

Draft Environmental Impact Statement for an Early Site Permit (ESP) at the Vogtle Electric Generating Plant Site

Draft Report for Comment

Appendices A through J

**U.S. Nuclear Regulatory Commission
Office of New Reactors
Washington, DC 20555-0001**

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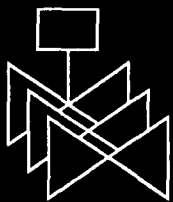
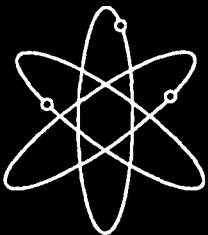
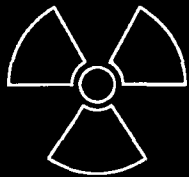
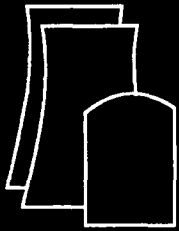
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Any interested party may submit comments on this report for consideration by the NRC staff. Comments may be accompanied by additional relevant information or supporting data. Please specify the report number NUREG-1872, in your comments, and send them by November 28, 2007 to the following address:

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Abstract

This environmental impact statement (EIS) has been prepared in response to an application submitted to the U.S. Nuclear Regulatory Commission (NRC) by Southern Nuclear Operating Company, Inc. (Southern) for an early site permit (ESP). The proposed action requested in Southern's application is for the NRC to (1) approve a site within the existing Vogtle Electric Generating Plant (VEGP) boundaries as suitable for the construction and operation of a new nuclear power generating facility and (2) issue an ESP for the proposed location at the VEGP site, adjacent to the existing VEGP Units 1 and 2.

In its application, Southern proposes a plan for redressing the environmental effects of certain site-preparation and preconstruction activities (i.e., those activities allowed by Title 10 of the Code of Federal Regulations (CFR) 50.10(e)(1), performed by an ESP holder under 10 CFR 52.25). In accordance with the plan, the site would be redressed if the NRC issues the requested ESP (including the site redress plan), the ESP holder performs these site preparation and construction activities, the ESP is not referenced in an application for a construction permit or combined operating license, and no alternative use is found for the site.

This EIS includes the NRC staff's analysis that considers and weighs the environmental impacts of constructing and operating new units at the VEGP site or at alternative sites, and mitigation measures available for reducing or avoiding adverse impacts. It also includes the staff's preliminary recommendation to the Commission regarding the proposed action. The NRC staff's preliminary recommendation to the Commission related to the environmental aspects of the proposed action is that the ESP should be issued as proposed. The staff's evaluation of the site safety and emergency preparedness aspects of the proposed action will be addressed in the staff's Safety Evaluation Report that is anticipated to be published in May 2008. This recommendation is based on (1) the application, including the Environmental Report (ER), submitted by Southern; (2) consultation with Federal, State, Tribal, and local agencies; (3) the staff's independent review; (4) the staff's consideration of comments related to the environmental review that were received during the public scoping process; and (5) the assessments summarized in this EIS, including the potential mitigation measures identified in the ER and this EIS. In addition, in making its recommendation, the staff determined that there are no environmentally preferable or obviously superior sites. Finally, the staff has concluded that the site preparation and preconstruction activities allowed by 10 CFR 50.10(e)(1) requested by Southern in its application will not result in any significant adverse environmental impact that cannot be redressed.

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Executive Summary

On August 14, 2006, the U.S. Nuclear Regulatory Commission (NRC) received an application from Southern Nuclear Operating Company, Inc. (Southern) for an early site permit (ESP) for a site within the Vogtle Electric Generating Plant (VEGP) site, adjacent to the existing VEGP Units 1 and 2. The site is located in Burke County, Georgia, approximately 42 km (26 mi) southeast of Augusta, Georgia. An ESP is a Commission approval of a location for siting one or more nuclear power facilities and is a separate action from the filing of an application for a construction permit (CP) or combined license (COL) for such a facility. An ESP is not a license to build a nuclear power plant; rather, the application for an ESP initiates a process undertaken to assess whether a proposed site is suitable should Southern decide to pursue a CP or COL.

Section 102 of the National Environmental Policy Act of 1969 (NEPA) (42 USC 4321) directs that an environmental impact statement (EIS) be prepared for major Federal actions that significantly affect the quality of the human environment. The NRC has implemented Section 102 of NEPA in Title 10 of the Code of Federal Regulations (CFR) Part 51. Subpart A of 10 CFR Part 52 contains the NRC regulations related to ESPs. As set forth in 10 CFR 52.18, the Commission has determined that an EIS would be prepared during the review of an application for an ESP. The purpose of Southern's requested action, issuance of the ESP, is for the NRC to determine whether the VEGP site is suitable for the proposed two new units (VEGP Units 3 and 4) by resolving certain safety and environmental issues before Southern incurs the substantial additional time and expense of designing and seeking approval to construct such a facility at the site. Part 52 of CFR Title 10 describes the ESP as a "partial construction permit." An applicant for a CP or COL for a nuclear power plant or plants to be located at the site for which an ESP was issued can reference the ESP, thus reducing the review of siting issues at that stage of the licensing process. However, granting a CP or COL to construct and operate a nuclear power plant is a major federal action and would require an EIS be issued in accordance with 10 CFR Part 51.

Three primary issues – site safety, environmental impacts, and emergency planning – must be addressed in the ESP application. In its review of the application, the NRC assesses Southern's proposal in relation to these issues and determines if the application meets the requirements of the Atomic Energy Act and the NRC regulations. This EIS addresses the potential environmental impacts resulting from the construction and operation of two new units at the VEGP site.

An ESP application may refer to a plant parameter envelope, which is a set of postulated design parameters that bound the characteristics of one or more reactor designs that might be built at a selected site; alternatively, an ESP application may refer to a detailed reactor design. In its ESP application, Southern has specified the Westinghouse AP1000 as the proposed detailed reactor design.

In its application, Southern requested authorization to perform certain site-preparation activities if an ESP is issued. The application, therefore, includes a site redress plan that specifies how

Southern would stabilize and restore the site to its preconstruction condition (or conditions consistent with an alternative use) in the event a nuclear power plant is not constructed on the approved site. Additionally, Southern addressed the benefits of the proposed action (e.g., the need for power). In accordance with 10 CFR 52.18, the EIS is focused on the environmental effects of construction and operation of a reactor, or reactors, that have characteristics that fall within the postulated site parameters.

Upon acceptance of the Southern application, the NRC began the environmental review process described in 10 CFR Part 51 by publishing in the *Federal Register* a Notice of Intent (71 FR 58882) to prepare an EIS and conduct scoping. The staff held a public scoping meeting in Waynesboro, Georgia, on October 19, 2006, and visited the VEGP site in October 2006. Subsequent to the scoping meeting and the site visit and in accordance with the provisions of NEPA and 10 CFR Part 51, the staff determined and evaluated the potential environmental impacts of constructing and operating new units at the VEGP site. Included in this EIS are (1) the results of the NRC staff's analyses, which consider and weigh the environmental effects of the proposed action (i.e., issuance of the ESP) and of constructing and operating two additional nuclear units at the ESP site; (2) mitigation measures for reducing or avoiding adverse effects; (3) the environmental impacts of alternatives to the proposed action; and (4) the staff's recommendation regarding the proposed action.

During the course of preparing this EIS, the staff reviewed the application, including the Environmental Report (ER) submitted by Southern; consulted with Federal, State, Tribal, and local agencies; and followed the guidance set forth in NRC review standard RS-002, *Processing Applications for Early Site Permits*, to conduct an independent review of the issues. The review standard draws from the previously published NUREG-0800, *Standard Review Plans for the Review of Safety Analysis for Nuclear Power Plants*, and NUREG-1555, *Environmental Standard Review Plan (ESRP)*. In addition, the staff considered the public comments related to the environmental review received during the scoping process. These comments are provided in Appendix D of this EIS.

Following the approach used in NUREG-1437, *Generic Environmental Impact Statement for License Renewal of Nuclear Plants*, and supplemental license renewal EISs, environmental issues are evaluated using the three-level standard of significance – SMALL, MODERATE, or LARGE – developed by NRC using guidelines from the Council on Environmental Quality. Table B-1 of 10 CFR Part 51, Subpart A, Appendix B, provides the following definitions of the three significance levels:

SMALL – Environmental effects are not detectable or are so minor that they would neither destabilize nor noticeably alter any important attribute of the resource.

MODERATE – Environmental effects are sufficient to alter noticeably, but not to destabilize, important attributes of the resource.

LARGE – Environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.

Mitigation measures were considered for each environmental issue and are discussed in the appropriate sections.

A 75-day comment period will begin on the date of publication of the U.S. Environmental Protection Agency Notice of Availability of the draft EIS to allow members of the public to comment on the results of the NRC staff's review.

The staff plans to conduct a public meeting near the VEGP site to describe the results of the NRC environmental review, respond to questions, accept public comment, and provide members of the public with information to assist them in formulating comments on this EIS. After the comment period, the staff would consider and disposition all the comments received. These comments would be addressed in Appendix E of the final EIS.

The staff's preliminary recommendation to the Commission related to the environmental aspects of the proposed action is that the ESP should be issued as proposed. The staff's evaluation of the site safety and emergency preparedness aspects of the proposed action will be addressed in the staff's Safety Evaluation Report anticipated to be published in May 2008.

This recommendation is based on (1) the application, including the ER submitted by Southern; (2) consultation with other Federal, State, Tribal, and local agencies; (3) the staff's independent review; (4) the staff's consideration of public comments related to the environmental review that were received during the scoping process; and (5) the assessments summarized in the EIS, including the potential mitigation measures identified in the ER and this EIS. In addition, in making its recommendation to the Commission, the staff has determined that there are no environmentally preferable or obviously superior sites among the alternative sites considered. Finally, the staff has concluded that the site-preparation and preconstruction activities allowed by 10 CFR 50.10(e)(1) would not result in any significant adverse environmental impact that cannot be redressed.

Abbreviations/Acronyms

AADT	Average Annual Daily Traffic
ac	acre(s)
ac-ft	acre-feet
ADAMS	Agencywide Document Access and Management System
ADCNR	Alabama Department of Conservation and Natural Resources
ADEM	Alabama Department of Environmental Management
AEC	Atomic Energy Commission
ALNHP	Alabama Natural Heritage Program
ANSP	(The) Academy of Natural Sciences of Philadelphia
APE	Area of Potential Effect
AQCR	Air Quality Control Region
AQI	Air Quality Index
ASMFC	Atlantic States Marine Fisheries Commission
AWEA	American Wind Energy Association
BEIR	Biological Effects of Ionizing Radiation
BMP	best management practices
Bq	becquerel
Bq/yr	becquerel per year
BTS	Bureau of Transportation Statistics
BTU	British thermal unit(s)
BTU/hr	British thermal units per hour
BWR	boiling water reactor
°C	degree Celsius
CDC	U.S. Center for Disease Control and Prevention
CDF	core damage frequency
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cfs	cubic feet per second (water flow)
Ci	curies
Ci/yr	curies per year
Ci/MTU	curies per metric ton uranium
cm	centimeter(s)
cm/s	centimeters per second
CO	carbon monoxide
CO ₂	carbon dioxide
COL	combined license
CORMIX	Cornell Mixing Zone Expert System
CP	construction permit
CSSI	Coastal Sound Science Initiative
CWIS	cooling water intake structure

CWS	circulating water system
CSX	CSX Transportation, Inc.
d	day
dBA	decibel(s)
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
ECHD	East Central Health District
EIA	Energy Information Administration
EIS	environmental impact statement
ELF	extremely low frequency
EMC	Electric Membership Corporation
EMF	electromagnetic field(s)
EPA	U.S. Environmental Protection Agency
EPD	Environmental Protection Division
EPRI	Electric Power Research Institute
ER	Environmental Report
ESA	Endangered Species Act
ESP	early site permit
ESRP	Environmental Standard Review Plan
°F	degree Fahrenheit
FAA	Federal Aviation Administration
Farley	Joseph M Farley Nuclear Plant
FCAA	Federal Clean Air Act
FCWA	Federal Clean Water Act (also known as the Clean Water Act)
FERC	Federal Energy Regulatory Commission
FES	Final Environmental Statement
FR	<i>Federal Register</i>
FSAR	Final Safety Analysis Report
FSER	Final Safety Evaluation Report
ft	foot/feet
ft/s	feet per second
ft ³ /yr	cubic feet per year
FWS	U.S. Fish and Wildlife Service
gal	gallon(s)
gal/d/ft	gallon(s) per day per foot
gal/yr	gallon(s) per year
GBq	gigabecquarel
GDHR	Georgia Department of Human Resources
GDNR	Georgia Department of Natural Resources
GDOT	Georgia Department of Transportation
GEIS	generic environmental impact statement
GOPBP	Georgia Office of Planning and Budget Policy
GOSA	Governor's Office of Student Achievement
GPC	Georgia Power Company

gpd	gallons per day
gpm	gallons per minute
GPSC	Georgia Public Service Commission
GTC	Georgia Transmission Corporation
ha	hectare(s)
Hatch	Edwin I Hatch Nuclear Plant
HLW	high-level waste
hr	hour
hz	hertz
IAEA	International Atomic Energy Agency
ICRP	International Commission on Radiation Protection
IGCC	integrated gasification combined cycle
in.	inch(es)
in./s	inch(es) per second
Inc.	Incorporated
INEEL	Idaho National Engineering and Environmental Laboratory
IRP	Integrated Resource Plan
ISFSI	Independent Spent Fuel Storage Installation
ISWA	Integrated Waste Services Association
kg	kilogram(s)
kg/ac	kilogram(s) per acre
kg/ha/mo	kilogram(s) per hectare per month
km	kilometer(s)
km ²	square kilometer(s)
kV	kilovolt
kVh	kilovolt hour
L	liter(s)
lb	pound(s)
LC50	Lethal Concentration 50 is the concentration of a chemical that kills 50% of the sample population
L/d	liter(s) per day
L/d/m	liter(s) per day per meter
L/s	liter(s) per second
lbs/ac/mo	pounds per acre per month
lbs/acre	pounds per acre
LLC	limited liability company
LPZ	low population zone
LWR	light-water reactor
m	meter(s)
m/s	meter(s) per second
m ² /s	square meter(s) per second
m ³ /d	cubic meter(s) per day
m ³ /s	cubic meter(s) per second
m ³ /yr	cubic meter(s) per year

MBq	million Becquerel(s)
MCL	maximum concentration limit
MEAG	Municipal Electric Authority of Georgia
MEI	maximally exposed individual
mg/l	milligram(s) per liter
MGD	million gallons per day
mGy/yr	milligray per year
mi	mile(s)
mi ²	square mile(s)
MIT	Massachusetts Institute of Technology
mL	milliliter(s)
MOX	mixed oxide fuel
mph	miles per hour
mR	milliroentgen(s)
mrad	millirad(s)
mrem	millirem(s)
mrem/hr	millirem(s) per hour
mrem/yr	millirem(s) per year
MSL	mean sea level
mSv	millisievert(s)
mSv/yr	millisievert(s) per year
MT	metric ton(s) (or tonne[s])
MTBE	methyl tert-butyl ether
MTU	metric ton(s)-uranium
MTU/yr	metric ton(s)-uranium/per year
MW	megawatt(s)
MWd/MTU	megawatt-days per metric ton of uranium
MW(e)	megawatts electric
MWh	megawatt hour(s)
MW(t)	megawatts thermal
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act of 1990
NAS	National Academy of Sciences
NAVD	North American Vertical Datum
NCDC	National Climatic Data Center
NCES	National Center for Education Statistics
NCI	National Cancer Institute
NCRP	National Council on Radiation Protection and Measurements
NEPA	National Environmental Policy Act of 1969
NESC	National Electrical Safety Code
NHPA	National Historic Preservation Act of 1966
NIEHS	National Institute of Environmental Health Sciences
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration

NOAA-CSC	National Oceanic and Atmospheric Administration's Coastal Service Center
NO _x	nitrogen oxide
NPCC	Northwest Power and Conservation Council
NPDES	National Pollutant Discharge Elimination System
NPF	Nuclear Power Facility
NRC	U.S. Nuclear Regulatory Commission
NRCS	Natural Resources Conservation Service
NRSAL	National Resource Spatial Analysis Laboratory
NSA	New South Associates
NSC	National Safety Council
NSPS	new source performance standards
OCGA	Official Code of Georgia
OECD	Organization for Economic Co-operation and Development
OPC	Oglethorpe Power Corporation
OSHA	Occupational Health and Safety Administration
PARS	Publicly Available Records System
pCi/L	picocuries per liter
PM	particulate matter
PM _{2.5}	particulate matter smaller than 2.5 micrometers
PM ₁₀	particulate matter smaller than 10 micrometers
PNNL	Pacific Northwest National Laboratory
POR	period of record
PPE	plant parameter envelope
ppm	parts per million
PRA	probabilistic risk assessment
PSD	prevention significant deterioration
PWR	pressurized water reactor
RAI	Request(s) for Additional Information
RCRA	Resource Conservation and Recovery Act
RDC	Representative Delineated Corridor
REMP	radiological environmental monitoring program
rkm	River Kilometers
RM	River Mile
ROI	region of interest
RRCC	Robust Redhorse Conservation Committee
RSICC	Radiation Safety Information Computational Center
Ryr-1	per reactor year
SACTI	Seasonal and Annual Cooling Tower Impacts
SAMA	severe accident mitigation alternatives
SC DHEC	South Carolina Department of Health and Environmental Control
SC DNR	South Carolina Department of Natural Resources
SCE&G	South Carolina Electric and Gas
SCR	selective catalytic reduction
SDWIS	Safe Drinking Water Information System

SEARPDC	Southeast Alabama Regional Planning and Development Commission
SERC	South Eastern Reliability Council
SER	safety evaluation report
SHPO	State Historic Preservation Office/Officer
SO ₂	sulfur dioxide
SO _x	sulfur oxide
Southern	Southern Nuclear Operating Company, Inc.
SPCC	Spill Prevention Control and Countermeasure Plan
SSAR	Site Safety Analysis Report
SSURGO	Soil Survey Geographic
Sv	sievert
Sv/yr	sievert per year
SWPPP	Stormwater Pollution Prevention Plan
SWS	service water system
TBq	terrebecquerel
TBq/MTU	terrebecquerel per metric ton(s)-uranium
TDS	total dissolved solids
TEDE	total effective dose equivalent
THPO	Tribal Historic Preservation Offices/Officers
TLD	thermoluminescent dosimeter
tpy	tons per year
TRC	Third Rock Consultants, LLC
TRU	transuranic (waste)
UHS	ultimate heat sink
USACE	U.S. Army Corps of Engineers
USBEA	U.S. Bureau of Economic Analysis
USBLS	U.S. Bureau of Labor Statistics
USC	United States Code
USCB	U.S. Census Bureau
USGS	U.S. Geological Survey
VEGP	Vogtle Electric Generating Plant
VOC	volatile organic compound
Westinghouse	Westinghouse Electric Company, LLC
WMA	Wildlife Management Area
WNA	World Nuclear Association
WSRC	Westinghouse Savannah River Company
χ/Q	dispersion values
yr	year(s)

Appendix A

Contributors to the Draft Environmental Impact Statement

Appendix A

Contributors to the Draft Environmental Impact Statement

The overall responsibility for the preparation of this environmental impact statement was assigned to the Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission (NRC). The statement was prepared by members of the Offices of Nuclear Reactor Regulation with assistance from other NRC organizations and Pacific Northwest National Laboratory.

Name	Affiliation	Function or Expertise
NUCLEAR REGULATORY COMMISSION		
Mark Notich	Office of New Reactors	Project Manager
Cristina Guerrero	Office of New Reactors	Assistant Project Manager
Brent Clayton	Office of New Reactors	Branch Chief
William Burton	Office of New Reactors	Branch Chief
Richard Raione	Office of New Reactors	Branch Chief, Water Use, Hydrology, Geology
James Wilson	Office of New Reactors	Aquatic Ecology
Chris Nolan	Office of New Reactors	Branch Chief
Jean-Claude Dehmel	Office of New Reactors	Radiological Impacts
Charles Hinson	Office of New Reactors	Radiological Impacts
Kenneth See	Office of New Reactors	Water Use, Hydrology, Geology
Alan Bjornsen	Office of New Reactors	Water Use, Hydrology, Geology
Dan Mussatti	Office of New Reactors	Socioeconomics, Environmental Justice, Cost of Power
Nancy Kuntzleman	Office of New Reactors	Ecology
Jennifer Davis	Nuclear Reactor Regulation	Cultural Resources
Michael Dusaniswkyj	Nuclear Reactor Regulation	Need for Power
Michael Masnik	Office of New Reactors	Ecology
Steven Schaffer	Office of New Reactors	Radiological Impacts
Tom Kenyon	Office of New Reactors	Land Use
Paul Kallan	Office of New Reactors	Land Use, Alternatives, Noise, Non-Radiological Impacts, Transmission Lines
Michael Willingham	Office of New Reactors	Land Use, Alternatives, Noise, Non-Radiological Impacts
Irene Yu	Office of New Reactors	Project Management Support, Ecology
Laura Quinn	Office of New Reactors	Project Management Support
Linda Tello	Office of New Reactors	Project Management Support
Jonathan Rund	Office of General Counsel	Attorney
James Park	Office of Nuclear Material Safety and Safeguards	Fuel Cycle Impacts, Severe Accidents
Robert Schaaf	Office of New Reactors	Transportation of Radioactive Materials
PACIFIC NORTHWEST NATIONAL LABORATORY^(a)		
Michael Sackschewsky		Task Leader
Kimberly Leigh		Deputy Task Leader
Beverly Miller		Deputy Task Leader
Amanda Stegen		Terrestrial Ecology
James V. Ramsdell		Air Quality, Design Basis, and Severe Accidents
Jeremy Rishel		Air Quality
Katherine Cort		Socioeconomics, Environmental Justice
Corey Duberstein		Terrestrial Ecology
Rebekah Krieg		Aquatic Ecology
Nona Diediker		Aquatic Ecology
Michelle Chamness		Aquatic Ecology
Tim Hanrahan		Aquatic Ecology
Paul Hendrickson		Land Use, Alternatives
Michael Smith		Radiation Protection

Appendix A

	Name	Affiliation	Function or Expertise
1	Richard Barry		Non-Radiological Health
2	Philip Daling		Transportation
3	Darby Stapp		Cultural Resources
4	Eva Eckert Hickey		Radiation Protection
5	Douglas Elliott		Socioeconomics, Environmental Justice
6	Charles Kincaid		Water Use, Hydrology
7	Christopher Cook		Water Use, Hydrology
8	Cary Counts		Technical Editing
9	Denice Carrothers		Technical Editing
10	Dave Payson		Technical Editing
11	Barbara Wilson		Publications Assistant
12	Michael Parker		Document Design
13	Kathy Neiderhiser		Document Design
14	(a)	Pacific Northwest National Laboratory is operated for the U.S. Department of Energy by Battelle Memorial Institute.	
15			

Appendix B

Organizations Contacted

Appendix B

Organizations Contacted

The following Federal, State, regional, Tribal, and local organizations were contacted during the course of the U.S. Nuclear Regulatory Commission staff's independent review of potential environmental impacts from the siting of two new nuclear units (Units 3 and 4) at the Vogtle Electric Generating Plant in Burke County, Georgia:

Absentee-Shawnee Tribe of Oklahoma, Shawnee, Oklahoma. Director of the Cultural/Historical Preservation Department, Karen Kaniatobe

Advisory Council on Historic Preservation, Washington, D.C. Director, Don Klima

Alabama-Coushatta Tribe of Texas, Livingston, Texas. Tribal Historic Preservation Officer, Debbie Thomas

Alabama Department of Conservation and Natural Resources, State Lands Division Natural Heritage Section, Montgomery, Alabama. Assistant Director, Gregory M. Lein

Alabama Historical Commission, Montgomery, Alabama. State Historic Preservation Officer, Dr. Ed Bridges

Alabama-Quassarte Tribal Town, Wetumka, Oklahoma. Chief, Tarpie Yargee

Augusta Planning and Zoning Commission, Augusta, Georgia. Executive Director of Planning and Zoning, George Patty

Augusta Planning and Zoning Commission, Augusta, Georgia. Planning Director, Paul De Camp

Burke County, Waynesboro, Georgia.

- Merv Waldrop, County Administrator
- Jerry Long, Executive Director, Development Authority of Burke County
- Bill Owens, Building Official, Department of Planning, Permits, and Inspections
- Patricia May, Chief Appraiser, Tax Assessors Office.
- Cynthia McManis, Tax Assessors Office

Burke County Board of Education, Waynesboro, Georgia. Assistant Superintendent, Wilbert Roberts

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1 Burke County Chamber of Commerce, Waynesboro, Georgia. Executive Director, Ashley Long

2
3 Burke County Department of Family and Children Services, Waynesboro, Georgia. Director,
4 Alane Hickman

5
6 Burke County Habitat for Humanity, Waynesboro, Georgia. Edwin Stephens

7
8 Carpenters and Millwrights Local Union No. 283, Augusta, Georgia. Business Representative,
9 Tom Jenkins

10
11 Catawba Indian Tribe, Catawba, South Carolina. Chairperson, Gilbert Blue

12
13 Cherokee Nation of Oklahoma, Tahlequa, Oklahoma.

- 14
15
 - Richard L. Allen, Native American Graves Protection and Repatriation Act
 - (NAGPRA) Contact
 - 16
 - 17 • Chadwick Smith, Principal Chief

18
19 Chickasaw Nation of Oklahoma, Ada, Oklahoma.

- 20
21
 - Gingy (Virginia) Nail, NAGPRA Contact
 - 22 • Bill Anoatubby, Governor

23
24 Columbia County Development Services, Evans, Georgia. Planning Director, Jeff Browning

25
26 Coushatta Tribe of Louisiana, Elton, Louisiana. John Zachary

27
28 Cox Real Estate, Waynesboro, Georgia. Realtor, Cathy Hawkins

29
30 Eastern Band of Cherokee Indians, Cherokee, North Carolina.

- 31
32
 - Kathy McCoy, NAGPRA Contact
 - 33 • Michell Hicks, Principal Chief

34
35 El Bethel Apostolic Church, Waynesboro, Georgia. Pastor, the Reverend Robert Lynch

36
37 Georgia Department of Health, Atlanta, Georgia. Syndromic Surveillance Epidemiologist,
38 Wendy Cameron

39
40 Georgia Environmental Protection Division, Atlanta, Georgia. Geologist, E. Allison Keefer

Georgia Department of Natural Resources, Atlanta, Georgia.

- I.B. Parnell, Senior Wildlife Biologist
- Jim Kennedy, State Geologist
- Tom Patrick, Botanist
- Greg Krakow, Data Manager
- Matt Elliott, Program Manager
- John Biagi, Assistant Chief
- Ray Luce, Deputy State Historic Preservation Officer.
- Sabrina Glenn, Environmental Engineer
- Renee Hurson Goodley, Program Manager
- Ted V. Jackson, Radiation Program Manager
- Jeffrey Larson, Water Protection Branch Chief
- Joseph Kane, Principal Environmental Engineer
- Earl Shapiro, Advanced Geologist
- Christine Voudy, Geologist
- Tim Barnett, Sport Fish Division

Georgia Tribe of Eastern Cherokee, Clayton, Georgia. NAGPRA Contact, Charles Thurmond

International Brotherhood of Electrical Workers Local 1579, Augusta, Georgia. Business Representative and Political Coordinator, Johnny Hutcheson

Kialegee Tribal Town, Wetumka, Oklahoma. Town King, Evelyn Bucktrot

Miccosukee Tribe of Indians of Florida, Miami, Florida. Land Resources Manager, Steven Terry

Mississippi Band of Choctaw Indians, Choctaw, Mississippi. Tribal Historic Preservation Officer/Tribal Archaeologist, Kenneth H. Carleton

Muscogee (Creek) Nation of Oklahoma, Okmulgee, Oklahoma.

- Joyce A. Bear, NAGPRA Contact
- A.D. Ellis, Principal Chief

Plumbers and Steamfitters Union Local 150, Augusta, Georgia. Business Manager, Charles Hardigree

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Poarch Band of Creek Indians, Atmore, Alabama.

- Stephanie Rolin, NAGPRA Contact
- Eddie Tullis, Chairperson
- Gale Thrower, NAGPRA Contact

Savannah River Site, Aiken, South Carolina.

- Bob Hiergesell, Hydrologist
- Jim Heffner, Hydrologist
- Donald Pagett, Principal Scientist

Screven County Family Services, Sylvania, Georgia. Director, Bill Hillis

Seminole Nation of Oklahoma, Wewoka, Oklahoma. Pare Bowlegs

South Carolina Department of Health and Environmental Control, Columbia, South Carolina.
Data Manager, Claire Youngblood.

Seminole Tribe of Florida, Clewiston, Florida. Deputy Tribal Historic Preservation Officer,
Willard Steele

Thlopthlocco Tribal Town, Okema, Oklahoma. Town King, Louis McGertt

Tri-Counties Real Estate, Sylvania, Georgia. Broker, Stan Sheppard

United Keetoowah Band of Cherokee Indians, Tahlequah, Oklahoma.

- Emma Sue Holland, NAGPRA Contact
- Dallas Proctor, Chief

University of Georgia Laboratory of Archaeology, Georgia Archaeological Site File, Athens,
Georgia. Assistant Research Scientist, Dr. Mark Williams

University of Massachusetts, Amherst. Dr. Erika Parker

U.S. Army Corps of Engineers, Savannah River District, Savannah, Georgia.

- William Lynch, Civil Works Program Manager
- Stanley Simpson, Water Control Manager
- Jason Ward, Hydrologist
- Leroy Crosby, Planning Manager

- Mark Padgett, Biologist
- Dan Parrott, Chief of Civil Works Project Management
- Larry Olliff, Biologist

U.S. Department of Agriculture, Rural Utility Service

- Mark Plank, Director of Water and Environmental Programs

U.S. Fish and Wildlife Service, Daphne Ecological Field Office, Daphne, Alabama.

- Bill Pearson, Field Supervisor
- Elaine Snyder-Conn, Acting Field Supervisor

U.S. Fish and Wildlife Service, Brunswick, Georgia.

- Strant Colwell, Assistant Field Supervisor
- Rebecca Schapansky, Biologist
- Robert Brooks, Biologist

U.S. Geological Survey, Water Science Center, Atlanta, Georgia.

- John Clarke
- Gregory Cherry

U.S. National Marine Fisheries Service, St. Petersburg, Florida.

- David Bernhard, Assistant Regional Administrator
- Prescott Brownell, Biologist
- Stephania Bolden, Biologist

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Chronology of NRC Staff Environmental Review Correspondence Related to Southern Nuclear Operating Company, Inc., Application for Early Site Permit at the VEGP Site

Appendix C

Chronology of NRC Staff Environmental Review Correspondence Related to Southern Nuclear Operating Company, Inc., Application for Early Site Permit at the VEGP Site

This appendix contains a chronological listing of correspondence between the U.S. Nuclear Regulatory Commission (NRC) and Southern Nuclear Operating Company, Inc. (Southern), and other correspondence related to the NRC staff's environmental review, under Title 10 of the Code of Federal Regulations (CFR) Part 51, for Southern's application for an early site permit (ESP) at the Vogtle Electric Generating Plant site (Vogtle) in Burke County, Georgia. All documents, with the exception of those containing proprietary information, have been placed in the Commission's Public Document Room, at One White Flint North, 11555 Rockville Pike (first floor), Rockville, MD, and are available electronically from the Public Electronic Reading Room found on the Internet at the following web address: <http://www.nrc.gov/reading-rm.html>. From this site, the public can gain access to the NRC's Agencywide Document Access and Management System (ADAMS), which provides text and image files of NRC's public documents in the component of ADAMS. The ADAMS accession numbers for each document are included below.

October 3, 2005	Letter from Ms. Sandra S. Tucker, Field Supervisor, U.S. Fish and Wildlife Service (FWS), to Mr. Michael Abernathy, Georgia Power Company (GPC) Environmental Laboratory submitting both terrestrial and aquatic Federally listed species. (Accession No. ML071090173)
April 12, 2006	Letter from Mr. Michael R. Sackschewsky, Pacific Northwest National Laboratory (PNNL), to NRC submitting initial scouting trip summary report. (Accession No. ML071020306)
April 14, 2006	Letter from Mr. Michael R. Sackschewsky, PNNL, to NRC submitting a revised Initial Scouting Trip Summary Report. (Accession No. ML071020300)
May 2, 2006	Letter from Mr. Michael R. Sackschewsky, PNNL, to NRC submitting Farley-Barton alternate sites scouting trip summary report. (Accession No. ML061380621)
May 22, 2006	Letter from Mr. Michael R. Sackschewsky, PNNL, to NRC submitting Government and Public Meetings Trip Summary Report at VEGP. (Accession No. ML071020304)

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1	June 12, 2006	Letter from NRC to Southern regarding summary of public meetings to
2		discuss review of the VEGP ESP application.
3		(Accession No. ML061380600)
4		
5	August 9, 2006	Letter from NRC to Ms. Gwen Jackson, Burke County Library, regarding
6		maintenance of documents at the Burke County Library related to the
7		application by Southern for an ESP at the VEGP site.
8		(Accession No. ML062220548)
9		
10	August 14, 2006	Letter from Mr. J. A. "Buzz" Miller, Senior Vice President, Nuclear
11		Development, Southern, to NRC submitting VEGP ESP application.
12		(Accession No. ML062290246)
13		
14	September 14, 2006	Letter from NRC to Southern regarding a summary of briefing by
15		Southern to the NRC staff on the VEGP ESP application.
16		(Accession No. ML062360292)
17		
18	September 19, 2006	Letter from NRC to Mr. J. A. "Buzz" Miller, Senior Vice President, Nuclear
19		Development, Southern, regarding acceptance of the Southern
20		application for an ESP for the VEGP site. (Accession No. ML062570460)
21		
22	September 19, 2006	Letter from NRC to Southern regarding summary of a public meeting on
23		April 14, 2006, to discuss Southern's seismic plan in an ESP application.
24		(Accession No. ML062260230)
25		
26	September 22, 2006	Letter from Mr. J. A. "Buzz" Miller, Senior Vice President, Nuclear
27		Development, Southern, to NRC submitting VEGP ESP application
28		additional meteorological data transmittal.
29		(Accession No. ML062700066)
30		
31	September 26, 2006	Letter from Mr. J. A. "Buzz" Miller, Senior Vice President, Nuclear
32		Development, Southern, to NRC submitting VEGP ESP application
33		10 CFR 2.101 Affidavit. (Accession No. ML062720158)
34		
35	October 2, 2006	Letter from NRC to Mr. Raymond A. Mosley, Director, Office of the Federal
36		Register, National Archives and Records Administration, regarding
37		emergency publication of the Southern VEGP ESP Notice of Intent to
38		Prepare an environmental impact statement and conduct scoping.
39		(Accession No. ML062750225)
40		
41		

1	October 2, 2006	Letter from NRC to Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
2		Development, Southern, regarding Notice of Intent to prepare an EIS and
3		conduct scoping related to the ESP for the VEGP site.
4		(Accession No. ML062610238)
5		
6	October 4, 2006	Letter from Mr. J. A. "Buzz" Miller, Senior Vice President, Nuclear
7		Development, Southern, to NRC submitting VEGP ESP Application
8		Supplemental Emergency Planning Information in electronic format.
9		(Accession No. ML062790292)
10		
11	October 4, 2006	Letter from NRC to Ms. Gwen Jackson, Burke County Library, regarding
12		application by Southern for an ESP for the VEGP site.
13		(Accession No. ML062720273)
14		
15	October 6, 2006	Note-to-File: Notice of Public Meeting to discuss environmental scoping
16		process for the VEGP ESP review (Accession No. ML062760263)
17		
18	October 12, 2006	Letter from NRC to Ms. Stephanie Rolin, Native American Graves
19		Protection and Repatriation (NAGPRA) Contact, Poarch Band of Creek
20		Indians, regarding the ESP review for the VEGP site.
21		(Accession No. ML062850101)
22		
23	October 12, 2006	Letter from NRC to Ms. Emma Sue Holland, NAGPRA Contact, United
24		Keetoowah Band of Cherokee Indians, regarding ESP review for the
25		VEGP site. (Accession No. ML062850355)
26		
27	October 12, 2006	Letter from NRC to Mr. Eddie Tullis, Chairperson, Poarch Band of Creek
28		Indians, regarding ESP review for the VEGP site.
29		(Accession No. ML062850078)
30		
31	October 12, 2006	Letter from NRC to Ms. Kathy McCoy, NAGPRA Contact, Eastern Band of
32		Cherokee Indian, regarding ESP review for the VEGP site.
33		(Accession No. ML062850120)
34		
35	October 12, 2006	Letter from NRC to Mr. John Zachary, Attorney at Law, Coushatta Tribe of
36		Louisiana, regarding ESP review for the VEGP site.
37		(Accession No. ML062850129)
38		
39	October 12, 2006	Letter from NRC to Ms. Evelyn Bucktrot, Town King, Kialegee Tribal Town,
40		regarding ESP review for the VEGP site.
41		(Accession No. ML062850060)
42		

Appendix C

1	October 12, 2006	Letter from NRC to Mr. Steven Terry, Land Resources Manager,
2		Miccosukee Tribe of Indians of Florida, regarding ESP review for the
3		VEGP site. (Accession No. ML062850139)
4		
5	October 12, 2006	Letter from NRC to Ms. Gale Thrower, NAGPRA Contact, Poarch Band of
6		Creek Indians, regarding ESP review for the VEGP site.
7		(Accession No. ML062850067)
8		
9	October 12, 2006	Letter from NRC to Mr. Louis McGertt, Town King, Thlopthlocco Tribal
10		Town, regarding ESP review for the VEGP site.
11		(Accession No. ML062850233)
12		
13	October 12, 2006	Letter from NRC to Mr. A.D. Ellis, Principal Chief, Muscogee (Creek)
14		Nation, regarding ESP review for the VEGP site.
15		(Accession No. ML062850224)
16		
17	October 12, 2006	Letter from NRC to Mr. Richard L. Allen, NAGPRA Contact, Cherokee
18		Nation of Oklahoma, regarding ESP review for the VEGP site.
19		(Accession No. ML062850126)
20		
21	October 12, 2006	Letter from NRC to Ms. Gingy (Virginia) Nail, NAGPRA Contact,
22		Chickasaw Nation, regarding ESP review for the VEGP site.
23		(Accession No. ML062850196)
24		
25	October 12, 2006	Letter from NRC to Mr. Bill Anoatubby, Governor, Chickasaw Nation of
26		Oklahoma, regarding ESP review for the VEGP site.
27		(Accession No. ML062850211)
28		
29	October 12, 2006	Letter from NRC to Mr. Charles Thurmond, NAGPRA Contact, Georgia
30		Tribe of Eastern Cherokee, regarding ESP review for the VEGP site.
31		(Accession No. ML062850107)
32		
33	October 12, 2006	Letter from NRC to Mr. Tarpie Yargee, Chief, Alabama-Quassarte Tribal
34		Town, regarding ESP review for the VEGP site.
35		(Accession No. ML062850151)
36		
37	October 12, 2006	Letter from NRC to Mr. David Bernhart, Assistant Regional Administrator,
38		National Marine Fisheries Service, regarding application for an ESP for the
39		VEGP ESP site. (Accession No. ML062850057)
40		

1	October 12, 2006	Letter from NRC to Ms. Elaine Snyder-Conn, Acting Field Supervisor,
2		FWS, Daphne Ecological Services, regarding application for an ESP for
3		the VEGP ESP site. (Accession No. ML062850048)
4		
5	October 12, 2006	Letter from NRC to Mr. Strant Colwell, Assistant Field Supervisor, FWS,
6		regarding application for an ESP for the VEGP ESP site.
7		(Accession No. ML062850034)
8		
9	October 12, 2006	Letter from NRC to Mr. Don Klima, Director, Office of Federal Agency
10		Programs, Advisory Council on Historic Preservation, regarding ESP
11		review for the VEGP site. (Accession No. ML062850019)
12		
13	October 12, 2006	Letter from NRC to Mr. Pare Bowlegs, Seminole Nation of Oklahoma,
14		regarding ESP review for the VEGP site. (Accession No. ML062850252)
15		
16	October 12, 2006	Letter from NRC to Mr. Mitchell Hicks, Principal Chief, Eastern Band of
17		Cherokee Indians, regarding ESP review for the VEGP site.
18		(Accession No. ML062850244)
19		
20	October 12, 2006	Letter from NRC to Dr. W. Ray Luce, Division Director and Deputy State
21		Historic Preservation Officer (SHPO), regarding ESP review for the VEGP
22		ESP site. (Accession No. ML062850020)
23		
24	October 12, 2006	Letter from NRC to Dr. Ed Bridges, Interim SHPO, Alabama Historical
25		Commission, regarding ESP review for the VEGP ESP site.
26		(Accession No. ML062850030)
27		
28	October 12, 2006	Letter from NRC to Mr. Dallas Proctor, Chief, United Keetoowah Band of
29		Cherokee Indians, regarding ESP review for the VEGP site.
30		(Accession No. ML062850239)
31		
32	October 12, 2006	Letter from NRC to Ms. Karen Kaniatobe, Director of the Cultural/
33		Historical Preservation Department, Absentee-Shawnee Tribe of
34		Oklahoma, regarding ESP review. (Accession No. ML062850345)
35		
36	October 12, 2006	Letter from NRC to Ms. Debbie Thomas, Tribal Historic Preservation
37		Officer, NAGPRA Coordinator, regarding ESP review for the VEGP site
38		(Accession No. ML062850260)
39		
40	October 12, 2006	Letter from NRC to Mrs. Joyce A. Bear, NAGPRA Contact, Muscogee
41		(Creek) Nation of Oklahoma, regarding ESP review for the VEGP site.
42		(Accession No. ML062850114)

Appendix C

1	October 12, 2006	Letter from NRC to Mr. Chadwick Smith, Principal Chief, Cherokee Nation
2		of Oklahoma, regarding ESP review for the VEGP site.
3		(Accession No. ML062850187)
4		
5	October 12, 2006	Letter from NRC to Mr. Gilbert Blue, Chairperson, Catawba Indian Tribe,
6		regarding ESP review for the VEGP site. (Accession No. ML062840610)
7		
8	October 12, 2006	Letter from NRC to Mr. Willard Steele, Deputy Tribal Historic Preservation
9		Officer, Seminole Tribe of Florida, regarding ESP review for the VEGP
10		site. (Accession No. ML062850266)
11		
12	October 12, 2006	Letter from NRC to Mr. Kenneth H. Carleton, Tribal Historic Preservation
13		Officer/Tribal Archeologist, Mississippi Band of Choctaw Indians, regarding
14		ESP review for the VEGP site. (Accession No. ML062850347)
15		
16	October 20, 2006	Letter from Colonel (Ret.) John A. Neubauer, Alabama Historical
17		Commission, to NRC regarding the receipt for review of VEGP ESP site,
18		Plant Farley, Dothan, Barton Site, Clanton and Houston Counties,
19		Alabama. (Accession No. ML063200118)
20		
21	October 24, 2006	Letter from Mr. Walt Wilson, National Marine Fisheries Service (NMFS), to
22		NRC submitting a list of Federally protected species under the jurisdiction
23		of NMFS for the States of Alabama and Georgia.
24		(Accession No. ML063200127)
25		
26	November 13, 2006	Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
27		Development, Southern, to NRC submitting a VEGP ESP
28		application, Revision 1. (Accession No. ML063210521)
29		
30	November 16, 2006	Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
31		Development, Southern, to NRC submitting a VEGP ESP application
32		safety review site audit information needs. (Accession No. ML063240171)
33		
34	December 12, 2006	Letter from Mr. Michael R. Sackschewsky, PNNL, to NRC submitting
35		VEGP ESP site audit trip report. (Accession No. ML071020317)
36		
37	December 12, 2006	Letter from Mr. Michael R. Sackschewsky, PNNL, to NRC submitting
38		VEGP ESP alternatives sites trip report. (Accession No. ML071020310)
39		
40		

1 December 15, 2006 Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
2 Development, Southern, to NRC submitting VEGP ESP application
3 response to requests for additional information on quality assurance.
4 (Accession No. ML063540102)
5
6 December 15, 2006 Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
7 Development, Southern, to NRC submitting VEGP ESP safety review audit
8 site hazard analysis information needs.
9 (Accession No. ML063540098)
10
11 December 27, 2006 Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
12 Development, Southern, to NRC submitting VEGP ESP response to
13 request for additional information on hydrology.
14 (Accession No. ML071020260)
15
16 December 29, 2006 Letter from NRC to Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
17 Development, Southern, requesting additional information regarding the
18 environmental portion of the ESP application for the VEGP site.
19 (Accession No. ML063540072)
20
21 January 10, 2007 Letter from NRC to Southern regarding the summary of Public Scoping
22 Meetings to support review of VEGP ESP application.
23 (Accession No. ML063610044)
24
25 January 19, 2007 Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
26 Development, Southern, to NRC submitting VEGP ESP response to
27 request for additional information on vibratory ground motion.
28 (Accession No. ML070260264)
29
30 January 30, 2007 Letter from Mr. J.A. (Buzz) Miller, Senior Vice President, Nuclear
31 Development, Southern, to NRC submitting Response to Requests for
32 Additional Information on the Environmental Report.
33 (Accession No. ML070460323)
34
35 January 31, 2007 Note-to-File: Trip Report. November 6-9, 2006, tour of the Plant Hatch,
36 Plant Farley, and Barton alternative sites. (Accession No. ML080110487)
37
38 January 31, 2007 Note-to-File: Trip Report. October 17-19, 2006, VEGP ESP, Units 3 and 4
39 Site Environmental Audit. (Accession No. ML070110460)
40

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1 February 13, 2007 Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
2 Development, Southern, to NRC submitting VEGP ESP application safety
3 review audit hydrology information needs. (Accession No. ML070470008)
4

5 February 13, 2007 Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
6 Development, Southern, to NRC submitting VEGP ESP supplemental
7 information for response to requests for additional information on
8 hydrology (Accession No. ML070570036)
9

10 March 6, 2007 Letter from NRC to Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
11 Development, Southern, requesting withholding of information from public
12 disclosure (Accession No. ML070370019)
13

14 March 16, 2007 Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
15 Development, Southern, to NRC submitting VEGP ESP application
16 response to request for additional information Letter No. 3
17 (Accession No. ML070810213)
18

19 April 3, 2007 Note-to-File: Trip report of March 7-9, 2007, tour of VEGP Units 1 and 2
20 (Accession No. ML070740099)
21

22 April 19, 2007 Letter from NRC to Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
23 Development, Southern, requesting additional information Letter No. 7
24 (Accession No. ML071030338)
25

26 April 20, 2007 Letter from NRC to Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
27 Development, Southern, requesting additional information regarding the
28 environmental portion of the ESP application for the VEGP site and
29 possible schedule revision (Accession No. ML0708105070)
30

31 April 27, 2007 Note-to-File: Report of conversation with Southern and PhotoScience
32 concerning the VEGP ESP Environmental Report Corridor Study
33 (Accession No. ML071160417)
34

35 April 20, 2007 Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
36 Development, Southern, to NRC submitting VEGP ESP application SACTI
37 and MACCS2 code input/output files (Accession No. ML0711401960)
38

39 April 26, 2007 E-mail from Michael Abney, Southern, to Brett Albanese, Georgia
40 Department of Natural Resources, concerning the *Elassoma okatie* (blue-
41 barred pygmy sunfish) (Accession No. ML072140748)
42

1	May 10, 2007	Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
2		Development, Southern, to NRC submitting VEGP ESP application
3		response to followup requests for additional information on Environmental
4		Report (Accession No. ML0717007670)
5		
6	May 10, 2007	Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
7		Development, Southern, to NRC submitting VEGP ESP application
8		response to followup requests for additional information on Environmental
9		Report (Accession No. ML071510350)
10		
11	May 21, 2007	Letter from NRC to Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
12		Development, Southern, regarding revision to schedule for the ESP
13		application for the VEGP site (Accession No. ML071290669)
14		
15	May 21, 2007	Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
16		Development, Southern, to NRC submitting VEGP ESP application
17		response to requests for additional information Letter No. 7
18		(Accession No. ML071420463)
19		
20	May 21, 2007	Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
21		Development, Southern, to NRC regarding the VEGP ESP application
22		Limited Work Authorization (Accession No. ML071420475)
23		
24	May 29, 2007	Note-to-File: Report of conversation with Southern regarding ESP
25		application for the VEGP ESP site (Accession No. ML071350557)
26		
27	May 30, 2007	Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
28		Development, Southern, to NRC regarding the VEGP ESP application
29		response to Regulatory Issue Summary 2007-2008 (Accession No.
30		ML071520072)
31		
32	May 31, 2007	Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
33		Development, Southern, to NRC regarding VEGP ESP application Limited
34		Work Authorization. (Accession No. ML071510385)
35		
36	June 4, 2007	Letter from Mr. J.A. (Buzz) Miller, Senior Vice President, Nuclear
37		Development, Southern, to NRC submitting VEGP Early Site Permit
38		application revised MACCS2 Code analysis results
39		(Accession No. ML071570026)
40		
41	June 4, 2007	Letter from Mr. J.A. "Buzz" Miller, Senior Vice President, Nuclear
42		Development, Southern, to NRC regarding the VEGP ESP application
43		submittal of revised MACCS2 code analysis results
44		(Accession No. ML071570026)
45		

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1	June 13, 2007	E-mail from Tom Moorer, Southern, to Mark Notich, NRC, transmitting
2		alternate site comparison spreadsheet (Accession No. ML071860149)
3		
4	June 14, 2007	Letter from Tom Patrick, Georgia Department of Natural Resources, to
5		Southern, transmitting the Plant VEGP Rare Plant Survey (Relict trillium)
6		(Accession No. ML072080264)
7		
8	June 14, 2007	Note-to-File: Report of conversation with Southern regarding the severe
9		accidents portion of the VEGP ESP Environmental Report
10		(Accession No. ML071560280)
11		
12	July 19, 2007	Letter from Tom Moorer, Southern, to Mark Notich, NRC transmitting the
13		Georgia Department of Natural Resources VEGP Rare Plant Survey
14		(Relict trillium) (Accession No. ML072080264)
15		
16	June 20, 2007	Note-to-File: Report of June 20, 2007, teleconference concerning
17		inconsistencies between RAI responses and Revision 2 of the
18		Environmental Report for the VEGP ESP
19		(Accession No. ML071840243)
20		
21	June 20, 2007	SERC Reliability Corporation Brochure entitled "Information Summary for
22		July 2006" (Accession No. ML072080257)
23		
24	July 18, 2007	Conference Call Summary - July 18, 2007; Discussion with Southern
25		Nuclear Operating Company (SNC) Concerning Staff Question for the
26		Early Site Permit for the Plant Vogtle Site (Accession No. ML072180315)
27		
28	July 20, 2007	E-mail from Tom Moorer, Southern, to Mark Notich, NRC transmitting
29		supplemental information on water treatment chemical residuals in the
30		VEGP Unit 3 and 4 final discharge (Accession No. ML072080259)
31		
32	July 31, 2007	Letter from Mr. J.A. (Buzz) Miller, Senior Vice President, Nuclear
33		Development, Southern, to NRC submitting VEGP ESP application
34		environmental computer code input and output files (Accession No.
35		ML072150222)
36		
37	August 6, 2007	Conference Call Summary - July 18, 2007; Discussion with Southern
38		Nuclear Operating Company (SNC) Concerning the Output files for the
39		MACCS - Two Code Runs for the Early Site Permit for the plant Vogtle
40		Site Submitted to the NRC on July 18, 2007 (Accession No. ML07220030)
41		
42		
43		
44		
45		
46		

Appendix D

Scoping Meeting Comments and Responses

Appendix D

Scoping Meeting Comments and Responses

On August 14, 2006, the U.S. Nuclear Regulatory Commission (NRC) published a Notice of Intent in the *Federal Register* (71 FR 58882) to notify the public of the staff's intent to prepare an environmental impact statement (EIS) to support the early site permit (ESP) application received from Southern Nuclear Operating Company, Inc. (Southern) for an ESP for a location identified as the Vogtle ESP site, adjacent to the Vogtle Electric Generating Plant, Units 1 and 2 (Plant Vogtle). This EIS has been prepared in accordance with provisions of the National Environmental Policy Act of 1969 (NEPA), Council on Environmental Quality guidelines, and Title 10 of the Code of Federal Regulations (CFR) Parts 51 and 52. As outlined by NEPA, the NRC initiated the scoping process with the issuance of the *Federal Register* Notice. The NRC invited the applicant; Federal, Tribal, State, and local government agencies; local organizations; and individuals to participate in the scoping process by providing oral comments at the scheduled public meeting and/or submitting written suggestions and comments no later than December 4, 2006.

The scoping process included a public scoping meeting, which was held at the Augusta Technical College, Waynesboro Campus Auditorium, Waynesboro, Georgia, on October 19, 2006. Approximately 175 members of the public attended the meeting. The session began with NRC staff members providing a brief overview of the ESP process and the NEPA process. Following the NRC's prepared statements, the meeting was open for public comments. Fifty-two attendees provided either oral comments or written statements that were recorded and transcribed by a certified court reporter. The transcript of the meeting can be found as an attachment to the Scoping Meeting Summary, which was issued on January 10, 2007. The meeting summary is available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS) under accession number ML063530196. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room). Note: the URL is case-sensitive. Additional comments received later are also available.

The scoping process provides an opportunity for public participants 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 which is to be the subject of the EIS
- determine the scope of the EIS and identify significant issues to be analyzed in depth

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- 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 Commission's tentative planning and decision-making schedule
- identify any cooperating agencies and, as appropriate, allocate assignments for preparation and schedules for completing the EIS to the NRC and any cooperating agencies
- describe how the EIS will be prepared and include any contractor assistance to be used.

At the conclusion of the scoping period, the NRC staff reviewed the transcripts and all written material received and identified individual comments. Sixty-five letters and e-mail messages containing comments were received during the scoping period. All comments and suggestions received orally during the scoping meeting or in writing were considered. Each set of comments from a given commenter was given a unique alpha identifier (commenter ID letter), allowing each set of comments from a commenter to be traced back to the transcript, letter, or e-mail in which the comments were submitted.

Table D-1 identifies the individuals providing comments and the commenter ID letter associated with each person's set(s) of comments. The Commenter ID letter is preceded by V-ESP-SC- or V-ESP-SW- (i.e., the abbreviation for Vogtle Early Site Permit scoping comment or Vogtle Early Site Permit scoping written). For oral comments, the individuals are listed in the order in which they spoke at the public meeting. Accession numbers indicate the location of the written comments in ADAMS.

Comments were consolidated and categorized according to the 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 and contractor determined the appropriate action for the comment. The staff made a determination on each comment that it was one of the following:

- A comment that was actually a question and introduced no new information.
- A comment that was either related to support or opposition of early site permitting in general (or specifically the Vogtle ESP)-or that made a general statement about the ESP process. In addition, it provided no new information and did not pertain to 10 CFR Part 52.
- A comment about an environmental issue that
 - provided new information that would require evaluation during the review
 - provided no new information.
- A comment that was outside the scope of the ESP, which included, but was not limited to
 - a comment on the safety of the existing units.

The comments that are considered in the evaluation of environmental impacts in this EIS are summarized in the following pages. All comments received during scoping are included in Table D-1. For reference, the unique identifier for each comment (commenter ID letter listed in Table D-1 plus the comment number) is provided.

Preparation of the EIS will take into account all the relevant issues raised during the scoping process. The EIS will be made available for public comment. The comment period for the EIS will offer the next opportunity for the applicant; interested Federal, Tribal, State, and local government agencies; local organizations; and members of the public to provide input to the NRC's environmental review process. The comments received on the draft EIS will be considered in the preparation of the final EIS. The final EIS, along with the staff's Safety Evaluation Report (SER), will provide much of the basis for the NRC's decision on whether to grant the Vogtle ESP.

Table D-1. Individuals Providing Comments During Scoping Comment Period

Commenter ID	Commenter	Affiliation (if stated)	Comment Source and ADAMS Accession #
V-ESP-SC-01	Walter Dukes	Regional Vice President of Georgia Power	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-02	Jesse Stone	Mayor of Waynesboro	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-03	J.B. Powell	Senator	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-04	Jim Hussey	Representative of Senator Chambliss	10/19/06 Scoping Meeting Transcript (ML063610007)

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Table D-1. (contd)

Commenter ID	Commenter	Affiliation (if stated)	Comment Source and ADAMS Accession #
V-ESP-SC-05	Marian Vine		10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-06	Susan Wood	Citizens of Nuclear Technology Awareness	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-07	Sara Barczak	Southern Alliance for Clean Energy	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-08	Clinton Stanford	Past employee at a nuclear plant	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-09	Merv Waldrop	Burke County Board of Commissioners	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-10	Ashley Long	Burke County Chamber of Commerce	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-11	Carrie Phillips	U.S. Women in Nuclear	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-12	Richard Vine	City Council member	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-13	Jerry Coalson	City Administrator for the City of Waynesboro	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-14	Rusty Sanders		10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-15	Sue Parr	Augusta Metro Chamber of Commerce	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-16	Frank Bove	Environmental Community Action	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-17	Delisa Pournaras	North American Young Generation in Nuclear	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-18	Ed Grunewald	Mayor of Girard	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-19	Jerry Long	Development Authority of Burke County	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-20	Reverend Smith	President of the Black Church, Inc.	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-21	Mary McLean Asbill	Emory University School of Law	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-22	Larry Sanders	Emory University School of Law	10/19/06 Scoping Meeting Transcript (ML063610007)
V-ESP-SC-23	Chip Barefield	Native of Burke County	10/19/06 Scoping Meeting Transcript (ML063610007)

Table D-1. (contd)

	Commenter ID	Commenter	Affiliation (if stated)	Comment Source and ADAMS Accession #
1	V-ESP-SC-24	Betsey Miklethun	Women's Actions for New Directions	10/19/06 Scoping Meeting Transcript (ML063610007)
2	V-ESP-SC-25	Krista Brewer	Women's Actions for New Directions	10/19/06 Scoping Meeting Transcript (ML063610007)
3	V-ESP-SC-26	Elizabeth Baldwin		10/19/06 Scoping Meeting Transcript (ML063610007)
4	V-ESP-SC-27	Judith Gordon	Savannah River Group of the Sierra Club	10/19/06 Scoping Meeting Transcript (ML063610007)
5	V-ESP-SC-28	Dianne Valentine		10/19/06 Scoping Meeting Transcript (ML063610007)
6	V-ESP-SC-29	Charles Sexton	Beaufort-Jasper Water and Sewer Authority	10/19/06 Scoping Meeting Transcript (ML063610007)
7	V-ESP-SC-30	Glenn Carroll	Nuclear Watch South	10/19/06 Scoping Meeting Transcript (ML063610007)
8	V-ESP-SC-31	Natalie Garber	Savannah College of Art and Design	10/19/06 Scoping Meeting Transcript (ML063610007)
9	V-ESP-SC-32	Bill Harrell		10/19/06 Scoping Meeting Transcript (ML063610007)
10	V-ESP-SC-33	Bill Hatcher		10/19/06 Scoping Meeting Transcript (ML063610007)
11	V-ESP-SC-34	Sam Booher		10/19/06 Scoping Meeting Transcript (ML063610007)
12	V-ESP-SC-35	Lou Zeller	Blue Ridge Environmental Defense League	10/19/06 Scoping Meeting Transcript (ML063610007)
13	V-ESP-SC-36	Mary Olson	Nuclear Information and Resource Service	10/19/06 Scoping Meeting Transcript (ML063610007)
14	V-ESP-SC-37	Marci Culley		10/19/06 Scoping Meeting Transcript (ML063610007)
15	V-ESP-SC-38	Emma Oliver	Georgia State University	10/19/06 Scoping Meeting Transcript (ML063610007)
16	V-ESP-SC-39	Roderick Sams	Local Elementary School	10/19/06 Scoping Meeting Transcript (ML063610007)
17	V-ESP-SC-40	Johnny Jenkins	Board of Education in Burke County	10/19/06 Scoping Meeting Transcript (ML063610007)
18	V-ESP-SC-41	Al Rutledge		10/19/06 Scoping Meeting Transcript (ML063610007)
19	V-ESP-SC-42	Eugene Tanzymore	Board of Directors for Jefferson Energy	10/19/06 Scoping Meeting Transcript (ML063610007)

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Table D-1. (contd)

	Commenter ID	Commenter	Affiliation (if stated)	Comment Source and ADAMS Accession #
1	V-ESP-SC-43	Brad Bennett	Clean and Safe Energy Coalition	10/19/06 Scoping Meeting Transcript (ML063610007)
2	V-ESP-SC-44	Tom Hinton		10/19/06 Scoping Meeting Transcript (ML063610007)
3	V-ESP-SC-45	Henry Tinley		10/19/06 Scoping Meeting Transcript (ML063610007)
4	V-ESP-SC-46	Gerald Murray	Burke County Hospital Authority	10/19/06 Scoping Meeting Transcript (ML063610007)
5	V-ESP-SC-47	Jennifer Royal	Burke Medical Center	10/19/06 Scoping Meeting Transcript (ML063610007)
6	V-ESP-SC-48	Howard Davis		10/19/06 Scoping Meeting Transcript (ML063610007)
7	V-ESP-SC-49	Tom Reynolds		10/19/06 Scoping Meeting Transcript (ML063610007)
8	V-ESP-SC-50	Doug Rhodes		10/19/06 Scoping Meeting Transcript (ML063610007)
9	V-ESP-SC-51	James Cleary		10/19/06 Scoping Meeting Transcript (ML063610007)
10	V-ESP-SC-52	William Mizell		10/19/06 Scoping Meeting Transcript (ML063610007)
11	V-ESP-SW-53	Dr. Thomas Hinton		Letter (ML063200040)
12	V-ESP-SW-54	Unknown Name		Letter (ML063030336)
13	V-ESP-SW-55	M.H. Churney		Letter (ML063130397)
14	V-ESP-SW-56	Don Cope	Dalton Utilities	Letter (ML063200041)
15	V-ESP-SW-57	Don R. Thomas	Senator	Letter (ML063200044)
16	V-ESP-SW-58	Roger Williams	State Representative	Letter (ML063200045)
17	V-ESP-SW-59	Vance D. Bell	Shaw Industries	Letter (ML063200046)
18	V-ESP-SW-60	Jeff Lorberbaum	Mowhawk Industries	Letter (ML063200047)
19	V-ESP-SW-61	Ralph J. Boe	Beaulieu Group	Letter (ML063200048)
20	V-ESP-SW-62	Jim Bethel	J & J/ Invision	Letter (ML063200066)
21	V-ESP-SW-63	Kenneth and James Boring, and Kathryn West	JKB&B Limited, Inc.	Letter (ML063200067)
22	V-ESP-SW-64	Werner H. Braun	The Carpet and Rug Institute	Letter (ML063200070)
23	V-ESP-SW-65	Dr. Susan Wood	Citizens of Nuclear Technology Awareness	Letter (ML063200071)

Table D-1. (contd)

	Commenter ID	Commenter	Affiliation (if stated)	Comment Source and ADAMS Accession #
1	V-ESP-SW-66	Frank J. Bove	Environmental Community Action	Letter (ML063200072)
2	V-ESP-SW-67	Sam Booher		Letter (ML063200074)
3	V-ESP-SW-70	George Duehring	Columbia County Chamber of Commerce	Letter (ML063240186)
4	V-ESP-SW-71	Ashley Long	Burke County Chamber of Commerce	Letter (ML063240189)
5	V-ESP-SW-72	Elizabeth Clermont		E-mail (ML063240190)
6	V-ESP-SW-73	Suzanne Struble		E-mail (ML063240170)
7	V-ESP-SW-74	Bruce Fabrick		E-mail (ML063240184)
8	V-ESP-SW-75	Joe Whetstone		E-mail (ML063240188)
9	V-ESP-SW-76	Judith E. Gordon	Savannah River Group of the Georgia Sierra Club	Letter (ML063240191)
10	V-ESP-SW-77	Sara Barczak	Southern Alliance for Clean Energy	Letter (ML063240194)
11	V-ESP-SW-78	William N. Freeling		Letter (ML063260375)
12	V-ESP-SW-79	Allison E. Bosworth		E-mail (ML063240196)
13	V-ESP-SW-80	Walter Coles	Cadence Investment Partners	E-mail (ML063240199)
14	V-ESP-SW-81	Frank J. Bove	Environmental Community Action	E-mail (ML063240201)
15	V-ESP-SW-82	Carol Hatcher		E-mail (ML063240238)
16	V-ESP-SW-83	Eve Ray		E-mail (ML063240250)
17	V-ESP-SW-84	Paul Wolff		Letter (ML063240254)
18	V-ESP-SW-85	Natalie Garber		Letter (ML063240256)
19	V-ESP-SW-86	Anthony Jernigan		Letter (ML063240257)
20	V-ESP-SW-87	Chad Harrod		Letter (ML063240265)
21	V-ESP-SW-88	R. Madson		Letter (ML063240273)
22	V-ESP-SW-89	C. Clagherty		Letter (ML063240275)
23	V-ESP-SW-90	Leon Tomlinson		Letter (ML063240277)
24	V-ESP-SW-91	Rebecca Bodonyi		Letter (ML063260462)
25	V-ESP-SW-92	Barbara Krull		E-mail (ML063340344)
26	V-ESP-SW-93	William N. Freeling		Letter (ML063340346)
27	V-ESP-SW-94	Reba Stone		Letter (ML063340354)
28	V-ESP-SW-95	K Russell		Letter (ML063470348)
29	V-ESP-SW-96	Patricia Mullenix		E-mail (ML063470350)

Table D-1. (contd)

	Commenter ID	Commenter	Affiliation (if stated)	Comment Source and ADAMS Accession #
1	V-ESP-SW-97	Darius dela Cruz		E-mail (ML063470352)
2	V-ESP-SW-98	Ann C. Tate		E-mail (ML063470353)
3	V-ESP-SW-99	Paul Shumacher		E-mail (ML063470355)
4	V-ESP-SW-100	Lynne Moody		E-mail (ML063470357)
5	V-ESP-SW-101	Lawrence Turk		E-mail (ML063470358)
6	V-ESP-SW-102	Tina Pippin	Agnes Scott College	E-mail (ML063470346)
7	V-ESP-SW-103	Jim Chapman		E-mail (ML063470360)
8	V-ESP-SW-104	Joseph Parko		E-mail (ML063470361)
9	V-ESP-SW-105	Michael Maffeo		E-mail (ML063470363)
10	V-ESP-SW-106	Alida C. Silverman		Letter (ML063470367)
11	V-ESP-SW-107	Donna L. Antonucci	Citizen's Advisory Board- Savannah River Site	E-mail (ML063470369)
12	V-ESP-SW-108	Bob Goodman		E-mail (ML063470371)
13	V-ESP-SW-109	Patricia W. Walsh		E-mail (ML063470373)
14	V-ESP-SW-110	Midge Sweet		E-mail (ML063470374)
15	V-ESP-SW-111	Steven Wingeier		E-mail (ML063470377)
16	V-ESP-SW-112	Bobbie Paul	Women's Action for New Directions	E-mail (ML063470378)
17	V-ESP-SW-113	Robert E. & Constance A. Fletcher		E-mail (ML063470380)
18	V-ESP-SW-114	David C. Kyler	Center for a Sustainable Coast	E-mail (ML063470354)
19	V-ESP-SW-115	Sara Barczak	Southern Alliance for Clean Energy	Letter (ML063560016)
20	V-ESP-SW-116	Christopher Adams	Emory School of Law	Letter (ML063470420)
21	V-ESP-SW-117	Kate Hayes		Letter (ML063560017)
22	V-ESP-SW-119	Ronald S. Ellison		Letter (ML070430121)
23	V-ESP-SW-120	William Freeling		Letter (ML063340351)

D.1 Comments and Responses

This section summarizes the in-scope comments and suggestions received as part of the scoping process, and discusses their disposition. Parenthetical numbers after each comment refer to the commenter's ID letter and the comment number. Comments can be tracked to the commenter and the source document through the ID letter and comment number listed in Table D-1.

Comments are grouped by the following categories:

- D.1.1. Specific Concerns Related to the Early Site Permit Process
- D.1.2. Comments Expressing Support for the NRC's Early Site Permit Process
- D.1.3. Comments Expressing Opposition to the NRC's Early Site Permit Process
- D.1.4. Comments Expressing Support for Vogtle's Early Site Permit
- D.1.5. Comments Expressing Opposition to Vogtle's Early Site Permit
- D.1.6. Comments Concerning National Environmental Policy Act Compliance
- D.1.7. Comments Concerning Air Quality
- D.1.8. Comments Concerning Surface Water Use and Quality
- D.1.9. Comments Concerning Groundwater Use and Quality
- D.1.10. Comments Concerning Aquatic Ecology
- D.1.11. Comments Concerning Socioeconomic Issues
- D.1.12. Comments Concerning Environmental Justice
- D.1.13. Comments Concerning Human Health Issues
- D.1.14. Comments Concerning the Uranium Fuel Cycle and Waste Management Issues
- D.1.15. Comments Concerning Postulated Accidents
- D.1.16. Comments Concerning Alternatives and Alternative Sites
- D.1.17. Comments Concerning the Cost of Power
- D.1.18. Comments Concerning the Need for Power
- D.1.19. Comments Concerning Cumulative Impacts
- D.1.20. Comments Concerning the Safety Review for the Early Site Permit
- D.1.21. Comments Concerning Safeguard and Security Issues
- D.1.22. Comments Concerning Emergency Preparedness Issues
- D.1.23. Comments Concerning Decommissioning
- D.1.24. Comments Concerning Operational Safety Issues
- D.1.25. Comments Concerning Aging Management
- D.1.26. Comments Concerning Other Issues
- D.1.27. Comments Concerning Other Project Specific Issues
- D.1.28. Comments Concerning NRC's Administrative Process
- D.1.29. Comments Expressing Support for Nuclear Power
- D.1.30. Comments Expressing Opposition to Nuclear Power

D.1.1. Specific Concerns Related to the Early Site Permit Process

Comment: How do you analyze a for-profit company, how do you compare a project largely underwritten -- completely underwritten by taxpayers and ratepayers; how do you compare a project that will be funded by ratepayers and taxpayers, being done by a for-profit company that has zero motivation not to make and sell electricity? (V-ESP-SC-30-2)

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1 **Comment:** So how do you analyze a for-profit company taking tax dollars as an enticement to
2 look into nuclear and the risk to the environment from that and the pressure on that company
3 that's designed to make a profit? How can they resist? (V-ESP-SC-30-9)
4

5 **Response:** *It is not under NRC's purview or mission to analyze the company itself. The NRC's*
6 *mission is to regulate the nation's civilian use of by-product, source, and special nuclear*
7 *materials to ensure adequate protection of public health and safety, to promote the common*
8 *defense and security, and to protect the environment. This issue will not be addressed further*
9 *in the EIS.*
10

11 **Comment:** NRC is well-advised to take such opinions seriously in light of a recent report by
12 the Government Accountability Office that reveals fundamental flaws in project analysis by
13 another federal government agency that evaluates massive projects, the Corps of Engineers.
14 (See GAO-06-529T, March 2006.) We strongly suspect that NRC, like the Corps and other
15 politically vulnerable governmental institutions, is at risk of drifting dangerously far from its
16 mission due to various forces that cause a pre-determined outcome to be falsely substantiated
17 by incomplete and subjective analysis. (V-ESP-SW-114-2)
18

19 **Response:** *The comment provides no information that is germane to the evaluation of*
20 *environmental impacts and will not be addressed further in the EIS.*
21

22 **Comment:** And given that the early site permit is valid for 20 years with a possible 20-year
23 extension, we believe the NRC needs to evaluate not only the Georgia of today, but the
24 Georgia we need to be living in 20 to 40 years from now. (V-ESP-SC-07-5)
25

26 **Comment:** This analysis of water issues must take into consideration the length of this permit,
27 which could be 20 years and even longer. The growth today is already causing the seeking of
28 more of the Savannah River, not to mention how much of it will be sought 20 years from now.
29 (V-ESP-SC-21-4)
30

31 **Comment:** I'm also concerned that the permitting process that we're starting right now will
32 allow a potential two new reactors in this area to be built sometime in the next 20 years and
33 possibly another 40 years. The state of Georgia, our energy needs, the water, the population
34 could change really dramatically in the next 20 or 40 years and I think that that's a test that the
35 NRC really needs to look at. (V-ESP-SC-25-4)
36

37 **Comment:** Regarding the Vogtle permit application and the Early Site Permit (ESP) process
38 which allows a company to potentially 'bank' a site for up to 40 years (the 20 year ESP could
39 get a 20 year extension), the NRC should have to look not only at Georgia "today," but the
40 Georgia we are likely to live in 40 years from now. (V-ESP-SW-74-1)
41

Comment: And given that the early site permit is valid for 20 years with a possible 20-year extension, we believe the NRC needs to evaluate not only the Georgia of today, but the Georgia we may be living in 20 to 40 years from now. (V-ESP-SW-77-4)

Comment: Since the Early Site Permit (ESP) process allows a company to potentially "bank" a site for up to 40 years, I would like to request that the Nuclear Regulatory Commission consider not only Georgia as it is "today," but the Georgia we are likely to live in 40 years from now. (V-ESP-SW-91-2)

Comment: The fact that this permit would allow Southern Company to use the permit for up to 20 years with a possible 20 year extension in future applications with the NRC, is not reasonable. In 20 years the energy policy in this country will be very different, hopefully using many choices of safer energy sources, including wind, solar, biopower and most of all improving our energy efficiency. (V-ESP-SW-98-2)

Comment: If I understand correctly, the "early site permit" being sought can actually be used up to 20 years from the time of granting, with an additional 20 year extension if requested. Predicting conditions as far as forty years in the future seems unrealistic at best, but this arrangement constitutes an effective carte blanche, should the builders and promoters so desire. (V-ESP-SW-100-2)

Comment: Since the Early Site Permit (ESP) process allows a company to potentially "bank" a site for up to 40 years (the 20 year ESP could get a 20 year extension), the NRC should have to look not only at Georgia "today," but the Georgia we are likely to live in 40 years from now. (V-ESP-SW-103-3) (V-ESP-SW-110-2)

Comment: Given that the early site permit is valid for 20 years with a possible 20-year extension, we believe the NRC needs to evaluate not only the Georgia of today but the Georgia we may be living in 20 to 40 years from now, and certainly the Savannah River basin of today and 20 years from now. (V-ESP-SW-115-21)

Response: *The ESP does not authorize construction or operation of a nuclear power plant. An early site permit is a Commission approval of a site or sites for one or more nuclear power facilities. However, as will be discussed in Chapter 4 of the EIS, certain site-preparation activities and preliminary construction activities are allowed provided that a site redress plan is submitted by the applicant and the final ESP EIS concludes that the activities will not result in any significant adverse environmental impacts that cannot be addressed. The filing of an application for an ESP is a process that is separate from the filing of an application for a construction permit (CP) and operating license (OL) or a combined license (COL) for such a facility. The ESP application makes it possible to evaluate and resolve safety and environmental issues related to siting before the applicant makes large commitments of*

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resources. If the ESP is approved, the applicant can "bank" the site for up to 20 years for future reactor siting. Under 10 CFR 52.29, the applicant may request an extension to the ESP for a specific time period. It is up to the NRC staff to approve such a request. If an ESP holder decides to pursue construction of a nuclear power plant beyond any approved limited activities that will be identified in Chapter 4 of the EIS, it must obtain a CP or a COL, the issuance of which would be a major Federal action requiring preparation of an EIS under 10 CFR 51.20.

Comment: The NRC needs to improve its public outreach process. For instance, there was no simple way for the general public to easily know about or provide comment on the ESP process. Visiting the NRC's Vogtle ESP page for instance, <http://www.nrc.izov/reactors/newlicensing/esp/vogtle.html>, provides some information on the timetable, such as the "Scoping Period Ends on 12/4/06" but it does not clearly show 1) that the deadline for the public to actually comment is also 12/4; 2) how the public can comment; or 3) a description on what to comment on. The NRC should make the page more easily understood on when and how a public citizen can engage in the process, especially in advance of the eventual release of a the draft EIS. (V-ESP-SW-115-45)

Response: The NRC staff makes an effort to inform the public and local officials of the public meetings using a variety of media. The public notification process included publication of several notices in the Federal Register, multiple advertisements in newspapers, press releases, meeting notices, and flyers. Contacts were also made with interest groups and elected officials. This issue is not within the scope of the EIS and will not be addressed further.

Comment: We especially want to emphasize that the NRC explore a wide range of alternatives to the proposed Vogtle nuclear plants. How one frames a problem, and the types of questions we ask, have a great impact on the way a problem is addressed. For example, the Environmental Review Process could limit its focus to determining the extent of the risk of the proposed nuclear plants and whether that risk can be managed and is "acceptable" (of course, one can always ask the question, acceptable to whom?). Alternatively, the Environmental Review Process can have a much broader and fundamental focus, asking questions such as:

- Is the proposed nuclear plant needed?
- Are there safer and less expensive alternatives?
- Can risks be prevented rather than managed?

An Alternatives Assessment guided by the Precautionary Principle is a flexible, holistic analysis of alternatives to prevent impacts from potentially harmful activities or technologies. It considers the need for the proposed technology. It focuses on what a proponent of a technology could or should be doing rather than focusing on the "acceptability" of the proposed, potentially harmful technology. It focuses attention away from questions such as "How risky is

1 the technology?" and instead focuses attention on what kinds of solutions are needed and are
2 beneficial to the public health and welfare. (V-ESP-SW-81-4)

3
4 **Response:** *The NRC staff will prepare an EIS in accordance with the requirements of*
5 *10 CFR 52.18 and 10 CFR Part 51. In its review, the staff will focus on the environmental*
6 *effects of construction and operation of reactors.*

7 8 **D.1.2. Comments Expressing Support for the NRC's Early Site Permit Process**

9
10 **Comment:** I want to thank particularly the Nuclear Regulatory Commission for the
11 thoroughness and the openness of the process that they have gone through to take into
12 account all views with respect to the decision to site the expanded nuclear generating units in
13 Burke County. (V-ESP-SC-02-1)

14
15 **Comment:** The new processes that will be in place, the new procedures I should say, that will
16 be in place for the reactors will expedite this project and get it on line even more rapidly.
17 (V-ESP-SC-03-3)

18
19 **Comment:** On behalf of the 200 members of the Southern Nuclear Chapter of U.S. WIN, we
20 support the early site permit for Vogtle Units 3 and 4. (V-ESP-SC-11-3)

21
22 **Comment:** Again, I want to second the support from those here and thank the NRC for their
23 activities. (V-ESP-SC-13-2)

24
25 **Comment:** I would encourage the permit process to move along as quickly as possible and
26 let's get the thing moving and build the units. (V-ESP-SC-18-5)

27
28 **Comment:** And we are excited that the New Reactor Office is coming to Atlanta, we'll try to
29 welcome you and try to be good neighbors. (V-ESP-SC-25-1)

30
31 **Comment:** I have absolute confidence in the Nuclear Regulatory Commission, I've had
32 experience with them in the past in my business. I'm totally comfortable. (V-ESP-SC-33-5)

33
34 **Comment:** I think this forum tonight has been very good. I think a lot of patience has been
35 shown by those that are in charge of the meeting, (V-ESP-SC-33-6)

36
37 **Comment:** I do thank you for this opportunity from the Nuclear Regulatory Commission, we do
38 thank all of our leaders for being here. (V-ESP-SC-39-3)

39
40 **Comment:** I thank you for this time to express how we the citizens of Burke County feel about
41 Georgia Power, Plant Vogtle and the Southern Nuclear Company. (V-ESP-SC-45-3)

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Comment: And we have to put trust in the NRC to do their job. And when they do the site survey, if the site survey comes out clean, which I believe it will -- the place was designed to have four reactors, the community supports four reactors -- bring it on. (V-ESP-SC-52-7)

Response: *These comments provide general information in support of NRC's ESP process and will not be assessed further.*

D.1.3. Comments Expressing Opposition to the NRC's Early Site Permit Process

Comment: We've asked that the NRC take precautionary principle into consideration in evaluating this permit, which we oppose. (V-ESP-SC-16-1)

Comment: I came down here today because I'm concerned that the health and safety issues regarding the construction of new nuclear reactors are not being taken seriously. (V-ESP-SC-38-1)

Comment: There are a few who would profit greatly from this nuclear resurgence. I hope they are soon short circuited by bold and visionary truth tellers at the NRC. To do anything less would be negligent, in my mind, and would send a message to all future generations that we simply don't care about them or their welfare. (V-ESP-SW-112-9)

Response: *These comments provide general information in opposition to the NRC's ESP process and will not be assessed further. The NRC will carefully review the application against its regulations that are intended to protect public health and safety and the environment.*

D.1.4. Comments Expressing Support for Vogtle's Early Site Permit

Comment: Therefore, be it resolved by the Mayor and Council, by unanimous vote held at the regular Council meeting of October 16, 2006, that the Waynesboro City Council announces its support of the expansion proposed at the Alvin W. Vogtle Nuclear Generating Plant, and encourages the Waynesboro and Burke County community to continue its support throughout the licensing and construction period. (V-ESP-SC-02-5)

Comment: We can't think of a better site in Georgia or in the southeast for this expansion to occur in, considering all the factors that go into the environmental process. (V-ESP-SC-02-7)

Comment: I'm here in support of the expansion of Plant Vogtle... (V-ESP-SC-03-1)

Comment: I want to go on record saying that the State Senate is in favor of this project, the Georgia legislature is in favor of this project, and we changed the rules a little bit to expedite the

1 new type of reactor that will be put in place here, so it will expedite this project.
2 (V-ESP-SC-03-8)

3
4 **Comment:** We are writing to voice our strong support for the Southern Nuclear Operating
5 Company's application for an Early Site Permit for two additional reactors on the site of the
6 Alvin W. Vogtle Electric Generating Plant near Waynesboro, Georgia. (V-ESP-SC-04-4)

7
8 **Comment:** We are very supportive of these applications and ask that following the appropriate
9 permitting review process, you grant Southern Nuclear Company the Early Site Permit
10 requested for the Vogtle site. (V-ESP-SC-04-7)

11
12 **Comment:** The people in this area are very knowledgeable and because they are, they are
13 supportive of Georgia Power's plans to add two more reactors to Plant Vogtle. Frankly, we
14 can't conceive of a more favorable environment. The citizens here know from experience that
15 Georgia Power can be trusted to have safe and well managed plants. (V-ESP-SC-06-6)

16
17 **Comment:** I controlled all materials that went into that plant down there and you fellows with
18 the NRC, you know what I'm talking about, we had to be ready for the NRC at all times, and I
19 didn't mind it because I lived it, I welcomed them to come in. We always had good working
20 relationship with the NRC. (V-ESP-SC-08-2)

21
22 **Comment:** [B]e it resolved that the Board of Commissioners of Burke County fully supports the
23 idea of constructing two new reactors at Plant Vogtle. (V-ESP-SC-09-4)

24
25 **Comment:** The Burke County Chamber of Commerce supports Georgia Power in its proposed
26 expansion of Plant Vogtle to include additional reactors. The Chamber feels this is a positive
27 development for our community and region in several ways. We believe this expansion will
28 allow us to continue to receive clean, cost-effective and reliable electric energy to serve our
29 community. The addition at Plant Vogtle will further enhance recognition of the Central
30 Savannah River Area as the nation's hub for the resurgent nuclear energy industry.
31 (V-ESP-SC-10-1)

32
33 **Comment:** The Burke County Chamber of Commerce supports the expansion project
34 throughout its licensing, construction and eventual operation. (V-ESP-SC-10-3)
35 (V-ESP-SW-71-3)

36
37 **Comment:** I can assure you that we as community leaders, we live here, we have children that
38 live here, some of us have grandchildren and I can assure you that we would not support
39 something that we did not feel was very safe and in the best interest of our community.
40 (V-ESP-SC-10-8)

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1 **Comment:** I appreciate the opportunity to speak to the Nuclear Regulatory Commission tonight
2 in support of the early site permit for Vogtle Units 3 and 4. (V-ESP-SC-11-1)
3

4 **Comment:** The staff is very capable and I have been impressed with the way they handle
5 themselves in this community. They're all professionals, they're the cream of the crop.
6 (V-ESP-SC-12-1)
7

8 **Comment:** I feel very comfortable with Southern Nuclear adding two new reactors to the
9 current plant. (V-ESP-SC-12-2)
10

11 **Comment:** I wanted to say I second anyone who supports Plant Vogtle, the activities of
12 Georgia Power. (V-ESP-SC-13-1)
13

14 **Comment:** I'd like to go on record as a citizen of Burke County and also as Director of the
15 Burke County Emergency Management in support of the early site permit and future
16 construction and operation of the two new units. (V-ESP-SC-14-2)
17

18 **Comment:** The Augusta Metro Chamber of Commerce supports the continued development of
19 Plant Vogtle. It is the right answer to today's energy needs. (V-ESP-SC-15-5)
20

21 **Comment:** We believe that the safe, clean, reliable power that will be generated by Units 3
22 and 4 at Vogtle is critical to the economic and environmental interests of Burke County and the
23 surrounding areas. Because of this, we ask that the NRC grant the application for the Vogtle
24 early site permit. (V-ESP-SC-17-10)
25

26 **Comment:** I'm here tonight to give my support for the early site permit for Vogtle's Units 3 and
27 4. (V-ESP-SC-17-2)
28

29 **Comment:** I just wanted to let the folks here know that our community actively supports the
30 plant as it is and supports expansion of the plant. (V-ESP-SC-18-1)
31

32 **Comment:** The Development Authority of Burke County supports Georgia Power and
33 Southern Nuclear in the proposed expansion of Plant Vogtle in Burke County. That would
34 include two additional reactors. (V-ESP-SC-19-1)
35

36 **Comment:** The Development Authority of Burke County is 100 percent behind Plant Vogtle
37 and the proposed new construction. We are proud and blessed to have Plant Vogtle, the
38 people working there and Georgia Power that operates Vogtle in our community. We are very
39 excited at the prospect of its expansion. The Development Authority supports the proposed
40 expansion of the project throughout its licensing, construction and eventual operation.
41 (V-ESP-SC-19-4)

Comment: If we had a choice, the Development Authority, of one industrial project, power plant or utility project, then I think what we would choose for Burke County would be Plant Vogtle and its expansion. The plant is going to stay here, it will be here and will not be going to Mexico or China. The American jobs will stay here in America... (V-ESP-SC-19-5)

Comment: Burke County needs and we want the expansion at Plant Vogtle. (V-ESP-SC-19-7)

Comment: We as the black churches of Burke County, we do support you, Georgia Power, and your good judgment to bring two more reactors to Burke County. Georgia Power, we will do whatever we can to support your decision to come to Burke County, the bird dog capital of the world, we need you. (V-ESP-SC-20-1)

Comment: [T]onight we open our arms to you, Plant Vogtle, Georgia Power, come on into Burke County, we need you. (V-ESP-SC-20-3)

Comment: So I have a peace of mind about this and I truly support Plant Vogtle and I do hope the permit process can move forward so we can have them build these two units. (V-ESP-SC-23-7)

Comment: I just wanted to endorse the expansion of Vogtle --and this is based on experience, this is not based on something coming from out of town. (V-ESP-SC-33-7)

Comment: And just simply to say that Plant Vogtle has been a tremendous asset, it continues to be. If we are able to benefit from the additional reactors, then that means of course that the children and everybody else in this community will continue to benefit. (V-ESP-SC-39-2)

Comment: We just thank God for Plant Vogtle and we ask you to bring your reactors on because we're ready for them. (V-ESP-SC-40-2)

Comment: [Y]es, I am for this. Do I like it? No. But I'm not going to let some activist come in here and rule this floor and say okay, let's go against this for all these different reasons. I think they're good reasons, but what is the risk? What is the real risk factor. That's really what I'm against. So I want you to understand I am for going forward with this. I think the risk of all the negative things that we hear is very low, and I think that with the impact of the community, it's going to be phenomenal. (V-ESP-SC-41-1)

Comment: We are for it. (V-ESP-SC-42-2)

Comment: Building new nuclear power plants enables us to generate electricity with a clean, safe and reliable source of power. (V-ESP-SC-43-6)

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1 **Comment:** I fully support the expansion of the Plant Vogtle facility. My support stems from
2 knowledge of contaminants in the environment. (V-ESP-SC-44-2)
3

4 **Comment:** From an environmental standpoint, nuclear power is good for this country and thus
5 I fully support the expansion of the Plant Vogtle facility. (V-ESP-SC-44-4)
6

7 **Comment:** We want to continue this partnership support and this expansion of Plant Vogtle will
8 be greatly appreciated by the community. (V-ESP-SC-45-2)
9

10 **Comment:** My original intent was to come up here tonight and support Plant Vogtle. After
11 what I've heard tonight, my support has not changed, I am still in support of Burke County.
12 (V-ESP-SC-46-1)
13

14 **Comment:** I just want to say that I am here to support Vogtle in any way. I support Georgia
15 Power, Southern Nuclear and anything I can do, I'll be glad to help. (V-ESP-SC-46-2)
16

17 **Comment:** I'm voicing my support of the new reactors at Plant Vogtle because I do believe it's
18 a safe venture. (V-ESP-SC-47-3)
19

20 **Comment:** I fully support the expansion of the Plant Vogtle facility. (V-ESP-SW-53-2)
21

22 **Comment:** From an environmental standpoint, nuclear power is good for this country, and thus
23 I fully support the expansion of the Plant Vogtle facility. (V-ESP-SW-53-4)
24

25 **Comment:** I am writing this letter to indicate Dalton Utilities' enthusiastic support of Southern
26 Nuclear Operating Company's application for an Early Site Permit for two additional reactors on
27 the site of the Alvin W. Vogtle Electric Generating plant near Waynesboro, Georgia.
28 (V-ESP-SW-56-1)
29

30 **Comment:** Support of this project comes from our community and industry leaders, as well.
31 (V-ESP-SW-56-5)
32

33 **Comment:** On the basis of all of this information, we ask as Dalton Utilities and the Dalton
34 community that you grant Southern Nuclear Company the Early Site Permit requested for the
35 Plant Vogtle site. (V-ESP-SW-56-7)
36

37 **Comment:** I am writing this letter to indicate my support of Southern Nuclear Operating
38 Company's application for an Early Site Permit for two additional reactors on the site of the
39 Alvin W. Vogtle Electric Generating plant near Waynesboro, Georgia. (V-ESP-SW-57-1)
40 (V-ESP-SW-59-1) (V-ESP-SW-60-1) (V-ESP-SW-61-1) (V-ESP-SW-62-1) (V-ESP-SW-63-1)
41

1 **Comment:** I ask that you grant Southern Nuclear Company the Early Site Permit request for
2 the Plant Vogtle Site. (V-ESP-SW-57-7)
3

4 **Comment:** This letter is written expressing my support of Southern Nuclear Operating
5 Company's application for an Early Site Permit for two additional reactors on the site of the
6 Plant Vogtle Electric generating plant near Waynesboro, Georgia. (V-ESP-SW-58-1)
7

8 **Comment:** I strongly encourage that you grant Southern Nuclear Company the Early Site
9 Permit requested for the Plant Vogtle Site. (V-ESP-SW-58-9)
10

11 **Comment:** I ask that you grant Southern Nuclear Company the Early Site Permit requested for
12 the Plant Vogtle site. (V-ESP-SW-59-7) (V-ESP-SW-60-7) (V-ESP-SW-61-7)
13 (V-ESP-SW-62-7) (V-ESP-SW-63-7)
14

15 **Comment:** We are writing this letter to indicate our support of Southern Nuclear Operating
16 Company's application for an Early Site Permit for two additional reactors on the site of the
17 Alvin W. Vogtle Electric Generating plant near Waynesboro, Georgia. (V-ESP-SW-64-1)
18

19 **Comment:** [W]e ask that you grant Southern Nuclear Company the Early Site Permit requested
20 for the Plant Vogtle site. (V-ESP-SW-64-7)
21

22 **Comment:** The people in this area are very knowledgeable, and because they are, they are
23 supportive of Georgia Power's plans to add two more reactors at Vogtle. Frankly, we can't
24 conceive of a more favorable environment. The citizens here know from experience that
25 Georgia Power can be trusted to have safe and well-managed plants. (V-ESP-SW-65-6)
26

27 **Comment:** The Columbia County Chamber of Commerce supports Georgia Power's proposed
28 expansion of Plant Vogtle near Waynesboro and the construction of additional reactors. The
29 Chamber feels this is a positive development for Columbia County, our business community,
30 Metro Augusta and the Central Savannah River Area (CSRA). (V-ESP-SW-70-1)
31

32 **Comment:** The Columbia County Chamber of Commerce is proud to have Plant Vogtle in our
33 community. We are excited at the prospect of its expansion. The Columbia County Chamber
34 of Commerce supports the expansion project throughout its licensing. (V-ESP-SW-70-6)
35

36 **Comment:** The Burke County Chamber of Commerce supports Georgia Power in its proposed
37 expansion of Plant Vogtle to include additional reactors. The Chamber feels this is a positive
38 development for our community and region in several ways. We believe this expansion will
39 allow us to continue to receive clean, cost-effective and reliable electric energy to serve our
40 community. The addition at Plant Vogtle will further enhance recognition of the Central
41 Savannah River Area as the nation's hub for th (V-ESP-SW-71-1)

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Comment: The speedy approval of two new reactors at Plant Vogtle in Burke County, Georgia, is small, but important step in the right direction for our country. (V-ESP-SW-80-3)

Comment: This letter is in support of the planned expansion of Plant Vogtle in Burke County, GA. (V-ESP-SW-107-1)

Response: *These comments provide general information in support of the Southern's ESP and will not be assessed further.*

D.1.5. Comments Expressing Opposition to Vogtle's Early Site Permit

Comment: I'm here today to say no thank you to nuclear power, more nuclear reactors at Plant Vogtle. (V-ESP-SC-31-1)

Comment: I think we all want to bring energy to the southeast that creates the greatest good for now and the future and we can do far better than nuclear. (V-ESP-SC-31-5)

Comment: I don't know that more reactors at the Vogtle site is really the answer for looking at and addressing some of those long-term impacts. (V-ESP-SC-37-4)

Comment: I am very concerned with Southern Nuclear's ESP application to build up to two more nuclear reactors at Plant Vogtle. (V-ESP-SW-78-1) (V-ESP-SW-84-1) (V-ESP-SW-85-1) (V-ESP-SW-86-1) (V-ESP-SW-87-1) (V-ESP-SW-88-1) (V-ESP-SW-89-1) (V-ESP-SW-90-1) (V-ESP-SW-93-1) (V-ESP-SW-94-1) (V-ESP-SW-95-1) (V-ESP-SW-117-1) (V-ESP-SW-119-1) (V-ESP-SW-120-1)

Comment: Please do not support this expansion. (V-ESP-SW-73-3)

Comment: We oppose Southern Nuclear's application for an early site permit for Plant Vogtle and request that the NRC reject the application. (V-ESP-SW-81-1)

Comment: I urge the NRC to refuse the early site permit for Plant Vogtle for all of Georgia's citizens - present and future. (V-ESP-SW-91-8)

Comment: I am writing to oppose the expansion of Plant Vogtle to four nuclear reactors. (V-ESP-SW-92-1)

Comment: I would like to express my concern over the application by Southern Company to obtain an early site permit to place 2 more nuclear reactors at the Vogtle power plant. (V-ESP-SW-96-1)

Comment: We do not want the Southern Company to be issued a early site permit.
(V-ESP-SW-97-3)

Comment: I am completely OPPOSED to the construction of new nuclear reactors at Plant Vogtle. (V-ESP-SW-99-1)

Comment: As a public health physician, I want to express my opposition to this proposal.
(V-ESP-SW-100-1)

Comment: I urge you to oppose the granting of a permit for additional nuclear power plants near the Savannah River Site. (V-ESP-SW-100-9)

Comment: I want to express my concern over the construction of two new nuclear reactors at Plant Vogtle. (V-ESP-SW-102-1)

Comment: I oppose the expansion of nuclear plants in Georgia. (V-ESP-SW-104-1)

Comment: I urge the NRC to hold off on consideration of a permit to expand Plant Vogtle (especially under what appear to be a carte blanche scenario) until all viable alternatives have been explored. (V-ESP-SW-106-1)

Comment: Please drop the idea of meeting our energy deficit with this expensive, dangerous, dead end technology and begin focusing on energy conservation instead. (V-ESP-111-8)

Comment: I urge the NRC to look critically at this proposed development and its impact on the entire region, including the area that includes the Savannah River Site. (V-ESP-SW-112-2)

Comment: I write to express disappointment and dismay over the proposed additional nuclear reactors planned for Plant Vogtle in Burke County, Georgia. (V-ESP-SW-112-1)

Comment: [W]e strenuously object to issuance of an Early Site Permit (ESP) for an additional two nuclear reactors at the existing Vogtle nuclear power plant in Burke County, GA.
(V-ESP-SW-113-1)

Comment: [W]e urge the NRC to deny the Early Site Permit application for two additional nuclear reactors at Plant Vogtle. (V-ESP-SW-113-17)

Comment: For all of these reasons, the Center for a Sustainable Coast is unconditionally opposed to the approval of nuclear reactors at Plant Vogtle or anywhere else in Georgia's coastal watersheds. (V-ESP-SW-114-15)

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Comment: We are extremely concerned about the proposed expansion of nuclear plant Vogtle as outlined in the early site permit (ESP) application submitted by Southern Nuclear Operating Company (SNC). (V-ESP-SW-115-1)

Response: *These comments provide general information in opposition to Southern's ESP and will not be assessed further. The NRC will carefully review the ESP application against its regulations that are intended to protect public health and safety and the environment.*

D.1.6. Comments Concerning National Environmental Policy Act Compliance

Comment: I encourage the NRC to please work with our state environmental experts at the Environmental Protection Division and the Wildlife Resources Division. (V-ESP-SC-21-9)

Response: *The NRC will consult with the appropriate State agencies in accordance with 10 CFR Part 51.*

Comment: Before this decision is made, NRC must thoroughly study...climate change in Georgia with all the trends and projections including consideration of our next long-term drought. We all need to see this needed factual information. (V-ESP-SC-34-4)

Comment: Before this decision is made NRC must thoroughly study... Climate Change in Georgia, all with trends and projections including consideration of our next long term drought. We all need to see all the needed factual information. (V-ESP-SW-67-5)

Response: *A study on climate change in Georgia is beyond NRC's mission and purview. The NRC's mission is to regulate the nation's civilian use of by-product, source, and special nuclear materials to ensure adequate protection of public health and safety, to promote the common defense and security, and to protect the environment.*

Comment: [B]ack to the issue at hand, National Environmental Policy Act. You know what, we have a mess. Everything is changing, all the rules are changing. One of the biggest changes that I've not heard mentioned except in passing is that there is federal money involved in this program. (V-ESP-SC-36-1)

Response: *Potential changes in the National Environmental Policy Act of 1969(NEPA) are not within the purview of the EIS or NRC's agency mission. The NRC's mission is to regulate the nation's civilian use of by-product, source, and special nuclear materials to ensure adequate protection of public health and safety, to promote the common defense and security, and to protect the environment.*

Comment: The EIS should also address why we have not -- why Southern Company, Georgia Power and others haven't adequately explained how renewable, sustainable energy sources and efficiency, conservation alternatives would be looked at. These have been abandoned and the EIS should address that. (V-ESP-SC-37-8)

Comment: In summary, SACE has sincere concerns about the SNC ESP application to expand Plant Vogtle, and we urge the NRC to carefully review our concerns and those of others as they develop the draft EIS. (V-ESP-SW-115-46)

Comment: SNC's Environmental Report does not comprehensively and objectively assess alternatives. Nor can it be expected to be given its own incentives to keep energy demand high. But this should not keep NRC from conducting its own "objective" evaluation of reasonable conservation and energy alternatives. The NRC needs to evaluate the current and projected renewable energy opportunities in Georgia, such as wind, solar (both photovoltaic-PV and solar thermal), and bioenergy using up-to-date information. For instance, the wind data used in Chapter 9 of SNC's Environmental Report is outdated; new, certified wind maps of Georgia, which include off shore wind supplies, were just released by the National Renewable Energy Laboratory. (V-ESP-SW-116-16)

Response: *Section 102 of NEPA directs that an EIS be prepared for major Federal actions that significantly affect the quality of the human environment. The NRC has implemented Section 102 of NEPA in 10 CFR Part 51. Subpart A of 10 CFR Part 52 contains the NRC regulations related to ESPs. It is the NRC EIS rather than the applicant's Environmental Report (ER) that is used as the basis for the decision on the ESP application. As set forth in 10 CFR 52.17, the ESP applicant must submit a complete ER focusing on the environmental effects of construction and operation of a reactor or reactors. The ER is intended to assist the Commission in complying with Section 102 of NEPA. The ER may be used extensively by the NRC staff as a starting point in its review. However, the Commission staff independently evaluates information contained in the ER and develops its own bases and analyses. Ultimately, the NRC staff is responsible for the reliability of any information used. As set forth in 10 CFR 52.18, the Commission has determined that an EIS will be prepared during the review of an application for an ESP. An applicant for a CP or COL for a nuclear power plant or plants to be located at the site for which an ESP was issued can reference the ESP. A CP or COL to construct and operate a nuclear power plant is a major Federal action that requires its own environmental review in accordance with 10 CFR Part 51. To guide its assessment of environmental impacts for a proposed action or alternative actions, the NRC has established a standard of significance for impacts based on Council on Environmental Quality (CEQ) guidance (40 CFR 1508.27). Using this approach, NRC has established three significance levels - SMALL, MODERATE, or LARGE - which are defined below:*

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- 1 • *SMALL - Environmental effects are not detectable or are so minor that they will neither*
2 *destabilize nor noticeably alter any important attribute of the resource.*
- 3
- 4 • *MODERATE - Environmental effects are sufficient to alter noticeably, but not to destabilize,*
5 *important attributes of the resource.*
- 6
- 7 • *LARGE - Environmental effects are clearly noticeable and are sufficient to destabilize*
8 *important attributes of the resource.*
- 9

10 *Among the areas included in the EIS, the NRC staff will consider the No-Action Alternative or*
11 *denial of the ESP, mitigation measures to further reduce environmental impacts, alternative*
12 *sites, alternative energy sources including wind, solar, geothermal, fuel cells, biomass, etc.,*
13 *conservation and demand-side management, unavoidable adverse environmental impacts,*
14 *irreversible and irretrievable commitments of resources, the relationship between short-term*
15 *uses and long-term productivity, cumulative impacts, construction impacts, and the impacts of*
16 *operation. In summary, the staff will comply with the requirements of NEPA by following the*
17 *NRC's implementing regulations (10 CFR Parts 51 and 52) and related review guidance.*

18
19 **Comment:** I urge the NRC to consider how the state energy plan addresses the topic of new
20 water loss for electricity production and all these impacts before making a decision to allow the
21 expansion. (V-ESP-SC-34-5)

22
23 **Comment:** I urge the NRC to consider how the State Energy Plan addresses the topic of new
24 water lost for electricity production and all of these impacts before making a decision to allow
25 the expansion of the Vogtle site. (V-ESP-SW-67-6)

26
27 **Response:** *Southern must gain permits from a variety of Federal, State, and local government*
28 *agencies, before it can build and operate a nuclear power plant. This requirement includes the*
29 *Georgia Department of Natural Resources, which is responsible for the control of water*
30 *resources in Georgia. The NRC staff will assess consumptive water use impacts in the EIS.*

31
32 **Comment:** The issue of building more nuclear reactors at Plant Vogtle will affect not just this
33 local community, but Georgia as a whole and our region overall. I hope the NRC staff
34 understands that we need to do what will benefit all. (V-ESP-SC-07-1)

35
36 **Comment:** The issue of building more nuclear reactors at Plant Vogtle will affect not just this
37 local community, but Georgia as a whole and our region overall. I hope the NRC staff
38 understands that we need to do what will benefit all of us. (V-ESP-SW-77-1)

39
40 **Comment:** I'd like to request and in fact even demand that the NRC complete a thorough and
41 full environmental impact statement regarding Plant Vogtle's ESP. (V-ESP-SC-21-1)

1 **Comment:** [T]his agency should take the bull by the horns and be doing a programmatic EIS
2 on source term, not piecemeal, site-by-site-by-site. (V-ESP-SC-36-4)

3
4 **Comment:** I would like to request that there is a full EIS. (V-ESP-SC-37-2)

5
6 **Response:** *The NRC staff will prepare an EIS in accordance with the requirements of*
7 *10 CFR 52.18 and 10 CFR Part 51. In its review, the staff will focus on the environmental*
8 *effects of construction and operation of reactors.*

9
10 **Comment:** Vogtle is already special given its juxtaposition to the Savannah River Site. God
11 forbid anything were ever -- I would never want to see this happen -- but God forbid, what's
12 going on at Savannah River Site is very much linked to what we're talking about in terms of
13 North Korea, Iran and so on. People that we hope are not using so-called peaceful atoms for
14 weapons. Are we doing that here? This is a special area and the juxtaposition of the
15 Savannah River Site is problematic, the EIS should address this. (V-ESP-SC-37-12)

16
17 **Response:** *The NRC staff will prepare an EIS in accordance with the requirements of*
18 *10 CFR 52.18 and 10 CFR Part 51. In its review, the staff will focus on the environmental*
19 *effects of construction and operation of reactors. The assessment of cumulative impacts will be*
20 *included in Chapter 7 of the EIS.*

21
22 **Comment:** This [nuclear power] is not a green energy, not a solution to our energy problems
23 or climate change and there are many environmental and public health impacts, many of which
24 were talked about tonight, that the EIS should address very carefully. (V-ESP-SC-37-7)

25
26 **Comment:** EIS should contemplate the implications of self-monitoring versus independent
27 monitoring. We have been cut in Georgia tremendously, the folks at our state regulatory
28 agencies have had major cuts. This is a problem for existing reactors, let alone wanting to
29 bring more on line. And monitoring the releases that are routine, because there are routine
30 releases, should be looked at in addition to the accidental releases. The EIS should address
31 and should contemplate the implications of self versus independent monitoring. Already, we
32 are depending largely on Georgia Power data for this, this is incredibly problematic and the
33 region is already burdened with releases, including radioactive tritium from Savannah River Site
34 and Vogtle. But the EIS should absolutely address and discuss the plans for monitoring in the
35 EIS. (V-ESP-SC-37-13)

36
37 **Comment:** We request that the NRC consider the precautionary principle in its deliberations
38 on the early site permit application for Plant Vogtle. The four central tenets of the precautionary
39 principle are:
40

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- Heed early warnings: Take preventive action in the face of uncertainty (but with credible evidence of potential harm)
- Shift the burden of proof to the proponents of the activity or technology (in this case, Southern Nuclear)
- Explore a wide range of alternatives to possibly harmful actions or technology
- Increase public participation in decision-making. (V-ESP-SW-81-3)

Comment: We resolutely join SACE in recommending that the Nuclear Regulatory Commission (NRC) prepare a comprehensive and objective Environmental Impact Statement (EIS) for the new facilities proposed at Vogtle that includes an appropriately broad range of effects that building and operating two more nuclear reactors at that location will impose on Georgia's communities, economy, and environment - defined as broadly as needed to serve the long-term public interest. As stated by SACE staff in their submitted statement, such an analysis must include careful evaluation of the potential for improving the efficiency of energy use by all sectors and the implications of such advancements for Georgia's future. (V-ESP-SW-114-16)

Comment: We urge the Nuclear Regulatory Commission (NRC) staff to develop a comprehensive, and up-to-date draft Environmental Impact Statement (EIS) for the Vogtle early site permit that steps back and looks at the multiple effects that building two more nuclear reactors at Plant Vogtle will have on Georgia's communities, economy, and environment. (V-ESP-SW-115-2)

Response: *The NRC staff will prepare an EIS in accordance with the requirements of 10 CFR 52.18 and 10 CFR Part 51. In its review, the staff will focus on the environmental effects of construction and operation of reactors.*

D.1.7. Comments Concerning Air Quality

Comment: The NRC needs to evaluate the increased water vapor that is projected with the addition of two new reactors, not only in terms of water lost from the supply source, but also in terms of global warming. Water vapor has been identified as a contributor to global warming. (V-ESP-SC-07-6) (V-ESP-SW-77-5)

Comment: Something else that has to be analyzed here is that the thermal efficiency of nuclear power is 33 percent. A 1000-megawatt power plant that's generating 3000 megawatts of heat, 2000 megawatts of heat are going out into the environment. That's seven million BTUs per hour of waste heat going into Burke County. So, you know, maybe we can get a little ding on global warming overall over the planet with a little nuclear power, but you're eating heat here in Burke County, and that needs to be analyzed. (V-ESP-SC-30-7)

1 **Comment:** The NRC needs to evaluate predicted effects of global warming on this region,
2 specifically on the Savannah River basin, and how the existing or proposed reactors at Vogtle
3 may be negatively impacted or unable to generate electricity. This was demonstrated by the
4 heat wave this past summer in Europe when nuclear power plants from Sweden to France had
5 to shut down because the lake or river water temperatures were too high to allow for safe
6 operation of the plants. (V-ESP-SW-115-31) (V-ESP-SC-07-7) (V-ESP-SW-77-6)
7

8 **Comment:** A large amount of water that is lost from Plant Vogtle currently is evaporative loss
9 from the cooling towers. The NRC needs to evaluate the increased water vapor loss that is
10 projected with the addition of two new reactors--not only in terms of water lost from the supply
11 source (the Savannah River), but also in terms of global warming. Water vapor has been
12 identified as a contributor to global warming. (V-ESP-SW-115-32)
13

14 **Response:** *The environmental impacts associated with the operation of nuclear plants and the*
15 *fuel cycle will be addressed in Chapters 5 and 6 of the EIS.*
16

17 **Comment:** We also believe it's a very low environmental impact. We think that there are no
18 greenhouse gases associated with it. (V-ESP-SC-01-7)
19

20 **Comment:** It's been environmentally friendly. There have been no episodes that I know of for
21 Plant Vogtle that has endangered our environment in any way. (V-ESP-SC-03-6)
22

23 **Comment:** [T]oday's reactors are not only safe, but do not pollute the ground, streams or the
24 atmosphere. For example, they don't contribute to acid rain, smog, heavy metal contamination,
25 ozone depletion or global warming. (V-ESP-SC-06-4)
26

27 **Comment:** Whereas, Plant Vogtle has provided...safe, clean energy for our state.
28 (V-ESP-SC-09-3)
29

30 **Comment:** Plant Vogtle creates no significant impact on the quality of our air.
31 (V-ESP-SC-15-3)
32

33 **Comment:** Nuclear power plants produce no emissions and no greenhouse gases. Nuclear
34 power is a source of clean, emission-free energy and clearly it has already had a positive
35 impact on Georgia's environment. (V-ESP-SC-17-6)
36

37 **Comment:** [A] lot of people are saying that nuclear power is the answer to global warming. It
38 is true that each plant does not emit -- does not contribute to greenhouse -- to global warming.
39 But we would need a whole lot of nuclear power plants coming on line to actually affect global
40 warming in any way. It's really not a very good short-term solution to global warming.
41 (V-ESP-SC-25-9)

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1 **Comment:** "Building more nuclear power plants...will not reduce CO2 emissions as much as
2 other quicker, safer and cheaper alternatives." (V-ESP-SC-27-3)
3

4 **Comment:** Nuclear energy is clean, it is the only large-scale emission-free source of electricity
5 that we can readily expand to meet our growing energy demand. (V-ESP-SC-43-4)
6

7 **Comment:** We have clean air here, unlike the City of Atlanta, I know because I moved here
8 from there. (V-ESP-SC-52-8)
9

10 **Comment:** The Dalton community is filled with businessmen who also understand the
11 importance of additional, "clean" electrical energy for our state. (V-ESP-SW-56-6)
12

13 **Comment:** Aside from economics, the positive environmental impact is undeniable. Nuclear
14 power doesn't emit any carbon or greenhouse gases, accounting for about 75% of all emissions
15 in electricity in the U.S. Recent studies indicate that 70% of Americans support nuclear energy
16 because they can see the value of this "clean" energy. (V-ESP-SW-57-5)
17

18 **Comment:** The positive environmental impact is evident: Nuclear power does not emit any
19 carbon or greenhouse gasses and accounts for 75 percent of all emission-free electricity in the
20 United States. (V-ESP-SW-58-6)
21

22 **Comment:** Aside from the economics, the positive environmental impact is undeniable.
23 Nuclear power doesn't emit any carbon or greenhouse gasses, accounting for 75 percent of all
24 emission-free electricity in the U.S. Recent studies indicate that 70 percent of Americans
25 support nuclear energy. Why? Because they can see the value of this "clean" energy.
26 (V-ESP-SW-59-5) (V-ESP-SW-60-5) (V-ESP-SW-61-5) (V-ESP-SW-63-5)
27

28 **Comment:** Aside from the economics, the environmental advantage of nuclear power
29 generation is undeniable. Nuclear power doesn't emit any carbon or greenhouse gasses.
30 (V-ESP-SW-62-5)
31

32 **Comment:** The positive environmental impact is also undeniable. Nuclear power does not
33 emit any carbon or greenhouse gasses, accounting for 75 percent of all emission-free electricity
34 in the U.S. Why do 70 percent of Americans support nuclear energy as indicated in recent
35 studies? Because they can see the value of this "clean" energy. (V-ESP-SW-64-5)
36

37 **Comment:** [T]oday's reactors are not only safe, but do not pollute the ground, streams or the
38 atmosphere. For example, they don't contribute to acid rain, smog, heavy metal contamination,
39 ozone depletion, or global warming. (V-ESP-SW-65-4)
40

1 **Comment:** This expansion will allow us to continue to receive clean, ...and reliable energy to
2 serve the CSRA. (V-ESP-SW-70-3)

3
4 **Comment:** Politics being what it is, you will not be able to regulate burning coal cleanly
5 enough. You can't do it. It just won't happen. (V-ESP-SW-105-2)

6
7 **Comment:** Nuclear power is not a viable solution to global warming... If they are even built,
8 they are not expected to be online before 2015 as nuclear power plants require much longer
9 lead times than other technologies, resulting in a marked delay in contributing to reducing
10 carbon dioxide emissions. (V-ESP-SW-115-29)

11
12 **Response:** *This information will be considered in the staff's evaluation of air quality impacts in*
13 *the EIS. The result of this analysis will be presented in Chapter 5 of the EIS.*

14 15 **D.1.8. Comments Concerning Surface Water Use and Quality**

16
17 **Comment:** I have not heard anyone tonight talk about the historic decrease in flow of the
18 Savannah River...I encourage the NRC and others of you here in the room to look them up for
19 yourself and study this further. My whole point is, do not make permanent decisions based on
20 today's flow, because your decisions will be wrong. (V-ESP-SC-34-1)

21
22 **Response:** *The NRC staff will assess consumptive water use impacts on the Savannah River*
23 *from operation of the facility. The results will be presented in Chapter 5 of the EIS.*

24
25 **Comment:** Talking about the water flow, I think y'all need to look at the Corps of Engineers up
26 in Augusta, they control the flow of the Savannah River, that's where it comes from, the guys at
27 the switch. (V-ESP-SC-50-1)

28
29 **Response:** *The comment is noted, the staff has contacted the U.S. Corps of Engineers*
30 *regarding water flow in the Savannah River.*

31
32 **Comment:** Faced with salt water intrusion of the Floridian Aquifer both Beaufort and Jasper
33 counties in S.C. and the Savannah area will become more dependent on the Savannah River
34 for drinking water. (V-ESP-SW-75-1)

35
36 **Comment:** Nuclear facilities also place additional stress on Georgia's already limited water
37 resources and expansion of plants such as Vogtle will certainly place increased demands on
38 the water available from the Savannah River. Surface waters such as the Savannah River are
39 variously used and re-used for multiple purposes, usually without regard to environmental
40 degradation and ultimately the health of both the human and non-human species that depend
41 on safe and sufficient water. (V-ESP-SW-76-2)

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Comment: Power plants have a tremendous impact on our water resources. Our future energy choices make a big difference on the future of the river basins and the communities and businesses reliant on those water sources....Most people are not aware that the nuclear plants in Georgia have larger water permits than most municipalities, including nearby Augusta. Plant Vogtle has an average withdrawal of 64 million gallons per day from the Savannah River and an average water consumption of 43 million gallons per day. That shows that Vogtle is returning only about one-third of what it withdraws from the Savannah River. The plant is actually permitted for a daily maximum withdrawal of 127 mgd, which is nearly double that of both of the City of Augusta/Richmond County's permits to pull from the Savannah River and Augusta Canal (daily maximum is 71 million gallon per day with a monthly average withdrawal of 60 mgd). Yet, we're here today talking about a significant expansion of that site which will have an incredible impact on the Savannah River. (V-ESP-SW-77-3)

Comment: Plant Vogtle's two existing reactors require huge amounts of water with only 1/3 of what is withdrawn being returned to the Savannah River [about 64 million gallons per day (mgd) withdrawal with consumption of about 43 mgd]. That's more water than many towns and cities in Georgia use! Doubling the number of reactors on the site will only make this worse. This excess use of water threatens municipalities, industries, agriculture, recreation, and aquatic species. If there is an extended drought - even a drought 20 or 40 years from now, severe consequences could occur within the Savannah River basin. (V-ESP-SW-91-3)

Response: *The NRC staff will assess consumptive water use impacts on the Savannah River from operation of the facility. The results will be presented in Chapter 5 of the EIS. Cumulative impacts will be presented in Chapter 7.*

Comment: Additionally, please address the following items as NRC staff develops the draft EIS: water conservation. (V-ESP-SW-87-5)

Response: *The comment is not within scope of the EIS and will not be addressed further.*

Comment: Included, but not limited to, I would like for the EIS to consider impacts on water supply and water quality, particularly temperature. The two new towers will increase water withdrawals by 100 percent. (V-ESP-SC-21-2)

Comment: To give permission on this magnitude to build reactors that use huge amounts of water, increase the temperature of the water endangering aquatic life, and only returning 1/3 of the water to the Savannah River is unwise. (V-ESP-SW-98-3)

Response: *The NRC staff will assess consumptive use and water quality impacts (including the thermal impacts of discharge to the Savannah River) on the Savannah River from operation of the facility. The results will be presented in Chapter 5 of the EIS.*

Comment: Water Use & Supply: Vogtle's 2 existing reactors require huge amounts of water with only 1/3 of what was withdrawn being returned to the Savannah River. That's more water than many towns and cities in Georgia use! Doubling the number of reactors on site will only make this worse. This excess use of water threatens municipalities, industries, agriculture, recreation, and aquatic species. If there is an extended drought -even a drought 20 or 40 years from now, severe consequences could occur within the Savannah River basin.
(V-ESP-SW-110-3)

Response: *The NRC staff will assess consumptive water use impacts, including during periods of water scarcity, from operation of the facility. The results will be presented in Chapter 5 of the EIS. Cumulative impacts will be presented in Chapter 7.*

Comment: NRC must consider the impact that the proposed expansion at Plant Vogtle will have upon water supply, water quality, and water temperature in the Savannah River over the duration of the twenty-year permit. The expansion will significantly impact water supply. While Southern Nuclear Operating Company (SNC) emphasizes that no more than 1-2% of the Savannah River's flows will be lost, this loss of river flow is hardly insignificant. Expected growth along the Savannah River over the next twenty years suggests water supplies will be at a premium. While demand for drinking water is increasing, saltwater intrusion into coastal area aquifers is expected to make the Savannah River even more important as a source of drinking water for downstream users in Augusta, Savannah, Hilton Head, and Beaufort. Therefore, NRC must address the impacts that this additional withdrawal will have upon the River -particularly during times of drought. (V-ESP-SW-116-1)

Response: *The NRC staff will assess future consumptive use impacts on the Savannah River from operation of the facility. The NRC will also evaluate the impacts of groundwater withdrawals associated with the proposed units on the groundwater resource including the potential impact from saltwater intrusion. The results will be presented in Chapter 5 of the EIS. Cumulative impacts will be presented in Chapter 7.*

Comment: There will likely be a loss to South Carolina and Georgia coastal new drinking water needs and impacts to the ships coming 20 miles up the Savannah River into the Savannah harbor. The NRC needs to evaluate these issues and not assume some other state or federal agency will. (V-ESP-SW-67-4)

Comment: Vogtle's 2 existing reactors require huge amounts of water with only 1/3 of what was withdrawn being returned to the Savannah River [-64 million gallons per day (mgd)]

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1 withdrawal with consumption of -43 mgd]. That's more water than many towns and cities in
2 Georgia use! Doubling the number of reactors on site will only make this worse. This excess
3 use of water threatens municipalities, industries, agriculture, recreation, and aquatic species. If
4 there is an extended drought -even a drought 20 or 40 years from now, severe consequences
5 could occur within the Savannah River basin. The water discharged from nuclear Plant Vogtle
6 is already hotter than what is withdrawn; more reactors will only make this situation worse.
7 Temperature changes negatively affect the fish, plant, and animal life that depend on the river.
8 (V-ESP-SW-74-5)

9
10 **Response:** *The NRC staff will assess consumptive use and water quality impacts (including*
11 *the thermal impacts of discharge to the Savannah River) on the Savannah River from operation*
12 *of the facility. The results will be presented in Chapter 5 of the EIS. Cumulative impacts will be*
13 *presented in Chapter 7.*

14
15 **Comment:** Nuclear power wastes water. Nuclear power causes the water returned to the river
16 to be too hot, causing the river to be unhealthy (or dead, which is pretty unhealthy).
17 (V-ESP-SW-83-3)

18
19 **Comment:** Additionally, please address the following items as NRC staff develops the draft
20 EIS: ...low dissolved oxygen in Savannah harbor. (V-ESP-SW-86-6)

21
22 **Response:** *The NRC staff will assess consumptive use and water quality impacts on the*
23 *Savannah River from operation of the facility. The results will be presented in Chapter 5 of*
24 *the EIS.*

25
26 **Comment:** [Plant Vogtle] uses a proportionally minor amount of our water resources. The
27 benefits of this facility clearly outweigh the costs. (V-ESP-SC-15-4)

28
29 **Comment:** So where is their new water coming from to support four million new Atlanta people
30 and the new coastal residents? Coastal Georgia already has water problems. As people
31 continue to move there, water is going to be an even greater concern than electricity.
32 (V-ESP-SC-34-2)

33
34 **Comment:** Some have expressed concern that two more reactors at Plant Vogtle would
35 consume too much water from the Savannah River. That criticism is without merit. Plant
36 Vogtle currently consumes only 0.6% of the river flow under normal conditions. The water
37 taken from the Savannah River to cool the reactors is itself cooled in the cooling towers, then
38 returned to the river. The only water actually removed is the small amount of water vapor that
39 goes into the atmosphere. Also, the water returned to the river is only one degree Celsius
40 higher than when it was withdrawn, and that increases the river water temperature by only
41 0.008 degrees Celsius—not a significant effect. (V-ESP-SW-65-5)(V-ESP-06-05)

Comment: I urge you to thoroughly evaluate the water and security issues that new reactors would pose to the Savannah River basin and surrounding communities. (V-ESP-SW-78-2) (V-ESP-SW-84-2) (V-ESP-SW-85-2) (V-ESP-SW-86-2) (V-ESP-SW-87-2) (V-ESP-SW-88-2) (V-ESP-SW-89-2) (V-ESP-SW-90-2) (V-ESP-SW-93-2) (V-ESP-SW-94-2) (V-ESP-SW-95-2) (V-ESP-SW-117-2) (V-ESP-SW-119-2) (V-ESP-SW-120-3)

Comment: Additionally, please address the following items as NRC staff develops the draft EIS: ...wasting precious water. (V-ESP-SW-90-6)

Comment: The licensing of two nuclear power reactors, with enormous commitments of water needed for cooling, being proposed at the same time Georgia policies are advocating prudent improvements in water-using efficiencies, is in direct conflict with public interest as strongly supported initiatives in state water management. Nuclear is the most water-intensive of all power sources per kilowatt hour. (V-ESP-SW-114-3)

Response: The NRC staff will assess consumptive water use impacts from operation of the facility. The results will be presented in Chapter 5 of the EIS.

Comment: With two new power plants built, the current water loss of 41 million gallons will nearly double. How will 80 million gallons lost as a result of steam impact Georgia? There will likely be a loss to South Carolina and Georgia coastal regions new drinking water needs and there may be an impact to the ships coming 20 miles up the Savannah River into what we continue to call that whole thing, the Savannah harbor. The NRS (sic) needs to evaluate these issues and not assume some other state or federal agency will. (V-ESP-SC-34-3)

Comment: My next concern primarily addresses the water used to cool the reactors. While I agree that the steam produced from the water in the reactors is far cleaner than that produced from coal, it seems that the water supply in that area is insufficient in sustaining the reactors. Water for the Vogtle reactors primarily comes from the Savannah River basin, only about one third of this water is returned to the river. Currently, the two reactors use about 64 million gallons of water per day, which is more water than many towns and cities in Georgia use per day. This is especially important in the summer months when there are water shortages. (V-ESP-SW-54-4)

Comment: Vogtle's 2 existing reactors require huge amounts of water with only 1/3 of what was withdrawn being returned to the Savannah River [64 million gallons per day (mgd) withdrawal with consumption of 43 mgd]. That's more water than many towns and cities in Georgia use! Doubling the number of reactors on site will only make this worse. This excess use of water threatens municipalities, industries, agriculture, recreation, and aquatic species. If there is an extended drought -even a drought 20 or 40 years from now, severe consequences could occur within the Savannah River basin. (V-ESP-SW-103-4)

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Comment: The two existing reactors at Vogtle require huge amounts of cooling water with only about 1/3 being returned to the Savannah River. 63 million gallons per day are withdrawn and, of this, consumptive use is 43 million gallons which is then eliminated from possible downstream use. To put this in perspective, 43 million gallons per day is enough to supply about 150,000 households. Obviously, two additional reactors will roughly double the consumptive use requirement to about 80 million gallons per day. (V-ESP-SW-113-8) (V-ESP-SW-55-4)

Comment: What is true generally is even more applicable along the Savannah River, which is already burdened by conflicting demands in both Georgia and South Carolina, areas having severe water quality problems,...Squandering water resources on cooling for nuclear-based power production is irresponsible, especially in light of the potential for increasing energy efficiency and the use of alternative technologies such as solar, wind, and tide power. (V-ESP-SW-114-10)

Response: *The NRC staff will assess consumptive water use impacts from operation of the facility. The results will be presented in Chapter 5 of the EIS. Cumulative impacts will be presented in Chapter 7.*

Comment: What would the affect on the water supply in a drought be? (V-ESP-SW-95-6)

Comment: Pertaining to this specific site, our disregard for increasingly scarce water resources is ominous. Water use by the SRS reactors currently in operation is 64 million gallons per day, with 43 million returned to the Savannah River (a net "loss" of 19 million gallons a day)--this in an area of the country that has been in drought conditions for 5 years. (V-ESP-SW-100-3)

Comment: Anyone who has lived through a serious drought is terrified at the thought of increasing the number of nuclear reactors we now have. The huge amount of water they require could devastate our area should we have another long term drought. This is but one of the many reasons to go no further with nuclear plans. (V-ESP-SW-109-1)

Comment: Consideration should be given to current and future energy production in terms of limited water availability (e.g., in times of drought). (V-ESP-SW-115-22)

Response: *The NRC staff will assess consumptive water use impacts, including during periods of water scarcity, from operation of the facility. The results will be presented in Chapter 5 of the EIS.*

Comment: I have not heard anyone talk to the historical decreases in flow of the Savannah River. I encourage the NRC and others to look them up yourselves and study this further. My

1 whole point is: do not make permanent decisions based on today flow is wrong.
2 (V-ESP-SW-67-1)
3

4 **Comment:** NRC must consider each of these impacts in conjunction with the anticipated
5 growth along the Savannah River over the next twenty years and the additional health risks that
6 will be presented by additional citizens' use of the river for drinking water. (V-ESP-SW-116-6)
7

8 **Response:** *The NRC staff will assess future consumptive use impacts on the Savannah River*
9 *from operation of the facility. The results will be presented in Chapter 5 of the EIS.*
10

11 **Comment:** The NRC needs to evaluate the current and projected water supply needs of the
12 Savannah River basin, and during drought conditions, and assess the far-ranging social,
13 economical and environmental implications of Plant Vogtle's expansion on this water resource.
14 (V-ESP-SW-115-24)
15

16 **Comment:** Electricity generation in GA consumes more water daily than Atlanta.
17 (V-ESP-SW-67-2)
18

19 **Comment:** So where is their new water going to come from to support 42 million "new" Atlanta
20 people and the new Coastal residents? Coastal Georgia already has water problems. As
21 people continue to move there, water is going to be an even greater concern than electricity.
22 How will an 80 million gallon loss a day impact GA? (V-ESP-SW-67-3)
23

24 **Response:** *The NRC staff will assess future consumptive water use impacts from operation of*
25 *the facility. The results will be presented in Chapter 5 of the EIS.*
26

27 **Comment:** Plant Vogtle currently has larger water permits than many Georgia municipalities,
28 including nearby Augusta....Building up to two new reactors will have an incredible impact on
29 the Savannah River and the future growth of the region in terms of available water supply.
30 (V-ESP-SW-115-23)
31

32 **Comment:** The NRC should also study the assimilative capacity of the Savannah River, which
33 has become an increasingly important issue for both Georgia and South Carolina in terms of
34 the future use and health of the Savannah River basin. Demands for additional assimilative
35 capacity are expected as population and employment growth continue, which may therefore
36 require that more aggressive steps will be needed to reduce the amount of water withdrawn and
37 to more thoroughly treat the water being discharged back to the river. (V-ESP-SW-115-27)
38

39 **Response:** *The NRC staff will assess future consumptive water use impacts on the Savannah*
40 *River from operation of the facility. The results will be presented in Chapter 5 of the EIS.*
41

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Comment: Power plants have a tremendous impact on our water resources. Our future energy choices make a big difference on the future of the river basins and the communities and businesses reliant on those water resources...Most people are not aware that the nuclear plants in Georgia have larger water permits than most municipalities, yet we're here today talking about a significant expansion of that site, which will have an incredible impact on the Savannah River. Right now this plant is only returning a third of what it's withdrawing from the Savannah River. (V-ESP-SC-07-4)

Response: *The NRC staff will assess impacts on the Savannah River from operation of the facility. The results will be presented in Chapter 5 of the EIS. Cumulative impacts will be presented in Chapter 7.*

Comment: We have never on any single occasion had any problem with pollution of the water or with animals that were infected. (V-ESP-SC-33-3)

Comment: The NRC should also study the dissolved oxygen (DO) levels throughout the Savannah River basin, especially the already grave DO situation in the lower Savannah, downstream of Plant Vogtle. A final, revised total maximum daily load (TMDL) for DO in the lower Savannah was just issued by the EPA in November 2006 and the NRC needs to conduct its evaluation using this new standard. (V-ESP-SW-115-28)

Response: *The NRC staff will assess water quality impacts on the Savannah River from operation of the facility. The results will be presented in Chapter 5 of the EIS.*

Comment: [T]hermal discharges from the plant [need to be looked at]. (V-ESP-SC-22-3)

Response: *The NRC staff will assess water quality, including thermal, impacts on the Savannah River from operation of the facility. The results will be presented in Chapter 5 of the EIS.*

Comment: I am sceptical about the local impact on the Savannah River/basin; (V-ESP-SW-106-3)

Response: *The NRC staff will assess water use impacts on the Savannah River from operation of the facility. The results will be presented in Chapter 5 of the EIS.*

Comment: The Savannah River basin is already in trouble. Vogtle's existing reactors require huge amounts of water, (V-ESP-SW-108-2)

Response: The NRC staff will assess water use impacts on the Savannah River from operation of the facility. The results will be presented in Chapter 5 of the EIS. Cumulative impacts will be presented in Chapter 7.

D.1.9. Comments Concerning Groundwater Use and Quality

Comment: Additionally, please address the following items as NRC staff develops the draft EIS: water issues are already critical here in S.E. Georgia. Over drafts on the Floridian Aquifer GSP. The Savannah River needs protecting, not further stressing. (V-ESP-SW-120-5)

Response: The NRC staff will evaluate the impact of groundwater withdrawals associated with the proposed units on the groundwater resource in the region. Results of the assessment will be provided in Chapter 5 of the EIS.

Comment: We're already having water issues on the Savannah River, including saltwater intrusion from the Floridian Aquifer. (V-ESP-SC-21-3)

Response: The NRC will evaluate the impact of groundwater withdrawals associated with the proposed units on the groundwater resource, including the potential impact from saltwater intrusion. Results of the assessment will be provided in Chapter 5 of the EIS.

Comment: One thing that wasn't brought up I don't think tonight in terms of some of the long-term impacts, the uniqueness of this area because of the Tuscaloosa Aquifer. It's unique as the major freshwater recharge aquifer in North America and provides drinking water for multiple states. Vogtle 1 and 2 already is using more water per day than most of the towns in Georgia,...And new reactors would actually worsen this. The EIS should absolutely address this. (V-ESP-SC-37-11)

Response: The NRC will evaluate the impact of groundwater withdrawals associated with the proposed units on the groundwater resource in the region. Results of the assessment will be provided in Chapter 5 of the EIS.

D.1.10. Comments Concerning Aquatic Ecology

Comment: The first is fish and wildlife impact...particularly entrainment of fish in the water intakes. That's a major concern of mine and anyone who is interested in fisheries, fishing, eating fish. That's just something that needs to be looked at. (V-ESP-SC-22-2)

Response: The NRC staff will assess potential impacts from the cooling system (including impingement and entrainment from the intake structure) and the resulting aquatic impacts

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1 *during its evaluation of the ESP application. The results of the analysis will be presented in*
2 *Chapter 5 in the EIS.*

3
4 **Comment:** Also, the water returned back to the river is hotter than when it is taken out. Such
5 temperature change negatively affects fish; plants and other life-forms that live in and around
6 the water. (V-ESP-SW-54-5)

7
8 **Response:** *The NRC staff will assess potential impacts from the cooling system (including*
9 *thermal discharges to the river) and the resulting impacts to aquatic and terrestrial organisms,*
10 *during its evaluation of the ESP application. The results of the analysis will be presented in*
11 *Chapter 5 in the EIS.*

12
13 **Comment:** Additionally, please address the following items as NRC staff develops the draft
14 EIS: impacts on fish species. (V-ESP-SW-86-5)

15
16 **Response:** *The NRC staff will assess potential impacts to fish species from the proposed*
17 *reactor facility during its evaluation of the ESP application. The results of the analysis will be*
18 *presented in Chapters 4 and 5 of the EIS.*

19
20 **Comment:** [T]he use of river water for cooling is destructive to river ecosystems and wasteful
21 of a resource that is even more essential than energy. (V-ESP-SW-111-6)

22
23 **Comment:** What is true generally is even more applicable along the Savannah River, which is
24 already burdened by conflicting demands in both Georgia and South Carolina,...and
25 pre-existing proposals that further threaten the ecosystem functions, including those of the
26 estuary, one of the most essential fish habitats on the planet. (V-ESP-SW-114-9)

27
28 **Response:** *The NRC staff will assess potential impacts on the Savannah River from operation*
29 *of the facility. The results will be presented in Chapters 4 and 5 of the EIS. The cumulative*
30 *impacts on the Savannah River will also be evaluated and the results presented in Chapter 7*
31 *of the EIS.*

32
33 **Comment:** The additional intake is also likely to have significant impacts on water quality and
34 aquatic life. (V-ESP-SW-116-2)

35
36 **Response:** *The NRC staff will assess potential impacts from the cooling system (including*
37 *impingement and entrainment from the intake structure) and the resulting aquatic impacts*
38 *during its evaluation of the ESP application. The results of the analysis will be presented in*
39 *Chapters 4 and 5 in the EIS.*
40

Comment: [T]he increase in effluent discharge will lead to higher water temperatures that could negatively impact aquatic life. The impacts of this increased water temperature was not thoroughly explored by the SNC Environmental Report, and needs to be explored by NRC. (V-ESP-SW-116-4)

Response: *The NRC staff will assess potential impacts from the cooling system (including thermal discharges to the river) and the resulting impacts to aquatic organisms, during its evaluation of the ESP application. The results of the analysis will be presented in Chapter 5 in the EIS.*

Comment: As a result of releases from Savannah River Site (SRS) and Vogtle, the lower Savannah River is already the most tritium-contaminated environment in the nation. (V-ESP-SW-116-18)

Response: *The NRC staff will assess effects on human health and biota related to radioactive effluent releases from the proposed nuclear plants. The results of these analyses will be presented in Chapter 5 of the EIS. In addition, NRC staff will consider other past, present, and reasonably foreseeable future actions in the vicinity of the Vogtle ESP site, which likely will include radiological releases from the U.S. Department of Energy's Savannah River Site in South Carolina. The results of the analysis of cumulative impacts will be presented in Chapter 7 of the EIS.*

Comment: The water discharged from nuclear Plant Vogtle is already hotter than what is withdrawn; more reactors will only make this situation worse. Temperature changes negatively affect the fish, plant, and animal life that depend on the river. The water intake systems at nuclear power plants can kill fish and fish larvae, among other organisms; having more reactors on site will only make this worse. (V-ESP-SW-103-5) (V-ESP-SW-110-4)

Comment: The water discharged back into the river is hotter than before, endangering fish, plant, and animal life that depend on the river. (V-ESP-SW-108-3)

Comment: Plants, fish, and other aquatic life can live and reproduce in water with temperatures within certain safe ranges, depending on species. Adding two more reactors at Vogtle will increase the heat output to the Savannah River, thereby placing additional aquatic species at risk. (V-ESP-SW-113-9)

Response: *The NRC staff will assess potential impacts from the cooling system (including thermal discharges to the river) and the resulting impacts to aquatic and terrestrial organisms, during its evaluation of the ESP application. The results of the analysis will be presented in Chapter 5 in the EIS. The cumulative impacts of having additional nuclear power units at the site will also be evaluated and the results presented in Chapter 7 of the EIS.*

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Comment: The water discharged from nuclear Plant Vogtle is already hotter than what is withdrawn; more reactors will make this situation worse. Temperature changes negatively affect fish, plant, and animal life that depend on the river. The water intake systems at nuclear power plants kill fish and fish larvae, among other organisms; more reactors on site will make this worse. (V-ESP-SW-55-5)

Comment: The water intake systems at nuclear power plants can kill fish and fish larvae, among other organisms; having more reactors on site will only make this worse. (V-ESP-SW-74-6)

Comment: The water discharged from nuclear Plant Vogtle is hotter than what is withdrawn. These temperature changes negatively affect the fish, plant, and animal life that depend on the river while the water intake systems at nuclear power plants can kill fish and fish larvae, among other organisms. All of this contributes to declining "diversity" in the Savannah River ecosystem. (V-ESP-SW-91-4)

Response: *The NRC staff will assess potential impacts from the cooling system (including thermal discharges to the river) and the resulting impacts to aquatic and terrestrial organisms, during its evaluation of the ESP application. The results of the analysis will be presented in Chapter 5 in the EIS. The cumulative impacts of having additional nuclear power units at the site will also be evaluated and the results presented in Chapter 7 of the EIS.*

D.1.11. Comments Concerning Socioeconomic Issues

Comment: And also, a lot of the economic issues were addressed. That's not why we're here really. But I come from a place originally in Maryland, we were a Naval facility, and when the plant was going to close, we changed our tack. Rather than go after something that was a dinosaur, we looked forward. There's a lot of technology in that area now. And I think maybe the civic leaders here probably need to start looking forward. We have nano-technology, we have a lot of things that can take us out of the muck and mire of nuclear waste. (V-ESP-SC-28-3)

Response: *Socioeconomic impacts on the region related to the eventual closure of nuclear plants are included in Appendix J of the Decommissioning Generic Environmental Impact Statement, NUREG-0587. This issue is out of scope and will not be addressed further in the EIS.*

Comment: I want to thank the Southern Company and all the partners that have worked with the Southern Company over the years to make Plant Vogtle a safe and reliable partner in our community's economic growth and the economy of our state. (V-ESP-SC-02-2)

1 **Comment:** [T]he expansion of Plant Vogtle will bring...an increase in employment, property tax
2 base, and growth to our community. (V-ESP-SC-02-4)
3

4 **Comment:** Economic development for this community -- and I don't mean just for Burke
5 County, I mean regionally -- this is a good project. It comes very, very highly recommended.
6 (V-ESP-SC-03-2)
7

8 **Comment:** Plant Vogtle has been a good neighbor, a good neighbor for Burke County, a good
9 neighbor for the Carolinas across the river, a good neighbor for the region. (V-ESP-SC-03-5)
10

11 **Comment:** [T]he positive impact that this will mean for this area and this region.
12 (V-ESP-SC-04-3)
13

14 **Comment:** The people of this area know that Georgia Power has been a good and responsible
15 neighbor, a valued friend of Burke County. They employ several hundred people and pay good
16 salaries. They make a major contribution to the tax base and have made generous
17 contributions to worthy community causes. (V-ESP-SC-06-2)
18

19 **Comment:** Whereas, Plant Vogtle has been an outstanding corporate citizen through the
20 years,...and jobs for our community,...Whereas, the proposed expansion of Plant Vogtle will
21 bring even more jobs and be a boost to the economy of our county; (V-ESP-SC-09-2)
22

23 **Comment:** Finally, the jobs and economic activity created by the construction and continuing
24 operation of Plant Vogtle will boost our area's economy. (V-ESP-SC-10-2)
25

26 **Comment:** The addition of two more units at the Vogtle site will be good for Georgia and good
27 for Dalton Utilities' ratepayers. (V-ESP-SC-10-6)
28

29 **Comment:** [I]t's very obvious the economic impact that Vogtle contributes to our community,
30 but what I think maybe some of the people don't realize that may not live here is the important
31 contributions that they make as a corporate citizens. Out of my 13 years of living and working
32 in the Chamber here in Burke County, I don't know of any other company that provides so much
33 corporate citizenship as Georgia Power and Plant Vogtle. There's probably not any activities,
34 civic or charitable, that they're not involved with in some way. They have extremely fine
35 employees, the leadership is outstanding and I think we're really blessed to have them in our
36 community. (V-ESP-SC-10-7)
37

38 **Comment:** Additional units at Plant Vogtle would create new job opportunities at the Vogtle
39 site for many different occupations for local residents, technical school and college graduates,
40 as well as to spur the economic growth in surrounding communities. (V-ESP-SC-11-2)
41

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Comment: We believe that the region and local economy will benefit from the additional units. (V-ESP-SC-11-4)

Comment: [T]he addition of two nuclear plants in the area will increase the quality of life in Burke County and surrounding areas through increased job opportunities and economic growth...the new nuclear construction will attract new businesses and generate thousands of local jobs and better opportunities for young people in the area. With the addition of Vogtle Units 3 and 4, many young people won't have to make the difficult decision I did, between my career and my family. Southern Nuclear anticipates the need for over 3400 long-term employees for construction and operation. These newly created jobs are estimated to add about 2400 service and housing jobs in the local community due to the influx of construction workers. These new opportunities would retain Burke County's young people, the community's valuable assets, and increase the overall quality of life in Burke County. The economic impact of these new jobs over an estimated seven years of construction and 40 to 60 years of nuclear operation could easily boost the regional economy by millions upon millions of dollars. (V-ESP-SC-17-7)

Comment: The first reason is obviously the economic impact it has on our county and the positive influence it has on the infrastructure of our county...And by that I mean the areas around the plant, the hundreds and hundreds of acres that surround the plant and the access that the public has to that area. They are involved in our community, in the city of Girard, in the general Burke County community in a huge way. (V-ESP-SC-18-2)

Comment: [T]he economy of our region will receive a much needed boost because of the many jobs and economic activity created by the new construction and continued operation of Plant Vogtle. (V-ESP-SC-19-3)

Comment: The people that work at Plant Vogtle -- and a lot of people have talked about this -- and Georgia Power that operates the plant -- they bring a lot to the community, always have and always will. They're very professional and very ethical. They are mentors in the community, they support the United Way and any other projects, they serve on boards, banks, schools, development authorities, and others. They are involved in community development, they are involved in economic development. Any resource you need, all you have to do is call Georgia Power and they've got someone that will help you with a project or help you to advance your community. So we are very blessed to have them also and we appreciate this. (V-ESP-SC-19-6)

Comment: Georgia Power, you have been already a blessing to Burke County and with two more units, Burke County will even be blessed more. Businesses will benefit if you come. It will help solve many of our problems, economically, socially. It will benefit our schools, our churches, we who are trying to spread the good news, it will benefit us. (V-ESP-SC-20-2)

1 **Comment:** I'm sure the Southern Company is a fine corporate citizen. I'm sure that Plant
2 Vogtle, Georgia Power, its employees are wonderful to have here in your community, and I
3 don't for a minute want to be critical of them. (V-ESP-SC-22-1)
4

5 **Comment:** Georgia Power has, as was mentioned before, been one of the most generous and
6 steadfast corporate contributors in Burke County. They are here when there's something going
7 on, but also companies have two things in the resources they have. They have the monetary
8 side and they have their people. Georgia Power has always let their people get involved here.
9 (V-ESP-SC-23-6)
10

11 **Comment:** It is not sustainable to have a small town entirely dependent on one economic
12 form, especially when nuclear reactors are only supposed to operate for 20 to 40 years. What
13 then will sustain the town after the nuclear plant shuts down? (V-ESP-SC-31-3)
14

15 **Comment:** [T]hey've told what the jobs would do and particularly for a county I think that's in
16 the probably top two, three or four in unemployment in the state. (V-ESP-SC-33-1)
17

18 **Comment:** I have zero problem with Plant Vogtle, they are great neighbors. (V-ESP-SC-33-4)
19

20 **Comment:** But I'm not going to speak about the school where I currently am because of
21 course any of you who have had an opportunity to see our facilities, you know they're fantastic
22 and again, that relationship with Plant Vogtle has definitely paid dividends for us here in Burke
23 County...There was a strong partnership between SGA Elementary School and Plant Vogtle
24 from the standpoint of employees and them serving vital roles in supporting the students at the
25 school. Many of them served as volunteers, served as mentors, served in other capacities that
26 have truly impacted our school...you can't talk about a company without talking about how they
27 foster relationships with the communities that they serve. And I can honestly say that Georgia
28 Power, Southern Company, Southern Nuclear, they definitely believe in fostering those
29 community relationships because I lived it and I saw it first-hand. (V-ESP-SC-39-1)
30

31 **Comment:** Before Plant Vogtle got here, we had old schools, no air conditioning. Now we
32 have the finest facilities in the state of Georgia. We had old school buses, broke down a lot.
33 Now we have air conditioned school buses to take our kids to school. We had a shortage of
34 teachers. Now we can pick and choose the teachers we want. We had an old boarding house
35 that we used to meet in, that's where the central office was. Now we have a new central office.
36 (V-ESP-SC-40-1)
37

38 **Comment:** I think this is a great community and I really thank Plant Vogtle for that.
39 (V-ESP-SC-41-2)
40

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1 **Comment:** Nuclear energy boosts economic growth and supports high-paying jobs. For each
2 construction, manufacturing or operations job created in a nuclear power plant, four new jobs
3 are created to provide goods and services to that plant and the surrounding
4 community...Nuclear plants make good neighbors. (V-ESP-SC-43-5)

5
6 **Comment:** One of the things I would like to say about Plant Vogtle and Georgia Power and
7 Southern Nuclear is that we've had a great working relationship with them. They have been an
8 asset to the community and they have helped develop strong growth of our community, they've
9 helped with leadership of the people in our community and they have helped the city and county
10 government with the relative goals for growth and other development of our people in the
11 county. Many of the infrastructure needs of the county have been met because of Plant Vogtle.
12 We've had many other things brought into the county because of Plant Vogtle, you're sitting in
13 one right now. (V-ESP-SC-45-1)

14
15 **Comment:** I haven't been involved in anything in the community that Southern Nuclear was
16 not. (V-ESP-SC-47-2)

17
18 **Comment:** [W]hen you look at the manufacturing impact that these units will do for
19 Westinghouse and for this nation, you know, as far as I know, they'll probably be built in
20 Chattanooga, plus all the suppliers will be all over the United States and the world, for that
21 matter. So all in all, I think just on the economic aspect, which I think is of great importance to
22 this nation in the balance of payment problem the U.S. has right now, I just urge that this ESP
23 be expedited and issued. (V-ESP-SC-48-4)

24
25 **Comment:** As far as environmental, the people next door are just fine, so I come down here to
26 put a good word in for my neighbors. I think it'd be a good thing, I've never had a problem with
27 them. (V-ESP-SC-50-2)

28
29 **Comment:** We talked about how good a corporate citizen and employer Georgia Power,
30 Southern Nuclear is. (V-ESP-SC-52-3)

31
32 **Comment:** [I]t was talked about how large in the economy that Southern Nuclear was of our
33 industries. And make no bones about it, they are the big dog around here. But this county also
34 has a little over half a dozen industries, it's very big in agriculture and businesses that support
35 agriculture and with the four-lane going through, I think it will help that industry grow. So we're
36 not dependent totally on one industry, though they are the big dog. (V-ESP-SC-52-6)

37
38 **Comment:** The addition of two more units at the Vogtle site will be good for Georgia and good
39 for Dalton Utilities' rate payers. (V-ESP-SW-56-4)

Comment: Additionally, the new nuclear units will positively impact the local economy in the Waynesboro, GA, area. (V-ESP-SW-57-6) (V-ESP-SW-59-6) (V-ESP-SW-60-6) (V-ESP-SW-61-6) (V-ESP-SW-63-6) (V-ESP-SW-64-6)

Comment: The citizens of Waynesboro, GA area will certainly benefit from the positive impact this will have. (V-ESP-SW-58-8)

Comment: The people of this area know that Georgia Power has been a good and responsible neighbor, and a valued friend of Burke County. They employ several hundred people and pay good salaries. They make a major contribution to the tax base and have made generous contributions to worthy community causes. (V-ESP-SW-65-2)

Comment: As well, the jobs and economic activity created by the construction and continuing operation of Plant Vogtle will boost our area's economy. (V-ESP-SW-70-5)

Comment: Finally, the jobs, and economic activity created by the construction and continuing operation of Plant Vogtle will boost our area's economy. (V-ESP-SW-71-2)

Response: *The NRC staff will evaluate the regional socioeconomic impacts of the proposed action in Chapters 4 and 5 of the EIS, including impacts related to the local economy, taxes, transportation, aesthetics and recreation, housing, education, community infrastructure, and social services.*

D.1.12. Comments Concerning Environmental Justice

Comment: The NRC needs to understand the larger picture that the communities, many low-income and minority, around Plant Vogtle have been burdened with decades of nuclear contamination and adding to this burden is unacceptable. (V-ESP-SW-115-37)

Comment: While the Environmental Report does address the occurrence of minority and low-income households around the Plant Vogtle site, it fails to take accurate account of the particularly severe impact that two new nuclear reactors will have on the low-income and minority populations in the area based on a number of factors specific to those populations. In particular, the NRC should consider the impact of the increase in radioactive material in the Savannah River system on those populations engaging in subsistence fishing along the Savannah River. Subsistence fishing is common on the Savannah River, particularly among minority and low-income populations, who rely on the Savannah River for food. These populations, already subject to high levels of radiocesium from their consumption of fish, will be particularly susceptible to increases in hazardous material, such as tritium, in the Savannah River from the addition of two new nuclear power generators. (V-ESP-SW-116-12)

Response: The NRC staff will specifically address the potential impacts of the proposed action on low-income and minority populations in Chapters 4 and 5 of the EIS. In order to assess these impacts, the EIS will first identify the existence and location of minority and low-income block groups within a 50-mile radius region of the plant and then an assessment will be made regarding whether or not the proposed action produces any disproportionately high and adverse impacts on human health or environmental effects on minority or low-income populations. The staff supplements its analysis with field inquiries to county planning departments, social service agencies and local residents, and attempts to identify any subsistence agriculture, fishing, and hunting practices taking place in the region.

D.1.13. Comments Concerning Human Health Issues

Comment: The Blue Ridge Environmental Defense League will soon issue a report on public health impacts in Burke County. What we are finding is that infant mortality before and after the Vogtle reactors 1 and 2 began operating in 1987 and 1989, compared with infant mortality after that period have increased by a large margin. Before the reactor started, Burke County was actually below the statewide rate. So Burke County has suffered more in infant mortality. Also, local cancer rates are higher for children, young adults and the elderly. Our report will be based on public health statistics. (V-ESP-SC-35-7)

Response: Regarding health effects to populations around nuclear power plants, NRC relies on the studies performed by the National Cancer Institute (NCI). NCI conducted a study in 1990, "Cancer in Populations Living Near Nuclear Facilities," to look at cancer mortality rates around 52 nuclear power plants, nine U.S. Department of Energy facilities, and one former commercial fuel reprocessing facility. The NCI study concluded from the evidence available that there is no suggestion that nuclear facilities may be linked causally with excess deaths from leukemia or from other cancers in populations living nearby. Additionally, the American Cancer Society has concluded that although reports about cancer case clusters in such communities have raised public concern, studies show that clusters do not occur more often near nuclear plants than they do by chance elsewhere in the population. The NRC staff remain current on issues related to radiological impacts on health and, in so doing, will likely review the mentioned Blue Ridge Environmental Defense League report on public health impacts in Burke County. The issue of radioactive effluents and their impacts on human health will be assessed in Chapter 5 of the EIS.

Comment: My second question is are there studies that compare the incidents of cancer here in Burke County and birth defects with a comparable county in another state where there isn't nuclear energy, and what are the results. I have no idea. There should be these kind of studies going on for your sake and for mine. (V-ESP-SC-24-3)

Comment: Nuclear reactors, even under normal operations, without an accident scenario, routinely emit radioactivity into the air and water including Strontium-90, Iodine-131 and Cesium-137. These have known predictable impacts on not only cancer but the immune system. We suspect that these radionuclides are contributing to large negative health consequences in Burke County. (V-ESP-SC-35-8)

Comment: [T]he NRC should consider the evidence of a higher than average instance of ovarian cancer in the Burke County area, and the impact that the addition of two new nuclear power plants will have on the health of a population that is already suffering from higher than-average rates of cancer. In addition to this, there are significant issues relating to provision and adequacy of health care for minority and low-income populations in the area, and those issues should be considered in conjunction with the threat of increased health risks associated with the addition of two new reactors. (V-ESP-SW-116-13)

Response: *Regarding health effects to populations around nuclear power plants, NRC relies on the studies performed by the National Cancer Institute (NCI). NCI conducted a study in 1990, "Cancer in Populations Living Near Nuclear Facilities," to look at cancer mortality rates around 52 nuclear power plants, nine U.S. Department of Energy facilities, and one former commercial fuel reprocessing facility. The NCI study concluded from the evidence available that there is no suggestion that nuclear facilities may be linked causally with excess deaths from leukemia or from other cancers in populations living nearby. Additionally, the American Cancer Society has concluded that although reports about cancer case clusters in such communities have raised public concern, studies show that clusters do not occur more often near nuclear plants than they do by chance elsewhere in the population. The issue of radioactive effluents and their impacts on human health will be assessed in Chapter 5 of the EIS.*

Comment: A 1982 Congressional report estimated that if a meltdown occurred at just one of Vogle's reactors it could cause 39,000 peak early injuries, 4000 peak cancer deaths, and 200 peak early fatalities with costs over \$60 billion; building more reactors will only worsen these terrible impacts and put more people's lives and health at risk.

Peak means highest calculated value from the study - it does not necessarily mean worst case. It is clear that nuclear generation facilities will without fail have accidental releases and handling loss of radioactive materials; why would we want to risk environmental degradation and possible human genetic mutation when there are more benign energy sources available? (V-ESP-SW-74-4)

Response: *The environmental impacts of postulated accidents will be assessed, and the results of this analysis will be presented in Chapter 5 of the EIS.*

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Comment: Please consider the terrorist implications - not only of an attack - but of a release into the environment that would directly affect the most vulnerable among us. The EPA standards that continue to use the 180-pound standard man as a guide disrespect those who are female, pregnant, infirm, of a young age, or elderly. (V-ESP-SW-112-5)

Response: *The environmental impacts of postulated accidents will be assessed, and the results of this analysis will be presented in Chapter 5 of the EIS. In addition, the staff will review information regarding physical security and will document in the Safety Evaluation Report its determination as to whether the site characteristics are such that adequate security plans and measures can be developed (see 10 CFR 100.21). However, the staff will not be evaluating a detailed security plan at this time. If Southern applies for a combined license, it would have to supply a series of plans for NRC staff review, in accordance with 10 CFR 50.34, including a safeguards contingency plan, a physical security plan, and a guard training and qualifications plan. 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). Because safeguards and security issues are outside the scope of the EIS, these aspects of the comment will not be assessed as part of the environmental review.*

Comment: I heard a lot of comments from them when they came up about how safe it was and it stopped me in my tracks because I know families who have suffered deaths, who have been workers in plants. (V-ESP-SC-28-2)

Comment: Radioactivity is not too bad, we've been living with radioactivity for years, it's a very important element, which is called potassium which is essential for life. If you have too little in your body, you're dead. If you have too much, you're dead. Potassium happens to be the very nature of radioactive element. (V-ESP-SC-51-1)

Comment: Nuclear power risks many human and animal lives, unnecessarily. (V-ESP-SW-83-5)

Comment: I have friends that worked at the old SRS plant even after it went out of production. A disproportional number of those people have developed serious health problems most of which include cancer. Even though the plant may bring jobs to the area people's health and safety is more important to their family and friends in the end. (V-ESP-SW-73-2)

Comment: As a student of nuclear issues (power and weapons) since the 1970s, I have become increasingly alarmed by the environmental and health risks associated with nuclear materials. (V-ESP-SW-102-2)

Response: *The NRC staff will assess effects on human health and biota related to radioactive effluent releases from the proposed nuclear plants. The results of these analyses will be presented in Chapter 5 of the EIS.*

Comment: As a downstream resident, I'm very concerned about tritium, a radioactive form of hydrogen that can impact our health, especially that of a developing fetus. Faced with saltwater intrusion of the Floridian Aquifer, both Beaufort and Jasper Counties in South Carolina and the Savannah area will become more dependent on the Savannah River for drinking water. Plant Vogtle already contributes to the tritium in the river and building more reactors will increase this. The NRC needs to study tritium in the river, future projections, especially given SRS's already large contribution to the tritium pollution, and to analyze this with droughts and future population growth in mind. (V-ESP-SC-07-9) (V-ESP-77-8)

Comment: The environmental report gives the tritium level based on the yearly average. We only ask that you evaluate the tritium level in an instantaneous historical average and not on a yearly average based on an environmental report. (V-ESP-SC-29-1)

Comment: Plant Vogtle already contributes tritium to the Savannah River. The current flow of the Savannah River dilutes the radioactive tritium added to the river by Plant Vogtle, the Barnwell nuclear waste dump, and the Savannah River Site (SRS) enough to meet the EPA's maximum contaminant level for tritium. Given the likelihood Atlanta will draw water from the Savannah in the future and the strong possibility of recurring draughts, a reduced river flow will surely increase the tritium level. Although currently, the EPA maximum contamination level for tritium is 20,000 pCi/L, in March of 2006 the California Office of Environmental Health Hazard Assessment (OEHHA) established a Public Health Goal (PHG) of 400 pCi/L for tritium in drinking water. This goal was set using the EPA document "Cancer Risk Coefficients for Environmental Exposure to Radionuclides: Federal Guidance Report 13". (3) The Beaufort Jasper Water and Sewer Authority reported the average level of tritium for 2005 was 547 pCi/L. (V-ESP-SW-75-2)

Comment: Additionally, please address the following items as NRC staff develops the draft EIS: ...multiple tritium sources. (V-ESP-SW-86-7)

Comment: In terms of water quality, tritium, a radioactive form of hydrogen that can negatively impact our health, especially that of a developing fetus, is of particular concern in the Savannah River basin....Plant Vogtle already contributes to the tritium in the river and building more reactors will increase these levels. Elevated levels of tritium have been found in the Savannah River and in groundwater in Burke County, GA. (V-ESP-SW-115-25)

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Comment: As a result of releases from Savannah River Site (SRS) and Vogtle, the lower Savannah River is already the most tritium-contaminated environment in the nation. NRC must examine to what extent the addition of two reactors will add to that contamination. In addition, saltwater intrusion of the River itself has been a major concern, which could be exacerbated by the expansion and must be further examined by NRC. (V-ESP-SW-116-3)

Comment: As a result of releases from Savannah River Site (SRS) and Vogtle, the lower Savannah River is already the most tritium-contaminated environment in the nation. (V-ESP-SW-116-7)

Response: *The NRC staff will assess effects on human health and biota related to radioactive effluent releases from the proposed nuclear plants. The results of these analyses will be presented in Chapter 5 of the EIS. In addition, NRC staff will consider other past, present, and reasonably foreseeable future actions in the vicinity of the Vogtle ESP site, which likely will include radiological releases from the Savannah River Site as well as tritium in the Savannah River and groundwater. The results of the analysis of cumulative impacts will be presented in Chapter 7 of the EIS.*

D.1.14. Comments Concerning the Uranium Fuel Cycle and Waste Management Issues

Comment: We urge the NRC in this ESP application process to consider all of the radioactive waste, fuel and the processing that is in this whole area, it all needs to be taken into consideration. My position is that no radiation is really safe and we need to protect not only the citizens and the unborn children of Burke County and this area, but really all of Georgia. (V-ESP-SC-25-2)

Response: *The NRC staff will assess effects on human health and biota related to the uranium fuel cycle as well as radioactive effluent releases from the proposed nuclear plants. The results of these analyses will be presented in Chapter 6 of the EIS. In addition, NRC staff will consider other past, present, and reasonably foreseeable future actions in the vicinity of the Vogtle ESP site, which likely will include radiological releases from the Savannah River Site. The results of the analysis of cumulative impacts will be presented in Chapter 7 of the EIS.*

Comment: Nuclear is being praised as an environmentally safe form of energy, and it is simply not true. Nothing that produces deadly levels of radioactive waste for the next 250,000 years, waste that must be carefully monitored, delicately transported and buried away from all forms of life, just can't be designated as safe. Heaven forbid, a single accident, and over that amount of time, there's a good chance that accidents possibly could happen. (V-ESP-SC-31-2)

Response: The NRC staff will assess the environmental impacts of the uranium fuel cycle, including the impacts of fuel manufacturing, transportation, and the onsite storage and eventual disposal of spent fuel. Results of this analysis will be presented in Chapter 6 of the EIS. The environmental impacts of postulated accidents will be assessed, and the results of this analysis will be presented in Chapter 5 of the EIS.

Comment: I really appreciate people talking about the CO₂ from the fuel cycle because over time we will get to the point where it will take more energy to actually burn the fossil fuels used to process uranium to make power than to process the uranium. In other words, over time, nuclear power is a black hole. (V-ESP-SC-36-12)

Response: The NRC staff will assess the environmental impacts of the uranium fuel cycle, including the impacts of fuel manufacturing, transportation, and the onsite storage and eventual disposal of spent fuel. Results of this analysis will be presented in Chapter 6 of the EIS. The comment on the viability of nuclear power provides general information not related to environmental impacts related to the Vogtle ESP, and will not be assessed further.

Comment: The United States is the only country that doesn't reprocess the nuclear waste. It's insanity to go and put it into Yucca Mountain. It has uranium, it has plutonium, a mixture they call MOX, stick it back in the reactor. The other byproducts you can use for other things. If there's cobalt-60 in that, you can use it, and it's going to really reduce the amount of nuclear waste that has to be buried somewhere. (V-ESP-SC-51-2)

Response: Parts of this comment provide general information not related to environmental impacts related to the Vogtle ESP, and will not be assessed further. The NRC staff will assess the environmental impacts of the uranium fuel cycle, including the impacts of fuel manufacturing, transportation, and the onsite storage and eventual disposal of spent fuel. Results of this analysis will be presented in Chapter 6 of the EIS.

Comment: A third problem which local officials do not want to acknowledge is what to do with the dangerous waste generated by nuclear facilities. Those advocating for nuclear power generation should be willing to keep the resulting waste where it is generated. Why should this waste be shipped elsewhere to become another state's problem? Why should we expose citizens to this dangerous material on poorly maintained railroads or congested highways? Why would we give terrorists the opportunity to turn either stored or transported waste into a weapon directed against us? (V-ESP-SW-76-4)

Response: The NRC staff will assess the environmental impacts of the uranium fuel cycle, including the impacts of fuel manufacturing, transportation, and the onsite storage and eventual disposal of spent fuel. Results of this analysis will be presented in Chapter 6 of the EIS. In addition, the staff will review information regarding physical security and will document in the

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1 *Safety Evaluation Report its determination as to whether the site characteristics are such that*
2 *adequate security plans and measures can be developed (see 10 CFR 100.21). However, the*
3 *staff will not be evaluating a detailed security plan at this time. If Southern applies for a*
4 *combined license, it would have to supply a series of plans for NRC staff review, in accordance*
5 *with 10 CFR 50.34, including a safeguards contingency plan, a physical security plan, and a*
6 *guard training and qualifications plan. Additional information about the NRC staff's actions*
7 *regarding physical security since September 11, 2001, can be found on the NRC's public*
8 *website (www.nrc.gov). Because safeguards and security issues are outside the scope of the*
9 *EIS, these aspects of the comment will not be assessed as part of the environmental review.*

10
11 **Comment:** [T]he EIS must consider thoroughly the disposal of the waste and the related
12 environmental impact. Is this waste going to be disposed of in Georgia? Is it going to be
13 dumped on our neighbors? (V-ESP-SC-21-8)

14
15 **Comment:** Public health and environmental impacts, including impacts from mining and
16 enrichment of uranium, storage and disposal of highly radioactive nuclear waste [need to be
17 looked at]. (V-ESP-SC-22-6)

18
19 **Comment:** One problem is the problem of waste. The nuclear industry has really not figured
20 out how to deal with their waste...and there's the problems with Yucca Mountain, there's the
21 problems of transporting waste to whatever storage dump they could eventually figure out, if
22 they can. But I do think that until the nuclear industry can really figure out this waste problem,
23 it's unwise to create more waste and more reactors are going to create more waste.
24 (V-ESP-SC-25-3)

25
26 **Comment:** I just wanted to address the stewardship, since it was brought up. Nuclear power --
27 there's no place to put waste that lasts tens of thousands of years and all containment
28 strategies fall apart over time...A lot of that waste is sitting in cooling pools around the country
29 because nobody wants it permanently stored in their state. (V-ESP-SC-26-1)

30
31 **Comment:** Nuclear plants themselves are not emitters of carbon dioxide, but the nuclear fuel
32 cycle is -- a fact that is rarely mentioned by the nuclear industry or by the press. Now the key
33 word, folks, here is cycle, because it's not just the power plant generating, it is the mining of
34 uranium, its enrichment, disposal of waste as well as decommissioning the plant when its
35 service is over. (V-ESP-SC-27-4)

36
37 **Comment:** And I would like to add that if you are a nuclear advocate, then you must also be
38 willing to accept the responsibility of dealing with the waste. It is not something that you have a
39 right to ship off to another state. (V-ESP-SC-27-6)

1 **Comment:** One of the things that I wanted to comment on is that I don't think nuclear waste is
2 either safe nor environmentally friendly. (V-ESP-SC-28-1)

3
4 **Comment:** So we really need to think about safety and nuclear waste needs to be dealt with.
5 (V-ESP-SC-28-4)

6
7 **Comment:** [L]et's not add to the nuclear waste burden. We have to consider, we have over
8 400 tons of nuclear waste at Plant Vogtle now. It's not going anywhere. Thirty tons of high-
9 level nuclear waste per year per reactor and it's not going anywhere. Low-level waste, you've
10 got one dump across the river, it's closing in 2008. What are we going to do with the low-level
11 waste? (V-ESP-SC-30-4)

12
13 **Comment:** My first concern is with the nuclear waste. The rods used to produce the energy
14 are highly radioactive and know to cause a myriad of negative health problems. It will be
15 thousands of years before the rods can no longer be considered a threat to the public health.
16 During that time, nuclear facilities are left with scarce options to store or dispose of these rods.
17 (V-ESP-SW-54-3)

18
19 **Comment:** What in the world are we going to do with all of our waste? Bury it, so it just may
20 leak into our natural environment, causing a whole chain effect of problems: no more natural
21 food, no more farms, no more breathing the air, which would be full of pollutants and chemicals,
22 having to stay inside when it rains because the rain is so toxic that it would take your skin right
23 off, future children born mutated/deformed/messed up.. you get the picture. (V-ESP-SW-79-2)

24
25 **Comment:** Nuclear power creates waste that is deadly and cannot be safely stored.
26 (V-ESP-SW-83-4)

27
28 **Comment:** Additionally, please address the following items as NRC staff develops the draft
29 EIS: nuclear waste!? Horrible. (V-ESP-SW-85-5)

30
31 **Comment:** Additionally, please address the following items as NRC staff develops the draft
32 EIS: ...building up atomic material and disposal. (V-ESP-SW-90-7)

33
34 **Comment:** I am a resident of Atlanta and am concerned about the disposal of the nuclear
35 waste. (V-ESP-SW-92-2)

36
37 **Comment:** Additionally, please address the following items as NRC staff develops the draft
38 EIS: ...there is NO storage space for nuclear waste. (V-ESP-SW-94-6)

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1 **Comment:** Nuclear waste disposal is currently a huge problem and since it is radioactive for
2 thousands of years we are making choices here for many generations to follow. I don't see "the
3 government" wisely addressing what to do with the current waste and certainly don't want to
4 increase the amount! (V-ESP-SW-96-4)

5
6 **Comment:** More generally, nuclear power simply has too many dangerous and unresolved
7 issues surrounding it to warrant resurrecting it: the waste disposal problem has never been
8 resolved. (V-ESP-SW-100-4)

9
10 **Comment:** I am sceptical about the local impact on...handling of waste. (V-ESP-SW-106-4)

11
12 **Comment:** [T]he high-level radioactive waste that is virtually impossible to dispose of.
13 (V-ESP-SW-109-4)

14
15 **Comment:** Fifty years after the nuclear power industry began, there is still no viable way to
16 dispose of nuclear waste, and the non-viable methods that have been seriously proposed
17 endanger us all -- even transporting this waste is dangerous. (V-ESP-SW-111-4)

18
19 **Comment:** Even without a major meltdown or accident, the routine production of nuclear
20 energy poisons the environment, particularly in the mining of uranium. (V-ESP-SW-111-5)

21
22 **Comment:** The supply of raw materials for nuclear fuels is limited, even if we sacrifice the
23 natural areas where they are found, making them a poor replacement for fossil fuels; production
24 of nuclear fuels from nuclear wastes requires transporting them through populated areas,
25 making a radioactive accident more likely. (V-ESP-SW-111-7)

26
27 **Comment:** [P]roper consideration should be given to risks surrounding the entire nuclear fuel
28 cycle. Storage, transportation, and reprocessing of spent fuel introduces additional risks to
29 human health and the environment that approach those of reactor accidents. We think that
30 permanent disposal of spent nuclear fuel must be solved and implemented in a totally effective,
31 scientifically-sound, and safe manner before any new programs to increase nuclear power
32 generating capacity are undertaken in the United States. The hope has been that the Yucca
33 Mountain site in Nevada will provide permanent geological storage for spent nuclear fuel
34 (protective for tens of thousands of years). However, we understand that there are significant
35 scientific problems associated with the Yucca Mountain site and that no license application has
36 actually been filed. This is in spite of 20 years of study and expenditure of taxpayer money to
37 the tune of \$9 billion. If the problems with Yucca Mountain were magically solved, spent
38 nuclear fuel already temporarily stored on site at nuclear plants around the country would
39 almost equal the regulatory limit of the Yucca Mountain repository (70,000 metric tons). As far
40 as we know, there are no operating permanent geologic repositories for spent nuclear waste
41 anywhere in the world. This is in spite of the fact that the first commercial reactor was brought

1 online (and started generating spent fuel) 50 years ago. Considering the lack of progress in
2 providing a safe geological repository for spent nuclear fuel in the United States, it is
3 reasonable to assume that spent fuel generated by Vogtle will continue to be stored onsite for
4 generations. Spent fuel from the proposed additional reactors will magnify the scope of this
5 problem. This "temporary storage" will continue to threaten the health of people in the nearby
6 communities and the environment. If a safe permanent repository is eventually provided, safety
7 problems will then arise relative to the transportation of the spent nuclear material from all over
8 the country to the repository site. This, in turn, will place people in the general vicinity of the
9 selected transportation routes at considerable risk. (V-ESP-SW-113-7)

10
11 **Comment:** Nuclear...poses virtually permanent threats to public health and safety - due to
12 handling and storage of radioactive materials. (V-ESP-SW-114-5)

13
14 **Comment:** Additionally, nuclear power plants ultimately require large land areas for both
15 high-level and low-level radioactive waste storage. (V-ESP-SW-115-34)

16
17 **Comment:** The NRC should evaluate what effects long term, onsite storage of used spent fuel
18 will have on the Plant Vogtle site and surrounding environment, especially in terms of an
19 expanded facility. (V-ESP-SW-115-35)

20
21 **Comment:** the NRC should take into consideration the serious problems posed by disposal of
22 nuclear waste, as well as the specific problem posed by disposal of the additional nuclear waste
23 generated by two more reactors at the Plant Vogtle site. Currently, the Plant Vogtle site has no
24 place to send their generated nuclear waste, instead storing their spent fuel rods in
25 underground cooling chambers. The spent fuel rods, which are highly radioactive, will therefore
26 likely remain on site in these cooling chambers for significantly long periods of time, posing
27 even greater risks to the Savannah River. In fact, the natural decrease in these radioactive
28 materials can take up to thousands of years. The threats posed to the surrounding areas in
29 Burke County, as well as to the Savannah River, in relation to the onsite storage of this nuclear
30 waste, including threats posed in the event of a leak, must be taken into consideration in
31 evaluating the Plant Vogtle ESP application. (V-ESP-SW-116-17)

32
33 **Comment:** The existing storage of radioactive waste at SRS and Vogtle already creates a
34 tremendous risk to the river. With no place to send the waste, Plant Vogtle currently stores
35 spent fuel rods on site, in subterranean cooling chambers where they are likely to stay for the
36 foreseeable future. As long as these spent rods are stored on site, this highly radioactive waste
37 will threaten the Savannah River for hundreds or even thousands of years to come.
38 (V-ESP-SW-116-8)

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Response: *The NRC staff will assess the environmental impacts of the uranium fuel cycle, including the impacts of fuel manufacturing, transportation, and the onsite storage and eventual disposal of spent fuel. Results of this analysis will be presented in Chapter 6 of the EIS.*

Comment: When you license a new reactor, you are licensing a nuclear waste factory. We heard it from many people tonight, waste is the issue. Why? Because the electricity is used by this generation, and the waste is forever more. Your true impact of having Vogtle here in this community is not this electric power, it is the waste...By 2011, there will be 1080 metric tons of high level waste and by 2046 when it winds down, there's 2450 metric tons. Now maybe some of it is going to get moved to Yucca Mountain if it ever opens, but you've still got 980 metric tons of high level nuclear waste left over...what about low level waste? Barnwell. No, Barnwell is closing in 2008 to Georgia, you've got nowhere for that waste to go. (V-ESP-SC-36-3)

Comment: The waste has been talked about over and over again tonight. There's no solution in sight. More reactors means more waste. And one question that resonates with me is, you know, if you are building a house, you or I, would you be able to get a building permit if you had no plan for your sewage or wastewater? No way, not a chance. Why should we even consider or allow that Vogtle 3 and 4 will be able to be built without that taken into consideration. I think that should be addressed. (V-ESP-SC-37-6)

Comment: [H]igh level radioactive waste created, or spent fuel, has no place to be stored or disposed of. It is not likely that we will have a solution in our lifetime. Building more nuclear reactors will only make the situation worse. (V-ESP-SC-38-4)

Comment: High-level radioactive waste (used nuclear fuel) has no place to store or dispose of, nor is it likely a "solution" will be found in our lifetime; building more nuclear reactors makes this situation worse. Existing and future waste will remain onsite at Plant Vogtle for generations and generations, threatening indefinitely the health of nearby communities and the environment. Yet the NRC in previous cases has refused to even address or consider this important issue! (V-ESP-SW-55-6) (V-ESP-SW-74-2) (V-ESP-SW-103-6) (V-ESP-SW-104-2) (V-ESP-SW-110-5)

Comment: Nuclear "power" has lasting consequences for surrounding communities. High-level radioactive waste has no place to be stored or disposed, nor is it likely that a "solution" will be found in our lifetimes. Existing and future projected waste will remain onsite at Plant Vogtle for generations, threatening indefinitely the health of nearby communities and the environment. (V-ESP-SW-91-5)

Comment: This, along with other potential problems such as...inadequate monitoring of the facilities and the big problem of high-level radioactive waste with no place to be stored or disposed, make the granting of an early site permit wrong. (V-ESP-SW-98-5)

1 **Comment:** However safe the reactors themselves may be--highly questionable--there is still
2 absolutely no good way to store high-level or low-level radioactive waste. Some of this waste
3 has a lethal half life of thousands of years--far longer than all known civilizations. The history of
4 waste storage so far (only about 50 years) is a tale of failure and contamination and death. To
5 suppose we can store it safely for hundreds and hundreds of times this long is foolhardy, and
6 inflicts unconscionable danger on posterity. (V-ESP-SW-99-2)
7

8 **Comment:** Furthermore, there still is no plan for storing or disposing of the additional
9 radioactive nuclear waste, which would threaten the health of Georgians for generations to
10 come. (V-ESP-SW-108-4)
11

12 **Response:** *The safety and environmental effects of long-term storage of spent fuel onsite*
13 *have been assessed by the NRC, and, as set forth in the Waste Confidence Rule (10 CFR*
14 *51.23), the Commission generically determined that such storage could be accomplished*
15 *without significant environmental impact. In the Waste Confidence Rule, the Commission*
16 *determined that spent fuel can be stored onsite for at least 30 years beyond the license*
17 *operating life, which may include the term of a renewed license. At or before the end of that*
18 *period, the fuel would be removed to a permanent repository. In its Statement of Consideration*
19 *for the 1990 update of the Waste Confidence Rule (55 FR 38472), the Commission addressed*
20 *the impacts of both license renewal and potential new reactors. Therefore, the current rule can*
21 *be used in the staff's review of an early site permit application. In its most recent review of the*
22 *Waste Confidence Rule on December 6, 1999 (64 FR 68005), the Commission reaffirmed the*
23 *findings in the rule. In addition to the conclusion regarding safe onsite storage of spent fuel, the*
24 *Commission states in the rule that there is reasonable assurance that at least one geologic*
25 *repository will be available within the first quarter of the 21st century, and sufficient repository*
26 *capacity for the spent fuel will be available within 30 years beyond the licensed life for operation*
27 *of any reactor. The NRC staff will assess the environmental impacts of the uranium fuel cycle,*
28 *including the impacts of fuel manufacturing, transportation, and the onsite storage and eventual*
29 *disposal of spent fuel. Results of this analysis will be presented in Chapter 6 of the EIS.*
30

31 **D.1.15. Comments Concerning Postulated Accidents** 32

33 **Comment:** My highest concern is simply that of human health. A 1982 Congressional report
34 estimated that if a meltdown occurred at just one of Vogtle's reactors, it could cause 39,000
35 early injuries, 4000 cancer deaths, and 200 early fatalities costing over \$60 billion. This report
36 is over 20 years old, which would historically make the estimated rates for today much higher. I
37 realize that the technology exists to prevent such an atrocity, but my findings confirm that most
38 nuclear reactors do not always receive the proper inspections for preventing a meltdown.
39 (V-ESP-SW-54-6)
40

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Comment: A 1982 Congressional report estimated that if a meltdown occurred at just one of Vogtle's reactors it could cause 39,000 peak early injuries, 4000 peak cancer deaths, and 200 peak early fatalities with costs over \$60 billion; building more reactors will worsen these stats and put more people's lives and health at risk. (Peak means highest calculated value from the study - it does not necessarily mean worst case.) (V-ESP-SW-55-8) (V-ESP-SW-103-8) (V-ESP-SW-91-7) (V-ESP-SW-110-7)

Comment: Additionally, please address the following items as NRC staff develops the draft EIS: a meltdown could cause 9,000 injuries and 4,000 deaths. (V-ESP-SW-94-5)

Comment: More significantly, the 1981 government report "Calculation of Reactor Accident Consequences for U.S. Nuclear Power Plants (CRAC-2)" indicates that a worst case accident at any U.S. nuclear plant could result in tens of thousands of deaths from near-term radiation effects and long-term fatal cancers, and cause hundreds of billions of dollars in damage. Specifically, a 1982 Congressional report estimated that a meltdown at just one of Vogtle's reactors could cause 39,000 peak early injuries, 4,000 peak cancer deaths, and 200 peak early fatalities with costs over \$60 billion. Of course, the human population in the vulnerable area around Plant Vogtle has grown in the 24 years since the report was compiled, thereby increasing human exposure proportionately. (V-ESP-SW-113-3)

Comment: Nuclear power is viewed to have the greatest adverse impact on land compared to all other energy generation technologies....The NRC should evaluate the potential land impacts from an accident at an expanded Plant Vogtle. (V-ESP-SW-115-33)

Response: *The environmental (health) impacts of a full range of potential accidents will be addressed in Chapter 5 of the EIS.*

D.1.16. Comments Concerning Alternatives and Alternative Sites

Comment: The NRC needs to fully research other energy choices, including energy efficiency and conservation. Renewable energy supplies are available here in Georgia, such as biopower, solar, and wind. These energy supplies should be supported due in part because they do keep dollars here at home. The NRC should be aware that new, certified wind maps of Georgia will be released by the National Renewable Energy Laboratory later this month. Additionally, the potential to use Georgia's plentiful agriculture and forestry resources must be evaluated. A conservative estimate from a University of Georgia study showed that as much as 12 percent of Georgia's total electricity demand could be generated from biomass. The benefits to Georgia include increased self-sufficiency, improved water resource quality and long-term environmental and rural development benefits. Energy efficiency and conservation represent the quickest, safest, cheapest way to provide more power and to best protect our air and water resources... (V-ESP-SC-07-2)

1 **Comment:** The NRC needs to evaluate both Georgia's actual need for power and how
2 conservation and efficiency could reduce this supposed need. (V-ESP-SC-07-3)
3

4 **Comment:** There are alternatives, there are plenty of alternatives that haven't been explored in
5 this state or in the country that can be explored. For example, Georgia is near the bottom in
6 spending on energy efficiency. (V-ESP-SC-16-4)
7

8 **Comment:** But if we let the market do its thing, solar and thermal actually is comparable to
9 nuclear power right now. And wind is one-third to one-half less -- right now. In ten years,
10 photovoltaics will be competitive with nuclear power and the good thing about photovoltaics is
11 you build them modularly when you need them and they go on line immediately, you don't have
12 to wait years for them to produce electricity. (V-ESP-SC-16-7)
13

14 **Comment:** [T]he EIS must contain a full alternatives analysis, including sources of renewable
15 energy resources and energy efficiency, especially conservation. (V-ESP-SC-21-7)
16

17 **Comment:** Full consideration of alternatives, including clean energy alternatives such as
18 bioenergy, solar, wind, clean coal and others. Diversity of energy mix must include these
19 things, not just nuclear, coal and the standard ones. (V-ESP-SC-22-5)
20

21 **Comment:** Wind and the hydro, I don't think suit this part of the country that well, and the coal
22 and natural gas, the price uncertainties just are not there (V-ESP-SC-23-2)
23

24 **Comment:** Let's take those same good minds and put them to work to discover how to best
25 use the clean alternative technologies. We can solve our energy problems while being good
26 stewards of the environment. (V-ESP-SC-26-2)
27

28 **Comment:** We can't compare nuclear to coal, that is over, just a waste of energy. What we
29 want to do is think outside the box. Southern Company is determined to make a profit and
30 here's one suggestion. They are buying and leasing equipment to us, house-by-house,
31 business-by-business, then I suggest that we start in Burke County as a pilot project. But how
32 many houses would it take -- let's compare that, look at the cost of that. Let's give them a profit
33 but let's not add to the global warming (V-ESP-SC-30-3)
34

35 **Comment:** Wouldn't it be more sane to devote our time, money, energy, jobs and everything
36 to safe, clean, renewable forms of energy? (V-ESP-SC-31-4)
37
38

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1 **Comment:** The consortium that proposes this new plant is doing virtually nothing in the field of
2 energy conservation. I suggest that if the money they propose to spend on these plants were
3 spent to encourage energy conservation, the ratepayers of the state of Georgia would be better
4 off. There are megawatts of megawatts available in conservation that would not add to the
5 nuclear waste burden, the mercury burden or the CO2 burden of our current short-sighted
6 electrical generation system. (V-ESP-SC-32-1)
7

8 **Comment:** Others before me have pointed out that the alternatives, including wind and energy
9 efficiency, are cheaper. A Massachusetts Institute of Technology study a few years ago,
10 among others, showed that the alternatives are cheaper than new nuclear power.
11 (V-ESP-SC-35-4)
12

13 **Comment:** [I would also like to see the demonstration of] why nuclear is something that would
14 be much more advisable than these renewable, sustainable efficiency or conservation options.
15 (V-ESP-SC-37-10)
16

17 **Comment:** Based on our experiences from Three Mile Island, I would hope that we could look
18 into sustainable options, clean and safe energy options, not nuclear power. (V-ESP-SC-38-2)
19

20 **Comment:** [A] 1982 Congressional report estimated that if a meltdown occurred at just one of
21 Vogtle's reactors, it could cause at least 39,000 early injuries, 4000 cancer deaths and 200
22 early fatalities with costs of over \$60 billion. Considering this information, we must produce
23 electricity that we need through less dangerous energy supplies such as energy efficiency,
24 solar, wind and fire power. (V-ESP-SC-38-6)
25

26 **Comment:** Conservation and greater efficiencies in the production of natural gas, oil, coal and
27 hydro power will help, and a deeper commitment to renewable resources such as wind and
28 geothermal will be needed. But they won't be enough. (V-ESP-SC-43-2)
29

30 **Comment:** [A] baseload unit like we're talking about, you know, you need a baseload unit like
31 when these industries start up in the morning, you know, there's a load that's put on the system
32 right then and how are you going to sustain and carry that load when all these 2, 3, 4000
33 horsepower motors kick in, you know, with a windmill. I just don't know if that's possible.
34 (V-ESP-SC-48-2)
35

36 **Comment:** The Idaho Power Company has a technology that is now licensed to the Germans
37 and this technology is a hydrogen technology and a generator about the size of this room will
38 generate enough electricity for a town of 10,000 people...So I would say that the future
39 technology is going to be in hydrogen power and the SRS will be a major player in hydrogen
40 power. (V-ESP-SC-49-1)
41

1 **Comment:** But if the SRS does build a hydrogen generator at that plant across the river, we
2 are going to see a power that produces water when it's through. It's not going to be a
3 technology that's going to pollute the atmosphere or anything like that. (V-ESP-SC-49-3)
4

5 **Comment:** [T]here have been peak times that we have even been asked to conserve and
6 America basically is not a country that's going to conserve, you know, it's just not our nature.
7 (V-ESP-SC-52-2)
8

9 **Comment:** I realize that at this point, nuclear appears to be a better alternative to coal, but I
10 would much rather see a cleaner, safer energy available for Georgia's residents. Wind, solar,
11 and hydro power are just a few options. Each of these options show incredible potential to
12 provide for the energy needs and are becoming much more economic and available.
13 (V-ESP-SW-54-7)
14

15 **Comment:** We need and want clean, safe energy choices such as energy efficiency, wind,
16 solar, and biopower and do not need any more dangerous nuclear reactors forced on us.
17 (V-ESP-SW-55-2)
18

19 **Comment:** We must produce electricity through less dangerous sources; energy efficiency,
20 solar, wind, and biopower! (V-ESP-SW-55-9)
21

22 **Comment:** many energy utilities and public agencies have made strong and sustained efforts
23 to promote energy efficiency through programs and standards. These efforts have brought
24 significant economic benefits to energy customers and have contributed to ongoing initiatives to
25 enhance the environment and improve public health nationwide....For this reason, there is now
26 great opportunity to seize energy efficiency as a large untapped source of economic and
27 environmental benefits for the state of Georgia. Building upon the successes and failures of a
28 wide range of other energy efficiency efforts, Georgia is in an excellent position to stimulate
29 greater investment in energy efficiency. (V-ESP-SW-66-1)
30

31 **Comment:** I would prefer for any available government and private funds to be used to
32 increase our use of solar, wind and tidal sources of energy. (V-ESP-SW-72-2)
33

34 **Comment:** Maybe we could shift the focus to conservation. (V-ESP-SW-73-4)
35

36 **Comment:** [W]e must produce electricity needed through less dangerous energy supplies
37 such as energy efficiency, solar, wind, and biopower. (V-ESP-SW-74-7)
38

39 **Comment:** The NRC needs to fully research other energy choices, including energy efficiency
40 and conservation. Renewable energy supplies are available here in Georgia, such as
41 biopower, solar, and wind. These energy supplies should be supported due in part, because

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1 they keep dollars here at home. The NRC should be aware that new, certified wind maps of
2 Georgia will be released by the National Renewable Energy Laboratory later this month.
3 Additionally, the potential to use Georgia's plentiful agriculture and forestry resources must be
4 evaluated. A conservative estimate from a University of Georgia study showed that as much as
5 12% of Georgia's total electricity demand could be generated from biomass. The benefits to
6 Georgia include increased self-sufficiency, improved water resource quality, and long-term
7 environmental and rural development benefits. Energy efficiency and conservation represent
8 the quickest, safest, cheapest way to provide more power and to best protect our air and water
9 resources....The NRC needs to evaluate both Georgia's actual need for power and how
10 conservation and efficiency could reduce this supposed need. (V-ESP-SW-77-2)

11
12 **Comment:** We must produce electricity through less dangerous energy supplies such as
13 energy efficiency & conservation, solar, wind, and biopower. (V-ESP-SW-83-6)

14
15 **Comment:** Additionally, please address the following items as NRC staff develops the draft
16 EIS: Georgia lags the country in conservation efforts, yet this is the quickest and cheapest way
17 to "add" one or two more power plants. Please consider. (V-ESP-SW-78-5)

18
19 **Comment:** I honestly would love to see the people in charge just sit back and really think:
20 consider the damage that will be created, and how they could come up with much more
21 efficient/better solutions, like giant wind turbines or solar energy plants. (V-ESP-SW-79-4)

22
23 **Comment:** In recent decades, many energy utilities and public agencies have made strong
24 and sustained efforts to promote energy efficiency through programs and standards. These
25 efforts have brought significant economic benefits to energy customers and have contributed to
26 ongoing initiatives to enhance the environment and improve public health nationwide....For this
27 reason, there is now great opportunity to seize energy efficiency as a large untapped source of
28 economic and environmental benefits for the state of Georgia. Building upon the successes
29 and failures of a wide range of other energy efficiency efforts, Georgia is in an excellent position
30 to stimulate greater investment in energy efficiency. (V-ESP-SW-81-9)

31
32 **Comment:** In addition to energy efficiency measures, GA utilities should be transitioning to
33 safe, clean, and affordable renewable energy sources such as wind power, solar power, and
34 hydrogen fuel cells. (V-ESP-SW-81-11)

35
36 **Comment:** A thorough alternatives assessment would show without a doubt that there are
37 safer, cleaner, and cheaper alternatives to building a new nuclear plant at Vogtle. We ask the
38 NRC to take seriously the precautionary principle, undertake a thorough alternatives
39 assessment, and reject Southern Nuclear's application. (V-ESP-SW-81-14)

1 **Comment:** We are requesting that the NRC broaden the scope of its Environmental Review
2 Process and explore a wide range of alternatives to the proposed nuclear power plants,
3 including energy efficiency measures, wind technology, solar power technology, biomass, and
4 hydrogen fuel cells. In particular, we are requesting that the NRC consider what Southern
5 Nuclear and its parent company and associated companies should and could be doing to
6 promote energy efficiency and the use of clean, safe, and economical renewable energy
7 sources. (V-ESP-SW-81-5)
8

9 **Comment:** there is no debate that energy efficiency measures are the cheapest, quickest, and
10 safest way to meet electricity demand. (V-ESP-SW-81-8)
11

12 **Comment:** With all the scientific knowledge in existence today, why is there not more
13 development and use of SOLAR POWER. (V-ESP-SW-82-1)
14

15 **Comment:** Wind, sun, coal, oil, natural gas, water. These resources for energy are of
16 nature--let's try to stay away from nuclear energy! (V-ESP-SW-82-3)
17

18 **Comment:** Energy efficiency and renewable energy supplies must also be reviewed as
19 possible alternatives. (V-ESP-SW-78-4) (V-ESP-SW-84-4) (V-ESP-SW-85-4) (V-
20 ESP-SW-86-4) (V-ESP-SW-87-4) (V-ESP-SW-88-4) (V-ESP-SW-89-4) (V-ESP-SW-90-4)
21 (V-ESP-SW-94-4) (V-ESP-SW-95-4) (V-ESP-SW-117-4) (V-ESP-SW-119-4)
22 (V-ESP-SW-120-4)
23

24 **Comment:** Additionally, please address the following items as NRC staff develops the draft
25 EIS: offshore wind turbines, community solar, energy conservation at state, county, and city
26 level by example. (V-ESP-SW-84-5)
27

28 **Comment:** Additionally, please address the following items as NRC staff develops the draft
29 EIS: ...energy conservation. (V-ESP-SW-87-6)
30

31 **Comment:** Additionally, please address the following items as NRC staff develops the draft
32 EIS: investing in renewable, sustainable energy sources (sun, wind), incentives to build energy
33 efficient buildings, incentives to use alternative auto-fuels. (V-ESP-SW-88-5)
34

35 **Comment:** Additionally, please address the following items as NRC staff develops the draft
36 EIS: ...energy conservation and conservation of natural resources. (V-ESP-SW-89-6)
37

38 **Comment:** Energy, efficiency and renewable energy supplies must also be reviewed as
39 possible alternatives. Additionally, please address the following items as NRC staff develops
40 the draft EIS: Why not conservation? Georgia's energy use is 25% above national average.
41 (V-ESP-SW-93-4)

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Comment: Alternative energy sources can and must be found: solar, wind, synthetic fuels, natural gas, biomass. (V-ESP-SW-99-3)

Comment: Only the most die-hard ostriches haven't figured out that our future lies in producing electricity through less dangerous energy supplies such as energy efficiency & conservation, solar, wind, and biopower. (V-ESP-SW-101-2)

Comment: I support other, alternative energy forms that do not produce so much dangerous waste, increase the chances of a major accident, and provide terrorists with opportunities of sabotage. (V-ESP-SW-102-3)

Comment: I support addressing our future energy needs through less dangerous and centralized means such as energy efficiency & conservation, solar, wind, and biopower. (V-ESP-SW-103-9)

Comment: We must produce electricity through less dangerous energy supplies such as energy efficiency & conservation, solar, wind, and biopower. Public safety must take precedence over the desires of public utility companies. (V-ESP-SW-104-4)

Comment: We need as a nation to find energy sources that are manageable in terms of the environment - human and natural. (V-ESP-SW-106-2)

Comment: The development of multiple energy sources is the prudent solution to the current environmental and political challenges of our current energy dependence of oil and coal. (V-ESP-SW-107-4)

Comment: We need clean, safe energy sources -- wind, solar, biopower, and greater energy efficiency -- NOT more nuclear reactors. (V-ESP-SW-108-5)

Comment: that it is essential we give greater attention to wind, solar and water power, all of which are presently used with great success in other areas. (V-ESP-SW-109-5)

Comment: Conservation has created more energy than nuclear and has the potential to create much more, as other nations have already proven. (V-ESP-SW-111-9)

Comment: Greater energy efficiency and conservation will reduce the demand for power generation and lessen the need for additional power plants. There is considerable potential for these beneficial measures in the United States because our per capita consumption of energy is about twice that of other industrial nations having comparable qualities of life. (V-ESP-SW-113-12)

Comment: We are especially troubled by the inevitably adverse effects that any expansion of conventional types of power-generating capacity will have on renewable, safe energy technologies that capture the enormous potential of wind, solar, and tide power sources. Wind technology with generating capacity comparable to the proposed reactors, for example, could be implemented well within the period required to permit and construct the new facilities at Plant Vogtle. Wind mapping off of Georgia's coast clearly indicates that harvesting wind energy would be practical, and the proven experience in other nations strongly suggests that this could be accomplished within a 5-year period. (V-ESP-SW-114-11)

Comment: Chapter 9 of the SNC ESP application did a remarkable job of outlining all the supposed negatives associated with wind energy while overlooking nearly all the benefits. For instance, it mentions how many acres are needed for wind development and came to the conclusion that "the wind alternative would require a large green field site, which would result in a LARGE environmental impact."...farmers can both lease out land for wind production and work their crops....Off shore wind farms have shown to be beneficial to local fish populations due to the forming of artificial reefs - providing a special benefit to sports fishing. There is substantial wind potential off Georgia's coast that if developed could meet new power demands. The technology of off shore wind has been successfully deployed in Europe and could provide a great opportunity for Georgia. (V-ESP-SW-115-10)

Comment: The NRC should be aware that the National Renewable Energy Laboratory recently released new wind maps of Georgia. Much of SNC's very brief review of wind energy is out of date and would now be considered inaccurate. (V-ESP-SW-115-11)

Comment: Class 3 and above wind speeds in Georgia could provide up to 4700 MW of wind energy potential while offshore Class 4 wind speeds and above could provide over 10,000 MW of wind energy potential. (V-ESP-SW-115-12)

Comment: The potential to use Georgia's plentiful agriculture and forestry resources must be more thoroughly evaluated by the NRC. The SNC application was very limited in its discussion or research on opportunities for biopower in Georgia and failed to acknowledge the contribution biomass-based energy production can provide in terms of mitigating the effects of global warming, especially in comparison to other forms of fossil-fuel electricity generated. (V-ESP-SW-115-13)

Comment: The ESP application failed to mention that Georgia's abundant existing crop and forestry residues can be used for energy production, not just "new" energy crops such as switchgrass. A conservative estimate from a University of Georgia study showed that as much as 12% of Georgia's total electricity demand could be generated from biomass (*The Economic Feasibility of Generating Electricity from Biomass Fuel Sources*, 2003, available at <http://www.agzecon.ugza.edu/-caed/Feasibility%20Study603.pdf>). (V-ESP-SW-115-14)

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1 **Comment:** New biopower projects are being pursued in Georgia. Earth Resources Inc. is
2 developing a 20MW poultry litter gasification facility in Carnesville, GA, just 70 miles to the
3 northeast of Atlanta....The NRC should study these biopower projects as an alternative to
4 building more nuclear reactors at Vogtle. Small, distributed energy production facilities such as
5 this poultry litter to energy facility can provide significant benefits to Georgia's economy,
6 agricultural sector, energy security and the environment. (V-ESP-SW-115-15)
7

8 **Comment:** Chapter 9 of the SNC application does not properly evaluate the potential solar
9 technologies can provide in Georgia. In a report by Navigant Consulting titled PV Grid
10 Connected Market Potential under a Cost Breakthrough Scenario in September 2004, Georgia
11 was listed as the fifth most attractive state for solar photovoltaic (PV) market potential in the
12 nation....The PV systems would have positive environmental, economic, and public health
13 benefits for several reasons: PV systems do not use the water that traditional electric
14 generating units use; there are no emissions of NOx, SOx, HC, CO2, heavy metals, and radio
15 active contaminants; or generation of long-lived nuclear waste. (V-ESP-SW-115-16)
16

17 **Comment:** A benefit of solar energy is that the energy produced can be used right at the point
18 of generation. Additionally, solar energy offers a great benefit in the southeast as it can
19 produce power on hot sunny days when the utilities need electricity the most.
20 (V-ESP-SW-115-17)
21

22 **Comment:** We strongly object to the ESP application's statement that, "solar energy offers a
23 distinct environmental disadvantage, relative to nuclear energy due to its LARGE land use
24 impacts." Anyone familiar with solar technology knows that all large scale solar is going up on
25 flat roofs. (V-ESP-SW-115-18)
26

27 **Comment:** The SNC application compared a nuclear power plant with large scale, centralized
28 solar to meet actual power demand. The proper comparison should have looked at the use of
29 the same amount of money not to build a large-scale solar power plant, but to incentive solar
30 installations on commercial and residential rooftops....The NRC should evaluate, for example,
31 how much solar thermal generation for solar hot water heating or how much solar PV could be
32 installed in Georgia for the estimated cost of building two new reactors at Plant Vogtle.
33 (V-ESP-SW-115-19)
34

35 **Comment:** Then it should be compared not to the amount of MW that it produces but to solar
36 energy's ability to meet power demands with its production during peak demand times when
37 utilities actually need the power. (V-ESP-SW-115-20)
38

39 **Comment:** Energy efficiency and conservation represent the quickest, safest, cheapest way to
40 provide more power and to best protect our air and water resources while mitigating the energy
41 sector's contributions to global warming. (V-ESP-SW-115-3)

1 **Comment:** The NRC needs to study how global warming pollution, specifically CO₂, could be
2 reduced if the same money spent on expanding Plant Vogtle were instead used by other
3 technologies, such as energy efficiency and conservation and renewable energy supplies
4 including wind, solar, and biopower. (V-ESP-SW-115-30)
5

6 **Comment:** The NRC should evaluate what the impacts would be if the same amount of money
7 estimated to build up to two new reactors at Vogtle were instead spent on energy efficiency and
8 conservation measures. (V-ESP-SW-115-5)
9

10 **Comment:** The NRC should also study the benefits that energy efficiency and conservation
11 provide to our water resources, in comparison to nuclear power, which is highly water intensive.
12 (V-ESP-SW-115-6)
13

14 **Comment:** The NRC needs to fully research safe, clean renewable energy resources in
15 Georgia, such as biopower, solar, and wind. Chapter 9 of SNC's early site permit (ESP)
16 application is disappointing at best. Additionally, Chapter 9 completely disregards the
17 effectiveness that a diverse portfolio of energy efficiency and renewable energy options can
18 provide for citizens of Georgia. The NRC needs to study these combined potentials.
19 (V-ESP-SW-115-9)
20

21 **Comment:** NRC is specifically required to develop and explore "appropriate alternatives to
22 recommended courses of action in any proposal, which involves, unresolved conflicts
23 concerning alternative uses of available resources." 10 C.F.R. 51.45. Utilizing energy
24 efficiency and renewable energy clearly qualify as "appropriate alternatives" to expanding Plant
25 Vogtle, and must be "rigorously explored" and "objectively evaluated" as part of the EIS.
26 Although the SNC Environmental Report addresses alternatives, it can hardly be considered
27 "objective." The Report concludes that conservation measures including Demand Side
28 Management (DSM) could not meet future demand. See Environmental Report at 9-2.4. But
29 SNC's DSM efforts thus far have been minimal compared with major utilities in other parts of
30 the country. Of course, SNC has no incentive to increase DSM, which would reduce electricity
31 sales, and thus, its own revenues. In particular, the Environmental Report fails to consider
32 conservation and renewable energy sources as part of a multi-part solution. While the report
33 acknowledges that alternatives that might not be viable on their own could still be viable in
34 combination with other sources, it only considers one such combination (coal and natural gas)
35 without addressing a myriad of other permutations. See Environmental Report 9-2.17. Most
36 notably, the Environmental Report fails to explore whether conservation and renewable energy
37 together might provide a reasonable alternative. (V-ESP-SW-116-15)
38

39 **Comment:** Nuclear power is dangerous and unnecessary when we have sources like the sun
40 and wind on hand. (V-ESP-SW-117-6)
41

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Response: *Energy alternatives to the proposed action will be considered in Chapter 9 of the EIS. Chapter 9 will consider energy alternatives that require new generating capacity, such as building a coal plant, and alternatives that do not require new generating capacity, such as conservation.*

Comment: [M]ore efficient natural gas and integrated gasification combined cycle (IGCC) coal plants can help in the transition from fossil fuels. (V-ESP-SW-113-15)

Comment: The NRC needs to thoroughly evaluate new advanced coal technology (IGCC) as an alternative to building more nuclear reactors in Georgia....IGCC offers the ability to reduce air emissions, with up to 90% removal of sulfur dioxide, nitrogen oxide and mercury, and has the potential to capture carbon dioxide, a key global warming pollutant. Further, IGCC appears to be less water intensive than nuclear power. (V-ESP-SW-115-44)

Response: *IGCC (Integrated Gasification Combined Cycle) plants will be considered in Chapter 9 of the EIS.*

D.1.17. Comments Concerning the Cost of Power

Comment: However, it's interesting to me that insurance companies refuse to insure the plants and that the United States government, I believe, has had to develop a consortium of insurance companies that will insure the various plants because they are so difficult to guarantee, as far as safety goes. I would like to ask some questions tonight, just three of them. One question is how are those insurance companies paid, by our taxes? I don't know but I suspect so if the government, the U.S. government, is the one that organized them. (V-ESP-SC-24-2)

Response: *Whether nuclear power should be subsidized or insured is outside the scope of the EIS. The comment will not be addressed further.*

Comment: Harvesting wind energy could be practical...with little chance of cost-overruns that have been all too typical of nuclear facilities, which also often take as long as eight to ten years to be made operational. (V-ESP-SW-114-12)

Response: *The cost of power produced by the proposed facilities as well as the overall benefits and costs of the facilities will be considered in Chapter 11 of the EIS. Chapter 9 of the EIS will consider alternatives. The categories of alternatives considered will be energy alternatives, plant design alternatives, and siting alternatives. Issues related to the applicant's financial viability will not be considered in the EIS. NRC has requirements for licensees at 10 CFR 50.75 to provide reasonable assurance that funds will be available for the decommissioning process.*

1 **Comment:** Bradford shows that wind power today produces electricity at half the cost of
2 nuclear power. Currently, centralized solar thermal plants produce electricity at a cost
3 competitive with nuclear power...Nuclear power has received the most subsidies of any energy
4 technology. Even so, with all these taxpayer subsidies, nuclear power is more costly than wind
5 power. Of course, if instead of being heavily subsidized by taxpayer money, nuclear power had
6 to rely solely on market forces, we would not be here tonight having this meeting! Moreover, if
7 only a tiny portion of the subsidies larded on nuclear power had been provided for solar and
8 wind power technologies, we would not be meeting here tonight! (V-ESP-SW-81-12)

9
10 **Comment:** Moreover, federal funds that might be used to provide justifiable incentives for
11 investing in renewable energy technologies would instead be devoted to perpetuating the
12 substantial subsidy of nuclear energy, which has used about 60% of all U.S. federal energy
13 spending for the past 50 years. (V-ESP-SW-114-14)

14
15 **Comment:** There are alternatives to nuclear power generation that are less expensive and
16 which are significantly less risky. In evaluating cost per kilowatt-hour it must be remembered
17 that nuclear power is heavily subsidized in a number of ways. This subsidization must be
18 factored in when making cost comparisons with alternative generating systems.
19 (V-ESP-SW-113-11)

20
21 **Response:** Chapter 9 of the EIS will consider alternatives. The categories of alternatives
22 considered will be energy alternatives, plant design alternatives, and siting alternatives. The
23 mission of the NRC is to license and regulate the nation's civilian use of by-product, source, and
24 special nuclear materials to ensure adequate protection of public health and safety, promote the
25 common defense and security, and protect the environment. Issues related to the subsidization
26 of nuclear power are outside of NRC's mission and authority and will not be considered in the
27 EIS.

28
29 **Comment:** Another problem is the NRC really needs to look at the problem of cost overruns. I
30 know that Plant Vogtle had huge, tremendous cost overruns and maybe Georgia Power,
31 Southern Company is saying that's not going to happen again. But somehow, we, the
32 ratepayers of Georgia, need to be assured that that's not going to happen again.
33 (V-ESP-SC-25-5)

34
35 **Comment:** It [Plant Vogtle] was a boondoggle. It took 20 years. Georgia Power started
36 construction and in ten short weeks filed for bankruptcy. Now what's different? Oh, that's right,
37 they're not using their money -- they're using ours. And so analyze that. (V-ESP-SC-30-1)

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1 **Comment:** Regarding economics, Standard & Poor's rating services found that "An electric
2 utility with a nuclear exposure" -- that is, a nuclear plant -- "has weaker credit than one without
3 and can expect to pay more on the margin for credit. Federal support for construction costs will
4 do little to change that reality. Therefore, were a utility to embark on a new or expanded
5 nuclear endeavor, Standard & Poor's would likely revisit its rating on the utility."
6 (V-ESP-SC-35-3)
7

8 **Comment:** Building a nuclear plant is an uncertain gamble. Many attribute this to the
9 response to the accident at Three Mile Island in 1979, but nuclear power plants canceled before
10 1979, before the Three Mile Island partial meltdown, numbered 50. So the economic meltdown
11 was underway long before Three Mile Island accident. Among the reactors canceled before
12 that accident were Vogtle 3 and 4, in 1974. No evidence has been found to support the
13 statements that citizen opposition and regulatory changes have been the primary cause for
14 rising costs and construction delays. To the contrary, statistics show that management is more
15 a detriment than regulatory changes and citizen opposition. This is from the U.S. House
16 Committee on Government Operations. (V-ESP-SC-35-5)
17

18 **Comment:** I really think you [Southern Company] ought to be thinking very, very carefully
19 about investing in any more reactors because the Price-Anderson Act excludes acts of war, by
20 definition. And our President has said we are at war. There is no way that if someone had the
21 incredible gall to actually do what I've been talking about and attack a reactor -- believe me, I
22 never want to live to see that -- it would be an act of war on this country. That means there is
23 no liability cap and there are no other corporations that would be called in to help Southern
24 Company. (V-ESP-SC-36-7)
25

26 **Response:** *Issues related to the applicant's financial viability will not be considered in the EIS.*
27 *NRC has requirements for licensees at 10 CFR 50.75 to provide reasonable assurance that*
28 *funds will be available for the decommissioning process.*
29

30 **Comment:** Generation using nuclear power allows the creation of stable, cost-effective
31 electricity while minimizing the impact on the environment. (V-ESP-SC-15-2)
32

33 **Comment:** Nuclear power has the lowest production cost as compared to other fuels, and
34 nuclear fuel prices are more stable than other fuel options. (V-ESP-SW-60-4)
35 (V-ESP-SW-61-4) (V-ESP-SW-57-4) (V-ESP-SW-59-4) (V-ESP-SW-63-4)
36

37 **Comment:** Nuclear power has the lowest production cost, as compared to other fuels, and
38 nuclear fuel prices are more stable than other fuel options. (V-ESP-SW-62-4)
39

40 **Comment:** This expansion will allow us to continue to receive... cost-effective and reliable
41 energy to serve the CSRA. (V-ESP-SW-70-4)
42

1 **Comment:** Additionally, please address the following items as NRC staff develops the draft
2 EIS: cost (V-ESP-SW-85-6)

3
4 **Comment:** Additionally, please address the following items as NRC staff develops the draft
5 EIS: long term costs. (V-ESP-SW-89-5)

6
7 **Comment:** Additionally, please address the following items as NRC staff develops the draft
8 EIS: impact on my wallet, the cost is unbelievable. (V-ESP-SW-90-5)

9
10 **Comment:** We believe we need to have a good, diverse generation mix and we believe that
11 nuclear will come in at a very competitive cost, we think that's a good reason to go with nuclear.
12 (V-ESP-SC-01-3)

13
14 **Comment:** [I]t's costly technology. (V-ESP-SC-16-3)

15
16 **Comment:** [N]uclear energy has proven, and I think will continue to prove, that it can generate
17 electricity very efficiently. (V-ESP-SC-23-3)

18
19 **Comment:** We just need to think about long-term versus short-term costs. Short-term, yes,
20 nuclear power may be cost-effective, but I think it's very important to look at the long-term cost.
21 We need to look to the future and not be complacent with short-term economic gains.
22 (V-ESP-SC-38-8)

23
24 **Comment:** Nuclear power has tremendous advantages over other fuels; lowest production
25 costs. (V-ESP-SW-58-4)

26
27 **Comment:** Nuclear fuel prices are more stable than other fuel options, and nuclear power has
28 the lowest production cost as compared to other fuels. (V-ESP-SW-64-4)

29
30 **Response:** *The cost of power produced by the proposed facilities as well as the overall*
31 *benefits and costs of the facilities will be considered in Chapter 11 of the EIS.*

32
33 **Comment:** [A] myth that nuclear power plants incur no fossil fuel cost: their construction is
34 extraordinarily expensive and dependent entirely on fossil fuels. (V-ESP-SW-100-8)

35
36 **Comment:** Studies have shown that nuclear electric power is considerably more expensive
37 than that currently produced in fossil fuel plants. (V-ESP-SW-113-13)

38
39 **Comment:** Renewable energy sources such as windpower, solar power, and biomass have
40 become or are becoming cost competitive with electric power generation using fossil fuels, and
41 should play an increasing role in electric power generation. (V-ESP-SW-113-16)

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1 **Comment:** We strongly urge the NRC to consider its obligation to the public by expansively
2 analyzing the true costs, benefits, and impacts of the proposed new reactors in terms of
3 long-term, large-scale public interest, not artificially narrow criteria that are better suited to
4 private sector business decisions. (V-ESP-SW-114-1)
5

6 **Response:** *The cost of power produced by the proposed facilities as well as the overall*
7 *benefits and costs of the facilities will be considered in Chapter 11 of the EIS. Chapter 9 of the*
8 *EIS will consider alternatives. The categories of alternatives considered will be energy*
9 *alternatives, plant design alternatives, and siting alternatives.*
10

11 **Comment:** And they say let's let the market do its thing. We've never let nuclear power do
12 that, we've always subsidized nuclear power because if we let the market do its thing, we
13 wouldn't be sitting here tonight. (V-ESP-SC-16-6)
14

15 **Comment:** Even with massive government subsidies, using the nuclear fuel cycle to generate
16 electricity costs more than burning coal or natural gas or using wind power to produce
17 electricity. (V-ESP-SC-27-1)
18

19 **Comment:** Though utility companies have pocketed millions in profits, nuclear energy has cost
20 taxpayers billions in public subsidies, and shows no sign of becoming self-supporting in the
21 future. (V-ESP-SW-111-2)
22

23 **Comment:** The costs are enormous for nuclear and it is all subsidized by our federal tax
24 dollars. Vogtle was to cost 666 million for four reactors back in the 1970s and 1980s. Two
25 reactors ended up costing over \$8 billion. This is organized crime and should be stopped in its
26 tracks. (V-ESP-SW-112-8)
27

28 **Comment:** Nuclear...is extravagantly subsidized by federal funding. (V-ESP-SW-114-4)
29

30 **Response:** *The mission of the NRC is to license and regulate the nation's civilian use of by-*
31 *product, source, and special nuclear materials to ensure adequate protection of public health*
32 *and safety, promote the common defense and security, and protect the environment. Issues*
33 *related to the subsidization of nuclear power are outside of NRC's mission and authority and will*
34 *not be considered in the EIS.*
35
36

D.1.18. Comments Concerning the Need for Power

Comment: The fact of the matter is, and I'm sure you've seen it in the media, we're about to be approaching that 300 million persons in the United States of America, and closer to that in the southeast, the population is growing like you would not believe and we believe by 2040 about 40 percent of the people will actually live in the southeast, and even more specific than that, four million people will be moving to Georgia by the year 2030 and that's significant. And in order to supply energy to those individuals, we must increase our demand (sic), we must increase our generation, because there's a huge demand for electricity. (V-ESP-SC-01-1)

Comment: Both Senators...support it because of the current projected demand for energy and power not only in the nation and the world, but in this area. Of course, we all look at gas prices and everything else and our dependency. The Senator of course is on the Intel, the Armed Forces Committee, and we see what it is doing in the Middle East and it can get us off that dependence. (V-ESP-SC-04-1)

Comment: Stakeholders in Plant Vogtle have told us they estimate they will need additional baseload power supplies by the year 2015 to accommodate the demand for power in our state for the coming decades. (V-ESP-SC-04-5)

Comment: As a municipal utility, we also know that more electric power is needed to meet the growing demands of our state. (V-ESP-SC-10-5) (V-ESP-SW-56-3)

Comment: The Augusta Metro Chamber of Commerce supports the expansion of Plant Vogtle to meet our region's energy needs. The Chamber believes that the expansion represents a safe, dependable and environmentally responsible solution to our demand for electricity. (V-ESP-SC-15-1)

Comment: We heard from the Vice President of Georgia Power tonight that we have to increase demand. I think he misspoke, (V-ESP-SC-16-5)

Comment: I and the 2200 members of NA-YGN believe that Vogtle Units 3 and 4 are an important step toward our nation's energy independence. (V-ESP-SC-17-9)

Comment: So I think there's a need for it [nuclear power]. (V-ESP-SC-23-4)

Comment: Building more nuclear power plants will not lessen dependence on imported oil. (V-ESP-SC-27-2)

Comment: Most of the nation's uranium comes from overseas, so the energy independence is a chimera until and unless more uranium is discovered within our borders. (V-ESP-SC-35-2)

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1 **Comment:** I would also like to see the demonstration of the increase in demand, that this
2 actually exists. (V-ESP-SC-37-9)

3
4 **Comment:** You must know that Georgia is one of the fastest growing states in our America.
5 And one of the things--it's growing so fast, that we've got to have at least 400 megawatts of
6 energy on a yearly basis just to keep up with the present growth. And if it starts to growing
7 faster, I don't know what we're going to do. (V-ESP-SC-42-1)

8
9 **Comment:** I hope that when 2030 year comes around that my daughters, my son, and my
10 granddaughters won't be walking around in the dark because there was not enough generation
11 of electricity so we could turn the lights on like other parts of our great country is going through
12 now. (V-ESP-SC-42-3)

13
14 **Comment:** I think it's worth reiterating that demand is only increasing. When today's children
15 become tomorrow's adults, America will need 45 percent more power than we currently use.
16 How will we handle this enormous increase? (V-ESP-SC-43-1)

17
18 **Comment:** The reality is we will require more from these sources [renewable sources] and all
19 others to meet the electricity needs of tomorrow. We should continue to seek diversity in our
20 energy sources and nuclear energy has an important role to play. (V-ESP-SC-43-3)

21
22 **Comment:** Georgia Power is not the only one to say we need more power. I read in the Wall
23 Street Journal and the New York Times last week talking about the shortage of power in this
24 nation. We've been lucky in the south that we've not had our power grids to go out like they
25 have in the north. (V-ESP-SC-52-1)

26
27 **Comment:** More and more electricity will be needed to meet the need for power in our state
28 during the coming decades. Nuclear power is a safe, reliable and cost effective source of
29 electricity and will be critical to meeting that end. (V-ESP-SW-57-2)

30
31 **Comment:** More and more electricity will be needed to meet the requirements for power during
32 the coming decades. We know that nuclear power is safe, reliable and cost-effective and this
33 source of electricity will be critical in meeting this need. (V-ESP-SW-58-2)

34
35 **Comment:** More and more electricity will be needed to meet the demand for power in our state
36 during the coming decades. Nuclear power is a safe, reliable, and cost-effective source of
37 electricity and will be critical to meeting that need. (V-ESP-SW-59-2) (V-ESP-SW-60-2)
38 (V-ESP-SW-61-2) (V-ESP-SW-63-2)

1 **Comment:** [M]ore cost efficient and environmentally sensitive electricity will be needed to meet
2 the demand for electrical power. Nuclear power is a safe, reliable and cost-effective source of
3 electricity and will be critical to meeting that need. (V-ESP-SW-62-2)
4

5 **Comment:** Georgia's thriving economy will require more and more electricity to meet the
6 demand for power in the future. It will be critical to have a safe, reliable, and cost-effective
7 source of electricity to meet those future needs. (V-ESP-SW-64-2)
8

9 **Comment:** The United States needs to move forward to aggressively diversify our power
10 generation portfolio. We cannot continue to rely on unstable regions of the world such as the
11 Middle East, or Russia or Venezuela that currently feed our fossil fuel addiction.
12 (V-ESP-SW-80-1)
13

14 **Comment:** Given the lack of energy efficiency programs in Georgia, and the resulting waste of
15 vast quantities of electricity, it is more than a little disingenuous for the V.P. of Georgia Power to
16 claim at tonight's public scoping meeting that there is a need for more generating power.
17 Simply by promoting reasonable measures to improve the efficiency of electricity usage in the
18 state, Georgia Power could meet the needs of a growing population over the next several
19 decades without building new nuclear or coal plants. (V-ESP-SW-81-10)
20

21 **Comment:** There is a real need to reduce our reliance on fossil fuels. (V-ESP-SW-113-14)
22

23 **Comment:** By permitting the construction and operation of the proposed new reactors, future
24 demand for power that could be met by using alternative sources will be unwisely eliminated.
25 (V-ESP-SW-114-13)
26

27 **Comment:** The NRC needs to evaluate both Georgia's actual need for power and how
28 conservation and efficiency could reduce this demand. (V-ESP-SW-115-4)
29

30 **Comment:** We question whether expanding Plant Vogtle is actually needed...The NRC needs
31 to evaluate Southern Company's subsidiaries' future growth plans, such as Georgia Power, to
32 better determine whether two new nuclear reactors at Plant Vogtle are even needed. The 2007
33 Integrated Resource Plan (IRP) is a long-term energy planning process that is required for
34 regulated utilities to undergo every three years by the Georgia Public Service Commission
35 (PSC). The PSC will receive Georgia Power's plan in January 2007. The NRC should track the
36 IRP process in order to glean necessary information (visit the PSC's website at
37 <http://www.psc.state.ga.us>) (V-ESP-SW-115-7)
38

39 **Comment:** The NRC should also be aware that the State of Georgia is undergoing the
40 development of its first energy strategy, overseen by the Georgia Environmental Facilities
41 Authority (GEFA). A wealth of information on various energy issues specific to Georgia can be
42 found at www.georgiaenergyplan.org. (V-ESP-SW-115-8)

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Response: *This information will be considered in the staff's evaluation of need for power impacts in the EIS. The results of the analysis will be presented in Chapter 8 of the EIS.*

D.1.19. Comments Concerning Cumulative Impacts

Comment: Before you give Southern Nuclear their license, please think about what is best for the people in our community. (V-ESP-SC-05-1)

Comment: [T]he environmental impact statement must consider cumulative impacts including the existing towers at Plant Vogtle, the Savannah River Site, and all of the other nuclear facilities that have been listed tonight. (V-ESP-SC-21-6)

Comment: [C]umulative impacts, particularly the impacts of water withdrawal from this plant combined with all of the other withdrawals in the Savannah River Basin and also exposure to radionuclides associates from the Savannah River Site and other nuclear facilities in the area. (V-ESP-SC-22-8)

Comment: There is at the Savannah River Site plutonium storage, low level waste storage, low level waste burial, low level waste incineration, tritium storage, tritium processing, high level waste storage, high level waste processing, high level waste disposal thanks to Lindsey Graham. There is going to be, if approved, pit disassembly, MOX fuel production, pit production proposed and now we hear high level nuclear waste reprocessing. All of those indicate exposures to the public on multiple pathways from both routine and potentially accident conditions and they must be considered dedicated exposures when considering adding two new Vogtle units. I think everything within a 50-mile radius should be considered as a very conservative thing. The NRC says there's 100 millirems a year to the general public. Well, that should mean that Vogtle can only contribute whatever is left over to make up 100 millirems. (V-ESP-SC-36-8)

Comment: I would also like to say that cumulative effects from all of the sources in the area should be addressed. (V-ESP-SC-37-3)

Comment: The Savannah River Basin is already suffering. Building more nuclear reactors will only make the situation worse. (V-ESP-SC-38-3)(V-ESP-SW-110-1)(V-ESP-SW-83-1) (V-ESP-SW-91-1) (V-ESP-SW-103-2) (V-ESP-SW-55-3)

Comment: And the Kimberly-Clark Company is now building in Beech Island their biggest installation in the United States of America and that installation already has the water permits for the Savannah River. Now lower South Carolina is very much up in arms about the fact that the water going down the Savannah River is not very usable and their wells are drying up over there because of irrigation and so forth, they're getting saltwater in their wells. This is Hilton

1 Head I'm talking about, Bluffton and that area. And the City of Savannah is also having trouble
2 with their water. (V-ESP-SC-49-2)
3

4 **Comment:** Most people know nothing about the extensive damage already done to the
5 Savannah River basin. (V-ESP-SW-109-2)
6

7 **Comment:** Burke County and its residents receive a possible double dose of dangerous
8 radionuclide releases by being directly across the river from SRS and also the home of Vogtle.
9 I urge you to consider this reactor development NOT in isolation but in relation to Vogtle's
10 position to SRS. Nowhere else in the country are new nuclear reactors being introduced so
11 close to such a major nuclear weapons complex. But, although the DOE/NRC and many of the
12 workers are not to consider the ties that bind these installations, it is imperative that citizens
13 consider the close proximity that threatens health and safety. (V-ESP-SW-112-3)
14

15 **Comment:** The NRC needs to study the impacts of tritium in the Savannah River, including
16 future projections, especially given the Department of Energy's Savannah River Site's (SRS)
17 already large contribution to tritium pollution and its plans to expand. The NRC should analyze
18 the impact of tritium with droughts and future population growth in mind. (V-ESP-SW-115-26)
19

20 **Comment:** The NRC needs to study the existing impacts SRS already has on the area and
21 how the expansion of Plant Vogtle will add to these impacts. The NRC should also study how
22 future projects at SRS, such as the GNEP reprocessing initiative, will further burden this area.
23 (V-ESP-SW-115-36)
24

25 **Comment:** In addition, Congress has approved the construction of a mixed-oxide (MOX) fuel
26 production plant for SRS. MOX fuel is a mixture of uranium-oxide (current fuel for most civilian
27 U.S. nuclear power plants) and plutonium oxide. The plutonium oxide would come from
28 stockpiles of weapons grade plutonium from dismantled nuclear bombs. SRS now serves as
29 host to weapons grade plutonium in the powdered oxide form, which is highly dispersible.
30 While Plutonium is not a particularly dangerous radioactive element to be in close proximity to,
31 ingestion or inhalation of plutonium turns it into one of the most potent toxins known to
32 mankind. With a half-life of 24,000 years, the possibility of a plutonium accident poses a
33 tremendous risk to drinking water supplies in Savannah, Hilton Head, and Beaufort.
34 (V-ESP-SW-116-10)
35

36 **Comment:** At SRS, many nuclear wastes including tritium, organic solvents, heavy metals and
37 other wastes remain precariously buried at the Radioactive Waste Burial Ground, where waste
38 was originally stored until 1972. This unlined pit is over a mile long and 500 yards wide. Little
39 care was taken in packaging the waste, often using only a cardboard box or no container at all.
40 Today, these wastes present a major threat to water. Waste plumes have formed on all four
41 corners of the burial ground. Tritium forms the leading edge of three of the plumes because it
42 gets incorporated into the water molecule. But close behind is trichloroethylene, a degreasing

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solvent used in large volumes in early nuclear production. Whether the 50 tons of lead, the 12 tons of mercury and the 3,500 pounds of cadmium buried here will stay in place is anybody's guess. These issues must be addressed by NRC as it considers the Vogtle ESP. (V-ESP-SW-116-19)

Comment: NRC must consider the proposed expansion in light of the already dangerous environmental conditions caused by the current operations at Plant Vogtle and at the Savannah River Site (SRS). (V-ESP-SW-116-5)

Comment: The tritium from the southwest plume reached Four Mile Creek about eight years ago. Because tritium would pose a severe hazard to surface waters, the Department of Energy has frantically tried to address the threat with wind and time. It constructed an underground dam to block the flow of the plume. The blockage of groundwater has resulted in a surface pond from which water is sprayed back onto the trees on the property, allowing toxins to evaporate and be carried away by the breezes. (V-ESP-SW-116-9)

Response: *The cumulative impact associated with the construction and operation of the proposed nuclear power plants, including interactions with the Savannah River Site, will be evaluated in Chapter 7 of the EIS.*

D.1.20. Comments Concerning the Safety Review for the Early Site Permit

Comment: [W]hat about earthquakes? Got to really focus in on this because there's major stuff going on in that area in this region. (V-ESP-SC-36-10)

Response: *As part of the NRC's site safety review, the staff will consider whether the site is suitable based on seismic considerations. The results of this review will be found in the site Safety Evaluation Report. This issue is not within the scope of the environmental review.*

Comment: We talk about climate change and nuclear power is the solution, but we have not talked about how vulnerable nuclear power is to turbulent weather. It is now documented that the hurricanes are increasing in force, strength and number due to climate change. Maybe not every year, but over time. This site is definitely impacted by hurricanes. I've been here, I've been through it. So we've got to look at the potential for increased station blackout hazard. (V-ESP-SC-36-11)

Response: *Nuclear power plants are extremely robust structures that are designed to survive hurricanes and tornadoes. Should an extreme weather event cause a nuclear power plant to be shut down (i.e., reactor is shut down as a hurricane is approaching, rather than the reactor being shut down by the hurricane), the reactor can be maintained in a safe condition by the reactor's ultimate heat sink. Ultimate heat sinks are designed to withstand extreme weather*

events such as hurricanes and tornadoes. The likelihood of the maximum wind speed in a tornado exceeding the design wind speed for the ultimate heat sink is typically less than 1 in 10 million years. There is no evidence that the frequency of the most violent tornadoes is increasing.

Comment: [W]e're looking at this AP-1000 from Westinghouse which is proposed for Plant Vogtle. These units will be I think a lot safer even than the units that are there now. (V-ESP-SC-48-3)

Response: This comment provides general information regarding safety issues of a Westinghouse AP1000 design reactor, provided to support Southern's application. Because these comments do not relate to the environmental effects of the proposed action, they will not be assessed further.

D.1.21. Comments Concerning Safeguard and Security Issues

Comment: I was made aware of an 800-page report done in 1980, NUREG/CR-1345, by a panel of industry experts to make future reactor designs more secure. A number of feasible, low-cost design changes to make nuclear plants less vulnerable to sabotage and acts of terror were offered and apparently not one, none, of these low-cost changes appear in the so-called advanced reactor designs. Will the NRC please refer to this report and make sure that the new reactors proposed for Vogtle take these low-cost changes into account? The future safety of not only this community, but many, many others such as the one that I live in are at stake. (V-ESP-SC-07-10)(V-ESP-SW-77-9)

Comment: [T]he EIS needs to consider the environmental consequences of terrorist actions. (V-ESP-SC-21-5)

Comment: Next one is environmental impacts of a terrorist attack. After 9/11, that's one that NRC just must take into consideration before they license any new plant. (V-ESP-SC-22-4)

Comment: As far as the safety and security of it, I have been privileged to go to Plant Vogtle several times. My last time was last fall and if you go in there and see how hard it is to get in, to start with, and then to go to the control room and see how these men and women do their jobs in security, you just leave there with a peace about what these folks are doing out there. (V-ESP-SC-23-5)

Comment: [S]ince 9/11, the possibility of terrorist attacks. We never dreamed that a plane would run into a skyscraper and we do need to consider the impact that might happen if a plane crashed into Plant Vogtle or into another reactor, and what would happen then. (V-ESP-SC-25-6)

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1 **Comment:** We also need to consider that the nuclear reactors coming on line are going to
2 create a lot more nuclear fuel and nuclear waste that could get in the hands of terrorists around
3 the world. And this is a huge problem that we're seeing right now with North Korea.
4 (V-ESP-SC-25-8)
5

6 **Comment:** But a 2002 study by the Nuclear Control Institute found that the plants were not
7 designed to withstand the crash of a large jet traveling at the impact speed of the two hijacked
8 airliners that hit the World Trade Center. This is not surprising because in 1982, the U.S.
9 Nuclear Regulatory Commission ruled that owners of nuclear power plants did not have to
10 design the plants to survive threats such as suicidal airline crashes. According to the NRC,
11 requiring such construction would make nuclear electricity too expensive to be competitive.
12 (V-ESP-SC-27-7)
13

14 **Comment:** Security -- since 9/11, no change. We are for Plant Vogtle, we're for securing it,
15 we're for dealing with the nuclear waste, we're for dealing with it. (V-ESP-SC-30-5)
16

17 **Comment:** Security -- it's a glaring hole you can fly a jumbo jet airplane through. Since 9/11,
18 NRC has done nothing to increase security at nuclear plants, including here. The California
19 Ninth Circuit has decided that all nuclear plants in California will have this considered. It's a
20 brand new decision that's being appealed and it will take awhile. The NRC is promulgating a
21 rule -- I don't know how you're going to crunch this, but it's time to start analyzing the effects of
22 this. (V-ESP-SC-30-8)
23

24 **Comment:** Let's take for one moment the idea that the Supreme Court does uphold the
25 decision that the environmental impacts of the Terrorist Act should be analyzed in the EIS. Y'all
26 are going to yell safeguards, safeguards, you can't go there...Vogtle is not just a power plant,
27 it's a target, okay? So it changed everything, and Mohammad El-Fareda (ph.) said that if there
28 was a direct hit by a jumbo jet, you would have a Chernobyl. So you have to take it down the
29 case, you have to take a Chernobyl and you have to analyze it for Georgia and South Carolina
30 and the rest of the world since it's a global impact. (V-ESP-SC-36-6)
31

32 **Comment:** [N]uclear plants are vulnerable to terrorist attacks and sabotage. (V-ESP-SC-38-5)
33

34 **Comment:** If anyone has ever tried to get into Plant Vogtle, I can't see how someone could
35 say they need to increase security out there. It's always been a fence around it and other kinds
36 of monitors around the site, plus the security personnel is there. And also, it's been mentioned
37 about a terrorist event using aircraft. That containment there is like three foot thick concrete
38 filled with rebar two to three inches thick. A passenger plane, what it actually is an aluminum
39 tube meant to carry people, it's not any kind of a battering ram even at speeds that would be
40 involved in any kind of crash. (V-ESP-SC-48-1)
41

42 **Comment:** They talked about security. Anything can happen. (V-ESP-SC-52-4)

Comment: Nuclear plants are vulnerable to terrorist attack and sabotage; building more nuclear reactors will only make this situation worse by providing more targets. Plant Vogtle is very close to the Department of Energy Savannah River Site, which stores a large portion of the nation's weapons grade plutonium and other dangerous materials. An accident or successful terrorist attack would have a horrific impact on human health and environment in the region for years to come. (V-ESP-SW-55-7)

Comment: Nuclear plants are vulnerable to terrorist attack and sabotage; building more nuclear reactors will only make this situation worse by providing more targets. Plant Vogtle is also very close to the Department of Energy's Savannah River Site, which stores a large portion of the nation's weapons-grade plutonium and other dangerous materials. If an accident or successful terrorist attack occurred, the full impacts to human health and the environment in this region would be immense. Why make it worse? (V-ESP-SW-74-3)(V-ESP-SW-91-6)(V-ESP-W-110-6)(V-ESP-SW-103-7)(V-ESP-SW-104-3).

Comment: I urge you to thoroughly evaluate the water and security issues that new reactors would pose to the Savannah River basin and surrounding communities. (V-ESP-SW-78-3) (V-ESP-SW-84-3) (V-ESP-SW-85-3) (V-ESP-SW-86-3) (V-ESP-SW-87-3) (V-ESP-SW-88-3) (V-ESP-SW-89-3) (V-ESP-SW-90-3) (V-ESP-SW-93-3) (V-ESP-SW-94-3) (V-ESP-SW-95-3) (V-ESP-SW-117-3) (V-ESP-SW-119-3) (V-ESP-SW-120-2)

Comment: What if a plane were to crash into a nuclear site? What would happen then? (V-ESP-SW-79-3)

Comment: Additionally, please address the following items as NRC staff develops the draft EIS: Plant Vogtle is vulnerable to terrorist attack and sabotage. (V-ESP-SW-94-7)

Comment: In this time of yellow and orange security threats I feel it is extremely unwise to add more nuclear plants that are very vulnerable to attack. While the politicians worry about Iran and Korea having nuclear power, I don't feel we are safer right here in my backyard, especially with our open borders. (V-ESP-SW-96-5)

Comment: This, along with other potential problems such as vulnerability to terrorist attacks..., make the granting of an early site permit wrong. (V-ESP-SW-98-4)

Comment: [I]n our world, a terrorist attack is a real and serious possibility. The proximity of the proposed reactors to on-site storage of plutonium at Savannah River would make it one of many desirable terrorist targets. (V-ESP-SW-100-5)

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Comment: We do not seem to have addressed adequately the security of chemical plants and powerwater infrastructure in the wake of September 11 and creation of a huge Homeland Security Department. (V-ESP-SW-106-6)

Comment: [T]he terrible security risks that would increase due to both human error at plants. (V-ESP-SW-109-3)

Comment: Homeland Security and the "War on Terror" have done almost nothing to protect vulnerable nuclear power plants from terrorist attack -- and in fact, very little can be done. (V-ESP-SW-111-3)

Comment: I encourage the NRC to consider the terrorist implications of an attack on Vogtle and the likelihood that such an attack would be accompanied by an attack on SRS. If terrorists are clever, they are thinking way beyond those who are only interested in their own little piece of the nuclear pie. They are thinking big and they know that Vogtle and SRS would make a jolly little bundle of hell on earth should there be an attack on either, but especially on both, installations. How can we tell the rest of the world that they cannot develop nuclear power - or weapons -when we are pursuing this with gusto. (V-ESP-SW-112-4)

Comment: The NRC should revisit their claims that all this is being developed in the name of security and look seriously at how further nuclear development threatens all security or ALL human, animal and plant life. (V-ESP-SW-112-6)

Comment: The terrorist threat to nuclear plants has recently come to the fore and represents a new and substantial concern over safety. Beyond a doubt, the actual "risk index" for nuclear power plants in the U.S. has gone up considerably as a result. (V-ESP-SW-113-6)

Comment: Nuclear...and poses virtually permanent threats to public health and safety - due to...acts of terrorism. (V-ESP-SW-114-7)

Comment: [D]ue to the proximity of SRS, building more reactors at Plant Vogtle makes the site more vulnerable by providing more terrorist targets. (V-ESP-SW-115-38)

Comment: An 800-page report was done in 1980, NUREG/CR-1345, by a panel of industry experts to make future reactor designs more secure. A number of feasible, low-cost design changes to make nuclear plants less vulnerable to sabotage and acts of terror were offered and apparently not one of these low-cost changes appears in the so-called advanced reactor designs. (V-ESP-SW-115-40)

Comment: Nuclear power plants have been recognized as posing extremely serious risks in regards to potential terrorist activity. As noted in a 2005 report to Congress, "Protection of nuclear power plants from land-based assaults, deliberate aircraft crashes, and other terrorist acts has been a heightened national priority since the attacks of September 11, 2001." Further, the former Chair of the NRC Richard Meserve, has stated that the design basis for currently operating nuclear power plants is not sufficient to survive the impact of large commercial aircrafts such as a fully-loaded Boeing 757 or 767. Significant changes in safety requirements for nuclear power plants have been made since September 11. For example, there has been a heightened standard for security officer training, stricter access requirements at nuclear power plants, and "increase[s] in the 'design basis threat' that nuclear security must be able to defeat." Although the Plant Vogtle application does address the existence of airports and aircrafts in the area, it fails to address the issue of potential terrorist threats or the adequacy of the design basis in light of this threat. These factors, as well as the potential impact of such a terrorist attack, must be extensively assessed by the NRC in their review of the Plant Vogtle ESP application. (V-ESP-SW-116-11)

Response: *The staff will review information regarding physical security and will document in the Safety Evaluation Report its determination as to whether the site characteristics are such that adequate security plans and measures can be developed (see 10 CFR 100.21). However, the staff will not be evaluating a detailed security plan at this time. If Southern applies for a combined license, it would have to supply a series of plans for NRC staff review, in accordance with 10 CFR 50.34, including a safeguards contingency plan, a physical security plan, and a guard training and qualifications plan. 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). Because safeguards and security issues are outside the scope of the EIS, these comments will not be assessed as part of the environmental review.*

D.1.22. Comments Concerning Emergency Preparedness Issues

Comment: Over those years, I have directly been involved with many evacuated and non-evacuated exercises. I've had many opportunities to tour Plant Vogtle, I have participated in emergency planning at Plant Vogtle, participated in table top exercises, and it has all been a pleasure. The Southern Nuclear staff has always been willing to assist in any way they can. They've always answered our questions very rapidly and appropriately and rendered any assistance that they could lend. (V-ESP-SC-14-1)

Comment: The third question I would ask is are there plans for the development of an evacuation system in case of an incident. After Katrina, we know the importance of evacuation plans. (V-ESP-SC-24-4)

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Comment: I can attest to Southern Nuclear's commitment to the safety of our community. I've had the privilege of participating in many drills with Vogtle and I'm also grateful for their willingness to participate in the hospital's hazardous materials analysis. (V-ESP-SC-47-1)

Comment: Emergency evacuation and planning measures need to be studied for the entire region given the high number of sensitive facilities in the area. (V-ESP-SW-115-39)

Comment: [T]he NRC should consider the impacts on the minority and low-income populations in the event of a nuclear emergency. The ability of those populations to evacuate in the event of such emergency is of particular concern, and the plans and policies that are in place within the Burke County area to evacuate such individuals, should be taken into consideration. (V-ESP-SW-116-14)

Response: *As part of its site safety review, the NRC staff will determine, after consultation with the Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA), whether there are any significant impediments to the development of emergency plans and whether the proposed complete integrated emergency plans submitted by Southern are acceptable (see 10 CFR 52.18). The currently operating units (Vogtle Units 1 and 2) have an emergency plan in place that has been reviewed and approved by both the NRC and FEMA.*

D.1.23. Comments Concerning Decommissioning

Comment: [D]ecommissioning of the project [needs to be looked at]. (V-ESP-SC-22-7)

Comment: Experience indicates that dismantling a plant and storing the resulting radioactive wastes costs two to ten times more than the building of the plant in the first place. (V-ESP-SC-27-5)

Response: *The environmental impact from decommissioning a permanently shutdown commercial nuclear power reactor is discussed in Supplement 1 to NUREG-0586, Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities, which was published in 2002. For most environmental issues, the impact from decommissioning activities is considered small. The NRC requirements establish a framework to ensure that decommissioning of all nuclear reactor facilities will be accomplished in a safe and timely manner, and that funding will be available for this purpose. NRC regulations regarding the methods used to ensure that funds will be available to cover the decommissioning process are in 10 CFR 50.75. These comments do not relate to the environmental impacts of the Vogtle ESP application, and will not be assessed further.*

1 D.1.24. Comments Concerning Operational Safety Issues

2
3 **Comment:** This is a personal issue to me, the safety and security issues are. I've had two
4 brothers die of cancer and last month my third and last brother went on chemotherapy. So I'm
5 very concerned about safety and I'm delighted to hear your reports tonight about how good the
6 safety is from these plants. (V-ESP-SC-24-1)
7

8 **Comment:** I do have a lot of faith and sympathy really for the workers of Georgia Power and
9 how it has impacted the economics of this area. I'm sure they are very well-meaning. But I'm
10 also -- we just have to look at the fact, I'm sure that the people, the workers at Three Mile Island
11 were very safety conscious and very sincere in what they did and here was a major meltdown
12 that had very severe health impact on the people in the immediate area and still long-lasting
13 effects of that meltdown at Three Mile Island. And also with Chernobyl also. (V-ESP-SC-25-7)
14

15 **Comment:** A whistleblower came forward, a top-level guy from Plant Vogtle, validating our
16 concern, and together we made -- we forced Southern Company to fix their emergency
17 generators so that we would never be without power to keep water cooling that reactor core.
18 We do care about this community, we do care about Plant Vogtle. (V-ESP-SC-30-6)
19

20 **Comment:** I've brought with me here today a copy of the violation which was issued in its final
21 form on September 18, 2006 to Vogtle Electric Generating Plant. This violation is regarding a
22 site variant emergency planning drill. The report states that the Nuclear Regulatory
23 Commission has determined that Southern Nuclear Company's failure to identify the above
24 weakness during this exercise is a violation of three federal regulations,...The exercise was
25 designed to uncover weaknesses but Southern Nuclear Company did not discover the
26 weaknesses and when they did their review did not catch the weakness again. This is more
27 than one incident, this is a series of incidents...The disturbing thing that I find is that Southern
28 Nuclear Company has persisted and continues to persist in this error, arguing that no, they
29 made no mistake. I only hope that the Nuclear Regulatory Commission will continue to hold
30 Southern Nuclear Company's feet to the fire. (V-ESP-SC-35-6)
31

32 **Comment:** However, I do not feel as though the technology exists to feasibly use nuclear as a
33 safe alternative to coal. (V-ESP-SW-54-2)
34

35 **Comment:** [I]f we're looking to support a nuclear power infrastructure, we need to make sure
36 we're able to support the needs to oversee it properly for the public-right now, the NRC must be
37 aware that we've got a shortfall in terms of funding and capacity in Georgia to properly monitor
38 the nuclear facilities we already have, let alone more that could be brought online in the future.
39 (V-ESP-SW-77-7)
40

41 **Comment:** I am a resident of Atlanta and am concerned...also the long-term safety of
42 operating nuclear reactors. Please do not expand it. (V-ESP-SW-92-3)

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1 **Comment:** As a citizen of Savannah, Georgia I expect safer energy choices.
2 (V-ESP-SW-96-2)

3
4 **Comment:** Human error happens and this is one place where ANY error is intolerable. The
5 consequences would be huge and felt for many, many years. (V-ESP-SW-96-7)

6
7 **Comment:** I support the exploration of safer energy choices. (V-ESP-SW-97-2)

8
9 **Comment:** I am sceptical about the local impact on...safety issues. (V-ESP-SW-106-5)

10
11 **Comment:** Nuclear...poses virtually permanent threats to public health and safety--due
12 to...human error, operation or equipment failure. (V-ESP-SW-114-6)

13
14 **Comment:** Nuclear-generated electricity poses unique risks and Georgians deserve to know
15 that their safety and their environment are being protected to the maximum extent needed.
16 Monitoring programs need to be strengthened, not further compromised, to be able to deal with
17 existing nuclear reactors. (V-ESP-SW-115-42)

18
19 **Comment:** The NRC should study the State of Georgia's ability to adequately provide proper
20 environmental radiation monitoring and emergency preparedness measures now and in the
21 future if new reactors become a reality. (V-ESP-SW-115-43)

22
23 **Response:** *The issues raised in the comments are outside the scope of the environmental*
24 *review and are not addressed in the EIS. That said, the following are examples of how NRC*
25 *addresses operational safety issues. NRC maintains resident inspectors at each reactor site.*
26 *These inspectors monitor the day-to-day operations of the plant and perform inspections to*
27 *ensure compliance with NRC requirements. In addition, the NRC has an operational*
28 *experience program that ensures that the safety issues that are found at one plant are properly*
29 *addressed at the others, as appropriate. Finally, the design of any new reactors or storage*
30 *facility will have already benefitted from lessons learned at existing reactors and incorporate*
31 *new safety features that would be impracticable to retrofit onto existing plants. The NRC will*
32 *only issue a license or permit if it can conclude that there is reasonable assurance that (1) the*
33 *activities authorized by the license or permit can be conducted without endangering the health*
34 *and safety of the public, and (2) such activities will be conducted in compliance with the rules*
35 *and regulations of the Commission.*

36
37 **Comment:** The Southern Company safety record is an astronomical record. They are steady
38 maintaining and striving and training their employees to do a better job for safety.
39 (V-ESP-SC-03-4)

1 **Comment:** The other thing, of course, the past safety record of the current caretaker of Vogtle.
2 (V-ESP-SC-04-2)
3

4 **Comment:** The owners of the Vogtle plant -- Georgia Power Company, Oglethorpe Power
5 Corporation, Municipal Electric Authority of Georgia (MEAG) and Dalton Utilities -- have a
6 proven record for safe operation of nuclear facilities and operate the existing Vogtle plant in a
7 safe and environmentally friendly manner. (V-ESP-SC-04-6)
8

9 **Comment:** Southern Nuclear Operating Company and Georgia Power operate two nuclear
10 reactors. They have done it safely and efficiently, providing much needed electricity for
11 Georgians. (V-ESP-SC-06-1)
12

13 **Comment:** Whereas, Plant Vogtle has had an excellent safety record for the life of its
14 operation. (V-ESP-SC-09-1)
15

16 **Comment:** As a co-owner of the existing Vogtle Plant, Dalton Utilities knows well Southern
17 Nuclear Operating Company's proven track record for safety and excellence. (V-ESP-SC-10-4)
18 (V-ESP-SW-56-2)
19

20 **Comment:** Nuclear power has matured into an industry that makes safety its highest priority.
21 It has proven itself to operate safely and reliably over the past 25 years. (V-ESP-SC-17-3)
22

23 **Comment:** When I first began working in nuclear, I was amazed to learn that nuclear
24 companies actually share their operating experience with their competitors. What other
25 industries do you know of that actually allow their competition to see what they've learned?
26 This is only part of a strong and open safety culture that has allowed the entire industry to
27 improve equipment and technology, its techniques and organizational practices over the years.
28 As young professionals working in nuclear, we know that safety will always be the highest
29 priority for this industry. (V-ESP-SC-17-4)
30

31 **Comment:** I have the same concerns that everyone else has about safety and the record in
32 our country with regard to oversight with different kinds of industries. But in this case, we have
33 reached the point where we have absolute, absolute comfort with the oversight provided by the
34 company itself. The folks that work there are our friends and neighbors and we know them and
35 we know how seriously they take their job. We know the construction that happened and how it
36 happened and the regulation and the oversight and there is absolutely no doubt in my mind and
37 my neighbors' minds and my family's mind -- I have a lot of family in the area - that Southern
38 Company has done a fine job with regard to taking care of the safety aspect, taking care of the
39 public involvement aspect, and also taking care of looking to the future and trying to make sure
40 that this plant will impact us in a positive way in the future. (V-ESP-SC-18-3)
41

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Comment: But the people, they do the best they can. I know the drills that they go through. I know how serious they take their jobs, I know how seriously the operators take their jobs. (V-ESP-SC-52-5)

Comment: While theoretical physics is undoubtedly difficult for most of us to comprehend, I am confident the design, construction, and operation will proceed with the utmost care for public safety. It behooves those involved to include risk management and public involvement in all their decisions. (V-ESP-SW-107-2)

Comment: There is an outstanding record of the safe operation of nuclear facilities by the owners, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia (MEAG) and Dalton Utilities and is reflected in the operation of the Vogtle plant. In fact, rigorous procedures and regulations have been developed and implemented to ensure the highest level of safety at the Vogtle facility. (V-ESP-SW-58-3)

Comment: Nuclear power has tremendous advantages over other fuels;...safer and is more stable than other fuel options. (V-ESP-SW-58-5)

Comment: The owners of the Vogtle plant - Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia (MEAG) and Dalton Utilities - have a proven track record for the safe operation of nuclear facilities and operate the existing Vogtle plant in a safe and environmentally -friendly manner. In fact, rigorous procedures and regulations have been developed and implemented to ensure the highest level of safety at the Vogtle facility. (V-ESP-SW-59-3) (V-ESP-SW-60-3) (V-ESP-SW-62-3) (V-ESP-SW-63-3) (V-ESP-SW-61-3) (V-ESP-SW-57-3)

Comment: Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia (MEAG) and Dalton Utilities - owners of the Vogtle plant - have a proven track record for the safe operation of nuclear facilities and operate the existing Vogtle plant in a safe and environmentally-friendly manner. Rigorous procedures and regulations have been developed and implemented to ensure the highest level of safety at the Vogtle facility. (V-ESP-SW-64-3)

Comment: Southern Nuclear Operating Company and Georgia Power operate two nuclear reactors, and they have done it safely and efficiently, providing much needed electricity for Georgians. (V-ESP-SW-65-1)

Response: *These comments provide general information regarding safety issues at the currently operating Vogtle facility. Because these comments do not relate to the environmental effects of the proposed action, they will not be assessed further.*

D.1.25. Comments Concerning Aging Management

Comment: [T]here are aging reactors on the site. You've got to consider all of the impacts of an accident at the existing reactors on the new reactors and on the environmental impacts. You know, this includes everything like fire and so on. (V-ESP-SC-36-9)

Response: *The current application is for an ESP for postulated new reactors. It does not contain detailed design information and is not directly related to the existing Units 1 and 2 at Vogtle. Therefore, consideration of reactor aging is outside the scope of the EIS and will not be analyzed further.*

D.1.26. Comments Concerning Other Issues

Comment: What the NRC does, the world follows. And at some point, I really hope you take a cold, cold look at the success and failure of Atoms for Peace and all the projects that are on your current plate from that perspective, and remember Pakistan, India, Iraq, Iran, North Korea --are we now talking Japan? (V-ESP-SC-36-2)

Response: *The success and failure of Atoms for Peace is beyond the scope of the EIS and is not within NRC's mission. This comment will not be addressed further.*

Comment: Our second biggest environmental problem is lack of state and federal leadership to educate Americans on the connection between growth and environmental degradation. (V-ESP-SW-76-3)

Response: *The education of Americans on the connection between growth and degradation is beyond the scope of the EIS and NRC's mission. This comment will not be addressed further.*

Comment: Additionally, please address the following items as NRC staff develops the draft EIS: How the funding may take away from research on alternative energy sources? (V-ESP-SW-95-5)

Response: *The level of funding for research on alternative energy sources is outside the scope of the EIS and beyond NRC's purview. The comment will not be addressed further.*

Comment: And reactor technology is inevitably tied to nuclear weapons proliferation. (V-ESP-SW-100-6)

Response: *Nuclear weapons proliferation is beyond the scope of the EIS. The comment will not be addressed further.*

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Comment: [I]f we're looking to support a nuclear power infrastructure, we need to make sure we're able to support the needs to oversee it properly for the public. Right now, the NRC must be aware that we've got a shortfall in terms of funding and capacity in Georgia to properly monitor the nuclear facilities we already have, let alone more that could be brought on line in the future. (V-ESP-SC-07-8)

Comment: Supporting an expansion of Georgia's nuclear power infrastructure requires that it is overseen properly for the public. The NRC should be aware that Georgia has a shortfall in terms of funding and capacity in Georgia to properly monitor the nuclear facilities we already have, let alone more that could be brought online in the future. (V-ESP-SW-115-41)

Response: *The shortfall in funding of Georgia's budget is beyond the scope of the EIS. That said, the following are examples of how NRC addresses operational safety issues. NRC maintains resident inspectors at each reactor site. These inspectors monitor the day-to-day operations of the plant and perform inspections to ensure compliance with NRC requirements. In addition, the NRC has an operational experience program that ensures that the safety issues that are 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 retrofit onto existing plants. The NRC will only issue a license or permit if it can conclude that there is reasonable assurance that (1) the activities authorized by the license or permit can be conducted without endangering the health and safety of the public and (2) such activities will be conducted in compliance with the rules and regulations of the Commission.*

D.1.27. Comments Concerning Other Project Specific Issues

Comment: Accidents and near-accidents have occurred at nuclear plants in the past. The best known incident in the U.S. is the partial core meltdown at Three Mile Island in Pennsylvania. As Peter Bradford, former commissioner of the NRC said: "The abiding lesson that Three Mile Island taught Wall Street was that a group of N.R.C.-licensed reactor operators, as good as any others, could turn a \$2 billion asset into a \$1 billion cleanup job in about 90 minutes." (V-ESP-SW-113-2)

Comment: What about accidental "near misses" at nuclear plants? A couple of examples will suffice. The Davis-Besse plant, a pressure water reactor (PWR) near Toledo, Ohio, was brought on line in 1977. In 2002 during a prescribed inspection, the operator found that boric acid leaking inside the core had corroded a large hole (4 X5 inches) completely through the steel top of the reactor vessel. Amazingly, the only material left to contain the superheated cooling water at 2,180 psi was a stainless steel liner 1/8 inch thick. Although this potentially serious situation was finally detected in 2002, the problem with boric acid corrosion in reactors had been known by NRC for decades. Moreover, three years before this "near miss," a

1 violation had been issued by NRC to Davis-Besse for its inadequate boric acid corrosion control
2 program. (V-ESP-SW-113-4)

3
4 **Comment:** Serious system shortcomings at nuclear plants can continue uncorrected for a long
5 time. For example, in 1998, the operators of the Big Rock Point nuclear plant informed NRC
6 that the vital Standby Liquid Control System had been completely inoperative for somewhere
7 between 13 and 18 years. (V-ESP-SW-113-5)

8
9 **Response:** *The issues raised in the comments are outside the scope of the environmental*
10 *review, and will not be addressed in the EIS. That said, the following are examples of how*
11 *NRC addresses operational safety issues. NRC maintains resident inspectors at each reactor*
12 *site. These inspectors monitor the day-to-day operations of the plant and perform inspections*
13 *to ensure compliance with NRC requirements. In addition, the NRC has an operational*
14 *experience program that ensures that safety issues that are found at one plant are properly*
15 *addressed at the others, as appropriate. Finally, the design of any new reactors or storage*
16 *facility will have already benefitted from lessons learned at existing reactors and incorporate*
17 *new safety features that would be impracticable to retrofit onto existing plants. The NRC will*
18 *only issue a license or permit if it can conclude that there is reasonable assurance that (1) the*
19 *activities authorized by the license or permit can be conducted without endangering the health*
20 *and safety of the public and (2) such activities will be conducted in compliance with the rules*
21 *and regulations of the Commission.*

22 23 **D.1.28. Comments Concerning NRC's Administrative Process**

24
25 **Comment:** [A]re you [NRC] independent of the industry? We don't know. The next question is
26 are you independent of Congress? We really don't know. Now, there's an even bigger
27 question, are you independent of the White House? (V-ESP-SC-36-5)

28
29 **Response:** *The NRC takes seriously its responsibility under the Atomic Energy Act to protect*
30 *the health and safety of the public and the environment in regulating the U.S. nuclear power*
31 *industry. More information on NRC's roles and responsibilities is available on the NRC's*
32 *website at <http://www.nrc.gov/about-NRC.html>. The NRC was created by the Congress and*
33 *designed so that it would not report to the same part of the government that was in charge of*
34 *setting energy policy (i.e., any current Administration). The comments did not provide new*
35 *information relevant to the EIS and will not be evaluated further.*

36 37 **D.1.29. Comments Expressing Support for Nuclear Power**

38
39 **Comment:** That requires us to start planning right now and in order for us to be able to supply
40 the energy, especially by 2015, we must start planning right now. (V-ESP-SC-01-2)

41
42 **Comment:** We also think that nuclear is very reliable and very safe. (V-ESP-SC-01-4)

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1 **Comment:** We have great community support for those plants [nuclear power plants in Burke
2 County] as well. (V-ESP-SC-01-5)
3

4 **Comment:** We need to not be depending on one source of energy and that's an option,
5 nuclear, that helps us into having that diverse energy mix. (V-ESP-SC-01-6)
6

7 **Comment:** A Resolution in Support for Expansion of Plant Vogtle...Whereas, Waynesboro and
8 Burke County are proud of our neighbors, Georgia Power and Plant Vogtle, for their record and
9 history of producing safe, clean, reliable and affordable electricity for almost 20 years.
10 (V-ESP-SC-02-3)
11

12 **Comment:** [W]e have seen the good things that Plant Vogtle has brought to our community.
13 (V-ESP-SC-02-6)
14

15 **Comment:** Nuclear power is very clean, it is the most clean way of producing electricity for our
16 future needs that there is known to man at this time. (V-ESP-SC-03-7)
17

18 **Comment:** Surveys made here and throughout the country show that 84 to 85 percent of
19 people who live near existing nuclear plants fully support the building of additional nuclear
20 plants near them or elsewhere. (V-ESP-SC-06-3)
21

22 **Comment:** I can tell you now that these are two of the safest nuclear power plants I think in
23 the whole United States and I wouldn't be scared to live next door to one of them.
24 (V-ESP-SC-08-1)
25

26 **Comment:** We believe that nuclear energy is a safe, reliable and cost-effective source of
27 electricity that helps to improve the environment by not emitting carbon dioxide and other
28 greenhouse gas emissions. Clean, affordable nuclear energy means that you will have clean
29 air for your children and a bustling economy in the southeast providing more jobs for your
30 families. (V-ESP-SC-11-5)
31

32 **Comment:** Just as we nurture our children, we need to support the nuclear power industry.
33 Both are important to our country's future and that's a win-win for everybody. (V-ESP-SC-11-6)
34

35 **Comment:** We support nuclear power because it's safe, it's clean, it's reliable and an
36 important part of a balanced energy mix. (V-ESP-SC-17-1)
37

38 **Comment:** Nuclear is clean energy that has very small impact on water, land, habitat, species,
39 and air resources within our environment. (V-ESP-SC-17-5)
40

1 **Comment:** What I've experienced since my career began in nuclear power has only
2 encouraged me to support nuclear power with more resolve. I'm excited about the future of
3 nuclear power and I'm sure there are many more professionals in the room that feel the same
4 way I do. (V-ESP-SC-17-8)
5

6 **Comment:** I can imagine it before Plant Vogtle and from my perspective, living in Girard and
7 from the Girard community, the prospects of it in the future is better with Plant Vogtle and
8 Southern Company than it would be without them. (V-ESP-SC-18-4)
9

10 **Comment:** Our Development Authority believes that this expansion will allow us to continue to
11 benefit from clean, cost-effective and reliable electric energy that will serve our community, the
12 state of Georgia, and several southern states. (V-ESP-SC-19-2)
13

14 **Comment:** I do think there's a need for this nuclear power to move forward, not just here but
15 for the whole country. (V-ESP-SC-23-1)
16

17 **Comment:** [I]f I thought for a minute that Plant Vogtle was a threat to a big part of what I own
18 or what I'm paying for, that it was a threat, I would be up in arms. But I've been here since '70
19 (V-ESP-SC-33-2)
20

21 **Comment:** [W]e have 500 cows that graze on pasture that is a mile and a half, two miles, from
22 Plant Vogtle. We get the highest per pound for our cattle of anybody in the entire area. I have
23 zero concern about my cattle, I have zero concern about my children, my grandchildren, or my
24 great grandchildren. (V-ESP-SC-33-8)
25

26 **Comment:** I fully support nuclear energy for commercial power use. (V-ESP-SC-44-1)
27 (V-ESP-SW-53-1)
28

29 **Comment:** Humans are masters at combining chemicals in magical ways to produce goods
30 that truly enrich our lives. The price we pay, however, is that complex mixtures of metals,
31 nicotine and benzene are found in our blood. PCBs, PAHs and POPs settle in our fat.
32 Pesticides cling to our house dust. Endocrine disrupters are excreted in our urine. Infants
33 begin life with detectable PCBs and DBTs from their mother's milk. All of this occurs while the
34 ice melts in our polar regions from global warming. These are the things that threaten our
35 environment, our existence -- not the emissions from nuclear power plants. (V-ESP-SC-44-3)
36

37 **Comment:** And I've never had a glass of water to glow in the night. When we moved here, I
38 have never felt for the safety or health concerns of my family, not then, not now, nor in the
39 future. (V-ESP-SC-52-9)
40

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Comment: Humans are masters at combining chemicals in magical ways to produce goods that truly enrich our lives. The price we pay, however, is that complex mixtures of metals, nicotine, and benzene are found in our blood; PCBs, PAHs and POPs settle in our fat; we inhale pesticides that cling to our house dust; endocrine disruptors are excreted in our urine. Infants BEGIN life with detectable levels of PCBs and DDT in their veins.... laced from mothers' breast milk. All of this occurs while the ice melts in the arctic from global warming. These are the things that threatened our environment, our existence,...not the emissions from nuclear power plants. (V-ESP-SW-53-3)

Comment: I first want to state my position on nuclear power. I see it as a potentially safe solution to the use of coal-powered energy plants. (V-ESP-SW-54-1)

Comment: An overwhelming majority, 70 percent, support nuclear energy primarily because they see the value of this clean energy and appreciate that it is safe and is environmentally friendly. (V-ESP-SW-58-7)

Comment: Recent studies indicate that 70 percent of Americans support nuclear energy. America understands that to be globally competitive and provide an alternative to our dependence on fossil fuels, our country must initiate a reconsideration of nuclear power generation. (V-ESP-SW-62-6)

Comment: Surveys made here and throughout the country show that 84 to 85% of people who live near existing nuclear plants fully support the building of additional nuclear plants near them or elsewhere. (V-ESP-SW-65-3)

Comment: The addition at Plant Vogtle will further enhance recognition of the CSRA as the nation's hub for the resurgent nuclear energy industry. (V-ESP-SW-70-2)

Comment: Nuclear energy is safe, emission free, and a cost-effective solution. (V-ESP-SW-80-2)

Comment: We need to face reality; the only choices we are going to have over the next fifty years are coal or nuclear. (V-ESP-SW-105-1)

Comment: Accordingly, we need more nuclear capacity. (V-ESP-SW-105-3)

Comment: The modernization of the commercial nuclear industry is vital to our economy and security. (V-ESP-SW-107-3)

Response: *These comments provide general information in support of nuclear power and will not be assessed further.*

D.1.30. Comments Expressing Opposition to Nuclear Power

Comment: [T]here's plenty written about the hazards of nuclear power. I could get up here and talk about the hazards of nuclear power all day long. (V-ESP-SC-16-2)

Comment: [T]here's a reason why there hasn't been any nuclear power plants built in this country for many years. They're dangerous, they're costly and they're totally unnecessary. (V-ESP-SC-16-8)

Comment: I ask the Southern Company to phase out what I think is a dirty energy and step into the path of the future to create jobs in the field of clean, sustainable energy. (V-ESP-SC-26-3)

Comment: Over this period of time, we have come to be opposed to nuclear power...Among the other reasons besides nuclear waste are the economics of it and the public health impacts. (V-ESP-SC-35-1)

Comment: And I thought until the last second, Mary, that I was going to be the one to talk about the southeast as being the focus with 30 proposed and all but two in the southeast, and that is a disproportionate burden for this region. (V-ESP-SC-37-1)

Comment: I think that in many ways, we are looking backward instead of forward and we're using unsustainable means to move forward. (V-ESP-SC-37-5)

Comment: All I can say is that the people from my home were bamboozled into thinking that nuclear energy was a good thing. I don't want this community, my new community, to be bamboozled into thinking that this is a viable option. (V-ESP-SC-38-7)

Comment: We need to provide a safe community and a safe world for our children. (V-ESP-SC-38-9)

Comment: STOP Nuclear Power Expansion in Georgia! (V-ESP-SW-55-1)

Comment: I am vehemently against any further use of nuclear power (and would like to see the current two nuclear plants disassembled) in Georgia. (V-ESP-SW-72-1)

Comment: Please take into consideration my opinion that it would not be in Georgia's best interest to expand nuclear power plants and/or production. (V-ESP-SW-73-1)

Appendix D

Comment: Our biggest environmental problem is over-population, something no one wants to address but until we do, we have no long-term hope of curbing greenhouse gasses or curbing the equally dangerous build up of nuclear waste if additional nuclear plants are constructed. (V-ESP-SW-76-1)

Comment: My dear friend and fellow classmate Natalie Garber sent me a letter talking about how there is all of a sudden a need for nuclear energy, and how it has been labeled a "safe" alternative for our future power supply. This is really disturbing to me, because that's just it: nuclear and safe do not go together... (V-ESP-SW-79-1)

Comment: Nuclear power seems all great for now, but why risk it? Why not do something that will save lives and save money? (V-ESP-SW-79-5)

Comment: Nuclear power is a dangerous technology, an expensive technology, and an unnecessary technology. (V-ESP-SW-81-13)

Comment: Nuclear power is a dangerous technology that provides high-cost electricity and is unnecessary given the availability of clean and low-cost energy efficiency measures and renewable energy sources such as solar power and wind. (V-ESP-SW-81-2)

Comment: I can speak all night about the dangers of nuclear power:

- the hazards to workers, communities and the environment over the entire nuclear fuel cycle,
- the possibility of a catastrophic accident that could make inhabitable an area the size of the state of GA and kill tens of thousands,
- the increased rates of specific cancers that occurred as a result of the TMI near catastrophic accident (i.e., non-Hodgkin's lymphoma, leukemia, and lung cancer, that were related to the estimated doses from the plant), as well as the increased levels of stress to the population and the economic costs of the accident to the community
- the risk of a terrorist attack on the plant itself and on its "interim" on-site storage of nuclear fuel rods
- the failure to solve the problem of long-term nuclear waste storage
- the inadequacy of evacuation plans in the event of a serious accident
- the enormous water consumption of these plants at a time when the state has drought problems and there is an ongoing, 3-state dispute about water, and
- the "mobile Chernobyl" hazards of nuclear waste transport. (V-ESP-SW-81-6)

Comment: I will simply say that nuclear power is a dangerous, costly, and totally unnecessary technology. (V-ESP-SW-81-7)

1 **Comment:** It seems that the Creator of this universe provided everything we need in order to
2 survive as individuals and as a planet in the solar system without the use of nuclear energy.
3 (V-ESP-SW-82-2)
4

5 **Comment:** Georgia and the rest of the country want clean, safe, renewable energy. Nuclear
6 power does not fit the bill. (V-ESP-SW-83-2)
7

8 **Comment:** In the face of alternative energy sources, more-nuclear reactors in Georgia is just
9 not worth the risk to our communities. (V-ESP-SW-91-9)
10

11 **Comment:** I would prefer to see the plant closed totally. (V-ESP-SW-96-3)
12

13 **Comment:** I am solidly opposed to nuclear energy and it's expansion seems an invitation to
14 disaster. (V-ESP-SW-96-6)
15

16 **Comment:** If this permit is approved, please send me information on what areas of the country
17 have the least nuclear disaster potential from nuclear reactors. (V-ESP-SW-96-8)
18

19 **Comment:** We live in the Savannah area and I am opposed to expanding nuclear power plants
20 on the Savannah River. (V-ESP-SW-97-1)
21

22 **Comment:** My comments are in opposition to your ever granting an early site permit for
23 nuclear reactors. (V-ESP-SW-98-1)
24

25 **Comment:** Our son's family lives in Georgia and our concern for their well-being and that of us
26 in Southeast gives us reason to object strongly to even proceeding with the first step toward
27 early site permits. (V-ESP-SW-98-6)
28

29 **Comment:** The United States should be setting an example for the world by moving us toward
30 a nuclear-free future, not by amplifying the costs and risks. (V-ESP-SW-100-7)
31

32 **Comment:** Please continue your efforts to build a nuclear power plant in GA or elsewhere. Of
33 course none will ever be built. The public won't allow it and the water, safety, terrorism and
34 waste issues are insurmountable, and the economics just aren't there. (V-ESP-SW-101-1)
35

36 **Comment:** However, by trying to build a new nuke the Southern Company and NRC will
37 certainly re-energize the nonviolent anti-nuclear movement. This will then lead to the
38 permanent shut down the nation's existing nukes far sooner than would have happened
39 otherwise. (V-ESP-SW-101-3)
40

Appendix D

1 **Comment:** I am deeply opposed to additional nuclear reactors being built anywhere, including
2 at Plant Vogtle. (V-ESP-SW-103-1)

3
4 **Comment:** Nuclear power and its ancillary issues should be handled with extreme caution.
5 (V-ESP-SW-106-7)

6
7 **Comment:** Georgians do not need any more dangerous nuclear reactors forced down our
8 throats. (V-ESP-SW-108-1)

9
10 **Comment:** Please do not subject present and future generations to the terrible consequences
11 of even the slightest mistake in dealing with the production of nuclear energy.
12 (V-ESP-SW-109-6)

13
14 **Comment:** I am a Georgia resident who has been concerned for a long time about the risks of
15 nuclear power. The history of this industry shows clearly that it is a dead end road.
16 (V-ESP-SW-111-1)

17
18 **Comment:** It is a dinosaur industry but one that will constantly be reinvented as long as there
19 are those who love nuclear engineering. But there must be precaution when dealing with
20 anything nuclear. With anything that has such long-lasting and potentially deadly
21 consequences. I witness no such caution coming from the DOE, the NRC, the EPA, or the
22 current administration. (V-ESP-SW-112-7)

23
24 **Comment:** Nuclear power has substantial disadvantages with respect to safety, spent fuel
25 disposal, cost, security, proliferation of bomb-making materials, and environmental impacts.
26 (V-ESP-SW-113-10)

27
28 **Comment:** Such energy sources are simply not suited to sustainable and wise use of our
29 natural resources in meeting human needs. (V-ESP-SW-114-8)

30
31 **Comment:** Additionally, please address the following items as NRC staff develops the draft
32 EIS: human beings/Americans/Georgians need clean, safe, sustainable sources of energy.
33 Our water and ecosystems are precious and irreplaceable. Please do willfully damage them.
34 (V-ESP-SW-117-5)

35
36 **Response:** *These comments provide general information in opposition to nuclear power and*
37 *will not be assessed further.*

Appendix E

Draft Environmental Impact Statement Comments and Responses

Appendix E

Draft Environmental Impact Statement Comments and Responses

- 1 This appendix is intentionally left blank. The final Environmental Impact Statement (EIS) will
2 contain the comments on and responses to the draft EIS in this appendix.

Appendix F

Key Early Site Permit Consultation Correspondence Regarding the VEGP Early Site Permit

Appendix F

Key Early Site Permit Consultation Correspondence Regarding the VEGP Early Site Permit

Correspondence received during the evaluation process of the early site permit application for the siting of two new nuclear units (Units 3 and 4) at the Vogtle Electric Generating Plant in Burke County, Georgia is identified in Table F-1. Copies of the correspondence are included at the end of this appendix.

Source	Recipient	Date of Letter
U.S. Nuclear Regulatory Commission (NRC) (Christopher Nolan)	Poarch Band of Creek Indians (Stephanie Rolin)	October 12, 2006
NRC (Christopher Nolan)	United Keetoowah Band of Cherokee Indians (Emma Sue Holland)	October 12, 2006
NRC (Christopher Nolan)	Poarch Band of Creek Indians (Eddie Tullis)	October 12, 2006
NRC (Christopher Nolan)	Eastern Band of Cherokee Indians (Kathy McCoy)	October 12, 2006
NRC (Christopher Nolan)	Coushatta Tribe of Louisiana (John Zachary)	October 12, 2006
NRC (Christopher Nolan)	Kialegee Tribal Town (Evelyn Bucktrot)	October 12, 2006
NRC (Christopher Nolan)	Miccosukee Tribe of Indians of Florida (Steven Terry)	October 12, 2006
NRC (Christopher Nolan)	Poarch Band of Creek Indians (Gale Thrower)	October 12, 2006
NRC (Christopher Nolan)	Thlopthlocco Tribal Town (Louis McGertt)	October 12, 2006
NRC (Christopher Nolan)	Muscogee (Creek) Nation (A.D. Ellis)	October 12, 2006

	Source	Recipient	Date of Letter
1	NRC (Christopher Nolan)	Cherokee Nation of Oklahoma (Richard Allen)	October 12, 2006
2	NRC (Christopher Nolan)	Chickasaw Nation (Gingy [Virginia] Nail)	October 12, 2006
3	NRC (Christopher Nolan)	Chickasaw Nation of Oklahoma (Bill Anoatubby)	October 12, 2006
4	NRC (Christopher Nolan)	Georgia Tribe of Eastern Cherokee (Charles Thurmond)	October 12, 2006
5	NRC (Christopher Nolan)	Alabama-Quassarte Tribal Town (Tarpie Yargee)	October 12, 2006
6	NRC (Christopher Nolan)	National Marine Fisheries Service (David Bernhart)	October 12, 2006
7	NRC (Christopher Nolan)	U.S. Fish and Wildlife Service, Daphne Ecological Services (Elaine Snyder-Conn)	October 12, 2006
8	NRC (Christopher Nolan)	U.S. Fish and Wildlife Service, Georgia Ecological Services (Strant Colwell)	October 12, 2006
9	NRC (Christopher Nolan)	Advisory Council on Historic Preservation (Don Klima)	October 12, 2006
10	NRC (Christopher Nolan)	Seminole Nation of Oklahoma (Pare Bowlegs)	October 12, 2006
11	NRC (Christopher Nolan)	Eastern Band of Cherokee Indians (Michell Hicks)	October 12, 2006
12	NRC (Christopher Nolan)	Georgia State Historic Preservation Officer (Ray Luce)	October 12, 2006
13	NRC (Christopher Nolan)	Alabama Historical Commission (Ed Bridges)	October 12, 2006
14	NRC (Christopher Nolan)	United Keetoowah Band of Cherokee Indians (Dallas Proctor)	October 12, 2006

	Source	Recipient	Date of Letter
1	NRC (Christopher Nolan)	Absentee-Shawnee Tribe of Oklahoma (Karen Kaniatobe)	October 12, 2006
2	NRC (Christopher Nolan)	Alabama-Coushatta Tribe of Texas (Debbie Thomas)	October 12, 2006
3	NRC (Christopher Nolan)	Muscogee (Creek) Nation of Oklahoma (Joyce A. Bear)	October 12, 2006
4	NRC (Christopher Nolan)	Cherokee Nation of Oklahoma (Chadwick Smith)	October 12, 2006
5	NRC (Christopher Nolan)	Catawba Indian Tribe (Gilbert Blue)	October 12, 2006
6	NRC (Christopher Nolan)	Seminole Tribe of Florida (Willard Steele)	October 12, 2006
7	NRC (Christopher Nolan)	Mississippi Band of Choctaw Indians (Kenneth H. Carleton)	October 12, 2006
8	Miccosukee Tribe of Indians of Florida (Steven Terry)	NRC (e-mail)	October 16, 2006
9			
10	Alabama Historical Commission (Colonel [Ret.] John A. Neubauer)	NRC (Mark Notich)	October 20, 2006
11			
12			
13	Walt Wilson, National Marine Fisheries Service (Walt Wilson)	NRC	October 24, 2006
14			
15			

October 12, 2006

Ms. Stephanie Rolin, NAGPRA Contact
Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Ms. Rolin:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Poarch Band of Creek Indians. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Poarch Band of Creek Indians to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Ms. S. Rolin

- 2 -

Accordingly, the staff invites the Poarch Band of Creek Indians to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Ms. Emma Sue Holland, NAGPRA Contact
United Keetoowah Band of Cherokee Indians
P.O. Box 746
Tahlequah, OK 74465

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Ms. Holland:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the United Keetoowah Band of Cherokee Indians. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the United Keetoowah Band of Cherokee Indians to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Ms. E. Holland

- 2 -

Accordingly, the staff invites the United Keetoowah Band of Cherokee Indians to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

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Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. Eddie Tullis, Chairperson
Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Mr. Tullis:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

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Mr. E. Tullis

- 2 -

Accordingly, the staff invites the Poarch Band of Creek Indians to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

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Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Ms. Kathy McCoy, NAGPRA Contact
Eastern Band of Cherokee Indian
P.O. Box 455
Cherokee, NC 28719

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Ms. McCoy:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Eastern Band of Cherokee Indian. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Eastern Band of Cherokee Indian to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

K. McCoy

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Accordingly, the staff invites the Eastern Band of Cherokee Indian to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

K. McCoy

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At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. John Zachary, Attorney at Law
c/o Coushatta Tribe of Louisiana
P.O. Box 12730
Alexandria, LA 71315-2730

SUBJECT: EARLY SITE PERMIT REVIEW FOR THE VOGTLE SITE

Dear Mr. Zachary:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Coushatta Tribe of Louisiana. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Coushatta Tribe of Louisiana to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA). Accordingly, the staff invites the Coushatta Tribe of Louisiana to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and

Mr. J. Zachary

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proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

Mr. J. Zachary

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At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Ms. Evelyn Bucktrot, Town King
Kialegee Tribal Town
P.O. Box 332
Wetumka, OK 74883

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Ms. Bucktrot:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Kialegee Tribal Town. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Kialegee Tribal Town to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Ms. E. Bucktrot

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Accordingly, the staff invites the Kialegee Tribal Town to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. Steven Terry
Land Resources Manager
Miccosukee Tribe of Indians of Florida
Real Estate Services
Mile Marker 70
US 41 at Admin. Bldg.
Miami, FL 33194

SUBJECT: EARLY SITE PERMIT REVIEW FOR THE VOGTLE SITE

Dear Mr. Terry:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Miccosukee Tribe of Indians of Florida. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Miccosukee Tribe of Indians of Florida to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Mr. S. Terry

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Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA). Accordingly, the staff invites the Miccosukee Tribe of Indians of Florida to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

Mr. S. Terry

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At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Ms. Gale Thrower, NAGPRA Contact
Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Ms. Thrower:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Poarch Band of Creek Indians. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Poarch Band of Creek Indians to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Ms. G. Thrower

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Accordingly, the staff invites the Poarch Band of Creek Indians to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. Louis McGertt, Town King
Thlopthlocco Tribal Town
P.O. Box 188
Okema, OK 74859

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Mr. McGertt:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Thlopthlocco Tribal Town. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Thlopthlocco Tribal Town to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Mr. L. McGertt

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Accordingly, the staff invites the Thlopthlocco Tribal Town to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

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On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. A.D. Ellis, Principal Chief
Muscogee (Creek) Nation
P.O. Box 580
Okmulgee, OK 74447

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Principal Chief Ellis :

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Muscogee (Creek) Nation. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Muscogee (Creek) Nation to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Principal Chief A.D. Ellis

- 2 -

Accordingly, the staff invites the Muscogee (Creek) Nation to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. Richard L. Allen, NAGPRA Contact
Cherokee Nation of Oklahoma
P.O. Box 948
Tahlequa, OK 74465-0948

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Mr. Allen:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Cherokee Nation of Oklahoma. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Cherokee Nation of Oklahoma to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Mr. R. Allen

- 2 -

Accordingly, the staff invites the Cherokee Nation of Oklahoma to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Ms. Gingy (Virginia) Nail, NAGPRA Contact
Chickasaw Nation
P.O. Box 1548
Ada, OK 74821-1548

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Ms. Nail:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Chickasaw Nation. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Chickasaw Nation to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Ms. G. Nail

- 2 -

Accordingly, the staff invites the Chickasaw Nation to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

Ms. G. Nail

-2--

At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. Bill Anoatubby, Governor
Chickasaw Nation of Oklahoma
P.O. Box 1548
Ada, OK 74821-1548

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Mr. Anoatubby:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Chickasaw Nation of Oklahoma. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Chickasaw Nation of Oklahoma to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Mr. B. Anoatubby

- 2 -

Accordingly, the staff invites the Chickasaw Nation of Oklahoma to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxcg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. Charles Thurmond, NAGPRA Contact
Georgia Tribe of Eastern Cherokee
P.O. Box 1324
Clayton, GA 30525

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Mr. Thurmond:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Georgia Tribe of Eastern Cherokee. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Georgia Tribe of Eastern Cherokee to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Mr. C. Thurmond

- 2 -

Accordingly, the staff invites the Georgia Tribe of Eastern Cherokee to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

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Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

Mr. C. Thurmond

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At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation
Sincerely,

Project No. 737
cc: See next page

October 12, 2006

Mr. Tarpie Yargee, Chief
Alabama-Quassarte Tribal Town
P.O. Box 187
Wetumka, OK 74883

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Chief Yargee:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Alabama-Quassarte Tribal Town. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Alabama-Quassarte Tribal Town to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Accordingly, the staff invites the Alabama-Quassarte Tribal Town to consult with the staff in this

Chief T. Yargee

- 2 -

regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cvg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. David Bernhart
Assistant Regional Administrator
National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

SUBJECT: APPLICATION FOR AN EARLY SITE PERMIT FOR THE VOGTLE ESP SITE

Dear Mr. Bernhart:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application submitted by Southern Nuclear Operating Company (Southern) for an early site permit (ESP) for the potential future construction of one or more new nuclear power plants. As part of the review of this application the NRC is preparing an environmental impact statement (EIS). The impact analyses in the EIS will include the potential impacts of the construction and operation of one or more new nuclear power plants at the applicant's preferred site or at one of three alternate sites, including the potential impacts to fish and wildlife and threatened and endangered species.

The applicant's preferred location for the new unit(s), if built, would be adjacent to the existing Vogtle Electric Generating Plant (VEGP), located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia. Southern also has identified three alternate sites that will be evaluated in the EIS. The three alternate sites owned by Southern: Barton Site (greenfield), in Chilton and Elmore Counties, Alabama, Edwin I. Hatch Nuclear Plant, Appling and Toombs Counties, Georgia, and Joseph M. Farley Nuclear Plant, in Houston County, Alabama.

Southern submitted the application for an ESP was on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* Part 52. The applicant supplemented the application by letters dated August 17, 2006, September 6, 2006, (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006, and is available through the web-based version of the NRC's Agencywide Documents Access and Management System, which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248. If approved, the ESP will document the NRC staff's determination regarding the suitability of the proposed site for the construction and operation of one or more new nuclear plants. The ESP would not authorize the applicant to begin construction of the new unit(s). However, in its review the NRC staff will evaluate the environmental impacts of construction and operation and will also consider alternatives, including the above alternative sites.

To support the EIS preparation process and to ensure compliance with Section 7 of the Endangered Species Act of 1973, the NRC requests a list of endangered, threatened, candidate, and proposed species, and designated and proposed critical habitat under the

D. Bernhart

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jurisdiction of NOAA Fisheries, that may be in the vicinity of the VEGP site and its transmission line corridors (Burke County, Jefferson County, Warren County, and McDuffie County), and the three alternate sites listed above. In addition, please provide any information you consider appropriate under the provisions of the Fish and Wildlife Coordination Act of 1934.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. You and your staff are invited to attend. Your office will receive a copy of the draft EIS along with a request for comments after it is issued. The anticipated publication date for the draft EIS is July 2007.

If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Elaine Snyder-Conn, Acting Field Supervisor
U.S. Fish and Wildlife Service
Daphne Ecological Services Field Office
1208-B Main Street
Daphne, AL 36526

SUBJECT: APPLICATION FOR AN EARLY SITE PERMIT FOR THE VOGTLE ESP SITE

Dear Ms. Conn:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application submitted by Southern Nuclear Operating Company (Southern) for an early site permit (ESP) for the potential future construction of one or more new nuclear power plants. As part of the review of this application the NRC is preparing an environmental impact statement (EIS). The impact analysis in the EIS includes the potential impacts of the construction and operation of one or more new nuclear power plants at the applicant's preferred or at one of three alternate sites, including the potential impacts to fish and wildlife and threatened and endangered species.

The applicant's preferred location for the new unit(s), if built, would be adjacent to the existing Vogtle Electric Generating Plant (VEGP) site, which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia. The three alternate sites that will be evaluated in the EIS at the Edwin I. Hatch Nuclear Plant, Appling and Toombs Counties, Georgia, the Barton Site, in Chilton and Elmore Counties, Alabama and Joseph M. Farley Nuclear Plant, in Houston County, Alabama located within the area serviced by your office.

Southern submitted the application for an ESP on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* Part 52. The applicant supplemented the application by letters dated August 17, 2006, September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If approved, the ESP will document the NRC staff's determination regarding the suitability of the proposed site for the construction and operation of one or more new nuclear plants. The ESP would not authorize the applicant to begin construction of the new unit(s). However, in its review the NRC staff will evaluate the environmental impacts of construction and operation and will also consider alternatives, including the above alternative sites. The application is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

E. Conn

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To support the EIS preparation process and to ensure compliance with Section 7 of the Endangered Species Act of 1973, the NRC requests a list of endangered, threatened, candidate, and proposed species, and designated and proposed critical habitat, that may be in the vicinity of the three alternate sites. In addition, please provide any information you consider appropriate under the provisions of the Fish and Wildlife Coordination Act of 1934.

If you have any questions concerning the VEGP ESP application or other aspects of this project, please contact Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. Strant Colwell
Assistant Field Supervisor
US Fish and Wildlife Service
Georgia Ecological Services
Coastal Georgia Sub-Office
4270 Norwich St. Ext.
Brunswick, GA 31520

SUBJECT: APPLICATION FOR AN EARLY SITE PERMIT FOR THE VOGTLE ESP SITE

Dear Mr. Colwell:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application submitted by Southern Nuclear Operating Company (Southern) for an early site permit (ESP) for the potential future construction of one or more new nuclear power plants. As part of the review of this application the NRC is preparing an environmental impact statement (EIS). The impact analysis in the EIS includes the potential impacts of the construction and operation of one or more new nuclear power plants at the applicant's preferred or at one of three alternate sites, including the potential impacts to fish and wildlife and threatened and endangered species.

The applicant's preferred location for the new unit(s), if built, would be adjacent to the existing Vogtle Electric Generating Plant (VEGP) site, which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia. The three alternate sites that will be evaluated in the EIS at the Edwin I. Hatch Nuclear Plant, Appling and Toombs Counties, Georgia, the Barton Site, in Chilton and Elmore Counties, Alabama and Joseph M. Farley Nuclear Plant, in Houston County, Alabama located within the area serviced by your office.

Southern submitted the application for an ESP on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* Part 52. The applicant supplemented the application by letters dated August 17, 2006, September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If approved, the ESP will document the NRC staff's determination regarding the suitability of the proposed site for the construction and operation of one or more new nuclear plants. The ESP would not authorize the applicant to begin construction of the new unit(s). However, in its review the NRC staff will evaluate the environmental impacts of construction and operation and will also consider alternatives, including the above alternative sites. The application is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

S. Colwell

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To support the EIS preparation process and to ensure compliance with Section 7 of the Endangered Species Act of 1973, the NRC requests a list of endangered, threatened, candidate, and proposed species, and designated and proposed critical habitat, that may be in the vicinity of the three alternate sites. In addition, please provide any information you consider appropriate under the provisions of the Fish and Wildlife Coordination Act of 1934.

If you have any questions concerning the VEGP ESP application or other aspects of this project, please contact Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. Don Klima, Director
Office of Federal Agency Programs
Advisory Council on Historic Preservation
Old Post Office Building
1100 Pennsylvania Avenue, NW, Suite 809
Washington, DC 20004

SUBJECT: EARLY SITE PERMIT REVIEW FOR THE VOGTLE SITE

Dear Mr. Klima:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) submitted by Southern Nuclear Operating Company (Southern) on August 15, 2006. The applicant supplemented the application by letters dated August 17, 2006, September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. An ESP allows an applicant to set aside a site for potential future construction of one or more new nuclear power plants, and provides the opportunity to resolve site safety and environmental issues before construction begins. An ESP does not allow actual construction of a nuclear plant, which must be requested through another application. The ESP site proposed by Southern is adjacent to the existing Vogtle Electric Generating Plant on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia. The application was submitted by Southern pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52.

Southern has also included a site redress plan in its application in accordance with 10 CFR 52.17(c) and 52.25. If a site redress plan is included in an ESP approved by the NRC, the applicant may carry out certain site preparation and limited construction activities. Southern would still be required to obtain the appropriate local, State, and other Federal permits required for these activities prior to starting work. The application is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) pursuant to 10 CFR Part 51, the NRC regulations that implement the National Environmental Policy Act of 1969. In accordance with 36 CFR 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under §106 of the National Historic Preservation Act of 1966, as amended. Accordingly, the staff has identified parties who may wish to consult with the staff in this regard and invited them to consult with the NRC staff on this matter. Consultation will include participation in the scoping process; identification of historic properties on the Vogtle ESP site; assessment of the effects of the proposed action on any

D. Klima

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historic properties identified; and development of alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties.

The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under §800.8, the NRC staff will forward the draft EIS to consulting parties for review and comment, and will address the comments in the final EIS. A draft EIS is scheduled for publication in June 2007, and will also be provided to you for review and comment.

If you have any questions or require additional information, please contact the Environmental Project Manager for the Vogtle ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. Pare Bowlegs
Seminole Nation of Oklahoma
PO Box 1498
Wewoka, OK 74884

SUBJECT: EARLY SITE PERMIT REVIEW FOR THE VOGTLE SITE

Dear Mr. Bowlegs:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Seminole Nation of Oklahoma. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Seminole Nation of Oklahoma to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA). Accordingly, the staff invites the Seminole Nation of Oklahoma to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and

Mr. P. Bowlegs

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proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

Mr. P. Bowlegs

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At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. Michell Hicks, Principal Chief
Eastern Band of Cherokee Indians
P.O. Box 455
Qualla Boundary
Cherokee, NC 28719

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Principal Chief Hicks:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Eastern Band of Cherokee Indians. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Eastern Band of Cherokee Indians to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Mr. M. Hicks

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Accordingly, the staff invites the Eastern Band of Cherokee Indians to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Dr. W. Ray Luce, Division Director and Deputy SHPO
State Historic Preservation Officer
Historic Preservation Division
Department of Natural Resources
34 Peachtree Street, NW Suite 1600
Atlanta, GA 30303-2316

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE ESP SITE

Dear Dr. Luce:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The NRC staff is currently seeking information from consulting parties, and other individuals and organizations likely to have knowledge of, or concerns with, historic properties in the area, to identify issues relating to the proposed undertaking's potential effects on historic properties.

If built, the new unit(s) would be located adjacent to the existing Vogtle Electric Generating Plant (VEGP) site, which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia. The application for an ESP was submitted by Southern Nuclear Operating Company (Southern), on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The application is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, which sets forth the NRC rules that implement the National Environmental Policy Act of 1969. In accordance with 36 CFR 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under §106 of the National Historic Preservation Act of 1966, as amended (NHPA). Accordingly, the staff has identified parties who may wish to consult with the staff in this regard and invited them to consult with the NRC staff on this matter. Consultation will include participation in the scoping process; identification of historic properties on the Vogtle ESP site; assessment of the effects of the proposed action on any historic properties identified; and development of alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. As set forth more fully below, you are invited to consult with the NRC staff regarding the proposed action.

If approved, the ESP would not authorize the applicant to begin construction of the unit(s). However, in its review the NRC staff will evaluate the environmental impacts of construction and operation and will also consider alternatives, including alternative sites.

Southern has also included a site redress plan in its application in accordance with 10 CFR 52.17(c) and 52.25. If a site redress plan is incorporated in an ESP approved by the NRC, the applicant may carry out certain site preparation and limited construction activities. Southern would still be required to obtain the appropriate local, State, and other Federal permits required for these activities prior to starting work.

In the context of the NHPA, the NRC staff has determined that the area of potential effect for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s), and construction and operation of new transmission lines that may parallel some of the existing transmission line systems now serving VEGP. The new units would utilize the new line or some combination of new and existing lines. The probable route of the new line will be to an existing substation. The specific route of a proposed line has not been determined; however, it will be routed northwest from the VEGP site, passing west of Fort Gordon, a U.S. Army facility west of Augusta, Georgia, then north to an existing substation. The power plant site is located in Burke County, Georgia, and the transmission line corridors traverse Jefferson County, Warren County, McDuffie County, and has not identified any conflicts, zoning or otherwise, that would preclude construction of a transmission line.

In its application, Southern refers to a comprehensive cultural resource and historic property investigation that was performed prior to the construction of VEGP. Southern further states that any issues that were raised were resolved through removal of these historic and cultural resources. No historic standing structures have been identified within the Southern ESP power block footprint, cooling tower footprint, or within the immediate vicinity of VEGP. The applicant has committed to perform further evaluation to determine if additional archaeological review is required if additional area within the ESP site is developed.

We invite you and your staff to participate in the review of the VEGP ESP application. We will also be contacting any Native American Tribes that may have a potential interest in the proposed undertaking, affording them the opportunity to participate in this process and identify issues of concern to them. These tribes are being identified by records research with the Bureau of Indian Affairs, State and local governments, tribal organizations, and through other historical documentation.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. You and your staff are invited to attend. To complete consultation under §800.8, the NRC staff will forward the draft EIS to the consulting parties for review and comment, and will address the comments in the final EIS. Your office will receive a copy of the draft EIS along with a request for comments after it is issued. This draft EIS will include identification of historic properties, assessment of impacts, and our preliminary determination. The anticipated publication date for the draft EIS is July 2007.

W. Luce

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If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Dr. Ed Bridges, Interim SHPO
State Historic Preservation Officer
Alabama Historical Commission
468 South Perry Street
Montgomery, AL 36130-0900

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE ESP SITE

Dear Dr. Bridges:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The NRC staff is currently seeking information from consulting parties, and other individuals and organizations likely to have knowledge of, or concerns with, historic properties in the area, to identify issues relating to the proposed undertaking's potential effects on historic properties.

If built, the new unit(s) would be located adjacent to the existing Vogtle Electric Generating Plant (VEGP) site, which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia. The application for an ESP was submitted by Southern Nuclear Operating Company (Southern), on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The application is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. In accordance with 36 CFR 800.8. The NRC staff is using the NEPA process to comply with the obligations imposed under §106 of the National Historic Preservation Act of 1966, as amended (NHPA). Accordingly, the staff has identified parties who may wish to consult with the staff in this regard and invited them to consult with the NRC staff on this matter. Consultation will include participation in the scoping process; identification of historic properties on the Vogtle ESP site; assessment of the effects of the proposed action on any historic properties identified; and development of alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. As set forth more fully below, you are invited to consult with the NRC staff regarding the proposed action. The EIS will include analyses of potential impacts to historic properties, and will document the NRC staff's determination regarding the suitability of the proposed site for the construction and operation of one or more new nuclear plants. If approved, the ESP would not authorize the applicant to begin construction of the unit(s). However, in its review the NRC staff will evaluate the environmental impacts of construction and operation and will also consider alternatives, including alternative sites.

E. Bridges

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In accordance with 40 CFR 1502.14, alternatives including the proposed action, Southern has selected Plant Farley in Dothan, Alabama and the Barton Site in Clanton, Alabama as alternate sites. This selection was made in order to determine if any alternate sites are obviously superior to the Plant Vogtle site. There are no ground breaking or construction activities planned for either Plant Farley or the Barton Site under this action.

We invite you and your staff to participate in the review of the VEGP ESP application. We will also be contacting any Native American Tribes that may have a potential interest in the proposed undertaking, affording them the opportunity to participate in this process and identify issues of concern to them. These tribes are being identified by records research with the Bureau of Indian Affairs, State and local governments, tribal organizations, and through other historical documentation.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. You and your staff are invited to attend. To complete consultation under §800.8, the NRC staff will forward the draft EIS to the consulting parties for review and comment, and will address the comments in the final EIS. Your office will receive a copy of the draft EIS along with a request for comments after it is issued. This draft EIS will include identification of historic properties, assessment of impacts, and our preliminary determination. The anticipated publication date for the draft EIS is July 2007.

If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. Dallas Proctor, Chief
United Keetoowah Band of Cherokee Indians
P.O. Box 746
Tahlequah, OK 74465

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Chief Proctor:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the United Keetoowah Band of Cherokee Indians. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the United Keetoowah Band of Cherokee Indians to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Chief D. Proctor

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Accordingly, the staff invites the United Keetoowah Band of Cherokee Indians to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Ms. Karen Kaniatobe
Director of the Cultural/Historical Preservation Department
Absentee-Shawnee Tribe of Oklahoma
2025 S. Gordon Cooper Drive
Shawnee, OK 74801

SUBJECT: EARLY SITE PERMIT REVIEW FOR THE VOGTLE SITE

Dear Ms. Kaniatobe:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Absentee-Shawnee Tribe of Oklahoma. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Absentee-Shawnee Tribe of Oklahoma to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA). Accordingly, the staff invites the Absentee-Shawnee Tribe of Oklahoma to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site;

Ms. K. Kaniatobe

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assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

At the conclusion of the scoping process, the NRC staff will prepare a summary of the

Ms. K. Kaniatobe

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significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Ms. Debbie Thomas
Tribal Historic Preservation Officer
NAGPRA Coordinator
Alabama-Coushatta Tribe of Texas
571 State Park Road, 56
Livingston, TX 77351

SUBJECT: EARLY SITE PERMIT REVIEW FOR THE VOGTLE SITE

Dear Ms. Thomas:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Alabama-Coushatta Tribe of Texas. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Alabama-Coushatta Tribe of Texas to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA). Accordingly, the staff invites the Alabama-Coushatta Tribe of Texas to consult with the staff in

Ms. D. Thomas

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this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

Ms. D. Thomas

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At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mrs. Joyce A. Bear, NAGPRA Contact
Muscogee (Creek) Nation of Oklahoma
P.O. Box 580
Okmulgee, OK 74447

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Mrs. Bear:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Muscogee (Creek) Nation of Oklahoma. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Muscogee (Creek) Nation of Oklahoma to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Mrs. J. A. Bear

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Accordingly, the staff invites the Muscogee (Creek) Nation of Oklahoma to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

Mrs. J. A. Bear

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At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. Chadwick Smith, Principal Chief
Cherokee Nation of Oklahoma
P.O. Box 948
Tahlequa, OK 74465

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Principal Chief Smith:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Cherokee Nation of Oklahoma. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Cherokee Nation of Oklahoma to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Principal Chief C. Smith

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Accordingly, the staff invites the Cherokee Nation of Oklahoma to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. Gilbert Blue, Chairperson
Catawba Indian Tribe
P.O. Box 188
Catawba, SC 29704

SUBJECT: EARLY SITE PERMIT (ESP) REVIEW FOR THE VOGTLE SITE

Dear Chairperson Blue:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Catawba Indian Tribe. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Catawba Indian Tribe to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Chairperson G. Blue

- 2 -

Accordingly, the staff invites the Catawba Indian Tribe to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

Chairperson G. Blue

-2--

At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. Willard Steele, Deputy THPO
Seminole Tribe of Florida
Ah-Tah-Thi-Ki Museum
HC 61, Box 21A
Clewiston, FL 33440

SUBJECT: EARLY SITE PERMIT REVIEW FOR THE VOGTLE SITE

Dear Mr. Steele:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Seminole Tribe of Florida. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Seminole Tribe of Florida to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended (NHPA). Accordingly, the staff invites the Seminole Tribe of Florida to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects of the proposed action on any historic properties identified; and

Mr. W. Steele

2

developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

Pursuant to 10 CFR 51.28 and 36 CFR 800.2(c), the NRC wishes to ensure that Indian tribes that might have an interest in any potential historic properties in the area of potential effect (APE) are afforded the opportunity to identify their concerns, provide advice on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, and, if necessary, participate in the resolution of any adverse effects to such properties.

The APE for this ESP review is the area at the power plant site and its immediate environs, which may be impacted by land-disturbing activities associated with the construction and operation of the new unit(s). The application, which describes the APE, is available through the web-based version of the NRC's Agencywide Documents Access and Management System which can be found at <http://www.nrc.gov/reading-rm/adams.html>. The application is listed under accession number ML062290248.

On October 19, 2006, the NRC will conduct a public environmental scoping meeting from 7:00 p.m. until 10:00 p.m., at the Augusta Technical College, Waynesboro Campus Auditorium, 216 Hwy 24 South, Waynesboro, GA 30830. Representatives of your tribe are invited to attend. The meeting will be preceded by a two-hour open house during which members of the public may meet and talk with NRC staff members on an informal basis.

Please submit any written comments your tribe may have to offer on the scope of the environmental review by December 4, 2006. Comments should be submitted either by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Mail Stop T-6D59, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by e-mail to Vogtle_EIS@nrc.gov.

At the conclusion of the scoping process, the NRC staff will prepare a summary of the

Mr. W. Steele

3

significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

October 12, 2006

Mr. Kenneth H. Carleton
THPO/Tribal Archaeologist
Mississippi Band of Choctaw Indians
P.O. Box 6257/ 101 Industrial Road
Choctaw, MS 39350

SUBJECT: EARLY SITE PERMIT REVIEW FOR THE VOGTLE SITE

Dear Mr. Carleton:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing an application for an early site permit (ESP) to set aside a site for the potential future construction of one or more new nuclear power plants. The application was submitted by Southern Nuclear Operating Company, on August 15, 2006, pursuant to NRC requirements at Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The applicant supplemented the application by letters dated September 6, 2006 (two letters), and September 13, 2006. The application was accepted for docketing on September 19, 2006. If built, the new unit(s) would be located on a site adjacent to the existing Vogtle Electric Generating Plant (VEGP) site which is located on a Coastal Plain bluff on the southwest side of the Savannah River in eastern Burke County, Georgia.

As part of its review of the application, the NRC staff will prepare an environmental impact statement (EIS) under the provisions of 10 CFR Part 51, the NRC rules that implement the National Environmental Policy Act of 1969. The NRC environmental review process includes an opportunity for public participation in the environmental review. The VEGP ESP site is located on land that may be of interest to the Mississippi Band of Choctaw Indians. We want to ensure that you are aware of our efforts and, pursuant to our regulations at 10 CFR 51.28(b), the NRC invites the Mississippi Band of Choctaw Indians to provide input to the scoping process relating to the NRC's environmental review of the application. The following is a description of the application and the environmental review process.

The EIS will document the NRC staff's evaluation of the impacts of construction and operation of one or more new nuclear plants at the Vogtle ESP site. In addition, the staff will also consider alternatives to the proposed action, including alternative sites. The EIS will contain the results of the review of the environmental impacts on the area surrounding the VEGP ESP site that are related to terrestrial ecology, aquatic ecology, hydrology, socioeconomic issues, and historic properties (among others), and will contain a recommendation on whether the requested ESP should be granted or denied. If granted, the ESP would not authorize the applicant to begin construction of the unit(s).

Therefore, as part of this review, and in accordance with the provisions in 36 CFR § 800.8, the NRC staff is using the NEPA process to comply with the obligations imposed under § 106 of the National Historic Preservation Act of 1966, as amended). Accordingly, the staff invites the Mississippi Band of Choctaw Indians to consult with the staff in this regard by participating in the scoping process; identifying historic properties on the Vogtle ESP site; assessing the effects

Mr. K. Carleton

2

of the proposed action on any historic properties identified; and developing alternatives and proposed measures that might avoid, minimize, or mitigate any adverse effects of the proposed action on historic properties. The NRC intends to describe such alternatives and proposed measures in the EIS analyses of potential impacts to historical and cultural resources. To complete consultation under § 800.8, the NRC staff will forward the draft EIS to you for your review and comment, and will address your comments in the final EIS.

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Mr. K. Carleton

3

At the conclusion of the scoping process, the NRC staff will prepare a summary of the significant issues identified and the conclusions reached, and will send a copy to you. In addition, after it is issued, your office will receive a copy of the draft EIS along with a request for comments. The anticipated publication date for the draft EIS is July 2007. If you have any questions or require additional information, please contact the Environmental Project Manager for the VEGP ESP project, Mark Notich at 301-415-3053 or Cristina Guerrero at 301-415-2981. You may also e-mail us at mdn@nrc.gov or cxg3@nrc.gov.

Sincerely,

/RA/

Christopher Nolan, Branch Chief
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Project No. 737

cc: See next page

From: "Steve Terry" <SteveT@miccosukeetribe.com>
To: <Vogtle_EIS@nrc.gov>
Date: Mon, Oct 16, 2006 9:57 AM
Subject: Vogtle Nuclear Power Plant potential site

The Miccosukee Tribal Elders have decided that the Tribe will limit itself to those matters within the State of Florida. Therefore, the Tribe will defer to the wishes of the other Tribes which have a more direct cultural affiliation with this site.

Thank you for consulting with the Miccosukee Tribe. Please call me at 305.223.8380, Ext. 2243, if you require additional information.

Steve Terry
NAGPRA & Section 106 Representative
Miccosukee Tribe
P.O. Box 440021
Miami, FL 33144-0021
(305) 223-8380, Ext. 2243
SteveT@miccosukeetribe.com

10/3/06
TIFR 58882
66

RECEIVED

2007 JAN -4 PM 12:38

RULES AND DIRECTIVES
2007 JAN 1
10:00 AM

SONSI Review Complete
Template = AD4-013

L-RIDS = AD4-03
Acc = M. Nishik (mdn)
O. Guerrero (CX93)

Mail Envelope Properties (45338FDA.B0E : 15 : 47886)

Subject: Vogtle Nuclear Power Plant potential site
Creation Date Mon, Oct 16, 2006 9:50 AM
From: "Steve Terry" <SteveT@miccosukeetribe.com>

Created By: SteveT@miccosukeetribe.com

Recipients

nrc.gov

TWGWPO01.HQGWDO01
VOGTLE_EIS

Post Office

TWGWPO01.HQGWDO01

Route

nrc.gov

Files	Size	Date & Time
MESSAGE	545	Monday, October 16, 2006 9:50 AM
Mime.822	1592	

Options

Expiration Date: None
Priority: Standard
ReplyRequested: No
Return Notification: None

Concealed Subject: No
Security: Standard

Junk Mail Handling Evaluation Results

Message is eligible for Junk Mail handling
This message was not classified as Junk Mail

Junk Mail settings when this message was delivered

Junk Mail handling disabled by User
Junk Mail handling disabled by Administrator
Junk List is not enabled
Junk Mail using personal address books is not enabled
Block List is not enabled

preserveALA

ALABAMA HISTORICAL COMMISSION

October 20, 20065

Mark Notich
Environmental Project Manager
VEGP ESP Project
Nuclear Regulatory Commission
Washington, D.C. 20555-0001

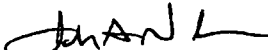
Re: AHC 2006-1598, Early Site Permit, Review for the Vogtle ESP Site, Plant Farley, Dothan,
Barton Site, Clanton, Chilton and Houston Counties, Alabama

Dear Mr. Notich:

The Alabama Historical Commission is in receipt of the above referenced document. Thank you for forwarding this notice; we will add it to our files. We look forward to reviewing each project action/undertaking on a case-by-case basis should either site in Alabama be chosen. Please complete the enclosed form for each undertaking and forward to our office for review prior to initiating project activities.

We appreciate your commitment to helping us preserve Alabama's non-renewable resources. Should you have any questions, please contact Amanda Hill of this office and include the AHC tracking number referenced above.

Sincerely,


Colonel (Ret.) John A. Neubauer

JAN/AMH/amh

enclosure: PRC form

468 South Perry Street
Montgomery, Alabama
36130-0900

tel 334 242-3184
fax 334 240-3477

RECEIVED

2006 NOV -7 PM 4:01

RULES AND DIRECTIVES
BRANCH
USNRC

SUNSI Review Complete
Template = Apr 013
www.preserveALA.org

E-RIDS = ADM-03
add = M. Notich (MDN)
D. Guerrero (CX93)
State Historic Preservation Office

Alabama Historical Commission
468 S. Perry St.
Montgomery, AL 36130-0900
334-242-3184

PROJECT REVIEW CONSULTATION

APPLICANT _____ PROJECT COUNTY _____

ADDRESS _____ CITY _____ STATE _____ ZIP _____

CONTACT PERSON _____ TELEPHONE _____

ADDRESS _____ CITY _____ STATE _____ ZIP _____

FEDERAL PROGRAM _____ TYPE OF ASSISTANCE _____

SIGNATURE _____ DATE _____

I. GENERAL INFORMATION

1. What is the proposed actions? Project description _____

2. Has the identical project been previously submitted for review? If yes, enclose a copy of the State Historic Preservation Officer's comments. (Y/N): _____
3. Give the project's Township, Range, and Section description.
 TOWNSHIP _____ RANGE _____ SECTION _____
4. How many acres are in the project area? _____
5. Attach a clearly labeled copy of a USGS topographic map indicating the precise location of the project. (Be sure to include the name of the quad sheet from which it came.)
6. Please provide at least two representative photographs of the project area, and be sure to include directional information (facing east, northwest, etc.).

II. STANDING STRUCTURE INFORMATION

1. In order to expedite review, please submit at least two good quality photographs of all standing structures (buildings, bridge, etc.) within or within view of the project area.

2. How will the project impact on structure/s (rehabilitations, relocation, demolition, encroachment, etc.)?
3. Are there any nationally-, statewide- or locally-designated historic buildings, districts or sites located within, adjacent to or within sight of, the boundaries of the proposed project? structure. (Y/N)_____

If yes, please state the name of the building, site or historic district and the date it was listed.

III. SITE INFORMATION

1. To your knowledge, has a cultural resource assessment been conducted in the proposed project area? If yes, enclose a copy of the archaeologist's report. (Y/N)_____
2. Has the ground at the project location been disturbed other than by agriculture? If yes, please describe the ground disturbance (i.e. grading, grubbing, clear-cutting, filling, etc.). (Y/N)_____

3. Describe the present use and condition of the property._____

IV ADDITIONAL INFORMATION

Please elaborate on the above questions and/or include any additional information you feel may be helpful in the review process of your project. Attach additional pages if necessary.

RULES AND DIRECTIVES
BRANCH
USFEC



2006 NOV -7 PM 4: 01

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701
(727) 824-5312, Fax 824-5309
<http://sero.nmfs.noaa.gov>

10/5/06
71FR 58882
(15)

RECEIVED

OCT 24 2006

Dear Colleague:

Pursuant to section 7(a)(2) of the Endangered Species Act (ESA), the Protected Resources Division of NOAA's National Marine Fisheries Service (NMFS) has reviewed your letter dated October 12, 2006, concerning an application for an early site permit for the Vogtle ESP site.

There are no ESA-listed species or designated critical habitat under our purview in the action area.

We cannot determine impacts to threatened or endangered species, or designated critical habitat, under NOAA Fisheries purview because the letter lacks sufficient information to evaluate the project.

Enclosed are guidelines to conduct a proper biological evaluation.

Please provide a letter from the lead federal action agency designating you to conduct ESA section 7 consultation with this office.

X Enclosed is a list of federally-protected species under the jurisdiction of NMFS for the states of Alabama and Georgia. Biological information on federally-protected species and candidate species can be found at the following website addresses:
http://www.nmfs.noaa.gov/prot_res/prot_res.html; <http://www.cccturtle.org>;
<http://noflorida.fws.gov/SeaTurtles/seaturtle-info.htm>;
<http://endangered.fws.gov/wildlife.html#Species>; <http://www.cmc-ocean.org/main.php3>;
<http://floridaconservation.org/psm/turtles/turtle.htm>;
http://obis.env.duke.edu/data/sp_profiles.php;
www.mote.org/~colins/Sawfish/SawfishHomePage.html; www.floridasawfish.com;
www.flmnh.ufl.edu/fish/sharks/InNews/sawprop.htm; Gulf sturgeon critical habitat rule and maps (<http://alabama.fws.gov/gsf/>).

It is NMFS' opinion that the project will have no effect on listed species or critical habitat protected by the ESA under NOAA Fisheries purview. No further consultation with NOAA Fisheries pursuant to section 7(a)(2) of the ESA is required unless the project description changes.

Consultation with NMFS' Habitat Conservation Division (HCD), pursuant to the Magnuson-Stevens Fishery Conservation and Management Acts requirements for essential fish habitat consultation, may be required. Please contact HCD at (727) 824-5317. If you have any ESA questions, please contact me at (727) 824-5312 or by e-mail at walt.wilson@noaa.gov.

Sincerely,

Walt Wilson
Fisheries Biologist
Protected Resources Division

Enclosures

File: 1514-22.M

SONSI Review Complete
Template = ABM-013

ERES-ABM-03
Cde = M. Notich (NOU)
C. Guerrero (C93)





Endangered and Threatened Species and Critical Habitats
under the Jurisdiction of the NOAA Fisheries Service



Alabama

Listed Species	Scientific Name	Status	Date Listed
Marine Mammals			
blue whale	<i>Balaenoptera musculus</i>	Endangered	12/02/70
finback whale	<i>Balaenoptera physalus</i>	Endangered	12/02/70
humpback whale	<i>Megaptera novaeangliae</i>	Endangered	12/02/70
sei whale	<i>Balaenoptera borealis</i>	Endangered	12/02/70
sperm whale	<i>Physeter macrocephalus</i>	Endangered	12/02/70
Turtles			
green sea turtle	<i>Chelonia mydas</i>	Threatened ¹	07/28/78
hawksbill sea turtle	<i>Eretmochelys imbricata</i>	Endangered	06/02/70
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	Endangered	12/02/70
leatherback sea turtle	<i>Dermochelys coriacea</i>	Endangered	06/02/70
loggerhead sea turtle	<i>Caretta caretta</i>	Threatened	07/28/78
Fish			
Gulf sturgeon	<i>Acipenser oxyrinchus desotoi</i>	Threatened	09/30/91

Designated Critical Habitat

Gulf Sturgeon: A final rule designating Gulf sturgeon critical habitat was published on March 19, 2003 (68 FR 13370) and 14 geographic areas (units) among the Gulf of Mexico rivers and tributaries were identified. Maps and details regarding the final rule can be found at alabama.fws.gov/gs

Species Proposed for Listing

None

Proposed Critical Habitat

None

¹ Green turtles are listed as threatened, except for breeding populations of green turtles in Florida and on the Pacific Coast of Mexico, which are listed as endangered



Alabama

Candidate Species ²	Scientific Name
None	

Species of Concern ³	Scientific Name
Fish	
Alabama shad	<i>Alosa alabamae</i>
dusky shark	<i>Carcharhinus obscurus</i>
night shark	<i>Carcharhinus signatus</i>
saltmarsh topminnow	<i>Fundulus jenkinsi</i>
sand tiger shark	<i>Carcharias taurus</i>
speckled hind	<i>Epinephelus drummondhayi</i>
Warsaw grouper	<i>Epinephelus nigritus</i>
white marlin	<i>Tetrapturus albidus</i>
Invertebrates	
ivory bush coral	<i>Oculina varicosa</i>

² The Candidate Species List has been renamed the Species of Concern List. The term "candidate species" is limited to species that are the subject of a petition to list and for which NOAA Fisheries Service has determined that listing may be warranted (69 FR 19975).

³ Species of Concern are not protected under the Endangered Species Act, but concerns about their status indicate that they may warrant listing in the future. Federal agencies and the public are encouraged to consider these species during project planning so that future listings may be avoided.



Endangered and Threatened Species and Critical Habitats
under the Jurisdiction of the NOAA Fisheries Service



Georgia

Listed Species	Scientific Name	Status	Date Listed
Marine Mammals			
blue whale	<i>Balaenoptera musculus</i>	Endangered	12/02/70
finback whale	<i>Balaenoptera physalus</i>	Endangered	12/02/70
humpback whale	<i>Megaptera novaengliae</i>	Endangered	12/02/70
right whale	<i>Eubalaena glacialis</i>	Endangered	12/02/70
sei whale	<i>Balaenoptera borealis</i>	Endangered	12/02/70
sperm whale	<i>Physeter macrocephalus</i>	Endangered	12/02/70
Turtles			
green sea turtle	<i>Chelonia mydas</i>	Threatened ¹	07/28/78
hawksbill sea turtle	<i>Eretmochelys imbricata</i>	Endangered	06/02/70
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	Endangered	12/02/70
leatherback sea turtle	<i>Dermochelys coriacea</i>	Endangered	06/02/70
loggerhead sea turtle	<i>Caretta caretta</i>	Threatened	07/28/78
Fish			
shortnose sturgeon	<i>Acipenser brevirostrum</i>	Endangered	03/11/67
smalltooth sawfish	<i>Pristis pectinata</i>	Endangered	04/01/03

Designated Critical Habitat

Right whale: Between 31°15'N (approximately the mouth of the Altamaha River, Georgia) and 30°15'N (approximately Jacksonville, Florida) from the coast out to 15 nautical miles offshore; the coastal waters between 30°15'N and 28°00'N (approximately Sebastian Inlet, Florida) from the coast out to 5 nautical miles.

Species Proposed for Listing
None

Proposed Critical Habitat
None

¹ Green turtles are listed as threatened, except for breeding populations of green turtles in Florida and on the Pacific Coast of Mexico, which are listed as endangered



Georgia

Candidate Species ²	Scientific Name
None	

Species of Concern ³	Scientific Name
Fish	
Atlantic sturgeon	<i>Acipenser oxyrhynchus oxyrhynchus</i>
dusky shark	<i>Carcharhinus obscurus</i>
night shark	<i>Carcharhinus signatus</i>
sand tiger shark	<i>Carcharias taurus</i>
speckled hind	<i>Epinephelus drummondhayi</i>
Warsaw grouper	<i>Epinephelus nigritus</i>
white marlin	<i>Tetrapturus albidus</i>

² The Candidate Species List has been renamed the Species of Concern List. The term "candidate species" is limited to species that are the subject of a petition to list and for which NOAA Fisheries Service has determined that listing may be warranted (69 FR 19975).

³ Species of Concern are not protected under the Endangered Species Act, but concerns about their status indicate that they may warrant listing in the future. Federal agencies and the public are encouraged to consider these species during project planning so that future listings may be avoided.

Appendix G

Supporting Documentation on Radiological Dose Assessment

Appendix G

Supporting Documentation on Radiological Dose Assessment

The U.S. Nuclear Regulatory Commission (NRC) staff performed an independent dose assessment of the radiological impacts resulting from normal operation of the new and existing nuclear units at and near the Vogtle Electric Generating Plant (VEGP). The results of this assessment are presented in this appendix and are compared to the results from Southern Nuclear Operating Company, Inc. (Southern) found in Section 5.9, Radiological Impacts of Normal Operations. The appendix is divided into four sections: (1) dose estimates to the public from liquid effluents, (2) dose estimates to the public from gaseous effluents, (3) cumulative dose estimates, and (4) dose estimates to the biota from liquid and gaseous effluents.

G.1 Dose Estimates to the Public from Liquid Effluents

The staff used the dose assessment approach specified in Regulatory Guide 1.109 (NRC 1977) and the LADTAP II computer code (Streng et al. 1986) to estimate doses to the maximally exposed individual and population from the liquid effluent pathway of the proposed VEGP Units 3 and 4. The staff used the annual radioactive effluent release reports for the years 2000 to 2006 to estimate doses to the maximally exposed individual and population from the existing units' liquid effluent releases (Southern 2001, 2002, 2003, 2004, 2005, 2006, 2007b).

G.1.1 Scope

Doses from the proposed new units to the maximally exposed individual were calculated and compared to regulatory criteria for the following:

- *Total Body* – Dose was the total for all pathways (i.e., drinking water, fish consumption, and shoreline usage) with the highest value for either the adult, teen, child, or infant compared to the 0.03 mSv/yr (3 mrem/yr) per reactor design objective in Title 10 of the Code of Federal Regulations (CFR), Part 50, Appendix I.
- *Organ* – Dose was the total for each organ for all pathways (i.e., drinking water, fish consumption, and shoreline usage) with the highest value for either the adult, teen, child, or infant compared to the 0.1 mSv/yr (10 mrem/yr) per reactor design objective specified in 10 CFR Part 50, Appendix I.

The staff reviewed the assumed exposure pathways and the input parameters and values used by Southern (2007a) for appropriateness, including references made to the Westinghouse AP1000 Design Control Document (Westinghouse 2005). Default values from Regulatory Guide 1.109 (NRC 1977) were used when input parameters were not available. The staff concluded that the assumed exposure pathways were conservative in that no drinking water withdrawal of the Savannah River occurs within 160.9 km (100 river mi) downstream of the site. In addition, the input parameters and values used by Southern were appropriate.

G.1.2 Resources Used

To calculate doses to the public from liquid effluents, the staff used a personal computer version of the LADTAP II code entitled NRCDOSE, Version 2.3.8 (Chesapeake Nuclear Services, Inc. 2006) obtained through the Oak Ridge Radiation Safety Information Computational Center (RSICC).

G.1.3 Input Parameters

Table G-1 provides a listing of the major parameters used in calculating dose to the public from liquid effluent releases during normal operation.

G.1.4 Comparison of Results

Table G-2 presents a comparison of Southern's results for a single new unit with those determined by the staff. Doses calculated for the maximally exposed individual were similar.

For calculating the population dose from liquid effluents, the population distribution used by Southern was for year 2000. However, Environmental Standard Review Plan (ESRP) Section 5.4.1 (NRC 2000) requires use of "...projected population for 5 years from the time of the licensing action under consideration." Assuming the ESP licensing action occurs in year 2008 and adding 5 years yields year 2013, so the NRC staff used 2013 in their analysis. Using the population projections from Environmental Report (ER) Table 2.5.1-1 (Southern 2007a) (duplicated as Table G-3) and assuming linear population growth from 2010 to 2020 yields a population estimate for the year 2013 of 807,355. This is about a 20-percent increase from the 2000 population of 674,101. The staff's independent calculation for population dose is increased by 20 percent to account for 2013 population (0.222 person-mSv/yr, Table G-2).

The staff concurs with the conclusion documented in the ER (Southern 2007a) that the peak maximally exposed individual and population doses from the existing unit liquid effluent pathway during the period 2001 to 2004 occurred in year 2001. The NRC staff reviewed the annual radioactive effluent release reports for the years 2000 to 2006 (Southern 2001, 2002, 2003, 2004, 2005, 2006, 2007b) to find the peak occurred in year 2001. The staff review of the 2001 annual report (Southern 2002) yielded results equivalent to those reported in ER Tables 5.4-8 and 5.4-9.

G.2 Dose Estimates to the Public from Gaseous Effluents

The staff used the dose assessment approach specified in Regulatory Guide 1.109 (NRC 1977) and the GASPAR II computer code (Streng et al. 1987) to estimate doses to the maximally exposed individual and to the population within an 80-km (50-mile) radius of the VEGP site from the gaseous effluent pathway for both the proposed and existing units.

Table G-1. Parameters Used in Calculating Dose to the Public from Liquid Effluent Releases

Parameter	Staff Value	Comments
New unit liquid effluent source term (Ci/yr) ^{(a)(b)}	H-3 Na-24 Cr-51 Mn-54 Fe-55 Fe-59 Co-58 Co-60 Zn-65 Br-84 Rb-88 Sr-89 Sr-90 Sr-91 Y-91m Y-93 Zr-95 Nb-95 Mo-99 Tc-99m Ru-103 Ru-106 Ag-110m Te-129m Te-129 Te-131m Te-131 Te-132 I-131 I-132 I-133 I-134 I-135 Cs-134 Cs-136 Cs-137 Ba-140 La-140 Ce-141 Ce-143 Ce-144 Pr-143 Pr-144 W-187 Np-239	1.01×10^{-3} 1.63×10^{-3} 1.85×10^{-3} 1.30×10^{-3} 1.00×10^{-3} 2.00×10^{-4} 3.36×10^{-3} 4.40×10^{-4} 4.10×10^{-4} 2.00×10^{-5} 2.70×10^{-4} 1.00×10^{-4} 1.00×10^{-5} 2.00×10^{-5} 1.00×10^{-5} 9.00×10^{-5} 2.30×10^{-4} 2.10×10^{-4} 5.70×10^{-4} 5.50×10^{-4} 4.93×10^{-3} 7.352×10^{-2} 1.05×10^{-3} 1.20×10^{-4} 1.50×10^{-4} 9.00×10^{-5} 3.00×10^{-5} 2.40×10^{-4} 1.413×10^{-2} 1.64×10^{-3} 6.70×10^{-3} 8.10×10^{-4} 4.97×10^{-3} 9.93×10^{-3} 6.30×10^{-4} 1.332×10^{-2} 5.52×10^{-3} 7.43×10^{-3} 9.00×10^{-5} 1.90×10^{-4} 3.16×10^{-3} 1.30×10^{-4} 3.16×10^{-3} 1.30×10^{-4} 2.40×10^{-4}

Values from Westinghouse AP1000 Design Control Document Table 11.2-7 for a single unit (Westinghouse 2005). Except for rounding differences, these values are the same as those reported in ER Table 3.5-1 (Southern 2007a).

Table G-1. (contd)

Parameter	Staff Value	Comments
Discharge flow rate (ft ³ /s)	9229	Site-specific value from Table 5.4-1 of the ER (Southern 2007a).
Source term multiplier	2	To convert single-unit source term to two units.
Site type	Fresh water	Discharge is to the freshwater Savannah River.
Reconcentration model	No impoundment	Site-specific value from Table 5.4-1 of the ER (Southern 2007a).
Effluent discharge rate from impoundment system to receiving water body (ft ³ /s)	9229	Matches discharge flow rate for "no impoundment" model (Streng et al. 1986).
Impoundment total volume (ft ³)	0	Set to zero for "no impoundment" model (Streng et al. 1986).
Shore width factor	0.2	Suggested value for river shoreline (NRC 1977; Streng et al. 1986)
Dilution factors for aquatic food and boating, shoreline and swimming, and drinking water	1	Site-specific value from Table 5.4-1 of the ER (Southern 2007a). The value of "1" indicates no dilution.
Transit time (hr)	0.1	Site-specific value from Table 5.4-1 of the ER (Southern 2007a). A transit time of 16 hr is used for 50-mile population dose.
Consumption and usage factors for adults, teens, children, and infants	Shoreline usage (hr/yr) 12 (adult) 67 (teen) 14 (child) 0 (infant) Water usage (L/yr) 730 (adult) 510 (teen) 510 (child) 330 (infant) Fish consumption (kg/yr) 21 (adult) 16 (teen) 6.9 (child) 0 (infant)	Site-specific values from Table 5.4-1 of the ER (Southern 2007a) and LADTAP II code default values (NRC 1977; Streng et al. 1986).

Table G-1. (contd)

Parameter	Staff Value	Comments
Total 50-mile population	674,101	Site-specific value from Table 5.4-1 of the ER (Southern 2007a). Population distribution used by Southern and the staff was for year 2000. Note that ESRP Section 5.4.1 requires use of "projected population for 5 years from the time of the licensing action under consideration." Assuming the ESP licensing action occurs in year 2008 and adding 5 years yields year 2013. See discussion of population dose in Section G.1.4.
Total 50-mile sport fishing (kg/yr)	35,000	Site-specific value from Table 5.4-1 of the ER (Southern 2007a).
Total 50-mile shoreline usage (person-hr/yr)	960,000	Site-specific value from Table 5.4-1 of the ER (Southern 2007a).
Total 50-mile swimming usage (person-hr/yr)	160,000	Site-specific value from Table 5.4-1 of the ER (Southern 2007a).
Total 50-mile boating usage (person-hr/yr)	1,100,000	Site-specific value from Table 5.4-1 of the ER (Southern 2007a).
(a) To convert Ci/yr to Bq/yr, multiply the value by 3.7×10^{10} .		
(b) Only radionuclides included in Regulatory Guide 1.109 are considered (NRC 1977).		

Table G-2. Comparison of Doses to the Public from Liquid Effluent Releases for a New Unit

Type of Dose ^(a)	Southern ER (2007a) ^(b)	Staff Calculation	Percent Difference
Total Body (mSv/yr)	0.00017 (adult)	0.00017 (adult)	0
Organ Dose (mSv/yr)	0.00021 (child liver)	0.00021 (child liver)	0
Thyroid (mSv/yr)	0.00015 (infant)	0.00015 (infant)	0
Population dose from liquid pathway (person-mSv/yr)	0.185	0.222	+20
(a) To convert mSv to mrem multiply by 100.			
(b) Results from Southern ER Tables 5.4-5 and 5.4-9 (Southern 2007a).			

Table G-3. Current Populations and Projections to 2090

Sectors		0-1 ^(a)	1-2 ^(b)	2-3 ^(b)	3-4 ^(b)	4-5 ^(b)	5-10 ^(b)	Total 0-10 ^(b)	10-20 ^{(b)(c)}	20-30 ^{(b)(c)}	30-40 ^(c)	40-50 ^(c)	Total 0-50 ^(a)
N	2000	0	50	0	0	0	0	50	4,792	50,620	15,658	11,829	82,949
	2010	0	54	0	0	0	0	54	5,567	58,805	18,245	13,805	96,476
	2020	0	59	0	0	0	0	59	6,467	68,314	21,260	16,122	112,222
	2030	0	63	0	0	0	0	63	7,513	79,360	24,775	18,841	130,552
	2040	0	69	0	0	0	0	69	8,727	92,192	28,873	22,032	151,893
	2050	0	74	0	0	0	0	74	10,139	107,099	33,650	25,780	176,742
	2060	0	81	0	0	0	0	81	11,778	124,416	39,220	30,183	205,678
	2070	0	87	0	0	0	0	87	13,682	144,534	45,714	35,357	239,374
	2080	0	94	0	0	0	0	94	15,895	167,905	53,286	41,440	278,620
NNE	2090	0	102	0	0	0	0	102	18,465	195,054	62,116	48,593	324,330
	2000	0	0	0	0	0	0	0	2,523	7,966	4,245	6,919	21,653
	2010	0	0	0	0	0	0	0	2,931	9,254	4,931	8,166	25,282
	2020	0	0	0	0	0	0	0	3,404	10,750	5,729	9,644	29,527
	2030	0	0	0	0	0	0	0	3,955	12,489	6,655	11,400	34,499
	2040	0	0	0	0	0	0	0	4,594	14,508	7,731	13,488	40,321
	2050	0	0	0	0	0	0	0	5,337	16,854	8,981	15,971	47,143
	2060	0	0	0	0	0	0	0	6,199	19,579	10,434	18,929	55,141
	2070	0	0	0	0	0	0	0	7,201	22,745	12,121	22,455	64,522
NE	2080	0	0	0	0	0	0	0	8,365	26,423	14,081	26,664	75,533
	2090	0	0	0	0	0	0	0	9,718	30,695	16,357	31,692	88,462
	2000	0	0	0	0	0	0	0	0	5,997	3,590	6,904	16,491
	2010	0	0	0	0	0	0	0	0	6,683	3,985	7,672	18,340
	2020	0	0	0	0	0	0	0	0	7,456	4,431	8,558	20,445
	2030	0	0	0	0	0	0	0	0	8,327	4,936	9,581	22,844
	2040	0	0	0	0	0	0	0	0	9,309	5,508	10,769	25,586
	2050	0	0	0	0	0	0	0	0	10,419	6,158	12,151	28,728
	2060	0	0	0	0	0	0	0	0	11,674	6,896	13,765	32,335

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Table G-3. (contd)

Sectors	0-1 ^(a)	1-2 ^(b)	2-3 ^(b)	3-4 ^(b)	4-5 ^(b)	5-10 ^(b)	Total 0-10 ^(b)	10-20 ^{(b)(c)}	20-30 ^{(b)(c)}	30-40 ^(c)	40-50 ^(c)	Total 0-50 ^(a)
ENE	2070	0	0	0	0	0	0	0	13,094	7,735	15,656	36,485
	2080	0	0	0	0	0	0	0	14,703	8,691	17,877	41,271
	2090	0	0	0	0	0	0	0	16,528	9,782	20,493	46,803
	2000	0	0	0	0	0	0	554	9,612	11,414	10,641	32,221
	2010	0	0	0	0	0	0	602	10,449	11,633	10,928	33,612
	2020	0	0	0	0	0	0	655	11,359	11,901	11,243	35,158
	2030	0	0	0	0	0	0	712	12,348	12,221	11,587	36,868
	2040	0	0	0	0	0	0	774	13,423	12,596	11,961	38,754
	2050	0	0	0	0	0	0	841	14,591	13,029	12,367	40,828
	2060	0	0	0	0	0	0	914	15,862	13,525	12,805	43,106
E	2070	0	0	0	0	0	0	994	17,242	14,087	13,278	45,601
	2080	0	0	0	0	0	0	1,080	18,744	14,721	13,786	48,331
	2090	0	0	0	0	0	0	1,174	20,376	15,431	14,331	51,312
	2000	0	0	0	0	9	9	584	2,697	1,888	3,379	8,557
	2010	0	0	0	0	10	10	618	2,885	1,861	3,333	8,707
	2020	0	0	0	0	11	11	654	3,089	1,838	3,298	8,890
	2030	0	0	0	0	12	12	693	3,309	1,820	3,275	9,109
	2040	0	0	0	0	13	13	735	3,547	1,805	3,263	9,363
	2050	0	0	0	0	14	14	780	3,805	1,794	3,264	9,657
	2060	0	0	0	0	15	15	828	4,084	1,787	3,278	9,992
	2070	0	0	0	0	16	16	881	4,386	1,785	3,305	10,373
	2080	0	0	0	0	18	18	937	4,713	1,787	3,348	10,803
	2090	0	0	0	0	19	19	998	5,067	1,793	3,406	11,283
ESE	2000	0	0	0	16	1	257	221	5,536	6,348	8,909	21,288
	2010	0	0	0	17	1	277	228	5,667	6,685	9,694	22,569
	2020	0	0	0	19	1	298	235	5,800	7,046	10,549	23,948
	2030	0	0	0	20	1	321	242	5,937	7,433	11,479	25,433
	2040	0	0	0	22	1	346	249	6,077	7,848	12,492	27,035
	2050	0	0	0	24	1	373	257	6,221	8,293	13,595	28,764
	2060	0	0	0	26	2	401	265	6,368	8,771	14,795	30,628
	2070	0	0	0	28	2	433	273	6,518	9,284	16,102	32,640
	2080	0	0	0	30	2	466	282	6,672	9,835	17,524	34,811

Table G-3. (contd)

Sectors		0-1 ^(a)	1-2 ^(b)	2-3 ^(b)	3-4 ^(b)	4-5 ^(b)	5-10 ^(b)	Total 0-10 ^(b)	10-20 ^{(b)(c)}	20-30 ^{(b)(c)}	30-40 ^(c)	40-50 ^(c)	Total 0-50 ^(a)
SE	2090	0	0	0	33	2	503	538	291	6,829	10,428	19,073	37,159
	2000	0	0	0	14	13	213	240	274	301	692	7,740	9,247
	2010	0	0	0	15	14	228	257	288	311	732	8,468	10,056
	2020	0	0	0	16	15	245	276	303	322	774	9,271	10,946
	2030	0	0	0	17	16	263	296	319	333	820	10,161	11,929
	2040	0	0	0	19	17	281	317	336	344	869	11,149	13,015
	2050	0	0	0	20	18	302	340	353	356	921	12,249	14,219
	2060	0	0	0	21	20	324	365	372	368	978	13,476	15,559
	2070	0	0	0	23	21	347	391	391	380	1,039	14,851	17,052
	2080	0	0	0	24	23	372	419	412	393	1,104	16,399	18,727
SSE	2090	0	0	0	26	24	399	449	434	407	1,174	18,148	20,612
	2000	0	0	26	0	0	750	776	716	6,465	2,713	2,695	13,365
	2010	0	0	28	0	0	804	832	754	6,764	2,841	3,329	14,520
	2020	0	0	30	0	0	862	892	794	7,078	2,975	4,198	15,937
	2030	0	0	32	0	0	924	956	836	7,406	3,116	5,399	17,713
	2040	0	0	34	0	0	991	1,025	881	7,749	3,263	7,071	19,989
	2050	0	0	37	0	0	1,063	1,100	928	8,108	3,417	9,409	22,962
	2060	0	0	39	0	0	1,139	1,178	977	8,483	3,579	12,693	26,910
	2070	0	0	42	0	0	1,222	1,264	1,030	8,876	3,749	17,324	32,243
	2080	0	0	45	0	0	1,310	1,355	1,085	9,287	3,926	23,869	39,522
S	2090	0	0	49	0	0	1,404	1,453	1,144	9,717	4,113	33,141	49,568
	2000	0	0	0	0	19	238	257	1,942	1,660	2,695	29,356	35,910
	2010	0	0	0	0	20	255	275	2,028	1,725	2,973	36,351	43,352
	2020	0	0	0	0	22	274	296	2,119	1,792	3,302	45,084	52,593
	2030	0	0	0	0	23	293	316	2,217	1,864	3,695	55,989	64,081
	2040	0	0	0	0	25	315	340	2,322	1,938	4,168	69,610	78,378
	2050	0	0	0	0	27	337	364	2,433	2,016	4,738	86,627	96,178
	2060	0	0	0	0	29	362	391	2,552	2,099	5,429	107,891	118,362
	2070	0	0	0	0	31	388	419	2,679	2,185	6,272	134,466	146,021
	2080	0	0	0	0	33	416	449	2,815	2,275	7,303	167,684	180,526
SSW	2090	0	0	0	0	36	446	482	2,959	2,369	8,568	209,208	223,586
	2000	0	0	0	0	2	44	46	557	5,673	2,325	5,965	14,566

Table G-3. (contd)

Sectors		0-1 ^(a)	1-2 ^(b)	2-3 ^(b)	3-4 ^(b)	4-5 ^(b)	5-10 ^(b)	Total 0-10 ^(b)	10-20 ^{(b)(c)}	20-30 ^{(b)(c)}	30-40 ^(c)	40-50 ^(c)	Total 0-50 ^(a)
1	2010	0	0	0	0	2	47	49	568	5,587	2,382	6,700	15,286
2	2020	0	0	0	0	2	51	53	581	5,502	2,459	7,577	16,172
3	2030	0	0	0	0	2	54	56	594	5,419	2,561	8,629	17,259
4	2040	0	0	0	0	3	58	61	609	5,337	2,694	9,893	18,594
5	2050	0	0	0	0	3	62	65	626	5,256	2,865	11,419	20,231
6	2060	0	0	0	0	3	67	70	644	5,176	3,083	13,267	22,240
7	2070	0	0	0	0	3	72	75	664	5,098	3,362	15,510	24,709
8	2080	0	0	0	0	3	77	80	686	5,021	3,714	18,241	27,742
9	2090	0	0	0	0	4	82	86	710	4,944	4,160	21,574	31,474
10	SW 2000	0	5	0	5	1	146	157	660	686	1,781	6,905	10,189
11	2010	0	5	0	5	1	157	168	705	697	1,833	7,074	10,477
12	2020	0	6	0	6	1	168	181	753	708	1,887	7,247	10,776
13	2030	0	6	0	6	1	180	193	804	722	1,945	7,425	11,089
14	2040	0	7	0	7	1	193	208	859	737	2,006	7,607	11,417
15	2050	0	7	0	7	1	207	222	918	753	2,071	7,793	11,757
16	2060	0	8	0	8	2	222	240	982	771	2,139	7,984	12,116
17	2070	0	8	0	8	2	238	256	1,050	791	2,211	8,180	12,488
18	2080	0	9	0	9	2	255	275	1,123	813	2,288	8,381	12,880
19	2090	0	9	0	9	2	273	293	1,201	838	2,368	8,586	13,286
20	WSW 2000	0	0	14	60	17	577	668	6,970	603	5,480	5,697	19,418
21	2010	0	0	15	64	18	619	716	7,473	647	5,492	5,642	19,970
22	2020	0	0	16	69	20	663	768	8,013	693	5,518	5,595	20,587
23	2030	0	0	17	74	21	711	823	8,591	743	5,556	5,556	21,269
24	2040	0	0	19	79	22	763	883	9,211	797	5,609	5,525	22,025
25	2050	0	0	20	85	24	818	947	9,876	854	5,675	5,503	22,855
26	2060	0	0	21	91	26	877	1,015	10,589	916	5,758	5,489	23,767
27	2070	0	0	23	98	28	940	1,089	11,353	982	5,856	5,484	24,764
28	2080	0	0	24	105	30	1,008	1,167	12,173	1,053	5,971	5,488	25,852
29	2090	0	0	26	112	32	1,080	1,251	13,051	1,129	6,103	5,502	27,035
30	W 2000	0	0	53	7	3	297	360	3,279	1,250	5,231	3,404	13,524
31	2010	0	0	57	8	3	318	386	3,516	1,331	5,080	3,369	13,682
32	2020	0	0	61	8	3	341	413	3,769	1,418	4,934	3,339	13,873

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Table G-3. (contd)

Sectors		0-1 ^(a)	1-2 ^(b)	2-3 ^(b)	3-4 ^(b)	4-5 ^(b)	5-10 ^(b)	Total 0-10 ^(b)	10-20 ^{(b)(c)}	20-30 ^{(b)(c)}	30-40 ^(c)	40-50 ^(c)	Total 0-50 ^(b)
WNW	2030	0	0	65	9	4	366	444	4,042	1,512	4,794	3,312	14,104
	2040	0	0	70	9	4	392	475	4,333	1,613	4,660	3,290	14,371
	2050	0	0	75	10	4	421	510	4,646	1,721	4,531	3,271	14,679
	2060	0	0	81	11	5	451	548	4,981	1,837	4,407	3,256	15,029
	2070	0	0	86	11	5	484	586	5,341	1,962	4,288	3,246	15,423
	2080	0	0	93	12	5	519	629	5,727	2,097	4,175	3,240	15,868
	2090	0	0	99	13	6	556	674	6,140	2,241	4,067	3,237	16,359
	2000	0	0	68	0	65	171	304	3,328	8,582	6,798	17,503	36,515
	2010	0	0	73	0	70	183	326	3,540	9,060	7,503	18,462	38,891
	2020	0	0	78	0	75	197	350	3,765	9,568	8,503	19,564	41,750
NW	2030	0	0	84	0	80	211	375	4,006	10,108	9,938	20,853	45,280
	2040	0	0	90	0	86	226	402	4,262	10,681	12,014	22,397	49,756
	2050	0	0	96	0	92	242	430	4,536	11,292	15,041	24,291	55,590
	2060	0	0	103	0	99	260	462	4,827	11,940	19,478	26,679	63,386
	2070	0	0	111	0	106	279	496	5,137	12,630	26,011	29,772	74,046
	2080	0	0	119	0	114	299	532	5,469	13,363	35,664	33,883	88,911
	2090	0	0	127	0	122	320	569	5,822	14,142	49,962	39,478	109,973
	2000	0	38	0	118	92	118	366	10,087	117,824	80,353	6,498	215,128
	2010	0	41	0	127	99	126	393	10,613	123,570	114,577	9,176	258,329
	2020	0	44	0	136	106	136	422	11,169	129,596	165,349	13,122	319,658
NNW	2030	0	47	0	145	113	145	450	11,755	135,917	240,788	18,955	407,865
	2040	0	50	0	156	122	156	484	12,373	142,545	353,009	27,595	536,006
	2050	0	54	0	167	130	167	518	13,027	149,497	520,082	40,420	723,544
	2060	0	58	0	179	140	179	556	13,717	156,787	768,966	59,478	999,504
	2070	0	62	0	192	150	192	596	14,447	164,434	1,139,874	87,830	1,407,181
	2080	0	66	0	206	161	206	639	15,219	172,453	1,692,801	130,037	2,011,149
	2090	0	71	0	221	172	221	685	16,035	180,863	2,517,245	192,905	2,907,733
	2000	0	0	0	0	0	53	53	2,809	87,042	27,670	5,506	123,080
	2010	0	0	0	0	0	61	61	3,219	97,706	33,239	6,469	140,694
	2020	0	0	0	0	0	69	69	3,693	109,927	40,177	7,602	161,468
	2030	0	0	0	0	0	80	80	4,241	123,950	48,915	8,937	186,123
	2040	0	0	0	0	0	91	91	4,875	140,058	60,057	10,509	215,590

Table G-3. (contd)

Sectors	0-1 ^(a)	1-2 ^(b)	2-3 ^(b)	3-4 ^(b)	4-5 ^(b)	5-10 ^(b)	Total 0-10 ^(b)	10-20 ^{(b)(c)}	20-30 ^{(b)(c)}	30-40 ^(c)	40-50 ^(c)	Total 0-50 ^(e)
2050	0	0	0	0	0	105	105	5,610	158,578	74,445	12,362	251,100
2060	0	0	0	0	0	121	121	6,461	179,892	93,283	14,545	294,302
2070	0	0	0	0	0	139	139	7,446	204,441	118,291	17,118	347,435
2080	0	0	0	0	0	160	160	8,589	232,738	151,953	20,151	413,591
2090	0	0	0	0	0	184	184	9,912	265,379	197,876	23,728	497,079
TOTAL	0	93	161	220	213	2,873	3,560	39,296	312,514	178,881	139,850	674,101
2010	0	100	173	236	228	3,085	3,822	42,650	341,141	223,992	158,638	770,243
2020	0	109	185	254	245	3,315	4,108	46,374	373,372	288,083	182,013	893,950
2030	0	116	198	271	261	3,560	4,406	50,520	409,744	379,968	211,379	1,056,017
2040	0	126	213	292	281	3,825	4,737	55,140	450,855	512,710	248,651	1,272,093
2050	0	135	228	313	300	4,111	5,087	60,307	497,420	705,691	296,472	1,564,977
2060	0	147	244	336	326	4,418	5,471	66,086	550,252	987,733	358,513	1,968,055
2070	0	157	262	360	348	4,750	5,877	72,569	610,298	1,401,679	439,934	2,530,357
2080	0	169	281	386	373	5,106	6,315	79,857	678,653	2,011,300	548,012	3,324,137
2090	0	182	301	414	400	5,487	6,784	88,054	756,578	2,911,543	693,095	4,456,054

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Appendix G

G.2.1 Scope

The staff and Southern calculated the maximum gamma air dose, beta air dose, total body dose, and skin dose from noble gases at the exclusion area boundary location 0.8 km (0.5 mi) northeast of the VEGP site. Dose to the maximally exposed individual was calculated at 1071 m (0.67 mi) northeast of the site for the following exposure pathways: plume immersion, direct shine from deposited radionuclides, inhalation, ingestion of local farm or garden vegetables, and ingestion of locally produced beef. The milk ingestion pathway is not considered because there are no known milk cows within 5 miles of the VEGP site (Southern 2007a).

The staff reviewed the input parameters and values used by Southern (2007a) for appropriateness, including references made to the Westinghouse AP1000 Design Control Document (Westinghouse 2005). Default values from Regulatory Guide 1.109 (NRC 1977) were used when input parameters were not available. The staff concluded that the assumed exposure pathways and input parameters and values used by Southern were appropriate. These pathways and parameters were used by the staff in its independent calculations using GASPAR II.

Joint frequency distribution data of wind speed and wind direction by atmospheric stability class for the VEGP site provided in Table 2.7-10 of the ER (Southern 2007a) were used as input to the XOQDOQ code (Sagendorf et al. 1982) to calculate long-term average χ/Q and D/Q values for routine releases. The staff's independent results compare favorably to those reported by Southern in ER Tables 2.7-17 to 2.7-25 (Southern 2007a).

Population doses were calculated for all types of releases (i.e., noble gases, iodines and particulates, and H-3 and C-14) using the GASPAR II code for the following exposure pathways: plume immersion, direct shine from deposited radionuclides, ingestion of vegetables, and ingestion of milk and meat.

G.2.2 Resources Used

To calculate doses to the public from gaseous effluents, the staff used a personal computer version of the XOQDOQ and GASPAR II codes entitled NRCDOSE Version 2.3.8 (Chesapeake Nuclear Services, Inc. 2006) obtained through the Oak Ridge RSICC.

G.2.3 Input Parameters

Table G-4 provides a listing of the major parameters used in calculating dose to the public from gaseous effluent releases during normal operation.

Table G-4. Parameters Used in Calculating Dose to Public from Gaseous Effluent Releases

Parameter	Staff Value		Comments
New unit gaseous effluent source term (Ci/yr) ^(a)	Ar-41	3.4×10^1	Values from Westinghouse AP1000 Design Control Document Table 11.3-3 for a single unit (Westinghouse 2005). Except for rounding differences, these values are the same as those reported in ER Table 3.5-2 (Southern 2007a).
	Kr-85m	3.6×10^1	
	Kr-85	4.093×10^3	
	Kr-87	1.5×10^1	
	Kr-88	4.6×10^1	
	Xe-131m	1.776×10^3	
	Xe-133m	8.7×10^1	
	Xe-133	4.642×10^3	
	Xe-135m	7.0×10^0	
	Xe-135	3.34×10^2	
	Xe-138	6.0×10^0	
	I-131	1.168×10^{-1}	
	I-133	4.017×10^{-1}	
	H-3	3.5×10^2	
	C-14	7.3×10^0	
	Cr-51	6.06×10^{-4}	
	Mn-54	4.331×10^{-4}	
	Co-57	8.2×10^{-6}	
	Co-58	2.316×10^{-2}	
	Co-60	8.75×10^{-3}	
	Fe-59	7.88×10^{-5}	
	Sr-89	3.024×10^{-3}	
	Sr-90	1.159×10^{-3}	
	Zr-95	1.008×10^{-3}	
	Nb-95	2.452×10^{-3}	
	Ru-103	8.02×10^{-5}	
	Ru-106	7.77×10^{-5}	
	Sb-125	6.09×10^{-5}	
	Cs-134	2.298×10^{-3}	
	Cs-136	8.53×10^{-5}	
	Cs-137	3.552×10^{-3}	
	Ba-140	4.23×10^{-4}	
	Ce-141	4.164×10^{-4}	
Existing unit gaseous effluent source term (Ci/yr) ^(a)	H-3	1.051×10^{-2}	Values from 2002 annual radioactive effluent release report Tables 2-2C and 2-3C (Southern 2003).
	Ar-41	4.756×10^{-1}	
	Cr-51	3.160×10^{-6}	
	Co-58	5.850×10^{-6}	
	Co-60	6.256×10^{-6}	
	Kr-85m	3.840×10^{-5}	
	Kr-85	3.272×10^{-6}	
	Sr-89	4.370×10^{-7}	
	Sr-90	3.730×10^{-9}	

Table G-4. (contd)

Parameter	Staff Value	Comments
<p>Nb-95</p> <p>Xe-131m</p> <p>Xe-133m</p> <p>Xe-133</p> <p>Xe-135</p> <p>I-133</p> <p>I-131</p> <p>I-131</p>	<p>$6.190 \times 10^{+0}$</p> <p>1.101×10^{-1}</p> <p>3.303×10^{-2}</p> <p>$2.211 \times 10^{+1}$</p> <p>4.045×10^{-1}</p> <p>4.900×10^{-4}</p> <p>2.068×10^{-2}</p> <p>3.820×10^{-7}</p>	
Population distribution	Table 2.5.1-1 of the ER (Southern 2007a)	Population distribution used by Southern and the NRC staff was for year 2000. Note that ESRP Section 5.4.1 requires use of "projected population for 5 years from the time of the licensing action under consideration." Assuming the ESP licensing action occurs in year 2008 and adding 5 years yields year 2013. See discussion of population dose in Section G.2.5.
Wind speed and direction distribution	Table 2.7-10 of the ER (Southern 2007a)	Site-specific data provided by Southern for 5-year period from 1998 to 2002.
Atmospheric dispersion factors (sec/m ³)	Tables 2.7-17 to 2.7-23 of the ER (Southern 2007a)	Site-specific data provided by Southern for 5-year period from 1998 to 2002.
Ground deposition factors (m ⁻²)	Tables 2.7-24 to 2.7-25 of the ER (Southern 2007a)	Site-specific data provided by Southern for 5-year period from 1998 to 2002.
Milk production rate within an 80-km (50-mi) radius of the VEGP site (L/yr)	$6.37 \times 10^{+7}$	Site-specific data provided by Southern (2007a).
Vegetable/fruit production rate within an 80-km (50-mi) radius of the VEGP site (kg/yr)	$6.57 \times 10^{+7}$	Site-specific data provided by Southern (2007a).
Meat production rate within an 80-km (50-mi) radius of the VEGP site (kg/yr)	$1.03 \times 10^{+7}$	Site-specific data provided by Southern (2007a).

Table G-4. (contd)

	Parameter	Staff Value	Comments
1	Pathway receptor locations	Table 5.4-4 and 2.7-14 of	Site-specific data provided by
2	(direction, distance, and	the ER (Southern 2007a)	Southern (2007a).
3	atmospheric dispersion factors)		
4	- nearest site boundary,		
5	vegetable garden, residence,		
6	meat animal		
7	Consumption factors for milk,	Milk (L/yr)	Table 5.4-3 of the ER (Southern
8	meat, leafy vegetables, and	310 (adult)	2007a) and Regulatory Guide 1.109
9	vegetables	400 (teen)	(NRC 1977).
		330 (child)	
		330 (infant)	
		Meat (kg/yr)	
		110 (adult)	
		65 (teen)	
		41 (child)	
		0 (infant)	
		Leafy vegetables (kg/yr)	
		64 (adult)	
		42 (teen)	
		26 (child)	
		0 (infant)	
		Vegetables (kg/yr)	
		520 (adult)	
		630 (teen)	
		520 (child)	
		0 (infant)	
10	Fraction of year leafy	0.58	Site-specific value from Table 5.4-3
11	vegetables are grown		of the ER (Southern 2007a).
12	Fraction of year that milk cows	1	Default value of GASPAR II code
13	are on pasture		(Streng et al. 1987).
14	Fraction of MEI vegetable	0.76	Default value of GASPAR II code
15	intake from own garden		(Streng et al. 1987).
16	Fraction of milk-cow intake that	1	Default value of GASPAR II code
17	is from pasture while on		(Streng et al. 1987).
18	pasture		
19	Average absolute humidity over	8.0	Default value of GASPAR II code
20	the growing season (g/m ³)		(Streng et al. 1987).
21	Average temperature over the	None	Default value of GASPAR II code
22	growing season (°F)		(Streng et al. 1987).

Table G-4. (contd)

Parameter	Staff Value	Comments
Fraction of year beef cattle are on pasture	1	Default value of GASPAR II code (Streng et al. 1987).
Fraction of year beef cattle intake that is from pasture while on pasture	1	Default value of GASPAR II code (Streng et al. 1987).
(a) To convert Ci/yr to Bq/yr, multiply the value by 3.7×10^{10} .		

G.2.4 Comparison of Doses to the Public from Gaseous Effluent Releases

Table G-5 compares results documented in the ER (Southern 2007a) for doses from noble gases at the exclusion area boundary with the results calculated by the NRC staff. The doses provided by Southern and those calculated by NRC were similar.

Table G-6 compares doses to the maximally exposed individual calculated by Southern and the staff. Doses to the maximally exposed individual were calculated at the nearest residence, nearest garden, nearest beef cattle, and nearest milk cow. The doses provided by Southern and those calculated by the NRC staff were similar.

Table G-5. Comparison of Doses to the Public from Noble Gas Releases for a New Unit

Type of Dose ^(a)	Southern ER (2007a) ^(b)	Staff Calculation	Percent Difference
Gamma air dose at exclusion area boundary – noble gases only (mGy/yr)	0.0068	0.0068	0
Beta air dose at exclusion area boundary – noble gases only (mGy/yr)	0.0284	0.0284	0
Total body dose at exclusion area boundary – noble gases only (mSv/yr)	0.0056	0.00564	+0.7
Skin dose at exclusion area boundary – noble gases only (mSv/yr)	0.0230	0.0225	-2.2
(a) To convert from mGy/yr or mSv/yr to mrad/yr or mrem/yr, multiply by 100.			
(b) Results from Southern ER Table 5.4-7 (Southern 2007a).			

Table G-6. Comparison of Doses to the MEI from Gaseous Effluent Releases for a New Unit

Location	Pathway	Total Body Dose ($\mu\text{Sv/yr}$) ^{(a)(b)}	Skin Dose ($\mu\text{Sv/yr}$) ^{(a)(b)}	Thyroid Dose ($\mu\text{Sv/yr}$) ^{(a)(b)}
Nearest residence, 0.67 mi northeast	Plume	2.56 (2.57)	12.8 (12.9)	–
Nearest residence, 0.67 mi northeast	Inhalation			
	Adult	0.280 (0.279)	–	2.60 (2.56)
	Teen	0.283 (0.283)	–	3.24 (3.20)
	Child	0.250 (0.250)	–	3.78 (3.74)
	Infant	0.145 (0.145)	–	3.39 (3.35)
Nearest garden, 0.67 mi northeast	Vegetable			
	Adult	2.05 (2.04)	–	20.0 (19.5)
	Teen	3.04 (3.04)	–	26.9 (26.3)
	Child	6.65 (6.65)	–	52.5 (51.0)
Nearest meat animal, 0.67 mi northeast	Meat			
	Adult	0.625 (0.625)	–	–
	Teen	0.500 (0.500)	–	–
	Child	0.905 (0.905)	–	–
(a) Values in parentheses represent the values that the staff calculated. The Southern values (those not in parentheses) were taken from Table 5.4-6 of Southern (2007a).				
(b) To convert from $\mu\text{Sv/yr}$ to mrem/yr, multiply by 100,000.				

G.2.5 Comparison of Results - Population Doses

Table G-7 compares the Southern population dose estimates taken from Table 5.4-9 of the ER (Southern 2007a) with the NRC staff estimates for the new units. For calculating the population dose from gaseous effluents, the population distribution used by Southern and the staff was for year 2000. However, ESRP Section 5.4.1 (NRC 2000) requires use of "...projected population for 5 years from the time of the licensing action under consideration." Assuming the ESP licensing action occurs in year 2008 and adding 5 years yields year 2013, so the NRC staff used 2013 in their analysis. Using ER Table 2.5.1-1 (Southern 2007a) population projections and assuming linear population growth from 2010 to 2020 yields a population estimate for the year 2013 of 807,355. This is about a 20-percent increase from the 2000 population of 674,101. The staff's independent calculation for population dose using year 2000 population distribution yields results that are comparable to the Southern ER estimates (Southern 2007a) for two new units. Scaling these values up by 20 percent to account for 2013 population yields results that are about 20 percent greater than the values provided by Southern in its ER (Southern 2007a).

Table G-8 compares the Southern population dose estimates taken from Table 5.4-9 of the ER (Southern 2007a) with the staff's estimates for the existing units. The doses calculated using year 2000 population distribution were similar. Scaling these values up by 20 percent to account for 2013 population yields results that are about 20 percent greater than the values provided by Southern in the ER (Southern 2007a).

Table G-7. Comparison of Population Total Body Doses from Gaseous Effluent Releases for Two New Units

Pathway	Southern ER (2007a) (person-Sv/yr) ^{(a)(b)}	Staff Estimate with Year 2000 Population (person-Sv/yr) ^(a)	Staff Estimate with Year 2013 Population (person-Sv/yr) ^(a)	Percent Difference
Noble gases	0.0057	0.00574	0.00689	+20
Iodines and particulates	0.0014	0.00139	0.00167	+20
Tritium and C-14	0.0110	0.0110	0.0132	+20
Total	0.0180	0.0181	0.0217	+20

(a) To convert from person-Sv/yr to person-rem/yr, multiply by 100.
(b) Results from Southern ER Table 5.4-9 (Southern 2007a).

Table G-8. Comparison of Population Total Body Doses from Gaseous Effluent Releases for Two Existing Units

Pathway	Southern ER (2007a) (person-Sv/yr) ^{(a)(b)}	Staff Estimate with Year 2000 Population (person-Sv/yr) ^(a)	Staff Estimate with Year 2013 Population (person-Sv/yr) ^(a)	Percent Difference
Noble gases	0.00001	0.0000105	0.0000126	+26
Iodines and particulates	0.0016	0.00162	0.00194	+21
Tritium and C-14	0.00049	0.000487	0.000584	+19
Total	0.0021	0.00212	0.00254	+21

(a) To convert from person-Sv/yr to person-rem/yr, multiply by 100.
(b) Results from Southern ER Table 5.4-9 (Southern 2007a).

G.3 Cumulative Dose Estimates

Table G-9 compares Southern's results for cumulative dose estimates to the maximally exposed individual with those calculated by the NRC staff. Cumulative dose estimates include doses from all pathways (i.e., external, liquid effluent, and gaseous effluent) for both the proposed Units 3 and 4 and the existing Units 1 and 2 at the VEGP site. Cumulative dose estimates calculated by Southern (2007a) and the NRC staff were similar.

Table G-9. Comparison of Cumulative Doses to the Maximally Exposed Individual

Dose	Southern ER (2007a) ^{(a)(b)}	Staff Estimate ^(c)	Percent Difference
Whole body (mSv/yr) ^(d)	0.0236	0.02443	+3.5
Thyroid dose (mSv/yr) ^(d)	0.1239	0.1216	-1.9
Dose to other organ – bone (mSv/yr) ^(d)	0.0888	0.08874	-0.1

(a) Doses from direct radiation were determined to be negligible (Southern 2007a).
 (b) Sum of dose from liquid and gaseous effluent releases for the two existing units and the proposed units are from Table 5.4-8 of the ER (Southern 2007a).
 (c) The staff calculation included the sum of doses from liquid and gaseous effluent releases from the two existing units and the two proposed units. Doses from liquid effluent for existing units was taken from the 2001 annual radiological effluent report (Southern 2002). Doses from gaseous effluent for existing units was calculated.
 (d) To convert from mSv/yr to mrem/yr, multiply by 100.

G.4 Dose Estimates to the Biota from Liquid and Gaseous Effluents

To estimate doses to the biota from the liquid and gaseous effluent pathways, the staff used the LADTAP II code (Streng et al. 1986), the GASPARI code (Streng et al. 1987), and input parameters supplied by Southern in its ER (Southern 2007a).

G.4.1 Scope

Doses to both terrestrial and aquatic biota were calculated using the LADTAP II code. Aquatic biota include fish, algae, and invertebrate species. Terrestrial biota include muskrats, raccoons, herons, and ducks. The LADTAP II code calculates an internal dose component and an external dose component and sums them for a total body dose. The staff reviewed the input parameters used by Southern for appropriateness. Default values from Regulatory Guide 1.109 (NRC 1977) were used when input parameters were not available. The staff concluded that all of the input parameters used by Southern were appropriate. These parameters were used by the staff in its independent calculations using LADTAP II.

The LADTAP II code calculates only biota dose from the liquid effluent pathway. Terrestrial biota could also be exposed via the gaseous effluent pathway. These values would be the same as those for the maximally exposed individual calculated using the GASPARI code. Southern (2007a) used the maximally exposed individual doses at the exclusion area boundary (800 m [0.5 mi] from the plant) to estimate these doses. To account for the greater proximity of the main body mass of animals to the ground compared to humans, the maximally exposed individual calculation for the biota assumed a ground deposition factor twice that used in the maximally exposed individual calculation for a member of the public.

G.4.2 Resources Used

To calculate doses to the biota, the staff used a personal computer version of the LADTAP II and GASPAR II computer codes entitled NRCDOSE Version 2.3.8 (Chesapeake Nuclear Services, Inc. 2006). NRCDOSE was obtained through the Oak Ridge RSICC.

G.4.3 Input Parameters

Most of the LADTAP II input parameters are specified in Section G.1.3 to include the source term, the discharge flow rate to the receiving fresh water system, and the shore width factor. These parameters' values are appropriate to use in calculating biota dose.

G.4.4 Comparison of Results

Table G-10 compares Southern's biota dose estimates from liquid and gaseous effluents taken from Table 5.4-10 of the ER (Southern 2007a) with the NRC staff's estimates. Dose estimates were similar.

Table G-10. Comparison of Dose Estimates to Biota from Liquid and Gaseous Effluents for Two Units

Biota	Pathway	Southern ER (2007a) (mGy/yr) ^{(a)(b)}	Staff Calculation (mGy/yr) ^{(a)(b)}	Percent Difference
Fish	Liquid	1.6×10^{-3}	1.6×10^{-3}	0
	Gaseous ^(c)	0	0	0
Muskrat	Liquid	4.7×10^{-3}	4.7×10^{-3}	0
	Gaseous	1.51×10^{-2}	1.52×10^{-2}	+0.7
Raccoon	Liquid	1.9×10^{-3}	1.9×10^{-3}	0
	Gaseous	2.18×10^{-2}	2.18×10^{-2}	0
Heron	Liquid	2.15×10^{-2}	2.15×10^{-2}	0
	Gaseous	1.51×10^{-2}	1.52×10^{-2}	+0.7
Duck	Liquid	4.5×10^{-3}	4.5×10^{-3}	0
	Gaseous	2.18×10^{-2} (d)	2.18×10^{-2}	0 (d)
Algae	Liquid	(d)	1.29×10^{-2}	(d)
	Gaseous ^(c)	(d)	0	(d)
Invertebrate	Liquid	(d)	4.5×10^{-3}	(d)
	Gaseous ^(c)	(d)	0	(d)

(a) To convert from mGy/yr to mrad/yr, multiply by 100.

(b) For terrestrial biota, dose equals the sum of the plume immersion, vegetable ingestion, inhalation, and two times the ground deposition doses at 0.8 km (0.5 mi) northeast of the site.

(c) Fish, invertebrate species, and algae would not be exposed to gaseous effluents.

(d) Southern did not report results for these biota.

G.5 References

10 CFR Part 50. Code of Federal Regulations, Title 10, *Energy*, Part 50, "Domestic Licensing of Production and Utilization Facilities."

Chesapeake Nuclear Services, Inc. 2006. *NRCDOSE for Windows*. Radiation Safety Information Computational Center, Oak Ridge, Tennessee.

Sagendorf J.F., J.T. Goll, and W.F. Sandusky. 1982. *XOQDOQ: Computer Program for the Meteorological Evaluation of Routine Effluent Releases at Nuclear Power Stations*. NUREG/CR-2919, Pacific Northwest National Laboratory, Richland, Washington.

Southern Nuclear Operating Company, Inc. (Southern). 2001. *Annual Radioactive Effluent Release Report for January 1 2000 to December 31, 2000. Vogtle Electric Generating Plant – Units 1 and 2*. NRC Docket Nos. 50-424 and 50-425, Facility Operating License Nos. NPF-68 and NPF-81, Southern Company, Birmingham, Alabama.

Southern Nuclear Operating Company, Inc. (Southern). 2002. *Annual Radioactive Effluent Release Report for January 1 2001 to December 31, 2001. Vogtle Electric Generating Plant – Units 1 and 2*. NRC Docket Nos. 50-424 and 50-425, Facility Operating License Nos. NPF-68 and NPF-81, Southern Company, Birmingham, Alabama.

Southern Nuclear Operating Company, Inc. (Southern). 2003. *Annual Radioactive Effluent Release Report for January 1 2002 to December 31, 2002. Vogtle Electric Generating Plant – Units 1 and 2*. NRC Docket Nos. 50-424 and 50-425, Facility Operating License Nos. NPF-68 and NPF-81, Southern Company, Birmingham, Alabama.

Southern Nuclear Operating Company, Inc. (Southern). 2004. *Annual Radioactive Effluent Release Report for January 1 2003 to December 31, 2003. Vogtle Electric Generating Plant – Units 1 and 2*. NRC Docket Nos. 50-424 and 50-425, Facility Operating License Nos. NPF-68 and NPF-81, Southern Company, Birmingham, Alabama.

Southern Nuclear Operating Company, Inc. (Southern). 2005. *Annual Radioactive Effluent Release Report for January 1 2004 to December 31, 2004. Vogtle Electric Generating Plant – Units 1 and 2*. NRC Docket Nos. 50-424 and 50-425, Facility Operating License Nos. NPF-68 and NPF-81, Southern Company, Birmingham, Alabama.

Southern Nuclear Operating Company, Inc. (Southern). 2006. *Annual Radioactive Effluent Release Report for January 1 2005 to December 31, 2005. Vogtle Electric Generating Plant – Units 1 and 2*. NRC Docket Nos. 50-424 and 50-425, Facility Operating License Nos. NPF-68 and NPF-81, Southern Company, Birmingham, Alabama.

Southern Nuclear Operating Company, Inc. (Southern). 2007a. *Southern Nuclear Operating*

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1 Company, *Vogtle Early Site Permit Application: Environmental Report, Rev. 2*. Southern
2 Company, Birmingham, Alabama.

3
4 Southern Nuclear Operating Company, Inc. (Southern). 2007b. *Annual Radioactive Effluent*
5 *Release Report for January 1 2006 to December 31, 2006. Vogtle Electric Generating Plant –*
6 *Units 1 and 2*. NRC Docket Nos. 50-424 and 50-425, Facility Operating License Nos. NPF-68
7 and NPF-81, Southern Company, Birmingham, Alabama.

8
9 Streng, D.L., R.A. Peloquin, and G. Whelan. 1986. *LADTAP II – Technical Reference and*
10 *User Guide*. NUREG/CR-4013, Pacific Northwest Laboratory, Richland, Washington.

11
12 Streng D.L., T.J. Bander, and J.K. Soldat. 1987. *GASPAR II – Technical Reference and*
13 *User Guide*. NUREG/CR-4653, Pacific Northwest Laboratory, Richland, Washington.

14
15 U.S. Nuclear Regulatory Commission (NRC). 1977. *Calculation of Annual Doses to Man from*
16 *Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with*
17 *10 CFR Part 50, Appendix I*. Regulatory Guide 1.109, Office of Nuclear Reactor Regulation,
18 Washington, D.C.

19
20 U.S. Nuclear Regulatory Commission (NRC). 2000. *Standard Review Plans for*
21 *Environmental Reviews for Nuclear Power Plants*. NUREG-1555, Office of Nuclear Reactor
22 Regulation, Washington, D.C. Available at [http://www.nrc.gov/reading-rm/doc-](http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1555/)
23 [collections/nuregs/staff/sr1555/](http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1555/). Accessed on August 8, 2007.

24
25 Westinghouse Electric Company, LLC (Westinghouse). 2005. *AP1000 Design Control*
26 *Document, Revision 15*. Westinghouse Electric Company LLC, Pittsburgh, Pennsylvania.

Appendix H
Authorizations and Consultations

Appendix H

Authorizations and Consultations

This appendix contains a list of the environmental-related authorizations, permits, and certifications potentially required by Federal, State, regional, local, and affected Native American tribal agencies related to the early site permit, pre-construction, site redress, construction, and operation of the proposed new nuclear Units 3 and 4 at the Vogtle ESP site. The table is reproduced from Table 1.3-1 through 1.3-5 of the Environmental Report submitted to the U.S. Nuclear Regulatory Commission by Southern Nuclear Operating Company, Inc.

Table 1.3-1 Authorizations Required for Early Site Permit

Agency	Authority	Requirement	License/ Permit No. (1)	Expiration Date (1)	Activity Covered
USFWS	Endangered Species Act	Consultation regarding potential to adversely impact protected species (non-marine species)	NA	NA	Concurrence with no adverse impact or consultation on appropriate mitigation measures.
NMFS	Endangered Species Act	Consultation regarding potential to adversely impact protected species (marine species)	NA	NA	Concurrence with no adverse impact or consultation on appropriate mitigation measures.
GDNR	National Historic Preservation Act, (36 CFR 800)	Consultation regarding potential to adversely affect historic resources	NA	NA	Confirm site construction or operation would not affect protected historic resources.
South Carolina Department of Archives and History	National Historic Preservation Act, (36 CFR 800)	Consultation regarding potential to adversely affect historic resources	NA	NA	Confirm site construction or operation would not affect protected historic resources.
GDNR	Federal Clean Water Act (FCWA) (33 U.S.C. 1251 et seq.)	Section 401 Certification			Compliance with water quality standards.
USFWS - U.S. Fish and Wildlife Service NMFS - National Marine Fisheries Service GDNR - Georgia Department of Natural Resources ¹ No permits have been issued.					

Table 1.3-2 Authorizations Required for Pre-Construction Activities

Agency	Authority	Requirement	License/ Permit No. (1)	Expiration Date (1)	Activity Covered
NRC	10 CFR 52.25 or 10 CFR 50.10(e)(1)	Early Site Permit with Site Redress Plan or Limited Work Authorization			Non-nuclear construction, including site preparation.
USACE	Clean Water Act (CWA)	Section 404 Permit			Disturbance or crossing wetland areas or navigable waters. For site and rail corridor upgrade.
USACE	33 CFR 323	Dredge and Fill Discharge Permit			Construction/ modification of intake/ discharge to Savannah River. For site and rail corridor upgrade ² .
USACE	Rivers and Harbors Act	Section 10 Permit			Barge slip modification impacts to navigable waters of the U.S.
USDOT	49 CFR 107, Subpart G	Certificate of Registration			Transportation of hazardous materials.
USFWS	Migratory Bird Treaty Act, 50 CFR 21	Federal Depredation Permit			Adverse impacts on protected species and/or their nests. For site and rail corridor upgrade.
FAA	49 USC 1501 14 CFR 77	Construction Notice			Notice of erection of structures (>200 feet high) potentially impacting air navigation.
GPSC	GA Public Utilities Act (O.C.G.A. Section 46-3-1 et seq.), GA Rules and Regulations 515-3-4-.07	Certificate of Public Convenience and Necessity			Present and future public convenience and necessity require the operation of such equipment or facility.

Table 1.3-2 (cont.) Authorizations Required for Pre-Construction Activities

Agency	Authority	Requirement	License/ Permit No. (1)	Expiration Date (1)	Activity Covered
GDNR	GA Endangered Wildlife Act (O.C.G.A. Section 27-3-130 et seq.), GA Rules and Regulations 391-4-10	Depredation Permit			Adverse impacts on state designated protected species and/or their habitat. For site and rail corridor.
GDNR	Federal Clean Air Act (FCAA), GA Air Quality Act (O.C.G.A. Section 12-9-1 et seq.), GA Rules and Regulations 391-3-1	Part 70 Air Quality Construction Permit			Construction air emission sources.
GDNR	FCWA, GA Water Quality Control Act	Revision of existing National Pollutant Discharge Elimination System Permit			Regulates limits of pollutants in liquid discharge to surface water.
GDNR	FCWA, GA Water Quality Control Act (O.C.G.A. 12-5-20), GA Rules and Regulations 391-3-6	General Permit Registration for Storm Water Discharges Associated with Construction Activity for Common Developments	GAR100003	July 31, 2008	Discharge storm water from site during construction.
GDNR	FCWA, GA Water Quality Control Act (O.C.G.A. 12-5-20), GA Rules and Regulations 391-3-6	General Permit Registration for Storm Water Discharges Associated with Construction Activity for Infrastructure Construction Projects	GAR100002	July 31, 2008	Discharge storm water from linear construction sites (e.g., roadways and rail corridor).
GDNR	GA Safe Drinking Water Act (O.C.G.A. 12-5-170 et seq.), GA Rules and Regulations 391-3-5	Revision of existing permit to operate a public water system			Operate a public, non- transient, non-community water system.
GDNR	GA Safe Drinking Water Act (O.C.G.A. 12-5-170 et seq.), GA	Revision of existing permit to operate a			Operate a public, transient, non-community water system.

Table 1.3-2 (cont.) Authorizations Required for Pre-Construction Activities

Agency	Authority	Requirement	License/ Permit No. (1)	Expiration Date (1)	Activity Covered
GDNR	Federal Clean Air Act (FCAA), GA Air Quality Act (O.C.G.A. Section 12-9-1 et seq.), GA Rules and Regulations 391-3-1	Revision of existing Title V Operating Permit			Operation of air emission sources.
Burke County Building Office	Burke County Code of Ordinances, Article VII, Sec. 26-331	Land Disturbing Activity Permit			All land disturbing activities within the boundaries of Burke County.
Burke County Building Office	Burke County Code of Ordinances, Article VII, Sec. 26-336	Building Permit			Construction, alteration, repair, or demolition of any building or structure within the boundaries of Burke County.
<hr/> NRC - U.S. Nuclear Regulatory Commission USACE - U.S. Army Corps of Engineers USDOT - U.S. Department of Transportation FAA - Federal Aviation Administration GPSC - Georgia Public Service Commission ¹ No permits have been issued. ² The VEGP rail spur was recently upgraded, and SNC will verify that additional upgrades are not needed. For completeness, this table assumes upgrades to the rail corridor will be made.					

Table 1.3-3 Authorizations Required for Redress Activities

Agency	Authority	Requirement	License/Permit No. (1)	Expiration Date (1)	Activity Covered
USACE	Clean Water Act (CWA)	Section 404 Permit			Disturbance or crossing wetland areas or navigable waters.
USACE	33 CFR 323	Dredge and Fill Discharge Permit			Construction / modification of intake / discharge to Savannah River.
USACE	Rivers and Harbors Act	Section 10 Permit			Impacts to navigable waters of the U.S. Barge Slip Modification.
USDOT	49 FR 107, Subpart G	Certificate of Registration			Transportation of hazardous materials.
GDNR	Federal Clean Water Act (FCWA) (33 U.S.C. 1251 et seq.)	Section 401 Certification			Compliance with water quality standards.
GDNR	FCWA, GA Water Quality Control Act (O.C.G.A. 12-5-20), GA Rules and Regulations 391-3-6	General Permit Registration for Storm Water Discharges Associated with Construction Activity for Common Developments	GAR100003	July 31, 2008	Discharge storm water from site during construction (might be covered by existing registration).
GDNR	FCWA, GA Water Quality Control Act (O.C.G.A. 12-5-20), GA Rules and Regulations 391-3-6	General Permit Registration for Storm Water Discharges Associated with Construction Activity for Infrastructure Construction Projects	GAR100002	July 31, 2008	Discharge storm water linear construction sites (e.g., roadways, transmission lines) during construction)(might be covered by existing registration).

Table 1.3-3 (cont.) Authorizations Required for Redress Activities

Agency	Authority	Requirement	License/Permit No. (1)	Expiration Date (1)	Activity Covered
GDNR	GA Erosion and Sedimentation Act (O.C.G.A. Section 12-7-1 et seq.), GA Rules and Regulations 391-3-7	Land Disturbing Activity Permit			Permission to conduct land disturbing activities of one acre or larger, or within 200 feet of the bank of any state waters. For site and rail corridor.
GDNR	Federal Clean Air Act (FCAA), GA Air Quality Act (O.C.G.A. Section 12-9-1 et seq.), GA Rules and Regulations 391-3-1	Part 70 Air Quality Construction Permit			Construction air emission sources.
GDNR	GA Safe Drinking Water Act (O.C.G.A. 12-5-170 et seq.), GA Rules and Regulations 391-3-5	Notice of Termination (NOT) -Permit to operate a Public Water System			Operate a public, non-transient, non-community water system.
GDNR	GA Safe Drinking Water Act (O.C.G.A. 12-5-170 et seq.), GA Rules and Regulations 391-3-5	NOT - Permit to operate a Public Water System			Operate a public, transient, non-community water system.
GDNR	GA Groundwater Use Act (O.C.G.A. 12-5-90 et seq.), GA Rules and Regulations 391-3-2-.03	NOT - Permit to Use Groundwater			Consumptive use of 100,000 gallons per day or more of groundwater.
GDNR	GA Groundwater Use Act (O.C.G.A. 12-5-90 et seq.), GA Rules and Regulations 391-3-2-.09	Permit to Withdraw Groundwater			Dewater for foundation if needed for more than 60 days.
GDNR	GA Groundwater Use Act (O.C.G.A. 12-5-90 et seq.), GA Rules and Regulations 391-3-2-.14	Certification of Abandoned Wells			Abandoned wells have been filled, plugged and sealed.

Table 1.3-3 (cont.) Authorizations Required for Redress Activities

Agency	Authority	Requirement	License/Permit No. (1)	Expiration Date (1)	Activity Covered
GDNR	GA Comprehensive Solid Waste Management Act (O.C.G.A. 12-8-20 et seq.), GA Rules and Regulations 391-3-4-.06	Permit by Rule - Inert Landfill Permit			On-site disposal of solid waste consisting of earth and earth-like products, concrete, cured asphalt, rock, bricks, and land clearing debris.
GDNR	GA Comprehensive Solid Waste Management Act (O.C.G.A. 12-8-20 et seq.), GA Rules and Regulations 391-3-4	Private Industry Landfill Permit			On-site disposal of solid waste consisting of construction and demolition debris.
GDNR	GA Comprehensive Solid Waste Management Act (O.C.G.A. 12-8-20 et seq.), GA Rules and Regulations 391-3-4	Solid Waste Handling Permit			Disposal of industrial solid wastes. Transportation of putrescible waste for disposal in a permitted landfill.
Burke County Building Office	Burke County Code of Ordinances, Article VII, Sec. 26-331	Land Disturbing Activity Permit			All land disturbing activities within the boundaries of Burke County.
Burke County Building Office	Burke County Code of Ordinances, Article VII, Sec. 26-336	Building Permit			Construction, alteration, repair, or demolition of any building or structure within the boundaries of Burke County.
¹ No permits have been issued.					

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Table 1.3-4 Authorizations Required for Construction Activities¹

Agency	Authority	Requirement	License/ Permit No. (2)	Expiration Date (2)	Activity Covered
NRC	10 CFR 52, Subpart C or 10 CFR 50.10(e)(3)	Combined Operating License or Limited Work Authorization 2			Safety-related construction for a nuclear power facility.
FAA	49 USC 1501 14 CFR 77	Construction Notice			Notice of erection or structures (>200 feet high) potentially impacting air navigation.
USACE	Clean Water Act (CWA)	Section 404 Permit			Disturbance or crossing wetland areas or navigable waters. For transmission line corridor.
USACE	33 CFR 323	Dredge and Fill Discharge Permit			Construction/ modification of intake/ discharge to Savannah River. For transmission line corridor.
USFWS	Migratory Bird Treaty Act, 50 CFR 21	Federal Depredation Permit			Adverse impacts on protected species and/or their nests. For site transmission line corridor.
GDNR	GA Endangered Wildlife Act (O.C.G.A. Section 27-3-130 et seq.), GA Rules and Regulations 391-4-10	Depredation permit			Adverse impacts on state designated protected species and/or their habitat. For transmission line corridor.
GDNR	Federal Clean Air Act (FCAA), GA Air Quality Act (O.C.G.A. Section 12-9-1 et seq.), GA Rules and Regulations 391-3-1	Part 70 Air Quality Construction Permit			Construction air emission sources.

Table 1.3-4 (cont.) Authorizations Required for Construction Activities¹

Agency	Authority	Requirement	License/ Permit No. (2)	Expiration Date (2)	Activity Covered
GDNR	FCWA, GA Water Quality Control Act (O.C.G.A. 12-5-20), GA Rules and Regulations 391-3-6	General Permit Registration for Storm Water Discharges Associated with Construction Activity for Infrastructure Construction Projects	GAR100002	July 31, 2008	Discharge storm water linear construction sites (e.g., roadways, transmission lines) during construction.
GDNR	GA Comprehensive Solid Waste Management Act (O.C.G.A. 12-8-20 et seq.), GA Rules and Regulations 391-3-4	Solid Waste Handling Permit			Disposal of industrial solid wastes. Transportation of putrescible waste for disposal in a permitted landfill.
GDNR	GA Erosion and Sedimentation Act (O.C.G.A. Section 12-7-1 et seq.), GA Rules and Regulations 391-3-7	Land Disturbing Activity Permit			Permission to conduct land disturbing activities of one acre or larger, or within 200 feet of the bank of any state waters. For transmission line corridor.
GDNR	FCWA, GA Water Quality Control Act (O.C.G.A. 12-5-20), GA Rules and Regulations 391-3-6	General Permit Registration for Storm Water Discharges Associated with Construction Activity for Infrastructure Construction Projects	GAR100002	July 31, 2008	Discharge storm water linear construction sites. For transmission line corridor.

Table 1.3-4 (cont.) Authorizations Required for Construction Activities¹

Agency	Authority	Requirement	License/ Permit No. (2)	Expiration Date (2)	Activity Covered
GDOT	23 CFR 1.23	Permit			Utility right-of-way easement.
Burke County Building Office	Burke County Code of Ordinances, Article VII, Sec. 26-331	Land Disturbing Activity Permit			All land disturbing activities within the boundaries of Burke County.
Various county offices responsible for land disturbing activities	Jefferson, Warren, and McDuffie County Ordinances	Land Disturbing Activity Permit.			Land disturbing activities within county boundaries. For transmission line corridor.
GDOT – Georgia Department of Transportation					
¹ Assumes that SNC obtained the authorizations that Table 1.3-2 identifies.					
² No permits have been issued.					

Table 1.3-5 Authorizations Required for Operation¹

Agency	Authority	Requirement	License/ Permit No.	Expiration Date	Activity Covered
GDNR	FCWA, GA Water Quality Control Act	Revision of existing National Pollutant Discharge Elimination System Permit			Regulates limits of pollutants in liquid discharge to surface water.
GDNR	Federal Clean Air Act (FCAA), GA Air Quality Act (O.C.G.A. Section 12-9-1 et seq.), GA Rules and Regulations 391-3-1	Revision of existing Title V Operating Permit			Operation of air emission sources.
GDNR	GA Groundwater Use Act (O.C.G.A. 12-5-90 et seq.), GA Rules and Regulations 391-3-2-.03	Revision of existing Permit to Use Groundwater			Consumptive use of 100,000 gallons per day or more of groundwater.
GDNR	GA Water Quality Control Act (O.C.G.A. 12-5-31 et seq.), GA Rules and Regulations 391-3-6	Revision of existing Surface Water Withdrawal Permit to Withdraw, Divert or Impound Surface Water			Withdraw water from the Savannah River for cooling makeup and in-plant use.
South Carolina Department of Health and Environmental Control – Division of Waste Management	South Carolina Radioactive Waste Transportation and Disposal Act (Act No. 429)	Revision of existing South Carolina Radioactive Waste Transport Permit			Transportation of radioactive waste into the State of South Carolina.

Table 1.3-5 (cont.) Authorizations Required for Operation¹

Agency	Authority	Requirement	License/ Permit No.	Expiration Date	Activity Covered
State of Tennessee Department of Environment and Conservation Division of Radiological Health	Tennessee Department of Environment and Conservation Rule 1200-2-10.32	Revision of existing Tennessee Radioactive Waste License-for-Delivery			Transportation of radioactive waste into the State of Tennessee.
State of Utah Department of Environmental Quality Division of Radiation Control	R313-26 of the Utah Radiation Control Rules	Revision of existing General Site Access Permit			Transportation of radioactive materials into the State of Utah.
GPSC	GA Radiation Control Act (O.C.G.A. 31-13-1 et seq.), GA Rules and Regulations 391-3-17-.06	Revision of existing General Permit – Transportation of Radioactive Materials			Transportation of radioactive materials in the State of Georgia.

¹ Assumes that SNC obtained the authorizations that Tables 1.3-2 and 1.3-4 identify.

Appendix I

VEGP Site Characteristics, AP1000 Design Parameters and Site Interface Values

Appendix I

VEGP Site Characteristics, AP1000 Design Parameters and Site Interface Values

The AP1000 Design Parameters and Site Interface Values are from the Southern Nuclear Operating Company, Inc. (Southern) Environmental Report (ER) Table 3.0-1 unless otherwise specified (Southern 2007). These characteristics and parameters were used by the Nuclear Regulatory Commission (NRC) staff in its independent evaluation of the environmental impacts of the proposed new units. In some cases, the staff substituted values based on its own analysis.

Additional information is available in Westinghouse 2003.

Appendix I

Table I-1. Southern Site Characteristics, AP1000 Design Parameters and Site Interface Values

Part I Site Characteristic		
Item	Value	Description and Reference
Airborne Effluent Release Point		
Minimum Distance to EAB	¼ mi (~800 m)	The lateral distance from the release point (power block area) to the modeled EAB for dose analysis. Refer to Section 2.7.6, Table 2.7-14
Atmospheric Dispersion (λ/Q) (Accident)	<i>The atmospheric dispersion coefficients used to estimate dose consequences of accident airborne releases. Values used in analyses presented in Section 7.1</i>	
EAB (λ/Q)	Time (hour)	Site λ/Q
	0 - 2	6.62E-5 sec/m ³
LPZ (λ/Q)	0 - 8	1.25E-5 sec/m ³
	8 - 24	1.10E-5 sec/m ³
	24 - 96	8.40E-6 sec/m ³
	96 - 720	5.75E-6 sec/m ³
Gaseous Effluents Dispersion, Deposition (Annual Average)		
Atmospheric Dispersion (λ/Q)	λ/Q values in Table 2.7-15	The atmospheric dispersion coefficients used to estimate dose consequences of normal airborne releases. Refer to Section 2.7.6, Table 2.7-15
Population Density		
Population density over the lifetime of the new units until 2090	Population density meets the guidance of RS-002, Attachment 3	Refer to Section 2.5.1, Figures 2.5.1-1 and 2.5.1-2, Table 2.5.1-1
Exclusion Area Boundary (EAB)	The EAB is as defined on Drawing No. AR01-0000-X2-2002 Refer to Figure 3.1-3	The exclusion area boundary generally follows the plant property line and is defined on Drawing No. AR01-0000-X2-2002. Refer to Section 2.7.5
Low Population Zone (LPZ)	A 2-mile-radius circle from the midpoint between the containment buildings of Units 1 and 2	The LPZ is a 2-mile-radius circle from the midpoint between Unit 1 and Unit 2 containment buildings. Refer to Section 2.7.5

Table I-1. (contd)

Part II Design Parameters		
Item	Single Unit [Two Unit] Value	Description and Reference
Facility Characteristics		
Height	234 ft 0 in	The height from finished grade to the top of the tallest power block structure, excluding cooling towers Section 5.3.3.2.5 discusses potential for avian collisions, and Section 5.8.1.3 discusses visual impacts.
Foundation Embedment	39 ft 6 in to bottom of basemat from plant grade	The depth from finished grade to the bottom of the basemat for the most deeply embedded power block structure. Sections 4.2.2 and 5.2.2 discuss impacts to groundwater from installing the foundation
Max Inlet Temp Condenser / Heat Exchanger	91°F	The maximum acceptable design circulating water temperature at the inlet to the condenser or cooling water system heat exchangers. Refer to Section 3.4.2.3
Condenser / Heat Exchanger Duty	7.54E9 BTU/hr [1.51E10 BTU/hr]	Design value for the waste heat rejected to the circulating water system across the condensers. Selected value includes part of the service water system heat duty (from turbine equipment heat exchanger). Refer to Sections 3.4.1 and 3.4.2, and Table 3.4-2
Cooling Tower Temperature Range	25.2°F	The temperature difference between the hot water entering the tower and the cold water leaving the tower. Refer to Table 3.4-2
Cooling Tower Cooling Water Flow Rate	600,000 gpm [1,200,000 gpm]	The total nominal cooling water flow rate through the condenser/heat exchangers. Refer to Sections 3.3.1 and 3.4.1, and Table 3.4-2

Table I-1. (contd)

Part II Design Parameters		
Item	Single Unit [Two Unit] Value	Description and Reference
Auxiliary Heat Sink		
CCW Heat Exchanger Duty	8.3E7 BTU/hr normal 2.96E8 BTU/hr shutdown [1.66E8 BTU/hr normal 5.92E8 BTU/hr shutdown]	The heat transferred from the CCW heat exchangers to the service water system for rejection to the environment. Refer to Section 3.3.1 and Table 3.4-1
SWS Cooling Tower Cooling Water Flow Rate	9,000 gpm normal 18,000 gpm shutdown [18,000 gpm normal 36,000 gpm shutdown]	The total nominal cooling water flow rate through the SWS. Refer to Section 3.3.1 and Table 3.4-1
Plant Characteristics		
Rated Thermal Power (RTP)	3,400 MWt	The thermal power generated by the core. Refer to Section 3.2
Rated NSSS Thermal Output	3,415 MWt [6,830 MWt]	The thermal power generated by the core plus heat from the reactor coolant pumps. Refer to Section 3.2
Average Fuel Enrichment	2.35 wt % to 4.45 wt % 4.51 wt %	Concentration of U-235 in fuel - Initial load. Refer to Section 3.2. Average concentration, in weight percent, of U-235 in reloads; see Section 5.11.1; used in analysis presented in Section 5.11.2
Fuel Burn-up	60,000 MWd/MTU (design max) 48,700 MWd/MTU (expected)	Value derived by multiplying the reactor thermal power by time of irradiation divided by fuel mass (expressed in megawatt - days per metric ton of uranium fuel). Refer to Section 3.2 and 5.11.1; average discharge burnup used in analysis presented in Section 5.11.2
Normal Releases		
Liquid Source Term	See Table 3.5-1 0.26 curies total nuclides except tritium [0.52 curies]	The annual activity, by isotope, contained in routine liquid effluent streams. Used in analyses presented in Section 5.4

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Table I-1. (contd)

Part II Design Parameters		
Item	Single Unit [Two Unit] Value	Description and Reference
Tritium (liquid)	1,010 curies [2,020 curies]	The annual activity of tritium contained in routine liquid effluent streams. Section 5.4 analyses account for tritium releases
Gaseous Source Term	See Table 3.5-2 11,000 curies total nuclides except tritium [22,000] [Double values in Table 3.5-2]	The annual activity, by isotope, contained in routine plant airborne effluent streams. Used in analysis presented in Section 5.4
Tritium (gaseous)	See Table 3.5-2 350 curies [700 curies]	The annual activity of tritium contained in routine plant airborne effluent streams. Section 5.4 analyses account for tritium releases
Solid Waste Activity	See Tables 3.5-4 and 3.5-5 1,764 curies [3,528 curies]	The annual activity contained in solid radioactive wastes generated during routine plant operations. Refer to Sections 3.5.3 and 5.5.4
Dry Active ("Solid") Waste Volume	4,994 ft ³ [9,988 ft ³]	The expected volume of solid radioactive wastes generated during routine plant operations. Refer to Section 3.5.3
Accident Releases		
Elevation (Post Accident)	Ground level	The elevation above finished grade of the release point for accident sequence releases. Used to calculate impacts of accidents in Sections 2.7.5, 7.1 and 7.2
Gaseous Source Term (Post-Accident)	See Tables 7.1-4 to 7.1-12	The activity, by isotope, contained in post-accident airborne effluents. Refer to Section 7.1 and Tables 7.1-4 to 7.1-12.

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Table I-1. (contd)

Part III Site Interface Values		
Item	Single Unit [Two Unit] Value	Description and Reference
Normal Plant Heat Sink (condenser and turbine auxiliary cooling)		
CWS Cooling Tower Acreage	38 acres [69.3 acres]	The land required for CWS natural draft cooling towers, including support facilities such as equipment sheds, basins, or canals. Refer to Sections 3.1.2 and 3.4.2
CWS Cooling Tower Approach Temperature	11°F	The difference between the cold water temperature leaving the tower and the ambient wet bulb temperature. Refer to Section 3.4.2
CWS Cooling Tower Blowdown Temperature	91°F	The design maximum expected blowdown temperature at the point of discharge to the receiving water body. Refer to Section 5.3
CWS Cooling Tower Evaporation Rate	13,950 gpm (14,440 gpm) [27,900 gpm (28,880 gpm)]	The expected (and maximum) rate at which water is lost by evaporation from the cooling water systems. Refer to Section 3.3.1 and Table 3.3-1; used as basis for analyses in Section 5.3.3.1
CWS Cooling Tower Drift Rate	12 gpm [24 gpm]	The maximum rate at which water is lost by drift from the cooling water systems. Refer to Section 3.3.1, and Table 3.3-1; used as basis for analyses in Section 5.3.3.1
CWS Cooling Tower Height	600 ft	The vertical height above finished grade of the natural draft cooling tower. Refer to Table 3.4-2; used as basis for analysis in Section 5.3.3.1
CWS Cooling Tower Make-up Flow Rate	18,612 gpm (28,892 gpm) [37,224 gpm (57,784 gpm)]	The expected (and maximum) design rate of removal of water from the Savannah River to replace water losses from circulating water systems. The make-up flow rate is a calculated value based on the sum of the evaporation rate plus the blowdown flow rate plus drift. Refer to Sections 3.3.1, 3.4.1 and 3.4.2 and Table 3.3-1 Used as basis for analysis in Section 5.3.1 and 5.3.2

Table I-1. (contd)

Part III Site Interface Values		
Item	Single Unit [Two Unit] Value	Description and Reference
CWS Cooling Tower Offsite Noise Levels	<30 to ≤40 dBA	The maximum expected sound level at the site boundary. Refer to Table 2.7-26.
CWS Cooling Tower Heat Rejection Rate (Blowdown)	4,650 gpm (expected), 14,440 gpm (max) @91°F [9,300 gpm (expected) 28,880 gpm (max)] @ 91°F	The expected heat rejection rate to a receiving water body, expressed as flow rate in gallons per minute at a temperature in degrees Fahrenheit. Refer to Sections 2.3.2, 3.3.2; used as basis for analyses in Sections 5.3.1 and 5.3.2
CWS Cooling Tower Maximum Consumption of Raw Water	14,452 gpm [28,904 gpm]	The expected maximum short-term consumptive use of water by the circulating water systems (evaporation and drift losses). Refer to Sections 3.3.1 and 3.4.1, and Table 3.3-1
CWS Cooling Tower Expected Consumption of Raw Water	13,962 gpm [27,924 gpm]	The expected normal operating consumption of water by the circulating water system (evaporation and drift losses). Refer to Sections 3.3 and 3.4, and Table 3.3-1
Auxiliary Heat Sink (nuclear island cooling)		
SWS Cooling Tower Acreage	0.5 acre [1 acre]	The land required for SWS mechanical draft cooling towers, including support facilities such as equipment sheds and basins. Refer to Section 3.1.2
SWS Cooling Tower Makeup Rate	269 gpm (1,177 gpm) [537 gpm (2,353 gpm)]	The expected (maximum) rate of removal of water from wells to replace water losses from auxiliary heat sink. Refer to Sections 3.3 and 3.4.1
Airborne Effluent Release Point		
Normal Dose Consequences to the Maximally Exposed Individual	Total body: 0.05 mrem [0.1 mrem]	The estimated annual design radiological dose consequences due to gaseous releases from normal operation of the plant. Refer to Section 5.4
Post-Accident Dose Consequences	See Tables 7.1-13 to 7.1-22	The estimated design radiological dose consequences due to gaseous releases from postulated accidents. Refer to Section 7.1

Table I-1. (contd)

Part III Site Interface Values		
Item	Single Unit [Two Unit] Value	Description and Reference
Liquid Radwaste System		
Normal Dose Consequences	10 CFR 50, App I, 10 CFR 20 40 CFR 190	The estimated design radiological dose consequences due to liquid effluent releases from normal operation of the plant. Refer to Section 5.4.2.1
Plant Characteristics		
Total Acreage	310 acres for 2 units	The land area required to provide space for all plant facilities, including power block, switchyard, spent fuel storage, and administrative facilities. Refer to Section 4.1.1.1
Groundwater Consumptive Use	376 gpm (1,570 gpm) [762 gpm (3,140 gpm)]	The Rate of withdrawal of groundwater to serve the new units. Used in analysis in 5.2.2
Plant Population		
Operation	345 [660]	The number of people required to operate and maintain the plant. Refer to Section 3.10.3; used in analyses in Section 5.8
Refueling / Major Maintenance	1,000	The additional number of temporary staff required to conduct refueling and major maintenance activities. Refer to Section 5.8
Construction	1,576 people monthly average [3,152 people monthly average]	The monthly average estimated construction workforce staffing for two AP1000 units being constructed simultaneously. This assumes a site preparation schedule of 18 months, 48 months from first concrete to fuel load, with 6 months from fuel load to commercial operation and 12 months between commercial operation of each unit. This assumes 20.5 job hours per net kilowatt installed, giving credit for offsite modular construction. The peak number of construction workforce personnel could reach the 4,400 range. Refer to Section 3.10.1; used in analyses in Section 4.7

I.1 Reference

Westinghouse Electric Company, LLC. (Westinghouse). 2003. *Siting Guide: Site Information for an Early Site Permit Application, APP-0000-X1-001, Revision 3*. Pittsburgh, Pennsylvania.

Appendix J

Statements Made in the Environmental Report Considered in the NRC Staff's Environmental Review

Appendix J

Statements Made in the Environmental Report Considered in the NRC Staff's Environmental Review

If an early site permit (ESP) for the Vogtle Electric Generating Plant (VEGP) site is issued and if Southern Nuclear Operating Company (Southern) references it in an application for a construction permit (CP) or a combined license (COL), Southern would have to demonstrate that the design selected for the site falls within the bounds of the U.S. Nuclear Regulatory Commission's (NRC's) ESP analysis in this environmental impact statement (EIS). With regard to the environmental impacts associated with construction and operation of the proposed VEGP Units 3 and 4, Southern made a number of representations in its application. As listed in this appendix, the NRC staff relied on these representations and staff-developed assumptions in assessing the environmental impacts associated with construction and operation of the proposed Units 3 and 4. As such, fulfillment of these representations and assumptions provide part of the basis for the final impact assessment. Should a CP or COL applicant reference the ESP, and the NRC staff ultimately determine that a representation or assumption has not been satisfied at the CP/COL stage, that information would be considered new and potentially significant, and the affected impact area could be subject to re-examination.

Throughout its Environmental Report (ER) supporting the application, Southern provides

- commitments to address certain issues in the design, construction, and operation of the facility
- statements of planned compliance with current laws, regulations, and requirements
- commitments to future activities and actions that it will take should it decide to apply for a construction permit (CP) or combined operating license (COL)
- descriptions of Southern's estimate of the environmental impacts resulting from the construction and operation of the new nuclear units on the site
- descriptions of Southern's estimates of future activities and actions of others and the likely environmental impacts of those activities and actions that would be expected should Southern decide to apply for a CP or COL.

The following tables are meant to aid the staff and the applicant in the event this EIS is referenced in a CP or COL application. The tables are not meant to replace the analyses in the EIS, or all the statements and assumptions that the staff used to perform those analyses.

Appendix J

Table J-1 provides Southern's representations and the NRC staff's assumptions about design (Appendix I, Site Characteristics and AP1000 Design Parameters), permits and authorizations (Appendix H), mitigation measures and controls (Section 4.10 and 5.11 of the EIS), and the site redress plan (Section 4.11). Table J-2 contains references to representations and assumptions organized by technical area without repeating the information in Table J-1.

Table J-1. Appendix I, Appendix H, Section 4.10, and 5.11 Assumptions and Commitments

Area	Representations/Assumptions
Site Characteristics	An applicant referencing this EIS will demonstrate its application is bounded by the ESP site characteristics contained in Table I-1, Part 1.
AP1000 Design Parameters	An applicant referencing this EIS will demonstrate its application is bounded by the AP1000 design values contained and referenced in Table I-1, Part 2.
Site Interface values	An applicant referencing this EIS will demonstrate its application is bounded by the site interface values contained in Table I-1, Part 3.
Authorizations and Permits	An applicant referencing this EIS will provide the status of the authorizations and permits specified in Appendix H.
Mitigation of Construction Impacts	An applicant referencing this EIS will demonstrate its application contains the mitigation measures contained in Section 4.10.
Mitigation of Operational Impacts	An applicant referencing this EIS will demonstrate its application contains the mitigation measures contained in Section 5.11.
New and Significant Information	An applicant referencing this EIS will provide, in its application, any new information that could affect the technical basis or conclusions for determination of an impact level in the EIS.

Table J-2. Assumptions by Technical Area Not Contained in Table J-1

ER Section Number or RAI	ER Statement	EIS Section
Land Use		
ER 2.1	The centerline of VEGP Units 3 and 4 will be approximately 2,100 feet west and 400 feet south of the center of the existing Unit 2 containment building. Unit 4 containment will be approximately 800 feet west of Unit 3 containment.	2.2.1
ER 2.1	A railroad spur runs to the site from the Norfolk Southern Savannah-to-Augusta track.	2.2.1
ER 2.2.1.1	No prime farmland soils occur on the VEGP site. Burke County is developing zoning regulations, but the VEGP site currently is not zoned.	2.2.1
ER 2.2.2.1	The existing transmission system supporting VEGP Units 1 and 2 has two 500 kV lines and four 230 kV lines in four corridors. There is an additional 230 kV line to the Wilson Station.	2.2.2
ER 2.2.1.2	GPC provides access to the Savannah River and picnic tables at its boat landing, immediately downstream of the VEGP property.	2.2.1
ER 2.2.3	This section focuses on three Georgia counties as the region of impact for the construction and operation of new units at VEGP - Burke, Columbia and Richmond - where 79 percent of current VEGP employees reside (see Section 2.5.1).	2.2.3
ER 3.7.2	One new 500-kV transmission line will be constructed for the Vogtle site to handle the new generating capacity. The proposed new transmission line will be routed to an existing substation west of Augusta, Georgia. This substation will have been upgraded to contain a 500-kV bus by the time the connection is made. The specific route for this transmission line has not been determined, but land uses in the area that the line will traverse are indicated in Figure 2.2-4. Section 4.1.2 describes the principles that will be employed in routing the line.	3.3, 4.1.2, 9.2.2
ER 3.7.2	This analysis assumes that 60 linear miles of a 200-foot wide corridor would be required for the new line. Total area required for the corridor would be approximately 2.0 sq mi. The new line would require approximately 390 towers, and each would require foundation excavations.	4.1.2

Table J-2. (contd)

ER Section Number or RAI	ER Statement	EIS Section
ER 3.7.2	All 500-kV GPC transmission lines are currently constructed on steel, lattice-type towers designed to provide clearances consistent with the NESC and GPC engineering standards. At a minimum, all clearances will equal or exceed 45 feet phase-to-ground. For 500-kV lines, GPC uses a 3-subconductor-per-phase system with two overhead ground wires. All towers are grounded with either ground rods or a counterpoise system. Any new transmission lines will be constructed using the same standards. No transmission tower will be higher than 200 feet above ground surface, therefore no Federal Aviation Administration permits will be required.	3.3
ER 4.1.1.1	VEGP Units 3 and 4 and supporting facilities will be located on the 3,169-acre VEGP site, adjacent to the existing nuclear units (Figure 3.1-3). Heavy equipment and reactor components will be barged up the Savannah River. A heavy haul road will be constructed from the barge slip on the Savannah River to the construction site. A construction access road will be constructed from River Road, near the rail spur crossing, to the construction site to provide access to the construction site without impeding traffic to the existing units. Another road will be constructed to the new intake structure. Approximately 310 acres of land will be dedicated permanently to the new units and their supporting facilities (Table 4.1-1). Temporary facilities and spoil storage will affect an additional 190 acres. Most of the land was most recently disturbed in the last 30 years and currently consists of planted pines and old fields. Less than 50 acres of mixed and bottom land hardwoods will be lost. One permitted landfill in the construction footprint (Landfill #3) will be relocated.	4.1.1
ER 4.1.1.1	Areas for borrow pits have been identified on the northern part of the VEGP site though the extent of land required has not been determined.	4.1.1
ER 4.1.1.1	The intake, discharge, and barge facilities will be located in the 100-year floodplain. With those exceptions, construction activities will be outside the 500-year floodplain.	4.1.1

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 4.1.2	GPC has procedures for implementing this regulation [transmission line routing], which involve data gathering on land uses, environmental issues, existing corridors, and cultural resources in the study area; consultation with the State Historic Preservation Officer, the U.S. Fish and Wildlife Service (USFWS), the Georgia Department of Natural Resources (GDNR), the U.S. Army Corps of Engineers (USACE); and evaluation of environmental, cultural, and land use issues.	4.1.2
2	ER 4.3.2.2	As noted in Section 4.1.2, public utilities are required by Georgia state law to select routes for transmission lines based on a consideration of environmental factors as well as engineering and economic factors. To the extent practicable, GPC selects routes based on compatibility with existing land uses and the presence/absence of important cultural and ecological resources. With respect to aquatic resources, GPC tries to avoid impacts to streams, ponds, reservoirs, and wetlands.	4.1.2
3	Meteorological and Air Quality		
4	ER 3.6.3.1,	The auxiliary steam system provides the steam required for plant use during startup, shutdown, and normal operation. The auxiliary boiler, which generates the steam, is located in the turbine building with an emissions release point 150 feet above grade. Standby diesel generators provide reliable power to various plant system electric loads. The generators are in the diesel generator building. Both the auxiliary boiler and the diesel generators use No. 2 diesel fuel and release permitted pollutants to the air. Table 3.6-2 [ER] describes annual estimated emissions. The new Technical Services Center will have a small diesel generator, as will several other miscellaneous buildings. All generators will have appropriate certificates of operation. Emissions from these small generators are not considered in Table 3.6-2.	5.2.2
5	5.8.1.1		

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 4.4.1.3,	Specific mitigation measures to control fugitive dust will be identified in a dust control plan, or similar document, prepared prior to project construction. These mitigation measures could include any or all of the following: <ul style="list-style-type: none"> • Stabilize construction roads and spoil piles • Limit speeds on unpaved construction roads • Periodically water unpaved construction roads to control dust • Perform housekeeping (e.g., remove dirt spilled onto paved roads) • Cover haul trucks when loaded or unloaded • Minimize material handling (e.g., drop heights, double-handling) • Cease grading and excavation activities during high winds and during extreme air pollution episodes • Phase grading to minimize the area of disturbed soils • Re-vegetate road medians and slopes 	4.2.1
2	4.4.1.1.1,		
3	4.3.1.1		
4	ER 4.4.2.2.4,	For this analysis, SNC has assumed that there will be four construction shifts and each shift will include 25 percent of the total construction workforce. While it is a common practice for construction workers to car pool, this analysis conservatively assumes one worker per vehicle. In addition to construction workers, SNC estimated approximately 100 truck deliveries will be made daily to the construction site. Both truck deliveries and construction worker vehicles will enter the site via the Construction Access Road The construction workforce, the existing units' workforce (and outage workforces) will all access the VEGP site via River Road.	4.2.2
5	4.4.2.1		
6	ER 4.4.2.2.4,	Mitigation measured will be included in a construction management traffic plan developed prior to the start of construction. Potential mitigation measures could include installing turn lanes at the construction entrance, establishing a centralized parking area away from the site and shuttling construction workers to the site in buses or vans, encouraging carpools, and staggering construction shifts so they don't coincide with operational shifts. SNC could also establish a shuttle service from the Augusta area, where many of the construction workforce is likely to settle. The operations work force will continue to enter the plant at the current entrance on River Road which has a left turn lane allowing through north-south traffic to pass, alleviating congestion at the entrance.	4.2.2
7	5.8.2.2.4		

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section						
1	ER 5.3.3.1.1	The SACTI code calculated the expected plume lengths by season and direction for the combined effect of two natural draft cooling towers. The longest plume lengths will occur in the winter months and the shortest in the summer. The plumes will occur in all compass directions. No impacts other than aesthetic will result from the plumes. Although visible from offsite, the plumes resemble clouds and will not disrupt the aesthetic view.	5.2.1						
2	ER 5.3.3.1.3	<p>Water droplets drifting from the cooling towers will have the same concentration of dissolved and suspended solids as the water in the cooling tower basin. The water in the cooling tower basin is assumed to have solid concentrations four times that of the Savannah River, the source of cooling water makeup. Therefore, as these droplets evaporate, either in the air or on vegetation or equipment, they deposit these solids.</p> <p>The maximum predicted solids deposition rate from a single tower will be as follows:</p> <table><tr><td>Maximum pounds per acre per month</td><td>3.6</td></tr><tr><td>Feet to maximum deposition</td><td>1,600</td></tr><tr><td>Direction to maximum deposition</td><td>North</td></tr></table>	Maximum pounds per acre per month	3.6	Feet to maximum deposition	1,600	Direction to maximum deposition	North	5.2.1
Maximum pounds per acre per month	3.6								
Feet to maximum deposition	1,600								
Direction to maximum deposition	North								
3	ER 10.5.2	The distance between the additional pair of cooling towers and the existing pair of towers will be approximately 4,000 feet. A single cooling tower's plume is estimated to have a maximum salt deposition rate of 3.6 pounds per acre per month, and that maximum deposition will occur 1,600 feet from the tower. Salt deposition was not estimated for Units 1 and 2. Even assuming that all four towers deposited the maximum of 3.6 pounds per acre per month, SNC does not believe that salt deposition from all four units warrants mitigation for several reasons. The deposition rate is a calculated maximum rate, and so the actual rate will likely be less. The maximum salt deposition from all four towers will not overlap and combine since the distance between the two sets of towers (approximately 4,000 feet) is greater than twice the distance to the maximum deposition of 1,600 feet. The salt deposition from the Units 3 and 4 towers would overlap since the towers are only 1,100 feet apart. The maximum estimated cumulative salt deposition rate is 7.2 pounds per acre per month at 1,600 feet north of the towers.	5.2.1						

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	Surface Water Use and Quality		
2	ER 2.3.2.1.1	Most water users in the Savannah River basin depend primarily on surface water to satisfy current and future demands.	2.6.2.2
3	ER 2.3.2.1.1	Many groundwater users in the lower basin will be required to replace groundwater use with surface water due to concerns about salt water intrusion into groundwater.	2.6.2.1
4	ER 2.3.2.1.2	The only use of water from the Savannah River for the AP1000 units will be for the circulating water system/turbine plant cooling water system makeup, where river water will be required to replace cooling tower evaporative water losses, drift losses, and blowdown discharge.	3.2.2.1
5	ER 2.3.2.1.2	Non-radiological effluents from VEGP Units 3 and 4 will consist of cooling tower blowdown and other wastewater streams and will be discharged into the Savannah River through a pipe at a location downstream from the discharge location for existing VEGP Units 1 and 2.	3.2.2.2
6	ER 3.3.1	Surface water consumptive use for the two AP1000 units' normal operation is 27,924 gpm, with a maximum of 28,904 gpm.	3.2.2.1
7	ER 3.3.1	The final effluent discharge stream will be routed to the Savannah River downstream of the existing units' discharge.	3.2.2.2
8	ER 3.3.2	The Savannah River will be used to supply make-up water for the new units' circulating water system. Biocides will be injected at the intake structure to control biofouling in the circulating water system and associated piping. Additional chemicals will be added in the cooling tower basins to control scaling, corrosion, and solids deposition.	3.2.2.2
9	ER 3.4.1.1.1	Make-up water will be taken from the Savannah River by pumps at a maximum rate of approximately 57,784 gpm (128.8 cfs) for two units.	3.2.2.1
10	ER 3.4.1.1.1	Each AP1000 unit will use a circulating water system (CWS) to dissipate up to 7.55×10^9 BTU/hr (1.51×10^{10} BTU/hr for two units) of waste heat rejected from the main condenser, turbine building closed cooling water heat exchangers, and condenser vacuum pump seal water heat exchangers during normal plant operation at full station load	3.2.2.1

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 3.4.1.2	The AP1000 reactor design employs a passive ultimate heat sink (UHS) system using water stored in a tank above the containment structure for safety-related cooling. The Passive Containment Cooling System (PCS) does not require an active external safety-related UHS system to reach safe shutdown.	3.2.2.1
2	ER 3.4.2.2	The final plant discharge from VEGP Units 3 and 4 will consist of cooling tower blowdown and other site wastewater streams, including the domestic water treatment and circulation water treatment systems. All biocides or chemical additives in the discharge will be among those approved by the U.S. Environmental Protection Agency or the state of Georgia as safe for humans and the environment, and the volume and concentration of each constituent discharged to the environment will meet requirements established in the National Pollutant Discharge Elimination System (NPDES) permit.	2.6.1.3
3	3.6.3.3	VEGP generates small quantities of hazardous wastes and is classified as a small-quantity generator, although SNC manages the hazardous waste program as if the site were a large quantity generator. SNC maintains a Waste Minimization Plan for Hazardous Waste. Wastes are stored temporarily on site and periodically disposed at a permitted disposal facility. All hazardous wastes activities are performed in compliance with federal regulations and VEGP Units 1 and 2 waste handling procedures. VEGP Units 1 and 2 have procedures in place to minimize the impact in the unlikely event of a hazardous waste spill.	3.2.4.3
4	ER 3.6.3.4	VEGP generates small volumes of mixed wastes. VEGP maintains procedures for the safe storage and disposal of mixed wastes. The treatment, storage and disposal of mixed wastes generated by the new units will be managed as current mixed wastes are managed.	3.2.3.3
5	ER 3.6.3.5	Non-radioactive resins and sludges will be disposed in a permitted industrial landfill. Universal wastes, scrap metal, and used oil and antifreeze will be managed for recycling or recovery. Office paper and aluminum cans will be recycled locally. Putrescible wastes will be disposed in a permitted offsite disposal facility. VEGP practices pollution prevention, including waste minimization. Solid wastes created by the construction and operation of the new units will be handled as current wastes are handled.	3.2.4.3

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 3.6.3.5	VEGP has an existing solid waste landfill permitted by Georgia EPD as a Private Industry Landfill. It can receive only such inert material as concrete, bricks, rubble and the like. This landfill will be relocated to accommodate expansion of the switchyard for the proposed VEGP Units 3 and 4. The landfill will either be relocated on site, or the material will be removed and disposed in an offsite permitted facility.	3.2.4.3
2	ER 4.2.1	The old retention ponds used during the construction of the existing facilities will not be reused for the new construction. New retention ponds will be constructed to accommodate surface-water runoff and to allow sediment-laden water from dewatering activities to pass through them, if necessary, prior to discharge at an NPDES permitted outfall.	4.3.1
3 4	ER 4.2.1	SNC will follow best management practices for soil and erosion control as required by applicable federal and state laws and regulations.	4.3.1
5	ER 4.2.2	There are no plans to use surface water during the construction phase of the project, but it is conceivable that relatively small amounts of water from the stormwater retention ponds could be used to wash construction equipment or sprayed on roads for dust control.	4.3.2
6 7	ER 5.2.1, 5.3.1.1	Makeup water for the natural draft cooling towers will be pumped from the Savannah River. The expected rate of withdrawal of Savannah River water to replace water losses from the circulating water system will be 18,612 and 37,224 gallons per minute (gpm) for one and two-unit operations, respectively. The maximum rate of withdrawal will be 28,892 and 57,784 gpm for one and two-unit operation, respectively.	5.3.2.1, 3.2.2.1
8	ER 5.2.2.1	Current evaporative consumptive loss for the existing units is 30,000 gpm.	7.3.1.1
9	ER 5.2.3.1	SNC does not anticipate the need for treatment of raw water to prevent biofouling in the intake structure and makeup water piping. Water treatment will take place in the cooling tower basins, and will include the addition of biocides, anti-scaling compounds, and dispersants.	5.4.2.3,
10	ER 5.2.3.1	The projected blowdown flow of 28,880 gpm ... is 0.45 to 0.91 percent of the average flow and 1.34 to 1.55 percent of the average 7Q10 flow calculated for the VEGP site (Table 5.2-1). This equates to a dilution factor of from 60 to 120, depending on the time of year.	5.3.3.1

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 5.2.3.4	A 2-foot diameter port was chosen as a compromise between mixing zone and velocity considerations.	5.3.3.1
2	ER 5.3.2.1	Cooling tower blowdown from the new facility will be discharged directly into the Savannah River by means of a new discharge structure that will be constructed approximately 400 feet down-river of the existing discharge. The new discharge structure will be approximately 2,500 feet downstream of the intake, meaning that recirculation of heated effluent to the intake will not be an issue.	5.3.3.1
3	Groundwater Use and Quality and Geology		
4	ER 4.2.2	Based on water use during the original construction, which peaked at 420 gpm (604,800 gallons per day [gpd]), the existing permitted groundwater withdrawal rates should be capable of providing all construction water needs.	4.3.2
5	ER 4.2.2	During construction, groundwater withdrawals will increase from an average of 730 gpm use by existing wells to 1,150 gpm assuming 420 gpm for construction. This could conservatively increase the current potentiometric surface drawdown at the property boundary by approximately 2.3 feet to approximately 6.5 feet.	4.3.2
6	ER 4.2.3	None of the planned construction activities has the potential to affect the deep, confined aquifers.	4.3.2
7	ER 10.5.1	No other large groundwater users are in the vicinity of VEGP.	7.3.1.2
8	Terrestrial Ecology		
9	ER 4.1.1	Approximately 310 acres of land will be dedicated permanently to the new units and their supporting facilities.	4.4.1, 4.4.3
10	ER 4.1.1	Temporary facilities and spoil storage will affect an additional 190 acres.	4.4.1, 4.4.3
11	RAI E4.3-1c,	Habitat type acreage associated with various construction areas as described in the RAI response	4.4.1, 4.4.3
12	January 2007		
13	RAI E2.4-1d	Approximately 12.5 acres of wetlands will be impacted during construction of the Unit 3 and 4 cooling water intake structure.	4.4.1, 4.4.3

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	RAI E2.4-1d	Approximately 10 acres of wetlands will be impacted during construction of the barge slip and discharge structure.	4.4.1, 4.4.3
2	RAI E2.4-1d	The actual intake structure and canal will be located in approximately 3 acres of wetlands.	4.4.1
3	ER 4.4.1	Land clearing will be conducted according to Federal and state regulations, permit requirements, existing GPC or Southern Company procedures, good construction practices, and established best management practices (e.g. directed drainage ditches, silt fencing.	4.4.1, 4.4.3
4	RAI E6.3-1	SNC will visually monitor Mallard Pond and other site water sources to determine if activities produce changes in pond level, flow reduction in the drainage below the pond or other visual evidence of changes. SNC will use best management practices to protect the aquifer from impact during the construction process, such as controls for wellhead protection, cross protection etc. In the event a significant impact to groundwater resource is discovered by monitoring or other means, this information will be evaluated as potentially new and significant information and provided to the NRC for review, as appropriate.	4.4.1
5	ER 4.1.2	GPC will site the [transmission] line in accordance with Georgia Code Title 22, Section 22-3-61. GPC has procedures for implementing this regulation, which involve data gathering on land uses, environmental issues, existing corridors, and cultural resources in the study area; consultation with USFWS, the GDNr, USACE, and evaluation of environmental, cultural, and land use issues. The environmental evaluation addresses crossing wetlands, National Forests, government lands under protection, and stream and rivers; and impact to special habitats and threatened and endangered species.	4.4.1, 4.4.3
6	GPC Corridor Study	As stated in the corridor study, Georgia Power will use the Representative Delineated Corridor as the basis for identifying actual routing of right-of-way alternatives within it, consistent with Georgia Power's routing procedures under Georgia law.	4.4.1,
7			4.4.3, 5.4.1, 5.4.3
8	Aquatic Ecology		
9	ER 2.1-1	The site and its exclusion area boundary (EAB) are generally bounded by 1.7 miles of the Savannah River (River Miles 150.0 to 151.7).	2.7.2.1

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	E-mail - 4/26/07	The bluebarred sunfish (<i>Elassoma okatie</i>) is unlikely to be present in	2.7.2.1
2	ML072140748	waters on the Vogtle site.	
3	ER 6.5.1.2	The current VEGP NPDES permit does not require monitoring of aquatic ecological resources.	2.7.2.3
4	ER 6.5.2.2	The construction activities that could adversely affect aquatic organisms include construction of a new barge slip, a new cooling water intake structure, and a new discharge structure. These activities will disturb sediments (dredging, pile driving) and soils (shoreline construction) at the construction site. Prior to construction in or adjacent to the Savannah River, SNC will use best management practices, such as installation of coffer dams, to limit the distribution downstream of sediments and debris.	4.4.2.5
5	ER 6.5.2.2	The new transmission line could cross intermittent and perennial streams in the upper Coastal Plain and lower Piedmont of Georgia. Encroachment on any stream buffers will require stream buffer variances from Georgia EPD. Best Management Practices will be employed to minimize impacts of transmission line construction on aquatic life.	4.4.2.5
6	RAI 2.4-1	The activities associated with construction of the new Vogtle units that have potential to impact wetlands are limited to only a small portion of the site. Only the construction of the intake, barge slip, and discharge structures have the potential to directly impact wetlands. ... There are other activities that may result in indirect impacts to wetlands. The construction conducted on the powerblock and cooling towers is in an upland area of the site where no wetlands are present. However, stormwater drainage from these areas is routed to Retention pond 2. Retention pond 2 was constructed in the early stages of construction for Vogtle Units 1 and 2 to provide sediment retention for stormwater prior to discharge to Beaverdam Creek... SNC is evaluating the proper regulatory status for these ponds. However, even if they are determined to be jurisdictional, SNC does not anticipate any activities that will require a Section 404 permit. The ponds will likely be left as is. If additional stormwater retention volume is required, SNC will construct additional storage in an upland area in accordance with applicable regulatory requirements. ...Only retention pond 2 will receive drainage from the powerblock and cooling tower area. Retention pond 1 is not expected to receive runoff from areas disturbed by construction.	4.4.2.1, 4.4.2.2

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	RAI E3.9-4	The following construction activities may require Clean Water Act Section 404 permits to support dredge and fill: * Intake structure construction, including a portion of the access road * Barge slip construction * Discharge structure construction	4.4.2.1
2	RAI E3.9-4	The excavated material (approximately 300 yd ³) will be transported and placed in an upland spoils area (Riverfront Structures Spoils Area) located at approximate plant grid coordinates N12600 E9000, immediately adjacent to the intake structure access road between the new Intake Structure and the Power Block. This spoils area will cover approximately one acre and will contain the material to support dewatering.	4.4.2.1
3	RAI E3.9-4	Excavation will begin at the west end of the slip and move toward the river, thus minimizing turbidity entering the river. The excavated material will be loaded on trucks and transported to the Riverfront Structures Spoils area.	4.4.2.1
4	RAI E3.9-4	Based on the bathymetry survey conducted in 2006, the need for dredging from the end of the barge slip to connect with the federal navigation channel is not anticipated.	4.4.2.1
5	RAI E4.2-2	SNC performed a bathymetry survey in the fall 2006 to determine the Savannah River cross section information in support of ESP modeling work. Based on review of this information, no dredging will be required to connect the barge slip to the navigation channel. As such, there will be no benthic impact associated with the barge slip.	4.4.2.1
6	6/20/07	Bathymetry studies done by Bechtel show that dredging does not currently have to be done for the barge slip. SNC left the discussion of dredging in the ER in the event that dredging may be required at a future date due to natural movement of sediment in the river. There is no way to estimate the volume of dredged material that might be removed in the future.	4.4.2.1
7	Conference call		
8	summary		
9	ML071840423		

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	RAI E 3.9-4	The intake structure and canal is sized for three (3) AP-1000 Units. However, only the mechanical components supporting VEGP Units 3 and 4 will be installed. The ER addresses water use and other operations impacts for only two units at this time. The resized intake canal will be approximately 240' long x 170' wide (shown as 200' long x 150' wide on Figure 3.4-4 of the ER), with an earthen bottom at Elevation 70' msl, and vertical sheet pile sides extending to Elevation 98' msl.	4.4.2.1
2	ER 3.9-4	The preference would be to perform the excavation of the intake structure primarily from land, as opposed to working on the water, to minimize the dewatering effort and potential for impact to the Savannah River and adjacent wetlands.	4.4.2.1
3	E3.9-4	Permanent sheet piles forming the North and South banks of the intake canal would be driven using a vibratory or diesel hammer to form the north and south walls of a cofferdam. These walls will remain in place after construction. Temporary sheet piling would also be driven around the perimeter of the intake structure, and across the East or West face of the intake canal, to complete the cofferdam. All piling installations would be completed from land, as opposed to on the river. The intake area material will be excavated first, and the material inside the canal will be left for later excavation. Material within the intake structure cofferdam will be excavated to elevation 70 feet to match the bottom of canal elevation.	4.4.2.1
4	RAI E 3.9-4	The excavation process will include controls to manage erosion and sediment and will also include controls, as necessary to ensure runoff from the excavation process, including the transport of material upland for disposal does not create environmental or aesthetic problems in the construction area.	4.4.2.1

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	RAI E3.9-4	The next construction operation would be the installation of a tethered and floating silt curtain stretched across the entrance to the intake canal, and the excavation of the canal interior. The intake canal interior area would be excavated down to Elevation 70 msl. This could be accomplished utilizing backhoe, clamshell, or dragline equipment. Excavation will begin at the west end of the canal cofferdam face and proceed towards the river, to minimize the potential for turbidity entering the river....The final operations would include installation of the inner serrated weir wall, the outer serrated wall and guide vanes at the mouth of the intake canal and removal of the sheet pile cofferdam from the river side of the intake structure. This activity will be conducted from a barge located in the Savannah River. Appropriate environmental controls will be utilized for this phase of the operation to prevent spills and minimize environmental impact to the river and adjacent wetlands.	4.4.2.1
2	RAI E 3.9-4	Discharge Structure Construction: The interior of the cofferdam will be excavated to support pipe installation to a grade approximately 3' below the invert elevation of the discharge piping and contoured up the river bank. The excavated material would be transported by truck to the upland Riverfront Structures spoils area. The cofferdam will be dewatered using a well point system or local pumps..... Protective rip rap will be installed to stabilize the river bank and discharge point.	4.4.2.1
3	RAI E3.9-4	Proposed 500-kV Transmission Line Installation: Wetland areas will be avoided in the routing of the proposed 500-kV transmission line if possible. In the event that wetlands are encountered, construction will be conducted in accordance with the necessary permits to protect wetlands areas.	4.4.2.3
4	RAI E3.9-5	Construction of the new barge slip will require approximately 300 yd ³ (the quantity could be different at the time of construction) of soil to be dredged from the bed of the Savannah River as part of the formation of the east end (river interface) barge slip envelope. The depth of the dredging is to approximately Elevation 67' msl, with the boundaries of the area to be dredged shown in E3.9 Figure 1.	4.4.2.1
5	RAI E3.9-6	Work on the intake structure is in the flood plain and it is anticipated that construction would be done in the summer, fall, and early winter to minimize the potential for unwanted flooding of the construction area.	4.4.2.1

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	RAI E2.4-1g	The new intake structure construction would affect approximately 12.5 acres. Most of the acreage involved would be in the bottomland hardwood forest wetland within the Savannah River 100-year floodplain; the remainder would affect the bluff above the floodplain (non wetland). The actual intake structure and intake canal would be located in approximately 2 - 3 acres of wetland. The construction area for the new discharge line and barge facility will affect approximately 10 acres. However, the barge facility will be constructed between the old barge facility and the existing intake structure, on fill that was put in place during the initial construction, thus will not affect any existing wetlands.	4.4.2.1
2	ER 4.3-5	The new line will cross Burke, Glascock, Jefferson, Richmond, Warren, and McDuffie counties.	4.4.2.3
3	ER 4.3.2.2	The new transmission line could cross several intermittent and perennial streams in the upper Coastal Plain and lower Piedmont of Georgia. Brier Creek, a major tributary of the Savannah River, could be crossed by the new transmission line several times. Land clearing for transmission corridors could, if not properly managed, affect aquatic plants, aquatic insects, mussels, and fish in the streams crossed by the lines. GPC has procedures and Best Management Practices in place to protect aquatic communities and prevent degradation of water quality. ... Access roads will be built only as necessary to construct and service the transmission facilities....Although the proposed new transmission line would cross Jefferson County, it would move through the northern portion of the county, and would not approach the Ogeechee River, which lies in the southern part of the county.	4.4.2.3
4	December 2006	The substrate in the deep sections of the Savannah River is characterized as "...brown poorly graded gravel with sand..." to "...poorly graded gravel..."	4.4.3.2
5	RAI		
6	ML063520382		
7	ER 5.2.3.1	SNC does not anticipate the need for treatment of raw water to prevent biofouling in the intake structure and makeup water piping. Water treatment will take place in the cooling tower basins, and will include the addition of biocides, anti-scaling compounds, and dispersants. Sodium hypochlorite and sodium bromide are used to control biological growth in the existing circulating water system and will likely be used in the new system as well.	5.4.2.3

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 3.4.2.2	The final plant discharge from VEGP Units 3 and 4 will consist of cooling tower blowdown and other site wastewater streams, including the domestic water treatment and circulation water treatment systems. All biocides or chemical additives in the discharge will be among those approved by the U.S. Environmental Protection Agency or the State of Georgia as safe for humans and the environment,... The discharge flow to the river will be from the blowdown sump, which collects all site nonradioactive wastewater and tower blowdown for all units. Discharge from the sump will occur through an approximately 3.5-ft-diameter discharge pipe. Before the discharge point, the pipe diameter will reduce to 2.0 ft.	5.4.2.3
2	ER 5.2.3.1	Operation of the new cooling towers will be based on four cycles of concentration, meaning that solids and chemical constituents in makeup water will be concentrated four times before being discharged and replaced with fresh water from the Savannah River. As a result, levels of solids and organics in cooling tower blowdown will be approximately four times higher than ambient concentrations. ...This equates to a dilution factor of from 60 to 120, depending on the time of year. Because the blowdown stream will be small relative to the flow of the Savannah River, concentrations of solids and chemicals used in cooling tower water treatment will return to ambient levels very soon after exiting the discharge pipe.	5.4.2.3
3	ER 5.2.3.8	...scouring will be localized... at the discharge.	5.4.2.4
4	ER 5.3.1.1	The Cooling Water Intake Structure (CWIS) will incorporate a number of design features that will reduce impingement and entrainment of aquatic organisms. These include (1) the basic orientation of the cooling water intake structure and canal, perpendicular to the river and its flow.	5.4.2.1
5	ER 5.3.1.2	The new intake structure will incorporate similar design features, including a recessed intake, and a weir system consistent with currently available technology to minimize velocity and ensure a uniform flow in the intake canal.	5.4.2.1
6	Socioeconomics and EJ		

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 4.4.1	Vibration and shock impacts are not expected, due to the strict control of blasting and other shock-producing activities.	4.5.1
2	ER 4.4.1	All construction activities will occur within the construction site boundary.	4.5.1.1
3	ER 4.4.1	The roadways could require some minor repairs or upgrading, such as patching and filling potholes to allow safe equipment access. The railroad was recently upgraded to support the replacement of a transformer, but will be inspected to ensure its condition.	4.5.1.3
4	ER 4.4.1.1.1	Construction workers will have adequate training and personal protective equipment to minimize the risk of potentially harmful exposures. Emergency first-aid care will be available at the construction site, and regular health and safety monitoring will be conducted during construction.	4.5.1.1
5	ER 4.4.1.1.1	People working onsite or living near the VEGP site will not experience any physical impacts greater than those that will be considered an annoyance or nuisance. In the event that atypical or noisy construction activities will be necessary, public announcements or notifications will be provided.	4.5.1.1
6	ER 4.4.1.1.1	Fugitive dust and odors could be generated as a result of normal construction activities. Mitigation measures (e.g., paving disturbed areas, water suppression, reduced material handling) will prevent or reduce such occurrences. Additional mitigation control measures will address any nuisance issues on a case-by-case basis.	4.5.1.1
7	ER 4.4.1.1.1	All equipment will be serviced regularly and operated in accordance with local, State, and Federal emission requirements.	4.5.1.1
8	ER 4.4.1.1.1	Reasonable efforts will be made to ensure that transient populations (mostly sportsmen using the GPC Savannah River boat landing or the Yuchi WMA) are aware of the potential impacts of construction activities. Signs will be posted at or near construction site entrances and exits to make the public aware of the potential for high construction traffic.	4.5.1.1

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 4.4.1.1.2	Onsite buildings have been constructed to safely withstand any possible impacts, including shock and vibration from construction activities associated with the proposed activity. No historically significant buildings exist in the VEGP site vicinity.	4.5.1.2
2	ER 4.4.1.1.3	Methods to mitigate potential impacts include: (1) avoiding routes that could adversely affect sensitive areas (e.g., housing, hospitals, schools, retirement communities, businesses) to the extent possible and (2) restricting activities and delivery times to daylight hours.	4.5.1.3
3	ER 4.4.1.1.3	Any damage to public roads, markings, or signs caused by construction activities will be repaired to pre-existing conditions or better.	
4	ER 4.4.1.1.3	A new access road to the construction site and a heavy haul route from the barge facility on the Savannah River will support construction activities. Both will be private and fully contained within the existing site boundary.	4.5.1.3, 4.5.4.1
5	ER 4.4.1.2	[ER] Section 3.9 discusses noise levels during construction, which could be as high as 110 dB in the immediate area of the equipment. Construction workers will use hearing protection per good construction practices.	4.5.1.1
6	ER 4.4.1.2	The following controls or similar ones could be incorporated into activity planning to further minimize noise and associated impacts: Regularly inspect and maintain equipment to include noise aspects (e.g., mufflers); Restrict noise-related activities (e.g., pile driving) to daylight hours; Restrict delivery times to daylight hours.	

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 4.4.1.3	<p>Specific mitigation measures to control fugitive dust will be identified in a dust control plan, or similar document, prepared prior to project construction. These mitigation measures could include any or all of the following:</p> <ul style="list-style-type: none"> • Stabilize construction roads and spoil piles • Limit speeds on unpaved construction roads • Periodically water unpaved construction roads to control dust • Perform housekeeping (e.g., remove dirt spilled onto paved roads) • Cover haul trucks when loaded or unloaded • Minimize material handling (e.g., drop heights, double-handling) • Cease grading and excavation activities during high winds and during extreme air pollution • episodes 	4.5.1.1
2	ER 4.4.2.1	SNC based the following analyses on the estimated peak construction workforce. SNC assumed that the construction workforce will locate in the 50-mile region in approximately the same proportion as the existing workforce, that is, 79 percent will relocate to Richmond, Columbia, or Burke Counties, and the remainder will be scattered throughout the region.	4.5.2
3 4	ER 4.4.2.1	Based on the information presented in Section 3.10, SNC anticipates that approximately 1,000 workers will already reside within the 50-mile region. The remainder will migrate into the region. Of the peak construction jobs filled by in-migrating workers, 2,700 will last two or more years, and are considered permanent jobs in this analysis.	4.5.2
5	ER 4.4.2.2	It is expected that site preparation and construction activities will continue for approximately 7 years and employ as many as 4,400 construction workers.	4.5.2
6	ER 4.4.2.2.4	The capacity of River Road is 3,200 cars per hour, so there is enough capacity for an additional 2,000 passenger cars or equivalent beyond the current 1,200 cars per hour use now. For the proposed construction, road capacity could be reached during Year 2 of construction and exceeded through Year 5 (month 50).	4.5.4.1

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 4.4.2.2.4	Mitigation may be necessary to accommodate the additional vehicles on Burke County roads, particularly River Road. Mitigation measures will be included in a construction management traffic plan developed prior to the start of construction. Potential mitigation measures could include installing turn lanes at the construction entrance, establishing a centralized parking area away from the site and shuttling construction workers to the site in buses or vans, encouraging carpools, and staggering construction shifts so they don't coincide with operational shifts. SNC could also establish a shuttle service from the central Augusta area, where many of the construction workforce are likely to settle.	4.5.4.1
2	ER 4.4.2.2.5	The clearing and excavation for the new units and adjacent support facilities will not be visible from offsite roads.	4.5.4.2; 4.5.1.4
3	ER 4.4.2.2.5	The steel tower could be visible from the River Road and the Savannah River, but because it has an open structure does not significantly impact the aesthetes at the site or the surrounding area.	4.5.1.4
4	ER 4.4.2.2.5	Construction impacts such as noise, and air pollutants will be limited to the VEGP site and will not be noticeable from offsite. Construction will not affect any other recreational facilities in the 50-mile region.	4.5.4.2
5	ER 4.4.2.2.7	SNC concludes that the potential impacts on police services will be MODERATE in Burke County and will most likely be mitigated by using increased property tax revenues from the construction project to fund additional police manpower and facilities. This conclusion is based in part on an analysis NRC performed of nuclear plant refurbishment impacts based on impacts sustained during original plant construction (in NUREG-1437).	4.5.4.4
6	December 2006	Assumptions regarding in-migrating construction workers:	4.5.2,
7	RAI	The estimated number of school-aged children was estimated to be	4.5.4.5
8	ML063440072	460, which is approximately 74 percent of the total number of children.	
9	ER 4.4.2.2.8	Increased property and special option sales tax revenues as a result of the increased population, and, in the case of Burke County, property taxes on the new reactors, will fund additional teachers and facilities.	4.5.3.2

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 5.8.1.1	Good access roads and appropriate speed limits will minimize the amount of dust generated by the commuting work force.	5.5.1.1
2	ER 5.8.1.4	Roads within the vicinity of the VEGP site will experience a temporary increase in traffic at the beginning and the end of the workday. However, the current road network has sufficient capacity to accommodate the increase...	5.5.4.1
3	ER 5.8.2.1	SNC assumes that all of the new units' employees will migrate into the region, and that each operations worker will bring a family. . . .To be conservative, SNC used the Georgia household size of 2.65 to estimate the increase in population in the 50-mile region. An operational workforce of 660 will increase the population in the 50-mile region by approximately 1,750 people.	5.5.2
4	ER 5.8.2.1	Seventy-nine percent of the current VEGP workforce is distributed across Burke (20 percent), Richmond (26 percent), and Columbia (34 percent) Counties, and 20 percent is distributed across 25 other counties in the two-state region. SNC assumes that the new units' workforces' residential distribution will resemble that of the current VEGP workforce.	5.5.2
5	ER 5.8.2.2.2	Currently VEGP's tax payments represent 80-82 percent of the total property taxes received by Burke County. . . . [ER] Table 5.8.2-1 provides SNC estimates of property taxes that the new nuclear units could provide annually to Burke County during the 40-year period of operation.	5.5.3.1
6	ER 5.8.2.2.4	SNC will stagger outage schedules so only one unit will be down at a time.	5.5.4.1
7	ER 5.8.2.2.5	. . . use of the WMA/boat landing is seasonal and not likely to coincide with [VEGP] shift traffic.	4.5.3.4, 5.5.4.2
8	ER 5.8.2.2.6	SNC estimates that the maximum increase in workforce will be 1,000 outage workers.	5.5.4.1
9	Historic and Cultural Resources		

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 2.5	SNC has begun informal discussions with the Georgia and South Carolina State Historic Preservation Officers (SHPO) that will continue throughout the ESP application review process.	2.9.3
2	ER 2.2	Francis Plantation in Washington County, crossed by the VEGP-Scherer transmission corridor. The current VEGP Units 1 and 2 Environmental Protection Plan specifies that vegetation trimming in the Plantation shall be performed manually.	5.6
3	ER 2.2	A Georgia Power Company Transmission Bulletin identifies 196 cultural properties on existing Vogtle transmission lines and provides specification for protecting these sites based on the Cultural Resources Plan approved by the Georgia State Historic Preservation Officer" "VEGP maintains procedures which include actions to protect cultural, historic, or paleontological resources.	5.6
4 5	ER 4.1	As part of the site preparations activities, before land-disturbing activities begin, SNC will prepare a similar procedure for construction activities.	4.6
6	ER 4.1	Prior to the clearing of any new transmission corridor, SNC or GPC will correspond with the Georgia SHPO as required by Section 106 of the National Historic Preservation Act.	4.6
7	ER 4.1	All land disturbing activities associated with constructing a new transmission line will follow established procedures ...	4.6
8	ER 5.1	All earth-disturbing activities at VEGP are conducted under procedures which prescribe actions to be taken if significant archaeological or paleontological artifacts are encountered.	4.6, 5.6
9	ER 5.1	GPC has a procedure that has identified 196 properties on existing Vogtle transmission lines The procedure also provides specifications for protecting them. The specifications address periodic reclearing, tree removal and trimming, inspections, normal maintenance, vehicle access, artifact collection, and protecting the Francis Plantation complex.	5.6

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 5.1	The precise routes of new transmission corridors have not been determined...The procedure will be updated to include any cultural properties identified on the new corridor.	4.6
2	Non-Radiological and Radiological Health, Uranium Fuel Cycle, and Decommissioning		
3	ER 3.5	Radioactive waste management systems will be designed to minimize releases from reactor operations to values as low as reasonably achievable (ALARA). These systems will be designed and maintained to meet the requirements of 10 CFR 20 and 10 CFR 50, Appendix I.	3.2.3
4	ER 4.4.1.1.1	No significant industrial or commercial facilities other than the VEGP nuclear units exist or are planned for the vicinity.	4.8
5	ER 4.4.1.1.1	Construction workers will have adequate training and personal protective equipment to minimize the risk of potentially harmful exposures. Emergency first-aid care will be available at the construction site, and regular health and safety monitoring will be conducted during construction.	4.8.1.2
6	ER 4.4.1.1.1	People working onsite or living near the VEGP site will not experience any physical impacts greater than those that will be considered an annoyance or nuisance. In the event that atypical or noisy construction activities will be necessary, public announcements or notifications will be provided. These activities will be performed in compliance with local, state, and federal regulations, and site-specific permit conditions.	4.8.1.1
7	ER 4.4.1.1.1	Fugitive dust and odors could be generated as a result of normal construction activities. Mitigation measures (e.g., paving disturbed areas, water suppression, reduced material handling) will prevent or reduce such occurrences. Additional mitigation control measures will address any nuisance issues on a case-by-case basis.	4.8.1.1
8	ER 4.4.1.1.1	Exhaust emissions from construction equipment will have no discernible impact on the local air quality. All equipment will be serviced regularly and operated in accordance with local, state, and federal emission requirements (see Section 4.4.1.3).	4.8.1.1

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 4.4.1.1.1	Reasonable efforts will be made to ensure that transient populations (mostly sportsmen using the GPC Savannah River boat landing or the Yuchi WMA) are aware of the potential impacts of construction activities. Signs will be posted at or near construction site entrances and exits to make the public aware of the potential for high construction traffic.	4.8.1.1
2	ER 4.5.4.4	The annual doses from all three pathways are summarized in [ER] Table 4.5-1 and compared to the public dose criteria in 10 CFR 20.1301 and 40 CFR 190 in [ER] Table 4.5-2 and [ER] Table 4.5-3, respectively. The unrestricted area dose rate in [ER] Table 4.5-2 was estimated from the annual TLD doses. Since the calculated doses (24.1 mrem per year and 0.012 mrem per hour) meet the public dose criteria of 10 CFR 20.1301 and 40 CFR 190, the workers will not need to be classified as radiation workers. [ER] Table 4.5-4 provides documentation confirming that the doses also meet the design objectives of 10 CFR 50, Appendix I, for gaseous and liquid effluents.	4.9.4
3	ER 4.5.4.4	The maximum annual collective dose to the AP1000 construction work force (4,400 workers) is estimated to be 106 person-rem. The calculated doses are based on available dose rate measurements and calculations. It is possible that these dose rates will increase in the future as site conditions change. However, the VEGP site will be continually monitored during the construction period and appropriate actions will be taken as necessary to ensure that the construction workers are protected from radiation.	4.9.4
4	ER 5.4.1	The exposure pathways considered and the analytical methods used to estimate doses to the maximally exposed individual (MEI) and to the population surrounding the new units are based on NRC Regulatory Guide 1.109, <i>Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR 50, Appendix I</i> (Rev.1, October 1977) (RG 1.109) and NRC Regulatory Guide 1.111, <i>Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors</i> (Revision 1, July 1977) (RG 1.111).	5.9.1

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 5.4.3	Table 5.4-7 estimates the single-unit total body and organ doses to the MEI from liquid effluents and gaseous releases from the new units for analytical endpoints prescribed in 10 CFR 50, Appendix I. As the table indicates, the single-unit doses are below Appendix I limits.	5.9.3
2	ER 5.4.3	The total liquid and gaseous effluent doses from existing Units 1 and 2 plus proposed Units 3 and 4 would be well within the regulatory limits of 40 CFR 190. As indicated in NUREG-1555, demonstration of compliance with the limits of 40 CFR 190 is considered to be in compliance with the 0.1 rem limit of 10 CFR 20.1301.	5.9.3
3	ER 5.4.4	Annual doses to all of the surrogates meet the requirements of 40 CFR 190.	5.9.5
4	ER 5.4.5	The total body dose to a Unit 4 construction worker from operation of proposed Unit 3, based on all releases being from ground level, would be less than 0.83 mrem/yr, with a maximum organ dose (to the skin) of less than 3.26 mrem/yr.	5.9.4
5	ER 5.5.2	SNC will handle mixed wastes generated at the new facilities in accord with existing procedures.	6.1.6
6	ER 5.5.2	SNC has in place for the existing units contingency plans, emergency preparedness plans, and spill prevention procedures that will be implemented in the unlikely event of a mixed waste spill. The existing emergency procedures will limit any onsite impacts.	6.1.6
7	ER 5.5.2	Personnel who are designated to handle mixed waste or to respond to mixed waste emergency spills have appropriate training to enable them to perform their work properly and safely.	6.1.6
8	ER 5.5.3	VEGP's existing pollution prevention and waste minimization program will apply to the new units.	6.1.6
9	ER 5.5.5	All radioactive wastes will be managed according to established laws, regulations, and exposure limits.	6.1.6
10	ER 6.2	The VEGP radiological monitoring program is not expected to change as a result of adding Units 3 and 4.	5.9.6

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 6.2.5	The Radiological Environmental Monitoring Program (REMP) for the new units will be based on <i>Offsite Dose Calculation Manual Guidance: Standard Radiological Effluent Controls for Pressurized Water Reactors</i> , 1991 (NUREG-1301) and the NRC's Branch Technical Position Paper, <i>Acceptable Radiological Environmental Monitoring Program, Revision 1</i> , 1979.	5.9.6
2	ER 6.2.5	The Offsite Dose Calculation Manual, based on the Units 1 and 2 Technical Specifications, will be modified for the new units and will address the requirements of 10 CFR 50 Appendix I.	5.9.6

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	Postulated Accidents		
2	ER 4.4.1.2	<p>The exclusion area boundary is greater than ½ mile in all directions from the new Unit 3 and 4 footprint. No major roads, public buildings or residences are located within the exclusion area. The following controls or similar ones could be incorporated into activity planning to further minimize noise and associated impacts:</p> <ul style="list-style-type: none"> • Regularly inspect and maintain equipment to include noise aspects (e.g., mufflers) • Restrict noise-related activities (e.g., pile driving) to daylight hours • Restrict delivery times to daylight hours 	4.8.2
3	ER 4.6	<p>The following measures and controls would limit adverse environmental impacts:</p> <ul style="list-style-type: none"> • Compliance with applicable local, state, and federal, ordinances, laws and regulations intended to prevent or minimize the adverse environmental effects of construction activities on air, water and land, workers and the public. • Compliance with existing permits and licenses for the existing units. • Compliance with existing SNC or Georgia Power Company procedures and processes applicable to construction projects • Incorporation of environmental requirements of construction permits in construction contracts 	4.8.2
4	ER 5.3.4.2	<p>... neither Georgia nor Burke County has noise regulations. Additionally, neither the state nor the county provides guidelines or limitations for impulse noise like a sharp sound pressure peak occurring in a short interval of time. The nearest residence is approximately two-thirds of a mile from the site boundary or approximately one mile from the site of the new units, and distance and vegetation will attenuate any noise. ... Most equipment will be located inside structures, reducing the outdoor no</p>	5.8.2
5	ER 7.1.3	<p>The design basis accident source terms in the AP1000 DCD are calculated in accordance with RG 1.183, based on 102 percent of the rated core thermal power of 3400 MW.</p>	5.10.1

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 7.1.4	For each accident, the EAB dose shown is for the two-hour period that yields the maximum dose, in accordance with RG 1.183.	5.10.1
2	Transportation		
3	ER 3.8.1	The (unirradiated) fuel assemblies will be fabricated at a fuel fabrication plant and shipped by truck to the VEGP site shortly before they are required. ... The truck shipments will not exceed 73,000 lbs as governed by Federal or State gross vehicle weight restrictions.	6.2.1
4	ER 3.8.3	Radioactive waste will be shipped from the VEGP site by truck.	6.2.3
5	ER 5.11.1.1	The AP1000 has a thermal power rating of 3400 MWt and meets this condition.	6.2
6	ER 5.11.1.2	The AP1000 uses a sintered UO ₂ pellet form.	6.2
7	ER 5.11.1.3	The AP1000 fuel exceeds the 4 percent U-235 condition.	6.2
8	ER 5.11.1.4	AP1000 uses either Zircalloy or ZIRLO cladding and meets this subsequent evaluation condition.	6.2
9	ER 5.11.1.6	...the new units will have storage capacity exceeding that needed to accommodate five-year cooling of irradiated fuel prior to transport offsite.	6.2.2, 6.2.2.1
10	ER 5.11.1.7	SNC will receive fuel via truck shipments for the AP1000 units being considered for this site...The fuel shipments to the VEGP site will comply with Federal or state weight restrictions.	6.2.1
11	ER 5.11.1.8	SNC assumed that all spent fuel shipments will be made using legal weight trucks.	6.2.2
12	ER 5.11.1.9	SNC will solidify and package the radioactive wastes.	6.2.3
13	ER 5.11.1.10	SNC will ship radioactive waste from the new units by truck.... Radioactive waste is capable of being shipped in compliance with Federal or state weight restrictions.	6.2.3

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 5.11.1.11	Doubling the estimated number of truck shipments to account for empty return shipments still results in a number of shipments well below the one-shipment-per-day condition.	6.2.3
2	ER 7.4.1	The consequences of accidents that are severe enough to result in a release of unirradiated particles to the environment from fuel for advanced LWRs (fuels) are not significantly different from those for current generation LWRs. The fuel form, cladding, and packaging are similar to those LWRs analyzed in AEC (1972).	6.2.1.2
3	ER 7.4.2	The NRC analysis assumed that shipping casks for advanced LWR spent fuels would provide equivalent mechanical and thermal protection of the spent fuel cargo.	6.2.2.2
4	Alternatives		
5	ER 1.1.1	Georgia Power Company (GPC), through the Georgia Public Service Commission's Integrated Resource Planning process, has identified a need for additional base load generation by no later than 2015.	9.2
6	ER 9.2.2.1	For analysis purposes, SNC assumed a target value of 2,234 MWe for the net electrical output from a new two-unit facility at VEGP.	9.2
7	ER 9.2.1.2	SNC will submit an application for renewal of the operating licenses for VEGP in 2007 and this analysis assumes the continued operation of VEGP Units 1 and 2.	9.2.1

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 9.2.1.3	<p>In its most recent Integrated Resource Plan (IRP) filing, GPC evaluated a total of 266 residential DSM measures that provided potential energy savings through:</p> <ul style="list-style-type: none"> • increased energy efficiency for electric appliances, electric space cooling and heating equipment, and electric lighting; • electric water heating measures; and • heating and cooling savings resulting from improvements to the home's exterior shell. <p>GPC also evaluated 246 commercial and industrial (non-residential) DSM measures. A qualitative evaluation was conducted to eliminate DSM measures that were not applicable to the GPC's customer base or climate. A total of 106 residential and 92 non-residential measures were passed from the qualitative screening analysis to the economic screening for cost effectiveness analysis. ... As a result of this [cost effectiveness analysis], no new DSM programs were identified for development.</p>	9.2.1
2	ER 9.2.3.1.4	Based on this analysis, SNC assumed that cooling towers would be used for the coal-fired alternative. Use of cooling towers would minimize impingement, entrainment, and thermal impacts; consumptive water use through evaporation would be a SMALL impact, and 100-foot-high mechanical towers or 600-foot-high natural draft towers would introduce a visual impact.	9.2.2
3	ER 9.2.2.10	SNC defined the pulverized coal-fired alternative as consisting of four conventional boiler units, each with a net capacity of 530-MWe for a combined capacity of 2,120 MWe.	9.2.2.1
4	ER 9.2.2.11	Integrated Gasification Combined Cycle (IGCC) is an emerging, advanced technology for generating electricity with coal that combines modern coal gasification technology with both gas turbine and steam turbine power generation.	9.2.2.1
5	ER 9.2.2.11	IGCC units do not produce ash or scrubber wastes.	9.2.2.1
6	ER 9.2.3.1.2	The coal-fired alternative would generate substantial solid waste. The coal-fired plant, using coal having an ash content of 10.87 percent, would annually consume approximately 7,260,000 tons of coal.	9.2.2.1

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 9.2.3.1.2	SO _x -control equipment, annually using approximately 183,000 tons of limestone, would generate another 218,000 tons per year of waste in the form of scrubber sludge.	9.2.2.1
2	ER 9.2.3.1.1	SNC has assumed a plant design that would minimize air emissions through a combination of boiler technology and post combustion pollutant removal. SNC estimates the coal-fired alternative emissions to be as follows: SO ₂ = 5,587 tons per year NO _x = 1,815 tons per year CO = 1,815 tons per year PM ₁₀ (particulates having a diameter of less than 10 microns) = 91 tons per year PM _{2.5} (particulates having a diameter of less than 2.5 microns) = 0.39 tons per year.	9.2.2.1
3	ER 9.2.3.1.2	Southern Company recycles 35 percent of its coal ash.	9.2.2.1
4	ER 9.2.3.1.2	SNC estimates that ash and scrubber waste disposal over a 40-yr plant life would require approximately 406 acres.	9.2.2.1
5	ER 9.2.3.1.3	Construction of the power block and coal storage area would impact approximately 697 acres of land and associated terrestrial habitat.	9.2.2.1
6	ER 9.2.2.12	SNC assumed four 530-MWe units, having a total capacity of 2,120 MWe, as the gas-fired alternative at the VEGP site.	9.2.2.2
7	ER 9.2.3.2.1	SNC estimates the gas-fired alternative emissions to be as follows: SO ₂ = 169 tons per year NO _x = 540 tons per year CO = 112 tons per year PM = 94 tons per year (all particulates are PM _{2.5})	9.2.2.2
8	ER 9.2.3.2.3	Construction of the combined cycle plant would impact approximately 159 acres of land.	9.2.2.2

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 9.2.3.2.3	An easement encompassing approximately 242 acres would need to be graded to permit the installation of the pipeline.	9.2.2.2
2	ER 9.3.1.2	Southern Company subsidiaries have generating facilities that supply electric power to customers located in Georgia, Alabama, and Mississippi (and a small portion of Florida). Therefore, SNC has defined the region of interest as the three-state Southern Company service area.	9.4.1
3	ER 9.3.2	<p>Within the region of interest, SNC considered the three existing Southern Company nuclear sites with currently licensed, operating plants; and an undeveloped ("greenfield") site in central Alabama that was originally proposed for a 4-unit nuclear plant in the 1970's, but never developed. Candidate sites include:</p> <ul style="list-style-type: none"> • Joseph M. Farley Nuclear Plant (FNP) • Edwin I. Hatch Nuclear Plant (HNP) • Vogtle Electric Generating Plant (VEGP) • Barton Site (greenfield). 	9.4.2
4	ER 9.3.3.2.1	<p>The HNP site encompasses approximately 2,240 acres and is characterized by low, rolling sandy hills that are predominantly forested. The site is divided by the Altamaha River, and includes 900 acres north of the river in southern Toombs County and 1,340 acres south of the river in northern Appling County. All industrial facilities associated with the site are located in Appling County. The area comprising the reactors, containment buildings, switchyard, cooling tower area and associated facilities, to which access is restricted, is approximately 300 acres.</p> <p>Approximately 350 acres of the site are composed of wetlands and transmission corridors, and approximately 1,600 acres are managed for timber production and wildlife habitat.</p>	9.5.1.1
5	ER 9.3.3.2.1	No land would be acquired for additional facilities at HNP. The footprint of a new plant would be approximately 300 acres and an additional 250 acres would be required for temporary facilities and laydown yards.	9.5.1.1

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 9.3.3.2.1	There are six transmission lines connecting HNP to the transmission system, which occupy four transmission line corridors. These include approximately 340 miles of lines that occupy approximately 7,200 acres of corridor. The corridors pass through rolling hills that are primarily a mixture of cultivated land, grazing land, and managed timberlands (paper and pulp stock). The areas are mostly remote with low population densities. It is assumed that the proposed project would necessitate the addition of one 500-kilovolt transmission lines, requiring a 200-foot wide transmission corridor. The additional transmission line could be installed via expansion of an existing right-of-way, or it could follow a new right-of-way.	9.5.1.1
2	ER 9.3.3.1.1	The FNP site consists of 1,850 acres on the west bank of the Chattahoochee River in Houston County, Alabama. Approximately 500 acres are used for generation and maintenance facilities, laydown areas, parking lots, and roads. The developed areas are located primarily on a plateau approximately one-half mile west of the river, with the area adjacent to the river mostly undeveloped. The remainder of the site consists of forested areas, ponds, wetlands, and open fields. Alabama Power Company (APC) currently maintains approximately 1,300 acres of the FNP site as a wildlife preserve. The proposed project would require that a portion (up to 550 acres) of the wildlife preserve be cleared for development, reducing habitat for onsite wildlife.	9.5.2.1
3	9 ER .3.3.1.1	There are six transmission lines connecting FNP to the transmission system. These include approximately 326 miles of lines that occupy approximately 5,938 acres of corridor (NRC 2005). The corridors pass through land that is primarily rolling hills covered in forests or farmland. The areas are mostly remote with low population densities. For this analysis SNC assumed that the proposed project would necessitate the addition of one 500-kilovolt transmission line requiring a 200-foot wide transmission corridor.	9.5.2.1
4	ER 9.3.3.3.1	The Barton Site consists of 2,800 acres on the west bank of Jordan Reservoir between Chestnut Creek to the north and Jake Creek to the south. The undeveloped site is predominantly forested, and is characterized by moderately rolling hills with maximum local relief of about 300 feet occurring between the river and nearby ridge tops.	9.5.3.1

Table J-2. (contd)

	ER Section Number or RAI	ER Statement	EIS Section
1	ER 9.3.3.3.1	The footprint of a new plant would be approximately 400 acres and an additional 150 acres would be required for temporary facilities and laydown yards. Because the (Barton) site is undeveloped, additional acreage would be required for roads, parking lots, and a switchyard.	9.5.3.1
2	ER 9.3.3.3.1	A 6-mile connecting rail spur, requiring approximately 120 acres, would also be constructed to transport materials and equipment to the (Barton) site.	9.5.3.1
3	ER 9.3.3.3.1	<p>SNC assumed that two 500-kilovolt transmission lines requiring a 300-foot wide transmission corridor would be needed to connect the proposed project to APC's transmission system. It is assumed that the lines would connect to the substation at the Gaston Generating Plant, which is approximately 35 miles north of the Barton Site near Wilsonville, Alabama. Routing the new transmission lines to the Gaston Generating Plant would require about 1273 acres of transmission corridor.</p> <p>Although the most direct route would, in general, be used between terminations, consideration would also be given to avoiding possible conflicts with any natural or man-made areas where important environmental resources are located.</p>	9.5.3.1

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(See instructions on the reverse)

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10. SUPPLEMENTARY NOTES

Docket Nos. 52-011

11. ABSTRACT (200 words or less)

This draft environmental impact statement (EIS) has been prepared in response to an application submitted to the U.S. Nuclear Regulatory Commission (NRC) by Southern Nuclear Operating Company, Inc. (Southern) for an early site permit (ESP). The proposed action requested in Southern's application is for the NRC to (1) approve a site within the existing Vogtle Electric Generating Plant (VEGP) boundaries as suitable for the construction and operation of a new nuclear power generating facility and (2) issue an ESP for the proposed location at the VEGP site, adjacent to the existing VEGP units.

The NRC staff's preliminary recommendation to the Commission related the environmental aspects of the proposed action is that the ESP should be issued as proposed. The staff's evaluation of the site safety and emergency preparedness aspects of the proposed action would be addressed in the staff's Safety Evaluation Report that is anticipated to be published in May 2008. This recommendation is based on (1) the application, including the Environmental Report (ER), submitted by Southern; (2) consultation with Federal, State, Tribal, and local agencies; (3) the staff's independent review; (4) the staff's consideration of comments related to the environmental review that were received during the public scoping process; and (5) the assessments summarized in this draft EIS, including the potential mitigation measures identified in the ER and this draft EIS. In addition, in making its recommendation, the staff determined that there are no environmentally preferable or obviously superior sites. Finally, the staff has concluded that the site preparation and preconstruction activities allowed by 10 CFR 50.10(e)(1) requested by Southern in its application will not result in any significant adverse environmental impact that cannot be redressed.

12. KEY WORDS/DESCRIPTORS (List words or phrases that will assist researchers in locating the report.)

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