

Official Transcript of Proceedings

U.S. NUCLEAR REGULATORY COMMISSION

Title: Duke Energy Carolinas, LLC
William States Lee III Nuclear Station,
Units 1 & 2
Supplemental Scoping Public Meeting
Addition of Make-up Pond C

Docket Nos.: 52-018
52-019

Location: Gaffney, South Carolina

Date: Thursday, June 17, 2010

Work Order No.: NRC-306

Pages 1-139

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U.S. NUCLEAR REGULATORY COMMISSION

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SUPPLEMENTAL SCOPING PUBLIC MEETING

WILLIAM STATES LEE III NUCLEAR STATION, UNITS 1 & 2

ADDITION OF MAKE-UP POND C

Docket Nos. 52-018, 52-019

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Thursday, June 17, 2010

+ + + + +

Auditorium

Restoration Church

1905 North Limestone Street

Gaffney, South Carolina

+ + + ++

7:00 p.m.

+ + + + +

BEFORE: FRANCIS X. "CHIP" CAMERON, Facilitator

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P R O C E E D I N G S

(7:00 p.m.)

1
2
3 MR. CAMERON: We're going to get started
4 as soon as we have everybody in and seated.

5 (Pause.)

6 MR. CAMERON: Good evening, everybody.
7 Welcome to tonight's meeting. My name is Chip
8 Cameron, and it's a pleasure to serve as your
9 facilitator. For tonight's meeting I'm going to be
10 assisted by Susan Salter, who is co-facilitating with
11 me, and she's a member of the Nuclear Regulatory
12 Commission's facilitator training program.
13 Unfortunately she's missing in action right now, but
14 I'll introduce her to you when she comes in.

15 And as your facilitators tonight, Susan
16 and I are going to try to help all of you to have a
17 productive and constructive meeting.

18 And the topic tonight is the environmental
19 review that the Nuclear Regulatory Commission, the
20 NRC -- that's one acronym we will use -- and the U.S.
21 Army Corps of Engineers, the environmental review that
22 the two agencies are going to perform as one part of
23 the evaluation of a license application that we've
24 received from Duke Energy Carolinas to build and
25 operate a nuclear reactor at the Lee site here in

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1 Cherokee, County.

2 Now, the NRC was here about a year ago to
3 ask your advice about what the scope of -- two years
4 ago. NRC was here two years to ask your advice on
5 what the scope of the environmental review should be
6 for the evaluation of this license application.

7 The NRC and the Corps of Engineers are
8 back tonight to focus on an issue that's been added
9 since the 2008 meeting, and that's the Pond C issue.
10 And the NRC and the Corps are going to explain more
11 about what that particular issue is in more detail,
12 and we're going to ask again for your advice on that
13 particular issue.

14 Now, I wanted to talk a little bit about
15 meeting process issues so you know what to expect
16 tonight, and I'd like to tell you about the format for
17 the meeting, some simple ground rules to help us all
18 to have a productive meeting, and also to introduce
19 the NRC and the Corps staff that will be talking to
20 you tonight.

21 In terms of the format for the meeting,
22 it's a two-part format, and the first part is to give
23 you information on the process that the Corps and the
24 NRC uses to evaluate license applications such as
25 this, and also tell you how you can participate in

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1 that process.

2 And we will have some time after those
3 presentations for a few questions on the review
4 process, to make sure that everything is clear to you
5 in that regard.

6 The second part of the meeting is an
7 opportunity for the NRC and the Corps of Engineers to
8 listen to your advice, your recommendations on what
9 should be included within the scope of the review --
10 the environmental review, particularly in regard to
11 the Pond C issue.

12 And the NRC and the Corps, they're taking
13 written comments on this issue, but they wanted to be
14 with you tonight in person to talk to you, and
15 anything that you say tonight is going to carry the
16 same weight as a written comment.

17 If you want to speak tonight, everybody's
18 been filling out the yellow cards, and that simply
19 tells us how many people want to talk tonight so that
20 we can try to manage the time.

21 In terms of ground rules: First ground
22 rule, I would just ask you all to wait until all of
23 the presentations are done so that we can give you a
24 comprehensive view on the issues. Wait till they're
25 all done before asking questions.

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1 When we do get to the question part of the
2 meeting, if you have a question, just signal me, and
3 I'm going to bring you this cordless mic, and please
4 introduce yourself to us. We may not be able to get
5 to all the questions during that part of the meeting,
6 because we have to go on to hear what your comments
7 are.

8 If you don't have an opportunity to get
9 your question answered, the NRC and the Corps staff
10 will be here after the meeting to talk to you. We are
11 going to put contact information up; they're in the
12 slides, and you can also contact the NRC or Corps
13 staff directly on that.

14 The second ground rule is I would ask that
15 only one person at a time talk, and there's two
16 important reasons for that. One is so that we can
17 give our full attention to whomever has the floor at
18 the moment. Second is so that we can get what I call
19 a clean transcript.

20 Our court stenographer, Brenda Thompson,
21 in the back of the room, is taking a transcript of the
22 meeting, and that's going to the NRC and the Corps
23 record of what was said tonight, and it's going to be
24 your record; it's a publicly available transcript, so
25 if we only have one person speaking at a time, Brenda

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1 will know exactly who that is.

2 Third ground rule -- and this is an
3 important one -- is I would ask you to be brief in
4 your comments, and that's so that we can hear from
5 everybody who wants to talk tonight. We have a lot of
6 people signed up to speak, and I'm going to ask you to
7 follow a three- to five-minute guideline, and there's
8 a little flexibility there, but just a little bit, so
9 that we can make sure that we finish at a decent time,
10 but we do want to hear from all of you who want to
11 talk tonight.

12 And I apologize in advance to anybody that
13 I have to ask or Susan has to ask to sum up tonight if
14 you're not finished your entire comments, because we
15 know that you spent a lot of time and effort preparing
16 your comments.

17 If you want to expand on your oral
18 comments, you can submit a written comment to the NRC.
19 We do have comment forms out at the desk, and I think
20 they're attached, actually, to the slides that you
21 received, and you can write a comment on that form,
22 and it's already stamped -- franked, basically -- and
23 you can just put that in a mailbox, and it will get to
24 the NRC.

25 And one thing that I want to call your

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1 attention to in terms of the comments is that the NRC
2 staff and the Corps of Engineers staff, they're here
3 to very carefully listen to what you have to say
4 tonight; they're not going to be responding to the
5 comments that you give tonight, including they're not
6 going to be answering any questions that are asked
7 from the podium during that comment portion of the
8 meeting.

9 But they are going to review these
10 comments and questions and evaluate them, and they
11 will be included in what's called a scoping report
12 that will be issued.

13 Final ground rule: courtesy for all of
14 us. You may hear opinions tonight that differ from
15 your own opinion, and just respect the person who is
16 giving that opinion.

17 And I would thank all of you for being
18 here tonight, and I want to introduce the NRC and the
19 Army Corps of Engineers staff that are going to be
20 talking to you.

21 This is my colleague Susan Salter who I
22 mentioned early on, and, Susan, thank you for being
23 here with us. She's going to be doing the comment
24 portion of the meeting.

25 And we're going to start off with some

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1 comments from Tony Hsia, who's right here. And Tony
2 is the deputy division director of the Division of
3 Site and Environmental Review at the Nuclear
4 Regulatory Commission in our office of New Reactors,
5 and Tony's going to tell you a little bit about what
6 the NRC's responsibilities are.

7 We're then going to go to Sarah Lopas, and
8 Sarah is the project manager for the environmental
9 review on this license application, and she's going to
10 tell you about the review process.

11 Next we're going to go to Lt. Col. Jason
12 Kirk, of the Army Corps of Engineers, and Lt. Col.
13 Kirk is the district engineer and commander of the
14 Charleston district of the U.S. Army Corps of
15 Engineers, and Lt. Col. Kirk is going to tell you
16 about the Corps of Engineers' review process on this
17 particular license application.

18 We're going to get back to Sarah to finish
19 it off; then we're going to go to all of you for a
20 short period of questions, and then we're going to ask
21 you to come up to the podium to present your comments
22 to us.

23 I also want to introduce Brian Hughes from
24 the Nuclear Regulatory Commission. Brian is the
25 project manager for the safety evaluation on this

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1 license application, and I think that the NRC staff is
2 going to just describe briefly that there's an
3 environmental review and there's a safety review.
4 Both of them need to be done before the NRC can decide
5 whether they're going to grant this license
6 application or not.

7 And with that I think we can get started
8 with Tony.

9 MR. HSIA: Good evening, everyone. My
10 name is Tony Hsia. I welcome you to this evening's
11 meeting, and certainly I feel more comfortable in this
12 air-conditioned room; I hope you do, too.

13 As Chip said earlier, two years ago we
14 were here, and we presented to you the scoping study,
15 also solicit input from you as to what areas we should
16 focus our attention to do our scoping study and
17 environmental impact study.

18 And we have one major change since two
19 years ago; that is, Duke Power has proposed to add a
20 Pond C, a make-up pond, to their proposed Lee power
21 plant site, and that's why we're here.

22 We're also very pleased to have our
23 cooperating agency, the U.S. Army Corps of Engineers
24 to be here, and this is the first time with both
25 agencies are in front of you to present to you what

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1 we're doing to this point and to solicit your input
2 and receive your comments as we go forward in
3 conducting our environmental reviews.

4 As Chip mentioned earlier, I just want to
5 say -- give a little description as to what the safety
6 side is and what the environmental side is; that's
7 basically NRC's mission; we do both.

8 The safety is mainly on the hardware
9 design, if you will; the reactor, the pumps and
10 valves, the containment, the water, the heat, how the
11 reactor rods are functioning, and control and safety
12 side. That's what called a safety review.

13 The environmental reviews, as you probably
14 know, are more focused on air, water, socioeconomics,
15 land, and so on. So that's basically what we do on
16 both sides.

17 And NRC's mission is, of course, to
18 protect -- we're charged to license and regulate the
19 radioactive material -- of civilian use of radioactive
20 material. Of course, nuclear power plant is one part
21 of that, and our mission is to protect the public
22 health and safety and security, as well as the
23 environment. So that's our mission, and that's what
24 we focus our attentions to.

25 So today we also are going to explain to

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1 you what our steps are from this point forward: what
2 we have done, what the schedule is like, until we're
3 done with the complete of the review.

4 And also Sarah will explain to you a
5 little bit more detail as to what format we can
6 receive your comments, and that's very important.
7 That's why we're to hear from you regarding the
8 environmental reviews we're going to conduct,
9 particularly tonight, on the Pond C.

10 And I also would like to clarify that NRC
11 has just started doing the environmental review, so we
12 will collect input from you and get all the
13 information we have, and we will not make a final
14 decision on whether this plant can go forward to
15 construct until we're completely done with this
16 review.

17 So with that, I would like to turn over to
18 Sarah.

19 MS. LOPAS: Hi. My name is Sarah Lopas,
20 and I'm the environmental project manager for the Lee
21 combined license application review.

22 This is just a quick overview of what's
23 been going on, so this might be a rerun for most of
24 you.

25 In December 2007 Duke Energy Carolinas

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1 submitted an application to the NRC to build and
2 operate two new nuclear reactors here in Gaffney,
3 about six miles southeast of where we are today.
4 These reactors would be located right next to the
5 Broad River, and they would get their cooling water
6 from the Broad River.

7 Here at the NRC we'll say combined
8 licenses a lot; we also use the abbreviation C-O-L, so
9 you'll hear me say C-O-L tonight, and that's what I'm
10 talking about, the license to operate -- to build and
11 operate a nuclear power reactor.

12 So the NRC has been working on Duke's COL
13 application since we officially accepted it, and that
14 was in February of 2008. And as you've heard a couple
15 times already, there are two reviews that are ongoing
16 right now: the safety review, which Brian is the
17 project manager of; and then the environmental review.

18 The final part of the safety review is
19 issuing a final safety evaluation report, and then the
20 environmental review I'll talk about a little bit.

21 The environmental review focuses, of
22 course, on the environmental impacts of the
23 construction and operation of these two new reactors.
24 The results of our review will be documented in an
25 Environmental Impact Statement, which we'll call an

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1 EIS for short.

2 As part of the NRC's environmental review
3 process, we of course had an original scoping period,
4 and that was back in the spring of 2008, and as you've
5 heard, we were here in Gaffney on May 1, 2008, and we
6 were actually at the Gaffney High School auditorium,
7 so some of you might have been there for that meeting.

8 Since then, since we had that original
9 scoping, as you've heard, in September 2009, Duke came
10 in with a supplement to their environmental report
11 that described their plans to build an additional
12 cooling-water reservoir.

13 So we thought that was a big enough change
14 in the scope of the project for us to come back here
15 tonight and talk to you and get your input.

16 So what has changed? Well, as I just
17 said, Pond C. So as I said, the plant is located next
18 to the Broad River and would get their water from the
19 Board River.

20 During the original scoping period back in
21 2008, South Carolina was experiencing a severe
22 drought. As a result of that, we got plenty of
23 comments during that scoping period about whether or
24 not there would be enough water to support the two new
25 nuclear reactors.

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1 In particular, the South Carolina
2 Department of Natural Resources submitted a detailed
3 comment regarding water availability. The Department
4 of Natural Resources recommended that Duke develop
5 additional backup water reserves to lessen the
6 potential of plant shutdowns and to avoid future water
7 conflicts.

8 Following this scoping comment, Duke
9 proposed building an additional offsite cooling water
10 reservoir, called Make-Up Pond C, which would allow
11 continued operation of the reactors during periods of
12 low flow in the Broad River.

13 You might already know, but there are
14 already two cooling water reservoirs on the Lee site,
15 and they are Ponds A and B. Water to make up for
16 evaporative losses and drift would be pumped from the
17 Broad River into Pond A, and the reactors would get
18 their cooling water directly from Pond A.

19 Pond B and Pond C would be sources of
20 additional make-up water during periods of low flow,
21 so instead of make-up water coming from the Broad
22 River, they would pump it first from Pond B, and then
23 they'd start pumping from Pond C if they needed to.

24 If these additional cooling water
25 reservoirs weren't there, Duke would have to shut down

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1 the plant, because there wouldn't be enough water.

2 Make-Up Pond C would be located offsite,
3 immediately northwest of the site. The pond itself
4 would be approximately 620 acres. There would be a
5 300-foot buffer around that 620-acre pond. The 300-
6 foot buffer would be in a natural vegetated state,
7 with the exception of a 50-foot strip along there,
8 which would be cleared and grassed to prevent debris
9 from entering into the pond.

10 So this is a map of where Pond C would be
11 in relation to the site. Make-Up Pond C would be just
12 downstream of Lake Cherokee, which is an existing lake
13 that's owned by the South Carolina Department of
14 Natural Resources.

15 Currently the area that would be used for
16 Pond C consists primarily of forests and pastures.
17 Pond C would be formed by damming London Creek, which
18 is a tributary to the Broad River. The dam would be
19 located upstream of where London Creek combines with
20 Little London Creek.

21 Make-Up Pond C would be filled using water
22 pumped through Ponds A and B or directly from the
23 Broad River. The drainage area of Make-Up Pond C --
24 so all the little streams and what-not feeding into
25 that area -- would be approximately 2,500 acres, which

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1 is about 3.9 square miles, and the pond would contain
2 22,000 acre-feet of water.

3 Of that 22,000 acre-feet of water, 17,500
4 acre-feet would be usable capacity for withdrawal for
5 the reactors. Just like existing Ponds A and B, there
6 would be no public access to Make-up Pond C.

7 This is just a little bit more detailed
8 figure of the pond. It's a little bit blurry, so I
9 don't know; maybe it's clearer in your slides.

10 So the red outline was Duke's study area
11 when they were doing ecological studies; that was the
12 area that they looked at. The blue outline is the
13 pond itself. The dashed green outline surrounding the
14 pond shows the 300-foot buffer. And the little pink
15 marks on the graphic, these are jurisdictional ponds
16 and wetlands. "Jurisdictional" means that these ponds
17 and wetlands are regulated by the Army Corps of
18 Engineers.

19 Another change since we were here in 2008
20 is that the U.S. Army Corps of Engineers came on as a
21 cooperating agency with us, and a cooperating agency
22 is any Federal, State, local agency, or tribal
23 government, other than the lead agency -- which is us,
24 the NRC -- which has jurisdiction by law or special
25 expertise with respect to any environmental impact of

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1 the proposed project.

2 The Army Corps of Engineers has
3 jurisdiction by law over any work Duke may need to do
4 that would impact waters of the United States. So
5 together both the NRC and the Army Corps of Engineers
6 make up the Lee environmental review team.

7 And we're really pleased to work with them
8 and we're glad they're here tonight, and I'm going to
9 hand it over to Lt. Col. Kirk.

10 LT. COL. KIRK: Thanks to Sarah and the
11 first speakers that got us going here. Just a couple
12 of notes as we get going.

13 The team that I'm here with are a whole
14 bunch of folks out of our regulatory division from the
15 Charleston District of the Army Corps of Engineers,
16 and we serve the regulatory function for your whole
17 state of South Carolina, so that is our boundary;
18 that's why we've come here tonight in Gaffney.

19 A couple of weeks ago we were down in
20 Jenkinsville, and worked in the same sort of process
21 for the Summer Plant that's also working through the
22 permitting process. So this is what your Corps does
23 across the state for a host of different developmental
24 plans, nuclear power plants, proposed nuclear power
25 plants just being some of those.

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1 Section 404 of the Clean Water Act:
2 anytime dredged or filled material is going into
3 waters of the United States, we're engaged, and this
4 obviously is a unique situation with now -- aided by
5 the MOU that we have with NRC so that we can work hand
6 in hand to address the environmental impacts that we
7 foresee with the plan as it sits right now.

8 We don't yet have the draft Environmental
9 Impact Statement. We think we'll have that sometime
10 in the year to come. From the draft Environmental
11 Impact Statement, which will also have a public
12 comment period specific to that draft Environmental
13 Impact Statement, that's when we expect that we'll
14 actually get the 404 permit application, and that's
15 when our office will work through the review of that
16 permit application, to lead to a permit decision
17 pursuant to NEPA, and that would only come on the tail
18 end of our receiving the final EIS, oftentimes a year
19 or more on from the draft EIS.

20 So today we talked about '08. Now we're
21 here in 2010, and there'll be several other specific
22 points where you all will have an opportunity to
23 comment on the documents that detailing the
24 environmental impacts of this proposed project. So
25 we've talked through that, our cooperating agency

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1 role, working with NRC.

2 And so this kind of goes without saying,
3 but that's why we're here. The public involvement and
4 participation are hugely important to this process,
5 and we're here because the public involvement helped
6 the permit -- the applicant realize, with the drought
7 conditions and that, that Pond C was going to be
8 necessary, and that's why we're here tonight talking
9 through that.

10 Released about a month ago in the *Federal*
11 *Register* the scope change has been out for comment,
12 and comments have already been received over the last
13 several weeks, but as we move forward from today, July
14 2 is the deadline to get follow-on comments in.

15 So your recorded voice comments will come
16 in tonight; you may hand in or mail in some written
17 comments, and you have time through July 2 to continue
18 to prepare and submit those that will then be formally
19 considered in the draft EIS.

20 And with that I'm going to hand back to
21 Sarah with NRC. Thanks.

22 MS. LOPAS: Okay. So not to kind of
23 reiterate over and over, but the comments that you
24 give to us, we're going to -- the relevant comments
25 we're going to use in developing our Environmental

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1 Impact Statement.

2 We're also soliciting comments from other
3 state resource agencies; we have a couple of them with
4 us tonight, which is very important.

5 As I said, the comments are -- you can
6 submit them through July 2, and all the comments that
7 we receive tonight we're going to put in a Scoping
8 Summary Report, which will be available online, so
9 you'll get to see all your comments kind of listed out
10 and then our responses to them, and in a bit you'll
11 see where the website is where you'll be able to find
12 that.

13 And some of you are on our mailing list,
14 and you'll actually get a copy of that. If you put
15 your name on the mailing list tonight when you came
16 in, you'll most certainly get a copy of it.

17 If you have your copy of the slides, it's
18 an overview of how the NRC does their environmental
19 review process, and it's a stepwise approach to how we
20 meet our responsibilities under the National
21 Environmental Policy Act, NEPA.

22 Before each major milestone of this
23 project, we publish a notice in the *Federal Register*.
24 As I stated earlier, we started the Lee Nuclear
25 environmental review back in 2008, with a notice of

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1 intent to conduct scoping and prepare an Environmental
2 Impact Statement.

3 So this started that original 60-day
4 scoping period back in the spring of 2008. Following
5 that scoping period we put together a scoping summary
6 report for that, so that's available online right now.
7 If you want to go back and see what people were saying
8 back in 2008, you can do that at that website up
9 there, actually.

10 The original scoping process helped us
11 define the scope of our environmental review. And
12 after receiving Duke's supplement to the environmental
13 report describing Make-Up Pond C, we thought it was
14 important to come back down here, and so where we are
15 in that stepwise little graphic you have in your
16 handouts. We published the notice in the *Federal*
17 *Register* on May 24, so that began our official comment
18 period; a little bit over 30 days is that comment
19 period.

20 As I said, we'll get your comments, we'll
21 respond to them, we'll put them in a Scoping Summary
22 Report, and we'll use the relevant comments to develop
23 our EIS.

24 We expect that draft EIS to be published
25 in July of 2011. There will be a 75-day comment

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1 period on that draft EIS, so you'll have 75 days to
2 read that through, tell us what we did right, what we
3 did wrong, give us comments.

4 We're going to have another public meeting
5 down here to discuss that Environmental Impact
6 Statement, so another opportunity for you to get up
7 here and tell us what you think.

8 And your comments on the EIS are
9 important, because they help us finalize that EIS. So
10 about a year after that, in about August of 2012,
11 we'll publish the final Environmental Impact
12 Statement.

13 The next slide is our contact information,
14 and as it was stated earlier, I'm your environmental
15 project manager, so if anybody -- if you have any
16 questions on the environmental review, please don't
17 hesitate to e-mail me at my e-mail address, or the
18 LeeCOLA e-mail address works, too; I check that one as
19 well.

20 Brian Hughes is the safety project
21 manager, so any tough safety questions, please direct
22 them that way.

23 That website is a really great website;
24 there's a lot of stuff on there. If you're able to
25 get online and go to that website, please do, because

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1 I think there's a lot of good information.

2 We have all of our correspondence with
3 Duke up there. We've asked Duke lots of questions so
4 far in this review; we've gotten lots of responses,
5 pages and pages and pages back. They're all up there
6 for you to see what we've asked and what Duke has sent
7 back to us.

8 I also stopped in at the library this
9 morning. The application materials are at the
10 library. They're kind of tucked away, so you have to
11 be shown where they are, but they're there if you want
12 to look at a paper copy.

13 So here's how you can submit your
14 comments: You can submit them to that e-mail address:
15 LeeCOLAEIS@nrc.gov. That website is a website you can
16 go to and enter in your comments electronically that
17 way, too.

18 And then of course you can mail or fax
19 them, to that fax number or that address. And as I
20 said, the comments are due by July 2, so things that
21 you mail in just need to be postmarked by July 2.

22 If you run out of time here tonight, the
23 meeting goes too long and you don't have time to say
24 your comment, run out to Adrienne, and you can write
25 your comment there or submit it this way. It's all

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1 given the same weight, as Chip said.

2 So with that, I think I will turn it back
3 over to Chip, and we'll go on to the comments

4 MR. CAMERON: Okay. Thank you all for
5 that information.

6 You've heard a description of not only the
7 review process but why the agencies are out here with
8 a supplement tonight.

9 And I guess I'd like to see if all this
10 was clear, and we're going to go to Mary in a second,
11 but I just want to clarify for everybody, is that the
12 comments are all coming in to the NRC, but those
13 comments that deal with the U.S. Army Corps
14 responsibility are going to be coordinated with the
15 Corps. Is that correct?

16 MS. LOPAS: That's correct. Yes.

17 MR. CAMERON: Okay. Good.

18 And, Mary, if you could introduce yourself
19 to us, please.

20 MS. OLSEN: Mary Olsen, Southeast
21 Coordinator for Nuclear Information and Resource
22 Service.

23 I just have a quick clarifying question
24 for Ms. Lopas. It has two parts.

25 The first is you said 17,500 acre-feet

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1 would be available, and I'm wondering if you know how
2 many gallons that is. And the second thing is you
3 made some comment about if the ponds were not
4 available, Duke would shut down.

5 So does that mean that if there's a
6 drought and the ponds don't have water, that -- I
7 mean, just clarify what you meant by that.

8 MR. CAMERON: And as Mary said, two parts:
9 the equivalent, the gallons, and also this may be
10 something that we want to talk to Brian about, to talk
11 about the relationship between the water and the
12 shutdown.

13 And if you want to talk to that, that's
14 fine, too. Go ahead, Sarah.

15 MS. LOPAS: Well, I have to do the
16 calculation of the gallons; I just don't know that,
17 but I can get back to you about the total gallons,
18 what that would -- that's a -- just conversion that I
19 don't have in my head.

20 But as far as the plant would have to shut
21 down, there are certain flow requirements in the Broad
22 River, so there's a minimum flow that must be
23 maintained in that portion of the river.

24 So when the river's getting to that --
25 approaching that point, they can't be withdrawing from

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1 the river, so they'd have to start withdrawing from
2 Pond B, from Pond C.

3 So if by some chance Ponds B and Pond C
4 were completely dry, they -- yeah, there would be no
5 water; they would have to curtail their operations.

6 MR. CAMERON: And, Brian, do you want to
7 add anything on this?

8 This is Brian Hughes.

9 MR. HUGHES: Part of that would be a
10 condition on the license, that if they did not have
11 adequate water, they would be required to shut down.
12 They have permits and license conditions that they
13 have to meet, and that would be included in those,
14 among many others.

15 MR. CAMERON: Okay. Thank you, Sarah.

16 Thanks, Brian.

17 Let's go to Susan Corbett back here.

18 MS. CORBETT: Thank you, Chip. My name is
19 Susan Corbett; I'm the chair of the South Carolina
20 Sierra Club. I have two questions; it concerns the
21 water.

22 So we came back to build these ponds
23 because we're concerned about there not -- there being
24 a low flow in the river. Is there somewhere an
25 explanation of how many days that allows --

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1 considering we're in a drought and there's a low flow
2 in the river, how many days of operation do those
3 ponds allow before that would be exhausted. So I'd
4 like to know what that is.

5 And also I don't -- I think the deepest
6 part of the pond is 132 feet at the dam. Are there
7 going to be considerations about the thermal
8 temperature of the ponds? -- because -- if they're
9 being used, because we know the water has to be fairly
10 cold to be used as a cooling water.

11 And also the same question I had in
12 Jenkinsville: Where is the evacuation plan? Is that
13 going to be under the safety review?

14 MR. CAMERON: Okay. Thanks, Susan.

15 Let me make sure that the questions are
16 clear. I think that the thermal temperature one is
17 pretty straightforward.

18 Do you understand, Sarah, the first part
19 about the days allowed before the water would be --

20 MS. LOPAS: I do understand that, and I'd
21 have to look up in their supplemental environmental
22 report, but they do describe, you know, how many days
23 they would be able to operate with this additional
24 water supply, you know, strictly taking from this new
25 pond, you know, the supplemental water.

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1 So there is an answer to that, and it's
2 actually in the supplemental environmental report; I
3 just don't have that offhand, but I can look that up
4 and get an answer back to you.

5 MR. CAMERON: And how about the
6 temperature?

7 MS. LOPAS: The temperature -- Brian, is
8 that -- this is safety. Is there -- there's a minimum
9 temperature that --

10 MR. HUGHES: There will be some
11 temperature requirements on it, and at this point
12 we're not sure what they will be.

13 Also the emergency evacuation is part of
14 the safety review. That will be in Chapter 13 of the
15 safety evaluation report, and also in Chapter of the
16 FSAR, in a separate part.

17 MR. CAMERON: Okay. Thank you.

18 And I would just point out to everybody
19 that I believe that the environmental report that was
20 submitted by the applicant, that is publicly available
21 to people.

22 And I know that there's representatives of
23 Duke Energy Carolinas with us here tonight. They have
24 a table outside. They're going to be here after the
25 meeting to answer any questions that any of you might

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1 have about exactly what's in the environmental report,
2 and Sarah will also get that information for you.

3 Thank you for those questions, Susan.

4 Anybody else have a question before we go
5 to the comment part of the meeting?

6 Yes, ma'am.

7 MS. BLISS: Hi. I'm Rachael Bliss, and I
8 want to know what communities are downstream from --
9 on the Broad River from where the proposed ponds would
10 be.

11 MS. LOPAS: I'd have to get back to you on
12 that. I don't know that.

13 MR. CAMERON: Okay. And that may also be
14 in the environmental report.

15 Yes, ma'am?

16 MS. RICHARDS: My name is Kitty-Katherine
17 Richards, and I just wanted to ask, since it is a fact
18 that the U.S. Army Corps of Engineers has been charged
19 by the EPA with recklessly approving mountaintop
20 removal that has allowed sediment to irreparably
21 destroy natural water sources, how can we believe the
22 work of the Army Corps of Engineers has done on this
23 project -- that it won't allow just as much if not
24 more damage to the environment involved in this
25 project?

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1 MR. CAMERON: That was a great
2 introduction to the question, and I don't know if the
3 Corps wants to deal with that now or deal with that
4 after the meeting. And we certainly can have you talk
5 to them about that after the meeting.

6 Do you want to take it now or do you want
7 to talk to --

8 LT. COL. KIRK: The comment is that this
9 process germane to this project by this district will
10 get an absolutely fair and impartial review, as we've
11 gone through the initial process, and that I would
12 draw no conclusions about different sites.

13 And I'm not familiar with that specific
14 site nor your assertion of something done wrong or
15 right in that site. The team here working on this
16 project is committed to making sure that we follow the
17 letter of the law, the Clean Water Act, as it applies
18 to the William States Lee proposed nuclear plant.

19 MR. CAMERON: Thank you very much.

20 Let's go back to this gentleman right
21 here, and if you could just introduce yourself to us,
22 sir.

23 MR. CLARK: Yes. My name is Terry Clark.
24 I'm a physician with Physicians for Social
25 Responsibility.

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1 And my question is just -- you know, a few
2 minutes ago we were asked about temperatures in Pond C
3 and volumes of water, how much time that would permit,
4 and the folks here don't apparently know the answers.
5 How can we have confidence in what we're doing here
6 tonight when you all don't come with the answers?

7 MR. CAMERON: Okay. One thing I would
8 just note is that the NRC and the Corps of Engineers
9 have not done their analysis yet. Let me --

10 MR. HSIA: Chip, this is Tony Hsia. Let
11 me just say a few words regarding -- I agree with the
12 gentleman. I feel some of our answers you're not
13 satisfied because we don't have an answer on the tips
14 of our tongues right away. I understand that; I
15 understand how you feel.

16 But you've asked some very important
17 questions; for example, temperature. We -- as I
18 stated earlier, we're in the process of doing these
19 environmental reviews, as well as the safety review.

20 So if we don't have the numbers in our
21 head, which we don't have today so we cannot give you
22 an answer, I can tell you the logic is, yes,
23 there's -- in any operating nuclear power plants,
24 there will be a technical specification; that means
25 your -- where you draw water from, whether it's from

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1 river or pond, you cannot exceed a certain
2 temperature. That usually happens in the summertime.

3 And I just don't know for this plant --
4 proposed plant what that temperature will be. But if
5 you go -- any of the operating power plants in this
6 country, you go to their technical specification,
7 there will be a number if your river exceeds, for
8 example, in the summertime 85 degrees, that's -- you
9 know, I'm just pulling a number -- you need to reduce
10 power, because your assumption is correct, because
11 when you draw those water in to cool the reactor, you
12 don't want draw hot water in to cool reactor.

13 I understand your feeling, but I just want
14 to ask for your understanding. Every question you ask
15 tonight will be recorded, and in our scoping report
16 Sarah mentioned earlier -- we are supposed to publish
17 that in November. Right? -- each question will be
18 listed, and there will be answer to that.

19 So I'm just asking for your understanding
20 to give us some time to come up with an exact answer.
21 As far as how many gallons, there's a simple
22 conversion. I can tell you, now, each cubic feet is
23 7-1/2 gallons, but to convert acres-feet into cubic
24 feet right now, my brain does not function math that
25 well, so that's why we cannot give you answer to that.

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1 MR. CAMERON: Thank you very much, Tony.
2 We're going to hear from Barry Zalzman of
3 the NRC staff. We're going to take one more question
4 from this gentleman back here, and then we're going to
5 go to comment.

6 Barry?

7 MR. ZALZMAN: Thanks, Chip. Barry
8 Zalzman, NRC staff. What you raised is -- would be a
9 very good point if we were in the middle of the draft
10 Environmental Impact Statement public meeting.

11 Tony just indicated that we are at an
12 early stage in this process, just as we were here for
13 the scoping process two years ago. It was before we
14 began our review.

15 Are there particular concerns that the
16 public has that we should be sensitive to? Are there
17 facts that you can bring to us that we should be aware
18 of? That is what scoping is about.

19 We have a process to do our review; we
20 have review plans that we will be using to exercise
21 our tools, to rely upon the facts using our audit
22 information, using the record to perform our
23 evaluation.

24 We haven't performed that yet. What we
25 don't want to do is foreclose the public's opportunity

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1 to help expand the vision of what needs to be
2 considered in our evaluations.

3 That's why, at the early end of the
4 process, we accept the application, we immediately
5 come out and say, "Is there something that you want to
6 tell us about the review, before we do our
7 evaluation?"

8 So we are at the early stages of the
9 evaluation. There was a modification to the project
10 that includes an additional reservoir. What concerns
11 do you have? What facts should we consider that you
12 want to share with us?

13 The application is before the agency, and
14 that's available to you. If you want to get the
15 facts, what is in the application, in our notice we
16 indicated that this additional pond is going to be
17 considered. What do you want to share with us? We'd
18 like to know that; that is what this scoping process
19 is about.

20 The facts -- we can go to the record. We
21 can pull out the record and give you the answer;
22 that's a fact.

23 If you have concerns in issue areas, if
24 you have facts that we need to consider, that's why
25 we're here. I'll also add, for some of you that don't

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1 realize, we don't have to do this public meeting; we
2 choose to do this public meeting.

3 Our official requirement is to notice that
4 a scoping period is available and send letters to the
5 agency and we'll account for it. We think it's
6 important to communicate with you, but we're at the
7 early stages.

8 After we complete our review, we're going
9 to issue a draft Environmental Impact Statement.
10 Sarah talked about that. If everything lines up and
11 we have all the information that we need, we perform
12 all those evaluations, we will issue a draft
13 Environmental Impact Statement.

14 We will then be back with technical
15 specialists to defend the technical work of the agency
16 and ask you to comment on our evaluation after it's
17 complete, but we are at the early stages.

18 After we complete our review, you'll have
19 another opportunity to ask those pointed questions,
20 and we should have the facts, we should have the
21 analyses to defend it.

22 MR. CAMERON: Okay. Thank you, Barry.

23 We're going to have one more question from
24 this gentleman, and then we'll go to public comment.

25 Yes, sir?

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1 MR. HAIL: My name's Cecil Hail, and my
2 question is to water. You're going to use it -- I
3 understand the supply, but you got a discharge. Are
4 you going to put it right back into the reservoirs?
5 Is it going in to the river?

6 Seems like it's going to take a large
7 amount of water to cool down what you heat up.

8 MR. CAMERON: Okay. And you were
9 referring to "we," but it's actually -- if the license
10 is granted, it would be the company, not the Nuclear
11 Regulatory Commission.

12 Sarah, do you have some things that you
13 can share on that?

14 MS. LOPAS: I can just answer pretty
15 simply that the water will be discharged to the Broad
16 River.

17 MR. CAMERON: Okay. Temperature?

18 MS. LOPAS: The temperature will be 91
19 degrees, 92 degrees, with a maximum of 95 degrees.
20 The South Carolina Department of Health and
21 Environmental Control, they permit the plant to
22 discharge water to the Broad River, and there'll be
23 limitations in that permit that the water cannot be
24 over a certain temperature that they think is -- will
25 not harm the ecosystem.

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1 MR. CAMERON: So that's a State of South
2 Carolina permit limitation. Okay.

3 Thank you all. We're going to go to
4 public comment now.

5 Sir, do you want me to -- you want to give
6 a quick question?

7 MR. HOPPER: My name's David Hopper. I've
8 lived here all my life. Back in the early '70s my
9 father worked with Neil Hawkins Construction Company,
10 and I worked with him during the summers.

11 We built Lake Cherokee; that was my
12 father's last big construction project. That was
13 about '70, '71. To my knowledge, Lake Cherokee, which
14 is fed by London Creek, has never been dry.

15 The area that's going to be purchased or
16 has been purchased by Duke Power to build this lake is
17 going to be sitting on Bessemer granite and barite.
18 It's solid rock.

19 Cherokee County, whether you know it or
20 not, is inside of a volcano. The volcano -- the
21 center of this volcano is Blacksburg. If you take a
22 set of dividers and open them 11-1/2 miles and draw
23 you a 23-mile circumference, you would be inside of a
24 volcano.

25 Every mineral known to man is in Cherokee

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1 County. Cherokee County's worth more dug up than it
2 is built on top of. We're on solid granite,
3 limestone, you name it.

4 MR. CAMERON: Sir, thank you for that
5 information, especially the personal experience part
6 of it. I think people are going to be interested in
7 that, but if you want to offer more on that, please
8 come up during the comment period and give it.

9 Thank you, sir.

10 I'm going to turn this over my colleague
11 Susan Salter at this point, and Susan is going to go
12 through all of the commenters.

13 Susan.

14 MS. SALTER: All right. Thank you very
15 much, Chip.

16 As Chip said, I'm Susan Salter. I'm going
17 to lead you through the comment period. We have a
18 significant number of folks that want to make a
19 comment, which is great; that's why we're here.

20 But I do have to ask you to try to make
21 your comments as succinctly as possible so that we can
22 get to everyone. I know sometimes people get up here
23 and start commenting, and they really don't know how
24 much time they've been speaking.

25 So if you really are going over what we

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1 believe is a time limit that will allow everyone to
2 comment, I may say, you know, Can you try to wrap that
3 up in the next minute or so, and I ask you to help me
4 with that to keep the meeting moving along and to give
5 everyone an opportunity to comment.

6 We're going to start the comment period --
7 we have three state representatives: Dennis Moss, who
8 will be followed by Steven Moss, and then Michael
9 Forrester. So I would ask Dennis Moss to come up to
10 the podium.

11 Please, when you come up to the podium,
12 just give your name, and if you would like to indicate
13 an affiliation with a particular organization, you're
14 welcome to that; you don't have to do that.

15 But we are transcribing the meeting, so we
16 want to make sure that our transcriber knows who's
17 commenting.

18 MR. DENNIS MOSS: Good afternoon. My name
19 is Dennis Moss, and I'm a member of the South Carolina
20 House of Representatives, and the Lee nuclear Duke
21 facility, which is being discussed tonight, is
22 physically in House District 29, which I represent.

23 I represent the lower part of Cherokee
24 County, western York County, and western Chester
25 County. And there's been some mention about the

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1 downstream, and I represent those two counties that
2 could or possibly affected by the down-water stream.

3 As a high-growth state, South Carolina
4 needs additional safe and reliable electricity. As
5 serving as a member of the delegation of the local
6 county development board, that's one of the big
7 questions: Can we provide infrastructure and
8 electricity for people that are desiring to move to
9 South Carolina to provide jobs for our citizens.

10 Our citizens have already benefitted from
11 the seven reactors that are currently operating in
12 South Carolina, and as a result, we enjoy the lowest
13 electric rates in the United States.

14 The General Assembly has declared the
15 development of nuclear energy an important part of the
16 state's future energy needs. Duke Energy has a
17 excellent track record of providing reliable, safe,
18 affordable nuclear power to South Carolina.

19 This track record makes me confident that
20 the Lee Nuclear Station will be operated safely and
21 efficiently. The Lee Nuclear Station will benefit our
22 state by creating construction jobs, stimulating the
23 local economy through service jobs, provide low-cost,
24 safe, reliable carbon-free electricity to our
25 citizens.

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1 And Duke's plan to withdraw from on-site
2 drought contingency ponds is aligned with state
3 environmental permitting by DHEC. Just this past year
4 we passed legislation -- and the other two members of
5 the delegation of the General Assembly that are here,
6 we all three serve on the Ag committee, which is the
7 natural resource committee of the state legislature.

8 This past year we passed water withdrawal
9 legislation that DHEC would monitor so just anybody
10 upstream or downstream can't draw too much water, and
11 as a result of that, these ponds that they are
12 considering building is in line with DHEC permitting.

13 Also it as a commitment as a state, we
14 extended the fee in lieu agreement of permitting of
15 nuclear licensing from five years to 15 years. And a
16 member of the people that I represent, I fully support
17 Duke's request to construct additional drought-
18 condition ponds that is required for the licensing
19 process of Lee Nuclear.

20 Thank you.

21 MS. SALTER: Thank you, Representative
22 Moss.

23 I would now call Steven Moss up to the
24 podium

25 MR. STEVEN MOSS: Thank you. I'm Steve

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1 Moss, and I represent Cherokee County, especially the
2 Blacksburg side, in the General Assembly. And as
3 Dennis said, we serve on the agriculture committee.

4 And one thing we did, we worked I think
5 for the last three or four years to come up with our
6 Surface Water Permitting Use and Reporting Act, which
7 has been mentioned here tonight. This will regulate
8 how much water can be taken out of the Broad River.

9 The thing about this act is it, as some
10 people said, was probably one of the first times there
11 was a collaboration between all of the groups to put
12 this act together: the utilities, Department of
13 Natural Resources, our environmental groups,
14 industrial uses, municipalities, all worked on this
15 legislation and agreed on it, so we believe it's a
16 good piece of legislation; it'll protect the Broad
17 River in the event we have the low-water conditions.

18 Duke Energy has an excellent track record
19 that spans decades of providing reliable, safe
20 electricity. We're confident that they will be able
21 to operate this facility in a safe manner and will be
22 cognizant of our Broad River, which we all greatly
23 love and appreciate. So I fully support Duke's
24 request to construct this additional -- this drought-
25 contingency pond.

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1 I have maybe a little more of a personal
2 interest in this than most people in the fact that I
3 live across -- I live right on Broad River, right
4 across from where this pond's going to be. So I am
5 extremely interested in seeing that we have a safe
6 river.

7 My grandchildren were kayaking in that
8 river last weekend. We plan to do it for years to
9 come.

10 I appreciate the concerns of the
11 environmental groups; I want you to stay on top of it
12 with us. I mean, I'll be one of the first ones, if
13 something happens to our river, to be going to the
14 forefront to say, Hey, we got to do something.

15 But I am confident in Duke Energy and what
16 they're going to do for our county, and I'm
17 comfortable of looking across the river about a mile
18 down that I'll be able to see the reactors. But it's
19 going to be good for our county, and I plan on my
20 grandchildren and their grandchildren continuing to
21 kayak and swim in the Broad River for many years to
22 come, and I strongly support this project.

23 Thank you.

24 MS. SALTER: Thank you, Representative
25 Moss.

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1 And Representative Forrester, I invite you
2 to come up to the podium.

3 MR. FORRESTER: Thank you. I'm Mike
4 Forrester; I represent District 34 in Spartanburg
5 County, but I have spent 37 years in the natural gas
6 business as I guess a competitor for Duke Energy, and
7 over those years I've learned to appreciate their
8 responsiveness to communities, their responsiveness to
9 environment.

10 I have grown up in South Carolina; I'm a
11 native South Carolinian. I grew up with the Oconee
12 reactor plant just down the road from where I grew up,
13 and we've been blessed in this state to have low-cost
14 energy provided and at a safe and reliable company
15 like Duke Energy.

16 Steve and those mentioned -- I also serve
17 on the agricultural committee; I'm the regulations
18 subcommittee chairman, and I serve on Environmental I,
19 and that's where the water withdrawal permitting bill
20 came through our committee.

21 And I just want you to know, Duke's
22 involvement -- they were major players. They didn't
23 get everything they asked for, but they were major
24 players in making this thing come together.

25 We had environmental groups across our

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1 state; we had DHEC, DNR, all those agencies were
2 together as one entity. Nobody got everything they
3 wanted, but we accomplished something that this state
4 never had in the past, and now we've got -- we're
5 compatible with the states of Georgia and North
6 Carolina, who have permitting withdrawal, and we're
7 protecting the most valuable resource we have in our
8 state: our water.

9 And Duke has been tremendous in helping us
10 accomplish this, and I just want to give them credit.
11 You know, people are concerned about water withdrawal;
12 I'm concerned about water withdrawal. That's our
13 finest natural resources.

14 And Duke has come to the table -- they've
15 offered to do this additional lake, and I think that's
16 commendable on their part, and I would encourage you
17 to support this.

18 And we're all concerned about our
19 environment, but we've got to have reliable power and
20 energy to drive this state forward in economic
21 development. You know, we're all looking for jobs to
22 be created. Well, energy is what creates those jobs.

23 We've got to have a reliable source of
24 that, and Duke has been forward-thinking over the
25 years in providing that and keeping us supplied with

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1 that energy, and as I meet with projects across this
2 state, economic-development projects looking to locate
3 in South Carolina, that's one of the top things
4 they're concerned about: Can you provide us with
5 water, can you provide us with energy?

6 And we're fortunate to have a low-cost
7 provider in Duke Energy, and I am just pleased that
8 we're in that position. But just to end this, I just
9 want to say that I support this project, and
10 Representative Moss -- both Mosses, they have been
11 tremendous in supporting this project, and the two of
12 them are mighty concerned about our environment.

13 And if they're behind it, you can count on
14 it's going to be a safe project for your community,
15 and I thank you.

16 MS. SALTER: Thank you, Representative
17 Forrester.

18 I would now like to call David Hogue,
19 mayor of Blacksburg. He's coming up to the podium.

20 Following Mayor Hogue we are going to call
21 Bryan Dolan up, so I just want to give some notice
22 that he'll be the next speaker.

23 MR. HOGUE: My name is David Hogue; I'm
24 the mayor of Blacksburg. Usually they put me before
25 these big boys that just spoke, and all they can say

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1 is, Like the mayor says. But since I'm after them, my
2 comments will be very brief.

3 You might wonder what the town of
4 Blacksburg, the center of the volcano, has to do with
5 this, and I'll make two points: I've been mayor for
6 over 20 years; I'm starting my sixth term in August.
7 I think they call it term limitations.

8 I'm a pharmacist by trade; I'm a father, a
9 husband, a grandfather. And all those shingles that I
10 hang on my name, I'm concerned about clean air, clean
11 water, clean living, long living. And that's what I
12 try to do in leading my town.

13 And I can tell you tonight -- and it
14 doesn't specifically talk about Pond C, the first
15 point, but the project as a whole has made Blacksburg
16 very excited. We're probably the closest municipality
17 to this site.

18 Duke Power, Duke Energy has been good to
19 Cherokee County over the years, and especially
20 Blacksburg. We're excited because of a lot of things;
21 economics for one thing.

22 We have some homes that are empty; we have
23 businesses that are struggling. And we look at this
24 as a salvation to our community as a site itself, so
25 we're very excited about that.

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1 But very quickly, to the second and last
2 point, is this Pond C deal. The time that I've been
3 on council in the last ten years, I've been trying to
4 find a good water supply for my town. We buy our
5 water from Board of Public Works in Gaffney; we have a
6 good working relationship.

7 They take their water out of the Broad
8 River several miles upstream from where this site will
9 be. The last years I have worked as a pharmacist in
10 Gaffney, and every morning I cross the Broad River,
11 every evening I cross it going home.

12 And truthfully I'm concerned sometimes
13 during drought seasons: Is there going to be enough
14 water for me to take a bath when I get home? But
15 there always is. And so I can understand and think
16 that the people in power are doing the right thing by
17 adding this extra pond.

18 To me they probably need to think about a
19 Pond D; we'd appreciate it if we could fish around it.
20 But this is going to be good, not only for Blacksburg;
21 it's going to be good for our county and our
22 community.

23 And I think the addition of this pond is
24 the smart thing to do. I appreciate Duke Energy for
25 taking this task, this commission for all the work

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1 that they do, these gentleman in uniform that -- the
2 job they have to do. We appreciate it, and we know,
3 as a local person, that it's going to be better for
4 our county, and it's going to be better for my town.

5 Thank you.

6 MS. SALTER: Thank you, Mayor Hogue.

7 Our next speaker is Bryan Dolan, vice
8 president of Nuclear Plant Development Group at Duke
9 Energy. Oftentimes the public likes to hear from the
10 license applicant about their vision and why they
11 submitted the application, so I invite you to make
12 your comments.

13 MR. DOLAN: Thank you, Susan.

14 Good evening. As Susan said, my name is
15 Bryan Dolan, and I'm vice president of the Nuclear
16 Plant Development Group for Duke Energy Carolinas,
17 responsible for licensing the proposed Lee Nuclear
18 Station.

19 I want to thank the Nuclear Regulatory
20 Commission for the opportunity to provide comments
21 regarding this project.

22 As I shared at the environmental scoping
23 meeting in May 2008, Duke Energy plans annually for
24 how we will continue to serve our customers' needs
25 well into the future.

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1 Our planning factors in many variables,
2 including electricity use, projected electricity
3 demand, existing generation, energy efficiency
4 programs, and the addition of future generation,
5 including renewables such as wind, solar, and biomass.

6 As we look to the future, there are two
7 very important points we must consider. First is the
8 need to modernize our electric generating fleet, and
9 the second is the need to address environmental issues
10 our country and the world are facing, including global
11 climate change.

12 For more than 35 years nuclear energy has
13 been a part of Duke Energy Carolinas' generation
14 portfolio. As we plan for the future, we see the need
15 to continue using nuclear energy to product
16 electricity safely, reliably, and efficiently.

17 Nuclear energy is also a key source of
18 greenhouse gas emissions, free electricity that can be
19 generated at low cost. In 2007 we submitted a license
20 application for the proposed Lee Nuclear Station at a
21 site off of McKowns Mountain Road in Gaffney.

22 The proposed station will have two
23 generating units capable of producing more than 2200
24 megawatts of electricity, roughly enough to supply 1-
25 1/2 million homes annually.

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1 We are currently projecting the first
2 generating unit could be operational in the 2021 time
3 frame.

4 The Lee nuclear license application
5 included a detailed environmental report, as well as a
6 technical report. An evaluation of the water needs
7 for the station was included as a part of the
8 environmental report.

9 This included a thorough analysis of many
10 factors, such as available water sources; upstream,
11 downstream water users' needs; environmental
12 considerations, and station water needs.

13 It also included a review of historical
14 data, including the potential impact of drought
15 conditions on area water resources and station
16 operation.

17 The Ninety-Nine Islands reservoir will be
18 the primary source of water in this station. In
19 addition, the site currently has two ponds; one
20 designed for station use during drought periods
21 instead of using the Ninety-Nine Islands reservoir.
22 These ponds can be refilled from rain, runoff, and
23 water from Ninety-Nine Islands reservoir during high
24 river flow periods.

25 After we submitted the license

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1 application, we continued our project development
2 work, including additional evaluation and analysis of
3 area water resources and needs.

4 In this evaluation we factored in the
5 worst drought on record for the area, which occurred
6 in 2008, following submittal of our license
7 application. We took into account public comments
8 raised at the 2008 environmental scoping meeting,
9 where some speakers asked us to further consider area
10 water needs.

11 We also held multiple discussions with key
12 stakeholders, including state and federal agencies, to
13 ensure we clearly understood and reviewed areas
14 identified as needing more study and consideration.

15 Based on our additional evaluation and
16 discussions, as well as alternatives for use, where we
17 considered other options for maximizing the efficient
18 use of water and minimizing our environmental impact,
19 we determined adding another pond on the Lee site
20 would provide additional drought contingency during
21 prolonged droughts and further ensure the availability
22 of water for the regional ecology and downstream water
23 users.

24 I think we've all heard the expression,
25 "saving for a rainy day." For us, the addition of a

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1 third pond on the Lee site can be viewed as saving for
2 a potentially dry day. The pond will serve as a
3 backup to our backup pond, a water savings account.

4 As we move forward with this project, we
5 will continue making sound decisions based on factual
6 data and studies and technical reviews. We take very
7 seriously our obligation to serve our customers while
8 being a good environmental steward.

9 We appreciate the support Cherokee County
10 and neighboring residents are giving this project, and
11 we look forward to sharing more information about Lee
12 in the future.

13 Thank you.

14 MS. SALTER: Thank you, Mr. Dolan.

15 What I'd like to do is let you know who
16 our next three speakers are in the order that they'll
17 be asked to make their comments so you kind of know if
18 you're on deck.

19 We're going to go next to Deb Arnason and
20 then Steve Ware and Tim Brooks, in that order.

21 So, Ms. Arnason?

22 MS. ARNASON: Hi, everybody. I'm Debbie
23 Arnason; I live in Wadesboro, North Carolina. I have
24 ten grandchildren, and I'm very concerned about the
25 situation with the water and with nuclear energy being

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1 used.

2 I'm going to read this basically:
3 Although Duke has submitted a supplemental plan to
4 construct an additional plan to construct an
5 additional source of water to be designated Make-Up
6 Pond C, I cannot fathom how it would be enough,
7 especially in times of drought and water wars between
8 southern states.

9 This must also be projected at least 20
10 years out, considering climate change is rapidly
11 drying up this area. We cannot allow for-profit
12 corporations to drain us dry. I would hope you're
13 aware that each existing and each new reactor will
14 evaporate millions of gallons of water per day per
15 reactor.

16 That will be 35 million gallons of water
17 per day at the Lee reactors, unlike paltry lawn-
18 watering or car-washing regulations, where at least
19 the water will find its way back into the water table
20 of the region where it is used.

21 Enron said, "Water is the new oil." We
22 don't want to experience a BP Deepwater Horizon
23 catastrophe where we all discover that nuclear
24 regulation has been very lax. Are there violations
25 already being ignored or regulations being skimped

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1 under assurances from monopoly corporations?

2 How can Duke assure us that they have the
3 technology and expertise to prevent any disasters or,
4 in this specific case, provide enough water to make up
5 for their projected water evaporation without
6 sacrificing the needs of human beings for fresh water
7 over the next 20 years or the life of the reactor?
8 How can anyone know that when the future is so
9 uncertain.

10 I know you cannot address anything -- the
11 NRC -- but this permit and have brought concerns to
12 Congress and the president. If NRC's mission was to
13 determine whether any new nuclear reactors were needed
14 and cooperated with other agencies, which I'm glad to
15 see you are cooperating with the Army Corps -- I
16 didn't know about that -- you would know that nuclear
17 is not a good source because of the facts.

18 I call them the four W's, and they apply
19 to the current breed of reactors you are seeking to
20 regulate: water, waste, weapons, and Wall Street
21 wouldn't touch such a risky investment.

22 If the NRC could be concerned with the
23 pocketbooks of the American people, it would be
24 looking at the economic benefits of production-based
25 incentives for distributed customer-supplied solar

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1 energy so rapidly successful in cloudy Germany;
2 several US municipalities; Ontario, Canada; and
3 spreading worldwide.

4 That creates more jobs than you'll ever
5 see from Duke Energy; they can't fill all the jobs in
6 Ontario, and I've been to Gainesville, and I know what
7 they're able to do there. And the economy is just
8 booming there, too.

9 All right. I'm going to have to finish
10 up. Let's see. Comments on Make-Up Pond C: And I'm
11 glad you provided some information, and I would like
12 some more, as people have requested: the size of the
13 pond relative to evaporation needs of the reactor.

14 But I'd like those over the life of the
15 reactors. I'd like impact on source and dispersement
16 of pond water or radioactive contaminants that you
17 expect. I'd like the effects on the environment in
18 the best- and worst-case scenarios, just like this BP
19 thing would certainly have been avoided if something
20 had been looked into beforehand.

21 I have been here before when the NRC when
22 I attended Gaffney, South Carolina, hearing on this
23 Lee reactor May 1, 2008. I was informed in a joking
24 way by an NRC employee that my opposition was useless
25 and this Lee reactor was as foregone conclusion.

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1 I have a joke for you, although it's not
2 original: Granting this permit will turn the Broad
3 River into the Skinny River.

4 Please now take my concerns seriously or
5 the fallout will be on all of us.

6 Thank you.

7 MS. SALTER: Thank you, Ms. Arnason.

8 Steve Ware is our next commenter.

9 MR. WARE: This will be short. My name is
10 Steve Ware. I'm the plant electrical engineer and the
11 factor energy coordinator for Nestle Prepared Foods
12 here in Gaffney.

13 And myself and my cohort, who will be up
14 next, we're just here in support of the proposed Lee
15 nuclear site. I'm a member of -- the representative
16 for Nestle for the South Carolina Energy Users
17 Committee, and Nestle is also a part of these South
18 Carolina Manufacturers Association.

19 We are one of the largest employers in
20 Cherokee County. We're also one of the largest water
21 users in Cherokee County. We feel that the Lee
22 nuclear site will give Duke a better portfolio to give
23 us inexpensive power that we require to keep people
24 employed in Cherokee County and flexibility to enable
25 that.

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1 We also feel that the proposed
2 supplemental cooling pond is a very intelligent move
3 in Duke to try to mitigate any kind of drought
4 conditions that may affect our water flow also.

5 So just in conclusion, Nestle, as the
6 Gaffney organization, does support the Lee nuclear
7 site.

8 Thank you.

9 MS. SALTER: Thank you, Mr. Ware.

10 Our next speaker is Tim Brooks, and we're
11 going to follow that with Mr. Louis Zeller and Mr.
12 Darrell Scott, so you know that you're on deck.

13 MR. BROOKS: Okay. As I said before, my
14 name is Tim Brooks. I am the environmental specialist
15 at Nestle Prepared Foods here in Gaffney.

16 I'll be very brief. Steve pretty much
17 covered the issue. Nestle, we do support the Lee
18 nuclear facility, and Pond C appears to be a very
19 intelligent decision.

20 I think we're all interested in nuclear
21 power, basically because of the reduction of the
22 carbon footprint. So as we said before, we're very
23 much in favor of the project.

24 MS. SALTER: Thank you, Mr. Brooks.

25 Louis Zeller.

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1 MR. ZELLER: Thank you. My name is Lou
2 Zeller, and I'm with the Blue Ridge Environmental
3 Defense League; I'm the science director there. And
4 I've been with Blue Ridge since 1986.

5 Blue Ridge Environmental Defense League
6 opposes this project for a variety of reasons:
7 Harmful radioactive pollution is released into the air
8 and to the water from nuclear power plants on a
9 routine basis. Of course, highly toxic radioactive
10 waste is also stored on site in pools of water.

11 Duke's nuclear power plant at Lee, if
12 constructed, would consume four times as much water as
13 all public and industrial users in Cherokee County
14 combined.

15 A nuclear plant must have lower
16 thermodynamic efficiency than even a coal-fired or any
17 other fossil-fuel type plant. There's been a lot of
18 concern about coal-fired power plants at Cliffside and
19 elsewhere. That is, if a coal plant and nuke plant
20 produce the same output, electrical, the nuke plant
21 will create about 30 percent more waste heat
22 discharged into the river.

23 This is because it is impossible to create
24 superheated steam inside a nuclear reactor core using
25 boiling or pressurized water for both moderator and

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1 heat transfer. Hot steam from burning coal or oil
2 that turns a turbine in a fossil plant may be heated
3 to nearly 2000 degrees before it gets to the turbine.
4 This is called superheated or dry steam.

5 The best a nuke can do is much less than a
6 thousand degrees and creates what is called saturated
7 wet steam. So the best possible efficiency for a
8 nuclear plant is about 30 percent lower than in a
9 fossil-fuel plant. What does that mean for the
10 present situation?

11 Well, in March the New York State
12 Department of Conservation released a draft policy
13 calling for power plants and other facilities that use
14 water for cooling to recycle and reuse water through
15 closed-cycle cooling technology. That rule would
16 affect six nuclear reactors in New York State, which
17 may require some \$2 billion investments in order to
18 continue operating.

19 In addition to that, the proposed reactors
20 for the W.S. Lee site is the AP-1000 Westinghouse
21 reactor, which we have labeled inherently dangerous in
22 a report that we released last month and is posted to
23 our website at bredl.org.

24 If constructed, these reactors would be
25 accidents waiting to happen. Of course, that is the

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1 reactor that is proposed for Lee.

2 The two problems with the AP-1000 are that
3 modular construction of the reactor shield building
4 and 800,000-gallon tank of water suspended above the
5 reactor core, subjecting it to severe stress and
6 instability in the event of an earthquake, a tornado,
7 or a hurricane.

8 Number two, a ventilation system in the
9 AP-1000 would allow the free flow of air from inside
10 the reactor containment building to outside air,
11 allowing radiation to escape in the event of a reactor
12 core breach.

13 According to the nuclear engineers that we
14 are in touch with, they used -- the unique AP-1000
15 design allows it to develop a condition that could
16 lead to a reduction in wall thickness that would
17 result in rapid release of radiation. These are not
18 accounted for in the severe accident mitigation design
19 alternatives.

20 As I said, we are opposed to nuclear
21 power. And I know we're meeting in the church
22 tonight, so I would end with this: In Jeremiah 29:11
23 it says, "For know the plans I have for you, plans to
24 prosper you and not to harm you." I believe that
25 includes no nuclear power, which would harm us.

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1 Thank you very much.

2 MS. SALTER: Thank you, Mr. Zeller.

3 Darrell Scott, and then we're going to
4 follow that with Ms. Eva Ritchey and Ms. Mandy
5 Hancock.

6 MR. SCOTT: Thank you and good evening.
7 My name is Darrell Scott, and I'm the vice president
8 of public policy for the South Carolina Chamber of
9 Commerce. We represent more than 18,000 members in
10 businesses across the state, and well over 1 million
11 employees.

12 I'm here tonight to support the Lee
13 Nuclear Station project and to ask the NRC to approve
14 the construction and operating license for Duke Energy
15 to move forward.

16 Every morning when more than 80,000 small
17 business owners in this state turn on the lights, the
18 availability of energy is at the cornerstone of their
19 success.

20 It's estimated that between now and 2025,
21 the Palmetto State's population will increase by more
22 than 1 million people. If we continue pressing
23 forward with the energy we have today, our resources
24 will not be sufficient to shoulder the increased
25 demand.

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1 Current statistics show our state's energy
2 reserve margin shrinking each year, and if not
3 addressed, they are positioned to place the state at a
4 huge economic disadvantage as early as 2014.

5 There's no single one answer to solving
6 our energy needs, but the creation of nuclear power as
7 a sustainable energy source is a great start and could
8 end up being one of South Carolina's greatest assets
9 in the future.

10 Nuclear power is the most viable and
11 affordable bridge to energy independence for South
12 Carolina. The South Carolina Chamber of Commerce
13 understands the need for expanded energy capacity in
14 the state as population continues to grow in South
15 Carolina and across the southeast.

16 Many of our member companies are doing
17 everything they can each day to conserve energy,
18 because it's one of the highest costs that their
19 businesses experience on a daily basis.

20 With that said, businesses and residents
21 alike are extremely supportive of expanded nuclear
22 capacity in South Carolina. There are no other
23 alternatives currently available that are as reliable
24 as nuclear in providing baseload power in a carbon-
25 free manner.

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1 I do want to mention briefly the
2 construction of Pond C. Pond C is a critical
3 component to the Lee Station's success. Some critics
4 of the construction of Pond C will say that too much
5 water will be taken from the Broad River in order to
6 run the daily operations of the plant and to fill Pond
7 C.

8 However, after many years of debate in
9 South Carolina over the regulation and permitting of
10 surface water, as many of the representatives
11 mentioned earlier, the business community and
12 environmental community came to an agreement this year
13 to regulate surface water withdrawals.

14 Pond C and the drought-contingency pond
15 that that would be directly ties to the surface water
16 withdrawal legislation passed this year and signed
17 into law by the governor.

18 The surface water legislation is critical
19 to understanding that as Duke Energy comes on line and
20 produces power for residents and businesses of South
21 Carolina at the Lee facility, there are now laws and
22 regulations in place that will preserve minimum flow
23 levels in rivers and streams to protect the ecological
24 integrity. Duke Energy was a key player in passing
25 that legislation.

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1 Duke Energy also evaluated the
2 environmental impact of the pond and concluded that it
3 would result in the least impact to the environmental
4 as compared to other options.

5 In recent years South Carolina -- the
6 upstate of South Carolina has been at the center of
7 our state's economic success, but without a dependable
8 energy source, businesses would not have considered or
9 remained in the upstate.

10 I think we all agree that conservation is
11 a cornerstone of protecting South Carolina's natural
12 resources, but throughout the energy debates, we all
13 must realize that businesses are not the enemy.

14 The key is striking a healthy balance, one
15 that protects our natural resources without stifling
16 needed economic growth that create jobs and wealth for
17 our citizens.

18 Together with conservation and sustainable
19 energy sources, I know we can strike that balance that
20 protects our environmental while ensuring that
21 businesses and jobs are not unfairly inhibited.

22 The facility in Cherokee County will bring
23 billions of dollars in investment to our state, create
24 thousands of good-paying jobs for our citizens,
25 produce reliable energy for our businesses, and,

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1 importantly, produce it cleanly and safely in a
2 carbon-free manner.

3 Thank you for your time this evening, and
4 I would ask that the NRC issue the license to Duke
5 Energy in a timely fashion.

6 MS. SALTER: Thank you, Mr. Scott.

7 Is Eva Ritchie here? Okay. And then
8 we're going to go to Mandy Hancock and Paul Boger.

9 MS. LEVANDER: My name is Valerie
10 LeVander, and I'm here for Eva Ritchie, representing
11 the Global Warming Task Force of Henderson County in
12 Hendersonville, North Carolina.

13 In -- the Global Warming Task Force
14 opposes the nuclear plant because of cost. While
15 others here will speak of important environmental
16 factors such as water, transport, safety, toxicity,
17 and storage, we wish to address cost.

18 Why? Because moving to renewable clean
19 energy is going to cost a lot of money, and we're
20 going to have to make a choice on how we spend our
21 public purse.

22 As many economists, scientists, and
23 industry leaders have noticed, there will not be
24 enough money to both build expensive nuclear plants
25 and fund research and implementation of non-polluting

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1 energy sources.

2 Nuclear plants are fountains of red ink.
3 A new series of recent studies have found that the
4 capital costs of new conventional atomic reactors have
5 gotten so high that even before you factor in fuel and
6 operations, you're talking 17 to 22 cents per
7 kilowatt-hour, which is two or three times what
8 Americans currently pay for electricity, and that's if
9 the plant gets built on time. Delays would run the
10 costs higher, as one study put it, and nuclear plants
11 are always delayed.

12 A 2008 report from Moody's Investor
13 Services concluded that any utility that decided to
14 build a reactor could harm its credit ratings for many
15 years. A Florida utility in fact predicted that even
16 a six-month delay in its building plans could add \$500
17 million in interest costs, and this was all because of
18 the great credit crunch at the end of the Bush
19 administration.

20 Bottom line: Building enough conventional
21 nuclear reactors to eliminate a tenth of the threat of
22 global warming would cost about \$8 trillion, not to
23 mention running electricity prices right through the
24 roof.

25 You'd need to open a new reactor every two

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1 weeks for the next 40 years, and as the analyst Joe
2 Rohm points out, you'd have to open ten new Yucca
3 Mountains to store the dangerous waste. Meanwhile,
4 uranium prices have gone up by a factor of six this
5 decade because we're running out of the easy-to-find
6 stuff, and miners are having to dig deeper.

7 The proposed Gaffney nuclear plant, as
8 well as other proposed nuclear plants, will rob us of
9 much-needed capital to fund our shift to clean,
10 renewable energy. We have no time to waste.

11 350 parts per million is considered the
12 safe upper limit of CO₂ in our atmosphere. We are now
13 at 392. Getting back to 350 means transforming our
14 world. It means building solar arrays instead of coal
15 plants; it means conservation is no longer the last
16 resort. It means planting trees instead of clear-
17 cutting rainforests. It means increasing efficiency
18 and decreasing our waste.

19 Getting to 350 means developing a thousand
20 different solutions and most of them will demand
21 money. So do we spend billions on this nuclear plant
22 or do we spend billions on saving the planet? That's
23 our choice, and the time is running out.

24 MS. SALTER: Thank you, Ms. LeVander.

25 (Man shouting from back of room.)

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1 MS. SALTER: Okay. If you would like to
2 come and make a comment, then you need to fill out a
3 card, because it's hard for the transcriptionist to
4 hear you back there, and we don't know your name, and
5 we want all the comments to go on the record.

6 Ms. LeVander, if I recall correctly, you
7 did give us a copy of your statement -- correct? --
8 when you came in. Okay.

9 Okay. Our next speaker on the schedule is
10 Mandy Hancock, and then we're going to follow that
11 with Paul Boger and Sara Hopper.

12 MS. HANCOCK: I'm glad we have a
13 microphone, because I lost my voice a few days ago.
14 My name is Mandy Hancock, and I'm the high-risk energy
15 organizer with South Alliance for Clean Energy.

16 We are a regional nonprofit organization
17 with members here in South Carolina, throughout Duke's
18 service region, and across the southeast, concerned
19 about the impacts energy choices have on our health,
20 economy, and environment.

21 Thank you for having tonight's meeting to
22 address environmental impacts of the propose Lee
23 reactors. As my colleague stated at the first scoping
24 meeting back in 2008, we have serious concerns about
25 Duke's push to build two new reactors here in Cherokee

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1 County.

2 The uncertainties continue to escalate,
3 putting ratepayers, taxpayers, and the environment at
4 increasing risk. The proposal to impound the Broad
5 River to create a 620-acre make-up pond would forever
6 alter the ecosystem of this area.

7 These risks are not adequately addressed
8 in Duke's revised report. The NRC must evaluate
9 updated information on using a combination of
10 alternative energies, not including nuclear, that are
11 far less water intensive before allowing Duke Energy
12 to commit billions of dollars, billions of gallons of
13 water and nearly an entire decade or more to building
14 these reactors when that time and money can be better
15 spent on less risky, more sustainable energy choices.

16 Energy efficiency measures preserve our
17 water resources, save consumers money, and also pose
18 no health or safety risks to the public. South
19 Carolina utilities have significant resources to tap
20 in these areas, as outlined in a recent extensive
21 report, Energy Efficiency in the South, by Georgia
22 Tech and Duke University, and our report, Yes, We Can:
23 Southern Solutions for a National Renewable Standard.

24 Renewable energy technologies such as
25 solar and wind do not require extreme manipulation of

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1 our precious water resources. The revised
2 environmental report still overlooks Duke's excellent
3 wind resources within its service territory.

4 The Clemson University Restoration
5 Institute shows that South Carolina is poised to lead
6 the charge toward renewable offshore wind energy with
7 its high offshore wind capacity, and to reap large
8 economic benefits from the manufacture of wind
9 turbines.

10 The NRC must evaluate a combination of
11 energy efficiency, wind, solar, and clean bio-energy
12 sources as a viable alternative to building expensive
13 and risky nuclear reactors. Further, the NRC needs to
14 use updated -- needs updated information to reevaluate
15 Duke's analysis for the new reactors in terms of the
16 need for power, given the economic downturn and
17 reduction in demand.

18 Duke and the NRC already know that this
19 region has historically suffered from severe drought,
20 as Duke's revised report references the 2005 South
21 Carolina water use report summary.

22 This says that the last multi-year drought
23 was in 2008. The National Drought Mitigation Center
24 shows the immediate vicinity of Gaffney to be
25 currently suffering abnormally dry conditions.

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1 The supplement lists recorded statewide
2 drought since 1925. They show a pattern of getting
3 more frequent and longer lasting drought. Someone
4 mentioned earlier that the most severe drought was in
5 2008. If they're getting more severe, I think that we
6 need to pay attention to that.

7 The proposal of creating Make-Up Pond C is
8 simply illogical. What actually makes sense is to
9 pursue less water-intensive energy options to begin
10 with instead of costly engineering measures that will
11 negatively impact the environment, add to the cost,
12 and ultimately waste even more water.

13 When comparing types of energy generation,
14 nuclear power has higher rates of both water
15 withdrawal and consumption than coal and natural gas
16 and far more than renewable energy sources such as
17 wind and solar.

18 An April 2010 report by the Georgia
19 Institute of Technology and Duke University examined
20 energy efficiency in the South and illustrated ways by
21 which we could substantially reduce our energy needs
22 while simultaneously reducing our water consumption.

23 According to the report, "the North
24 American Electric Reliability Council regions in the
25 South, 8.6 billion gallons of fresh water could be

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1 conserved in 2020; 56 percent of the projected growth
2 cooling water needs, and in 2030 this could grow to
3 20.1 billion gallons of water conserved." That's 45
4 percent of projected growth. I think we really need
5 to evaluate these numbers.

6 According to Duke's application, the two
7 Lee reactors will withdraw during normal use 50 to 86
8 million gallons of water per day from the Broad River
9 and consume or lose -- now the make-up pond -- consume
10 or lose 35 to 41 million gallons per day, resulting in
11 an overall consumptive loss of approximately 50 to 70
12 percent.

13 This is unacceptable in a region in which
14 water resources are already stressed and the revised
15 report doesn't even consider the future implications
16 of climate change.

17 The application also mentions the average
18 surface water use, public and industrial, in Cherokee
19 County was 8.4 million gallons per day. This means
20 that on a daily basis the Lee plant could use six to
21 ten times -- or withdraw six to ten times more water
22 than everyone else in the county combined.

23 The plant will be competing with other
24 important water users in South Carolina and the
25 region, yet the application does not acknowledge the

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1 impacts this may have, nor does it ponder the impacts
2 this could have during severe drought conditions such
3 as we regularly experience. The NRC needs to address
4 all of these serious issues in the draft EIS.

5 The Broad River, from which the Lee site
6 will rely, is already stressed from the drought and a
7 variety of industrial municipal users. Further, other
8 proposals such as Duke's efforts to expand the
9 Cliffside coal plant in North Carolina and SCE&G's
10 proposal to build two reactors in Jenkinsville, South
11 Carolina, also aim to use huge amounts of water from
12 the Broad River.

13 The full extent of these proposed impacts
14 are not discussed in this application, and the NRC
15 needs to analyze not only the Broad River today but
16 the Broad River of tomorrow, which is slated for more
17 development.

18 The application even states that an
19 estimated 50 percent increase in water demand is
20 projected from 1997 to 2020 for the North Carolina
21 portion of Broad River basin. How will the Broad
22 River be able to provide enough water for all of these
23 needs?

24 There are comments I deleted for time
25 purposes, but I have more copies of this if people are

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1 interested.

2 Thank you.

3 MS. SALTER: Thank you, Ms. Hancock.

4 Okay. That's what I was going to ask her,
5 to give us a copy of that.

6 Okay. Our next speaker is Paul Boger, and
7 then we're going to follow with Sara Hopper and Mary
8 Olsen.

9 MR. BOGER: Good evening. My name is Paul
10 Boger. I'm the executive director of the Greater York
11 Chamber of Commerce in York, South Carolina.

12 You probably wonder why I'm here tonight,
13 but York County -- our part of York County that we
14 supervise and work with actually is on the east side
15 of the Broad River, so we have a very important play
16 here as the Broad River is concerned.

17 I'm not necessarily a technical person.
18 I'm sure there are many of you out here can address
19 the specifics as it relates to Make-Up Pond C;
20 however, I do know and understand its purpose.

21 Who would have experienced the drought of
22 the past two years and not see the benefit it will
23 afford the station and the citizens of this county.
24 However, there are items that we need to address as
25 far as the environmental issues that are waiting for

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1 us to be aware of.

2 The growing need of energy to power our
3 own world is becoming more and more important every
4 day. The 2234 megawatts of power Lee Nuclear Station
5 will generate can and will go a long way in meeting
6 energy needs of the future.

7 But let's not overlook the other factors
8 that Lee Nuclear Station will bring to this area: the
9 700-plus jobs that will be permanent for operation of
10 the plant and the average salary that will approach
11 \$70,000. The majority of the employees will live in
12 the county; they will spend their money in the county.
13 There will be an influx of approximately 1000 to 1500
14 additional personnel each year for refueling needs,
15 which will also generate additional revenue in the
16 form of purchasing of food, living accommodations, and
17 other items.

18 There will be several million dollars that
19 will be collected by the county for property taxes.
20 These taxes will be used to improve schools, and as we
21 all know, we do need improvements in our school
22 systems. There will be operating expenses that will
23 be met for the school systems.

24 It will also help fund county services.
25 Not only will it provide reliable and low-cost

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1 electricity for the county. I'm sure many of these
2 statistics are of information that you already know,
3 but what else will Lee bring to this county?

4 Duke has a strong history of citizenship
5 and service in every community that it has located a
6 power plant or other operating facility. This doesn't
7 necessarily mean just the money that Duke will provide
8 through taxes but also the services that it will
9 provide through not only its own organizational needs
10 but also through the employees that will work there.

11 These employees will be involved in United
12 Way; they'll serve on boards; they'll serve on
13 committees for other civic organizations. They'll be
14 the people who will live next door to you who will
15 raise their children in the same schools that you
16 raise your children.

17 They'll be interested in the environmental
18 impact of everything. They'll also monitor the plant.
19 They'll keep track of these things, and they'll ensure
20 that the plant is operated efficiently, but more
21 importantly, these people will step up like you do;
22 they'll become buddies in the school system; they'll
23 help students learn to read.

24 They'll be volunteering for Boy Scouts,
25 and they'll also be volunteering for Girl Scouts.

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1 They'll serve on the committees of the PTA, the PTO,
2 and the school improvement councils.

3 The reason I know this is I've served with
4 many of those people in those same functions. They're
5 interested in the community. They're not interested
6 in destroying the community or making it a place that
7 no one wants to come to.

8 They're very interested in making the
9 community something that we can all live in, we can
10 all be proud of.

11 The building of this make-up pond will not
12 only -- will do nothing more than strengthen the
13 reliability and efficiency of the plant operation
14 better known as Lee nuclear plant; therefore, the
15 improvements to the environment will also benefit
16 everyone.

17 Again, thank you for the opportunity to
18 come and speak tonight.

19 MS. SALTER: Thank you, Mr. Boger.

20 Sara Hopper, and then we'll go to Mary
21 Olsen and then Barbara Barnett.

22 MS. HOPPER: Good evening. My name is
23 Sara Hopper. I am with the South Carolina
24 Manufacturers Alliance, an organization composed of
25 over 200 manufacturing companies in the state.

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1 The South Carolina Manufacturers Alliance
2 has consistently supported the construction of the
3 proposed nuclear reactors at the Lee Nuclear Station
4 here in Cherokee County.

5 By their nature, our members' facilities
6 are significant consumers of energy. The key to
7 current and future economic development in the
8 manufacturing sector in South Carolina will be
9 affordable, reliable, and adequate energy resources.

10 We are keenly aware that the time has come
11 for South Carolina's public and private utilities to
12 develop additional baseload power. Like the rest of
13 the nation and much of the world, South Carolina has
14 felt the full force and effect of the Great Recession.

15 Before much of the country began to
16 experience job loss, South Carolina experienced
17 dramatic job losses, which over the past two years
18 accelerated to levels not seen in generations.
19 Although we are beginning to see signs of an economic
20 recovery, that recovery nevertheless has been and will
21 continue to be choppy and slow to create jobs.

22 Fortunately South Carolina's manufacturing
23 sector has been showing signs of recovery for the last
24 six to eight months. We have seen significant large
25 economic development announcements, and we are

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1 experiencing many smaller announcements every week,
2 all of which portend improving economic conditions
3 over the next two years.

4 If we are to sustain the economic healing
5 of plants devastated by the recession, encourage the
6 expansion of those in other facilities, and attract
7 more new plants and the high-paying jobs that they
8 bring with them, we must have the infrastructure to
9 support their operations.

10 First and foremost on that list of
11 essential infrastructure is energy. Traditional
12 industries like paper, textile, and chemistry are well
13 known for their energy consumption.

14 South Carolina now has significant
15 automotive, aviation and advanced materials
16 operations. All of these industries have fantastic
17 potential for future growth in the state, and all are
18 heavy energy users. As manufacturing companies decide
19 to locate or expand in the state, they will need
20 assurances about the availability and reliability of
21 energy.

22 We also understand that generating power
23 can have significant impacts on our environment. It
24 is the policy of the South Carolina Manufacturers
25 Alliance to advocate a balance between economic

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1 development and preservation of our natural heritage.

2 We believe nuclear power is consistent
3 with that policy, as it is one of the only proven
4 baseload technologies that does not emit greenhouse
5 gases.

6 We believe strongly that the proposed
7 construction of Make-Up Pond C will preserve the
8 quality and quantity of the water in the Broad River.
9 South Carolina recently passed a comprehensive surface
10 water withdrawal permitting program. I helped
11 coordinate the business community's involvement in
12 that four-year effort.

13 What emerged from that process is a
14 program embraced by the business and environmental
15 interests alike. This new law requires that under
16 certain circumstances potential users must build
17 supplemental water sources. The idea was endorsed by
18 the business community, the environmental community
19 and the legislature.

20 Duke Energy is one of the companies to
21 follow -- one of the first companies to follow that
22 requirement, and they should be commended for their
23 leadership they are showing and the example they are
24 creating for others to follow.

25 Building Pond C is responsible water

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1 management. It is a commitment to respect the needs
2 of other users. It is part of a comprehensive plan
3 that will create stability within the Broad River
4 basin while at the same time facilitating the
5 production of essential energy resources, resources
6 without which South Carolina will not be able to grow.

7 Thank you.

8 MS. SALTER: Thank you, Ms. Hopper.

9 We now go to Mary Olsen, who will be
10 followed by Barbara Barnett, and then Katie Hicks.

11 MS. OLSEN: My name is Mary Olsen. I am
12 the southeast regional coordinator for Nuclear
13 Information and Resource Service, a national
14 organization founded in 1978 by activists in local
15 communities where nuclear power plants were being
16 sited and constructed, including over 98 that were
17 canceled in the intervening years.

18 It is no secret that we are here to oppose
19 this project, but I'd like to speak just some very
20 specific pieces.

21 Needless to say, many of my members are
22 nuclear workers and nuclear workers' spouses. I agree
23 that they are wonderful participants in their own
24 communities, and I also want to appreciate all the
25 people who are here tonight as volunteers, who are not

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1 on payroll, who are not here out of any kind of
2 economic gain for themselves, simply because they're
3 concerned. Many of those people have helped to turn
4 the course of history in the past, and I'm sure they
5 will now.

6 So one point that I want to bring from a
7 worker that I know in Texas about jobs is that while
8 there may be 400 jobs advertised and there may be a
9 multiplier effect that we've heard about this evening
10 from various people, the other multiplier effect is
11 the spouse who comes without a job, because most of
12 these 400 people will move into the area because they
13 require specialized training that's not available in
14 the local community, and they bring with them a spouse
15 and very often one or more teenagers, all of whom are
16 looking for jobs.

17 So you get 400 jobs and about 800 job
18 seekers, so the net for Gaffney is not necessarily an
19 increase in employment -- Gaffney, Blacksburg, this
20 general area.

21 So cutting now to the scoping issues, the
22 National Environmental Policy Act does allow
23 consideration of options, of course; that's what the
24 whole process is. There's a no-action alternative.
25 But currently I have never heard of a federal agency

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1 being honest about the situation that we're in with
2 this site.

3 This site was under construction 30 years
4 ago and subsequently canceled. It was canceled for
5 economic reasons. Duke is currently in a situation
6 where they don't have funding for this site; otherwise
7 they wouldn't be having secret meetings with North
8 Carolina legislators about changing North Carolina law
9 in order to reach into the pockets of their customers
10 in western North Carolina to pay for this thing.

11 So what is the guarantee that you're not
12 looking at a NEPA process where you're going to look
13 at an action alternative that has absolutely no
14 benefit -- high impact and no benefit. That's what it
15 had 30 years ago; that's what it could have now.

16 You construct Pond C and it never
17 generates any electric power because people rise up in
18 North Carolina and realize that energy efficiency and
19 non-fuel-based energy technologies are the way to go
20 and refuse to pay.

21 I don't know; I'm projecting. But you're
22 projecting, I'm projecting, they're projecting. Let's
23 be honest. There is an alternative that is a lot of
24 action with no benefit, and we've seen it here.

25 Okay. And I understand the local

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1 community wants benefits, but I'm here to say that you
2 could get three to four times more benefit through
3 instituting a truly green non-nuclear energy base
4 here.

5 The job numbers are spectacular around the
6 world for the development of non-nuclear renewal
7 energy, and also energy efficiency which is delivered;
8 not just telling people to change their light bulbs
9 but actually going into homes and helping people with
10 stopping the leaks of their insulation, putting in
11 additional -- better windows, better insulation,
12 better light bulbs, upgrading appliances. The whole
13 wad is a number of issues around how we're spending
14 our money, how we're making our jobs and what the
15 quality of life is.

16 And quite frankly, the quality of non-
17 radioactive jobs is a lot higher than radioactive
18 jobs, and I really encourage all the associations in
19 this state to remember that.

20 You can go to Savannah River site and talk
21 to the people who sacrificed themselves for a good
22 reason; they called it the cold war. This is not the
23 cold war.

24 Okay. Let's go back. We're talking about
25 water withdrawals; we're talking about Pond C. We are

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1 in a situation where power generated with steam is
2 causing two-thirds of the water we take out to not
3 produce any power at all. It's just thermodynamics;
4 it's just condensing steam back to water to make
5 power.

6 So if we do the numbers on this site, the
7 projections are more than 30 million gallons a day,
8 but round down to make it easy: 30 million gallons a
9 day that's actually like, you know, going off the site
10 as steam. Two-thirds of that, or 20 million gallons,
11 didn't even make electric power.

12 I think it's time that our federal
13 agencies put into their disclosures the withdrawal of
14 water that could be drinking water, that could be used
15 in an environmental natural ecosystem versus
16 uselessness. And then we need to disclose about the
17 waste as well, because every form of power that uses
18 fuel makes waste.

19 In the case of uranium fuel, its waste
20 that can cause cancer, birth defects, nobody wants it.
21 And I'll go on record that western North Carolina does
22 not want a granite repository, thank you very much.

23 But I think it's time that the federal
24 regulators that come out and talk to local communities
25 about new waste generation happening in addition --

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1 you know, that's why you're going to withdraw all this
2 water, is to cool that core to be sure that the
3 nuclear meltdown doesn't happen.

4 So, good, we're making waste, and so the
5 regulator needs to disclose that the same regulator is
6 considering changes its own regulations to make what
7 is currently 120 years of temporary storage up to 300
8 years of temporary storage, because there is no plan
9 for what to do with the waste that would be generated
10 at the William States Lee site.

11 So does the local community know that you
12 are being sited with not only a pond and a nuclear
13 power plant but also a temporary storage site for
14 waste up to 300 years.

15 How long has this country been here? Is
16 300 years temporary? So these are things in scoping
17 that must be considered and weighed along with the
18 construction of that pond. Is any power going to be
19 generated here that might be construed as a benefit
20 versus the very large impacts to this area by creating
21 that pond?

22 One last comment: Again, back to the
23 issue of federal agencies working together and
24 disclosure. You're working with the Army Corps of
25 Engineers; that's good. But how about the National

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1 Oceanic and Atmospheric Administration? How about the
2 projections for the droughts that are on their records
3 for this area?

4 Are you really factoring in the reality
5 that people need water to drink but there are other
6 ways to generate electricity that do not require
7 water, that do not require fuel, that do not make
8 waste, that do not burden this community with cancer,
9 birth defects, and infertility for the foreseeable
10 future?

11 Thank you for listening.

12 MS. SALTER: Thank you, Ms. Olsen.

13 We now go to Barbara Barnett, and then
14 we'll go to Katie Hicks and then Kayla Robbs.

15 MS. BARNETT: My name is Barbara Barnett.
16 I'm the natural resources chair for the League of
17 Women Voters of Henderson County, North Carolina, and
18 I'm also the chair for the Four Seasons Sierra
19 Committee in Hendersonville, North Carolina.

20 2.3 million people living within a 50-mile
21 radius of the plant would be endangered, because the
22 nuclear industry has not met its goals of producing
23 cheap, clean, and safe energy.

24 Nuclear power is a very costly enterprise.
25 In fact, nuclear power would cost twice as much as

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1 renewable energy sources; for example, solar, wind,
2 and geothermal power.

3 Nuclear power is capital intensive, and
4 funding is elusive, because financial investors find
5 nuclear power a very risky venture, as does the
6 insurance industry, who will not indemnify them.
7 Therefore, the only alternative is government
8 subsidies.

9 All costs are not included in the industry
10 estimate of \$11 billion. For example, mining of
11 uranium, transportation of uranium, enrichment plants,
12 subsidies for construction, the temporary disposal of
13 waste, the permanent disposal sites, monitoring the
14 Lee reactor, indemnifying the plant, dismantling and
15 burying of the reactor.

16 Water is an issue. Droughts and heat
17 waves cause nuclear reactors to be unreliable and
18 inoperable because federal regulations require plants
19 to shut down when water temperatures reach 90 degrees.

20 The TVA shut down a Browns River nuclear
21 plant because of overheated water in the Tennessee
22 River. Ken Clark of the NRC said such shutdowns
23 occurred elsewhere.

24 The Lee plant cannot function without 50
25 million gallons of water a day from the Broad River,

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1 and 35 million gallons would evaporate from the
2 cooling towers.

3 Nuclear reactors could consume four times
4 as much water as all public and industrial users in
5 Cherokee County combined, and that is from the Duke
6 Energy license application.

7 In the summer South Carolina is hot and
8 humid, with daytime temperatures averaging near 90
9 degrees and have reached 100 degrees. And the
10 issue -- current issue is the water resources of the
11 Broad River, which has been designated as impaired and
12 needs protection.

13 Waste is an issue. Permanent storage of
14 radioactive waste remains unsolved. Regardless of the
15 passage of federal legislation, it remains a political
16 issue.

17 The League of Women Voters of Henderson
18 County, North Carolina, and the Sierra Committee
19 believe it would be difficult to proceed if these
20 issues are not resolved before licensing.

21 Thank you.

22 MS. SALTER: Thank you, Ms. Barnett.

23 I just want to give you a little time
24 check. It's about nine o'clock, and we are halfway
25 through, so we're right on time to get everyone out of

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1 here by the scheduled end of ten o'clock, so I thank
2 all of our speakers for making their comments so
3 succinctly.

4 Our next speaker is Katie Hicks, and then
5 we're going to go to Kayla Robbs, and then we're going
6 to go to Kitty-Katherine Richards.

7 MS. HICKS: Hi. My name's Katie Hicks,
8 and I work with Clean Water for North Carolina. We're
9 an environmental justice organization focusing on
10 water issues in North Carolina, but of course water
11 issues definitely cross state lines.

12 Thank you for the opportunity to speak
13 tonight. We strongly oppose the proposed Lee reactors
14 for many reasons. First, the water evaporation from
15 the Broad River due to cooling operations would be
16 unacceptable.

17 The Broad River already receives hot
18 discharges and loses water from three other existing
19 or planned nuclear reactors in South Carolina and the
20 coal plant in North Carolina.

21 In addition to the 50 million gallons of
22 water per day the facility would withdraw, returning
23 only a fourth of this amount, some simple calculations
24 based on the reactor's specifications indicate that
25 the facility could cause evaporation of up to 5-1/2

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1 billion gallons per year in forced evaporation
2 downstream due to the heated water.

3 This reduced flow is harmful to wildlife
4 and reduces the amount of water available to
5 downstream communities such as Union and Columbia, who
6 use the water as a drinking source.

7 On a watershed level, construction of
8 cooling pond C would not improve the state of the
9 Broad River, as London Creek is a tributary to the
10 river, and thus any evaporation from that pond will
11 also impact the overall watershed flows.

12 The mean monthly discharge of many rivers
13 and streams has been decreasing in the past decade,
14 and droughts are going to become more and more common
15 and more and more lengthy in their extended periods.

16 Especially with these droughts and the
17 possibility of interstate water conflicts, a closer
18 examination of the allocation implications of
19 permitting these reactors is imperative.

20 Secondly, we urge you to consider the many
21 disadvantages of nuclear energy in your environmental
22 impact statement. Nuclear power is expensive,
23 produces hazardous and long-lasting waste, can
24 contribute to proliferation of nuclear weapons, and
25 cannot be built fast enough to address the climate

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1 situation in the short term.

2 Cheaper, safer, more just alternatives
3 such as energy efficiency and conservation, solar and
4 wind are a wiser investment.

5 Finally, and on a personal note, as a
6 citizen of western North Carolina, I do not support
7 Duke's proposition to supply my region with new
8 nuclear power, because over half of this energy
9 produced would supply North Carolina.

10 In western North Carolina we have
11 plentiful opportunities for energy efficiency and
12 conservation, wind and solar power. There is no need
13 for such an unstable, expensive and water-intensive
14 project.

15 I urge you to investigate all these viable
16 possibilities and not to permit these new reactors.
17 Thank you very much for your time.

18 MS. SALTER: Thank you, Ms. Hicks.

19 Now we have Kayla Robbs, and then we're
20 going to go to Kitty-Katherine Richards and Rachael
21 Bliss.

22 MS. ROBBS: Good evening. My name is
23 Kayla Robbs. I'm the executive director for the
24 Cherokee County Chamber of Commerce. Thank you for
25 letting me speak this evening.

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1 I think you probably know from the
2 organization I represent that we support this project
3 for the economic features that it will bring to our
4 county. But in addition to the economic benefits of
5 this -- and we believe there are several -- with an
6 over-15-percent unemployment rate, we feel that many
7 of the positions that will be open will be filled by
8 our county residents.

9 But aside from the economic side, I'd like
10 to speak to you about the quality of life issue. This
11 county is in great need of improving the quality of
12 life for our citizens. We need assistance in our
13 school systems, in our emergency systems, and in the
14 overall quality of our livelihood: parks, recreation.
15 Many aspects of day-to-day living for families who
16 live in this county would be enhanced by this project.

17 I'd also like to speak to -- about Duke
18 Energy. We believe them to be good corporate
19 citizens. They're involved in our communities. They
20 live with us; they work with us, and we believe that
21 they have nothing but good intentions for our county.

22 I know that many of us differ in our
23 opinions of energy policies here in the nation, but I
24 would like the regulatory agency to be aware of the
25 fact that the county very much supports this and in

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1 fact needs this project.

2 Thank you.

3 MS. SALTER: Thank you, Ms. Robbs.

4 And now we're going to go to Kitty-
5 Katherine Richards, followed by Rachael Bliss and then
6 Eric Pace.

7 MS. RICHARDS: Hey, everybody. I
8 really -- I didn't come prepared to have anything
9 written to say; I didn't do that, because I really was
10 using this as a learning opportunity, and I've really
11 learned a good deal, and I appreciate everybody who's
12 come to, you know, speak tonight that doesn't have
13 anything personal to gain or economic to gain.

14 So -- and just some thoughts came up to me
15 and -- or came to my mind, and, you know, I did want
16 to say to the representative, Kirk, of the Army Corps
17 of Engineers that, you know, it's nothing personal.

18 With all due respect, the Army Corps of
19 Engineers, as much as it is part of our government,
20 has made a lot of mistakes in the past and has allowed
21 environmental degradation, such as with mountaintop
22 mining and removal of that waste that ends up in the
23 water sources.

24 And so that's something I'd like us to --
25 you know, when Mary Olsen mentioned the National

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1 Oceanic and Atmospheric Administration and such
2 organizations that also are not -- you know, I would
3 really support that, you know, that kind of an
4 organization gets involved and other environmental
5 groups get involved personally with the NRC and Army
6 Corps and things like that to ensure that the people
7 who really do care and love the environment make sure
8 that it is taken care of.

9 One thing that I've noticed today that --
10 tonight that is like -- it seems like the people who
11 are approving of the NRC's plan keep saying things to
12 make -- as long as they say it enough, enough, enough,
13 that people are going to start to believe that nuclear
14 is carbon free and is clean and is safe, and it's --
15 that's all lies. It's total lies.

16 And, you know, people believe it, but it
17 doesn't mean just because you believe it that it's the
18 true, because nuclear is not carbon free. Uranium
19 mining does create a lot of pollution in itself, and
20 it's getting harder and harder to mine good stuff, so
21 it costs more and more, and the processing of it, the
22 mining of it, the transportation of it -- it's not
23 clean. Obviously it does have a lot of radioactive
24 waste that we have to deal with for hundreds of
25 thousands of years with deformed children and babies

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1 and cancer and all this kind of stuff.

2 And so it's not clean and it's not safe.
3 I mean, anytime, you know, Chernobyl or some Three
4 Mile Island accident could happen.

5 So, you know, I'd just like to just
6 reiterate that what I've heard already from people --
7 I've done a little reading before I got here, so I
8 just hope that somehow, you know, with this few of us
9 that came to speak without any, you know, personal
10 things to gain, that somehow we'll leave here and
11 we'll keep talking about this, you know, beyond
12 tonight.

13 And, you know, when President Obama, who
14 has tried to do some good things for the country, you
15 know, I think, but when he keeps saying that nuclear
16 waste is going to be recyclable -- you know, they're
17 going to make sure that they can find a way to do
18 that -- you know, let's keep speaking out and saying,
19 Where's your proof? You know, where have you got
20 this genius scientist that has come up with a way? --
21 because it's not in existence.

22 So I guess that's it, and I really
23 appreciate y'all being here to listen and to speak
24 also. Thanks.

25 MS. SALTER: Thank you, Ms. Richards.

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1 And now we're going to go to Rachael
2 Bliss, then Eric Pace, and then Gabriel Fair.

3 Please remember to state your name before
4 you start.

5 MS. BLISS: I'm Rachael Bliss, and I come
6 from western North Carolina as well. I've only been
7 here for a couple years, but I did move from
8 Tennessee, where we were under TVA, and just in my own
9 backyard we have a nuclear plant that was abandoned;
10 it was Phipps Bend by the TVA, and we still have the
11 skeleton of the big cones or whatever. It's a daily
12 reminder of a plant that did not happen.

13 And there were a lot of women, like we
14 have here tonight, who fought against that plant, and
15 TVA finally saw that it was not financially feasible
16 to create that plant.

17 And as was said earlier, TVA had to shut
18 down the reactor on the Tennessee River because of
19 drought problems a few years ago, and Tennessee River
20 is a huge river; I believe it's much bigger than the
21 Broad River.

22 Also I live close to Erwin, Tennessee,
23 where that plant had to be closed down for a number of
24 weeks because of problems with uranium -- enriched
25 uranium there that was contaminating the area.

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1 So, you know, I do want good employment
2 for the Gaffney area, but I don't think you want this
3 necessarily. I'm concerned about the state of the
4 Broad River if another containment pond is built using
5 water that would ordinarily go into the Broad River
6 directly.

7 We need further information about how this
8 water use will affect communities downstream, like I
9 was surprised tonight that the authorities did not
10 even -- weren't able to tell us what communities were
11 downstream.

12 What happens as the population and
13 agricultural needs grow if these containment ponds
14 continue to be licensed? No matter where water is
15 contained or for what it is used, it's still part of a
16 hopefully healthy and ecologically safe watershed.

17 A couple years ago reactors, like I said
18 earlier, were closed down because of a drought in our
19 area in Tennessee. I want to be assured that the Army
20 Corps of Engineers and the NRC can be trusted with
21 this project.

22 In recent years they have failed us
23 throughout the country, along with the corporations
24 that they regulate. We have BP as a good example.

25 Conservation of energy is the best

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1 solution to our energy needs. Energy use has
2 decreased in recent years, especially in the Asheville
3 area, and we see, as conservation takes hold -- I
4 don't believe any new plants will be needed.

5 I cannot support this project because of
6 these reasons. Additionally, I personally would not
7 want to drink water that has just earlier that day
8 been used to cool a nuclear power plant.

9 Who is doing the modeling for this
10 project? Are those who are responsible for modeling
11 the feasibility of the project -- are they going to
12 profit if this project is approved?

13 There is no reduction in the carbon
14 footprint, as far as I can tell, when we consider the
15 entire life cycle of the project, from construction,
16 permitting, mining, cooling, and disposing of waste.

17 Thanks for this opportunity to participate
18 in this meeting and these nice facilities. But I
19 personally cannot approve of this project as a citizen
20 of this -- of the Carolinas, using the same worn-out
21 standards that we've used in the past.

22 Thank you.

23 MS. SALTER: Thank you, Ms. Bliss.

24 Before we go on, I just -- I know it's
25 getting late and some folks may have to leave. I want

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1 to remind you that there's a public meeting feedback
2 form attached to your handouts, and those forms are
3 really important and helpful to the NRC; they help us
4 improve the public meeting process.

5 So please take some time to fill that out.
6 You can drop it in the mail or you can leave it at the
7 front registration desk.

8 Our next speaker is Eric Pace; then we'll
9 have Gabriel Fair and then Lorena Hildebrandt.

10 MR. PACE: Thank you. Good evening. My
11 name is Eric Pace, and I am actually an employee of a
12 nuclear station, but I'm also the public information
13 chair of the Carolina Chapter of the North American
14 Youth Generation in Nuclear.

15 We are a nonaffiliated organization, and
16 we have the mission of uniting young professionals who
17 believe in nuclear science and technology and are
18 working together in North America to share their
19 passion for the field.

20 You may have seen out table out front, and
21 I urge each of you to come by and talk to one of us;
22 just grab a youngster. Chances are they're probably
23 one of us.

24 But I just wanted to take a few minutes
25 and discuss the nuclear industry and to discuss --

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1 kind of maybe share a little insight into how we
2 operate as an industry.

3 So we're here to discuss Make-Up Pond
4 Charlie for the proposed Lee Nuclear Station. This
5 make-up pond will be one of the many assurances that
6 this nuclear power plant can operate safely and
7 reliably.

8 Nuclear plant design centers around having
9 primary systems, backup systems and, in some cases,
10 secondary backup systems. These systems assure that
11 the plant can operate in all potential operating
12 conditions, and this includes accident scenarios.

13 Part of the licensing process -- and this
14 meeting is part of that licensing process -- is to
15 perform studies, calculations, and tests to ensure
16 that the design of the nuclear plants under
17 consideration meets all safety requirements outlined
18 by the Nuclear Regulatory Commission.

19 The nuclear industry has learned a lot of
20 lessons about how to safely operate nuclear stations
21 by recognizing and respecting not only our successes
22 but our failures as well.

23 The NRC writes laws that, if followed by
24 nuclear operating companies, will ensure a minimum
25 standard is being followed which protects the health

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1 and safety of the public, which is their mission
2 statement.

3 The industry, in response to Three-Mile
4 Island and Chernobyl, took a real critical look at the
5 way that we operate as an industry. And as a result,
6 one of the things that came out of this critical look
7 at our industry are organizations like the Institute
8 of Nuclear Power Operators and the World Associations
9 of Nuclear Power Operators, who hold the industry to a
10 higher standard.

11 Basically it takes what the NRC does,
12 which is meeting the law, and says, "You're operating
13 here; we expect you to operate up here." It raises
14 the bar, essentially.

15 This effectively increases safety margins
16 and teaches the industry to operate even safer than it
17 already does. The industry is a learning
18 organization. We don't settle for meeting the status
19 quo.

20 These new plants that are being considered
21 across the country are not of the same design as
22 existing plants around the country. They are the same
23 design in that they use water to create steam to turn
24 turbines and eventually create the power
25 infrastructure that you guys use to operate machines

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1 in your household.

2 But in much the same way that existing
3 stations have done modifications to become safer and
4 more reliable, these new plant designs have learned
5 from and incorporated design changes that have proved
6 themselves in our currently operating nuclear power
7 stations.

8 As power companies around the country take
9 actions to ensure their generation capacity keeps pace
10 with their service area demands, more and more of them
11 will be turning to nuclear power as large generation
12 and environmentally sound answers to add to their
13 baseload generation.

14 Not only will the companies that build
15 them benefit from the power that will be produced by
16 the station, but the communities that are hosts to
17 these stations will benefit as well, as many of the
18 speakers tonight have already outlined.

19 Like I said, please do not hesitate to
20 talk to us. We have a lot of facts and, as I said, we
21 are all nuclear professionals, and we will be more
22 than willing to share with you information about our
23 industry.

24 Thank you.

25 MS. SALTER: Thank you, Mr. Pace.

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1 I'm going to ask Gabriel Fair, and then
2 we're going to have Lorena Hildebrandt and D.C.
3 Swinton next.

4 MR. FAIR: Hello. My name is Gabriel
5 Fair. I'm a fourth-year senior at Clemson University,
6 studying computer science. I'm also co-president of
7 Students for Environmental Action at Clemson
8 University.

9 Fortunately SCA does not support this Lee
10 nuclear plant or the Make-Up Pond C. If we're going
11 to provide new energy plant to meet the needs of the
12 future citizens of South Carolina, we need to consider
13 the needs for renewable energy.

14 Some of you are concerned about global
15 warming. I can tell you that a Clemson University
16 we're concerned about climate change. Providing this
17 plant is not a good way to use money. This is a sink
18 of the ratepayers' money, and it will only invest in a
19 form of energy which is finite and which comes with
20 risks.

21 We came here to talk about Make-Up Pond C,
22 but we're really talking about the environmental
23 impacts of the Lee nuclear plant as well. As we all
24 know, fission -- the fission reaction directly does
25 not involve carbon. A lot of people have been talking

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1 about nuclear as a carbon-free alternative, and a lot
2 of people have been talking about that it's not carbon
3 free. The fact is that it's not carbon free. It uses
4 processes that use carbon.

5 To create renewable energy sources, that
6 would use carbon as well; however, the carbon in those
7 is not -- is -- the carbon that is used in the Lee
8 nuclear plant is -- from the start to the finish will
9 be using carbon, and it's risky.

10 Representative Dennis Moss spoke earlier
11 today, and he says that he fully supports clean, safe,
12 carbon-free power. As a young person, I support
13 clean, safe, carbon-free power. That is actually
14 different from Dennis Moss's interpretation of what
15 that means.

16 Also, Representative Steven Moss said that
17 this new power plant will benefit Cherokee County and
18 a lot of the Chamber of Commerces said as well that
19 they support it for those reasons. I'm pretty sure
20 they would also support clean energy to Cherokee
21 County and the jobs that would come with that as well.

22 Representative Forrester said that this
23 plant will drive the state forward. Okay. Clemson
24 University is driving the state forward, but not using
25 nuclear energy.

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1 We recently acquired \$65 million to
2 research an alternative wind energy for South
3 Carolina. If my university can support and also lead
4 this state, I believe Representative Forrester and
5 Duke Energy can do as well.

6 Now, the Mayor of Blacksburg, he says that
7 Blacksburg needs salvation. Nuclear energy? I see
8 salvation in renewable energy, and I feel that my
9 children and my children's children will see salvation
10 in that as well.

11 The faster this nation gets off of dirty
12 energy and nuclear energy and the faster that we get
13 to renewable and sustainable means of energy, the
14 better off we'll be. I consider that salvation.

15 Again, my name's Gabriel Fair. It's a
16 pleasure speaking here today.

17 MS. SALTER: Thank you, Mr. Fair.

18 Lorena Hildebrandt, then we'll have D.C.
19 Swinton and then Don Richardson.

20 MS. HILDEBRANDT: Hello, everyone. I'd
21 like to thank the Nuclear Regulatory Commission for
22 giving us this opportunity to speak. My name is
23 Lorena Hildebrandt; I'm a resident of York County.

24 I'm a student at Winthrop University; I'm
25 president of their student environmental organization

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1 there, and I'm here representing hundreds of students
2 and youth from across South Carolina.

3 Duke Energy's proposal for this cooling
4 lake demonstrates the flaws of the Lee nuclear reactor
5 plans in regards to water. According to Section 5.2.1
6 of Duke's report on the environmental impacts of the
7 Make-Up Pond C, the necessity of this cooling lake is
8 due to the need to compensate for low flow on the
9 Broad River. They admit in their report that the
10 region has been drought-stricken in the past and
11 continues to be.

12 My question to the Nuclear Regulatory
13 Commission, as well as Duke Energy, is why permit or
14 build a nuclear reactor, which, according to the
15 Department of Energy, is the highest water consumer of
16 any energy technology, in a drought-prone area,
17 especially when, according to climate models, we face
18 an escalating threat of future droughts in the region.

19 I'd also like to see information in the
20 environmental report on how long the make-up ponds
21 would last in case of low flow and drought in the
22 Broad River.

23 Besides the drought and 35 million gallons
24 of water these reactors would consume, there's also
25 the question of waste. If the Lee station goes on

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1 line, it will be a high-level nuclear waste dump for
2 the foreseeable future, and that's just the facts.

3 A report released -- the proposed site
4 area cannot sustain these proposed nuclear reactors
5 without enormous strain placed on our rivers,
6 environment, and ratepayers, not to mention the
7 taxpayers' money.

8 Besides the environmental irresponsibility
9 of Duke Energy in proposing nuclear reactors in a
10 drought-prone area, there's fiscal irresponsibility,
11 especially in this recession.

12 A report released in 2009 revealed the
13 soaring costs of nuclear energy. The economics of
14 nuclear reactors' renaissance or relapse reported that
15 during the previous year, the cost estimates from new-
16 generation reactors can range to a high of 30 cents
17 from a low of 8.4 cents per kilowatt-hour. In
18 contrast, energy efficiency costs about 3 cents per
19 kilowatt-hour.

20 There was a reason the Cherokee nuclear
21 plant outside of Gaffney was halted mid-construction
22 in the 1980s: cost. The fact that James Cameron used
23 the abandoned Cherokee facility as a set for a film
24 titled *The Abyss* suggests more than an uncanny
25 knowledge of movie trivia.

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1 Nuclear reactors and Duke Energy are
2 pouring taxpayers' and ratepayers' money into a toxic,
3 expensive, and risky abyss.

4 Thank you.

5 MS. SALTER: Thank you, Lorena.

6 We're going to have D.C. Swinton, then Don
7 Richard, and then Jim Cook.

8 MR. SWINTON: Good evening. My name is
9 D.C. Swinton, and I am here on behalf of the statewide
10 university-based group known as the Palmetto
11 Environmental Action Coalition, a.k.a. PEAC. I also
12 am on the verge of obtaining my BA in environmental
13 studies from Winthrop University.

14 Ladies and gentlemen, we South Carolinians
15 face a crisis. That crisis is ignorance, ignorance to
16 our need to avert -- or invest, rather, in energy
17 efficiency and alternative sources.

18 South Carolina is 25th in population but
19 19th in energy consumption per capita. To put that
20 into perspective, California, which is the most
21 populous state in the Union, is 47th in energy per
22 capita, and yet they still use a lot, but we are using
23 far more per capita. New York, which has the largest
24 city in the country, is 27th.

25 Building another plant may decrease the

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1 cost of energy to consumers years down the road, but
2 at what cost? -- the severe alteration of the Broad
3 River via water intake and thermal pollution, creating
4 dead zones of aquatic life; the creation of tons of
5 nuclear waste that only will be stored in South
6 Carolina?

7 What about actually putting this plant --
8 a second nuclear plant on the other side of the
9 largest population center in South Carolina, the
10 upstate? Now we're cornering tons and tons of people
11 with a possibility of some sort of emergency
12 occurring. This is not the way to go.

13 People often praise nuclear energy on --
14 as our savior from fossil fuels: a clean, efficient
15 source. However, it's nowhere close to efficient and
16 is ridiculously costly.

17 Both boiling-water reactors and
18 pressurized-water reactors, which is the one that Lee
19 county [sic] would be -- or Lee Nuclear Station would
20 be, rather, only run at 33 percent efficiency.

21 The site would have to tap into other
22 plants in the area for energy in the event of an
23 emergency, increasing the strain on those plants,
24 which also happen to run around 33 percent efficiency.
25 Add on top of that our decrepit electrical transport

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1 grid, and you have one big ball of waste -- wasted
2 energy, that is.

3 But Duke is disregarding this. The
4 Nuclear Regulatory Commission is disregarding this.
5 As a candidate for the District 24 seat of the South
6 Carolina House of Representatives, I am running to
7 give critical decisions back to the people of our --
8 over special interests and industry.

9 I'm in favor of creating thousands of
10 sustainable jobs, but the construction and maintenance
11 of a nuclear plant will not do that. Energy
12 efficiency and investment in alternative sources will.

13 Do not lie to yourselves. The mayor of
14 Blacksburg, South Carolina Chamber of Commerce, South
15 Carolina Manufacturers Alliance, Representatives Moss,
16 Forrester, and the other Representative Moss, NRC,
17 Duke, all that have been in favor of this plant, you
18 need to stop lying to yourselves and admit that
19 resources for a cleaner, greener future are available
20 and are viable, so much so we would be able to
21 decrease the need for any new nuclear plants or coal-
22 fired power plants in this state; also to the point
23 where we could decrease the amount that we currently
24 have on line.

25 I strongly hope that you take this in

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1 consideration. Thank you.

2 MS. SALTER: Thank you, Mr. Swinton.

3 And we have Don Richardson next and then
4 Jim Cook and then Robert Howarth.

5 DR. RICHARDSON: Welcome to the boiled
6 fish capital of the world. I'm Dr. Don Richardson of
7 Western North Carolina Physicians for Social
8 Responsibility.

9 I'm a retired pathologist, and in my years
10 of practice I was board-certified in nuclear medicine,
11 so I have some familiarity with these particles and
12 rays that we're so worried about.

13 I said I was a pathologist. The last of
14 my approximately 700 autopsies was on the nuclear
15 industry, a corpse on a cold steel table. At the
16 demand of members of the nuclear family and other
17 vested interests, we were convinced by them to try
18 mouth-to-mouth resuscitation, and we pounded on its
19 chest, then we finally followed that by zapping the
20 corpse with those electric paddles. It bounced twice
21 on the table, but it was not revived.

22 Nuclear power died many decades ago of
23 market forces, but the nuclear industry, every the
24 opportunist for public subsidies, these many years
25 later still keeps insisting that we try again,

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1 ignoring the final diagnosis.

2 The final diagnosis was my job as a
3 pathologist. I don't want to get personal, but in my
4 view, in my personal view, the entire nuclear industry
5 needs professional help.

6 We have 103 operating nuclear plants;
7 every one of them is old. We haven't built any in a
8 long time; they're all old. They're all grandfathers
9 or older. Many have had their operating lives
10 dangerously extended. They will all have to be
11 decommissioned over a very short interval of time,
12 which means that even if we have an Apollo program, a
13 crash program to build new plants, there's no way they
14 can keep up with the decommissionings, and the nuclear
15 industry will shrink dramatically, no matter what. I
16 mean, that's just plain physics.

17 At the same time, cheaper, safer, job-
18 rich -- let me emphasize that: job-rich -- and
19 quicker alternatives are already growing exponentially
20 as nuclear power fades away, and none of them is a
21 terrorist target.

22 They're decentralized -- by definition
23 they're decentralized and thus protected from failure.
24 They're out-performing nuclear energy every day of the
25 year.

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1 We are daily watching the disaster in the
2 Gulf of Mexico and acutely aware of what happens when
3 public policy is co-opted by narrow, self-serving
4 corporate interests.

5 Not acting in the public interest -- I'm
6 talking about Congress now -- not acting in the public
7 interest for the people who elected them is one
8 definition of treason. Check your dictionary. Not
9 acting in the public interest is one definition of
10 treason, for which the time-honored punishment is
11 unpleasant. I remain amazed that Congress, for cash
12 bribes, sells its votes and runs that risk.

13 Now, there's been a lot of talk about
14 carbon cycles, carbon production and so forth. An
15 analysis of the entire nuclear fuel cycle, the entire
16 cycle, from exploration to decommissioning and
17 storage, the whole thing, is highly carbon intensive.
18 It has a huge carbon footprint, but they only count
19 the footprint while they're operating the plant, when
20 they turn the key and operate that -- well, we'll just
21 start counting it -- I mean, if you had a Land Rover
22 and you drove to the top of Pikes Peak in Colorado and
23 coasted into the valley and then looked at your gas
24 mileage, you'd say, Hey, this thing's getting 200
25 miles to a gallon. Well, that's what the nuclear

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1 industry's doing.

2 All right. The study that I am familiar
3 with was written by Jan Willem Storm van Leeuwen, a
4 Dutch engineer, and the late Philip Smith, an American
5 engineer. They concluded that a small amount of net
6 energy can be gotten from nuclear power by using the
7 highest-grade ores. But of course we used the
8 highest-grade ores first, and they're running out.

9 There may be no net energy using low-grade
10 ores, but the industry keeps alive, because there's
11 support for the spinoff of bomb materials; in other
12 words, the production of things that we can't sanely
13 use.

14 No civilized country is going to use
15 nuclear weapons. We've already done it. Right? Who
16 says we're civilized.

17 I'm talking about uranium 235 and
18 plutonium. Just as an example -- and of course these
19 plants turn out a couple hundred isotopes of various
20 half-lives. But look at 238, the so-called depleted
21 uranium. It's all over the Middle East from these
22 shells that were used to penetrate tanks, and they're
23 pyrophoric, so they vaporize, and they float off in
24 the air, and they're in the ground, and the children
25 play in them.

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1 238: It is a half-life of 4-1/2 billion
2 years. That's the half-life of 238: 4-1/2 billion
3 years. How old is this planet? 4-1/2 billion years.
4 Not to worry; it'll be safe in ten half-lives, which
5 is 45 billion years. Some of us aren't going to be
6 here then.

7 So we have contaminated -- we have already
8 contaminated this earth, the only one we've got,
9 forever. This earth is permanently contaminated with
10 radiation. Everybody in this room -- I'm a doctor,
11 and I've looked into this. Everybody in this room has
12 got some strontium-90 in his bones -- his or her
13 bones.

14 Your bones, of course, surround your bone
15 marrow, which makes your red and white cells and your
16 platelets, and exposure to radiation by white cells
17 results in leukemia, so the leukemia rate is bound to
18 go up over the years. I'm sorry to say this, but
19 we're all contaminated.

20 Now, am I angry about all this? Yeah, I'm
21 pretty angry about all this. I'm more than angry; I'm
22 outraged that this industry is trying so hard to stay
23 alive when we buried it decades ago.

24 Maybe outrage isn't a strong enough word.
25 Maybe I should say something like homicidal, but that

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1 raises too many red flags.

2 Nuclear energy in all of its forms, with
3 the possible exception of medical isotopes used to
4 treat and diagnose serious conditions in sick
5 people -- I can justify it for that reason, not just
6 because I was in that business -- that was part of our
7 business as pathologists -- not just because I had a
8 personal interest in it, but because of the small
9 amount of isotope that we used was justified by
10 discovering and treating serious diseases in sick
11 people.

12 So in my view, nuclear power in all of its
13 forms except medical is probably the worst idea ever
14 conceived by human intelligence. There's been talk
15 about population growth. We have to provide jobs for
16 increasing population.

17 That implies an open-ended population
18 growth, a bomb, like Paul Ehrlich's population bomb --
19 an open-ended growth of population. We just got to
20 create more jobs for these people.

21 Well, why would we look to the nuclear
22 industry to create more jobs? It's probably the most
23 job-poor industry in the United States. That's when
24 you start looking at your alternative energies, which
25 are going to hire millions of people.

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1 This is a labor-intensive industry.
2 Renewable energy is labor-intensive; nuclear isn't.

3 So we talked about carbon footprint.
4 Somebody mentioned private money. Wall Street won't
5 touch it. As far as Wall Street is concerned, the
6 nuclear industry has a serious disease, terminal;
7 otherwise they would touch it.

8 I mean, if I came to you as a
9 representative of the body shops of the United
10 States -- United Association of Body Shops -- I'd be
11 asking you to wreck your car every month to keep full
12 employment in my industry. Now, that doesn't make a
13 lot of sense, does it?

14 Okay. That's all I have to say right now,
15 but I want to remind you as I leave that two months
16 ago, just about exactly two months ago, around April
17 17, Tony Hayward, the CEO of BP, said, We have utmost
18 confidence in the safety of this rig.

19 Thank you.

20 MS. SALTER: Thank you, Dr. Richardson.

21 We're going to now go to Jim Cook and then
22 Robert Howarth and DebraLee Williams.

23 MR. COOK: My name's Jim Cook. I'm
24 executive director of the Cherokee County Development
25 Board. In my role with the development board I

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1 clearly know that a clean, reliable, and affordable
2 supply of electricity is the energy that powers the
3 economic development engine.

4 With a state unemployment rate among the
5 highest in the nation, we're excited about the role
6 this plant will serve in helping attract not only
7 support industries but other manufacturers to our area
8 as well.

9 I know we're here this evening to
10 specifically talk about Duke's request to build an
11 additional backup or make-up pond as a contingency. I
12 would just like to make the point that I feel that
13 this an excellent example of the diligent work that
14 Duke Energy has done.

15 It would have been easy to just go back
16 and say the site was selected for a nuclear plant back
17 in the '70s, and if the river was considered a
18 suitable source then, then it must be now. But Duke
19 has demonstrated that they leave nothing to chance and
20 that they further studied this issue based on weather
21 data from our recent drought conditions.

22 The Cherokee County Development Board
23 fully supports the additional pond and the overall
24 nuclear project.

25 MS. SALTER: Thank you, Mr. Cook.

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1 We are down to our last four speakers, who
2 we're going to Robert Howarth, then DebraLee Williams,
3 Anne Craig, and Terrence Clark.

4 Is there anyone else who submitted a
5 yellow card but who has not been called? Please come
6 up here, and we can put you on the list.

7 All right. Please announce yourself with
8 your name before you get started.

9 MR. HOWARTH: I'm Robert Howarth. I'm a
10 member of the Western North Carolina Physicians for
11 Social Responsibility, and a member of the Union of
12 Concerned Scientists.

13 On the subject of tonight I want to
14 address first the economics. I believe that investing
15 millions of dollars required to bring on line a
16 nuclear power plant is not a good investment.

17 History demonstrates that costs always
18 exceed initial estimates in the nuclear industry
19 especially. Financing is dependent on government
20 subsidy in the form of liability insurance, and the
21 five- to ten-year or more construction time is too
22 long.

23 Other alternative means of power
24 generation can be brought on line in less time,
25 provide many more construction jobs for many more

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1 companies, and are less risky, do not require large
2 taxpayer liability subsidy, and do not hold a threat
3 to my health, your health, and ecological health posed
4 by operation of nuclear plants and centuries or more
5 of storing toxic radioactive waste.

6 Another compelling reason for my
7 opposition to any more construction of nuclear power
8 plants is well illustrated by comparing them to other
9 available functional and healthier means of electrical
10 power generation, comparison in terms of EROEI.

11 That a new one for you? That is energy
12 return for energy invested. This comparison reveals
13 that nuclear is number 15 out of 20 candidates that
14 are currently available. There are 15 -- this means
15 that there are 14 available sources more desirable
16 than nuclear energy in terms of overall efficiency. I
17 have a source for that, and it's listed here.

18 That is -- this overall energy -- this
19 overall efficiency assessment includes and is composed
20 of a whole system consideration from the extraction at
21 the source, processing, construction, operation of the
22 delivery plant, and cost of any subsequent waste
23 handling and/or disposal.

24 This I believe is looking at the whole
25 picture, the way it really is, in an honest way.

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1 Furthermore, comparison in terms of carbon footprint
2 shows nuclear as having the third highest among these
3 20 candidates, following only conventional coal and
4 tar sands. It has a huge carbon footprint when you
5 look at the whole ball of wax, the whole picture,
6 which as I said I believe is the honest way to look at
7 it.

8 There's little doubt that we can do better
9 for the health and well-being of we taxpayers as well
10 as for the environment than to build nuclear.

11 The position of short-term, bottom-line,
12 profit-thinking proponents of nuclear relies on huge
13 taxpayer-supported government subsidies for liability
14 insurance, relies on a narrowly defined partial-system
15 efficiency assessment, and relies on refusing to look
16 at the whole picture and the way it really is in an
17 honest way.

18 I want to thank you very much. I have
19 learned a lot listening and watching tonight, and I
20 hope you consider my thoughts and look into some of
21 this on your own.

22 MS. SALTER: Thank you, Mr. Howarth.

23 Okay. We have DebraLee Williams, then
24 Anne Craig, and then we have two that we missed the
25 cards for: Tom Clements and Susan Corbett -- actually

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1 Susan Corbett, then Tom Clements.

2 So DebraLee Williams.

3 MS. WILLIAMS: Greetings. I'm DebraLee
4 Williams, down from Black Mountain, North Carolina.
5 And I only have one thing to say, but I think that it
6 speaks volumes. And that is that there's no insurance
7 company on this planet that will insure a nuclear
8 power plant.

9 Thank you.

10 MS. SALTER: Thank you, Ms. Williams.

11 We are looking for Anne Craig and then
12 Susan Corbett and then Tom Clements.

13 MS. CRAIG: My name is Anne Craig; I live
14 in Asheville, North Carolina. I've been interested
15 and concerned about the production of electricity by
16 nuclear means for over 30 years. I'm not a scientist,
17 I'm not an expert.

18 But what I have learned is this: Nuclear
19 power is dirty. From the mining of uranium to thermal
20 pollution to the waste, it is not clean, not
21 renewable, and it is dangerous.

22 I believe the regulatory agencies'
23 missions are to protect the people's interest and
24 safety, which should not be considered expendable.
25 The production of nuclear power compromises our safety

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1 in several areas, including our right to clean, non-
2 radioactive water sources.

3 When alternatives exist that would provide
4 energy in safer, cleaner, and more sustainable ways,
5 that would provide jobs and leave our children and our
6 children's children a safer, cleaner future, why is
7 nuclear energy even being considered? It is
8 nonsensical; it is ultimately suicidal.

9 Thank you for listening.

10 MS. SALTER: Thank you, Ms. Craig.

11 And now I'll ask Susan Corbett to come up,
12 and then Tom Clements.

13 MS. CORBETT: Thank you all for staying.
14 I'm sorry this has gone so long. And so many of the
15 things that I wanted to say have already been said, so
16 I'll try not to be repetitive.

17 My name is Susan Corbett. I'm the chair
18 of the South Carolina chapter of the Sierra Club. We
19 have about 5000 members here and a number of members
20 that live up here in this area.

21 We are an environmental group, but we're
22 very concerned about other things as well. We're
23 concerned about the health of our citizens, and we're
24 concerned about the economics of our state.

25 And we're not anti-growth or anti-

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1 business; indeed, I like the idea of homegrown energy
2 independence. It's one of the reasons that I'm
3 opposed to nuclear power, and I've tried to take
4 Senator Graham to task on this, because he keeps
5 calling it homegrown, and for the life of me I can't
6 quite figure out what exactly it is that's homegrown
7 about nuclear, except the waste; of course that's
8 homegrown.

9 But when you think about it, uranium
10 really comes from Russia and Kazakhstan and Canada.
11 The kind of uranium we have in this country is very
12 low grade and requires a lot of enrichment and is
13 expensive and stuff like that; plus they made a huge
14 mess uranium mining out west.

15 And then all of the major big reactor
16 parts, the vessel and all those things, are made in
17 Japan or South Korea. They have to be ordered years
18 in advance and brought here. We don't make them; we
19 don't have forges big enough in this country. We lost
20 our steel industry -- our big forges years ago.

21 And so none of this stuff is actually made
22 in the United States. All those jobs, all that money
23 that we're spending to buy that is going to foreign
24 countries. How is that a homegrown energy source on
25 any stretch of the imagination?

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1 And what irks me is that right up the road
2 in Greenville we have a perfectly good GE wind turbine
3 plant making huge wind turbines, and right off our
4 coast we have a DOE-certified 4 million watts of
5 offshore wind-power potential, just sitting there
6 waiting for us to use our amazing Charleston port as a
7 staging ground for the eastern coast wind farm.

8 Why aren't we doing this? They are doing
9 this -- I just drove to Chicago two weeks ago for a
10 nuclear waste summit, and on the way I drove through
11 Lafayette, Illinois -- Indiana. It was amazing. I
12 didn't know it was there; it just suddenly appeared on
13 the horizon.

14 It was hundreds of wind turbines, really
15 as far as the eye could see. And it was in pasture,
16 and there were cows grazing, and it was amazing. They
17 were just turning very slowly. I don't know how much
18 power. I went to go home and Google that; I never
19 figured it out.

20 But they're doing it in other places, and
21 we keep talking about, well, we're going to research
22 this, we're going to research it. We just need to do
23 it.

24 And the same thing with solar. I mean, we
25 have 300 sunny days in this state, you know? And I

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1 hear legislators saying, Oh, it's too humid; we can't
2 do it. It's ridiculous.

3 Anyway I just want to say a couple of
4 things. I'm worried about the waste. Barnwell is
5 closing in 2038, so the waste that's generated here
6 will not be able to go there after 2038.

7 Where will they decommission this reactor?
8 What will they do with it? Chances are this community
9 will get stuck with it. They've been kicking this
10 nuclear waste can down the road for over half a
11 century. They are no more equipped to deal with it
12 now than they were when they started. They had to
13 commission a blue-ribbon commission to study it again.
14 It's ridiculous.

15 It's not affordable. They're talking
16 about 20 cents, and they're lying about it. My
17 utility said it's going to cost us 7 cents a kilowatt-
18 hour; it's looking more like 20 cents, 25 cents, even,
19 when they get it all built.

20 And they have to use all this federal
21 money, loan guarantees, and this is the thing about
22 these loan guarantees. Yeah, it's a loan. But if
23 they do what they did last time and leave 64 plants
24 unbuilt, when they default this time, you and I are
25 stuck with the bill. If they default, the taxpayer

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1 gets stuck, not the investor.

2 And you know what, if the Gulf oil spill
3 has taught us anything, it's taught us that the worst-
4 case scenario can happen; it will happen eventually.
5 We've been very lucky in this country that it hasn't
6 happened. This community better get your evacuation
7 plans well in hand and know where you're supposed to
8 go. You better get your iodine pills and be ready.

9 If nothing else, we've learned that
10 complex systems can fail in complex ways that we can't
11 even imagine. And I know that the nuclear reactor is
12 more than just one blowout protector away from a
13 meltdown, but it's still a complex system with
14 multiple possibilities of failure, and there is a
15 liability cap on it as well.

16 There's an \$11 billion liability cap, I
17 believe, and I saw a recent study that showed that a
18 major accident in a fuel pool could be \$500 billion,
19 and you and I, again would pay for that, because
20 there's a liability cap.

21 So let's have some homegrown renewable
22 energy. Let's have some energy efficiency. Nuclear
23 power is just one ridiculous way to boil water.

24 MS. SALTER: Thank you, Ms. Corbett.

25 And now we'll call our final speaker, Tom

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1 Clements.

2 If you submitted a yellow card and I
3 haven't called your name, come up and see me.

4 Please introduce yourself into the mic so
5 our transcriptionist gets your name right.

6 MR. CLEMENTS: My name is Tom Clements,
7 and I work for the environmental organization Friends
8 of the Earth in Columbia, South Carolina, and I live
9 about a mile from the Broad River in the city of
10 Columbia, and my organization has been intervenors
11 before the Public Service Commission in the Duke and
12 South Carolina Electric & Gas reactor cases.

13 And during one of those interventions I
14 was able to go on to the site here, and I have seen
15 the so-called Make-Up Ponds A and B, so I'm familiar
16 with the site, and I'm familiar how close it is to the
17 river.

18 A number of you were at the scoping
19 meetings in 2008, and I'm quite concerned that at that
20 time this issue of insufficient water was not
21 addressed during scoping.

22 A lot of the members of the public spoke
23 out, and the NRC has said that tonight, and I want a
24 full explanation of why the issue of inadequate water
25 for the reactors was not discussed at that time, and I

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1 don't think that we've heard that reason tonight.

2 And it does appear that this reactor
3 project hinges on this new lake. It's down to the
4 water in a new lake to provide cooling water for the
5 reactors during low flow.

6 And to me, this is an admission of the
7 vulnerability of the project, that it's not really
8 viable, that this is the wrong place for nuclear
9 reactors, even if you're pro-nuclear.

10 If you want nuclear reactors to be built,
11 this is not the place to do it, because the Broad
12 River is not large enough to handle these reactors.

13 And I want to dispute something that was
14 said earlier by the representatives who spoke and by
15 the Chamber of Commerce. We heard them say that the
16 new water withdrawal bill that was passed by the
17 legislature this year and signed by the governor is
18 going to regulate these new reactors.

19 Well, that's quite interesting to hear,
20 because at the Nuclear Advisory Council -- the
21 Governor's Nuclear Advisory Council meeting last
22 Thursday a spokesperson from the Department of Health
23 and Environmental Control made clear the new bill does
24 not regulate water withdrawal for nuclear reactors.
25 That's the role of the Federal Energy Regulatory

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1 Commission.

2 So there's not going to be any control by
3 the state, it appears. I asked one of the
4 representatives outside to please clarify, and he
5 didn't really want me asking him the question, because
6 they want to make the presentation that the state is
7 going to regulate the water withdrawal, and I don't
8 think that's the case.

9 To read the law it's very unclear, but
10 DHEC's interpretation is that the reactors are not
11 regulated.

12 A couple things about the AP-1000 reactor,
13 and I want to point out a few things because the NRC
14 hasn't done it, from the environmental report. If
15 people don't know, the reactors that are being looked
16 at here have never been built anywhere in the world.

17 They are under construction in China, but
18 they have never been built anywhere. The design is
19 not certified in the United States, and they do not
20 have a license from the Nuclear Regulatory Commission.
21 So why is so much site preparation going on at the
22 Duke site here and at the SCE&G site if the reactors
23 aren't even licensed and the whole overall project
24 does not have a license? Things are rushing
25 forward much too fast even if you support new nuclear

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1 reactors.

2 And I wanted to point out -- and some
3 people have already done this, but pulling directly
4 from the Duke environmental documents, they say that
5 60,000 gallons per minute will be withdrawn from the
6 river, with a use of 28,000 gallons per minute,
7 maximum.

8 According to my calculations, this is 86
9 million gallons a day withdrawn from the river, and 41
10 million gallons used through evaporative cooling.

11 Also, the environmental report says that
12 Make-Up Pond C will have a maximum depth of
13 approximately 116 feet, that the dam height will be
14 132 feet, and to me -- and its 620 acres in size. And
15 to me this is a lake and it's not a pond.

16 The environmental report -- and I think
17 this is something that you really need to think
18 about -- says, London Creek, on which the lake would
19 be built, was flowing during both the March and
20 September 2008 sampling events, when they were doing
21 this study. However, between sampling events, London
22 Creek ceased to flow in many places due to severe to
23 extreme drought conditions in the region.

24 And it goes on to say, Prior to the
25 September sampling period, riffle areas in London

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1 Creek dried up, leaving only isolated pools. We're
2 talking about a small creek that's going to provide
3 the emergency water that's need in low-flow periods of
4 the river. This is not a sizeable body of water on
5 which this lake is being proposed.

6 I'd like to make a request and then just
7 point out some things that I'd like to see the EIS
8 cover. I request that the NRC, in the tables, provide
9 the volumes in gallons per minute as well as acre-
10 feet, because when you read them, you have to make the
11 interpretations yourself, and the question already
12 came up tonight and the NRC couldn't answer that: How
13 many acre-feet were in gallons.

14 Also the question needs to be explained:
15 How many days' worth of use of water for cooling is in
16 this lake? As I recall from the environmental
17 document, it's only a few.

18 This is only going to provide extra
19 operating capacity. I don't know; maybe it's five
20 days. It's not going to provide a margin for keeping
21 the reactors going in any case if there's an extreme
22 drought like we had a few years ago.

23 And I want to know how much discharge
24 there is from the new lake into the Broad River at
25 different flows of the river. At some point is there

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1 going to be no water discharged from the -- from
2 London Creek and the lake into the river, because it's
3 all being captured for storage?

4 I want to know now how much evaporation
5 there is from the lake and what's going to replace the
6 evaporated water. Is that going to come from this
7 tiny little creek? Or is it going to be pumped from
8 the Broad River?

9 Also, what happens to London Creek when
10 the lake is emptied down to its lowest amount and
11 possibly there's not any discharge to the Broad River?
12 We heard that it's going to go down to 17,500 acre-
13 feet, I believe, so what happens to the creek under
14 these circumstances?

15 And what is the impact to the river of
16 water discharged during low flow that has been heated
17 up, as we've heard before from other speakers, in the
18 lake before it's discharged into the river, if it in
19 fact is discharged?

20 What is the impact if the dam is breached
21 or fails? Does that mean the reactors would have to
22 be shut down until such time as the reactors [sic] are
23 repaired? And it does appear that the operation of
24 the reactor is down to just this single lake.

25 What's the impact of siltation to the

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1 river during construction, and how many trees are
2 going to be cut during construction of the lake? And
3 as far as I'm aware, this is a forested area. So a
4 square mile of forest is going to be lost in South
5 Carolina due to the construction of this lake.

6 Now, as you can see, I'm obviously
7 concerned about the environmental impacts of the
8 reactors and just talking about the impact, because of
9 building this -- to water discharge.

10 As I said, you don't have to be against
11 nuclear power to be concerned about how this is going
12 to impact the Broad River. We heard at the earlier
13 scoping meeting, we heard tonight that if this project
14 goes forward, the name of the Broad River is going to
15 have to be changed to the Skinny River, but I'd go
16 just a little bit further.

17 Because of the hot water being discharged
18 into the river, that's going to affect aquatic life
19 downstream, we might well just have to change the name
20 to the Hot & Skinny River, because that may well be
21 the case if this goes forward.

22 Now, this has nothing to do with the
23 scoping document per se, but it may well in some
24 sense. You're all aware -- and thank you for bearing
25 with me on this comment, which is political in nature.

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1 Here in South Carolina the Democrats met
2 tonight to decide if a challenge from Mr. Alvin Rawl,
3 who is a Democratic candidate, was going to be
4 accepted or not. I understand that that was rejected
5 by the Democratic party, leaving Mr. Alvin Green as a
6 Democratic nominee running against Jim DeMint.

7 But the other kicker in the race is
8 there's a Green Party nominee for that position, and I
9 am the Green Party nominee for US Senate in South
10 Carolina, and I'm already hearing from a lot of
11 Democrats and disaffected Republicans that they will
12 be voting for me.

13 So I just encourage you to stay tuned; the
14 fun is about to begin for the Senate race in South
15 Carolina.

16 MS. SALTER: Thank you, Mr. Clements.

17 Before I turn the mike back over to Tony
18 Hsia to close out the meeting, I just want to thank
19 everyone for coming and spending your time with us
20 here tonight, providing comments. It's a very
21 important part of the process, and we appreciate your
22 participation, appreciate working with the Corps of
23 Engineers; want to thank the congregation of the
24 Restoration Church for allowing the use of their
25 facility to have the meeting.

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1 And the NRC will be around after the
2 meeting. If you have any questions, please feel free
3 to approach us. We have little name tags on that say
4 NRC. The same with the Corps of Engineers.

5 So with that, I'm going to turn it -- oh,
6 I want to remind you, too, there is a feedback form in
7 the back of your handout. Please take some time to
8 fill that out and let us know what you thought of the
9 process and how we might improve it.

10 MR. HSIA: All right. We're coming toward
11 the end, and the crowd is smaller than when we
12 started, and it's getting late, but I still would like
13 to, on behalf of the NRC and the Army Corps of
14 Engineers, would like to thank you for giving us this
15 very -- many very valuable input. We certainly will
16 address your concern and your issues in our -- as we
17 continue to conduct our environmental impact study.

18 So if you -- it's just as reminder: July
19 2. You can continue to provide comments until that
20 date, and if some of you did not get a chance to speak
21 or you don't want to speak into a microphone, there's
22 still a form in the back, you can fill out the forms
23 and give comments.

24 If there's no other comments or issues,
25 this meeting is adjourned. Have a good evening and

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1 drive carefully.

2 Good night.

3 (Whereupon, at 10:05 p.m., the meeting was
4 concluded.)

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