

PMSummerColpEM Resource

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Subject: Site Audit Information Needs - Final
Attachments: VC Summer Information Needs - Final - Updated 03.04.2009.doc

April:

Attached is word version of our final information needs that our subject matter experts will be using to facilitate their review and related discussions. Note that there is one item I neglected to point out in our discussion last week that we were going to be adding to the list. Acc-7 is a new item which deals with the implications of the latest revisions to the DCD to the accident analyses. If you have any questions, please let us know and we can arrange a phone call to clarify.

thanks.
Tami

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**INFORMATION NEEDS FOR THE ENVIRONMENTAL SITE AUDIT
V.C. SUMMER NUCLEAR POWER PLANT, UNITS 2 AND 3**

**Final
March 4, 2009**

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ITEM NO.	SME	ER SECTION	INFORMATION NEED
General			
G-1	CMB	All	Make available all references given in the ER. Several specific requests are included elsewhere in this table.
G-2	CMB	All	Make available the background information, including documentation that supports impact level conclusions for each subject area for each alternative site.
G-3	CMB	All	Provide expert(s) in appropriate disciplines to discuss the contents of Tables 10.1-1 ('Construction-Related Unavoidable Adverse Environmental Impacts') and 10.1-2 ('Operations-Related Unavoidable Adverse Environmental Impacts'). It is anticipated that these topics will be addressed in specific breakout sessions for the individual disciplines.
G-4	CMB	All	<p>Provide large wall map(s) at the site audit that show key features related to the proposed project, including:</p> <ul style="list-style-type: none"> ○ Proposed temporary and permanent facilities ○ Proposed construction laydown areas ○ Proposed intake pipeline ○ Proposed intake structure ○ Proposed discharge pipeline ○ Proposed transmission corridor(s) ○ Property boundaries ○ Points of interest (e.g., nearby residences, gas pipelines, nearby industries, including quarries/mines) ○ Proposed rail line spurs ○ Proposed haul roads
G-5	CMB	1.1.2.2	Make available someone who can discuss ownership of the land on which the VCSNS is located.
G-6	CMB	1.1.2.2	Make available someone who can discuss whether all construction and operation activities will occur within the confines of the current VCSNS site.

ITEM NO.	SME	ER SECTION	INFORMATION NEED
G-7	CMB	1.2.1	Make available authorizations and consultations listed in Table 1.2-1 and additional correspondence that has been received since submission of the application.
G-8	CMB	2.1	Make available someone who can discuss whether there is barge or other water transportation access to the site.
G-9 New	AMC	All	<p>Provide access to all GIS and/or CAD data/databases used to support the Environmental Report analysis and results including existing and proposed conditions as appropriate. The data should generally include, but is not limited to:</p> <ul style="list-style-type: none"> a) All existing and proposed site infrastructure (roads, buildings, intake/discharge pipelines, transmission lines, utility right-of-ways/transmission corridors, power blocks, switchyards, pipeline corridors, cooling and retention ponds, dams, canals, rail lines, monitoring/instrument stations, etc.) b) Location data (official property boundary, official unit point location, exclusion area boundary, and other relevant boundaries on-site or regionally) c) All surface and groundwater hydrologic data (watershed/subbasin boundaries, stream/river channels, springs, sinkholes, flood boundaries, reservoir boundary, site stormwater drainage, levees, hydrogeologic study boundaries, aquifers, potentiometric contours, well locations, surface water monitoring sites, etc.) d) All terrestrial and aquatic ecological data (wetlands, ponds, terrestrial and aquatic sampling sites, wildlife/habitat areas, land use/land cover, threatened and endangered species locations, e) Terrain and bathymetric data (LIDAR, contours, river cross-sections, bathymetric point samples, etc.) f) Socioeconomic data (sector data at various radii, census blocks w/ attribute data including low income and minority data, state./county park recreational area boundaries, trails, water trails, wildlife management units, traffic count data, commuter routes, etc.) g) Geology and soils data (site and vicinity data, faults, folds, seismic activity, etc.) h) Alternative (candidate) site data (point locations, proposed site boundary, proposed infrastructure, etc.)

ITEM NO.	SME	ER SECTION	INFORMATION NEED
G-10 New	CMB	All	Provide access to ER figures (in .jpeg, or .png or .tif format at a resolution of at least 300 dpi, and sized correctly) and corresponding legends. Note A) Provide a more readable version of the Site Plan (ER figure 3.1-3). B) Figures for the wind roses (Figures 2.7-2 through 2.7-13 need not be included in this request.
Accidents			
ACC-1	JGD	7.0	A tour, or tours, are needed to the locations of proposed reactor buildings, exclusion area boundary (EAB) and low population zone (LPZ), nearby residences and public facilities, transportation routes near the site, and water users (recreational and commercial).
ACC-2	JGD	7.2	Provide an expert to discuss potential changes in land used as it relates to accident calculations.
ACC-3	JYL		Provide an expert to discuss use of the DBA doses and X/Q values from the AP1000 DCD Rev 16 for the Summer ER.
ACC-4 revised	JGD		If not already available, provide access to electronic copies of the MACCS2 code input and output and provide expert to discuss site specific input parameters used in the code.
ACC-5 revised	JYL		Provide expert to discuss the SAMAs (both the AP1000 SAMDA review and the Summer site specific SAMDA review that was performed.) Discuss the SAMAs to determine whether there are SAMDAs, procedural modifications, or training activities that can be justified to further reduce the risks of reactor severe accidents
ACC-6 New	JGD	7.1	If not already available, provide access to electronic copies of input and output files for PAVAN and XOQDOQ. Note: see similar requests in MET section.
ACC-7 New	JGD	NA	Be prepared to discuss how changes in the AP1000 design set forth in revisions 17 and 18 of the AP1000 Design Control Document Revision 16 (which is used as the basis for the applicant’s ER) affect the AP1000 probabilistic risk assessment and the implications of the changes on the severe accident risk assessment for the surrounding region. The changes of interest include but are not limited to design basis accidents and severe accident source terms including core damage frequencies.

ITEM NO.	SME	ER SECTION	INFORMATION NEED
Alternatives			
ALT-1	JEC	N/A	Provide an expert on the alternative power assessment for SCEG. This expert should be able to discuss and make available such information as: <ul style="list-style-type: none"> • power purchasing information addressing power across all sectors of the generation resources of the region given the no-action alternative (may also be addressed via Chapter 8) • emissions calculations and technology selection criteria for emissions estimates
ALT-2	JEC	N/A	Provide an expert on the alternative sites assessment for SCEG. This expert should be able to describe such issues as: <ul style="list-style-type: none"> • How the ROI was clearly identified and screened to provide legitimate candidate sites (e.g., The ER identifies the state as being the ROI; the updated Jan. 2009 siting study focuses only on the SCEG service territory). Has this ever included the service territory of Santee Cooper? • derivation of weighting criteria used for potential site screening • How the exclusionary and avoidance criteria were selected. • If any further analysis was, or should be, included regarding the reconnaissance level information as provided via the ER for either the proposed site or any of the three alternatives.
Benefit-Cost Balance			
BC-1	DMA	10.4.3	Provide an expert to discuss the following: <ul style="list-style-type: none"> • Important conclusions to be drawn from the summary in Table 10.4.1. • The balancing of all internal and external benefits and costs • Characterization of the net benefit (or cost) to society of the proposed action, based on this assessment • Accounting for costs and benefits that cannot be precisely determined at this time.

ITEM NO.	SME	ER SECTION	INFORMATION NEED
BC-2 Revision	DMA	10.4.2.1	Provide an expert to discuss the following: <ul style="list-style-type: none"> • Factors affecting the reliability of the capital cost estimates discussed. • Comparison to costs reported for other AP 1000 sites. • Expected trends in costs over the next 10 years. • Characterization of the net benefit (or cost) to society of the proposed action, based on this assessment.
BC-3 Revision	DMA	10.4.2.2	Provide an expert to discuss the following: <ul style="list-style-type: none"> • How the provisions of the Energy Policy Act of 2005 specifically mitigate projected construction and operations costs over the life of the proposed facilities. • The anticipated amount of Federal incentives likely to apply to the proposed action from the following: <ul style="list-style-type: none"> - Production tax credit for the first advanced reactors brought on line in the US - Federal risk insurance benefits expected as part of the Nuclear Power 2010 Partnership - Any other economic incentive - Expected impact of these incentives in terms of the applicant’s decision to build and the impact on the proposed action in case the applicant does not qualify for some or all of the incentives
BC-4 New	DMA	1.1.2.7 & 4.4.2.2.1	Provide an expert to discuss the following items related to the timing of impacts: <ul style="list-style-type: none"> • Factors affecting the construction schedule provided. • Influences of recent economic events on the published schedule. • Any expected changes in planning assumptions for completion of the two units.
Cultural Resources			
CR-1	EPK	1.2.2	Provide an expert to explain how “general site cleanup activities and protection of existing historical site” was completed and a description of the historical site that was protected.

ITEM NO.	SME	ER SECTION	INFORMATION NEED
CR-2	EPK	1.2.2 and 4.1.3	Provide an expert to explain how preconstruction activities take into account impacts to cultural resources and to explain how construction and preconstruction impacts to cultural resources are distinguished.
CR-3	EPK	2.5.3 and 4.1.3	Provide an expert to explain if impacts to cultural resources resulting from the new emergency operations facility are included in Section 4.1.3.
CR-4	EPK	2.5.3	Provide a knowledgeable guide for a tour of the Pearson Cemetery and site 38FA349.
CR-5	EPK	2.5.3	Provide references for the descriptions of cultural resources located within the project area (#104, 106, 52, 53, 54, 55, and 135).
CR-6	EPK	2.5.3	Provide an expert or reference for the Transmission Line Siting Study that explains how cultural resources will be identified (as noted on p. 2.2-5).
CR-7	EPK	2.5.3	Provide an expert to provide and discuss documentation on the pre-contact-era archaeological context.
CR-8	EPK	2.5.3	Provide an expert to describe how the direct and indirect impacts Area of Potential Effect (APE) has been defined and if SC SHPO has concurred with this APE definition (i.e. written correspondence) and if indirect impacts to above-ground structures and/or traditional cultural properties have been considered.
CR-9	EPK	2.5.3	Provide an expert to explain the methodology, results of the cultural resources surveys conducted, recommendations of determination of eligibilities, and status of official NRHP evaluations for the cultural resources studies conducted for the COLA (and SHPO input on these).
CR-10	EPK	2.5.3	Have available for discussion all SHPO correspondence, stakeholder and tribal correspondence related to cultural and historic resources.

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CR-11	EPK	2.5.3	Have available for discussion copies of maps showing all archaeological, above-ground, and traditional cultural properties (TCPs) located in the project area and within one mile of the project area. Also make available maps showing NRHP-eligible properties located within 10 mile radius of the proposed plant and Transmission Line corridors.
CR-12	EPK	2.5.3	Provide an expert (and supporting documentation) to describe the 26 archaeological resources that have been located in the project area.
CR-13	EPK	2.5.3	Provide an expert to describe the methodology used to identify Traditional Cultural Properties (TCP)s that may be impacted by COLA activities.
CR-14	EPK	2.5.3	Provide an expert to describe efforts made to identify interested parties as part of the identification of historic properties process and the methodology used.
CR-15	EPK	2.5.3 (Appendix A)	Provide an expert to describe how and if the SHPO’s concerns related to the archaeology at the nuclear station, listed on p.A-8, have been addressed or implemented.
CR-16	EPK	2.5.3	Provide an expert to explain what the plans are for cultural resource investigations at the water treatment plant and intake structure.
CR-17	EPK	4.1.3	Provide an expert to describe how construction related impacts resulting from both transmission line and plant construction were determined to be small and why cultural resources monitoring will not be necessary.
CR-18	EPK	4.1.3	Provide an expert to describe avoidance and protection measures at the Pearson cemetery and at site 38FA349.
CR-19	EPK	4.1.3 also mentioned on page 4.6-6.	Make available copies of the two procedures referenced on page 4.1-5 (cultural resources procedures and inadvertent discovery procedures) and provide an expert to describe how they will be implemented.
CR-20	EPK	4.1.3	Provide an expert to describe how secondary impacts to cultural resources resulting from implementation of measures and controls to limit adverse effects that have been identified for other disciplines have been assessed. Include discussions of these impacts to any submerged archaeological sites that may be located in the Parr and the Monticello Reservoir.

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CR-21	EPK	4.1.3	Provide an expert who can provide a timeline for transmission line cultural resources investigations.
CR-22	EPK	4.1.3	Make available copies of the cultural resources training module referenced in Section 4.6.1.2.
CR-23	EPK	5.1.3	Provide an expert to describe how operation-related impacts resulting from both transmission line and plant operations were determined to be small.
CR-24	EPK	9.3	Provide an expert to explain how cultural resources were weighted in the Alternatives Site Selection process.
CR-25	EPK	9.3.3.1.7, 9.3.3.2.7 and 9.3.3.3.7	Provide an expert to explain how impacts to cultural resources at each of the alternative site locations were determined to be small.
CR-26	EPK	10.5	Provide an expert to describe how cumulative impacts to cultural resources were conducted.
Ecology - Aquatic			
AQ-1	NKS	2.4.2	Provide an expert to discuss the relative abundance and life histories of aquatic species in the Monticello Reservoir during winter and summer months as well as Mayo Creek during winter and spring months.
AQ-2	NKS	2.4.2	Provide an expert to identify spawning areas, nursery grounds, wintering areas, and migration areas within Mayo Creek, Parr Reservoir, and Monticello Reservoir.
AQ-3	NKS	2.4.2	Provide an expert to discuss the current condition/status of phytoplankton, zooplankton, and benthic macroinvertebrates, and SAVs within the Mayo Creek, Parr Reservoir, and Monticello Reservoir.
AQ-4	NKS	2.4.2	With regard to the "Fish Community Assessment of Parr Reservoir 2007-2008" report, provide an expert to discuss the report who can also provide the following documentation: a map of the sample locations (Figure 1 pg 5 is not legible); size class data for all fish handled during the study; catch per unit effort associated with each sampling effort at each site (see table 6 pg 10 of the Mayo Creek report for an example).

ITEM NO.	SME	ER SECTION	INFORMATION NEED
AQ-5	NKS	2.4.2	With regard to the "Mayo Creek Aquatic Survey" report, provide an expert to discuss the report as well as the following documentation: size class distribution of species by site and by season.
AQ-6	NKS	2.4.2	Provide the Normandeau (2007) SCE&G report on fishery surveys with data describing sampling efforts in Parr Res (pg 2.4-10 of the ER) and Monticello reservoir (pg 2.4-13). It is expected that this report will include information on sampling methods, CPUE by season and site, and size-classes fish sampled.
AQ-7	NKS	2.4.2	Provide a copy of the Dames and More (1985) report referenced on pg 2.4-9 of the ER.
AQ-8	NKS	2.4.2	Provide records of correspondence (i.e., correspondence that has been received since the ER publication) between SCE&G and the South Carolina Department of Natural Resources, USFWS, and tribal entities.
AQ-9	NKS	4.3.2 & 5.3.1.2	Provide an expert to discuss the impacts to aquatic ecosystems stemming from the installation of transmission lines on offsite areas as well as the continued maintenance and operation of transmission lines.
AQ-10	NKS	4.3.2	Provide a detailed map as well as an expert to discuss the construction impacts to Mayo Creek. Note: the map on pg 3.9-17 of the ER does not name/list Mayo Creek.
AQ-11	NKS	4.3.2	Provide an expert to discuss the impacts to aquatic biota resulting from the temporary sewage treatment plant as well as shoreline construction activities including dredging, pile driving, the steel sheet cofferdam, and widening of the rail spur.
AQ-12	NKS	4.6	Provide an expert to discuss the ecological impact of construction to on-site wetlands (pg. 4.3-3) and aquatic habitats (pg 4.6-14).
AQ-13	NKS	4.6	Provide an expert to discuss the construction time windows for intake structure, blowdown line, and construction of raw water line, cooling towers, roads, and supporting infrastructure as they relate to impacts on aquatic ecosystems.
AQ-14	NKS	4.6	Provide an expert to discuss the cleanup and restoration of the site following construction. Pg. 4.68.

ITEM NO.	SME	ER SECTION	INFORMATION NEED
AQ-15	NKS	5.3.1.2	Provide a copy of the Geosyntec (2006) impingement report as well as an expert to discuss results of the report. Pg 5.3-3.
AQ-16	NKS	5.3	Provide an expert to discuss impingement of aquatic biota as related to changes in hydrodynamic and/or seasonal variation.
AQ-17	NKS	5.3	Provide an expert to discuss impacts of the thermal plume to aquatic biota. Pg. 5.3-13.
AQ-18	NKS	5.3	Provide an expert to discuss the chemical impacts to the Broad River. They should be prepared to discuss, for example, the types and concentrations of chemical constituents expected to be released into the receiving water body. Pg. 5.3-13.
AQ-19	NKS	5.3	Provide an expert to discuss the physical impacts of discharge/scour at the location of the discharge unit.
AQ-20	NKS	5.6	Provide an expert to discuss the location of transmission lines and the impacts to important habitats and aquatic species. Pg. 5.6-4.
AQ-21	NKS	6.5	Provide an expert to discuss dredge activities both during construction phases as well as any planned maintenance dredge activities. Pg. 6.5-3.
AQ-22	NKS	6.5	Provide an expert to discuss post-operational ecological monitoring. Pg 6.5-4.
AQ-23	NKS	N/A	Provide an expert to discuss the aquatic impacts of construction and operation at the alternative sites.
Ecology - Terrestrial			
TE-1	LMA	2.4.1	Provide the following references: <ul style="list-style-type: none"> • Dames and Moore 1985. Environmental Monitoring Report January 1983 through December 1984 for the Virgil C. Summer Nuclear Station for the South Carolina Department of Health and Environmental Control and the Nuclear Regulatory Commission, April. 1985. • SCE&G 2002b. <i>Threatened and Endangered Species Field Survey V. C. Summer Nuclear Station</i>, November 2002.

ITEM NO.	SME	ER SECTION	INFORMATION NEED
			<ul style="list-style-type: none"> • SCE&G 2006. <i>230 kV Electric Transmission Right-of-Way Vegetation Management Program</i>, Revision 2. January 3, 2006. • Santee Cooper 2006. <i>Santee Cooper Transmission Vegetation Management Program</i>. February 17, 2006. • Nelson, J. B. 2006. <i>Threatened and Endangered Plant Species Survey: VC Summer Nuclear Station</i>, Submitted to Tetra Tech NUS, Inc., 2006
TE-2	LMA	2.4.1	Provide an expert (and supporting documentation) to discuss results from the field reconnaissance survey conducted by SCE&G in late 2007 (2.4-4, 4.3.1.1). This was not in existence when the ER was written.
TE-3	LMA	2.4.1	Provide an expert (and supporting documentation) to discuss status of ongoing consultations with USFWS, SCDNR, and South Carolina Forestry Commission regarding “important” species and habitats on the site and vicinity.
TE-4	LMA	2.4.1	Provide a reference or a document from USFWS stating there are “no areas designated by the USFWS as critical habitat exist at or near the VCSNS site” (ER page 2.4-3).
TE-5	LMA	2.4.1	Provide an expert (and supporting documentation) to discuss the regulatory status of the wetlands on site and whether or not wetland delineation has been conducted at the site and vicinity and transmission corridors.
TE-6	LMA	2.4.1	Provide an expert (and supporting documentation) to discuss methods used to mitigate terrestrial impacts from construction activities (for example Best Management Practices (BMPs)).
TE-7	LMA	2.4.1	Provide an expert (and supporting documentation) to discuss BMPs to be used in streamside management zones specified by the South Carolina Forestry Commission.
TE-8	LMA	2.4.1	Provide an expert (and supporting documentation) to discuss ecological resources associated with specific routes for the transmission corridors. This should include identification of “important” species and habitats.

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TE-9	LMA	2.4.1	Provide an expert to discuss the terrestrial habitats that could be impacted by the proposed action (including those along the transmission corridors). Provide a reference for the “common” wildlife information presented on Page 2.4-3 of the ER.
TE-10	LMA	4.3.1	Provide an expert to discuss wetland delineation associated with the site preparation activities and specific BMPs to be used to mitigate impacts to wetlands in such areas (4.3-3) (survey results from Fall 2007 are necessary).
TE-11	LMA	4.3.1	Provide an expert to discuss the site readiness plan.
TE-12	LMA	4.3.1	Provide an expert to identify the construction activities that impact “important” species and habitats of the site and vicinity, transmission corridors, and offsite areas (need new data from 2007 report for analysis).
TE-13	LMA	4.3.1	Provide an expert to discuss Best Management Practices for those areas to be used on a short-term basis during construction.
TE-14	LMA	5.3.3.2	Provide an expert (and supporting documentation, e.g., a map) to specify which terrestrial habitats are in the cooling tower deposition zones.
TE-15	LMA	5.3.3.2	Provide an expert to discuss potential impacts to “important” terrestrial species and habitats from the heat dissipation system.
TE-16	LMA	5.3.3.2	Provide an expert (and supporting documentation) to discuss potential impacts to local vegetation from increased icing and fogging caused by cooling tower operation (for example: the 2007 plant survey).
TE-17	LMA	5.3.3.2	Provide an expert (and supporting documentation) to discuss potential impacts to existing terrestrial shoreline habitats and biota during low flow conditions.
TE-18	LMA	5.6.1	Provide an expert to describe maintenance practices to be used in important terrestrial habitats, such as marshes and natural areas, including any that could have a beneficial effect on specific terrestrial biota. Discussion should include information for the VCSNS and associated right-of-ways.

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TE-19	LMA	5.6.1	Provide an expert (and supporting documentation) to discuss operational and maintenance activities associated with transmission facilities that could impact “important” terrestrial species and habitats.
TE-20	LMA	6.5.1	Provide an expert (and supporting documentation) to discuss critical life history information such as feeding/foraging areas, wintering areas, and migration routes to the extent that the proposed action is expected to affect these parameters.
TE-21	LMA	6.5.1	Provide an expert (and supporting documentation) to discuss proposed pre-operational and/or operational monitoring programs related to terrestrial resources including the scope and frequency of these activities.
TE-22	LMA	6.5.1	Provide an expert (and supporting documentation) to describe the activities of other agencies that have occurred/will occur in the potential impact area that may contribute to a cumulative impact on terrestrial resources.
Health Physics			
HP-1	DJS	N/A	Provide an expert to describe the liquid and gaseous source terms, release points, atmospheric dispersion models, and aquatic dispersion models. For source terms, the expert should describe departures, if any, from the AP1000 DCD.
HP-2	DJS	N/A	Provide an expert to describe the GASPAR II and LADTAP II analyses used to assess the impacts of gaseous and liquid effluents.
HP-3	DJS	N/A	Provide access to electronic copies of GASPAR II and LADTAP II input and output files and all calculation packages used to generate dose and release calculations, such as population projections in radial compass sectors (population may be done in conjunction with socioeconomic SMEs).
HP-4	DJS	N/A	Provide an expert to describe the radioactive waste systems, including exposure rates due to onsite storage of solid waste and independent spent fuel storage.

ITEM NO.	SME	ER SECTION	INFORMATION NEED
HP-5	DJS	N/A	Provide an expert who can discuss exposure pathways and calculating doses to the public and biota from normal plant operations. Also, provide information on the presence or lack thereof of any unusual plants, animals, agricultural practices, or unusual food processing operations that can contribute 10% or more to offsite doses.
HP-6	DJS	N/A	Provide one or more experts to discuss the models, assumptions, and input data used to arrive at the estimates for doses to construction workers, public, and biota from Unit 1 and the proposed Units 2 and 3. Provide experts to discuss all non-default assumptions used in LADTAP II and GASPAR II.
HP-8	DJS	N/A	Provide an expert responsible for the radiological environmental monitoring program to discuss the design and technical basis for the program.
HP-9	DJS	N/A	Provide an expert to discuss the assumptions and calculations leading to collective dose for construction workers.
HP-10	DJS	N/A	Provide an expert (i.e., the principal author(s) of the radiological sections of the ER) to discuss the source term, liquid and gaseous release points, transport and exposures used to calculate doses to construction workers, and MEI and population doses.
HP-11	DJS	N/A	Provide an expert to discuss the assumptions (χ/Q , stability classification, wind directions and speeds based on release and receptor locations) used to analyze transport of releases from Unit 1 during construction of Units 2 and 3, and from Unit 2 during construction of Unit 3.
HP-12	DJS	N/A	Provide an expert to discuss the onsite movement of nuclear fuel and radiological waste during construction of Units 2 and 3. (This could be an expert responsible for the uranium fuel cycle environmental data addressed in ER section 5.7 and 10 CFR 51.51.).

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HP-13	DJS	N/A	Provide an expert to discuss methods for identifying exposure pathways and calculating doses to the public and the biota from normal plant operations. These discussions should include information confirming existing and projected locations of nearby (within 10 miles) homes, off-site populations, cows/goats, gardens, sustenance forage and hunting, potable and irrigation wells, irrigation using surface water, water intakes, fisheries, recreation etc. Provide a map showing all special locations for which doses are calculated using GASPARI. Provide a tour of all locations at which dose calculations are made, as well as other nearby gardens, farms, houses, etc (may be combined with other tours).
HP-14	DJS	N/A	In conjunction with Aquatic Ecology and Terrestrial Ecology SMEs, provide an expert able to discuss the adequacy of the choice of surrogate species in LADTAP II calculations.
HP-15	DJS	N/A	Provide an expert to discuss the Radiological Environmental Monitoring Program (REMP) and the Offsite Dose Calculation Manual (ODCM).
HP-16	DJS	N/A	Provide an expert to discuss concerns, if any, which have been expressed to the applicant by State Officials regarding health effects near the site.
Non-Radiological Human Health			
NRHH-1	LMA	3.6.3.1 p.3.6-2 Table: 3.6-2	Provide an expert with supporting documentation to discuss the location and elevation of release points of gaseous effluents (e.g., from diesel engines, gas turbines, heating plants, and incinerators) released during facility operation and treatment prior to release.
NRHH-2	LMA	3.6.3.1	Provide documentation from consultations with permitting agencies that specify requirements concerning atmospheric emissions.
NRHH-3	LMA	3.6.3, 3.6.3.1 3.6.3.2, 3.6.3.3, 3.6.3.4 and 3.6.3.5	Provide an expert to discuss, with supporting documentation, the tabulated estimates of the quantities of wastes and their concentrations at points of release as appropriate to the system.
NRHH-4	LMA	3.6.3.3, 3.6.3.4, 3.6.3.5	Provide an expert to discuss, with supporting documentation, the procedures for offsite disposal of wastes as required by regulatory agencies.

ITEM NO.	SME	ER SECTION	INFORMATION NEED
NRHH-5	LMA	3.6.1, 3.6.2 p. 3.6-1	Provide permit requirements from SCDHEC relevant to the treatment, control and discharge of effluents in the context of State and U.S. Environmental Protection Agency (EPA) effluent limitation guidelines (NPDES) and new source performance standards.
NRHH-6	LMA	2.5.1.1, 2.5.2.5 Tables: 2.5-15	Provide an expert to discuss, with supporting documentation, the proximity of recreational activities, such as swimming, fishing, boating, to the thermal discharge into the receiving waters and likelihood of interaction by members of the public within the thermal influence.
NRHH-7	LMA	5.3.4.1	Provide an expert (and supporting documentation, including information from SCDHEC) who can discuss the level of concern regarding etiological agents in the region of influence.
NRHH-8	LMA	5.12.2	Provide an expert to discuss, with supporting documentation, worker protection procedures regarding etiological agents exposure during activities related to cooling towers.
NRHH-9	LMA	5.3.4.2	Provide an expert to discuss, with supporting documentation, noise levels measured at the nearest offsite residence.
NRHH-10	LMA	5.5.2	Provide an expert (and supporting documentation) to discuss information plans for treatment and/or restoration of retired disposal sites.
NRHH-11	LMA	5.5.1.3 (air), 5.5.1.2 (land)	Provide consultation letters with SCDHEC specific to standards for air quality and solid waste disposal to land.
NRHH-12	LMA	5.5.3 p.5.5-4	Provide an expert to discuss SCE&G's waste minimization program (including the Storm Water Pollution Prevention Program).
NRHH-13	LMA	5.6.3.3	Provide an expert to discuss and supporting documentation related to the maximum predicted noise levels at the edge of rights-of-way (from transmission system operation) and give a reference supporting the prediction that it would be a "SMALL" impact.
NRHH-14	LMA	5.3.4.2 and 5.6.3.3 p.5.6-6	Provide an expert to discuss and supporting documentation related to a comparison of noise emission levels measured from the power-transmission system to Federal and State standards for noise emissions.

ITEM NO.	SME	ER SECTION	INFORMATION NEED
NRHH-15	LMA	5.6.3.1 p.5.6-5	Provide an expert to discuss the potential impacts from ozone from the power-transmission system. The ER states that 230 kV lines are planned, but there is no mention of ozone in the context of transmission lines.
NRHH-16 New	LMA	5.6.3.1	Provide an expert and supporting documentation to assure that the proposed system will be in conformance the National Electric Safety (NESC) code concerning steady-state currents.
NRHH-17	LMA	10.5.1, 10.5.2 p.10.5-1 to 6	Provide an expert (and supporting documentation) to discuss cumulative impacts from etiological agents in the project area.
NRHH-18	LMA	10.5.1, 10.5.2 p.10.5-1 to 6	Provide an expert (and supporting documentation) to discuss the impact of noise to members of the public associated with plant operation.
Hydrology - Surface Water			
SW-1	LFH	2.3.1.1	Provide an expert to discuss the Broad River Monticello Reservoir, and Parr Reservoir physical description, watershed characterization (including precipitation and runoff rates), Broad River flow variability, sediment process (erosion, sedimentation, bed load and turbidity), impact of the Fairfield Pumped Storage Facility, flood flow and water flow estimates for Parr Reservoir, evaporative and seepage loss analysis for Monticello Reservoir, thermal monitoring of Monticello Reservoir including the literature and data sources and various analyses that support these characterizations.
SW-2	LFH	2.3.2.2	Provide an expert to discuss the annual variability and trends in surface water usage for counties and other users and FERC license requirements especially during low flow conditions.
SW-3	LFH	2.3.1	Provide an expert to discuss water quality including monitoring in the rivers and reservoirs and any impairment listings including and after the 2004 and 2006 surveys, SCDNR and SCDHEC standards for surface waters in this specific region, the Monticello Reservoir water quality assessment, radiological monitoring, thermal discharges as it relates to thermophilic and etiologic organisms.

ITEM NO.	SME	ER SECTION	INFORMATION NEED
SW-4	LFH	3.3, 3.3.2	Provide an expert to discuss the water use tables and diagrams, and water treatment including expected transfers from Parr Reservoir to and from Monticello Reservoir and consumptive use, water treatment systems, chemical use rates and frequency of addition.
SW-5	LFH	3.4	Provide an expert to discuss the circulating water system, service water system and discharge design.
SW-6	LFH	3.6.3.2	Provide an expert to discuss water quality include NPDES permitting, chemical and biocide use rates, frequency of use, etc for both discharges (Parr Reservoir and Monticello Reservoir), any additional effluent constituent that may be included in the modified National Pollutant Discharge Elimination System (NPDES)permit discussed in 3.6.3.2, and the performance characteristics of the wastewater retention basin (residence time, capacity, design suspended solids of effluent, disposition of settled material, etc).
SW-7	LFH	4.2	Provide an expert to discuss the Storm Water Pollution Prevention Plan, possible design settling basin designs, receiving water bodies, dewater rates, etc, the impact of construction (including transmission lines) on hydrology and water quality, construction permitting process especially the roles of SDCHEC, FERC, and USACE for various construction activities, any possible impact to water quality other than soil/sediment alterations (chemical, diesel, concrete batch processing, etc) and construction phase water monitoring.
SW-8	LFH	5.2	Provide an expert to describe the how the Monticello Reservoir would be operated under low flow conditions in the Broad River.
SW-9	LFH	5.2	Provide an expert to discuss the status of the determination of whether National Pollutant Discharge Elimination System (NPDES) Phase I or Phase II will be employed and the alteration to discharges when radioactivity is detected within a waste stream and procedures used when a non-radioactive spill occurs (diesel fuel, hydraulic fluid, etc), and any quantitative estimate of solid and organics contained in effluents as well as frequency of use and loading of water treatment additives.
SW-10	LFH	5.2	Provide an expert to discuss the zone of hydraulic influence in the Monticello Reservoir related to the intake system.

ITEM NO.	SME	ER SECTION	INFORMATION NEED
SW-11	LFH	5.2	Please have an expert available to discuss the thermal plume model and the Toblin report (Toblin, 2007, cited on page 5.3-8 of the ER) including the estimated average and low flow currents used for Parr Reservoir model analysis
SW-12	LFH	5.2.4	Provide an expert to discuss the surface water flow monitoring program (i.e. figure showing locations).
SW-13	LFH	7.2	Provide an expert to discuss water use and water quality impact during construction and operational phases including use of Best Management Practices, Storm Water Pollution Prevention Plan, permits, mitigation measures being considered, spill prevention, water quality monitoring, etc.
SW-14	LFH	10.5.1	Provide an expert to discuss the level of consumptive water use that would not be considered small under different flow conditions, the status of safe yield analysis and how it support the determination of its findings related to cumulative water use impacts, and the cumulative impact to water quality as presented in 10.5.1 and Table 10.1-1.
SW-15	LFH	9.3.3	Provide an expert to discuss alternative sites (Savannah River Site, Cope Generating Site, and the Saluda in terms of hydrology, water use and water quality).
SW-16	LFH	9.4.1	Provide an expert to discuss alternative heat dissipation systems including the sensitivity of water use rates relative to feasible mechanical and natural draft cooling designs.
SW-17	LFH	9.4.2	Provide an expert to discuss alternative intake and discharges designs including the tradeoffs related to active versus passive screens for intake structures and the CORMIX modeling analysis for the final proposed diffuser design.
SW-18	LFH	9.4.2	Provide an expert to discuss water supply alternatives (Monticello Reservoir, Parr Reservoir and groundwater) and water treatment alternatives especially those that would differ from those used for Unit 1.
Hydrology - Groundwater			
GW-1	MDW	2.3.1.2	Provide copies for review of boring logs, pump test data, well logs.

ITEM NO.	SME	ER SECTION	INFORMATION NEED
GW-2	MDW	2.3.1.2	Provide an expert to discuss the aquifer testing conducted at the site and material property measurements of samples from the saprolite/shallow bedrock zone and deep bedrock zone.
GW-3	MDW	2.3.1.2	Provide an expert to describe groundwater pathways from the site along with the potential for an eastern pathway toward Mayo Creek (in both the shallow and deep zones) and larger-scale groundwater flow directions in the area beyond the site.
GW-4	MDW	2.3.1.2	Provide an expert to discuss occurrence of springs/seeps in the area or other features that may be indicative of groundwater flow focused in larger-scale, interconnected fractures/joints.
GW-5	MDW	2.3.2.1	Provide an expert to describe private and public wells and groundwater use surrounding the site.
GW-6	MDW	4.2.2 and 5.2.2	Provide an expert to describe future groundwater use predicted for the area surrounding the site.
GW-7	MDW	2.3.3.2	Provide an expert to describe baseline groundwater quality at the site along with spatial and temporal changes.
GW-8	MDW	2.3.3.2 and 4.2.3.2	Provide an expert to describe the condensate polisher resin disposed at the site in the past and its impact on the groundwater quality, the potential impact on groundwater during construction activities at the site (e.g. enhanced recharge due to water application during excavation / dust control), and plans for removal of the contaminated soil.
GW-9	MDW	4.2.1,	Provide an expert to describe the impact on site groundwater flow rates and directions from construction activities (e.g. site grading, fill material hydraulic properties, and filling in eastern portion of site for cooling towers) and operations.
GW-10:	MDW	4.2.2.2 & 5.2.2.2	Provide an expert to describe the extent of dewatering activities (i.e. locations, rates, duration) that could be conducted at the site during construction and operation. This description should include a description of dewatering/pumping that is occurring at Unit 1.
GW-11	MDW	6.3 and 6.6	Provide an expert to describe groundwater monitoring (hydrological and chemical) during the construction and operational periods and provide copies of any correspondence with regulatory agencies regarding monitoring requirements.

ITEM NO.	SME	ER SECTION	INFORMATION NEED
Land Use			
LU-1	DMA	2.2.1.1	Provide an expert to discuss subsurface mineral rights at the site including the following: <ul style="list-style-type: none"> • Current ownership and disposition of subsurface rights. • Mining industry context for the area, given history as a significant blue marble production region.
LU-2	DMA	2.2.2.2	Provide an expert to discuss proposed transmission facilities including the following: <ul style="list-style-type: none"> • Expected routing of any new transmission corridors. • Expected termination points and any intermediate substations. • Land resource jurisdictions expected to be impacted by transmission line routing • Local or regional land use plans affecting corridor siting. • Laws and ordinances governing the siting of transmission facilities
LU-3	DMA	Tables 2.2-1 – 2.2-4	Provide an expert to discuss the data sources and methods used including the following: <ul style="list-style-type: none"> • Basis for the use of EPA 1994 as the source for land use and land cover information • Quantification of the acreage of wetlands expected to be impacted in proposed or expanded transmission corridors
LU-4	DMA	3.9.1	Provide an expert to discuss excavation, trenching, grading, dredging, spoils disposition and excess fill material including the following: <ul style="list-style-type: none"> • Volumes of spoils and excess fill expected to accumulate from planned earthwork remaining after construction is completed • Planned disposition of unused spoils and excess fill material
LU-5	DMA	3.1 3.7 4.1.1 4.1.2	Provide an expert to discuss the following: <ul style="list-style-type: none"> • Land use impacts observed during the Unit 1 construction. • Aerial photography of the Unit 1 construction • Transmission line construction impacts associated with Unit 1 construction

ITEM NO.	SME	ER SECTION	INFORMATION NEED
Meteorology			
Met-1	LKB	2.7, 4.4.1.3, and 5.8.1.2.	Provide an expert to discuss meteorology and air quality.
Met-2	LKB	2.7.5 and 6.4	Provide an expert to discuss meteorology monitoring. This should include a tour of the meteorological equipment, and, if possible, a meeting with staff that operate and maintain the meteorological equipment. This should also include an opportunity to review the instrument maintenance records.
Met-3	LKB	5.3.3	Provide an expert to discuss the cooling system to aid our evaluation of cloud formation from the cooling towers.
Met-4	LKB	4.4.1.2, 5.3, 5.8.1.1	Provide an expert to discuss the noise associated with both construction and operation.
Need for Power			
NP-1	JEC	N/A	<p>Provide an expert on the need for power for SCEG, Santee Cooper, VACAR, and the SERC region. This expert should be able to:</p> <ul style="list-style-type: none"> • Make available <ul style="list-style-type: none"> ○ The two most recent annual plans for Santee Cooper. ○ The most recent update to the Certificate of Public Convenience and Necessity (CPCN) application ○ a list of state statute or regulatory provisions for the state owned utility, and describe differences from the investor owned utility (ex. Does the state issue any directives or orders pertaining to the annual plan? What are the fundamental differences between the two such as reserve margin or load sharing agreements? etc). ○ information regarding all known planned decommissioning activities

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			<ul style="list-style-type: none"> • Participate in discussions with: <ul style="list-style-type: none"> ○ representatives from the State Public Service Commission, and/or appointed staff who can address jurisdictional differences between Santee Cooper as a state owned utility and SCEG as an IOU. ○ representatives from the State Public Utility Commission and/or appointed staff who can address how the CPCN application takes into account 45% ownership from Santee Cooper and 55% ownership from SCEG for the total capacity of a two unit facility (2200 MW(e)), and how the need for power is based only on the SCEG forecast. • Describe <ul style="list-style-type: none"> ○ regional transmission and the regional interties that may impact the VACAR/SERC transmission constraints at the expected capacity and voltage for the proposed project. (e.g., Santee Cooper indicated limited transmission capability in the 600+MW range, but intends to ‘own’ approximately 1,000 MW from the proposed project, Section 8.2.6). ○ wholesale power commitments (firm, non-firm, in area or in sub-region, etc) ○ the relationship between the identified capacity from ER Table 8.2-1 and the capacity additions as listed in ER Section 8.2.5 and whether there are any discrepancies between the two. ○ PURPA qualifying entities including capacity ○ how much purchased power is firm capacity. Is this all peaking or intermediate capacity? ○ any joint ventures or Request For Proposals (RFP) for capacity additions and available capacity. ○ why the RFP for power purchasing issued by SCEG was pulled and the expected duty cycle? ○ all known current or projected non-regulated capacity and capacity factors in the regional power pool and how they contribute to current or expected power purchase agreements and potential available reserve margin. ○ Any regulatory provisions which would limit the use of PPA’s

ITEM NO.	SME	ER SECTION	INFORMATION NEED
			<ul style="list-style-type: none"> ○ Any known price and rate structure analysis (ex. Price elasticity in the region and impact to demand). ○ potential impacts to pumped storage capacity and supply due to the proposed project ○ Industrial growth in the region as impacting current power supply. ○ How the demand forecast is validated (e.g., Does the peak demand forecast compare favorably to the energy demand forecast; do the rolled up normalized hourly forecasts match the monthly forecasts? Are these done independently?) ○ How differences in demand growth (the ER timeframe vs. 2008 annual reports) might influence when new capacity is brought on-line. (e.g., Would lower growth push out the Pee Dee start up date?) ○ the age and duty cycles for Santee Cooper existing capacity
SocioEconomics			
SE-1	DMA	2.5.4	<p>Provide an expert to discuss the search for environmental justice documentation including:</p> <ul style="list-style-type: none"> • Application of guidance discussed in the Commission’s decision to grant the ESP permit at the North Anna site, calling for greater detail of analysis in cases where either the low-income or minority population in the impacted area exceeds by more than 20 percent the State or the County minority or low-income population or where the minority or low-income population percentage in the impacted area exceeds 50 percent.. • The search for information about any special resource dependencies or practices such as informal pine straw gathering or subsistence fishing. • Organizations contacted in this regard.
SE-2	DMA	2.5.1.1	<p>Provide an expert to discuss SCE&G’s survey of the transient population including the following:</p> <ul style="list-style-type: none"> • Data collected by the survey. • Basis for conclusions on the number of transients within 10 miles of the plant.

ITEM NO.	SME	ER SECTION	INFORMATION NEED
SE-3	DMA	2.5.2.3.4 10.4.1.5 5.8.2.2.2	Provide an expert to discuss utility property taxes paid to jurisdictions including the following: <ul style="list-style-type: none"> • Historical payments to counties, cities or other taxing authorities. • Financial incentives being offered to the applicants by taxing authorities. • Santee-Cooper’s tax obligations, if any. • Projected tax payments to local and State jurisdictions.
SE-4	DMA	Table 2.5-15	Provide an expert to discuss overnight camping resources in the region including the following: <ul style="list-style-type: none"> • Data sources used to compile the table • Overnight capacity in terms of number of campsites
SE-5	DMA	3.10 Table 4.4-5	Provide an expert to discuss construction workforce assumptions including the following: <ul style="list-style-type: none"> • Basis for assumptions about skilled and managerial labor supply locations • Basis for assumptions used in reference to worker relocations and commuting • Anticipated overtime wage assumptions
SE-6	DMA	4.4.2.2.4	Provide an expert to discuss the workforce transportation analysis assumptions including the following: <ul style="list-style-type: none"> • Sources for the SCDOT assumptions used. • The impact expected under the case of 2 or 3 shifts, as opposed to the four-shift scenario reported.
SE-7	DMA	3.1 5.8.1.3 4.4.2.2.5	Provide an expert to discuss the following: <ul style="list-style-type: none"> • Expected impacts to visual resources • Artist renderings and viewshed analysis • Cooling plume visibility
SE-8	DMA	4.4.2.2.1	Provide an expert to discuss construction expenditure assumptions including the following: <ul style="list-style-type: none"> • Expected purchasing patterns in direct support of construction activities. • In-region versus out-of-region construction expenditures.

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SE-9	DMA	5.8.2.2.1	Provide an expert to discuss operations expenditure assumptions including the following: <ul style="list-style-type: none"> • Expected purchasing patterns in direct support of operations activities. • In-region versus out-of-region operations expenditures.
SE-10	DMA	5.8.2.1	Provide an expert to discuss the application of Regional Input-Output Modeling system (RIMS II) multipliers including the following: <ul style="list-style-type: none"> • Documentation provided from Bureau of Economic Analysis (BEA) for the specific application of multipliers for this analysis. • Any local factors complicating standard multiplier analysis.
Transportation			
T-1	PMD	5.11.2.1	Provide access to electronic copies of RADTRAN input and output files.
T-2	PMD	5.11.2.2	Provide access to electronic copies of TRAGIS output files for the transportation analyses presented in the ER. This includes routes associated with the Summer site and the alternative sites.
T-3	PMD	N/A	Provide access to documentation or an individual knowledgeable about the anticipated inventory of so called ‘Clinch River Unidentified Deposits’ (CRUD) on the external surfaces of spent fuel assemblies. The information is needed to evaluate an issue that was unresolved in the previous ESP analyses (NUREG-1811, NUREG-1815, and NUREG-1817) about a lack of a CRUD source term for advanced LWR fuel assemblies. (NOTE: The previous ESP analyses were used as models for the transportation impact analyses in the VCSNS ER).