

September 11, 2008

MEMORANDUM TO: Andrew Kugler, Acting Branch Chief
Environmental Projects Branch 2
Division of Site and Environmental Reviews
Office of New Reactors

FROM: Jessie M. Muir, Deputy Environmental Project Manager /RA/
Environmental Projects Branch 2
Division of Site and Environmental Reviews
Office of New Reactors

SUBJECT: SCOPING SUMMARY REPORT RELATED TO THE
ENVIRONMENTAL SCOPING PROCESS FOR THE WILLIAM
STATES LEE III UNITS 1 AND 2 COMBINED LICENSE
APPLICATION

The U.S. Nuclear Regulatory Commission (NRC) conducted scoping from March 20 - May 20, 2008 to determine the scope of the NRC staff's environmental review of the combined license application for the William States Lee III Units 1 and 2 (Lee). As part of that process, the NRC held a public scoping meeting in Gaffney, South Carolina on May 1, 2008, to solicit public input regarding the scope of the environmental review.

The NRC staff has prepared the enclosed Scoping Summary Report which identifies comments either received at the public scoping meeting, by letter, or by electronic mail and provides responses to those comments. In accordance with 10 CFR 51.29(b), all participants of the scoping process will be provided with a copy of the scoping summary report. The transcripts of the scoping meeting are publicly available in ADAMS under accession number ML081400038.

The next step in the environmental review process is the issuance of a draft Environmental Impact Statement (EIS) scheduled for early 2009. Notice of the availability of the draft EIS and the procedures for providing comments will be published in an upcoming *Federal Register* notice.

Docket Nos. 52-018 and 52-019

Enclosure: Scoping Summary Report

Distribution: w/encl. See next page

CONTACT: Jessie Muir, DSER/RAP2
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Linda Tello, DSER/RAP2
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 Environmental Projects Branch 2
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 Office of New Reactors

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 AND 2 COMBINED LICENSE APPLICATION

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ADAMS Accession Number: ML082390635

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**Environmental Impact Statement
Scoping Process**

Summary Report

**William States Lee III
Combined License
Cherokee County, South Carolina**

September 2008



**U.S. Nuclear Regulatory Commission
Rockville, Maryland**

Introduction

On December 12, 2007, the U.S. Nuclear Regulatory Commission (NRC) received an application from the Duke Energy Carolinas, LLC (Duke) for a combined license (COL) for the William States Lee III Nuclear Station (Lee) Site Units 1 and 2. The Lee site is located in the eastern portion of Cherokee County in north central South Carolina, approximately 7.5 miles southeast of Gaffney, South Carolina.

As part of the application, Duke submitted an environmental report ([ER] Duke Energy 2007) prepared in accordance with the requirements in Title 10 of the *Code of Federal Regulations* (CFR) Part 51 and 10 CFR Part 52. The ER focuses on potential environmental effects from the construction and operation of two new nuclear units at the Lee site. It also includes an evaluation of the environmental consequences of alternatives, including the proposed actions and any mitigating actions that may be taken. NRC regulations implementing the National Environmental Policy Act of 1969 (NEPA), as amended, are contained in 10 CFR Part 51, Subpart A. In addition, the NRC follows the Council on Environmental Quality (CEQ) regulations to the extent set forth in 10 CFR 51.10 and 10 CFR 51.14(b). NRC regulations related to the environmental review of COL applications are contained in 10 CFR Part 51 and 10 CFR 52, Subpart C.

The NRC staff is preparing an environmental impact statement (EIS) in conjunction with the Duke application. The proposed action is NRC approval of the Duke application to build and operate two new base-load nuclear power generation facilities (new units), Lee Units 1 and 2. The EIS will include an evaluation of the environmental impacts of the proposed action; the environmental impacts of alternatives to the proposed action, including the no-action alternative; alternatives related to the facility cooling and circulating water systems; and alternatives available for reducing or avoiding adverse environmental effects in accordance with NUREG-1555, *Standard Review Plan for Environmental Reviews for Nuclear Power Plants* (NRC 2000). It will also address alternative energy options. Finally, the EIS will include an evaluation of alternative sites to determine if there is an obviously superior alternative to the proposed site. In addition, the staff is conducting a safety review of the Duke COL application in accordance with NUREG-0800, *Standard Review Plan for the Review of Safety Analysis for Nuclear Power Plants* (NRC 2007).

On March 20, 2008, in accordance with 10 CFR 51.26, the NRC initiated the scoping process by publishing a "Notice of Intent to Prepare an Environmental Impact Statement and Conduct Scoping Process" in the *Federal Register* (73 FR 15009). The Notice of Intent notified the public of the staff's intent to prepare an EIS and conduct scoping for the COL application. Through the notice, the NRC also invited the applicant; Federal, Tribal, State, and local government agencies; local organizations; and the public to

participate in the scoping process by providing oral comments at the public meeting and/or submitting written suggestions and comments no later than May 20, 2008.

The scoping process provides an opportunity for public participation to identify issues to be addressed in the EIS and highlight public concerns and issues. The Notice of Intent identified the following objectives of the scoping process:

- Define the proposed action that is to be the subject of the EIS.
- Determine the scope of the EIS and identify significant issues to be analyzed in depth.
- Identify and eliminate from detailed study those issues that are peripheral or that are not significant.
- Identify any environmental assessments and other EISs that are being prepared or will be prepared that are related to, but not part of the scope of the EIS being considered.
- Identify other environmental review and consultation requirements related to the proposed action.
- Indicate the relationship between the timing of the preparation of the environmental analyses and the NRC's tentative planning and decision-making schedule.
- Identify any cooperating agencies.
- Describe how the EIS will be prepared and identify any contractor assistance to be used.

The public scoping meeting was held at the Gaffney High School Auditorium in Gaffney, South Carolina on May 1, 2008. The NRC announced the meeting in local newspapers in both South Carolina (*Gaffney Ledger*, *Spartanburg Herald-Journal*, *The State* [Columbia]) and North Carolina (*Charlotte Observer*, *Gaston Gazette* [Gastonia]), issued press releases, and distributed flyers locally. Approximately 95 members of the public attended the evening scoping meeting, which began with NRC staff members providing a brief overview of the NRC's review process for COL applications and the NEPA process. After the NRC's prepared statements, the meeting was opened for public comments. Forty-two (42) scoping meeting attendees provided either written statements and/or oral comments that were recorded and transcribed by a certified court reporter. The transcript of the meeting can be found as an attachment to the meeting summary, which was issued on May 9, 2008 (NRC 2008).

The meeting summary and transcript are available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records under accession numbers ML081410109 and ML081400038, respectively, in the NRC's Agencywide Document Access and Management System (ADAMS), which is accessible from the NRC website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room; note the URL is case sensitive). In addition, 8 letters, 18 emails, and 18 documents submitted at the scoping meeting were received during the scoping period. All comments and suggestions received orally during the scoping meeting or in writing were considered by the staff.

Table 1 identifies the individuals providing comments in alphabetical order, their affiliation (if given), and the ADAMS accession number that can be used to locate the correspondence. Accession numbers indicate the location of the written comments in ADAMS.

Comments were consolidated and categorized according to topic within the proposed EIS or according to the general topic if outside the scope of the EIS. Comments with similar specific objectives were combined to capture the common essential issues that had been raised in the source comments. Once comments were grouped according to subject area, the staff determined the appropriate response for the comment. The comment categories are listed in Table 2 in the order presented in this document.

Table 3 lists the comment categories in alphabetical order and commenter names and numbers for comments that were binned into each category. The rest of this document presents the comments with NRC staff responses organized by topic category.

Table 1. Individuals Providing Comments During the Scoping Period

Commenter	Affiliation (if provided)	Comment Source and ADAMS Accession #
Arnason, Deb	Self	Letter (ML081350290)
		Letter (ML081350296)
		Meeting Transcript (ML081400038)
Barczak, Sara	Southern Alliance for Clean Energy	Meeting Transcript (ML081400038)
		Letter (ML081430235)
Barrett, J. Gresham	State of South Carolina	Letter (ML081350302)
		Letter (ML081420610)
Batchler, James D.	Cherokee County Council	Letter (ML081350311)
Biggs, Diane	Self	Meeting Transcript (ML081400038)
Blackwood, Andy	Self	Meeting Transcript (ML081400038)
Blanton, Debbie	Self	Letter (ML081350307)
Blue, Lilly	Self	Meeting Transcript (ML081400038)
Boger, Paul	Greater York Chamber of Commerce	Meeting Transcript (ML081400038)
Bowers, Will	Self	Meeting Transcript (ML081400038)
Brown, Henry E.	State of South Carolina	Letter (ML081350302)
		Letter (ML081420610)
Chapman, A. Foster	Johnson Development Associates, Inc.	Letter (ML081350300)
Cherin, Mike	Self	Meeting Transcript (ML081400038)
Chisolm, Sarah	Self	Meeting Transcript (ML081400038)
Clements, Tom	Self	Meeting Transcript (ML081400038)
Clyburn, James E.	State of South Carolina	Letter (ML081350302)
		Letter (ML081420610)

Table 1. (contd)

Connolly, Mary Ellen	Self	Meeting Transcript (ML081400038)
Cook, Jim	Cherokee County Development Board	Letter (ML081350305)
Cordeau, David	Spartanburg Area Chamber of Commerce	Meeting Transcript (ML081400038)
Craig, Anne	Self	Email (ML081400582)
Craig, Thomas	Self	Email (ML081440324)
Crockett, Mary	Broad Scenic River Advisory Council	Letter (ML081490598)
Commenter	Affiliation (if provided)	Comment Source and ADAMS Accession #
DeMint, Jim	South Carolina	Letter (ML081350302)
		Letter (ML081420610)
Dobrasco, Rebekah	South Carolina Dept. of Archives and History	Email (ML081510453)
		Email (ML081510939)
Dolan, Bryan	Duke Energy	Letter (ML081350301)
		Meeting Transcript (ML081400038)
Ebert, Dick	Self	Email (ML081400581)
Forrester, Mike	Spartanburg Community College	Meeting Transcript (ML081400038)
Foster, Rufus H.	Cherokee County Council	Letter (ML081350311)
Gossett, Lewis	Self	Meeting Transcript (ML081400038)
Goudreau, Chris	North Carolina Wildlife Resources Commission	Email (ML081430390)
Graham, Lindsey	State of South Carolina	Letter (ML081350302)
		Letter (ML081410459)
Guild, Bob	Self	Meeting Transcript (ML081400038)
Hall, Timothy N.	U.S. Fish and Wildlife Service	Letter (ML081540399)
Halligan, Andy	Johnson Development Associates	Letter (ML081350618)
Hamrick, Mike	Self	Letter (ML081420612)
Hardy, Chris	York County Regional Chamber of Commerce	Meeting Transcript (ML081400038)
Hedges, Jean	Self	Email (ML081510940)
Houston, Kate	Clean and Safe Energy Coalition	Letter (ML081400579)
Humphries, H. Baily	Cherokee County Council	Letter (ML081350311)
Inglis, Bob	State of South Carolina	Letter (ML081350302)
		Letter (ML081420610)
James, Andrew	Self	Meeting Transcript (ML081400038)
Johnson, David G.	Morgan Corp.	Letter (ML081400584)
Jolly, Henry L.	Mayor, Gaffney, South Carolina	Letter (ML081350303)
		Meeting Transcript (ML081400038)
Karpen, Leah R.	Self	Email (ML081420611)
Kohler, Elizabeth	Self	Email (ML081400580)
Little, Quay	Cherokee County Council	Letter (ML081350311)
Mathis, Charles	Cherokee County Council	Letter (ML081350311)

Table 1. (contd)

McDowell, Charlie	Congressman John Spratt	Meeting Transcript (ML081400038)
Minerd, Leslie	Self	Meeting Transcript (ML081400038)
Moorhead, Gene	Cherokee County Chamber of Commerce	Meeting Transcript (ML081400038)
Moss, Charles	Self	Meeting Transcript (ML081400038)
Moss, Dennis Carroll	State of South Carolina	Letter (ML081350312)
Murphy, William	Self	Meeting Transcript (ML081400038)
Olson, Mary	Southeast Office of Nuclear Information and Resource Service	Meeting Transcript (ML081400038)
Parris, Hoke	Cherokee County Council	Meeting Transcript (ML081400038)
		Letter (ML081350311)
Patrie, Dr. Lew	Western North Carolina Chapter of Physicians for Social Responsibility	Letter (ML081350304)
		Meeting Transcript (ML081400038)
Peeler, Harvey S.	State of South Carolina	Letter (ML081350309)
Perry, Robert D.	SC Dept of Natural Resources	Letter (ML081430553)
Poole, Mary Jane	Self	Email (ML081350616)
Richardson, Don	Self	Email (ML081510941)
Rudolf, Jerry	Self	Meeting Transcript (ML081400038)
Sandifer, Bill	State of South Carolina	Letter (ML081350308)
Saye, Jack	Self	Meeting Transcript (ML081400038)
Scott, G. Garrett	Johnson Development Associates	Email (ML081350617)
Smith, Karen	Self	Email (ML081440316)
Smith, Nathan	Self	Meeting Transcript (ML081400038)
Sorensen, Laura	Self	Meeting Transcript (ML081400038)
Spencer, Tim	Cherokee County Council	Letter (ML081350311)
Spratt, John M.	State of South Carolina	Letter (ML081350302)
		Letter (ML081420610)
Sticpewich, John	Self	Meeting Transcript (ML081400038)
Stone, Bryan	Lockhart Power Company	Meeting Transcript (ML081400038)
Sutlock, Dot	Self	Email (ML081510942)
Tansey, Sara	Concerned Future Generations	Meeting Transcript (ML081400038)
Taylor, Joe	South Carolina Department of Commerce	Email (ML081400583)
Thomas, Amber	Self	Email (ML081430229)
Thronberg, Bob	Self	Meeting Transcript (ML081400038)
Turk, Lawrence "Butch"	Self	Email (ML081510938)
Vogel, Chip	Draexlmaier Automotive of America LLC	Letter (ML081350300)
Waters, Jason	Self	Email (ML081410459)
White, Gayle	Self	Meeting Transcript (ML081400038)
Wilson, Joe	State of South Carolina	Letter (ML081350302)
		Letter (ML081420610)
Wolfe, Clinton	Citizens for Nuclear Technology	Letter (ML081350306)

Table 1. (contd)

	Awareness	Meeting Transcript (ML081400038)
Woodward, Don	Spartanburg Development Association	Meeting Transcript (ML081400038)
Zeller, Lou	Blue Ridge Environmental Defense League	Meeting Transcript (ML081400038)

Table 2. Comment Categories in Order as Presented in this Report

-
1. Comments Concerning Process - COL
 2. Comments Concerning Land Use - Site and Vicinity
 3. Comments Concerning Land Use - Transmission Lines
 4. Comments Concerning Meteorology and Air Quality
 5. Comments Concerning Hydrology - Surface Water
 6. Comments Concerning Hydrology - Groundwater
 7. Comments Concerning Ecology - Terrestrial
 8. Comments Concerning Ecology - Aquatic
 9. Comments Concerning Socioeconomics
 10. Comments Concerning Historic and Cultural Resources
 11. Comments Concerning Health - Radiological
 12. Comments Concerning Accidents - Severe
 13. Comments Concerning the Uranium Fuel Cycle
 14. Comments Concerning Transportation
 15. Comments Concerning Cumulative Impacts
 16. Comments Concerning the Need for Power
 17. Comments Concerning Alternatives - Energy
 18. Comments Concerning Alternatives - System Design
 19. Comments Concerning Alternatives - Sites
 20. Comments Concerning Benefit-Cost Balance
 21. General Comments in Support of the Licensing Action
 22. General Comments in Support of the Licensing Process
 23. General Comments in Support of Nuclear Power
 24. General Comments in Opposition of the Licensing Action
 25. General Comments in Opposition of Nuclear Power
 26. Comments Concerning Issues Out of Scope - Emergency Preparedness
 27. Comments Concerning Issues Out of Scope - Miscellaneous
 28. Comments Concerning Issues Out of Scope - NRC Oversight
 29. Comments Concerning Issues Out of Scope - Safety
 30. Comments Concerning Issues Out of Scope - Security and Terrorism
-

Table 3. Categories Listed Alphabetically with Associated Commenters and Comments

Comment Category	Commenter (Comment ID)
Accidents - Severe	<ul style="list-style-type: none">• Biggs, Diane (0001-43)• Sutlock, Dot (0041-7), (0041-8), (0041-9)
Alternatives - Energy	<ul style="list-style-type: none">• Arnason, Deb (0001-68), (0007-13), (0008-1), (0008-2)• Barczak, Sara (0001-14), (0009-2), (0009-3), (0049-2), (0049-3)• Craig, Thomas (0006-2)• Gossett, Lewis (0001-96)• Hedges, Jean (0039-2), (0039-4)• Karpen, Leah R. (0034-4)• Kohler, Elizabeth (0004-2)• Moss, Charles (0001-103), (0001-107)• Murphy, William (0001-149)• Patrie, Dr. Lew (0001-144), (0015-6)• Saye, Jack (0001-156)• Sorensen, Laura (0001-182)• Sutlock, Dot (0041-6)• Tansey, Sara (0001-119)• Thomas, Amber (0036-2)• Turk, Lawrence "Butch" (0038-1), (0038-4)• Wolfe, Clinton (0001-159)
Alternatives - Sites	<ul style="list-style-type: none">• Hall, Timothy N. (0045-6)• Zeller, Lou (0001-32)
Alternatives - System Design	<ul style="list-style-type: none">• Perry, Robert D. (0046-1)
Benefit-Cost Balance	<ul style="list-style-type: none">• Arnason, Deb (0007-14)• Barczak, Sara (0001-16), (0009-5), (0009-6), (0049-5)• Blackwood, Andy (0001-121)• Blue, Lilly (0001-77)• Chisolm, Sarah (0001-123)• Clements, Tom (0001-136), (0001-137)• Gossett, Lewis (0001-94)• Guild, Bob (0001-170), (0001-172)• Hamrick, Mike (0035-3)• Hedges, Jean (0039-3)• James, Andrew (0001-82)• Karpen, Leah R. (0034-5)• Moss, Charles (0001-104)• Olson, Mary (0001-55)• Patrie, Dr. Lew (0015-1)• Rudolf, Jerry (0001-199), (0001-200), (0001-201)• Stone, Byran (0001-102)• Sutlock, Dot (0041-4)• Turk, Lawrence "Butch" (0038-6)

Table 3. (contd)

Comment Category	Commenter (Comment ID)
Cumulative Impacts	<ul style="list-style-type: none">• Hall, Timothy N. (0045-11)• Kohler, Elizabeth (0004-1)
Ecology - Aquatic	<ul style="list-style-type: none">• Barczak, Sara (0001-22), (0010-2), (0049-10)• Crockett, Mary (0042-4)• Goudreau, Chris (0037-1), (0037-2), (0037-3)• Hall, Timothy N. (0045-2), (0045-3), (0045-4)• Perry, Robert D. (0046-13), (0046-14), (0046-15), (0046-16), (0046-22), (0046-23), (0046-25)
Ecology - Terrestrial	<ul style="list-style-type: none">• Chisolm, Sarah (0001-125)• Crockett, Mary (0042-1), (0042-2)• Hall, Timothy N. (0045-5), (0045-7), (0045-8), (0045-9), (0045-12)• Perry, Robert D. (0046-6), (0046-7), (0046-9), (0046-10), (0046-11), (0046-12), (0046-21), (0046-27)
Health - Radiological	<ul style="list-style-type: none">• Arnason, Deb (0001-66), (0001-67), (0001-70), (0007-4), (0007-8), (0008-4)• Barczak, Sara (0001-23), (0010-3), (0049-11)• Connolly, Mary Ellen (0001-196)• Craig, Anne (0005-3)• Hamrick, Mike (0035-2)• James, Andrew (0001-84)• Karpen, Leah R. (0034-2)• Olson, Mary (0001-50)• Patrie, Dr. Lew (0001-141), (0001-143), (0015-4)• Poole, Mary Jane (0026-2)• Turk, Lawrence "Butch" (0038-2)• Zeller, Lou (0001-30)
Historic and Cultural Resources	<ul style="list-style-type: none">• Connolly, Mary Ellen (0001-195)• Dobrasko, Rebekah (0043-1), (0044-1)
Hydrology - Groundwater	<ul style="list-style-type: none">• Perry, Robert D. (0046-3)
Hydrology - Surface Water	<ul style="list-style-type: none">• Arnason, Deb (0001-65), (0007-2), (0007-3)• Barczak, Sara (0001-17), (0001-18), (0001-19), (0001-20), (0001-21), (0009-7), (0009-8), (0009-9), (0010-1), (0049-6), (0049-7), (0049-8), (0049-9)• Blackwood, Andy (0001-122)• Clements, Tom (0001-129), (0001-131)• Connolly, Mary Ellen (0001-190), (0001-194)• Craig, Anne (0005-2)• Crockett, Mary (0042-3), (0042-6)• Goudreau, Chris (0037-4)• Hamrick, Mike (0035-4)• Karpen, Leah R. (0034-3)• Olson, Mary (0001-52)

Table 3. (contd)

Comment Category	Commenter (Comment ID)
	<ul style="list-style-type: none">• Patrie, Dr. Lew (0001-139), (0015-2)• Perry, Robert D. (0046-5), (0046-8), (0046-18), (0046-20), (0046-26), (0046-24)• Smith, Nathan (0001-163), (0001-164)• Stone, Bryan (0001-100)• Sutlock, Dot (0041-1)• Turk, Lawrence "Butch" (0038-3)• Zeller, Lou (0001-28)
Land Use - Site and Vicinity	<ul style="list-style-type: none">• Perry, Robert D. (0046-17)
Land Use - Transmission Lines	<ul style="list-style-type: none">• Blackwood, Andy (0001-120)• Crockett, Mary (0042-7)• Hall, Timothy N. (0045-10)• Moss, Charles (0001-105)• Perry, Robert D. (0046-2)
Meteorology and Air Quality	<ul style="list-style-type: none">• Blue, Lilly (0001-76)• Clements, Tom (0001-132)• Cook, Jim (0016-2)• Gossett, Lewis (0001-95)• Hall, Timothy N. (0045-1)• James, Andrew (0001-83)• Karpen, Leah R. (0034-7)• Olson, Mary (0001-54)• Patrie, Dr. Lew (0001-140), (0015-3)• Saye, Jack (0001-154), (0001-155)• Tansey, Sara (0001-118)• Turk, Lawrence "Butch" (0038-8)• Vogel, Chip (0047-2)
Need for Power	<ul style="list-style-type: none">• Barczak, Sara (0001-15), (0009-4), (0049-4)• Batchler, James D. (0024-1)• Blue, Lilly (0001-74)• Cherin, Mike (0001-37)• Chisolm, Sarah (0001-124)• Dolan, Bryan (0001-12), (0012-2)• Forrester, Mike (0001-113)• Foster, Rufus H. (0024-1)• Gossett, Lewis (0001-92)• Houston, Kate (0029-2)• Humphries, H. Baily (0024-1)• James, Andrew (0001-81)• Little, Quay (0024-1)• Mathis, Charles (0024-1)• Moss, Dennis Carroll (0001-1)• Parris, Hoke (0024-1)

Table 3. (contd)

Comment Category	Commenter (Comment ID)
	<ul style="list-style-type: none">• Sandifer, Bill (0018-2)• Spencer, Tim (0024-1)• Taylor, Joe (0030-2)• Turk, Lawrence "Butch" (0038-5)
Opposition - Licensing Action	<ul style="list-style-type: none">• Arnason, Deb (0001-69), (0001-71), (0007-10), (0007-12), (0008-3)• Barczak, Sara (0001-26), (0009-1), (0010-6), (0049-1), (0049-14)• Biggs, Diane (0001-44)• Craig, Thomas (0006-1)• Guild, Bob (0001-171), (0001-175)• Hamrick, Mike (0035-1)• Olson, Mary (0001-49)• Poole, Mary Jane (0026-1), (0026-5)• Saye, Jack (0001-157)• Smith, William (0001-167)• Thomas, Amber (0036-1)
Opposition - Nuclear Power	<ul style="list-style-type: none">• Arnason, Deb (0007-11), (0007-15)• Connolly, Mary Ellen (0001-198)• Hedges, Jean (0039-1)• Karpen, Leah R. (0034-1)• Richardson, Don (0040-1)• Saye, Jack (0001-152)• Smith, Karen (0003-1)• Sutlock, Dot (0041-5)• Zeller, Lou (0001-27)
Out of Scope - Emergency Preparedness	<ul style="list-style-type: none">• Arnason, Deb (0007-5)
Out of Scope - Miscellaneous	<ul style="list-style-type: none">• Patrie, Dr. Lew (0015-5)
Out of Scope - NRC Oversight	<ul style="list-style-type: none">• Arnason, Deb (0007-9)• Clements, Tom (0001-127), (0001-130)• Connolly, Mary Ellen (0001-197)• Guild, Bob (0001-173), (0001-174)• Miner, Leslie (0001-176)• Moss, Charles (0001-106)• Smith, William (0001-165)
Out of Scope - Safety	<ul style="list-style-type: none">• Arnason, Deb (0007-7)• Barczak, Sara (0001-24), (0010-4), (0049-12)• Cherin, Mike (0001-33)• Connolly, Mary Ellen (0001-192)• Miner, Leslie (0001-177)• Olson, Mary (0001-53)• Perry, Robert D. (0046-4), (0046-19)• Poole, Mary Jane (0026-4)

Table 3. (contd)

Comment Category	Commenter (Comment ID)
	<ul style="list-style-type: none">• Smith, William (0001-166), (0001-169)• Turk, Lawrence "Butch" (0038-7)• Zeller, Lou (0001-29)
Out of Scope - Security and Terrorism	<ul style="list-style-type: none">• Biggs, Diane (0001-42)• Miner, Leslie (0001-178)• Sutlock, Dot (0041-3)
Process - COL	<ul style="list-style-type: none">• Arnason, Deb (0001-64), (0007-1)• Barczak, Sara (0001-25), (0010-5), (0049-13)• Clements, Tom (0001-128)• Saye, Jack (0001-153)• Olson, Mary (0001-56)
Socioeconomics	<ul style="list-style-type: none">• Barrett, J. Gresham (0013-2)• Batchler, James D. (0024-2)• Blue, Lilly (0001-78)• Brown, Henry E. (0013-2)• Chapman, A. Foster (0048-1)• Cherin, Mike (0001-36)• Clyburn, James E. (0013-2)• Connolly, Mary Ellen (0001-193)• Cook, Jim (0016-3)• Cordeau, David (0001-88), (0011-4)• Crockett, Mary (0042-5)• DeMint, Jim (0013-2)• Forrester, Mike (0001-111), (0001-112)• Foster, Rufus H. (0024-2)• Gossett, Lewis (0001-91), (0001-93), (0001-98)• Graham, Lindsey (0013-2)• Hardy, Chris (0001-46)• Humphries, H. Baily (0024-2)• Inglis, Bob (0013-2)• Little, Quay (0024-2)• Mathis, Charles (0024-2)• Miner, Leslie (0001-179)• Moorhead, Gene (0001-38)• Moss, Dennis Carroll (0001-7)• Murphy, William (0001-150)• Olson, Mary (0001-51)• Parris, Hoke (0024-2)• Peeler, Harvey S. (0023-2)• Poole, Mary Jane (0026-3)• Sandifer, Bill (0018-4)• Spencer, Tim (0024-2)• Spratt, John M. (0013-2)

Table 3. (contd)

Comment Category	Commenter (Comment ID)
	<ul style="list-style-type: none">• Stone, Bryan (0001-101)• Taylor, Joe (0030-3)• Vogel, Chip (0047-3)• Wilson, Joe (0013-2)• Zeller, Lou (0001-31)

Table 3. (contd)

Comment Category	Commenter (Comment ID)
Support - Licensing Action	<ul style="list-style-type: none">• Barrett, J. Gresham (0013-1), (0013-3), (0013-4)• Batchler, James D. (0024-3), (0024-4)• Blanton, Debbie (0019-1), (0019-2)• Blue, Lilly (0001-72), (0001-73), (0001-79)• Boger, Paul (0001-41)• Bowers, Will (0001-59)• Brown, Henry E. (0013-1), (0013-3), (0013-4)• Chapman, A. Foster (0048-2)• Clyburn, James E. (0013-1), (0013-3), (0013-4)• Cook, Jim (0016-1), (0016-4), (0016-5)• Cordeau, David (0001-87), (0011-1), (0011-2), (0011-5), (0011-6)• DeMint, Jim (0013-1), (0013-3), (0013-4)• Dolan, Bryan (0001-13)• Ebert, Dick (0002-1), (0002-3)• Forrester, Mike (0001-110), (0001-114), (0001-116), (0001-117)• Foster, Rufus H. (0024-3), (0024-4)• Gossett, Lewis (0001-97)• Graham, Lindsey (0013-1), (0013-3), (0013-4)• Halligan, Andy (0028-1)• Hardy, Chris (0001-47), (0001-48)• Humphries, H. Baily (0024-3), (0024-4)• Inglis, Bob (0013-1), (0013-3), (0013-4)• James, Andrew (0001-80)• Johnson, David G. (0031-1)• Jolly, Henry L. (0001-45), (0014-1)• Little, Quay (0024-3), (0024-4)• Mathis, Charles (0024-3), (0024-4)• McDowell, Charlie (0001-10)• Moorhead, Gene (0001-39), (0001-40)• Moss, Dennis Carroll (0001-4), (0001-5), (0001-8), (0001-9), (0025-1), (0025-2)• Murphy, William (0001-148), (0001-151)• Parris, Hoke (0024-3), (0024-4)• Peeler, Harvey S. (0023-1), (0023-3), (0023-5)• Sandifer, Bill (0018-1), (0018-3), (0018-5)• Scott, G. Garrett (0027-1)• Spencer, Tim (0024-3), (0024-4)• Spratt, John M. (0013-1), (0013-3), (0013-4)• Stone, Bryan (0001-99)• Taylor, Joe (0030-1), (0030-5)• Vogel, Chip (0047-1), (0047-4), (0047-5)• Waters, Jason (0033-1)• White, Gayle (0001-109)

Table 3. (contd)

Comment Category	Commenter (Comment ID)
	<ul style="list-style-type: none">• Wilson, Joe (0013-1), (0013-3), (0013-4)• Wolfe, Clinton (0001-158), (0017-1)• Woodward, Don (0001-62), (0001-63)
Support - Licensing Process	<ul style="list-style-type: none">• Dolan, Bryan (0012-1)• Forrester, Mike (0001-115)• Gossett, Lewis (0001-90)• Hall, Timothy N. (0045-14)• James, Andrew (0001-86)• Parris, Hoke (0001-11)• Sandifer, Bill (0018-7)• Smith, William (0001-168)• Thronberg, Bob (0001-145)• Wolfe, Clinton (0001-162), (0017-3)
Support - Nuclear Power	<ul style="list-style-type: none">• Blue, Lilly (0001-75)• Bowers, Will (0001-60), (0001-61)• Chisolm, Sarah (0001-126)• Cordeau, David (0001-89), (0011-3)• Ebert, Dick (0002-2)• Houston, Kate (0029-1), (0029-3)• James, Andrew (0001-85)• Moss, Dennis Carroll (0001-2), (0001-3), (0001-6), (0025-3)• Murphy, William (0001-147)• Peeler, Harvey S. (0023-4)• Perry, Robert D. (0046-28)• Sandifer, Bill (0018-6), (0018-8)• Taylor, Joe (0030-4)• Thronberg, Bob (0001-146)• Wolfe, Clinton (0001-160), (0001-161), (0017-2)
Transportation	<ul style="list-style-type: none">• Cherin, Mike (0001-34)• Craig, Anne (0005-4)• Dolan, Bryan (0012-3)• Hall, Timothy N. (0045-13)• Olson, Mary (0001-57), (0001-58)
Uranium Fuel Cycle	<ul style="list-style-type: none">• Arnason, Deb (0007-6)• Cherin, Mike (0001-35)• Clements, Tom (0001-133), (0001-134), (0001-135)• Connolly, Mary Ellen (0001-191)• Craig, Anne (0005-1), (0005-5)• Karpen, Leah R. (0034-6)• Moss, Charles (0001-108)• Patrie, Dr. Lew (0001-138)• Sorensen, Laura (0001-181), (0001-183), (0001-184), (0001-185), (0001-186), (0001-187)

Table 3. (contd)

Comment Category	Commenter (Comment ID)
	<ul style="list-style-type: none"><li data-bbox="618 285 971 315">• Sorensen, Ole (0001-180)<li data-bbox="618 323 1146 352">• Sticpewich, John (0001-188), (0001-189)<li data-bbox="618 361 915 390">• Sutlock, Dot (0041-2)

Scoping Comments and Responses

The comments and suggestions received as part of the scoping process are summarized and discussed below. Parenthetical numbers after each comment refer to the Comment Identification (ID) number (document number-comment number) and the commenter name. Comments are grouped by category.

The draft EIS (DEIS) will take into account the relevant issues raised during the scoping process, and the DEIS will be made available for public comment.

The comment period for the DEIS will offer the next opportunity for interested Federal, Tribal, State, and local government agencies; local organizations; and the public to provide input to the NRC's environmental review process. Comments received on the DEIS will be considered in the preparation of the final EIS (FEIS). The FEIS, along with the staff's Safety Evaluation Report (SER), will be considered in the NRC's decision on Duke's COL application for the Lee site.

1. Comments Concerning Process - COL

Comment: I was trying to understand if this environmental impact statement process is going to be amended as we go through this experiment. And that has to be built into the process. (0001-128 [Clements, Tom])

Comment: ... I really don't understand the process. But I'm amazed to find out that it's going to take ten years to get these computers [power plants] on line. I just hope somehow that the environmental impact statement can be changed and monitored over that time. (0001-153 [Saye, Jack])

Response: *The licensing process for COL applications is specified in 10 CFR 52. The environmental review process associated with new reactor licensing includes a detailed review of an applicant's COL application to determine the environmental effects of building and operating the nuclear power facility for up to 40 years. After review of the application against the regulations and regulatory guidance, a mandatory hearing or optional contested hearing will determine whether it is appropriate for the NRC to grant the license. NRC approval of an application for a COL is not a foregone conclusion. Safety, as well as environmental issues, will be evaluated before a decision on an application is reached.*

Comment: ... we [Southern Alliance for Clean Energy] would like to comment on the difficulty with reviewing the application. Though we appreciate having the resources available online, it is very cumbersome to do so. (0001-25 [Barczak, Sara])

Comment: We [Southern Alliance for Clean Energy] would like to comment on the difficulty with reviewing the application. Though we appreciate having the resources

available on-line, it is a very cumbersome process to do so. Regular citizens and policymakers do not have the time to wade through these thousands of pages that have to be downloaded at times individually. I would guess that many people in this room have not even looked at one page of the application. And I cannot blame them given the frustration it has caused me. (0010-5 [Barczak, Sara])

Comment: [The Southern Alliance for Clean Energy] would like to comment on the difficulty with reviewing the application. Though we appreciate having the resources available on-line, it is a very cumbersome process to do so. Regular citizens and policymakers do not have the time to wade through these thousands of pages that have to be downloaded at times individually. We recommend that the NRC require applications to be submitted in a more 'user-friendly' format. (0049-13 [Barczak, Sara])

Response: *The applicant's Environmental Report is available for public inspection at the NRC Public Document Room in Rockville, Maryland, and at the Cherokee County Public Library in Gaffney, South Carolina. The Environmental Report is also available electronically through the NRC's Agencywide Documents Access and Management System website at <http://www.nrc.gov/reading-rm/adams.html> and at <http://www.nrc.gov/reactors/new-licensing/col/lee.html>. The Public Document Room can also be contacted at <http://www.nrc.gov/reading-rm/pdr/copy-service.html> to request a paper copy or CD/DVD of the document for a fee. These comments do not provide information on the impacts of construction or operation of the proposed units on the environment and will not be addressed further in the EIS.*

Comment: ... I know that it's very difficult -- first of all, I have to say this -- the timing for people like myself who will be impacted by so many new proposed nuclear expansions and projects being rushed into existence all over the country, and especially here in the south. (0001-64 [Arnason, Deb])

Comment: I find your timing very difficult for folks like myself who will be impacted by so many new proposed nuclear expansions and projects being rushed into existence all over the country and especially here in the South. (0007-1 [Arnason, Deb])

Response: *Each applicant determines when to submit its COL application for a proposed project to the NRC. After the NRC accepts the application, it initiates the environmental review process in accordance with 10 CFR Part 51. These comments do not provide information on the scope of the environmental review for the proposed units and will not be addressed further in the EIS.*

Comment: [A]dd it up -- we are in seven combined operating license proceedings in this region. There is no other part of the United States that is having combined operating license applications for new nuclear power reactors. There are rumors that they may come in. So there's a lot going on and that lot that's going on has to be viewed as a phenomenon under NEPA. And I see it being chopped into a bunch of little

pieces and I see federal money being spent and I see claims being made that are vast issues, like climate change, being addressed. (0001-56 [Olson, Mary])

Response: *This comment expresses concern regarding the cumulative impacts of seven COL proceedings occurring at the same time but provides no specific information on the scope of the environmental review of the Lee COL application. Therefore, this comment will not be addressed further in the EIS.*

2. Comments Concerning Land Use - Site and Vicinity

Comment: 2.4.2.5.9 Recreation Areas. DNR appreciates acknowledgement of the Broad Scenic River Corridor as an outstanding natural resource and recommends Duke utilize the Broad Scenic River Management Plan (2003) as a resource in planning project operations. (0046-17 [Perry, Robert D.]

Response: *Duke Energy is a participant in and voting member of the Broad River Scenic Advisory Council. The Broad River is officially recognized by the South Carolina General Assembly as a State Scenic River (1991) that relies on river-bordering landowners, other local citizens, and the State Department of Natural Resources (DNR) working to conserve the river and its valuable resources consistent with the Council's mission. The NRC staff will evaluate resources such as the Broad River in Chapters 4 and 5 of the EIS).*

3. Comments Concerning Land Use - Transmission Lines

Comment: All activities associated with the construction and necessary operations of the Lee site should be considered a part of the project and considered in the EIS. Construction of transmission lines, roads and support structures may contribute to resource impacts that extend well beyond the foot print of the Lee site. Stormwater detention and retention capacities should be designed and constructed to adequately prevent contamination of adjacent land and water, particularly the Broad River. (0045-10 [Hall, Timothy N.]

Comment: 2.2.2 Transmission Corridors and Onsite Areas, page 2.2-5. The ER states 2 transmission rights-of-way are proposed for the plant. On Dec 31, 2007 Duke advised DNR by letter and a 1-page 8.5 X 11.0 map, at scale of 1 in = 2 mi the approximate location of the 2 transmission corridors measuring (widths respectively) 200 ft (525 kV) and 150 ft (230 kV) and 325 ft (concurrent 525 and 230 kV). As of this date, DNR has not been provided with finalized routes and projected wetland impacts or impact acreages for proposed transmission corridor routes. Wetland impacts including clearing and fill proposed in transmission corridors will be subject to permitting requirements under Sections 401 and 404 of the US Clean Water Act. The SC Navigational Waters

Act also requires permitting of overhead transmission corridors if waters defined by this legislation are crossed. (0046-2 [Perry, Robert D.]

Response: *Environmental impacts associated with any planned new transmission rights-of-way will be addressed in the context of cumulative effects, as well as potential impacts associated with upgrades to the existing lines if required. The NRC does not have any regulatory authority regarding the implementation of Federal, State, and local guidelines in construction practices. The EIS will address any known or proposed activities that could impact the site or transmission corridor environmental conditions and proposed mitigation measures, as appropriate.*

Comment: In 1991, the South Carolina General Assembly passed legislation that recognized I believe it's a 15.3 mile stretch of the Broad River from Ninety-Nine Island, where this plant is at, all the way down to the peck (ph.) of the river. Duke was involved with this. The map that Duke sent me at the house, it shows that the transmission lines are going to follow the river almost per capita (sic). So I'd like to ask Duke Power, you were part of the Scenic Broad River Act, what's scenic about having an unGodly looking power line following the river? (0001-105 [Moss, Charles])

Comment: Most importantly to a scenic river [forested uplands] are the reason it was declared scenic. If the upland forests are removed to provide area for transmission line corridors and structures the scenic viewshed could be affected. In order to improve and minimize impacts to this scenic viewshed, we recommend placing the transmission line structures and corridor away from the river where the natural ecosystem and viewshed disturbance will be less of an impact to the river. (0042-7 [Crockett, Mary])

Response: *Duke Energy is a participant in and voting member of the Broad River Scenic Advisory Council. Part of the Council's mission is to "...educate, protect, conserve, and be an advocate for the well being of the river through open communication with interested partners...[and to] work to develop responsible, limited and managed access to the resource and to maintain open lines of communication with other interested groups." Environmental impacts associated with any planned new transmission rights-of-way will be addressed in the context of cumulative effects.*

Comment: ... I am a resident of Cherokee County and this power line deal, my property is going to be impacted, this line is going to cross my property.... we've had plans to build us a house and these folks have already been in there surveying and the survey team came right through where our living room was going to be. I don't think this is fair for Duke to be able to do this. (0001-120 [Blackwood, Andy])

Response: *Environmental impacts associated with any planned new transmission lines and rights-of-way will be addressed in the context of cumulative effects. The NRC does not have any regulatory authority regarding the implementation of Federal, State, and*

local guidelines in the siting, construction, and maintenance of proposed transmission corridors and lines.

4. Comments Concerning Meteorology and Air Quality

Comment: If in fact the federal money is being spent in the cause of trying to reverse the climate crisis; if in fact the federal spending for new nuclear power is to address climate, then it is incumbent upon NRC to assess the ability of nuclear power to do that job. We must evaluate whether nuclear energy can in fact impact and reverse the climate crisis. Is it the most cost-effective way to go? (0001-54 [Olson, Mary])

Comment: When we think of how much we have changed our view of the climate and the environment in the last ten years and what comes with global warming and all the other aspects that have changed so much, hopefully the environmental impact statement will cover all those things. (0001-154 [Saye, Jack])

Comment: Do we have proof that nuclear energy contributes significantly to reducing gas emissions? As yet the impact of climate change on nuclear operations is unclear. (0034-7 [Karpen, Leah R.]

Response: *The NRC staff will evaluate the COL application based on the criteria described in NUREG-1555. In addition, the NRC staff will evaluate the proposed unit's various gaseous emissions from both construction and operation, as well as emissions for a new coal- or natural gas-fired power plant constructed in the same location. The results of these analyses will be presented in Chapters 4, 5, and 9 of the EIS, respectively.*

Comment: I think that when evaluating the impacts of the expansion -- or the new reactors at the Lee site, that one part of the discussion really has to be whether or not nuclear energy is the response to climate change that everyone thinks it is. While I understand that it is emission free in its energy production, it is not at all emission free in its life cycle. When we're looking at environmental impacts of new nuclear reactors, we have to look beyond our community to the impacts on the state, on the country and on the world. (0001-118 [Tansey, Sara])

Comment: I was a little bit shocked to see in the Duke fact sheet, and I also heard a couple of people say this, that nuclear power does not emit greenhouse gases. One of the previous speakers pointed out that you have to look at the entire nuclear fuel cycle. This is simply not true. The mining of uranium, which takes place in the United States on a lot of native lands, the milling, the enrichment of uranium at enrichment plants uses a huge amount of energy. Then you have to count the construction costs, managing the nuclear waste, taking apart the plant in the future and dealing with the waste far, far into the future. (0001-132 [Clements, Tom])

Comment: [N]uclear fuel production causes air pollution. (0001-140 [Patrie, Dr. Lew])

Comment: Despite nuclear industry's assertions that nuclear energy is clean, ... nuclear fuel production causes air pollution. (0015-3 [Patrie, Dr. Lew])

Comment: Where's the proof that nuclear energy can contribute significantly to reducing greenhouse gas emissions - particularly in the immediate, most critical period of time, and when accounting for all life cycle emissions? (0038-8 [Turk, Lawrence "Butch"])

Comment: The EIS should consider the potential environmental impacts associated with production of raw materials for the new nuclear site, as well as any related improvements in infrastructure necessary to bring those raw materials into the Lee site or to transport hazardous wastes from the site. Please consider the entire supply chain, transportation, use, and disposal in your analysis of these air quality effects. (0045-1 [Hall, Timothy N.]

Response: *The NRC staff will evaluate impacts from the life-cycle of fuel production, construction, operation, and decommissioning of the plant. The results of this analysis will be presented in Chapters 4, 5, and 6 of the EIS. The generic impacts of the fuel cycle are codified in 10 CFR 51.51(b), Table S-3, "Table of Uranium Fuel Cycle Environmental Data." Per the guidance in 10 CFR 51.51, the staff will rely on Tale S-3 as a basis for the impacts of uranium fuel-cycle impacts (including fossil emissions) to include uranium mining and milling.*

Comment: I'm just wondering how you model the effects of 35 million gallons of water a day or more going to water vapor so close to the mountains. What effect is that going to have? How is that modeled? (0001-155 [Saye, Jack])

Response: *The NRC staff will evaluate the effects of the cooling tower plumes associated with the new units following the guidance described in NUREG-1555. The standard computer model used in this analysis is the Seasonal-Annual Cooling Tower Impact Prediction Code, which is explicitly designed to represent cooling tower plumes. Analysis results will be presented in Chapter 5 of the EIS.*

Comment: Concerns about air and restrictions of sulfur dioxide, nitrous oxide and mercury are what we hear about. Nuclear can generate 24/7 with no greenhouse gas emissions. (0001-76 [Blue, Lilly])

Comment: [S]ome claim that nuclear power cannot tangibly affect climate change and will cause staggering emissions. The fact is that each plant offsets the emission of tens of millions of tons of carbon dioxide annually. (0001-83 [James, Andrew])

Comment: We are looking at more stringent federal ozone requirements in this region and we need to generate more power, but we have to do it in an age where reducing greenhouse gas is a national priority. For this region, nuclear power is the best method to generate energy and to help us meet those federal air quality standards at the same time. (0001-95 [Gossett, Lewis])

Comment: At the same time, nuclear energy has a small carbon footprint and contributes to the United States quest to reduce carbon emissions and other air pollutants (0016-2 [Cook, Jim])

Comment: At the same time, nuclear energy has a small carbon footprint and contributes to the United States quest to reduce carbon emissions and other air pollutants. (0047-2 [Vogel, Chip])

Response: *The NRC staff will evaluate the proposed unit's gaseous emissions. The results of this analysis will be presented in Chapter 5 of the EIS. The NRC staff will evaluate emissions associated with the construction of either a coal- or natural gas-fired power plant. The results of this analysis will be presented in Chapter 9.*

5. Comments Concerning Hydrology - Surface Water

Comment: Duke and the NRC should know that we are currently suffering from drought. Yet Duke's application references the 2005 South Carolina water use report summary that says the last multi-year drought was in 1998. Well, guess again, we're in a severe one now and Duke should have mentioned that in the application. The NRC certainly must address this as it prepares the draft EIS. According to Duke's application, and the NRC will have calculations to figure this out, the two Lee reactors will withdraw, during normal use, over 47 million gallons of water per day from the Broad River and will consume or lose an average of 35 million gallons per day, returning only one-quarter back to the river. The maximum withdrawal will be over

81 million gallons per day with maximum consumption of over 41 million gallons per day. So overall, the loss will be approximately 50 to 75 percent. That is unacceptable. (0001-18 [Barczak, Sara])

Comment: The application also mentions that average surface water use -- and this is for both public and industrial -- in Cherokee County was 8.4 million gallons per day. This means that on a daily basis, the Lee plant will use six to ten times the amount of surface water used by everyone else in the county combined -- six to ten times the amount. (0001-19 [Barczak, Sara])

Comment: The plant will be competing [for water] with other important uses in South Carolina and the region, and the application does not acknowledge the impacts this may have, nor does it discuss the impacts this could have during severe drought conditions such as we are currently experiencing. That has to be considered in the draft EIS. (0001-20 [Barczak, Sara])

Comment: The Broad River is already stressed from the drought and from a variety of industrial and municipal users. Duke also has efforts to expand the Cliffside plant in North Carolina, which also aims to take huge amounts of water from the Broad River. The full extent of these proposed impacts are not discussed in the application. The NRC needs to analyze not only the Broad River of today but the Broad River of tomorrow, which is slated for more development. The application even states that an estimated 56 percent increase in water demand is projected from 1997 to 2020 for the North Carolina portion of the Broad River basin alone. How will the Broad River be able to provide enough water for all these needs? (0001-21 [Barczak, Sara])

Comment: ... Duke's nuclear power plants, if constructed on the Broad River, would use many more times the water supply than all of Cherokee County's homeowners, municipal water suppliers and industrial users on this river. (0001-28 [Zeller, Lou])

Comment: We will also be looking at water impacts. We're teaming up with a number of groups working on coal, working on water, and we will be definitely examining what kind of a realistic basis you are addressing in terms of communities having to negotiate and sign deals and political brokering over having drinking water -- drinking water in the southeast recently. What is the impact of adding two more generating units that require such vast amounts of water... (0001-52 [Olson, Mary])

Comment: I do understand that there are drought problems through Alabama, Georgia, North Carolina, South Carolina, Florida and I know that Duke has had problems this past year. The drought shut down -- Duke had problems when water levels dropped on Lake Norman. There's another article here drought may shut down nuclear reactors. (0001-65 [Arnason, Deb])

Comment: The concern I mentioned is that we do have a hydro-electric plant downstream of the proposed site on the Broad River. ... A lot of water is going to flow out of the Broad River for cooling. From the brief amount that I read, the idea is that it will be used for cooling and then it in turn -- but that heats the water up -- in turn it will be cooled back down so that it's put back into the river at the temperature that approximates what it's taken out at, to minimize that impact on the river and the ecology. I understand also is that there will be some amount of evaporative losses associated with that. There'll be water that will permanently be lost from the Broad River. As a hydro-generation owner that's downstream of this plant, obviously that's an impact. The more water that's removed and also lost from the river, the less that we will

be able to generate in hydro-generation. We're not the only hydro-generator downstream of this proposed site. There are a number of hydro-generators downstream that could include some of Duke's as a matter of fact. So I'm sure they're aware of that proposed problem. The question is, you know, what's a fair balance between having this water that's lost to generate nuclear energy and the loss to those that need to generate renewable hydro-generation, hydroenergy. (0001-100 [Stone, Bryan])

Comment: There's not going to be enough water in the Broad River to cool the reactor. They're going to have to build a lake, a major lake. They ain't going to cool that thing down, it's going to blow up and kill everybody in 50 miles. (0001-122 [Blackwood, Andy])

Comment: When I look at the environmental documents that are posted on the NRC website ... I noticed that a certain low flow of the river was chosen and that Duke, even using their figure, that 16 percent of the river was going to be used, not just withdrawn, but actually used. And I know that the NRC has been reluctant to analyze the impact during severe drought situations, which is what we're in now. (0001-129 [Clements, Tom])

Comment: [T]he Cliffside coal plant upstream, and downstream there are two more reactors that South Carolina Electric & Gas has said that they're looking at also on the Broad River. So this environmental impact statement has to look at the cumulative impacts of the river -- on the river. (0001-131 [Clements, Tom])

Comment: I ask the Nuclear Regulatory Commission to examine the effects of drought and decreased water on the state of South Carolina. (0001-163 [Smith, Nathan])

Comment: I also request that they investigate the impacts of climate change on this proposed plan and how the possible increase in water temperature will affect it. (0001-164 [Smith, Nathan])

Comment: Cooling towers use massive amounts of water in addition to the water demand of the plant itself. (0001-190 [Connolly, Mary Ellen])

Comment: With drought conditions getting worse each summer, we may very well need to go to the Broad for a water source. Last -- just before the last rain started, you could almost walk across the Broad River as well as the Catawba River. ... We are the fastest growing county in the state and the second or third fastest growing in the nation. We cannot afford another massive water user such as a nuclear power plant. This is a beautiful scenic river and has been an historical asset to our county. (0001-194 [Connolly, Mary Ellen])

Comment: At the nuclear power plant itself, I am concerned about the huge amount of water needed in the energy production and its possible/probably contamination. (0005-2 [Craig, Anne])

Comment: With the drought conditions that so severely impacted these States this past year, I find this [proposal to build a new nuclear reactor in Gaffney, SC] unbelievable. I'm sure you are aware that nuclear energy is such a water guzzler, worse than the population, because it evaporates the water instead of returning it to the ground. With water wars already in place in GA, AL, LA, NC, SC and FL, how could Duke even contemplate such a move or the NRC take it seriously? (0007-2 [Arnason, Deb])

Comment: Where will the water come from to cool this proposed new reactor? (0007-3 [Arnason, Deb])

Comment: Duke and the NRC should already know that we are currently suffering from a historic drought. Yet Duke's application references the 2005 South Carolina Water Use Report Summary that says the last multi-year drought was in 1998. Well, guess again. We're in a severe one now and Duke should have mentioned that in the application and the NRC certainly must consider this as it prepares the draft EIS. According to Duke's application, the two Lee reactors will withdraw during normal use over 47 million gallons of water per day (mgd) from the Broad River and consume, or lose, on average over 35 mgd, returning only one quarter back to the river. The maximum withdrawals will be over 81 mgd with maximum consumption of over 41 mgd. So overall consumptive loss will be approximately 50-75%. That is unacceptable. (0009-8, 0049-7 [Barczak, Sara])

Comment: The application also mentions that average surface water use (public and industrial) in Cherokee County was 8.4 million gallons per day. This means that on a daily basis the Lee plant could use six to ten times the amount of surface water used by everyone else in the county combined. The plant will be competing with other important water users in South Carolina and the region. Yet, the application does not acknowledge the impacts this may have, nor does it ponder the impacts this could have during severe drought conditions, such as we are currently experiencing. The NRC needs to address this in the draft EIS. (0009-9, 0049-8 [Barczak, Sara])

Comment: The Broad River, from which the Lee site will rely, is already stressed from the drought and a variety of industrial and municipal users. Further, other proposals, such as Duke's efforts to expand the Cliffside coal plant in NC, also aim to use huge amounts of water from the Broad River. The full extent of these proposed impacts are not discussed in the application. The NRC needs to analyze not only the Broad River of today but the Broad River of tomorrow, which is slated for more development. The application even states that an estimated 56 percent increase in water demand is

projected from 1997 to 2020 for the North Carolina portion of the Broad River basin. How will the Broad River be able to provide enough water for all these needs? (0010-1, 0049-9 [Barczak, Sara])

Comment: Nuclear power plants require tremendous amounts of water for their operation. Specifically, how much water will be used, how much returned to the source, how much will escape as steam? What will be the source of water, and how much? Have climate changes been considered? (0034-3 [Karpen, Leah R.]

Comment: Duke's nukes would consume 4 times as much water as all public and industrial users in Cherokee County combined (Duke License Application Environmental Report Section 2.3.2). This water usage would put all residents at risk because this is Cherokee County's only water source. (0035-4 [Hamrick, Mike])

Comment: The recent droughts have increased the public's awareness of the limited availability of water in the Broad River basin. A number of municipalities are investigating the potential to increase their water withdrawals or to construct new storage reservoirs or intake facilities. This trend is likely to continue over the term of the proposed nuclear facility as human demand for water increases with increased population size. We want to be assured that the hydrology of streams in North Carolina will not be altered in order to provide cooling water for the nuclear project. This could occur in several ways. Water could be diverted directly from the Broad River basin or another basin in North Carolina. Another possibility is that water stored in existing or future reservoirs could be allocated to meet the cooling water needs for the Lee facility. In either event, it is likely that the flow regime in North Carolina streams and rivers would be altered in terms of magnitude, duration, timing, frequency or rate of change. The EIS should assess whether the nuclear project is able to operate throughout the projected license term without altering the hydrology of North Carolina streams. Any existing or potential interbasin transfer infrastructure and facilities should be included and discussed in detail in the EIS. (0037-4 [Goudreau, Chris])

Comment: A nuke requires millions of gallons of water - in some cases per day, in some cases per minute. Where will the water come from? How much will be returned to that source and how much will leave the site as steam? How will that water sacrifice impact our environment, agriculture, and local water supplies including drinking water? Are climate change projections factored in? (0038-3 [Turk, Lawrence "Butch"])

Comment: What water will cool these reactors? Who else needs that water? What if the long drought predicted comes true? (0041-1 [Sutlock, Dot])

Comment: We are also concerned about the amount of water needed to run and shutdown the proposed facility and would want to read about a water supply study and plan for low water periods. (0042-6 [Crockett, Mary])

Comment: 2.4.1.1 Existing Cover Types, page 2.4-3. The ER states that Make-up Pond B was created by damming McKown's Creek, a perennial stream. Likewise, Hold-up Pond A was created by damming a small stream and backwater of the Broad River and Make-up Pond A by damming a backwater of the river. These impacts also should be included in the discussion of environmental impacts contained within Chapters 4 and 10. (0046-8 [Perry, Robert D.]

Comment: 2.4.2.6. Waters of the United States. The ER identifies the section of the Broad River upstream of the Ninety-Nine Islands dam as not being an interstate navigable water (Section 10 US Navigable Water). However, it is a State navigable water, subject to permitting requirements pursuant to South Carolina R.19-450 under the State Navigable Waters Act.

The ER references Fig. 2.4-1 as a map of jurisdictional waters of the US and refers to 8 onsite stream channels as jurisdictional waters of the US, but these areas are not identified in

Fig. 2.4-1. It also is not clear whether onsite impoundments are jurisdictional waters of the US. Duke should submit for review a map with all waters of the US clearly identified. (0046-18 [Perry, Robert D.]

Comment: 4.1.1.2 The Vicinity, page 4.1-3. Potential impacts are considered only for National Scenic Rivers, of which there are none within the vicinity of the project. DNR submits impacts be considered not only for National Wild and Scenic Rivers, but also for the state-designated Broad Scenic River immediately downstream of the site. (0046-20 [Perry, Robert D.]

Comment: 5.3.1.1.3. Operations During Low Flow Conditions, page 5.3-3. The Broad River basin upstream of the Gaffney gauge incurs low to moderate regulation due to upstream hydropower operations. These hydropower projects are run-of-the-river projects at normal to high flows, but impacts from these facilities are very noticeable during low instream flow periods. Though the methodology employed by Duke is sometimes used by the United States Geological Survey (USGS) in computing 7Q10 values, the usefulness of this value is questionable due to the existing stream regulation throughout much of the upper Broad River basin, and it is not a value occurring under natural conditions. DNR hydrologists generally discourage using 7Q10 values for instream minimum flows and oppose the 479 cfs value computed by Duke because of impacts of stream regulation on low flows.

There are 2 published 7Q10 values on the Broad River at the Gaffney gauge, both of which only use measured data at the site. Steinert (1989) in the SCWRC Report No. 166 indicated a value 562 cfs, while a 1991 USGS Water Resources Investigations Report (91-4170) demonstrated a value of 540 cfs. Neither of these reports includes data from the 1998-2002 droughts, which may lower the 7Q10 value.

DNR hydrologists have computed synthetic hydrographs for the Broad River at the Gaffney gauge using alternative methods disregarding the Blacksburg gauge. This was done to show the impacts of using the Blacksburg gauge (downstream from the Gaston Shoals Hydroelectric Development). First, the area proration method was used for all the data gaps at the Gaffney gauge based solely on the Boiling Springs, NC gauge including the 1997-2006 period. A second hydrograph was developed using a correlation between the Boiling Springs gauge and the Gaffney gauge ($R^2 = 0.90$). These hydrographs produced 7Q10 values in the range of 530-540 cfs, over 50 cfs higher than the value computed by Duke. These computations were calculated to show use of the Blacksburg data tends to lower the 7Q10 value from what may occur naturally due to the impacts of regulation at the Gaston Shoals Hydroelectric Development during low flow periods.

Minimum flows in the Broad River at the Ninety-Nine Islands reservoir are regulated by Federal Energy Regulatory Commission (FERC) license: 966 cfs January through April; 725 cfs May, June, and December; and 483 cfs July through November. However, there are several places in the ER where the 7Q10 value is quoted when discussing water availability during low flow conditions (see section 3.3.1.1 for example). If minimum flows are indeed designated by the existing FERC license then references to the 7Q10 value should be avoided when discussing water availability during low flow conditions.

In section 5.3.1.1.3 an analysis was done to determine when and how long the proposed nuclear plant would have had to shut down due to water shortages based on the 1926-2006 historic hydrograph. The threshold flow under which water would start to be withdrawn from Make-Up Pond B was 538 cfs (483 cfs +55 cfs). The 483 cfs value, the minimum FERC flow for July through November, was used for all 12 months. The same analysis should be repeated using seasonally based minimum flows stipulated from the FERC license. Though water shortages are most likely to occur during the dry season (July through November), designated seasonal minimum flows may serve to prolong water shortage periods and potentially increase the frequency of water shortages. A DNR analysis has been done to reconstruct the same synthetic hydrograph Duke computed using the area proration method. The 42 consecutive days of curtailed operation during 2002 listed in section 5.3.1.1.2 of the ER would be increased to 61 days when considering the seasonally based flows as required by the FERC license. DNR hydrologists also repeated this analysis using the synthetic hydrograph based on the regression relationship developed between the Gaffney gauge and the Boiling Springs gauge. The analysis also subtracted current net withdrawal from the river between the 2 gauges as determined from the Broad River Water Supply Study (approximately 27 cfs). This analysis improves water availability outlook under the minimum flow requirements from the FERC license by reducing the number of days the plant would have to shut down during 2002 to 25 days. These results also show minimum flows stipulated by the FERC license will have limited impacts on plant operations. However, DNR emphasizes the need to increase Lee Site

off-stream water reserves to further ensure future operations and electric generation be uninterrupted due to limited but needed water availability.

Duke, as documented in the Broad River Water Supply Study and section 2.3.1.3.3 of the ER, is planning an expansion of their Cliffside Electric Generation Station. Duke currently withdraws 6.72 MGD (10.4 cfs) from the Broad River at Cliffside, and by 2015, the withdrawal is expected to be 20.68 MGD (32.1 cfs), giving a net increase of 14 MGD (23 cfs) in the total withdrawal. In addition, the North Carolina water demand is projected to increase by 23 cfs by 2020 (section 2.3.2.1.4) in the Broad River basin. The low flow analyses in section 5.3.1.1.3 based on the historic hydrograph do not appear to take into account these projected increases in water withdrawals (or any other projected withdrawals as described in the Broad River Water Supply Study). DNR encourages a more complete analysis of water availability issues and water shortages during low flow conditions, taking into account future water withdrawal projections. Given the frequency and severity of droughts over the past 10 years and the projections of future water demand in the Upper Broad River basin, DNR is concerned with potential water shortages and plant shutdowns. How dependent will this region become on this plant and how could the loss of a substantial amount of power for weeks to months at a time affect this region now and in the future? Will the plant become so vital to future power needs that future minimum flow requirements will be compromised? DNR recommends developing additional backup water reserves in addition to Make-Up Pond B to lessen the potential for plant shutdowns and to avoid water availability conflicts in the future. Back up water reserves should be sufficient to cover the longest consecutive projected plant shutdown based on the historic hydrograph record. DNR recommends the proposed Lee Site plant operations be consistent with the guidance and policies described within the SC State Water Plan, 2nd Edition which can be viewed at <http://www.dnr.sc.gov/water/admin/pubs/pdfs/SCWaterPlan2.pdf>. (0046-26 [Perry, Robert D.]

Response: *The construction and operation of a nuclear plant involves the consumption of water. The staff will independently assess the impact of these consumptive water losses on the sustainability of both the local and regional water resources. This assessment will consider both current and future conditions, including changes in water demands to serve the needs of the future population, and changes in water supply. While the NRC does not regulate or manage water resources, it does have the responsibility under NEPA to assess and disclose the impacts of the proposed action on water resources. The staff's assessment of the impacts on the sustainability of water resources will be presented in Chapters 4 and 5 of the EIS for construction and operation, respectively. In addition, staff will evaluate system design alternatives, including cooling water systems, and mitigation measures in Chapter 9.*

Comment: In terms of water, nuclear power plants have a large impact on water quantity and quality, they release radioactive contaminants and hazardous chemicals

into our water resources, they contribute to thermal pollution, they negatively impact aquatic life and they definitely require more water than other forms of energy and significantly more water than energy efficiency and clean energy technologies such as solar and wind. This is not mentioned in the application. (0001-17 [Barczak, Sara])

Comment: [N]uclear plants cause thermal water pollution (0001-139 [Patrie, Dr. Lew])

Comment: Nuclear power plants have a large impact on water quantity and quality. Nuclear power plants release radioactive contaminants and hazardous chemicals into surrounding water resources, contribute greatly to thermal pollution, negatively impact aquatic life, and require enormous volumes of water in order to operate-requiring more water use than other traditional forms of energy production and significantly more water than energy efficiency measures and clean energy technologies such as solar and wind. (0009-7, 0049-6 [Barczak, Sara])

Comment: Despite nuclear industry's assertions that nuclear energy is clean, nuclear plants cause thermal water pollution ... (0015-2 [Patrie, Dr. Lew])

Comment: We would also like to recommend that all the storm water and runoff from any development or construction be collected and filtered/treated before it is allowed to enter the riparian areas of the Broad River or the Broad Scenic River. (0042-3 [Crockett, Mary])

Response: *The construction and operation of a nuclear plant involves some discharges to nearby water bodies. The Clean Water Act designated the U.S. Environmental Protection Agency as the Federal agency with responsibility over effluent discharges to the nation's waters. While it only regulates radiological effluents, the NRC does have the responsibility under NEPA to assess and disclose the expected impacts of the proposed action on water quality throughout the plant's life. The staff's assessment will consider whether the designated uses of the local and regional water supplies are jeopardized by the construction or operation of a nuclear plant at the proposed site. The staff's assessment of the nonradiological impacts to water quality will be presented in Chapters 4 and 5 of the EIS for construction and operation, respectively, while radiological impacts during operation will be presented in Chapter 5. Any cumulative effects will be address in the cumulative effects section of the EIS.*

Comment: 5.2.3.1 Thermal Impacts, page 5.2-10. DNR requests the CORMIX model and associated data used to evaluate thermal impacts associated with blowdown discharge from the cooling towers be provided to staff for review. (0046-24 [Perry, Robert D.])

Response: *The NRC has requested input data for the CORMIX model from the applicant and will run the model as a part of its analysis of thermal impacts.*

6. Comments Concerning Hydrology - Groundwater

Comment: 2.3.1.5.4 Topography, page 2.3-16 Paragraph 3 indicates numerous springs (20) and seeps were identified during the 1973 investigation. These springs and seeps were cut or filled in order to level natural drainage and flatten the construction yard during the initial construction phase of the Cherokee facility. However, the ER does not include these impacts in the description of Environmental Impacts of Construction in Chapter 4. Impacts associated with the original construction that occurred in the 1970s supporting active operations of the proposed facility should be included in the description of environmental impacts in Chapter 4. (0046-3 [Perry, Robert D.]

Response: *Staff will evaluate and disclose the impacts of Duke's current construction activities in Chapter 4 of the EIS. Impacts from construction of the Cherokee facility in the 1970's will be addressed in the cumulative effects section of the EIS.*

7. Comments Concerning Ecology - Terrestrial

Comment: ... I would encourage the environmental impact statement to look at what wildlife in Cherokee County can benefit from the conservation program and open land provided by the nuclear power plant. (0001-125 [Chisolm, Sarah])

Response: *Wildlife on the Lee site, as well as any benefits derived from the open land onsite and conservation programs in which Duke Power participates, will be described in Chapter 2 of the EIS.*

Comment: The proposed project may include destroying vegetation near the river and surrounding areas in order to place transmission line corridors and buildings associated with the construction of a nuclear power station. (0042-1 [Crockett, Mary])

Comment: Forested uplands draining into the river floodplain and riparian areas perform numerous wildlife habitats, hydrologic, and water quality functions that provide significant and well-documented public benefits. Additionally, floodplains and riparian areas can help to alleviate downstream flooding. Most importantly to a scenic river they are the reason it was declared scenic. (0042-2 [Crockett, Mary])

Response: *Upland forests, floodplains, riparian areas, and wetlands and their function will be described in Chapter 2 of the EIS. The potential impacts of construction to these systems on the Lee site and along new transmission rights-of-way will be described and evaluated in Chapter 4 of the EIS or as a cumulative effect as appropriate. The scenic river status of the Broad River will also be addressed in these chapters.*

Comment: The EIS should present a detailed analysis of potential impacts to federally protected species as a result of the construction and operation of the Lee site. Although the main facility may be located in Cherokee County, infrastructure development, mining operations and supply components are an integral part of the reactor facility and must be review for impacts to threatened and endangered species. (0045-5 [Hall, Timothy N.])

Response: *Federal and State-listed species within the areas affected by this project will be described in Chapter 2 of the EIS. The potential impacts of construction and operation on Federal and State-listed species on the proposed Lee site will be described and evaluated in Chapters 4 and 5 of the EIS. However, impacts of activities at unspecified locations, such as mining operations, are not within the scope of this review and will not be addressed in this EIS.*

Comment: The [U.S. Fish and Wildlife] Service does have records of Smooth coneflower (*Echinacea laevigata*) from near the Cherokee County project site. We recommend a field survey to determine the presence or absence of this species and its habitat. The listed T&E species include Federal species of concern that are currently under status review by the Service and may occur in the project impact area. Federal species of concern are not legally protected under the Act and are not subject to any of its provisions, including Section 7, unless they are formally proposed or listed as endangered or threatened. We are including these species in our response to give you advance notification and to request that any surveys include these species as well. The presence or absence of these species in the project impact areas should be addressed in the environmental assessment. We encourage you to consider alternatives which minimize impacts to these species and their habitats that may be present in the area of affect of the project. (0045-7 [Hall, Timothy N.])

Response: *The Federally listed endangered smooth coneflower (*Echinacea laevigata*) was not noted as a species of interest to the U.S. Fish and Wildlife Service (FWS) in its letter to Duke Energy on May 23, 2006. Thus, botanical surveys of the Lee site conducted to date have not included this species. The NRC staff will contact the FWS to confirm this species recorded location near the Lee site. The potential for the species' occurrence onsite will be assessed based on the species' habitat affinities and whether such habitats were observed onsite during the surveys conducted to date. The decision to conduct surveys for the smooth coneflower onsite will be made at that time. If surveys are conducted, the results will be described in Chapter 2 of the EIS. If the species is present onsite, potential impacts and any impact avoidance, minimization, or mitigation measures will be addressed in Chapter 4.*

Comment: Potential impact to migratory bird populations and movement should also be analyzed. We are concerned about impacts of potential bird collisions, or electrocution. We believe that a monitoring program should be developed consistent

with the MOA between the [U.S. Fish and Wildlife] Service and NRC for migratory birds. Since bald eagles, osprey, black and turkey vultures, and herons frequent the project vicinity, we recommend any associated transmission lines or distribution lines crossing wetlands, large bodies of water, or open areas should be maintained to maximize visibility of the line to raptors by one of the following design modifications: (1) remove the static line; (2) enlarge the static line to improve visibility to raptors; or (3) mount aviation balls or similar markers on the static line. How will stormwater basins, settling ponds, lagoons, and other storage facilities be designed and managed to minimize impacts to migratory birds, including waterfowl? (0045-8 [Hall, Timothy N.]

Response: *The design of the transmission lines is outside the scope of this review, as the NRC does not license transmission line construction. Therefore, design alternatives will not be evaluated in the EIS; however, the potential impacts to migratory birds and mitigation measures will be evaluated in the cumulative effects section of the EIS. In addition, the potential effects of any stormwater basins, settling ponds, lagoons, or other such storage facilities on migratory birds (including waterfowl), and any mitigation measures to reduce such impacts, will be addressed in Chapter 5.*

Comment: We are concerned about the effects of night security lighting. We are primarily concerned about the potential for overlighting the large site and the potential adverse effects on fish and wildlife resources in the area, including migratory birds and bats. A dark nighttime sky is essential. Contributions of light from the earth (both direct emissions and reflected light) brighten the night sky background. This brightening also greatly diminishes the view of the sky for migrating birds, moths, bats, and the general public. (0045-9 [Hall, Timothy N.]

Response: *Potential impacts on wildlife—including migratory birds and bats—from nighttime security lighting will be addressed in Chapter 5 of the EIS.*

Comment: We are also concerned with the introduction and spread of invasive exotic species in association with the proposed project. Without active management, including the revegetation of disturbed areas with native species, project corridors will likely only be sources of (and corridors for) the movement of invasive exotic plant species. ... Despite their short-term erosion-control benefits, many exotic species used in soil stabilization seed mixes are persistent once they are established, thereby preventing the reestablishment of native vegetation. Many of these exotics plants are also aggressive invaders of nearby natural areas, where they are capable of displacing already established native species. Therefore, we strongly recommend that only native plant species be used in association with all aspects of this project, including secondary impacts (i.e., connecting sewer lines). (0045-12 [Hall, Timothy N.]

Response: *The potential impacts of construction, including impacts due to exotic species invasion and seeding non-native species in disturbed areas to control erosion,*

will be addressed in Chapter 4 of the EIS or as a cumulative effect as appropriate. The minimization of such impacts via seeding or otherwise facilitating the re-establishment of native vegetation in disturbed areas will also be addressed in Chapter 4.

Comment: 2.4.1 Terrestrial Ecology, page 2.4-2. The ER references the Cherokee Nuclear Station Environmental Report (Cherokee ER) issued by Duke Power Company on October 13, 1975. However, Duke has not provided the Cherokee ER as an Appendix for reference. Since Duke relied heavily on the results of the Cherokee ER in the development of the ER for the Lee Site, it will be necessary to review the Cherokee ER. Likewise, the ER references a 2006 *reconnaissance* study of terrestrial species and resources, but has not provided methods and study results in the form of an appended technical report. This information will be needed to appropriately evaluate the scope, intensity and effort of cited studies as conducted to support the license application. (0046-6 [Perry, Robert D.]

Comment: 2.4.1.1 Existing Cover Types, page 2.4-2. The ER indicates *previous terrestrial ecological conditions were extensively altered by grading and construction for the Cherokee Nuclear Station*. These impacts should be included in the discussion of terrestrial impacts of construction in Chapter 4. (0046-7 [Perry, Robert D.]

Comment: 4.2 Water Related Impacts, page 4.2-1. The ER states construction related impacts to wetland areas are expected to be small because the site requires few changes to aquatic habitats to accommodate the construction of a new plant, since *much of the potential water-related modifications of this site were made during original construction of the Cherokee plant*. It is not known whether a Section 404 permit was issued for the construction of the Cherokee plant and whether mitigation for these initial impacts was required or provided at that time. The existing impoundments and construction foundation for the 2 future nuclear units will be utilized for the active operation of the Lee Nuclear facility. These impacts are significant and should be included in environmental impacts due to construction to ensure that total impacts to waters of the US may be appropriately evaluated and mitigated. For example, a cursory review of USGS topographic maps indicates that [plus or minus] 11,000 lf of perennial and intermittent stream were filled and flooded for the construction of the impoundments alone. (0046-21 [Perry, Robert D.]

Response: *The Cherokee Nuclear Station Environmental Report (Cherokee ER; Duke Power Company 1974) and the Section 404 Permit will be reviewed in light of information presented by Duke in its ER for the Lee COL. These documents will be used to develop the Lee COL EIS and will be referenced appropriately. Impacts of construction of the Cherokee facility will be addressed in the cumulative effects section of the EIS. A report documenting the methods, level of effort, and results of the reconnaissance field surveys (referenced by Duke in its ER for the Lee COL) has been requested from Duke and will also be evaluated to develop the Lee COL EIS.*

Comment: 2.4.1.1.1 Alluvial and Other Wetlands, page 2.4-6. Jurisdictional and nonjurisdictional wetlands have been identified onsite and Duke obtained an Approximate Jurisdictional Determination by the US Army Corps of Engineers on September 24, 2007. The ER indicates a Section 404 permit will not be required for further construction because none is planned within identified jurisdictional wetlands. However, a finalized construction plan has not been provided. It should also be noted that alluvial wetlands along the fringe of the impoundments will be periodically impacted as pond levels are influenced by project operations. (0046-9 [Perry, Robert D.]

Response: *Detailed construction plans have been requested from Duke, particularly for those activities that could potentially affect wetlands. The potential impacts to wetlands, including those that are jurisdictional, from construction and the need to obtain a Section 404 Permit from the U.S. Army Corps of Engineers will be evaluated in Chapter 4 of the EIS or as a cumulative impact as appropriate. Potential impacts to the littoral wetlands located along the margins of Make-up Ponds A and B due to water use by the proposed two new reactors, particularly during drought periods, will be evaluated in Chapter 5 of the EIS.*

Comment: 2.4.1.3.1.1 Plants, page 2.4-16. A population of the southern adder's tongue fern (*Ophioglossum vulgatum*), a state species of concern, was identified onsite during the 2006 reconnaissance. A management plan for the southern adder's tongue fern population and any other protected plant species located within the project boundary should be provided for review by resource agencies. (0046-10 [Perry, Robert D.]

Response: *The potential impacts of construction and operation to the population of southern adder's tongue fern (*Ophioglossum vulgatum*), a state species of concern identified in Duke's ER, will be evaluated in Chapters 4 and 5 of the EIS, respectively. If the population of this species could be impacted, the possibility of development of a management plan will be addressed in the EIS. However, if there are no potential impacts to this population, the development of a management plan would be out of the scope of the NRC's review of the EIS. The DEIS will be sent to appropriate agencies for review.*

Comment: 2.4.1.3.4 Critical Species, page 2.4-20. The ER states *Because of the wide variety of ecological communities within the region, the abundance of individual species, especially plants, can vary significantly from location to location where different species serve similar ecological roles in the community. Accordingly, there is no evidence suggesting that any individual species is critical to structure or function at the ecosystem level.* It is not clear from this statement how it is concluded there are no onsite species critical to local or regional ecosystem structure or function. (0046-11 [Perry, Robert D.]

Comment: 2.4.1.3.5 Biological Indicators, page 2.4-20. The ER indicates *there are no species at the site that might function as true bioindicators*. Again, this conclusion seems to be drawn from the assertion that species onsite are common to southeastern forests, and to the lack of population information available for the less common species allowing biologists to track future status changes. The use of a species as a biological indicator is habitat-dependent. The ER does not indicate whether or not species were evaluated by habitat type (alluvial wetland, shoreline, upland, mixed hardwood forest, etc.). As with critical species, the regional commonness of a species does not necessarily correlate to its value as a biological indicator at the habitat level.

The lack of available population information on rare species does not preclude the applicant from the need to provide information on the presence of species essential to ecosystem function or of value as a biological indicator. Indeed, the lack of information points to the need for ongoing study and monitoring of species occurrence and use of resources by habitat type, both before and after construction. (0046-12 [Perry, Robert D.]

Response: *Sections of the ER pertaining to terrestrial ecology will be evaluated for their utility in developing the EIS and will be used accordingly. The staff will perform an independent assessment of the impacts on terrestrial species and will present their findings in Chapters 4 and 5 of the EIS.*

Comment: 10.1.1 Unavoidable Adverse Environmental Impacts of Construction, page 10.1-1. The list of hydrological and water use impacts due to construction of the facility should include wetland areas within the footprint and adjacent to the initial construction site of the Cherokee plant and the linear footage of perennial and intermittent streams that were filled and flooded for the construction of the onsite impoundments.

10.1.2 Unavoidable Adverse Environmental Impacts of Operations, page 10.1-2. The list of hydrological and water use impacts due to operation of the Lee Nuclear facility should include those imposed upon aquatic life, wetland areas and shoreline adjacent to Make-up Ponds A and B as pond levels fluctuate.

The list of ecological impacts due to operation of the Lee Nuclear facility also should include those incurred through habitat fragmentation and degradation, obstruction of migration corridors and noise and human activity.

The ER does not indicate that in-kind alternatives have been identified to mitigate for direct wetland and other natural resource impacts. In order to adequately mitigate all identified and yet-to-be-identified impacts, including the likelihood of secondary impacts, a mitigation plan should be developed for the Lee Site and facility construction/operation. Such a mitigation plan may need to encompass more than simple wetland impact mitigation or compensation. DNR will request coordinated mitigation planning and identification of the need to address future negative secondary

impacts to fish and wildlife resources as well as loss of public recreational opportunities related to the Lee Nuclear facility. (0046-27 [Perry, Robert D.]

Response: *The potential impacts to wetlands (including those around the margins of Make-up Ponds A and B), riparian areas, streams (including shorelines), including habitat degradation and fragmentation, obstruction of migration corridors, etc. that could result from construction and operation, will be described and evaluated in Chapters 4 and 5 of the EIS. Mitigation, including the possibility of in-kind alternatives and mitigation planning, will be addressed in Chapters 4 and 5 as appropriate. Where these impacts represent unavoidable losses of natural resources, they will be summarized in Chapter 11. Impacts of the initial construction of the Cherokee plant will be addressed in the cumulative effects section of the EIS.*

8. Comments Concerning Ecology - Aquatic

Comment: Another problem with water discharged from nuclear plants is its temperature. This water is warmer than the water into which it is discharged, and the resulting thermal plumes cause stress to aquatic life which can include commercially important fish and shellfish. (0001-22 [Barczak, Sara])

Comment: Another problem with water discharged from nuclear plants is its temperature. This water is warmer than the water into which it is discharged, and the resulting thermal plumes cause stress on aquatic life, which can include commercially important fish and shellfish. Warmer water temperatures proximate to a nuclear power plant result in conditions that effect the feeding and breeding patterns of various species. For instance, nuclear power plants aggravate the problem of low dissolved oxygen levels through its heated discharge to lakes and rivers. The NRC needs to study these impacts. (0010-2, 0049-10 [Barczak, Sara])

Comment: We are particularly interested in understanding if the nuclear facilities will alter the physical, hydrologic, thermal or chemical characteristics of the Broad River in ways that might alter, prevent or delay the upstream or downstream movements of these species. The EIS should specifically address whether river water temperatures would disrupt the upstream migrations during April and May. Although the warm-water plume may not be extremely high, the difference in temperature may act as a behavioral barrier to movements. (0037-2 [Goudreau, Chris])

Comment: Water returned to the Broad River is likely to have a substantial temperature variation from the Broad River. A sudden change in the thermal environment may be hazardous to aquatic organisms near the outflow as well as those downstream. The EIS must address these impacts and provide alternatives to eliminating or reducing aquatic thermal variations (0045-3 [Hall, Timothy N.]

Comment: DNR has concern related to thermal impacts to all aquatic species as related to operation of the proposed Lee Nuclear facility at the thermal discharge site above the Ninety-Nine Islands dam as well as below in the Broad River (**0046-25** [Perry, Robert D.])

Response: *The NRC staff will assess potential impacts to aquatic life in the Broad River from thermal discharge of the proposed Lee units in Chapter 5 of the EIS.*

Comment: Recently, the NCWRC, along with the South Carolina Department of Natural Resources, U.S. Fish and Wildlife Service, Duke Energy, and South Carolina Electric and Gas, signed an agreement ... for the protection, restoration, and enhancement of diadromous fish in the Santee Basin in South Carolina and North Carolina. American shad and American eel migrations historically extended into the North Carolina portion of the Broad River sub-basin. While work will be done in other portions of the Santee Basin, the initial focus of the restoration work will occur in the Broad River sub-basin. Over time, we expect that other downstream blockages to movements of these species will be reduced or eliminated. We want to ensure that operation of the proposed Lee Nuclear site will not create any additional impediments to the upstream and downstream migrations of these species. We did not find any analyses in the Environmental Report prepared by Duke Energy regarding the potential effects on diadromous species. ... When diadromous species arrive at the project site in the future, monitoring should be required to make sure they are not stopped, slowed down or otherwise affected by operation of the facility. (**0037-1** [Goudreau, Chris])

Response: *Although it can recommend ecological monitoring, the NRC does not have the authority to require post-operational monitoring on the part of the applicant. However, the NRC staff will evaluate potential impacts of operation of the proposed Lee units to the aquatic environment, including potential impacts to diadromous fish species in the Broad River. The results of the analysis will be presented in Chapter 5 of the EIS.*

Comment: The potential for the cooling water intakes to impinge or entrain larval and juvenile stages of both species should also be addressed. Should South Carolina DENR not have intake specifications, we routinely recommend the use of passive screens with openings not to exceed 1 centimeter (1 millimeter in waters having anadromous fish) and with a maximum intake velocity of 0.5 feet per second. (**0037-3** [Goudreau, Chris])

Comment: One of several issues associated with a large water intake includes impingement and entrainment of aquatic organisms at the cooling water intake. Previous studies at similar nuclear sites by Duke found impingement of some fishes, mostly threadfin shad, some bluegill, and alewife, most during periods of cold water. Although these impacts may be considered small, we recommend that the licensee establish a regular monitoring program and develop a strategy to reduce impingement and entrainment, and to mitigate these potential impacts. Methods to prevent

entrainment of aquatic species such as appropriate screen sizes, low pump velocities or variable operation schedules during power operations to block biotic intake must be detailed in the EIS. (0045-4 [Hall, Timothy N.]

Response: *The applicant's proposed cooling water intake design and the potential for impingement and entrainment of aquatic organisms from operation of the proposed nuclear units will be evaluated, and the results will be presented in Chapter 5 of the EIS.*

Comment: 2.4.2.1. Aquatic Habitats, page 2.4-24. DNR disagrees with the statement that *neither the river nor Ninety-Nine Islands Reservoir is a significant aquatic habitat in a regional context*. In 1988 the South Carolina Water Resources Commission (SCWRC) prepared a Rivers Assessment (RA) of the Broad River as a part of the South Carolina Rivers Assessment initiative. The RA provides an analysis of each river in SC, based on a number of categories, including (1) Historic and Cultural, (2) Industrial, (3) Inland Fisheries, (4) Recreational Fishing, (5) Timber Management, (6) Water Supply and (7) Wildlife Habitat. Criteria for designation of the Broad River included scenic value (lack of visual obstructions by structures); absence of wastewater dischargers; outstanding fishing quality and aquatic habitat; water quality; and wildlife habitat quality. The RA rated the Broad River as an outstanding river of regional significance in all of these categories. (0046-13 [Perry, Robert D.]

Response: *The comment relates to the importance of the Broad River's aquatic habitat in a regional context. The NRC staff will provide its own independent discussion of the aquatic environment in the vicinity of the proposed new nuclear units and its importance in a regional context in Chapter 2 of the EIS.*

Comment: 2.4.2.4 Mussels, page 2.4-30. The paper pond shell mussel (*Utterbackia imbecillis*) a species of state concern, occurs in Makeup Pond A. This species may be impacted by siltation, dredging and fluctuations in pond elevations due to project operations representing an adverse impact for which mitigation should be provided. (0046-14 [Perry, Robert D.]

Response: *The comment is related to the potential impacts of construction and operation of the proposed new nuclear units on the paper pondshell mussel (*Utterbackia imbecillis*), which occurs in Make-Up Pond A. Assessment of this species in addition to other aquatic organisms will be presented in Chapters 2, 4, and 5 of the EIS.*

Comment: 2.4.2.5.5. The ER states *Because the habitats of the Lee Nuclear Site are widespread within the region, the abundance of an individual aquatic species can vary significantly from location to location where different species serve similar ecological roles in the aquatic community. Accordingly, there is no evidence suggesting that any individual species is critical to structure or function at the ecosystem level.* How does this lead to the conclusion that there are no species that are critical to ecosystem

structure or function at the Lee site? What specific criteria were used to evaluate individual species function by habitat type? (0046-15 [Perry, Robert D.]

Response: *The NRC's responsibilities under NEPA are to provide a fair and comprehensive analysis of potential impacts related to the proposed action, evaluate alternatives, and discuss potential mitigation measures as appropriate. In the Lee COL EIS, the NRC will provide an independent evaluation of the importance of various aquatic species found in the vicinity of the Lee site to ecosystem structure and function.*

Comment: We are also concerned with the fauna and aquatic fauna of this river and would ask that the thermal water aspects of this project be studied and included in the environmental impact study document. We recommend further analysis for potential impacts to the flora and fauna of the river ecosystem, especially any impacts to rare, threatened and endangered species. (0042-4 [Crockett, Mary])

Response: *The NRC staff will assess potential impacts from thermal discharge of the proposed Lee units on aquatic biota in the Broad River. The results of the evaluation will be presented in Chapter 5 of the EIS. The NRC will also evaluate potential impacts to rare, threatened, and endangered species from construction and operation of the proposed new nuclear units. This information will be presented in Chapters 2, 4, and 5 of the EIS.*

Comment: 2.4.2.5.6 Biological Indicators, page 2.4-34. DNR agrees the primary use of an indicator is to characterize current status and track or predict significant change within a habitat or ecosystem. Therefore it is recommended there be periodic monitoring of macroinvertebrates and other sensitive aquatic species above and below the Ninety-Nine Islands dam and within onsite impoundments to track impacts of project operations to aquatic resources.

2.4.2.5.8 Other Aquatic Species of Special Interest. DNR recommends Duke conduct periodic fish surveys above and below the dam and within onsite impoundments to track impacts of project operations to aquatic resources.

NRC should be aware of a recently ratified cooperative diadromous fish passage agreement (Accord) between Duke, South Carolina Electric & Gas, DNR, North Carolina Wildlife Resources Commission and United States Fish and Wildlife Service. This agreement is intended to protect, restore and enhance diadromous fish in the Santee River Basin with particular emphasis to the Broad River sub-basin. DNR and other signatories of the Accord will require assurance construction and operation of the Lee Nuclear facility will not be an impediment to the Accord and its objectives including up and down stream migrations of diadromous fish. (0046-16 [Perry, Robert D.]

Response: *Although it can discuss ecological monitoring, the NRC does not have the authority to require post-operational monitoring on the part of the applicant. However,*

the NRC staff will evaluate potential impacts of operation of the proposed Lee units to the aquatic environment, including potential impacts to diadromous fish species in the Broad River. The results of the analysis will be presented in Chapter 5 of the EIS.

Comment: 4.3 Ecological Impacts, page 4.3-1. The fact that many of the construction impacts occurred during the construction of the Cherokee plant before construction was halted does not obviate the need to provide appropriate mitigation and compensation for these impacts. These impacts should be included in total ecological impacts due to construction of the Lee Nuclear facility. (0046-22 [Perry, Robert D.]

Comment: 5.2 Water-Related Impacts, page 5.2-1. In response to the statement *Evaluations specific to the Lee Nuclear Site are consistent with previous conclusions: water related impacts during plant operations are SMALL and mitigation is not warranted.* DNR will evaluate future applications for Federal and state permits associated with the proposed Lee Site for impacts to aquatic resources. Avoidance and minimization of adverse impacts and mitigation and compensation for unavoidable impacts is required under Sections 401 and 404 of the US Clean Water Act. (0046-23 [Perry, Robert D.]

Response: *The NRC's responsibilities under NEPA are to provide a fair and comprehensive analysis of potential impacts related to the proposed action, evaluate alternatives, and discuss potential mitigation measures as appropriate. Approval of other Federal and State permits associated with the proposed new nuclear units and any requirements for mitigating actions will be the responsibility of the permitting agencies. Impacts of construction of the Cherokee facility will be addressed in the cumulative effects section of the EIS.*

Comment: We understand that the volume of water taken for facilities of this type generally exceed the volume returned. Much of the water used in cooling operations will be lost through evaporation. Therefore, the EIS must analyze impacts to downstream habitats and species as a result of this water loss. We encourage you to develop an instream flow study plan that considers the potential effects of these consumptive losses across the full range of flow scenarios. How will the water abstraction impact the physical habitat of fish and other aquatic community members? We will be glad to review and participate in the development of an appropriate instream flow study to consider the potential effects on aquatic species, their habitats, and community assemblages. Please design your study to consider the potential effects to focal restoration species like American shad and American eel, rare species like the robust redhorse, and less mobile taxa such as freshwater mussels, as well as riverine guilds, and natural community assemblages (0045-2 [Hall, Timothy N.]

Response: *The impact of water withdrawals from the Broad River for operation of the proposed new nuclear units will be evaluated and presented in Chapter 5 of the EIS.*

9. Comments Concerning Socioeconomics

Comment: This [William States Lee Nuclear] facility also has a significant benefit to the economy of South Carolina and Cherokee County. This multi-billion dollar investment in the county will bring over 2000 construction jobs, over 800 full time jobs during its operating life. It will contribute positively to the economy of Cherokee County and neighboring counties. The facility will also provide many high paying jobs for citizens of Cherokee County and South Carolina. (0001-7 [Moss, Dennis Carroll])

Comment: [The Lee] facility will have a significant positive impact on the economy of Cherokee County, surrounding counties and South Carolina. The multibillion investment in Cherokee County will bring over 1000 construction jobs and over 800 high paying full time jobs during its operation. (0001-38 [Moorhead, Gene])

Comment: I understand Lee Nuclear Station will have around the same number of employees, along with those well-paying salaries. Also, the economic impact study by the Nuclear Energy Institute tells us that over 700 of those 1000 employees will live in the same county. So the salaries stay locally. (0001-46 [Hardy, Chris])

Comment: [T]here's going to be about 1800 to 2000 jobs during construction and probably 800 long-term. An average power plant does provide 20 to 30 million dollars of tax revenue in the state's economy, things that help schools, things that help those that need it. (0001-78 [Blue, Lilly])

Comment: [The Spartanburg Chamber of Commerce] endorsement goes beyond the obvious economic benefits of the design, construction and operation of the Lee Station. (0001-88 [Cordeau, David])

Comment: [M]ore than 2000 manufacturers provide jobs to tens of thousands of upstate South Carolinians. One of the principal reasons that those companies are here and continue to come here is that we have had an abundant and affordable supply of energy in this area (0001-91 [Gossett, Lewis])

Comment: [A] lot of companies don't like to talk publicly about the fact that they could shut down and they could cost the community jobs. For a lot of those companies, they will never get to that decision because unreliable power, something they can't count on in the future, is the thing that will force them to relocate. We've seen enough of that in this region. Another reason is affordability. We do have some of the most affordable rates in the country in this area and that makes a big, big difference when companies are thinking about locating and staying here. That is one of the big cost drivers and it's something that we must maintain if we are to continue to compete with parts of the world that have other costs that are so dramatically lower than ours. (0001-93 [Gossett, Lewis])

Comment: [I]f you realize, as we do, that there's a lot more room for growth and there's a lot more room for opportunities for this generation and for future generations, then this plant is something that you should support and you should embrace. It's exciting that they've chosen Cherokee County, I'm glad that not only are they going to provide the jobs here, but they're going to provide the power that the jobs that will be generated as a result will need. **(0001-98** [Gossett, Lewis])

Comment: ... I truly understand and appreciate what this project will provide in the way of jobs for our citizens, both in the construction phase and in the operations phase. ... During the operations phase, we heard numbers of up to 800 workers. These employees will have competitive salaries based on their skills and training. These high wage, high skill jobs will have a profound positive impact on the per capita income of this community. **(0001-111** [Forrester, Mike])

Comment: The building of this facility will also help continue a long Duke Energy tradition of providing affordable energy rates for business and industry. **(0001-112** [Forrester, Mike])

Comment: Today seven nuclear reactors at four sites generate 52 percent of South Carolina's electricity. I ask the regulators to consider how these communities have been changed by the presence of those facilities. I believe you'll find that these communities have enjoyed increased economic output, improved community infrastructure and a peace of mind garnered from years of nothing but positive actions from their corporate neighbors. **(0001-150** [Murphy, William])

Comment: The Spartanburg Chamber believes that this facility will also benefit the economy of the Upstate and of South Carolina. The potential investment in the region will have considerable impact, not only in Cherokee County, but in neighboring Counties like Spartanburg. Development of the Lee Station in the Upstate will bring thousands of construction jobs, additional services, and hundreds of high paying, full-time jobs during the actual operation of the plant. There is no doubt that the project will make a major contribution to the economy of Cherokee County, Spartanburg County and neighboring counties in the region. **(0011-4** [Cordeau, David])

Comment: The Lee Nuclear Station will provide significant benefits to South Carolina's economy and has broad support from citizens within the community who stand to directly benefit from the construction and operation of this facility. Duke Energy's multi-billion dollar investment in South Carolina will bring more than 3,000 construction jobs and over 800 full-time jobs, contributing positively to the economy of Cherokee County, as well as neighboring counties, during its operating life. Additionally, as we have seen at other facilities, station employees will contribute to their communities in many ways, including financially and through volunteer and service commitments. **(0013-2** [Barrett,

J. Gresham] [Brown, Henry E.] [Clyburn, James E.] [DeMint, Jim] [Graham, Lindsey] [Inglis, Bob] [Spratt, John M.] [Wilson, Joe])

Comment: This facility also has a significant benefit to the economy of South Carolina and Cherokee County. This multi-billion dollar investment in the County will bring over 2000 construction jobs and over 800 full-time jobs during its operating life. It will contribute positively to the economy of Cherokee County and neighboring counties. The facility will also provide needed high paying jobs for the Citizens of Cherokee County and of South Carolina. (0016-3 [Cook, Jim])

Comment: During construction, thousands of workers with different skills will be required. Operations at the Lee Station could employ approximately 1,000 workers. These employees will have competitive salaries based on their skills and training. ... I can attest to the positive economic development impact that the Oconee Nuclear Station has had in Oconee and Pickens Counties. I am absolutely sure that the addition of Lee Nuclear Station to Cherokee County will stimulate economic development in the entire region, in both direct spending and in economic activity generated by the plant and its employees. (0018-4 [Sandifer, Bill])

Comment: The addition of Lee Nuclear to Cherokee County will support economic development. Nuclear plants substantially contribute to local and state economies, both directly and indirectly. (0023-2 [Peeler, Harvey S.]

Comment: The proposed facility disclosed to Cherokee County by Duke Energy will have a significant benefit to the economy of Cherokee County and South Carolina. (0024-2 [Batchler James D.; Foster, Rufus H.; Humphries, H. Baily; Little, Quay; Mathis, Charles; Parris, Hoke; Spencer, Tim])

Comment: Access to affordable, reliable energy is a critical factor in attracting future business investment and maintaining our state's healthy economy. Without new capacity to produce more energy, South Carolina's economic growth potential could be jeopardized as business and industry choose to halt expansion plans or invest elsewhere. Beyond supporting current economic activity and future development, the Lee Nuclear Station will, itself create thousands of new jobs during construction and could generate more than 1,000 high-paying jobs once the facility is operational. (0030-3 [Taylor, Joe])

Comment: This facility is also a benefit to the economy of South Carolina. This several billion dollar investment in South Carolina will bring over 2000 construction jobs and over 800 full-time jobs during its operating life. It will also contribute positively to the economy of Cherokee County and neighboring counties over its lifetime. (0047-3 [Vogel, Chip])

Comment: The economies of both counties have been under attack over the last decade with the loss of a tremendous number of textile and industrial jobs. Most of these jobs have been outsourced overseas, and we are fighting a battle to replace the jobs and the investment. One of the key attractions to our area are competitive electrical rates, the availability of power and the existence of excess capacity in our system grid. Adding the Lee Nuclear Plant to this grid is key to our being competitive in this world economy. (0048-1 [Chapman, A. Foster])

Response: *These comments generally express support for the proposed action based on the potential positive socioeconomic impacts it would be expected to bring to the region. Socioeconomic impacts of construction and operation will be addressed in Chapters 4 and 5 of the EIS.*

Comment: We have hundreds and hundreds of empty factories and empty warehouses throughout South Carolina and North Carolina due to textile industries and furniture industries leaving this area. We have thousands and thousands of workers that would love to be building solar panels and wind turbines that are now being produced in other countries by the thousands. We are losing this economic battle and we're going to end up in a situation where the 800 jobs Duke says are going to be at the nuclear plant -- which by the way, I contest. From what I understand, it will probably be more like 200 permanent jobs, it's not worth it. (0001-36 [Cherin, Mike])

Comment: The next issue is jobs. This is a major federal activity and I'll go back to this, but this is now federal dollars being spent, not just the industry's money. This is major federal actions that Congress is spending taxpayers' money on. By my calculations, this evening we heard that it was going to be 800 permanent jobs. If there's a cut-rate deal on the AP1000 and Duke gets one for \$8 billion --that's for one unit, so I'm assuming the 800 jobs is for two units, so that would be 1600, so double my number because it comes out to \$800 million a job and you double that, 16? No, even higher, I can't do the math in my head. So how much money per job are we talking about here? It's astronomical. We need to look at the relative ability to create jobs from other possible energy sources. And I commend to you a report by the Tennessee Valley Authority, because TVA has generating capacity in solar, in wind, in hydro, in coal, in gas and in nuclear. And in fact, if you look at their studies, you will find that you will get more jobs per kilowatt-hour and offer more cost effective electricity for the consumer in every other form of power generation. Nuclear has the least jobs per kilowatt-hour. Please include and reference the TVA document in your EIS. (0001-51 [Olson, Mary])

Comment: Energy was cheap when all the jobs left, when our country decided to do this free trade, gobblization as a friend of mine renamed it, NAFTA stuff. That's where all the jobs went. They didn't go because of energy cost. Cheap energy isn't going to bring the jobs back. (0001-179 [Minerd, Leslie])

Comment: The enticement of jobs is false hope for people in this area. Everyone knows that trained people will be brought in from the outside to work the facility just like BMW, TNS Mills. (0026-3 [Poole, Mary Jane])

Response: *Socioeconomic impacts, such as labor impacts associated with the construction and operation of the Lee Nuclear Station, will be addressed in Chapters 4 and 5 of the EIS.*

Comment: Duke Power depreciated the Catawba nuclear facility off the tax books at the end of 30 years, which was supposed to be the life of the plant. ... The NRC, however, chose to relicense this plant. But York County taxes did not return to the original income for this facility. Therefore, we are exposed to the risk but do not now reap the benefits of tax revenue from this plant. We will also be left with the eternal legacy of the site after closure. (0001-193 [Connolly, Mary Ellen])

Response: *The NRC is not involved in establishing energy policy; rather, it regulates the nuclear industry to protect public health and safety within existing policy. Issues related to taxes are outside of the NRC's mission and authority and are not addressed in the EIS. The socioeconomic impacts will be addressed in Chapters 4 and 5 of the EIS.*

Comment: The question is, you know, what's a fair balance between having this water that's lost to generate nuclear energy and the loss to those that need to generate renewable hydro-generation, hydroenergy. And there's not a good answer to that, but there's a few ways -- I guess the concern that I've got is that somehow mitigation needs to be taken into account in this environmental effort, the review that's about to take place. There's several different ways to fix the problem and strike a fair balance. I'm not proposing any particular one or promoting any particular one. ... There may be a way to create a rain catchment area so that makeup water can be put back into the river as it's lost through evaporation. Alternatively, it may be possible to have deep well pumping to do the same function. That's not necessarily a great solution either. I don't know if there is a great solution. At the very least, you know, if this site is going to be built and what basically is free fuel to those hydro-generators downstream is lost, then perhaps some kind of straight-forward financial reimbursement would be the best way to go. (0001-101 [Stone, Bryan])

Response: *This comment expresses concern regarding the availability of an adequate supply of water in the area to support both the two new reactors and any downstream hydro plants. This topic will be addressed in Chapter 5 of the EIS.*

Comment: We are also concerned with possible economic or cumulative affects growth and/or development to the currently rural areas of the county and around the river this project may bring. This project may cause further development around the river in the form of housing subdivisions and infrastructure which may impact the scenic viewshed and environmental health of the river. We ask that you study these impacts and include them in your document. (0042-5 [Crockett, Mary])

Response: *The EIS will include an evaluation of the socioeconomic and environmental impacts of operating a nuclear plant at the Lee site on the region. The evaluation will include both aesthetic and housing impacts.*

10. Comments Concerning Historic and Cultural Resources

Comment: ... I'm sure the Cherokee Indians may have an interest in what's going on with this river because much of their history is there. (0001-195 [Connolly, Mary Ellen])

Response: *The NRC has initiated consultation with the Eastern Band of the Cherokee Indians in accordance with Section 106 of the National Historic Preservation Act of 1966 and NEPA and will continue to do so throughout the EIS process.*

Comment: We have been in informal comments with Duke Energy and the NRC on this project for the past year, and we have reviewed and commented on several cultural resources surveys conducted to identify potential historic properties at the Lee Nuclear Plant site. Based on our conversations and the review of these documents, it is the opinion of our office that a programmatic agreement or some other type of formal agreement may be the best way to handle historic properties and cultural resources at the Lee Nuclear Plant site.

We understand that not all aspects of the construction and operation of the plant will be finalized at the time of the granting of the license. In our opinion, the agreement should include:

- The survey and historic property identification within additional Areas of Potential Effect (APE) as identified for discharge structures, transmission lines, roads, etc.
- Management of the property as well as future construction over the 40 year term of the license
- The handling of late discoveries and future consultation (0043-1 [Dobrasko, Rebekah])

Comment: There was some question about the State Historic Preservation Office's (SHPO) recommendation for a programmatic agreement to cover future work/potential effects at the site. Our recommendation is based on 36 CFR 800 Protection of Historic Properties. Based on 36 CFR 800.14 (b)(1), the regulations specify that a programmatic agreement may be used when: Effects on historic properties cannot be fully determined prior to the approval of an undertaking and when nonfederal parties are

delegated major decision-making responsibilities. Since the discharge structures, transmission lines, roads, etc. related to the construction of the Lee Nuclear Plant are not yet defined, and most likely will not be defined prior to the issuance of a COL, then it is the SHPO's opinion that any effects to historic properties cannot be determined prior to the undertaking. Also, Duke Energy will be responsible for the surveying and reporting aspects of this project, so in our opinion, a programmatic agreement between the NRC, the SHPO, Duke Energy, and any other interested parties, such as any Native American tribes, may be appropriate in this case. (0044-1 [Dobrasko, Rebekah])

Response: *The NRC intends to work with the SHPO on the request to formalize an agreement on future activities, but at this time the exact mechanism for this agreement is still being discussed.*

11. Comments Concerning Health - Radiological

Comment: How can these proposed reactors assure safeguard against emissions which were previously considered too minute to cause cancer? (0001-143 [Patrie, Dr. Lew])

Comment: All nuclear power plants leak and emit toxins and nuclear cancer-causing pollutants into the air, water and the soil. (0001-196 [Connolly, Mary Ellen])

Comment: I am concerned about radioactive emissions. (0005-3 [Craig, Anne])

Comment: Tritium has been linked to developmental problems, cancers, genetic defects, miscarriages and damage to fetuses even at low levels. What is the NRC's specific dose estimates for tritium (radioactive hydrogen and Nobel gases for all metropolitan areas within 100 miles (INCLUDING MY GRANDCHILDREN!)). (0007-8 [Arnason, Deb])

Comment: Tritium like Duke leaked. Anyone done an independent study of leukemia in the area of Duke leak? Charlotte Observer, Thurs. Oct 11, 2007. Near my Grandchildren on well water!! (0008-4 [Arnason, Deb])

Comment: Air quality: Please supply specific dose estimates for tritium and Nobel gases for all metropoilitan [metropolitan] areas within 100 miles. (0034-2 [Karpen, Leah R.])

Comment: What are the specific dose estimates including tritium and Nobel gases for all areas within 100 miles? (0038-2 [Turk, Lawrence "Butch"])

Response: *Emission estimates will be based on the approved AP1000 Design Control Document (Westinghouse 2007); these emission estimates are anticipated to be*

conservative (that is, they will overestimate emissions). The human health and environmental impacts of the emissions will be addressed in Chapter 5 of the EIS.

Comment: ... Duke alone already operates five reactors in South Carolina and several more nearby in North Carolina. ... Further, a host of nuclear waste and nuclear industrial operations are here in South Carolina. The Savannah River Site near Aiken is the most radioactive Department of Energy site in the nation. The Barnwell nuclear dump is also a radioactive hot spot. And nowhere in the application does it discuss the cumulative impacts of having all these facilities operating in South Carolina. It does not discuss the cumulative health impacts to Carolinians. The NRC must address these cumulative impacts to human health in the draft EIS. (0001-23 [Barczak, Sara])

Comment: The first is the Part 20 radiation standards that are the federal government's protection to the populations that are impacted by these activities that do release radioactivity into the air, into the water, generate waste and sewage, radioactive sewage, and the allied activities that support the facility also have all these emissions. I'm deeply concerned that this area is already impacted by nine nuclear power plants and two more being added will make eleven and I know that every piece of data that you will hand me says that the operations are below the Part 20 standards. You need to look at the fact that you allow those levels. If those levels are allowed, can that kind of activity meet your standards -- being the federal regulators that I'm speaking to. So it's not only this community, there's Charlotte, there's Columbia and we have to consider the Savannah River Site in that calculation. (0001-50 [Olson, Mary])

Comment: As the NRC is aware, Duke already operates five reactors here in SC and several more nearby in NC..... Further, a host of nuclear waste and nuclear industrial operations are here in SC. The Savannah River Site near Aiken is the most radioactive Department of Energy site in the nation. The Barnwell nuclear dump is also a radioactive hot spot. Nowhere in the application does it discuss the cumulative impacts of having all these facilities operating in SC. Nor does it discuss the cumulative health impacts to Carolinians. The NRC must address these cumulative impacts tohuman health in the draft EIS. (0010-3, 0049-11 [Barczak, Sara])

Comment: We have enough nuclear power plants and problems that go along with it, i.e. Barnwell Dumpsite, Savannah River Plant. (0026-2 [Poole, Mary Jane])

Response: *Impacts of the normal operation of the two new reactors will be addressed in Chapter 5 of the EIS, and cumulative impacts addressed in the cumulative effects section of the EIS.*

Comment: Duke says substance found at the site contained radioactive tritium leaking into the groundwater from the Catawba nuclear power plant on Lake Wylie. Well, this is near my grandchildren. And one of the things I've learned with tritium -- I didn't know

anything about it -- by the way, my grandchildren have well water. (0001-66 [Arnason, Deb])

Comment: I wanted to see what tritium does to cancer. Tritium is commonly found in water molecules. New evidence of an association between increased cancers and proximity to nuclear facilities raises difficult questions. Should pregnant women and young children be advised to move away from them, should local residents check the safety of their gardens and crucially, should those around the world who are planning to build more reactors think again. (0001-70 [Arnason, Deb])

Comment: Harmful radioactive pollution is released into the air and water from nuclear power plants on a routine basis. Also, highly toxic radioactive waste is stored on site in pools of water. "Children living near nuclear power plants suffer higher levels of birth defects, cancer and early death. A study of medical records found that **infant death rates near five U.S. nuclear plants increased within two years after the plants opened. The study also found that infant deaths decreased 15-20% soon after the reactors closed.** And the decreases in cancer and birth defects continued for 7 years after plant closure. (Environmental Epidemiology and Toxicology, 2002, Radiation and Public Health Project)" (0035-2 [Hamrick, Mike])

Response: *The comments concern emissions of tritium and health effects that may result from such emissions. Emission estimates will be based on the approved AP1000 Design Control Document; these emission estimates are anticipated to be conservative. The NRC will evaluate human health and environmental impacts of the emissions in the EIS. Analysis results will be presented in Chapter 5 of the EIS.*

Comment: What kind of harm might we expect from a nuclear power plant in Cherokee County? One study compared cancer deaths before and after an operating plant in Burke County, Georgia. Cancers in all populations rose 24.2 percent in the county where the reactor began operating. Meanwhile, cancer rates statewide, all of Georgia, fell 1.4 percent. Can we say it came only from the nuclear reactor? Let's look at the radioactivity in the drinking water downstream from that Vogtle reactor. Between 1990 and 2003, an increase of 17 percent of beta radiation was detected by the Jasper water treatment plant, 112 miles downstream. Cesium 137 increased by 37 percent in that period after the Vogtle Nuclear Plant began operating. The Georgia Environmental Protection Division tested water, sediment, fish and found that indeed radiation was from two to 50 times above background levels -- two to 50 times above background levels. Is this from the bomb plant which is nearby? No. We have Savannah River Company separated out, the tritium, the radioactive water, from those two sources was tested and found 1900 curies going into the river in 2003, 1200 curies of radiation in 2004, 1860 curies of radiation in 2005. (0001-30 [Zeller, Lou])

Comment: We have now from the University of South Carolina in Charleston, an analysis of 17 research papers covering 136 nuclear sites in the UK, Canada, France, the US, Germany, Japan and Spain, the incidence of leukemia in children under nine living close to the site showed an increase of 14 to 21 percent while it could be as high as 24 percent, depending on how close they were to the nuclear facility. Okay, this was followed by a German study of 14 cases of leukemia compared to the accepted four cases. And here's another one, this is in Germany, the results were published in the International Journal of Cancer. The main findings were a 60 percent increase in solid cancers and 117 percent increase in leukemia among young children living near all 16 large Germany nuclear facilities between 1980 and 2003. The closer they lived to the plant, the worse the health problems. Twice as likely to contract cancer as those living further away. (0001-67 [Arnason, Deb])

Comment: Another example [of misleading information] is a cancer rate study that I keep hearing cited. It's been scientifically debunked and rejected by numerous state and federal review boards. But I keep hearing that cited. (0001-84 [James, Andrew])

Comment: [R]ecent findings suggest that children living near nuclear reactor facilities face an increased risk of cancer ... A study of medical records found that infant death rates near five U.S. nuclear plants increased within two years after the plants opened. The study also found that infant deaths decreased 15 to 20 percent soon after the reactors closed. And decreases in cancer and birth defects continued for seven years after plant closure. ... last year, researchers at the Medical University of South Carolina, already cited this evening, analyzed research regarding 136 nuclear site in half a dozen states (sic) including the United States, and they reported leukemia incidences and deaths among children, depending on the closeness that they had to the nuclear facilities. Other studies found that children living closer to nuclear plants were more than twice as likely to contract cancer as those living further away, which has been confirmed by the German government. Critics of these studies again asserted that the radiation doses from nuclear power plants were too low to cause cancer, but other new data assert that there is no safe level of radiation, that infants and children are at greater risk than the standard man about whom safety standards have been calculated since the day the first bomb was dropped on Hiroshima.

Difficult questions come with this new evidence of a connection between increased cancers and proximity to nuclear facilities, such as how do you advise pregnant women and families with young children, and what do you advise people about the safety of crops grown in proximity to nuclear reactors? (0001-141 [Patrie, Dr. Lew])

Comment: What about the health of my precious grandchildren? I understand there is a book out now that proves children are getting sick in the vicinity of nuclear plants, something in the title about radioactive materials in their baby teeth! (0007-4 [Arnason, Deb])

Comment: Contrary to assertions about the safety of nuclear power and that no adverse health risks arise from people living in proximity to nuclear reactors, recent findings suggest that children living near nuclear facilities face an increased risk of cancer. Though a link had long been suspected, but never proved, that seems likely to change.

A study of medical records found that infant death rates near five U.S. nuclear plants increased within two years after the plants opened. The study also found that infant deaths decreased 15-20% soon after the reactors closed. And the decreases in cancer and birth defects continued for 7 years after plant closure. (Environmental Epidemiology and Toxicology, 2002, Radiation and Public Health Project). ... last year researchers at the Medical Univ. of South Carolina analyzed research regarding 136 nuclear sites in the UK, Canada, France, Germany, Japan, Spain and the United States, reported increased leukemia incidences and deaths among children, depending on their closeness to the nuclear facilities (European Journal of Cancer Care, vol 16, p 355). Other studies found that children living within 5 kilometers of the plants were more than twice as likely to contract cancer as those living further away, a finding that has been accepted by the German government. Critics of these studies again asserted that the radiation doses from nuclear power plants were too low to cause cancer, but other new data assert that there is no safe level of radiation, that infants and children are at greater risk than the standard man about whom safety standards have been calculated since the Hiroshima bomb.

Difficult questions come with this new evidence of a connection between increased cancers and proximity to nuclear facilities, such as how to advise pregnant women and families with young children, and the safety of crops grown in proximity to nuclear reactors. (0015-4 [Patrie, Dr. Lew])

Response: *These comments refer to health impacts, which will be addressed in Chapters 4 and 5 of the EIS.*

12. Comments Concerning Accidents - Severe

Comment: There is a shocking NRC document called Report on Spent Fuel Accident Risk. According to the NRC, fire in a spent fuel pools at a reactor like Yankee which stores 488 metric tons of spent fuel would cause 25,000 fatalities over a distance of 500 miles if evacuation was 95 percent effective, but that evacuation rate would be almost impossible to achieve. (0001-43 [Biggs, Diane])

Comment: Are you aware of the Sandia study NUREG-1738? (0041-7 [Sutlock, Dot])

Comment: Are you aware of the claims that a spent fuel fire could produce 30,000 uninhabitable square miles which in this case would include Charlotte and the

nearer smaller cities? Read [the article] What about the Spent Fuel? Bulletin of the Atomic Scientist Jan/Feb 2002. (0041-8 [Sutlock, Dot])

Response: *These comments address large consequences of very low probability events at reactors being decommissioned. The NRC has adopted the use of mean risk estimates for the purposes of implementing its safety goal policy (51 FR 30028). Risk is the product of the event probability and consequences. When the consequences cited in the comments are multiplied by the probability of the events leading to the consequence, the average individual and population risks associated with the spent fuel pools are lower than the risks established in the safety goal policy. In fact, the first conclusion of NUREG-1738 is as follows: "The risk at decommissioning plants is low and well with[in] the Commission's safety goals. The risk is low because of the very low likelihood of a zirconium fire even though the consequences from a zirconium fire could be serious." Designs of spent fuel pools for new reactors have benefitted from risk analyses of spent fuel pools for existing reactors. Thus, the staff expects that the risks associated with spent fuel pools for new reactors will be lower than those associated with spent fuel pools at reactors undergoing decommissioning.*

Comment: Are you aware that the Sandia CRAC-2 study projects 42,000 early fatalities from an accident at Catawba and 26,000 cancer deaths from an accident at McGuire? (0041-9 [Sutlock, Dot])

Response: *The potential consequence of a severe accident can be large. However, not all severe accidents lead to large consequences, and the probability of a severe accident is extremely low. As a result, risk, which is the product of probability times consequence, is the measure used to evaluate impacts of severe accidents. Risk and environmental impacts of postulated accidents at the Lee site will be assessed, and analysis results will be presented in Chapter 5 of the EIS.*

13. Comments Concerning the Uranium Fuel Cycle

Comment: Another part of this equation is the fact that we have no place to put nuclear waste. We have the hubris to believe that as humans we can tell future generations for 120,000 years that this waste that we put on their shoulders is a responsible act. It's not a responsible act. Nevada is refusing to take nuclear waste, most South Carolinians, when they find out about what's going on down in Aiken with the nuclear waste repository planned there, do not want to see this. (0001-35 [Cherin, Mike])

Comment: What are you going to do with nuclear waste. (0001-108 [Moss, Charles])

Comment: [T]he environmental impact statement should look at the complete nuclear fuel cycle and impacts all along the chain. (0001-133 [Clements, Tom])

Comment: [L]ow level nuclear waste is produced all the time -- there is no place that high level nuclear waste, spent fuel rods that are taken out of the reactors, is going at the current time. The Yucca Mountain facility -- and I want to make this clear to everybody -- construction has stopped. ... And what might those alternatives to Yucca Mountain be? [Senator Pete Domenici] is talking about creating interim storage sites, one in the east and one in the west or the reprocessing of spent fuel which, as was also pointed out, if that program goes forth, a huge amount of spent fuel would go to wherever the reprocessing site would be. And unfortunately the Savannah River Site is a prime candidate for that in the United States.

So what does that mean for the Lee site? And this has to be analyzed in the environmental impact statement. There is likely no place that that spent fuel is going to go. So we may well be looking at the de facto high level waste dump on the banks of the Broad River. (0001-134 [Clements, Tom])

Comment: ... I think the spent fuel should be a show stopper. There's no place for it to go, there's nothing to do with it. (0001-135 [Clements, Tom])

Comment: I'm concerned about the production of the nuclear reactors from the uranium mining right through the time we're dealing with nuclear waste, which are very high level kinds of waste, and the health effects generated from them. (0001-138 [Patrie, Dr. Lew])

Comment: ... I would urge the NRC to maybe start looking inside themselves, maybe start looking at their hearts and start realizing that we're really messing with something here that is mostly interfered by with something that I call WMD, which is waste management denial. (0001-180 [Sorensen, Ole])

Comment: [H]ow does it affect the next generation when we have nowhere to put the waste. (0001-186 [Sorensen, Laura])

Comment: It doesn't take just five years for this to be decontaminated once it's buried. It takes 10,000 years. (0001-187 [Sorensen, Laura])

Comment: Duke has no place to put the spent fuel rods that they use except in huge pools within the Catawba plant itself, as well as McGuire and Oconee plants. Nor is there any repository or any hope for one, it looks at this point, for the rods that will be produced in the future. What are we going to do with these rods that are now stored on these plants? Even the low level waste may have no place to go if the low level dump at Barnwell closes. (0001-191 [Connolly, Mary Ellen])

Comment: The NRC needs to look at the environmental impact of the entire nuclear generated fuel cycle, from the uranium mining to the post production of nuclear energy. The environmental impact on areas of our southwest, particularly on Native American

lands, has been devastating. Health risks associated with uranium mining should also be considered. (0005-1 [Craig, Anne])

Comment: I am concerned that there is no present solution for safe storage of the radioactive waste. It seems ludicrous to pour billions of dollars into building power plants whose life span is 25-30 years, leaving our children and grandchildren with lethal waste for thousands of years. There are safer and better ways to meet our energy needs. (0005-5 [Craig, Anne])

Comment: Where will the waste that remains hazardous for thousands of years be stored? (0007-6 [Arnason, Deb])

Comment: No one agency has yet solved the problem of safe disposal of nuclear waste, or spent nuclear fuel. Better not to create waste in the first instance. (0034-6 [Karpen, Leah R.]

Comment: Where will the waste go? (0041-2 [Sutlock, Dot])

Response: *The impact of the uranium fuel cycle, including disposal of low-level radioactive waste and spent fuel, will be addressed in Chapter 6 of the EIS. The generic impacts of the fuel cycle are codified in 10 CFR 51.51(b), Table S-3, "Table of Uranium Fuel Cycle Environmental Data." Per the guidance in 10 CFR 51.51 and Section 5.7 of NUREG-1555, the staff will rely on Table S-3 as a basis for uranium fuel-cycle impacts.*

The safety and environmental effects of long-term storage of spent fuel on site has been evaluated by the NRC and, as set forth in the Waste Confidence Rule at 10 CFR 51.23 (available at <http://www.nrc.gov/reading-rm/doc-collections/cfr/part051/part0510023.html>), the NRC generically determined that "if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel installations. Further, the Commission believes there is reasonable assurance that at least one mined geologic repository will be available within the first quarter of the twenty-first century and sufficient repository capacity will be available within 30 years beyond the licensed life for operation of any reactor to dispose of the commercial high-level waste and spent fuel originating in any such reactor and generated up to that time."

Comment: In January, Russia and the U.S. Commerce Secretary signed a trade agreement. This allowed Russia to incrementally boost enriched uranium exports to the U.S. The deal allows the sale of Russian enriched uranium directly to U.S. utilities. ... by 2014, one in five American nuclear plants will be running on Russian uranium. ... According to the U.S. Nuclear Energy Institute, the American market will have a

uranium shortage beginning in 2011. ...I would like maybe us to start to think about the future and what's happened to us with oil. Everyone is complaining that we need to be sustainable at home, we need to not be dependent on oil. And yet what we're setting our future for with uranium imports from Russia and other countries, Australia and Kazakhstan, we're going to be dependent on uranium imports. (0001-181 [Sorensen, Laura])

Comment: I am coming with a very simple message and that is that there is no reasonable likelihood that when these nuclear reactors are built there will be fuel supply to run them. It's not the case, as was just suggested, that demand exceeded supply recently. ... that happened back in 1990. Since then, the shortfall has been made up by the supplies from Russia.... the International Atomic Energy Association projection puts the Russian source of uranium running out in 2014, the enrichment uranium running out in 2011 and the stockpiled uranium running out -- guess when -- 2008. ... If this is the case, why are we building new ones? ... I suggest that in this part of the study, you look very carefully at the supply question, globally. (0001-188 [Sticpewich, John])

Comment: ... I tend to wonder why where uranium production is such a question, we're talking about new reactors ... And until then, I suggest we should stop wasting the taxpayers' money talking about things that really can't happen. (0001-189 [Sticpewich, John])

Response: *The irretrievable and irreversible commitment of resources, such as uranium, will be addressed in the context of the resources' availability in Chapter 11 of the EIS.*

Comment: Back from the '50s to the '70s, a lot of people were killed because of uranium poisoning. They were open pit mining. The United States ended up giving the Native Americans compensation for the medical bills for cancer. This is a proven fact, uranium mining equals cancer. (0001-183 [Sorensen, Laura])

Comment: [R]ight now uranium has more than tripled in price, so the government is going back now and these mining companies are going and saying we're coming back and we have this new technology. ... it's also called uranium leaching, it's leach mining. And what they do is they inject chemicals into the ground and that leaches up off the rock, the uranium. So they did studies of course and told these Native Americans in New Mexico and the four corner states of the west that this was okay, this is safe, this is brand new technology. Well, the Native Americans, after they've lost their families to cancer, are saying no way. We're going to have other experts come in and do a study and see how safe this is. So two other companies came in and they said, listen, if they do this, within seven years, your water supply will be destroyed. (0001-184 [Sorensen, Laura])

Comment: So I think I am asking you all to think globally when there's an issue like this. It's not just about us right here. ... I hope that you can think about the [Native Americans] and think about this whole process of not just flipping your switch or having this right here in your area. How does it affect the rest of the world, how does it affect Native Americans and their children? (0001-185 [Sorensen, Laura])

Response: *The impact of the uranium fuel cycle will be addressed in Chapter 6 of the EIS. The generic impacts of the fuel cycle are codified in 10 CFR 51.51(b), Table S-3, "Table of Uranium Fuel Cycle Environmental Data." Per the guidance in 10 CFR 51.51 and Section 5.7 of NUREG-1555, the staff will rely on Table S-3 as a basis for uranium fuel-cycle impacts.*

14. Comments Concerning Transportation

Comment: Let's talk about nuclear waste and let's talk about the accidents that are going to happen with nuclear waste -- not if, but when. The more nuclear waste and the more nuclear products that are transported throughout this country, we're going to have trucks going off the road, spilling nuclear waste. (0001-34 [Cherin, Mike])

Comment: I am concerned about the transport of high level radioactive materials over our roads and rails, the likelihood of accident and the lack of adequate emergency response (0005-4 [Craig, Anne])

Response: *The health and safety impacts of transporting fuel and waste by truck to and from the proposed Lee site will be addressed in Chapter 6 of the EIS.*

Comment: And I see truncation under NEPA, particularly because there is clear evidence that one of the requirements for these projects to go forward is at least the appearance of a solution to the nuclear waste problem, which would involve moving the nuclear waste, which would most likely involve moving the nuclear waste somewhere into South Carolina, either Barnwell or Savannah River Site. That's conjecture -- it is -- but there's these federal EIS's about to come out on it. So how and why do these all fit together and in what way is the public, and more importantly, our environment, served by these separate, broken up, scatter-shot analyses that will result in nobody looking at the impact of tens of thousands of shipments of high level nuclear waste traveling through downtown Charlotte, around the beltway of Columbia, potentially across the bridge in downtown Asheville, definitely through the heart of Atlanta, definitely through the heart of Augusta. And where is that going to be looked at? (0001-57 [Olson, Mary])

Comment: You're going to tell me that that [transporting nuclear waste from multiple power plants] through the Carolinas doesn't fit in this EIS. Well, you tell me which EIS it fits in. (0001-58 [Olson, Mary])

Response: *The health and safety impacts of transporting fuel and waste to and from the proposed Lee site will be addressed in Chapter 6 of the EIS. The transportation of nuclear waste and fuel to and from other reactors is outside the scope of this review.*

Comment: Disposal of hazardous waste material from the Lee site must be carefully reviewed. Potential hazards during waste removal and transport to an appropriate facility must be documented in the EIS. (0045-13 [Hall, Timothy N.])

Response: *The impacts from the generation, handling, and disposal of hazardous waste material from the operation of the Lee site will be addressed in Chapter 5 of the EIS.*

Comment: [W]e have a traffic advisory committee, which includes local residents, evaluating potential traffic impacts to the community during construction and operation, and we are working with neighbors and businesses regarding transmission and railroad right of ways. (0012-3 [Dolan, Bryan])

Response: *Environmental impacts associated with any planned new transmission lines and additional railroad rights-of-way will be addressed in the context of cumulative effects, as well as potential impacts associated with upgrades to the existing lines. The nonradiological impacts of transporting construction materials and workers will be addressed in the EIS.*

15. Comments Concerning Cumulative Impacts

Comment: I don't think it is fair to have two here. The adverse impact on one is enough for taxpayers to deal with, what with the, increased cancer incidents in Oconee. (0004-1 [Kohler, Elizabeth])

Comment: Construction of the Lee site, or any of the other alternatives considered, may foster or accelerate increased development of the surrounding areas. The EIS should model potential changes including, but not limited to, demographics, population growth, traffic needs, and spread of invasive and exotic species. Particular attention should be given to the effected riverine and natural wetland and floodplain systems. We are concerned that the water intake from the Broad River could disrupt the ecological balance within the system. How will the water intake affect the drinking water supplies and assimilative capacity of the Broad River? (0045-11 [Hall, Timothy N.])

Response: *The direct and indirect impacts associated with the construction and operation of the proposed Lee site will be evaluated in Chapters 4 and 5 of the EIS. The impacts from multiple nuclear units will be discussed in the cumulative section of the EIS to the extent the staff has determined it is appropriate.*

16. Comments Concerning the Need for Power

Comment: As a high growth state, South Carolina needs additional safe and reliable sources of baseload electric generation. (0001-1 [Moss, Dennis Carroll])

Comment: In the Carolinas, Duke Energy adds approximately 40,000 to 60,000 customers each year. As a regulated utility, it's our obligation to serve that growth in electric demand. Each year, Duke Energy uses an integrated planning approach to ensure it can reliably and economically meet the electric needs of our customers well into the future. The planning process takes into consideration many factors, including projected electricity use, existing generation, generation supply contracts, demand-side management, energy efficiency and potential new sources of generation such as renewable resources, coal, natural gas and nuclear. Duke's planning process tells us that among other options such as renewables, coal and natural gas, it is prudent to maintain new nuclear as an option for our customers going forward. Although we have not yet made a decision to build a new nuclear plant, if we are to maintain nuclear as an option for our customers in the latter part of the next decade, it is important that we prudently plan for this option now. (0001-12 [Dolan, Bryan])

Comment: ... I also come today to applaud the company's efforts to anticipate growing needs and plan now for what we need in the future. We need safe, reliable electricity for my family and customers across the Carolinas. (0001-74 [Blue, Lilly])

Comment: Demand across South Carolina is growing and recently a group of utility executives met ... [and] were talking about if we didn't make the decisions right now to build these plants within the next 10 to 12 years, that we could expect, particularly in the southeast -- and this was the phrase that they used -- sustainable and uncontrolled blackouts. So demand is growing. We need additional capacity. There are really no reasonable alternatives to new nuclear plant construction. Without new capacity, our factories risk shutdowns or closure (0001-92 [Gossett, Lewis])

Comment: As our area continues to grow, the need for additional safe, reliable and affordable electric generation will increase greatly. This facility will provide that additional needed baseload capacity while also reducing greenhouse emissions. (0001-113 [Forrester, Mike])

Comment: South Carolina needs additional safe, reliable, base-load electric generation, which does not emit greenhouse gases to serve our growing needs (Duke Energy alone is adding 40,000 - 60,000 new customers each year). Electric generation from renewable energy is important. However, these resources cannot provide the sustained capacity that base load generators, like nuclear, can provide 24-hours a day (0018-2 [Sandifer, Bill])

Comment: U.S. Department of Energy estimates that our electricity demand will increase 25 percent by 2030. It's easy to see why. As technology advances, our economy expands, and our population increases, so too will our need for energy grow. We have so many devices that require electricity to recharge-such as laptops, cell phones, and iPods. And in the not too distant future we may be driving cars powered by fuel cells that will also be plugged in for recharging. (0029-2 [Houston, Kate])

Comment: The two proposed nuclear generators at the Lee Nuclear Station would supply energy to about 2 million homes, with a capacity of 2,234 megawatts. Duke Energy now serves 2.3 million customers in both North and South Carolina. The company adds about 50,000 new customers each year to its services in both states, and expects to increase output by 10,700 megawatts by 2027 in order to meet demand.

South Carolina has witnessed phenomenal growth in the past few years. In 2007, our state was the 10th fastest growing state in the nation, according to the U.S. Census Bureau. Estimates show this trend continuing in the decades ahead and more sources of power will be needed to accommodate this demand. (0030-2 [Taylor, Joe])

Response: *Affected states or regions may prepare a need for power evaluation and an assessment of the regional power system for planning or regulatory purposes. A need for power analysis may also be prepared by a regulated utility company and submitted to a regulatory authority such as a state Public Utilities Commission (PUC), who has regulatory authority over the Certificate of Public Necessity and Convenience, as well as rates and rate recovery. However, the data may be supplemented by information from other sources as required. The determination for the need for power is not under NRC's regulatory purview. When another agency has the regulatory authority over an issue, NRC defers to that agency's decision. The NRC staff will review the need for power and determine if it is (1) systematic, (2) comprehensive, (3) subject to confirmation, and (4) responsive to forecasting uncertainty. If the need for power evaluation is found to be acceptable, no additional independent NRC review is needed. The need for power will be addressed in Chapter 8 of the EIS.*

Comment: The NRC also needs to fully evaluate Duke's need for power along with alternative supply options, including energy efficiency and demand-side management measures. We are concerned that Duke is over-estimating capacity needs and that the NRC needs to fully evaluate whether the additional generating capacity is truly needed. The high cost of nuclear power plants will likely result in cost overruns and rate increases and this is not mentioned in the application. (0001-15 [Barczak, Sara])

Comment: The other part of this too is the Cliffside, the coal burning power plant that Duke is working so hard to complete right now, is only 35 miles away from where we are here. How can they justify that the power needs for this region need an 880 megahertz coal burning power plant and two nuclear reactors? It's ridiculous. Even

Duke admits that we don't need new power plants until 2020. We can do the smart thing with alternative energy, provide jobs and keep the health of this region intact. (0001-37 [Cherin, Mike])

Comment: A major reason that we're discussing new generation nuclear plants is the need for new baseload electric generation. The DOE projects a drastic growth in energy demand and the southeast is arguably the fastest growing region in the United States. Certainly conservation and efficiency are the lowest hanging fruit and must be pursued vigorously. (0001-81 [James, Andrew])

Comment: The U.S. Census Bureau projects that by 2030, North and South Carolina will increase in population by 52 and 28 percent respectively. Energy conservation is and will continue to be an important contributor in alleviating increase in energy demand due to the growing population. However, I would caution that the environmental impact statement provide realistic and achievable estimates as to how much energy savings can be realized without decreasing our overall standards of living. (0001-124 [Chisolm, Sarah])

Comment: NRC needs to fully evaluate Duke's need for power along with alternative supply options, including energy efficiency and demand side management measures. We are concerned that Duke is overestimating capacity needs and the NRC needs to fully evaluate whether the additional generating capacity is truly needed. The NRC needs to include all of Duke's new power plant proposals, such as the new coal unit proposed for the Cliffside plant in NC. (0009-4, 0049-4 [Barczak, Sara])

Comment: In the Carolinas, Duke Energy has been adding approximately 40,000-60,000 customers each year. As a regulated utility, Duke Energy has an obligation to serve this growth in demand for electricity. Each year, Duke Energy Carolinas uses an integrated planning approach to ensure it can reliably and economically meet the electric energy needs of our customers well into the future. The planning process takes into consideration many factors, including projected electricity use, existing generation, generation supply contracts, demand-side management, energy efficiency initiatives, and potential new sources of generation such as renewable resources, coal, natural gas and nuclear. (0012-2 [Dolan, Bryan])

Comment: If energy efficiency is delivered to Duke customers to reduce consumption across the service area by 30%, would this new power plant be needed? How many other generation sources could be scrapped? (0038-5 [Turk, Lawrence "Butch"])

Response: *Affected states or regions may prepare a need for power evaluation and assessment of the regional power system for planning or regulatory purposes. In North and South Carolina, the need for power analysis may also be prepared by a regulated utility company and submitted to a regulatory authority, such as a state PUC. This analysis by the regulated utility company, called the Integrated Resource Plan*

(IRP), contains details on energy efficiency, demand side management, and peak-power reduction strategies, all of which are considered conservation activities. These data may be supplemented by information from other sources as required. The state PUC also has regulatory authority over issuance of the Certificate of Public Necessity and Convenience, as well as rates and rate recovery regarding the construction and operation of new power plants. Duke submitted the IRP to both North and South Carolina in 2007 and accounted for the Cliffside Station in out-year capacity and margin projections. The determination for the need for power is not under NRC's regulatory purview. When another agency has the regulatory authority over an issue, the NRC defers to that agency's decision. The NRC staff will review the need for power and determine if it is (1) systematic, (2) comprehensive, (3) subject to confirmation, and (4) responsive to forecasting uncertainty. If the need for power evaluation is found to be acceptable, no additional independent NRC review is needed. Alternative energy supply options will be further evaluated and addressed in Chapter 9 of the EIS. The information provided in these comments will be considered to determine whether it significantly affects the forecast upon which the applicant relied for its need for power analysis.

Comment: This electric generation facility will contribute significantly to meeting the growing energy needs in South Carolina. At the same time, it is believed nuclear energy has a small carbon footprint and contributes to the United States quest to reduce carbon emissions and other air pollutants. (0024-1 [Batchler, James D.] [Foster, Rufus H.] [Humphries, H. Baily] [Little, Quay] [Mathis, Charles] [Parris, Hoke] [Spencer, Tim])

Response: *The need for power based on population growth and electrical demand in the Carolinas will be analyzed and addressed in Chapter 8 of the EIS. Alternative energy sources will be reviewed and addressed in Chapter 9. Relative impacts on the environment, including air quality impacts from plant emissions (e.g., criteria pollutants and greenhouse gasses), will be evaluated and compared with alternative energy sources. Both North and South Carolina participate in Federal, State, and regional programs designed to mitigate and reduce emissions.*

17. Comments Concerning Alternatives - Energy

Comment: And cloudy Germany is now switching to solar energy. They've found ways to do that, and I'd like to see the Carolinas do that. (0001-68 [Arnason, Deb])

Comment: An engineer on [an educational TV] program, he went on to say if we would go to the desert in Nevada where the government owns millions of acres and we were to take 100,000 acres of that desert and cover it in solar panels, that that alone would meet the energy of the United States currently and into the next 10 or 20 years. We could manufacture the panels here. Now my question is -- now this was on PBS -- why don't we do that? It's clean (0001-107 [Moss, Charles])

Comment: [I] understand cloudy Germany is now using solar energy. (0008-1 [Arnason, Deb])

Response: *Alternative energy sources, including solar, will be evaluated and addressed in Chapter 9 of the EIS.*

Comment: [W]e know that wind, solar and particularly bio are just not reasonable alternatives for us in terms of meeting our capacity. Sure you can power one plant here and there and maybe a neighborhood, but you can't meet the needs that we're going to have. And in fact, biofuel, we are certainly learning at this time, may in fact be one of the most detrimental things to our environment we've seen in a long time. (0001-96 [Gossett, Lewis])

Comment: ... I strongly urge the regulators to consider the consequences of not employing the proposed action. It is estimated that the nation's demand for electricity will increase by nearly 50 percent by 2030. Without an increase in baseload nuclear generation, I believe the EIS would conclude that the only realistic alternatives would be those which would emit substantial quantities of carbon dioxide. Nuclear power, while not part of the group, ranks among the lowest life cycle emitters in bulk power generation. (0001-149 [Murphy, William])

Response: *These comments generally express support for the proposed nuclear power plant as a baseload source of power in Duke Energy's region of interest but do not provide specific information related to environmental impacts of the proposed project. Alternative energy sources (including renewables such as wind, solar, and biomass) and the no-action alternative will be evaluated in terms of the proposed project in Chapter 9 of the EIS.*

Comment: I stand here against this thing because, number one, it's unnecessary. There are other ways to generate electricity besides nuclear. (0001-103 [Moss, Charles])

Response: *The EIS will be prepared in accordance with 10 CFR 51.75(c). Alternative energy sources, including renewable energy sources (as well as energy conservation and efficiency programs) and the no-action alternative will be addressed in Chapter 9 of the EIS and will be assessed against the proposed project. Energy conservation will also be considered as part of the need for power analysis in the EIS.*

Comment: [O]ur nation and our planet faces a crisis of rapidly expanding proportions with respect to global warming, increasing acidity of our oceans due to absorption of carbon dioxide, air pollution and its horrendous health effects, and dependency on unstable regions of the world for most of our energy needs. (0001-159 [Wolfe, Clinton])

Response: *The NRC is not involved in establishing energy policy; rather, it regulates the nuclear industry to protect public health and safety within existing policy. The discussion of alternative energy sources in Chapter 9 of the EIS will describe potential impacts from alternative energy sources, including fossil and renewable energy sources such as wind and solar, in comparison with the proposed action. Nuclear power plants do not burn fossil fuels and therefore do not generate or emit criteria pollutants or greenhouse gases.*

Comment: The [Lee] application does not adequately address these other energy options. Renewable energy technologies, which are not likely to be targeted by terrorists nor have the capacity, in terms of accidents, to kill thousands of people or permanently contaminate large land areas, should not be ignored by Duke. Energy efficiency measures also pose no health or safety risks to the public and Duke has significant resources to tap in this arena. Duke has excellent wind resources within its service area and should invest more in developing this clean, safe energy resource instead of spending billions of dollars on the proposed Lee site. There is also potential for bioenergy production in their service territory. Clean forms of bioenergy represent a home-grown energy source that can provide local jobs to rural areas and also support farmers and the region's economy while helping expand clean energy technologies. The use of solar and other clean energy choices were summarily dismissed in the application. The draft EIS must include a more thorough analysis. (0001-14 [Barczak, Sara])

Comment: Nuclear energy appears to be riskier than some of the other alternatives that have been presented here tonight. (0001-144 [Patrie, Dr. Lew])

Comment: Solar does not represent this [tritium dose] hazard, or many others. (0008-2 [Arnason, Deb])

Comment: [T]he Lee application does not adequately address these other energy options. Renewable energy technologies, like bioenergy, solar, and wind, which are not likely to be targeted by terrorists nor have the capacity, in terms of accidents, to kill thousands of people or permanently contaminate large land areas, should not be ignored by Duke. Energy efficiency measures also pose no health or safety risks to the public and Duke has significant resources to tap in this arena. (0009-2, 0049-2 [Barczak, Sara])

Comment: Duke has excellent wind resources within its service area and should be encouraged to invest more in developing this clean, safe energy resource instead of spending billions of dollars on the proposed Lee site. There is also potential for bioenergy production in their service territory. Clean forms of bioenergy represent a 'homegrown' energy source that can provide local jobs to rural areas that would also support farmers and the region's economy, while helping expand clean energy

technologies. The use of solar technologies and other clean energy choices were summarily dismissed in the application. The draft EIS must include a more thorough analysis of energy alternatives. (0009-3 [Barczak, Sara])

Comment: Duke has excellent wind resources within its service area and should be encouraged to invest more in developing this clean, safe energy resource instead of spending billions of dollars on the proposed Lee site. There is also potential for bioenergy production in their service territory. Clean forms of bioenergy represent a 'homegrown' energy source that can provide local jobs to rural areas that would also support farmers and the region's economy, while helping expand clean energy technologies. The use of solar technologies and other clean energy choices were summarily dismissed in the application energy alternatives. (0049-3 [Barczak, Sara])

Response: *The NRC is not involved in establishing energy policy; rather, it regulates the nuclear industry to protect public health and safety within existing policy. The discussion of alternative energy sources, including wind, solar, and biomass, will be addressed in Chapter 9 of the EIS, which will compare and describe potential environmental impacts from alternative energy sources. Energy risk evaluation is not within the scope of the EIS in accordance with NEPA requirements. As part of the COL process and in conjunction with the EIS, the NRC staff will conduct a safety review detailing site-specific safety analysis and design specific analysis.*

Comment: We have, as scientists claim, ten years -- ten years -- to change our ways. And these new nuclear reactors won't come on line in time to fix the problem. ... South Carolina is the third least efficient state in the country when it comes to energy consumption. ... We need to start implementing energy efficiency. We could start using renewables. I hear that wind doesn't have maybe the most promising future in South Carolina but we're also the 13th sunniest state in the country and the sun isn't unreliable. So it hurts me to stand here in South Carolina and know that there's so many new proposed nuclear reactors because this state has so much potential. ... We have innovation, technology and potential on our side. I just ask you to take that into consideration in the environmental impact statement. (0001-119 [Tansey, Sara])

Comment: [I]f we can improve the structure of our buildings to reduce their consumption by 50 percent, that's just another way we're going to save energy and we really don't need any more nuclear plants. (0001-156 [Saye, Jack])

Comment: [Dependence on foreign uranium] doesn't seem very promising when we have so many resources here with wind. (0001-182 [Sorensen, Laura])

Comment: You want to do something, then build a few windmills. They will provide free clean energy and will also employ people to build them. We have plenty of places to install them and the benefits of windmills would greatly outweigh those of another power plant. (0004-2 [Kohler, Elizabeth])

Comment: I would like to stress the more commonsensical arguments against such an unsafe, expensive and environmentally unsound method of producing energy. First of all, why don't we emphasize our country going on an energy diet? ... Before we consider new sources of megawatts, we should consider cultivating negawatts. ... We need to first of all clean up all the slop in the system before we search for new energy sources of any kind but especially those that are basically unsafe and expensive. (0006-2 [Craig, Thomas])

Comment: Please insist that Duke Energy check out all sorts of renewable energy options at www.renewableenergyworld.com. A free subscription is available at www.rew-subscribe.com. We want to know how much wind energy capacity exists within the Duke service area? What is the solar capacity of all rooftops within the Duke service area? (0007-13 [Arnason, Deb])

Comment: The most rapid and inexpensive method of dealing with shortage of electrical energy is through energy efficiency, which would be feasible if citizens' groups, industry, financial interests and government would immediately and vigorously and begin action as if our way of life depended upon it.

Truly renewable energy source should likewise be pursued. Wind power is already less costly than nuclear power, and the cost of solar energy is somewhat more expensive-today but costs are coming down rapidly. Nuclear power plants may become economically obsolete before new ones could be brought on line. Solar and wind power do not need water, which we all know is an important issue in the southeastern U.S. The notion that renewable energy cannot supply the electricity requirements of the United States has been widely put forward without careful technical evaluation. Several sources suggest just the opposite. Nuclear energy appears to be the riskier course. (0015-6 [Patrie, Dr. Lew])

Comment: Could Duke energy instead promote solar capacity and/or supply wind energy? Are there other sources of power possible? (0034-4 [Karpen, Leah R.]

Comment: I would like to see everyone convert to wind or solar power sources. The government should give power company's tax breaks for converting over to wind or solar power. (0036-2 [Thomas, Amber])

Comment: As a prospective downwinder, I am horrified by this scheme. Nuclear energy is not the solution to the climate crisis -- it takes too long, costs too much and still has enormous health, safety and security challenges -- and therefore is an

enormous distraction from the REAL solutions of massive, systemic, delivered and installed energy efficiency and really clean power from the natural forces of wind, sun and the appropriate harnessing of water power.

(0038-1 [Turk, Lawrence "Butch"])

Comment: How much wind energy capacity exists within the Duke service area? What is the solar capacity of all the roof tops within the Duke Service area? (0038-4 [Turk, Lawrence "Butch"])

Comment: Why take any risk or make any assumptions when there are so many green options for reducing energy consumption. Americans have become energy hogs. We need to take responsibility and not throw everything onto future generations to deal with. (0039-2 [Hedges, Jean])

Comment: Support green technology. It may be different in every area: geothermal one place, solar another, windmills, or a combination. Short run costs=long term savings and safety. Instead of having taxpayers fund billions for unsafe technology give them direct incentives to use all of the thousands of safe alternatives that are readily available. (0039-4 [Hedges, Jean])

Comment: Are you aware that Americans use 340 million BTU per person per year and Europeans use less than 150 million BTU per person per year? Efficiency improvements would eliminate the need for new power plants entirely. Are you aware of the recent developments in: geothermal electricity, wave energy, wind, off-shore wind, micro-wind, PV, building integrated PV, solar thermal, concentrated PV, Stirling dishes, fuel cells, algae, ...? (0041-6 [Sutlock, Dot])

Response: *The NRC does not establish public policy regarding electric power supply or energy-consuming alternatives, nor does the NRC promote the use of nuclear power as a preferred energy alternative. In addition, the NRC does not regulate alternatives or activities to producing electricity that do not involve nuclear power. The NRC does evaluate energy alternatives (including conservation) as part of its review of applications for new nuclear power plants in accordance with NEPA requirements. The comparative review of energy alternatives such as wind, solar, biomass, and geothermal alternatives and their associated environmental impacts will be addressed in Chapter 9 of the EIS.*

18. Comments Concerning Alternatives - System Design

Comment: 2.2.1.2 The Vicinity, page 2.2-4. The proposed height of the reactor domes (185.5 ft above ground level) will be visible from Kings Mountain State Park, Croft State Park and Crowder's Mountain State Park, and from the downstream reach of the Broad River designated as a State Scenic River. Cooling towers are planned to be *shorter*

and compact, but may still be tall (> 90 ft) relative to the local area. These construction features represent a visual impact to the view shed including important recreational, scenic and natural conservation areas. (0046-1 [Perry, Robert D.]

Response: *Aesthetic impacts of the cooling towers will be addressed in Chapter 5 of the EIS.*

19. Comments Concerning Alternatives - Sites

Comment: Regarding the National Environmental Policy Act, I would add this for the Nuclear Regulatory Commission staff, the Environmental Policy Act requires a comparison of alternative sites for nuclear power reactors as well as others. Within the NRC's own records, LBP079, Judge Carlin in the Atomic Safety Licensing Board, wrote how and where NRC staff utterly failed to properly do what the law requires. It is up to the Nuclear Regulatory Commission staff to do the job to protect public health and safety, not to simply ditto what industry hands to them on the platter. (0001-32 [Zeller, Lou])

Response: *The Council on Environmental Quality advises that when there are potentially a very large number of alternatives, only a reasonable number of examples covering the full spectrum of alternatives must be analyzed and compared in an EIS (46 FR 18027). The NRC staff will review the alternative site-selection process to determine if it is systematic, employs reasonable selection criteria, and constitutes an acceptable number of reasonable sites for consideration. The process must enable the applicant and reviewers to evaluate and select proposed and alternate sites based on environmental preference and obvious superiority. The process and results will be provided in Chapter 9 of the EIS.*

Comment: The three alternate sites to be evaluated in the EIS (Anderson and Oconee Counties, SC, and Davie County, NC) should also present a similarly extensive review of impacts to protected species. ... The [U.S. Fish and Wildlife] Service has previously submitted a list of T&E for the South Carolina counties to be considered in the EIS. (0045-6 [Hall, Timothy N.]

Response: *The NRC will enter into informal consultation with the FWS to obtain the most recent information on Federally listed species in counties affected by the project. A reconnaissance-level description and evaluation of potential impacts to Federal and State-listed species at the three alternative sites will be provided in Chapter 9 of the EIS. The NRC's NUREG-1555 specifies a reconnaissance level of information and analysis for alternative sites, whereas a more in-depth level of information and analysis of potential impacts to protected species are required for the proposed Lee site.*

20. Comments Concerning Benefit-Cost Balance

Comment: [T]he question that you have to ask yourself is you don't like nuclear, why would they build nuclear. Why? Well, if they build renewable energy generation exclusively or mostly, the price of power would go up dramatically. You take people that can't afford food right now, they can't afford their energy right now,... Cost is a big concern to a lot of people and to, you know, in a short-term manner, raise the price of power by 50 percent, 100 percent because it's important to build renewable as quick as possible, that's just not do-able for a lot of people. (0001-102 [Stone, Bryan])

Response: *The benefit-cost balance for the project will rely on the best available estimate of project timing and duration, with uncertainties noted. Chapter 11 of the EIS will discuss the estimated overall costs and environmental impacts of the proposed project. The discussion of alternative energy sources in Chapter 9 of the EIS will describe potential impacts from these sources in comparison with the proposed action.*

Comment: The EIS scope should also include the impact on public well-being resulting from the risk of money being taken from the public in the form of taxes with loan guarantees being paid out to Duke investors and people who are loaning. (0001-201 [Rudolf, Jerry])

Comment: Why should you allow taxpayer dollars to subsidize an obsolete technology? ... Why should taxpayer dollars subsidize obsolete and dangerous nuclear reactors when they are so unnecessary? (0041-4 [Sutlock, Dot])

Response: *The NRC is not involved in establishing energy policy; rather, it regulates the nuclear industry to protect public health and safety within existing policy. Issues related to the subsidization of nuclear power are outside the scope of the NRC's mission and authority and will not be addressed in the EIS.*

Comment: And how does it [nuclear power] stack with the price of fuel going up and up and up while other technologies like solar are coming down and down and down in price. (0001-55 [Olson, Mary])

Comment: Nuclear is largely scalable, very low emission, reliable in all weather types and most importantly, safe. With respect to the environment, it also has the smallest geographic footprint when stated on a kilowatt-hour basis than most other forms of generation, including renewables. (0001-82 [James, Andrew])

Comment: We understand and we know that the facts that you've heard about the cost of the generation of nuclear power being low are accurate. And quite frankly, I haven't seen any evidence to indicate that these other alternative sources are getting that much cheaper and they're actually realistic in South Carolina, particularly wind (0001-94 [Gossett, Lewis])

Comment: I stand here against this thing because ...There are other ways to generate electricity besides nuclear. And the astronomical expense of this thing. (0001-104 [Moss, Charles])

Comment: How much would each option cost compared to the proposed nuke? What are the true costs of nuclear reactor operation - including all the costs born by we taxpayers including direct subsidies, tax credits, loan guarantees, federal waste program, federal insurance program and costs born by victims including health impacts from routine release of radioactivity, mining [mining], processing nuclear fuel, waste transport, management, treatment (including incineration and heat treatment) and disposal? (0038-6 [Turk, Lawrence "Butch"])

Comment: At least a quarter of the country is in the Sunbelt. Once upon a time we gave tax incentives to folks who installed solar panels. It is absurd that we would rather spend billions on new nuclear generators than give away thousands on tax incentives to common folks!!!!!!!!!!!! Pay them enough and they will install!!!!!!!!!!!!!!!!!!!!!! (0039-3 [Hedges, Jean])

Response: *These comments discuss in part the cost effectiveness of nuclear power relative to alternative power sources. The NRC does not promote the use of nuclear power as a preferred energy alternative, and it does not regulate energy alternatives that do not involve nuclear power. The NRC does, however, evaluate energy alternatives as part of its review under NEPA for applications of new nuclear power plants. The discussion of alternative energy sources in Chapter 9 of the EIS will describe potential impacts from these sources in comparison with the proposed action. A discussion of the costs of the proposed projects will be provided in Chapter 11 of the EIS. Because the NRC is not involved in establishing energy policy but rather, in regulating the nuclear industry to protect the public health and safety within existing policy, issues related to the subsidization/tax incentives of nuclear power are outside the scope of the NRC's mission and authority and will not be addressed in the EIS. The environmental and health risks (both long- and short-term) of both constructing and operating two new reactors on the Lee site will be addressed in Chapters 4 and 5 of the EIS. In addition, the environmental and health impacts from the nuclear fuel cycle, related transportation impacts, and decommissioning of the nuclear facility will be addressed in Chapter 6 of the EIS. The overall environmental and health costs of the proposed project, as well as the expected benefits, will be summarized in Chapter 11 of the EIS.*

Comment: Whereas anxiety about global climate change and a growing energy shortage is leading to calls for more nuclear power plants, often overlooked are facts that nuclear power is massively expensive and risky. Without federal subsidies and incentives, including liability insurance, risk insurance for delays, production tax credits and loan guarantees totaling billions of dollars, Duke would not and could not consider

construction of these 2 proposed reactors. Furthermore, during such proposed construction, rate payers would be expected to pay in advance, even if such facilities were never completed. While projected construction costs continue to rise, already each proposed new reactor will likely cost at least 6 billion dollars. (0015-1 [Patrie, Dr. Lew])

Response: *The NRC is not involved in establishing energy policy; rather, it regulates the nuclear industry to protect public health and safety within existing policy. Issues related to the subsidization and incentives of nuclear power are outside of the NRC's mission and authority and will not be addressed in the EIS. The purpose of the EIS is to disclose potential environmental impacts of building and operating the proposed nuclear power plant. The determination for the impact of building and operating a nuclear power plant on retail power rates is not under NRC's regulatory purview. However, Chapter 11 of the EIS will address the estimated overall costs and environmental impacts of the proposed project.*

Comment: Estimates of the cost of nuclear power plants vary by billions. Cost overruns are usual. Is a nuclear power plant a wise investment? And who will pay? Should our Federal government pay for such endeavors--at taxpayer expense, of course? Can we vote on it (0034-5 [Karpen, Leah R.]

Response: *This comment expresses concern regarding the cost of building nuclear power plants. The applicant, Duke Energy, is responsible for all costs incurred in constructing the Lee Nuclear Station. Because the NRC is not involved in establishing energy policy but rather, in regulating the nuclear industry to protect public health and safety within existing policy, issues related to the subsidization of nuclear power are outside of the NRC's mission and authority and will not be addressed in the EIS. The benefit-cost balance for the project will rely on the best available estimate of project timing and duration, with uncertainties noted. Chapter 11 of the EIS will address the estimated overall costs and environmental impacts of the proposed project.*

Comment: The planning for the new reactors, including the Westinghouse AP1000 design, has skyrocketed. Florida utilities pursuing the same design have estimated the cost of \$6-8.5 billion for one reactor. That's tripling the cost from just one year ago. And a few days ago, a Charlotte Observer article reported that Duke conceded that its original cost estimate of \$6 billion is out of date. (0001-16 [Barczak, Sara])

Comment: Nuclear power is the lowest cost producer of baseload electricity. The average production cost is \$1.76 per kilowatt-hour and that's including the cost of operating and maintaining the plant, purchasing the fuel and paying for management of used fuel. (0001-77 [Blue, Lilly])

Comment: The overnight cost of these plants, six to nine billion dollars, what about the many years that the plants are going to take to build? I heard someone mention \$20

billion. We have no idea. ... But I'll tell you, I really am offended by Duke because they say in the fact sheet that nuclear power is economical but where's the cost of the thing? ... We are intervening before the Public Service Commission against so-called pre-construction costs for these units. And Duke is fighting tooth and nail not to reveal the costs. The South Carolina legislature basically allowed pre-construction costs last year, but we feel that the public, we have a right to know what we're going to be paying for these things in South Carolina or in any other state. (0001-136 [Clements, Tom])

Comment: [T]he Duke site that's being looked at, there was about \$500 million spent out there to build reactors in the 1980s and they turned that into a film studio where the Abyss was filmed. And I have a great fear we're going into another abyss. Massive pre-construction costs are going to be pumped into the site, the ratepayers are going to be saddled with it and then I'd like to see what local people are going to be saying about the economic benefits while the South Carolina legislature has guaranteed that you're going to have to pay for something that you never get. (0001-137 [Clements, Tom])

Comment: ... Duke Power acknowledged that the cost of this energy future for them may embody as much as 120 percent increase in existing electric rates. And yet as the previous speaker spoke, Duke Power Company absolutely refuses to disclose the cost estimates to the consumer for the Lee project, as well as the cost that it projects for the alternatives, most obviously the alternative of increased energy efficiency. ... I charge NRC with responsibility of forcing Duke to be forthcoming in those costs and to include all of them in your environmental analysis. ... The environmental costs have been well addressed by others and I won't repeat them, but we know the costs are there, cost of nuclear waste, the risk of accidents, the impacts to the water resources of the Broad River. (0001-172 [Guild, Bob])

Comment: Why are the true costs of all associated activities not being factored into Duke's projections? (0007-14 [Arnason, Deb])

Comment: The high cost of nuclear power plants will likely lead to cost overruns and rate increases; this is not mentioned in the application. The price for new reactors, such as Westinghouse's AP1000 design that TVA intends to use, has skyrocketed. Utilities in Florida pursuing the same reactor design have recently stated costs of \$6 to \$8.5 billion per reactor, nearly tripling their estimates from just one year ago. Just a few days ago, a Charlotte Business Journal article reported that Duke conceded that its original cost estimate of \$6 billion is out of date. (0009-5, 0049-5 [Barczak, Sara])

Comment: It was also recently decided by the NC Utilities Commission that Duke's updated cost estimates are trade secret and don't need to be made public. Does the NRC have access to these 'secret' costs? If so, how will the public know that the NRC compared the most current costs of the proposed new nuclear plant appropriately when comparing to other energy sources or energy efficiency measures? If the NRC is not

able to see these 'secret' cost figures, how can the NRC appropriately determine that building new reactors is the right decision? (0009-6 [Barczak, Sara])

Comment: Nuclear power is expensive. Duke is reluctant to publish financial data, but experts say that nuclear reactors today cost between 6 and 9 billion dollars each to construct. Duke plans two. (0035-3 [Hamrick, Mike])

Response: *The benefit-cost balance for the project will rely on the best available estimate of project timing and duration, with uncertainties noted. Chapter 11 of the EIS will discuss the estimated overall costs and environmental impacts of the proposed project.*

Comment: The EIS also should include the cost for the cradle to grave responsibility for waste, impacts of that waste on the health and economic welfare of the public for waste throughout the process it goes through. This process should include any reprocessing that's done, any subsequent processing until this waste reaches its final resting place. ... There's no reason why the nuclear industry, if it is as safe as they say, should not itself be responsible for this waste from cradle to grave. And I ask that that cost be included in the EIS scope. (0001-200 [Rudolf, Jerry])

Response: *The NRC is not involved in establishing energy policy; rather, it regulates the nuclear industry to protect public health and safety within existing policy. The impacts of the nuclear fuel cycle will be addressed in Chapter 6 of the EIS. The environmental and health risks (both long- and short-term) of both constructing and operating two new reactors on the Lee Nuclear Station site will be addressed in Chapters 4 and 5 of the EIS. The overall environmental and health costs of the proposed project, as well as the expected benefits, will be summarized in Chapter 11 of the EIS.*

Comment: Is it worth the money that everybody's talking about, the billions of dollars, billions of dollars, to provide these jobs for people that their family is going to be affected further down the road, cancer and all kind of disease, whatever, is going to come into the water and the chemicals and whatever. A lot of families live on the Broad down there where this nuclear site is at and everybody down there eats the fish, they swim in the river and play in the river. It's like a livelihood to them. And y'all change everybody's livelihood. (0001-121 (Blackwood, Andy))

Comment: ... NRC has an obligation under the National Environmental Policy Act to fully consider without prejudice or preconceptions the holistic cost to the human and natural environment of this proposed action, the Lee Nuclear Station, as compared to the alternatives and benefits. (0001-170 [Guild, Bob])

Response: *The environmental and health risks (both long- and short-term) of both constructing and operating two new reactors on the Lee site will be addressed in*

Chapters 4 and 5 of the EIS. The discussion of alternative energy sources in Chapter 9 of the EIS will describe potential impacts from these sources in comparison with the proposed action. The overall environmental and health costs of the proposed project, as well as the expected benefits, will be summarized in Chapter 11 of the EIS.

Comment: North and South Carolina both currently enjoy low electricity prices, a substantial part of which is due to the efficiencies and cost-effectiveness of operating our current nuclear power plants. Upfront construction costs for nuclear power plants are large but the operating life span and low operating cost of nuclear power plants must also be factored in.

I ask that the environmental impact statement take a comprehensive look at lifetime costs of building and operating the proposed new nuclear plants. And additionally, a comparison of lifetime costs of any alternatives. I believe that nuclear will be competitive with the alternatives. (0001-123 [Chisolm, Sarah])

Response: *This comment discusses the cost effectiveness of nuclear power relative to alternative power sources. The NRC does evaluate energy alternatives in applications for new nuclear power plants as part of its review in accordance with NEPA requirements. The discussion of alternative energy sources in Chapter 9 of the EIS will describe potential impacts from these sources in comparison with the proposed action. A discussion of the costs of the proposed projects will be included in Chapter 11 of the EIS.*

Comment: The EIS should include the cost to the public for the public assumption of risk. The Price-Anderson Act caps the Duke Power financial risk for catastrophic events and the rest of that risk goes to the public. The cost of this risk can be calculated using standard methods like the insurance industry uses. These costs would include things like the health impacts, cost of care and compensation, probably the impact on business and the economy in the world. (0001-199 [Rudolf, Jerry])

Response: *The NRC is not involved in establishing energy policy; rather, it regulates the nuclear industry to protect public health and safety within existing policy. Thus, matters related to the Price-Anderson Act of 1957 are outside the scope of this review and will not be included in the EIS. However, the EIS will include an evaluation of potential health impacts of operating a nuclear plant on the Lee site in Chapter 5. In addition, the safety assessment for the proposed licensing action was provided as part of the application. The NRC is in the process of developing a SER that analyzes all aspects of construction and operational safety. The NRC will only issue a license if it can conclude that there is reasonable assurance that: (1) the activities authorized by the license can be conducted without endangering public health and safety, and (2) such activities will be conducted in compliance with the rules and regulations of the NRC.*

21. General Comments in Support of the Licensing Action

Comment: This [William States Lee Nuclear] project enjoys strong support at both the local and state levels. (0001-4 [Moss, Dennis Carroll])

Comment: The Cherokee County Development Board is aware that Duke Energy has submitted an application to the United States Nuclear Regulatory Commission for a license to construct and operate the William States Lee Nuclear Site in Cherokee County, South Carolina. This electric generation facility will contribute significantly to meeting growing energy needs in South Carolina. (0001-5 [Moss, Dennis Carroll])

Comment: We encourage the U.S. Nuclear Regulatory Commission to approve the license application for the William States Lee III Nuclear Station and allow Duke Energy to move forward with construction and operation of the electric generation facility. This resolution was unanimously adopted by the Cherokee County Development Board on April 28, 2008. (0001-9 [Moss, Dennis Carroll])

Comment: I'd like to submit a letter in support of Duke Energy's application to the NRC for a license to construct and operate the Lee plant in Cherokee County. And this letter is signed by Senator Lindsey Graham, Senator Jim DeMint, Congressman Gresham Barrett, Congressman Henry Brown, Congressman James Clyburn, Congressman Bob Inglis, Congressman John Spratt and Congressman Joe Wilson. (0001-10 [McDowell, Charlie])

Comment: We [Cherokee County Chamber of Commerce] encourage the U.S. Nuclear Regulatory Commission to approve the license application for the William States Lee III Nuclear Station and allow Duke Energy to move forward with the construction and operation of this important electric generation facility. (0001-40 [Moorhead, Gene])

Comment: As a Chamber representative, I believe that building a nuclear plant will be good for the region. The jobs, the tax revenue and the potential overall economic impact must be exciting for both the county, the businesses and the community leaders that are represented here this evening. As a member of the York County community, I appreciate the entire package that Duke brings to the table. (0001-41 [Boger, Paul])

Comment: Please accept this letter to express my support of the proposed nuclear power plant in Cherokee County, South Carolina. Nuclear power has proved to be safe and I support this endeavor for the betterment of our community and the local economy. (0001-45 [Jolly, Henry L.])

Comment: ... I believe the citizens of Cherokee County will not only benefit economically from the Lee Nuclear Station, but will appreciate having Duke Energy as an active member of their community. (0001-48 [Hardy, Chris])

Comment: I am in full support of this endeavor by Duke Energy for several reasons. You know, they've been mentioned -- the potential short-term and long term economic growth; the long-term boost to our local tax base which should allow us to provide a better quality education; and a potential boost to our local housing market, which we are in need of. (0001-59 [Bowers, Will])

Comment: My [Spartanburg Development Association] member employers have over 50,000 individual men and women who work for them and I am here to speak in support of the approval of Duke Energy's license application for the proposed Lee Nuclear Station. (0001-62 [Woodward, Don])

Comment: I believe that the potential of the project here in Cherokee County as proposed by Duke Energy can write yet another chapter in the wonderful success and economic improvement of our state. I urge you to support it. (0001-63 [Woodward, Don])

Comment: I came to express our support for the Lee Nuclear project. (0001-72 (Blue, Lilly))

Comment: [A]s President and CEO of the Spartanburg Area Chamber and the Economic Futures Group which is the economic development organization for Spartanburg County. I am here to indicate enthusiastic support for the permitting and construction of the Lee Nuclear Station. (0001-87 [Cordeau, David])

Comment: As President of the Downtown Business Association, I just wanted to let everyone in here know and the NRC and Duke Energy how much we support you ... I want to be environmentally safe and I think Duke Energy is the way to go. And I just wanted to give them my support, and also as a Board member of the Chamber of Commerce. (0001-109 [White, Gayle])

Comment: ... I want to express the [Spartanburg Community C]ollege's support for Duke Energy's application for license to build the Lee Nuclear Station in Cherokee County. (0001-110 [Forrester, Mike])

Comment: ... I strongly encourage you to approve the license application for Lee Nuclear Station. (0001-117 [Forrester, Mike])

Comment: I am here tonight to express [the Citizens for Nuclear Technology Awareness] wholehearted support for an expeditious application process that will serve its purpose appropriately but will facilitate the urgent startup of these new power plants. (0001-158 [Wolfe, Clinton])

Comment: I am encouraged that Duke is attempting to provide their customers with an alternative to the oil problem we face. (0002-1 [Ebert, Dick])

Comment: The Spartanburg Chamber and its Board of Directors encourage the U.S. Nuclear Regulatory Commission to approve the license application for the William States Lee III Nuclear Station. Duke Energy needs to move forward with the construction and operation of this electric generation facility. (0011-6 [Cordeau, David])

Comment: As members of the South Carolina Congressional Delegation we are writing to support Duke Energy's application to the U.S. Nuclear Regulatory Commission (NRC) for a license to construct and operate the William States Lee III Nuclear Station in Cherokee County, S.C. This new electric generating facility will significantly contribute to meeting the growing energy needs of South Carolina by providing safe, affordable and clean electricity. (0013-1 [Barrett, J. Gresham; Brown, Henry E.; Clyburn, James E.; DeMint, Jim; Graham, Lindsey; Inglis, Bob; Spratt, John M.; Wilson, Joe])

Comment: We encourage the NRC to move as quickly as possible to approve the license application for the William States Lee III Nuclear Station and allow Duke Energy to move forward with the construction and operation of this needed electric generating station. (0013-4 [Barrett, J. Gresham; Brown, Henry E.; Clyburn, James E.; DeMint, Jim; Graham, Lindsey; Inglis, Bob; Spratt, John M.; Wilson, Joe])

Comment: We encourage the U.S. Nuclear Regulatory Commission to approve the license application for the William States Lee III Nuclear Station and allow Duke Energy to move forward with the construction and operation of the electric generation facility. (0016-5 [Cook, Jim])

Comment: I am here tonight to express our whole-hearted support for an expeditious application process that will serve its purpose appropriately, but will facilitate the urgent startup of these new power plants. (0017-1 [Wolfe, Clinton])

Comment: I appreciate your consideration of the proposed new Nuclear Site in Cherokee County ... (0019-2 [Blanton, Debbie])

Comment: I support Duke Energy's efforts to license and build the Lee Nuclear Station. (0023-1 [Peeler, Harvey S.])

Comment: I want to thank the Nuclear Regulatory Commission for its strict oversight of nuclear plant operations and the licensing of new nuclear stations, and I encourage you to approve the license application for Lee Nuclear Station. This project has strong support here in South Carolina. (0023-5 [Peeler, Harvey S.])

Comment: Cherokee County supports proposed development of the Lee Nuclear Station and thereby encourages the U.S. Nuclear Regulatory Commission to approve

the license application for the William States Lee III Nuclear Station and allow Duke Energy to move forward with the construction and operation of this electric generation facility. (0024-4 [Batchler, James D.] [Foster, Rufus H.] [Humphries, H. Baily] [Little, Quay] [Mathis, Charles] [Parris, Hoke] [Spencer, Tim])

Comment: I encourage you to approve the license application for the Lee Nuclear Station. This project enjoys strong support at the both the local and state levels. (0025-2 [Moss, Dennis Carroll])

Comment: Please allow this letter to serve as strongest endorsement for approval of the Department of Energy petition to construct a nuclear power plant in Cherokee County, SC. The ongoing viability of our region depends upon abundant, reasonably priced power. It is vital to our existing workforce and necessary for its continued growth and development. (0027-1 [Scott, G. Garrett])

Comment: Please allow this letter to serve as endorsement for the Department of Energy petition to construct a nuclear power plant in Cherokee County, SC. The ongoing viability of our region depends upon plentiful, reasonably priced power. It is critical to our existing labor force and necessary for its continued growth and advancement. (0028-1 [Halligan, Andy])

Comment: The South Carolina Department of Commerce encourages the Nuclear Regulatory Commission to approve the license application for the Lee Nuclear Station in South Carolina. The plant will serve to benefit the state's economy while providing a clean and necessary source of energy to businesses and residents in South Carolina. (0030-1 [Taylor, Joe])

Comment: We encourage the U.S. Nuclear Regulatory Commission to approve the license application for the William States Lee III Nuclear Station and allow Duke Energy to move forward with the construction and operation of this electric generation facility. (0047-5 [Vogel, Chip])

Comment: Our reliance on foreign sources of energy will be reduced, our greenhouse gases will be reduced and our economy will be stimulated. This sounds like a win-win-win proposition to me. I heartily am in favor of, and ask your support of, the licensing of the Lee Nuclear Plant. (0048-2 [Chapman, A. Foster])

Response: *These comments express support of the COL application but do not provide any specific information relating to the environmental impacts of the proposed action. Therefore, these comments will not be addressed further in the EIS.*

Comment: Duke Energy has demonstrated safe and efficient nuclear operations in South Carolina with the Catawba and Oconee Nuclear Stations. Duke Energy has also been a good corporate citizen in South Carolina, contributing both to the economic

benefit and environmental benefit of the state. We anticipate that Duke Energy will continue the same safe and efficient operations with the Lee Nuclear Station that it has demonstrated with the Catawba and Oconee Nuclear Stations. (0001-8 [Moss, Dennis Carroll])

Comment: Duke Energy is an experienced nuclear operator, having operated three nuclear stations in the Carolinas for more than 30 years. Catawba, Oconee and McGuire have safely generated more than 1.3 trillion kilowatt-hours of electricity, which is a significant contributor to our reliable electric supply, the economic growth of our region and the low electricity rates our customers enjoy. Duke Energy Carolinas' electricity rates are about 20 percent below the national average. (0001-13 [Dolan, Bryan])

Comment: Duke Energy has demonstrated safe and efficient nuclear operations in South Carolina with the Catawba and Oconee Nuclear Stations. As this will be a passive operation plant, we feel Duke Energy will continue the same safe and efficient operations with the Lee Nuclear Station that it has demonstrated with the existing nuclear stations in South Carolina. (0001-39 [Moorhead, Gene])

Comment: As far as tax dollars paid to local government to support our county, Catawba Nuclear Station pays more than \$30 million annually in property taxes to the York County government. Money aside, Catawba Nuclear Station and Duke Energy provides something else we need to continue to grow and prosper in this region, which is reliable and economical electricity. This is a major factor when companies look to relocate to our region. Also, when considering a nuclear plant in your neighborhood, you have to look hard at the relationship between the utility, the business community and the community as a whole. In my experience, I have found Duke Energy to be open and honest when it comes to the Catawba Nuclear Station. (0001-47 [Hardy, Chris])

Comment: Over the past 26 years of my employment with Duke, training and education have been an integral part of my job and I can honestly say that I've never been afraid to work in the plant. I have confidence in our team and our systems that have been engineered for safe operation. (0001-73 [Blue, Lilly])

Comment: ... I'm very happy to support the Lee Nuclear Station. (0001-79 [Blue, Lilly])

Comment: The company contributes to the community through charitable donations and activities. The energy explorium is an educational resource and a destination for school groups, among many others. (0001-80 [James, Andrew])

Comment: ... Duke Energy has an exemplary record with regard to workplace safety and health and a strong commitment to the preservation of our natural resources. ...

That is a company with a very strong commitment to the world around them and to preserving it for future generations. (0001-97 [Gossett, Lewis])

Comment: [Duke is good] to work with, they take their responsibility seriously and do a very good job. Given their extensive experience in all aspects of nuclear energy, whether you agree with the premise or not, we have no doubt about their ability to construct, operate and maintain a very safe, reliable and at least in terms of CO2 emissions, very environmentally sound plant. (0001-99 [Stone, Bryan])

Comment: ... I have seen first hand Duke's safe operations of the nuclear stations in the two Carolinas over the 30 years that they've been operational. Their plants are good neighbors; their employees are actively involved in their communities. Duke is an exemplary corporate citizen in all its operating areas and has a long history of giving back to the communities they serve. Not only has Duke committed to safe and reliable operations, they also are committed to protecting our environment. The nuclear sites -- and I've visited all their sites here in South Carolina -- have active environmental initiatives including an educational program. (0001-114 [Forrester, Mike])

Comment: [I want to] point out that Duke Energy has proven that safety is also its top priority in generating electricity to meet this customers' [Spartanburg Community College] growing need. (0001-116 [Forrester, Mike])

Comment: This proposed facility would be even safer than the ones that operate today, using new technology to protect the public from harm. (0001-148 [Murphy, William])

Comment: I see for myself each and every day the benefits that are going to the communities of the region, and I encourage the regulators to take these real and tangible benefits that exist now into consideration of this proposed facility. (0001-151 [Murphy, William])

Comment: I was involved with the Duke Nuclear plant that now sits idle in northeast Alabama and saw how diligently Duke dealt with that environment and the safety of that area. (0002-3 [Ebert, Dick])

Comment: I am here to indicate enthusiastic support for the permitting and the construction of Lee Nuclear Station in Cherokee County. [The Spartanburg Area Chamber of Commerce and the Economic Futures Group (which is the economic development organization for Spartanburg County)] endorsement goes beyond the obvious economic benefits of the design, construction and operation of the Lee Station. It reaches to the critical need to secure a sustainable, safe and reliable source of energy for our economic future. (0011-1 [Cordeau, David])

Comment: The Lee Nuclear generating facility will contribute significantly to meeting the growing energy needs in South Carolina. The Chamber also recognizes the important contribution that nuclear generation will make in reducing the carbon footprint for Duke Energy, its customers, and in the Upstate of SC. (0011-2 [Cordeau, David])

Comment: The Spartanburg Chamber knows that Duke Energy has demonstrated safe and efficient nuclear operations in South Carolina with the Catawba and Oconee Nuclear Stations. Duke Energy has been a good corporate citizen in Spartanburg, the upstate, and in South Carolina, contributing both to the economic benefit and environmental benefit of the State. We believe that that Duke Energy will continue the same safe and efficient operations with the Lee Nuclear Station that it has demonstrated with the Catawba and Oconee Nuclear Stations. (0011-5 [Cordeau, David])

Comment: Duke Energy has demonstrated safe and reliable nuclear operations in South Carolina for more than 30 years at its Catawba and Oconee nuclear stations. The Company has proven to be a good neighbor and corporate citizen in South Carolina contributing both to the economic and environmental benefit of the state. We have no doubt that Duke Energy's commitment to safe and efficient nuclear facility management will continue with the construction and operation of the Lee Nuclear Station. (0013-3 [Barrett, J. Gresham; Brown, Henry E.; Clyburn, James E.; DeMint, Jim; Graham, Lindsey; Inglis, Bob; Spratt, John M.; Wilson, Joe])

Comment: Please accept this letter to express my support of the proposed nuclear power plant in Cherokee County, South Carolina. Nuclear power has proven to be safe and I support this endeavor for the betterment of our community and the local economy. (0014-1 [Jolly, Henry L.])

Comment: This electric generation facility will contribute significantly to meeting growing energy needs in South Carolina. (0016-1 [Cook, Jim])

Comment: Duke Energy has demonstrated safe and efficient nuclear operations in South Carolina with the Catawba and Oconee Nuclear Stations. Duke Energy has also been a good corporate citizen in South Carolina contributing both to the economic benefit and environmental benefit of the State. We anticipate that Duke Energy will continue the same safe and efficient operations with the Lee Nuclear Station that it has demonstrated with the Catawba and Oconee Nuclear Stations. (0016-4 [Cook, Jim])

Comment: This letter is to express my strong support for the Duke Energy Lee Nuclear Station proposed in Cherokee County, South Carolina. (0018-1 [Sandifer, Bill])

Comment: Duke Energy has a proven safety record in operating seven nuclear reactors in the Carolinas, some for over 30 years. These plants are good neighbors and their employees are actively involved in their communities. (0018-3 [Sandifer, Bill])

Comment: Duke Energy has shown a commitment to safe and reliable nuclear generation for over 30 years, while also focusing on environmental protection. Duke Energy's environmental program began in 1923 and continues to be strong and vigorous today. Duke Energy's operating nuclear sites have active environmental initiatives, including educational programs. (0018-5 [Sandifer, Bill])

Comment: In regard to the William States Lee III Nuclear Station being built in Gaffney, South Carolina, I am in full support of this effort. ... Cherokee County unquestionably needs the boost in economy as well as the stature Duke Energy would bring to the community. Working with Duke Energy for the past 30 years I have come to understand just how safe and reliable Nuclear energy is. I am fully confident Duke Energy's choices for the design and suppliers will be the safest and most economical nuclear reactors. As well as operating the nuclear plant safely, Duke Energy also focuses on Nuclear Safety Guiding Principles for their employees. Duke Energy is exceedingly involved in numerous community efforts and encourages the good neighbor policy. As a lifelong resident I would like to see these efforts expanded in Cherokee County. (0019-1 [Blanton, Debbie])

Comment: Duke Energy has shown a strong commitment to safe and reliable nuclear generation, while at the same time balancing its responsibility to the environment. ... Duke Energy is an experienced nuclear operator, having a proven track record in operating nuclear plants in South Carolina for more than 30 years. Both the Oconee and Catawba nuclear stations located here in South Carolina are good neighbors and the employees are actively involved in the plant communities serving as mentors, tutors, civic leaders and more. (0023-3 [Peeler, Harvey S.]

Comment: Cherokee County believes Duke Energy has been a good corporate citizen in South Carolina contributing both the economic benefit and environmental benefit of the State. Cherokee County anticipates and expects that Duke Energy will continue the same safe and efficient operations with the Lee Nuclear Station that it has demonstrated with the Catawba and Oconee Nuclear Stations. (0024-3 [Batchler, James D.] [Foster, Rufus H.] [Humphries, H. Baily] [Little, Quay] [Mathis, Charles] [Parris, Hoke] [Spencer, Tim])

Comment: As a State Representative, I support the Duke Energy project because I strongly believe it will benefit the people of House District 29. As a high-growth state, South Carolina needs additional safe and reliable sources of base load electric generation. (0025-1 [Moss, Dennis Carroll])

Comment: Duke Energy has a strong history of maintaining its commitment to environmental protection and has a 30-year record of safely operating nuclear stations in South Carolina. Duke Energy has proven to be a good neighbor in the communities in which the company operates plants, with a commitment to safety and environmental

concerns. We are confident that Duke Energy will continue to live up to its past standards to meet or exceed all environmental and safety regulations while generating energy to meet its customers' growing needs. (0030-5 [Taylor, Joe])

Comment: At present, Morgan is working at the Lee Nuclear site in Gaffney, SC. I have always been impressed with Duke's attention to the details. When it comes to safety, environmental issues, and education, Duke takes the high road. Duke Energy does not aim to meet the requirements. They consistently exceed them. ... It is vitally important that we all take responsibility to protect our environment. Whatever our venture, the environment and safety should always be part of the equation. Duke Energy is a good steward and an example to not only the energy industry but to all industrial development. As Duke continues to develop energy sites, they not only supply the public with the power on which our society depends, but brings jobs to the community. In the present economic atmosphere, these jobs are vitally important. (0031-1 [Johnson, David G.]

Comment: Just wanted you to know only one person from Cherokee County spoke in opposition compared-to the many who support it. Over all there's great support for the Lee project [project] in Cherokee County. (0033-1 [Waters, Jason])

Comment: This electric generation facility will contribute significantly to meeting the growing energy needs in South Carolina. (0047-1 [Vogel, Chip])

Comment: Duke Energy has demonstrated safe and efficient nuclear operations in South Carolina with the Catawba and Oconee Nuclear Stations. Additionally, Duke Energy has been a good corporate citizen in South Carolina contributing both to the economic benefit and environmental benefit of the State. We anticipate that Duke Energy will continue the same safe and efficient operations with the Lee Nuclear Station that it has demonstrated with the Catawba and Oconee Nuclear Stations. (0047-4 [Vogel, Chip])

Response: *These comments express support for the proposed units at the site but do not provide any specific information relating to the environmental impacts of the proposed action. Therefore, these comments will not be addressed further in the EIS.*

22. General Comments in Support of the Licensing Process

Comment: Thank you for permitting me to be on the program at this meeting. I'm Chairman of the County Council. We have some members of the County Council here and I want to ask that they stand. I see Mr. Foster, Mr. Spencer and also Mr. Humphries. There may be others on the County Council, if you're here, will you please stand. Let me say I have a resolution here from Cherokee County Council. I'm not going to go into detail and read this to you, but be it resolved and adopted by the

Cherokee County Council at Gaffney, South Carolina, in meeting duly assembled. This was adopted on the 7th day of April 2008. This was unanimously passed by Cherokee County Council and I would like to just pass this on as evidence that Cherokee County passed this resolution. (0001-11 [Parris, Hoke])

Comment: Questionable information clouds the public debate and NRC review and I encourage you to be cautious with things that sound too good and cautious and skeptical of anything that sounds like fear mongering. (0001-86 [James, Andrew])

Comment: Thank you for the opportunity to address you on this important issue. (0001-90 [Gossett, Lewis])

Comment: I want to thank the Nuclear Regulatory Commission for its continued focus on nuclear operational safety (0001-115 [Forrester, Mike])

Comment: I'd like to thank the Nuclear Regulatory Commission for allowing us to speak. (0001-145 [Thronberg, Bob])

Comment: Thank you very much for the opportunity to express our opinion on this very important matter. (0001-162 [Wolfe, Clinton])

Comment: You've got a great chance to speak up and you have here tonight. And most of it is economical, following the money, following the money. Do you think the people at Chernobyl had that opportunity, folks? No. (0001-168 [Smith, William])

Comment: I appreciate the opportunity to speak this evening and thank the NRC for holding this public meeting. (0012-1 [Dolan, Bryan])

Comment: Thank you very much for the opportunity to express our opinion on this very important matter. (0017-3 [Wolfe, Clinton])

Comment: We believe in the NRC to provide strict oversight (0018-7 [Sandifer, Bill])

Comment: The [U.S. Fish and Wildlife] Service appreciates the opportunity to provide early comments for your consideration on this project. (0045-14 [Hall, Timothy N.])

Response: *These comments express general support for the NRC environmental review process but do not provide any specific information relating to the environmental impacts of the proposed action. Therefore, these comments will not be addressed further in the EIS.*

23. General Comments in Support of Nuclear Power

Comment: The South Carolina General Assembly has declared the development of new nuclear energy an important part of the state's future energy needs. In fact, the importance of renewable energy resources and nuclear energy under the South Carolina Energy Efficiency Act is currently under debate in the General Assembly. As passed by the House, Senate Bill 360 includes provisions to ensure that any future energy strategy that promotes carbon-free, nongreenhouse gas emitting sources includes nuclear energy and renewable energy resources. (0001-2 [Moss, Dennis Carroll])

Comment: The legislation that is under current debate and the May 2006 resolution are clear signs that South Carolina believes in nuclear energy, believes in the Nuclear Regulatory Commission to provide strict oversight, believes in the Public Service Commission to protect consumers and believes that our electric utilities can continue their proven track record of safely operating nuclear power plants. (0001-3 [Moss, Dennis Carroll])

Comment: At the same time, nuclear energy has a small carbon footprint and contributes to the United States quest to reduce carbon emissions and other air pollutants. (0001-6 [Moss, Dennis Carroll])

Comment: ... I am a licensed professional engineer with a background in power generation, distribution and transmission. And it was proven over and over and over again that nuclear power is the cheapest form of power. So if we're going to continue to provide power in a clean and safe manner as well as our commitment to the environment, this is really the only option that we have. (0001-60 [Bowers, Will])

Comment: Duke is an industry leader in the area of protecting our environment and in the absence of a better source, nuclear power will provide our future generation as a safe and reliable source of electricity. (0001-61 [Bowers, Will])

Comment: [T]o meet that demand, Duke had to choose some type of technology and I'm thrilled that it was nuclear. As a mother and a grandmother, I want the power technology that can meet our needs in the most sound ecological manner and I believe that nuclear power fits that bill. (0001-75 [Blue, Lilly])

Comment: A final example [of misleading information] is a claim that uranium will run out within 20 years. That is simply not true. (0001-85 [James, Andrew])

Comment: [The Spartanburg Chamber of Commerce endorsement] reaches the critical need to secure a sustainable, safe and reliable source of energy for our economic future. Nuclear power is our preferred alternative to providing that energy and

maintaining environmental quality that we so highly value in upstate South Carolina. (0001-89 [Cordeau, David])

Comment: [A]s a licensed nuclear engineer in training, ... I feel confident and proud of my choice to work in the field of nuclear science and technology and I look forward to raising my family supported by nuclear power. (0001-126 [Chisolm, Sarah])

Comment: We continue to put our faith in these guys to keep us safe, environmentally sound and for our nuclear safety. (0001-146 [Thronberg, Bob])

Comment: Commercial nuclear power has existed in this country for over 50 years and in that time, not one incident has occurred in any of the over 100 operating reactors that has resulted in a decrease in the health and safety of the public. (0001-147 [Murphy, William])

Comment: Nuclear energy is the safest, cleanest form of baseload energy production the world has ever seen. (0001-160 [Wolfe, Clinton])

Comment: We have chosen to use fossil fuels -- oil, gas, coal -- resulting in 25,000 premature deaths annually in the U.S. alone, and that's an estimate by the Centers for Disease Control. Instead of the safest technology for baseload electricity production, we chose the ones most likely to damage our environment and injure our citizens. ...we must provide new capacity through the nuclear option and replace fossil fuel units as they wear out with nuclear ones as rapidly as possible. (0001-161 [Wolfe, Clinton])

Comment: Nuclear power is clean and efficient and economical and SAFE. (0002-2 [Ebert, Dick])

Comment: The Chamber believes that Nuclear Power is critical to the long term development of stable energy supplies in the State and region. (0011-3 [Cordeau, David])

Comment: I am of the opinion, as are a growing number of Americans, that our nation and our planet face a crisis of rapidly expanding proportions with respect to global warming, increasing acidity of our oceans due to absorption of carbon dioxide, air pollution and its horrendous health effects, and dependency on unstable regions of the world for much of our energy needs. Debate will not solve the crisis although informed discourse on the proper path is entirely appropriate, but when that is said and done, we must act. The verdict has been in for some time now. The facts are indisputable. Nuclear energy is the safest, cleanest form of baseload energy production the world has ever seen.

It is time that our nation acts in a Man on the Moon manner to rebuild the infrastructure to rapidly expand the nation's nuclear power fleet. Our ancestors will surely wonder

what took us so long. We have chosen to use fossil fuels (oil, gas, and coal) resulting in 25,000 premature deaths annually in the U.S. alone (estimated by the Centers for Disease Control). Instead of the safest technology for baseload electricity production, we chose the ones most likely to damage our environment and injure our citizens. Fossil fuels will certainly be an element of the energy supply for decades to come, but we must provide new capacity through the nuclear option and replace fossil fuel units as they wear out with nuclear ones as rapidly as possible. (0017-2 [Wolfe, Clinton])

Comment: I am not alone in my support for new nuclear energy in South Carolina. The South Carolina General Assembly recently declared the development of new nuclear energy an important part of the state's future energy needs. (0018-6 [Sandifer, Bill])

Comment: I was most impressed by how the energy experts of our state's manufacturing base, who employ thousands of workers, strongly preferred nuclear energy over other forms of base load power. Nuclear energy will help South Carolina businesses compete in a global marketplace. (0018-8 [Sandifer, Bill])

Comment: Nuclear energy is important in our nation's quest for greater energy independence, and going forward it must play an even larger role in satisfying our state's and country's increasing electricity needs. It must also play an increasing role as we work as a nation to address global climate change. Not only have nuclear plants proven to be safe, they produce high levels of electric reliability while emitting no greenhouse or acid rain gases. (0023-4 [Peeler, Harvey S.]

Comment: Please know that South Carolina considers nuclear energy providers as good neighbors with a proven track record. The legislation under current debate and the May 2006 resolution are clear signs that South Carolina believes in nuclear energy, believes in the Nuclear Regulatory Commission to provide strict oversight, believes in the Public Service Commission to protect consumers and believes that our electric utilities can continue their proven track record of safely operating nuclear plants. (0025-3 [Moss, Dennis Carroll])

Comment: We support the construction of new reactors and are actively engaged in generating a public dialogue to educate others about the ways nuclear power enhances America's energy security and economic growth, and helps improve the environment. (0029-1 [Houston, Kate])

Comment: Nuclear energy is clean. It is the only large-scale, emissions-free source of electricity that we can readily expand to meet our growing energy demand. The environmental impact at nuclear plants is far lower than at many other types of power-generating plants. Nuclear energy is safe. In fact, the U.S. Bureau of Labor Statistics has shown that it is safer to work at a nuclear power plant than in the manufacturing sector and even in the real estate and financial industries. A nuclear plant makes a

good neighbor. It supports high-paying jobs directly at the plant, generates additional jobs in the community where it is located, and contributes by helping to build good schools, roads and other civic improvements. (0029-3 [Houston, Kate])

Comment: [I]t is important to recognize that nuclear power facilities have enabled increased energy capacity without increasing the use of fuels that emit greenhouse gases. (0030-4 [Taylor, Joe])

Comment: [B]ecause use of nuclear energy creates almost no green-house gas emissions DNR generally supports opportunities to consult with utilities and regulators, review necessary documentation and participate in discussions involving additional reliance on nuclear power for generation of electricity. (0046-28 [Perry, Robert D.]

Response: *These comments provide general information in support of nuclear power but do not provide any specific information relating to the environmental impacts of the proposed action. Therefore, these comments will not be addressed further in the EIS.*

24. General Comments in Opposition of the Licensing Action

Comment: ...we [Southern Alliance for Clean Energy] believe this application is not complete and should never have been accepted by the NRC. We request that the NRC ask Duke to revise and resubmit the application. (0001-26 [Barczak, Sara])

Comment: [A]s long as a handful of firms can get huge federal subsidies and build one or two over-priced plants, while a new administration might tighten regulations, public safety will continue to be menaced by problems at Lee as well as other plants. (0001-44 [Biggs, Diane])

Comment: We [Nuclear Information and Resource Service] certainly share every concern that has been raised this evening about the problems of nuclear power, and will support anyone and everyone who is standing up to oppose this project. (0001-49 [Olson, Mary])

Comment: I do believe that Duke will profit very, very heavily from building this facility but I don't see that the neighborhood will necessarily. (0001-69 [Arnason, Deb])

Comment: I ask the NRC to think again and I have included a whole package here... (0001-71 [Arnason, Deb])

Comment: So I recommend that they not approve this request. (0001-157 [Saye, Jack])

Comment: I challenge you to do your job as the law requires and I challenge you to honestly, as the young lady asked, assess the lifetime costs and environmental impacts

of this proposed facility as well as the alternatives, and choose the alternatives of safe, clean, renewable energy instead of the Lee Nuclear Station. (0001-175 [Guild, Bob])

Comment: I am writing to oppose the building of new nuclear power plants especially the one planned for the Lee site in South Carolina. (0006-1 [Craig, Thomas])

Comment: Therefore, we, the people, expect you to deny any new nuclear proposals. Please deny this permit and make Duke wait to see what the next few years bring in politics, solar, wind, wave, geothermal, efficiency and green building before committing all of us, yourselves and your children included to such an extravagant and unnecessarily wasteful energy policy as more new nuclear especially in this drought-stricken area. (0007-10 [Arnason, Deb])

Comment: This permit is my business. It has the potential to gravely impact my grandchildren! (0007-12 [Arnason, Deb])

Comment: Please deny license. (0008-3 [Arnason, Deb])

Comment: We have serious concerns about Duke's push to build two new reactors here at the Lee site. The uncertainties associated with new nuclear power plants continue to escalate, putting ratepayers, taxpayers, and the environment at increasing risk. (0009-1, 0049-1 [Barczak, Sara])

Comment: Fundamentally, we [Southern Alliance for Clean Energy] believe this application is not complete and should never have been accepted by the NRC. It is frustrating that taxpayer dollars have been wasted on this document, and that time and effort on the part of public citizens has also been wasted reviewing this document, since it really does not seem to be complete. We request that the NRC ask Duke to revise and resubmit their application. (0010-6, 0049-14 [Barczak, Sara])

Comment: As you can tell I am totally against this facility and the pollutions and impact on the environment much less us as the surrounding communities. (0026-5 [Poole, Mary Jane])

Comment: Please consider rejecting Duke Energy application for a license to build and operate two nuclear power plants on the Broad River near Gaffney, South Carolina. The plants are to be called Lee Nuclear Stations Units 1 and 2. (0035-1 [Hamrick, Mike])

Response: *These comments provide general opposition to the licensing of new nuclear power plants at the Lee site but do not provide any specific information relating to the environmental impacts of the proposed action. Therefore, these comments will not be addressed further in the EIS.*

Comment: So the safest way to prevent something like that [uncontrolled simultaneous meltdown of both units] is not build the doggone station. (0001-167 [Smith, William])

Comment: ... I passionately want to see us commit to a safe, clean and sustainable energy future that meets our needs as people, that protects our environment and that most critically, begins to solve the challenge of the climate crisis that we face. I don't believe that this proposed station can begin to be the solution to that problem or the preferred alternative. (0001-171 [Guild, Bob])

Comment: A nuclear power plant is not the answer for the future. (0026-1 [Poole, Mary Jane])

Comment: I would not approve of another Nuclear Power Plant. Especially if it's going to use that much water. (0036-1 [Thomas, Amber])

Response: *These comments express opposition to the proposed units at the site. These comments do not provide new information relating to the environmental impact of the proposed units, and not be addressed further in the EIS.*

25. General Comments in Opposition of Nuclear Power

Comment: Nuclear power will harm you. Nuclear power is harming you. Harmful, radioactive pollution is released, on a routine basis, into the air and into the water from every operating nuclear power plant in South Carolina, North Carolina, Georgia, Tennessee, and everywhere around the country and indeed around the world. Highly toxic radioactive waste is stored in pools of water at most of these reactors. Nuclear power is expensive, fabulously expensive. (0001-27 [Zeller, Lou])

Comment: I am opposed to nuclear energy for a number of reasons which I won't enumerate since we've covered all those tonight. (0001-152 [Saye, Jack])

Comment: ... I would say we do have green technology and we need to be moving in that direction. We don't need any more nuclear power plants. (0001-198 [Connolly, Mary Ellen])

Comment: Nuclear power is wrong. It is not Earth friendly, and we all know it. (0003-1 [Smith, Karen])

Comment: The nuclear elephant in the living room of radioactive waste, the vulnerability of nuclear plants to terrorist attack, sabotage human error or natural disaster, the potential to restart nuclear proliferation as well as the human health risks, all combine to make any new nuclear projects an enormous and unnecessary risk. The proposed nuclear projects will also divert much needed funds, time and attention away

truly safe and sustainable solutions like solar, wind, wave and geothermal energy development. (0007-11 [Arnason, Deb])

Comment: I have over 400 signatures from folks across the South that say, No Coal, No Nukes, Go Solar and would be happy to mail them to you upon request. (0007-15 [Arnason, Deb])

Comment: First of all, I have to state my opposition to the construction of any new nuclear power plants in the United States (or elsewhere). (0034-1 [Karpen, Leah R.])

Comment: We don't know what condition this country will be in 40-200 years. We could be like Russia. ... we may be unable to keep up with repairs, waste, and even routine maintenance on nuclear reactors. (0039-1 [Hedges, Jean])

Comment: While every informed physicist not on a nuclear company's payroll has concluded that splitting the atom is the worst thing that ever happened to the human race, the industry insists on being socialized and pursuing an energy source which in fact may produce little or no net energy. They fail to do a complete energy audit, for the obvious reason that all the plants would then be shut down very quickly and better sources would become rapidly dominant. Some are fooled by the industry's self-promotion, but informed citizens are not. Shut 'em all down tomorrow morning before breakfast. Convert your intelligent work force to real solutions. (0040-1 [Richardson, Don])

Comment: Nuclear power is always connected to nuclear weapons. A nuclear power renaissance will make for a much less safe world. (0041-5 [Sutlock, Dot])

Response: *These comments provide general information in opposition to nuclear power. They do not provide any specific information relating to the environmental effects of the proposed action and will not be evaluated in the EIS.*

26. Comments Concerning Issues Out of Scope - Emergency Preparedness

Comment: [T]here was an article in the Charlotte Observer about handing out anti-nuclear capsules of iodine in case of a meltdown. Who wants to live that way? (0007-5 [Arnason, Deb])

Response: *Radiological impacts of normal operations to the public and radiological monitoring will be addressed in Chapter 5 of the EIS. This comment concerns emergency preparedness, which will be addressed in the NRC staff's SER. This comment will not be addressed further in the EIS.*

27. Comments Concerning Issues Out of Scope - Miscellaneous

Comment: Concern about climate change creates another major problem as related to new nuclear power generation. In 2007, 12 of 32 nuclear reactors under construction worldwide had been so for more than 20 years. Moody's estimated that no more than two new nuclear power plants will come online by 2015. In addition to delays in finding suitable sites, dealing with community objections and getting permits, there is now a three-year backup in obtaining core reactor vessels, manufactured by a single Japanese company. We believe we do not have time to wait for proposed plants to become operational. (0015-5 [Patrie, Dr. Lew])

Response: *This comment expresses concern in part on whether the construction of the proposed Lee units would occur quickly enough to provide a beneficial impact on climate change. The justification for new nuclear power plants at the Lee site is not based on the beneficial impact of those plants on climate change. Thus, the comment is outside the scope of the EIS and will not be considered further. However, the EIS will address impacts of the construction and operation of new nuclear plants on several aspects of climate change.*

28. Comments Concerning Issues Out of Scope - NRC Oversight

Comment: Duke controls the NRC. The NRC gives Duke what they want and we as the population get fleeced cents or 20 dollars a month until death do us part. (0001-106 [Moss, Charles])

Comment: You may be aware that the Browns Ferry Nuclear Power Plant had to power down last summer, the Farley Plant on the Chattahoochee River south of Atlanta was under risk of having to shut down because of lack of water. We well could be facing that same situation here. (0001-130 [Clements, Tom])

Comment: Duke Power has lost a lot of experienced people and I believe I seen some article to where they're going to lose another like 25 percent of their experienced people within the next five years. Well, folks, I'm going to tell you, if you don't have experience in running one of these plants, then you'd best not build it. (0001-165 [Smith, William])

Comment: I ask the NRC to include the costs in its assessment of this extraordinary rush to licensing which they have embraced in the newly designed combined operating license, streamlined licensing process. I ask that you consider the costs of quality assurance for this plant, if it's ever built, of eliminating the traditional adversary system that was involved in the last generation of nuclear power plant licensing, because it was only through that adversary system that whistleblowers, including former Duke employees that I represented, brought to the NRC's attention construction quality assurance problems at plants like the Zimmer facility in Ohio that was canceled, the

Midland facility in Michigan that had serious design and construction problems, the Diablo Canyon facility in California where amazingly they got the blueprints backwards ... Now those kinds of flaws came to light because there was a thorough going public process to review the safety and quality assurance of construction. You don't have that check and balance any more and there will be an environmental cost that you need to assess from that streamlined, rush to licensing. (0001-173 [Guild, Bob])

Comment: ... I ask NRC to look into whether Duke is really working on conservation. I hear their Save a Lot program is kind of a sham, just another way to help line Duke's pockets. (0001-176 [Minerd, Leslie])

Comment: What is the purpose of the Nuclear Regulatory Commission and who do they work for? I trust it is the American people and not the Energy Companies. (0007-9 [Arnason, Deb])

Response: *The NRC takes seriously its responsibility under the Atomic Energy Act to protect public health and safety and the environment in regulating the U.S. nuclear power industry. More information on NRC's roles and responsibilities is available on the NRC's website at <http://www.nrc.gov/what-we-do.html>. While the Atomic Energy Act of 1954 previously defined a role for the Atomic Energy Commission in formulating a national energy policy, the Act, as amended in 1974 by the Energy Reorganization Act created the NRC from the Atomic Energy Commission's regulatory division to regulate the nuclear power industry. The Energy Reorganization Act segregated the Atomic Energy Commission's national policy role in the Energy Research and Development Administration, which later became DOE. The NRC has no role in promoting nuclear power. Rather, the Congress and the President establish the energy policy of the United States, and DOE implements that policy at the direction of the President. The NRC was created by Congress and designed so that it would not report to the same part of the government that was in charge of setting energy policy (any current Administration). The public has been given the opportunity to participate in the rulemaking process that established the regulations that govern its review process. The comments did not provide new information relevant to this EIS and will not be evaluated further.*

Comment: [T]his [AP1000] reactor has never been built anywhere in the world. And while the Duke fact sheet claims that it's one of the safest and most economical nuclear power technologies available, we don't really know that. (0001-127 [Clements, Tom])

Comment: Is the AP1000 capable of using plutonium and is Duke planning to use plutonium in this plant as well as their other plants, as a fuel? (0001-197 [Connolly, Mary Ellen])

Response: *The AP1000 reactor design proposed for the Lee Nuclear Station is a light-water reactor that uses enriched uranium. This design has been certified by the NRC*

after input from the public on the design, proposed rule, and environmental assessment for the reactor design. After review of the application against the regulations and regulatory guidance, a mandatory hearing or optional contested hearing will determine whether it is appropriate to grant the license. NRC approval of an application for a COL is not a foregone conclusion. Safety as well as environmental issues will be evaluated before a decision on an application is reached.

Comment: ... I want to say that I don't have a lot of confidence in the NRC and I don't think those in this room ought to either. The NRC has never denied a license for a nuclear power plant. They've never issued an environmental impact statement saying that building a nuclear power plant was a bad idea. (0001-174 [Guild, Bob])

Response: *The William States Lee III application is one of the first to go through the COL process, so data are not available at this time as to new licenses that have been denied during this process.*

29. Comments Concerning Issues Out of Scope - Safety

Comment: [Duke] did not build the first plant [at Catawba] until they were relieved of liability for damage to the surrounding area. Many do not know that they may get no compensation if their property is contaminated. (0001-192 [Connolly, Mary Ellen])

Response: *The environmental effects of severe accidents is considered in the NRC's environmental review, but compensation for damages from nuclear reactor accidents is not.*

Comment: Now when this plant that we're about to build here is built, if anything happens to that plant, like for instance what's happening in Oconee right now with the Duke power plant -- it's been closed down because of vibration -- we're going to have one of the worst nuclear disasters that's ever happened. It'll bypass Chernobyl by a factor of 10 because of the amount of population we have here. (0001-33 [Cherin, Mike])

Comment: [T]here is a potential for an uncontrolled simultaneous meltdown of both units at McGuire Nuclear Station. (0001-166 [Smith, William])

Comment: ... Chernobyl is a cake walk to what can happen at McGuire and what could happen here and blow in my direction. (0001-169 [Smith, William])

Comment: Recently there was an article about trying to cap off Chernobyl in Russia. This is and always will be a threat to the world. There is no way ya'll can assure safety of Nuclear Power. Besides when evacuations are called why don't you let the public know the plans with that situation. (0026-4 [Poole, Mary Jane])

Response: *The issues raised in the comments are outside the scope of the environmental review and will not be addressed in the EIS. The safety assessment for the proposed licensing action was provided as part of the application. The NRC is in the process of developing an SER that analyzes all aspects of reactor and operational safety. The following are examples of how the NRC addresses operational safety issues. At each reactor site, the NRC maintains resident inspectors who monitor the day-to-day operations at the plant and perform inspections to ensure compliance with NRC requirements. In addition, the NRC has an operational experience program that ensures safety issues found at one plant are properly addressed at the others, as appropriate. Finally, the design of any new reactors or storage facility will have already benefitted from lessons learned at existing reactors and incorporate new safety features that would be impracticable to backfit onto existing plants. The NRC will only issue a license or permit if it can conclude there is reasonable assurance of the following: (1) the activities authorized by the license or permit can be conducted without endangering public health and safety, and (2) such activities will be conducted in compliance with the rules and regulations of the NRC.*

Comment: We already know that nuclear power plants are vulnerable to the effects of heat and drought. And drought conditions in this region have already forced power plants to shut down or power back. The predicted effects of global warming in the region could negatively impact the ability for the proposed reactors at Lee to generate electricity under those conditions if the Broad River is impacted. The NRC should evaluate these concerns in the draft EIS. (0001-24 [Barczak, Sara])

Comment: [A]re you really going to evaluate the impact of the climate crisis on the operation of nuclear power units? We are in a period of turbulent climate. A clue for you is are you going to recalculate the estimated risk associated with the loss of off-site power for station blackout? Because the agency has already stated that 50 percent of the chance of major meltdown like Mike Cherin just described to us this evening, is from the loss of off-site power. Weather is more turbulent, are you going to look at that? Are you going to reassess that risk? We're going to ask that question. (0001-53 [Olson, Mary])

Comment: [T]here are meteorologists predicting that the whole weather pattern that we know in the southeast where we get 50 inches of rain in South Carolina, that is getting ready to change. ... And South Carolina and the whole southeast is going to go into more of a drought pattern, their whole rainfall pattern is going to change where what we call a drought now is going to be normal. We're not going to have the water to run these very expensive reactors. (0001-177 [Minerd, Leslie])

Comment: [R]egarding tritium leaks that have been ongoing for years with the NRC always just a little too late to make their investigation. How can the NRC claim to be

able to monitor new nuclear plants when they can't even handle existing plants. (0007-7 [Arnason, Deb])

Comment: Nuclear power plants are vulnerable to the effects of heat and drought. Drought conditions in this region have already forced power plants to shut down or power back. The predicted effects of global warming in the region, such as summer heat waves or droughts, could negatively impact the ability for the proposed reactors at Lee to generate electricity under those conditions if the Broad River is impacted. This deficiency was demonstrated by the recent summer heat waves and droughts, when nuclear power plants in France, Germany, and across Europe, and in the U.S., had to shut down or power back because the water temperatures were too high. The application has no mention of the predicted impacts of global warming including in terms of temperature and drought on the Broad River and how that could impact the operation of the Lee reactors. The NRC should evaluate these concerns in the draft EIS. (0010-4, 0049-12 [Barczak, Sara])

Comment: What will be the impact of the Climate Crisis on reactor operations - the elevation of temperature in cooling water causing reactor outages; the increased rate of loss of off-site power due to increased incidence of severe weather and so increased risk of a major reactor accident tied to Station Black-out? (0038-7 [Turk, Lawrence "Butch"])

Response: *The EIS focuses on the potential effects of plant construction and operation on the environment. The SER, a separate document prepared by NRC staff, will address the effects of weather on the proposed nuclear power plants. These comments generally express concern about the impacts of global warming and climate change on the proposed plants, which is outside the scope of the EIS and will not be addressed further. However, the EIS will address the risks of severe reactor accidents from all causes, including loss of offsite power.*

Comment: Earthquakes, South Carolina averages 15-20 earthquakes per year. One of the largest known happened in Charleston. South Carolina's Emergency Management itself said that "Where earthquakes have occurred in the past, they will happen again." (0001-29 [Zeller, Lou])

Comment: 2.5.1.1.2.4 Regional Paleozoic Tectonic Structures, page 2.5-23. The Kings Mountain shear zone and the Tinsley Bridge fault were described. The Kings Mountain shear zone was further subdivided into the Blacksburg and Kings Creek shear zones and this shear zone was implied to be a steeply northwest-dipping reverse fault.

Mapping by Horton and other geologists indicate ductile movement on the previously described structures has a component of right-lateral strike-slip movement. Interpretations of reverse movement further suggest oblique slip movement is possible. The ductile movement is localized along lithologic contacts. Recent mapping in the

immediate vicinity by Horton shows brittle fault movement also is localized along lithologic contacts. It is possible that many or all of the lithologic contacts in the area have experienced some type of strike-slip movement and brittle movement has not been recognized in ductile shear zones. Such lateral movement needs to be further investigated because strike directions of the lithologic contacts are in the proper orientation to be reactivated by the prevailing northeast-southwest stress field.

DNR notes faults should not be implied to be dead or inactive. The destruction of Kobe, Japan, in the late 1990s on what was referred to as an inactive fault clearly shows zones of weakness, ductile shear zones, and brittle faults can be reactivated in modern times. Active or inactive faults can accumulate stress until a failure mode is reached. An earthquake does not necessarily have to occur on faults in the vicinity of the station. The 1913 Union earthquake is assigned a magnitude of 4.8, and the epicenter is approximately 25 miles to the southwest (possibly along strike). Assigned intensities for this earthquake are equivalent to average peak ground velocities of 5-8 cm/sec and average peak ground accelerations of 0.10-0.15 g. The Union fault, the second largest in the southeast, produced northeast-southwest isoseismal patterns suggestive of strike-slip movement. Isoseismal patterns also indicate this was a distinctly felt earthquake; and at the Lee Site, the earthquake's impact was felt as a VII or VI as numbered in the Rossi-Forel Scale. The recent earthquake at Columbus, North Carolina, further shows that active movement can occur throughout the piedmont region.

An investigation of strike-slip movement and related structural style is warranted. This investigation should include a detailed fracture analysis to investigate if the fracture and joint patterns also are related to possible strike-slip movement.

There are 2 other areas where some level of geologic understanding will be needed:

- 1) Slope stability: Topographic relief in the piedmont can be substantial, especially in major stream valleys. Location of facilities adjacent to steep slopes requires evaluation, particularly in relation to the structural fabric of the immediate area. Dip slopes have a propensity to fail and increasingly so due to weathering character of most piedmont rocks.
- 2) Foundation stability: In addition to earthquakes and ground motion, foundation stability is addressed by examining the material facilities will be built upon. The Lee Site is adjacent to the river valley. It is assumed that construction will build on bedrock, but what kind of bedrock? Because of rock composition and structure, some areas are better suited than others. A thorough description of the bedrock in the immediate vicinity of the construction site area is needed, rather than sweeping generalizations from regionally-scaled maps. As exemplified by remediation of the Saluda dam (Saluda Hydroelectric Development) near Columbia, SCE&G was

required to excavate to pristine rock surface enabling the dam footing to be attached to bedrock. (0046-19 [Perry, Robert D.]

Comment: Geologic mapping by the South Carolina Geological Survey and others demonstrates a relationship between springs and younger brittle faults. Such faults have not been mapped extensively in the Piedmont, and the possibility of this style of faulting needs further investigation. (0046-4 [Perry, Robert D.]

Response: *The NRC is also concerned with the integrity of the rock and seismic issues at the proposed Lee site. However, these are safety issues and not in the scope of the environmental review. Safety issues including, but not limited to, seismic concerns, soil and rock static and dynamic strength, and soil and rock stability are all addressed in the applicant's Final Safety Analysis Report (FSAR), which is Part 2 of the application. The NRC staff reviews these and other safety topics, which will be documented in the NRC-issued SER.*

30. Comments Concerning Issues Out of Scope - Security and Terrorism

Comment: Just after 9/11 when security at nuke plants was supposed to be high, lead pellets started raining down on the containment structure and guard shack at Maine's Yankee, in Maine. The plant has since been decommissioned. A group of four armed men in camouflage had infiltrated into a swamp and were firing weapons from somewhere in the area. This group turned out to be four duck hunters that had no idea they were hitting the power plant. This proves just how easy an attack could be. (0001-42 [Biggs, Diane])

Comment: [W]hy would we want to have an energy source that needs to have guys with Uzis or policemen out here protecting -- this is your ad that I picked up off the desk, look at this guy running down the hall with an Uzi to protect your energy. (0001-178 [Minerd, Leslie])

Comment: No doubt you are aware that every nuclear reactor is a promising terrorist target. (0041-3 [Sutlock, Dot])

Response: *Comments related to security and terrorism are safety issues that are not within the scope of the staff's environmental review. The NRC is devoting substantial time and attention to terrorism-related matters, including coordination with the U.S. Department of Homeland Security. As part of its mission to protect public health and safety and the common defense and security pursuant to the Atomic Energy Act of 1954, the NRC staff is conducting vulnerability assessments for the domestic utilization of radioactive material. Since the events of September 11, 2001, the NRC has identified the need for license holders to implement compensatory measures and has*

issued several orders to license holders imposing enhanced security requirements. Finally, the NRC has taken actions to ensure that applicants and license holders maintain vigilance and a high degree of security awareness. Consequently, the NRC will continue to consider measures to prevent and mitigate the consequences of acts of terrorism in fulfilling its safety mission. Additional information about the NRC staff's actions regarding physical security since September 11, 2001, can be found on the NRC's public website (www.nrc.gov).

Summary

On December 12 2007, the NRC received an application from Duke for a COL for proposed Units 1 and 2 to be located in the eastern portion of Cherokee County, South Carolina. On March 20, 2008, in accordance with 10 CFR 51.26, the NRC initiated the scoping process by publishing a Notice of Intent to Prepare an Environmental Impact Statement and Conduct Scoping Process in the Federal Register (73 FR 15009). The Notice of Intent notified the public of the staff's intent to prepare an EIS and conduct scoping for the COL application. Through the notice, the NRC also invited the applicants; Federal, Tribal, State, and local government agencies; local organizations; and individuals to participate in the scoping process by providing oral comments at the public meetings and/or submitting written suggestions and comments no later than May 20, 2008. A public scoping meeting was held at the Gaffney High School Auditorium in Gaffney, South Carolina on May 1, 2008.

All comments received were consolidated and categorized according to topic within the COL EIS or according to the general topic if outside the scope of the EIS. Those comments along with the responses prepared by NRC staff were presented in this Scoping Summary Report.

The draft EIS for Duke's COL application will address the relevant environmental issues raised during the scoping process. The draft COL EIS will be made available for public comment. Interested Federal, Tribal, State, and local government agencies; local organizations; and members of the public will be given the opportunity to provide comments on the draft COL EIS that will be considered during the development of the final COL EIS.

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