built, so safety and environment are, of course,
8 important to me personally as well as professionally
9 here in town.

10 I've personally worked with folks from
11 Duke Energy, I've seen their commitment to excellence,
12 and I have the utmost faith in them that they're going
13 to do what is right to continue to be able to provide
14 low cost, safe, reliable energy for us in the future.

15 Thank you very much.

16 MS. SALTER: Thank you. Jose Razzo -- I
17 hope I'm saying that right. Is Jose here?

18 (No response.)

19 MS. SALTER: Okay. Next then we will go
20 to Rob Youngblood, and then to Irma Howarth and then
21 Ellen Thomas. Ms. Thomas, you're going to be here
22 this evening? Okay. So then we have Rob Youngblood
23 and Irma Howarth.

24 MR. YOUNGBLOOD: Hi, everybody. I'm Rob
25 Youngblood, and I want to thank the NRC for providing

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1 this hearing to afford citizens like me and groups
2 like the chamber of commerce the opportunity to
3 express thoughts and opinions.

4 I'll be brief because much of what I'm
5 going to say is pretty much what Mark Farris said as
6 our York County economic development director. I am
7 the president of our chamber of commerce. We have 800
8 business members and represent a broad spectrum of
9 businesses actually throughout York County.

10 I'm here to speak on behalf of the project
11 and in support of the NRC's findings that there are no
12 environmental impacts that would preclude the issuing
13 of the licenses for the two new reactors at the Lee
14 Nuclear Station. As a longtime resident of York
15 County, I'm also here to offer personal testimony,
16 much like Mark Farris did, as to the need and the
17 benefits of a nuclear power station to a community. I
18 respectfully request your thoughtful consideration of
19 the following points.

20 The Lee Nuclear Station will mean jobs.
21 Unemployment rates in our region and in this state
22 remain near record highs and at crisis levels, and
23 jobs are desperately needed. These jobs, many well-
24 paying, will be created in the construction of the Lee
25 Station, and employees with diversified skills will be

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1 necessary to operate and maintain the plant.

2 The station will mean economic
3 development. Businesses and industries need reliable
4 and affordable sources of energy. Communities need
5 businesses to provide jobs and tax base. This tax
6 base funds the operation of public schools and other
7 necessary government services, plus the community's
8 quality of life is also influenced by this tax base.
9 This project will not only improve the service and
10 increase the energy capacity of existing businesses in
11 the region, it will also help lure additional
12 businesses and jobs to the area and will provide
13 commerce also for vendor and supplier businesses.

14 Duke Energy, the station's operator, has a good record
15 of providing support to and for local and state
16 economic development efforts.

17 My third point is that this site will be
18 safe, clean and environmentally friendly. Citizens
19 wish to live and businesses seek to operate in areas
20 that are clean, safe and environmentally sound. These
21 are also key factors affecting the region's quality of
22 life, as I'd mentioned earlier. In addition to being
23 an outstanding corporate citizens, Duke Energy has a
24 good reputation for operating safely and for
25 protecting the environment in the regions in which

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1 they operate and serve.

2 From a personal standpoint, as a Rock Hill
3 resident I have lived in a relatively close proximity
4 to the Catawba Nuclear Station, CNS as I will call it,
5 for many years during construction and also during its
6 operation. For the last nine years I have lived
7 approximately two miles -- I beat Mark on that one,
8 he's seven miles out from the plant -- and I have
9 never felt anything but safe near that plant. Many
10 more citizens live close and in the vicinity of the
11 plant as well. In fact, the land surrounding the CNS
12 is popular and highly sought real estate.

13 I have personally never had the first
14 concern about safety, cleanliness or any environmental
15 ill effects related to this facility in York County.
16 In fact, the CNS and Duke Energy have been heralded
17 for providing solid well-paying jobs and for its
18 effort to protect the environment. The station has
19 contributed greatly to the tax base of York County and
20 to the funding of local school districts, as mentioned
21 earlier by Mark. Plus, CNS and Duke have played major
22 roles in the county in the regional and state economic
23 development efforts.

24 Thank you again for this time and for this
25 opportunity.

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1 MS. SALTER: Thank you.

2 Okay, our final speaker, unless any of the
3 folks that were signed up but weren't here when I
4 called them show up, and I think that was Kayla Robbs,
5 who I think someone had informed me that she was ill,
6 Jose Razzo, but I don't see that they've come. So
7 I'll call Irma Howarth up, and that will be our final
8 speaker, but we do have some closing remarks after
9 that, so stick around.

10 MS. HOWARTH: Good afternoon. My name is
11 Irma Howarth and I live in Asheville, North Carolina.
12 I am a retired registered nurse and clinical social
13 worker and psychotherapist.

14 I'm concerned about the safety and health
15 effects of toxic nuclear waste. A recently released
16 paper from the Nuclear Information Resource Service
17 shows that radiation is 50 percent more harmful to
18 women than previously recognized, and I quote: "A
19 woman is at significantly greater risk of suffering
20 and dying from radiation-induced cancer than a man who
21 gets the same dose of ionizing radiation."

22 This is news because data in the report on
23 the biological effects of ionizing radiation published
24 in 2006 by the National Academy of Science has been
25 under reported. It's more often acknowledged that

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1 children are at higher risk of disease and death from
2 radiation, but it is rarely pointed out that the
3 regulation of radiation and nuclear activity worldwide
4 ignores the disproportionately greater harm to both
5 women and children.

6 I again quote: "The current limits for
7 most industrial radiation in the United States allows
8 failed cancer members of the general public at a rate
9 that is between 300 to 3,000 times higher than the
10 legal rate of harm from most other industrial
11 hazards." And that's the legal rates, and this is a
12 very disturbing fact.

13 Transporting nuclear waste on our highways
14 to deposit it at some unknown repository or recycling
15 site and hauling those toxic dangerous wastes on our
16 highways is frightening and not safe. Currently used
17 to transport by truck are rail are the unsafe nuclear
18 waste shipping casks that emit neutron and gamma
19 radiation as they travel through cities and other
20 populated areas, and are more prone to accidents as
21 they travel thousands of miles and also on our curvy
22 mountain roads. I contend that toxic waste should not
23 be stored in somebody else's backyard. Keep the toxic
24 waste where it is created. Implement HOSS, which is
25 hardened on-site storage, and keep toxic nuclear waste

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1 at its source.

2 After the recent Fukushima disaster, we
3 see proof again that it can happen. Unanticipated
4 natural disasters, human error and failings, terrorist
5 attacks -- that have not been mentioned -- systems
6 malfunction can happen despite all the reassurances
7 the nuclear industry and the NRC makes. Toxic
8 radiation knows no boundaries.

9 Chernobyl's radiation reached California in ten days.
10 Thousands died and continue dying today. The Three
11 Mile Island came very close to being worse than
12 Chernobyl. Fukushima's radiation fallout easily
13 reached California and even our east coast and beyond.

14 And as a taxpayer, I don't want my money
15 going to support and subsidize dirty toxic energy.
16 Please phase out nuclear. Support viable, sustainable
17 and clean alternatives that also create many more
18 permanent jobs.

19 Thank you.

20 MS. SALTER: Thank you.

21 All right. So that concludes the public
22 comment period. I want to thank everyone for coming.
23 It's been a pleasure to be your facilitator. I want
24 to remind you, I believe it's the back of the handout,
25 there's a feedback form. NRC is always looking for

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1 ways to improve public meetings, so please take some
2 time to fill that out, if you will.

3 And with that, I'm going to turn it over
4 to Patrick Madden. Mr. Madden is deputy director in
5 the Division of New Reactor Licensing in the NRC's
6 Office of New Reactors.

7 MR. MADDEN: My job is to officially close
8 this meeting, but before I do that, I kind of want to
9 recap on what I heard. Thanks, Susan, for introducing
10 me.

11 I'd like to personally thank everybody in
12 this room for participating and being involved in this
13 public process. As the designated senior NRC official
14 for this meeting, my primary purpose here was to
15 observe and interact between the public and the NRC
16 staff, and I have talked to quite a few people, gain
17 insights to the questions you asked and the comments
18 that you have made, and listen to all the various
19 points of view in this room.

20 During this meeting I heard comments and I
21 want to put them in categories because there were a
22 lot of comments that had very similar meaning, and
23 those were in the following subject areas: economic,
24 both positive and negative; job benefit; water
25 capacity and thermal issues on the Broad River; the

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1 need for power and the consideration for alternative
2 power sources; Fukushima; also heard quite a bit about
3 nuclear waste; impact on wetlands; cancer risk,
4 radiation protection; an interesting comment on
5 environmental justice; and transportation concerns.

6 The comments I heard today and those that
7 we'll receive through the public process are very
8 important to us and very important to me. These
9 comments will greatly contribute to the completeness
10 of the final environmental impact statement.

11 Your participation in this meeting, again,
12 is appreciated, and I want to thank each and every one
13 of you for sharing this time with us. And now I'm
14 going to declare the meeting is closed, and again,
15 thanks for the participation, and as you leave, please
16 be safe as you travel home. Thank you.

17 (Whereupon, at 4:07 p.m., the public
18 hearing was concluded.)

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