

Vogtle Electric Generating Plant Combined License New and Significant Information Site Audit Trip Report September 28 - October 1, 2009

The Vogtle Electric Generating Plant (VEGP), Units 3 and 4 new and significant information (N&SI) site audit was held the week of September 28, 2009 at the VEGP Site near Waynesboro, Georgia. The proposed site for the VEGP, Units 3 and 4 is adjacent to the existing VEGP, Units 1 and 2. The applicant is Southern Nuclear Operating Company (Southern). Southern is supported by its contractor, Tetra Tech. The following lists the U.S. Nuclear Regulatory Commission (NRC), Pacific Northwest National Laboratory (PNNL), Southern and Tetra Tech staff that attended the audit.

Nuclear Regulatory Commission (NRC) Team

Name	Area of Responsibility
Mallecia Sutton	Environmental Project Manager
Scott Flanders	Division Director
Greg Hatchett	Branch Chief, Cultural Resources
Ann Hodgdon	Legal Counsel
Sarah Price	Legal Counsel
Jill Caverly	Hydrology
Daniel Mussatti	Socioeconomics, Environmental Justice, Benefit-Cost, Need for Power
John Fringer	Land-Use, Transmission Line
Mike Masnik	Aquatic Ecology
Nancy Kuntzelman	Terrestrial Ecology

Pacific Northwest National Laboratory (PNNL) Team

Name	Area of Responsibility
Michael Sackschewsky	Team: Lead, Site and Technical Overview, Terrestrial Ecology
Kim Leigh	Deputy Project Team Lead/Site and Technical Overview
Tara O'Neil	Cultural Resources
Michael Smith	Radiological Health, Nonradiological Health, Accidents, Transportation, Meteorology/Air Quality, Fuel Cycle, Decommissioning
Philip Meyer	Hydrology

Michelle Niemeyer	Socioeconomics, Environmental Justice, Benefit-Cost, Need for Power
Beverly Miller	Aquatic Ecology

Southern and Tetra Tech staff

Organization	Name
Southern	Tom Moorer
Southern	Matthew Montz
Southern	Dale Fulton
Southern	Bob Allen
Southern / Georgia Power	Bob Brinkman
Southern/Tetra Tech	Karen Patterson
Southern/Tetra Tech	Philip Young
Southern/Tetra Tech	Mary Hoganson

There were no discussions with Federal, State or local representatives during the N&SI site audit.

Schedule of Activities

NRC and PNNL staff traveled to Augusta, Georgia on September 28, 2009. The N&SI site audit was held from September 29, 2009 through October 1, 2009. The schedule was developed in conjunction with the NRC and Southern in the weeks leading up to the audit and is attached as Appendix A. Minor revisions occurred during the audit because of the availability of key staff and information gathered on previous days. Changes from the schedule that occurred during the site audit are discussed below.

General Logistics

The N&SI site audit discussions were held in a temporary office trailer located outside the protected zone of VEGP, Units 1 and 2, adjacent to the construction area of Units 3 and 4. A library of reference materials and documents that were used by Southern to search for and identify any new information was provided to the NRC staff.

Information Needs

NRC/PNNL staff prepared a list of detailed Information Needs (IN) for each resource area prior to attending the N&SI site audit. INs are detailed descriptions of information or data that an NRC audit team member is planning to review or discuss during the performance of the audit. This list, as modified and approved by the NRC Office of General Counsel (OGC), was provided to Southern prior to the audit and is attached as Appendix B. Southern’s staff and contractors were available to discuss and address the NRC staff concerns. The status of each IN was tracked to verify resolution or to document activities to be performed by the NRC or Southern after the audit to completely address the INs.

New and Significant Process

The team reviewed Southern's methodology for identifying N&SI related to all resource areas analyzed in the FEIS. The process began with Southern and its contractor reviewing information they considered to be "key inputs" from the Final Environmental Impact Statement for an ESP at the VEGP Site (NUREG-1872), Chapters 4, 5, 7, and Appendix J, and making a determination if any new information was available regarding those key inputs.

Prior to the audit, Southern provided NRC with a procedure entitled "Guidance for N&SI" (ND-ARL-012, Version 1.0, 10/08/2007). The guidance details the process Southern used to identify N&SI and is primarily focused on the issues and impacts of construction and operation of the facility that were resolved in the ESP proceeding. The following summarizes Southern's procedure:

- Step 1 - Identify issues resolved in the FEIS for the VEGP ESP.
- Step 2 - For each FEIS section, identify and number key inputs, perform a careful review, and identify other potential sources of new information.
- Step 3 - Based on assigned area of responsibility, determine potential other sources of new information (plant personnel, regulatory agency personnel, vendors, consultants, industry peer groups, academia, reports, publications, others as deemed necessary).
- Step 4 - Screen key inputs to determine if the information is new and whether the information invalidates FEIS assumptions and conclusions.
- Step 5 - Determine if the information identified meets the definition of new information."

Daily Summaries

Brief summaries of daily events are provided below.

Monday, September 28, 2009

NRC/PNNL staff met to discuss the audit execution plan, NRC's expectations regarding interactions with Southern, issues the staff considered to be potentially new and significant based on evaluation of the ER including information and data in Southern's N&SI library made available to NRC staff prior to the audit.

Tuesday, September 29, 2009

The site audit began about 9:00 a.m. The morning was devoted to introductions, orientation, site safety instructions, and a general site tour. The general site tour included:

- The dewatering system
- Excavation for the foundation of reactors units
- The proposed center point locations for the containment vessel and cooling towers for the proposed units
- A landfill (referred to as Landfill 3) that was moved to create room for site development
- Areas where marketable trees have been cut and sold, while the rest was being mulched for erosion control
- Two batch plants for concrete
- Many sedimentation ponds and a newly-built primary sedimentation basin
- Spoil piles and fill material
- New location for independent spent fuel storage area
- Intake and discharge area for Units 1, 2, 3 and 4

Tom Moorer provided a description of Southern's process for identifying N&SI.

In the afternoon, Tom Moorer provided a further description of Southern's process for identifying N&SI. Southern's process is designed to comply with the requirements of 10 CFR 51.50(c) and "provides a methodical, comprehensive review of the conclusions presented in the ESP EIS and the supporting information for those conclusions to identify any N&SI that has the potential to change the NRC's conclusions presented in the ESP EIS." Following the discussion, the team and Southern discussed the planned document reviews for the remainder of the day.

The team held a separate closeout session at 5:00 p.m. which included discussion of topics for potential requests for additional information (RAIs). Finally, the team and Southern held a closeout session at 6:00 p.m. to discuss the activities of the day and plan for the next day's activities.

Wednesday, September 30, 2009

NRC staff continued technical discussions with Southern.

In the afternoon, field tours were provided by Southern in the following areas:

Transmission line tour (Mallecia Sutton, Michael Sackschewsky, Beverly Miller, Michael Masnik, Nancy Kuntzelman, Tom Moorer, Matt Montz, Bob Brinkman)

The tour included:

- Areas of the Macintosh Corridor that had been recently disturbed for new construction
- Wetland areas that will be spanned

Southern noted that all delineated wetland areas will be spanned, areas disturbed by construction activities will be replanted, wetland areas will be protected by placement of temporary crossings constructed of railroad ties. Southern indicated that there were no planned wetland crossings for the transmission line access road. Southern also provided the NRC staff with a copy of the cooperative agreements in place with the Georgia Department of Natural Resources (GDNR) regarding threatened and endangered species.

Cultural resources tour (Gregory Hatchett, Tara O'Neil, Dale Fulton)

The tour included:

- Site 9BK416 in relation to the location of the new intake structure
- An historic cemetery near site 9BK416. Southern has fenced the cemetery for protection and is planning on avoiding it during construction and operation
- Previously disturbed areas that are located within 66 acres of land that Southern has identified as being part of the construction footprint (including small incremental changes to roads and other existing infrastructure support areas)

Intake tour- (Beverly Miller, Michael Masnik, Ann Hodgdon, Sarah Price, Nancy Kuntzelman, Tom Moorer, Matt Montz)

The tour included a review of the existing Units 1 and 2 intake structures in relation to the location for the proposed Units 3 and 4 intakes. Southern noted that there were no plans to dredge the Savannah River. They also stated that there were no new projects in the area that would affect cumulative impacts. The State of South Carolina Department of Natural Resources was conducting a study on spawning near the plant, the 316 (B) studies are completed, and Southern is not aware of any relevant information on the Atlantic Sturgeon.

Staff not participating in tours continued technical discussions with Southern and its contractor. An afternoon closeout discussion was held with NRC/PNNL staffs to update NRC team management on progress of INs and any documentation reviewed. A daily final closeout session was held with Southern at 6:00 p.m. NRC/PNNL staff with the exception of Mallecia Sutton, Nancy Kuntzelman, Michael Sackschewsky, and Beverly Miller were dismissed from the audit.

Thursday, October 1, 2009

The N&SI audit session was moved to the Marriott Hotel in downtown Augusta, Georgia. Mallecia Sutton, Nancy Kuntzelman, Michael Sackschewsky and Beverly Miller attended. Terrestrial ecology technical discussions continued throughout the morning.

At the end of the morning, the final site audit closeout meeting was held. This discussion included a review of the initial IN, potential RAI topics, other issues brought up during the week and items to be placed on the docket.

The team completed the N&SI site audit shortly before noon on October 1, 2009.

Summary of Issues or Concerns by Technical Discipline

Alternative Sites and Energy Sources

Alternative sites and energy sources for VEGP, Units 3 and 4 were resolved under the ESP FEIS. No review of N&SI for alternative sites and energy sources was performed.

Aquatic Ecology

The review team reviewed the key inputs supplied by Southern and independently determined if the information provided was new and if it could be significant or change the impact levels previously determined in the FEIS. A list of INs was provided to Southern before the audit and the responses received from Southern were reviewed by the NRC/PNNL team. The team also visited the proposed barge facility, the intake structure for Units 1 and 2, the proposed intake location for Units 3 and 4, the proposed discharge location for the Units 3 and 4, and selected transmission corridor locations. The team examined on-site silt fences and drainage ponds and newly excavated areas to determine the impact of storm water runoff to local waterways and wetland areas. Maps of the site and proposed plans for the new intake structure and barge slip were reviewed in conjunction with Southern staff.

The NRC team expressed concern during the audit that plans for several of the key areas of review were not finalized and could potentially change after the audit. For example, Southern was waiting for Shaw Construction to finalize the construction and design plans for Units 3 and 4, and in the meantime, plans continue to change. In addition, final decisions have not been made about how to bring the major components on site (by barge, rail, or roads). Upgrading may need to be done for any of the three methods but it was not clear yet what the pathway would be. The US Army Corps of Engineers (Corps) permit application had not yet been submitted indicating whether any dredging would take place in the Savannah River either during localized construction or dredging for transportation of major components up the navigation canal. Although Southern stated that no dredging would be expected, there were no final decisions or documents to verify this statement. Small changes continue to be made to the construction plans (concern exists that changes could still take place that could affect aquatic resources).

No new information was presented by Southern concerning the Atlantic Sturgeon or if associated habitat may be affected by construction of Units 3 and 4.

Southern indicated verbally that if the major components would be brought in by rail, no aquatic resources would be affected because the rail spur would not require any modification to water crossings.

The review team will need to follow-up on the status of the Shortnose Sturgeon tagging study that is currently in progress, call State of South Carolina government official to see where they are in the process of listing the Atlantic Sturgeon, follow up with the U.S. Fish and Wildlife Service, and check on the results of the mussels sent for identification as possible Pigtoe Mussels.

A list of potential RAIs for aquatic ecology was developed and provided to the NRC Environmental Project Manager and PNNL Team Leader.

Cultural Resources

The team reviewed the key inputs supplied by Southern and independently determined if the information provided was new, and if it could be significant or change the impact levels previously determined in the FEIS for the VEGP ESP. A list of INs was provided to Southern before the audit and the responses provided by Southern were reviewed by the NRC and PNNL team. The review team evaluated approximately 21 key inputs identified by the applicant including the INs developed by the staff prior to the site audit. The team also reviewed cultural resource reports of site surveys, evaluated site planning maps, aerial photography from Units 1 and 2 construction, the Environmental Protection Plan (EPP) for the existing units, and conducted a site tour to ground truth the increase in the limits of disturbance for potential impacts to known cultural resources.

While the review team found the process used for N&SI to be reasonable, it was unclear whether the applicant's subject matter experts consistently applied the guidance to key inputs to identify new information. Ultimately, the team found the applicant's rationale for its determination of N&SI for cultural resources was not inconsistent with the overall guidance of their new and significant process. Of the 21 key inputs, the applicant identified new information associated with 5 of the 21 key inputs.

The review team evaluation of key inputs associated with impacts to cultural resources may result in a staff RAI to the applicant to submit the signed MOU with the SHPO along with the concurrence letter from the SHPO. During the ground truth, the review team discovered a fenced area and learned that a historic cemetery had been discovered. This discovery may result in a staff RAI to the applicant to submit the May 14, 2007, Letter Report from New South Associates and corresponding SHPO consultation letters.

The applicant made statements during the audit related to the finalization of site plans (ex. rail corridor, barge slip, intake structure) that are ongoing. Small incremental changes continue to take place and there is a concern that these changes may impact cultural resources. Any changes to the site plan after the environmental audit should be communicated to NRC and the impacts of these changes on cultural resources should be determined. There is a concern that site plan changes might impact known cultural resource sites that are both eligible for the National Register of Historic Places. NRC may want to contact the SHPO and the Tribes to initiate the 106 consultation process for the COL effort.

General Information Needs/ Site and Technical Oversight

There were three issues identified that cross-cut into other subject areas and were therefore considered general.

Southern did not state clearly in writing how large reactor components and other materials are to be delivered to the site nor has Southern evaluated the potential impacts of upgrades required, both onsite and offsite to achieve delivery. Additionally, an update to the current list of permits and authorizations and estimates of irreversible commitments of resources may be requested as RAIs.

Hydrology

The team reviewed the key inputs supplied by Southern and independently determined if the information provided was new and if it could be significant or change the impact levels previously determined in the FEIS for the VEGP ESP. A list of INs was provided to Southern before the audit and the information provided was reviewed by the NRC/PNNL team. Dale Fulton (Southern) was the primary hydrology contact for the applicant.

There were a number of areas in which the review team disagreed with the conclusions of the applicant regarding new information. Regarding construction dewatering, Southern has obtained a modification to their permit which was reviewed by the NRC/PNNL team and was found to be acceptable. Additional groundwater head data has been collected at the site since November 2006 (the date of the most recent data provided is in the ESP ER Rev. 2). A portion of this data was provided by Southern at the audit. After the site audit, Southern provided a set of monthly groundwater head measurements for the wells listed in ESP ER Table 2.3.1-18, covering the period December 2006 to April 2009 (with no data reported for November 2007, February, September, and November 2008, and February and March 2009).

Some of the plant design details have not been finalized, including the intake structure design. An RAI under the Aquatic Ecology area may be written to obtain this information.

Consumptive use estimates for the plant increased from the Design Control Document (DCD) Revision (Rev.) 15 to Rev. 16. This increased the surface water withdrawal by 4% as documented in COL ER, Rev. 1, Table 3.2-1. This information was provided to staff during preparation of the FEIS for the VEGP ESP and staff repeated their analyses using the increased withdrawals. There was no change to staff conclusions regarding impacts. No additional information is required.

Groundwater withdrawal estimates for the maximum use case decreased by 11% from DCD Rev. 15 to Rev. 16, as documented in COL ER Rev. 1, Table 3.2-2. This information was provided to staff during preparation of the FEIS for the VEGP ESP. Since the withdrawals decreased, the impacts are bounded by the analysis in the ESP EIS. No additional information is required.

Effluent discharge to the river increased by 1.5% from the FEIS values, as documented in COL, ER Rev. 1, Table 3.2-2. (An error in Table 3.2-2 was subsequently identified by PNNL staff that slightly modifies the total effluent discharge numbers.) This information was provided to staff during preparation of the FEIS for the VEGP ESP, but was not used in the staff's analyses. As Southern states in the COL, ER Rev. 1, they did not evaluate the impact of the increased effluent discharge because it would not alter the conclusions regarding the thermal plume. However, there was no supporting analysis. The effluent discharge increase was not identified by Southern as new information. This was communicated to Southern at the site audit. An RAI may be written to request confirmation of the correct values for ER, Revision 1, Table 3.2-2.

New information on permitted groundwater withdrawals was identified by the NRC/PNNL team consisting of updated information from the states of Georgia and South Carolina. This information was reviewed by the review team; it was determined that the information will not change NRC staff's assessment of impacts and is therefore not significant. No additional information is required.

Land Use/Transmission Lines

John Fringer (NRC) reviewed the key inputs supplied by Southern and independently determined whether the information provided was new and if it could be significant or change the impact levels previously determined in the ESP. A list of INs was provided to Southern before the audit and the responses provided were reviewed. It was concluded that key inputs identified by Southern in the areas of land use and transmission lines and the application of the N&SI identification process were acceptable.

Radiological Health/Nonradiological Health/ Accidents/Transportation/Meteorology/Air Quality/Fuel Cycle/Decommissioning

The team reviewed the key inputs supplied by Southern and independently determined whether the information provided was new and if it could be significant or change the impact levels previously determined in the FEIS for the VEGP ESP. A list of INs was provided to Southern before the audit and the responses provided were reviewed by the NRC/PNNL team. Phil Young (Tetra Tech), Mary Hoganson (Tetra Tech), Tom McCallum (Southern) and Mary Beth Lloyd (Southern) were the primary contacts for the applicant. The review team evaluated key inputs identified by the applicant in the areas of meteorology, radiological health, transportation, accidents, fuel cycle and decommissioning and found the process used for N&SI to be acceptable.

The review team noted that for several key inputs, the system designs are presently being finalized and that based on current knowledge there are no known changes considered new and significant. Any changes to site designs and associated impacts of these changes should be communicated to the NRC. This issue may result in a general RAI.

The review team also noted that there was not a discussion of any occurrences of adverse occupational-related health issues resulting from exposure to thermophilic microorganisms during operations or maintenance at VEGP, Units 1 and 2 and the measures taken to protect employees from such exposure. This issue may result in an RAI.

Socioeconomics/Environmental Justice/Need for Power/Benefit-Cost

The team reviewed the key inputs supplied by Southern and independently determined whether the information provided was new and if it could be significant or change the impact levels previously determined in the FEIS for the VEGP ESP. A list of INs was provided to Southern before the audit and the responses provided were reviewed by the NRC/PNNL team. The review team evaluated approximately 242 socioeconomics and environmental justice key inputs identified by the applicant, as well as, a newly completed traffic study. The review team found the process used for N&SI to be acceptable, however more explanation on how they determined there was no new information on some key inputs was needed. The rationale for many key inputs was “per Tom Moorer, this statement is still accurate.” This leaves the rationale incomplete, as it is only part of the rationale. The rationale fails to fully state why it is accurate.

The review staff evaluated the recently completed traffic study from Southern and requested that it be submitted to the docket as this information is new (referenced in key inputs S4.5-39 and SJ-136/137). The traffic study is new information; however it will likely not be significant and will probably reinforce the MODERATE impact associated

with transportation in the FEIS for the VEGP ESP, though further examination is needed to confirm this. The traffic study states there will be two shifts for construction, however the traffic analysis in the FEIS for the VEGP ESP is based on 4 construction shifts (based on Southern's ESP ER). It was explained at the audit that Shaw is still finalizing shift assumptions and currently there are two shifts with the possibility of a third during peak construction. In addition, Southern stated in their ESP ER that they would restrict deliveries to the daytime; they now state they will be making night deliveries.

The N&SI review was fair; for the most part, all the information was traceable. The review team was able to refer back to the FEIS or references to obtain most of the data or follow the process. An analysis of the N&SIs relative to the baseline data presented in Section 2.8 of the FEIS is needed to have a clear picture of potential changes to the socioeconomic analysis.

In several places Southern's N&SI review was still based on 2000 Census data, but the review team is aware of more up-to-date data. The staff has already obtained some of these data independently (i.e. unemployment rates, housing data) and should be able to obtain other required data independently if Southern does not provide a N&SI review of Section 2.8. Furthermore, any new information related to Census data in the FEIS would likely not change the conclusions of the analysis and therefore, would not be significant.

No N&SI in regards to need for power and benefit-cost was available for the staff to review. During the site audit, Southern stated that they will provide a new and significant review for need for power (in matrix form) and benefit-cost. This will likely be through an RAI.

Small changes are occurring and plans are still being finalized that may impact socioeconomics. The review team realizes this is a dynamic process but any changes need to be communicated as early as possible to give staff time to assess the information.

No new issues were identified prior to attending the site audit or while at the site audit that would require community visits. Therefore, no contacts were made.

Terrestrial Ecology

The team reviewed approximately 120 terrestrial ecology related key inputs identified by the applicant, as well as the INs developed by the staff prior to the site audit. The team reviewed available reference documents, evaluated site planning maps, aerial photography, the EPP for the existing units, and conducted a site tour to inspect a recently constructed transmission line and corridor near the site.

Of the 120 key inputs, the applicant identified new information associated with approximately 20. However, it was also clear that some information concerning construction designs, layout, and resulting disturbances were still subject to change so the total number of key inputs with potentially new information was considerably larger than 20. In general, the NRC/PNNL team found the process used for N&SI identification to be reasonable and found Southern's rationale for its determination of N&SI for terrestrial resources to not be inconsistent with the overall guidance. However, in a

number of cases, the basis for the determination that there is no new information is unclear in that the actual sources were not cited.

Southern made statements during the audit related to the finalization of site plans (ex. rail corridor, barge slip, intake structure, site layout) that are ongoing. This was also reflected in Southern's N&SI review matrix. Small incremental changes continue to take place as designs are finalized and construction details become clearer and there is a concern that these changes may impact terrestrial resources. Any changes to the site plan after the environmental audit should be communicated to NRC and the impacts of these changes on terrestrial resources should be determined. Southern provided a table of the estimated acreages and habitat types affected by various portions of the project docketed after the audit which will suffice for much of the staff's analysis needs. However, an updated, detailed site map that clearly indicates the location and size of the various project components and where impacts to certain resources, such as wetlands will still be needed.

During the general and specialized tours around the site, it was clear that Southern has begun implementing erosion and stormwater control systems on site. Installation of these systems is covered under the storm water permit issued by the State of Georgia, through individual notices of intent for each action.

Southern has yet to formalize plans for transport of large components and other materials to the Vogtle site. Southern staff indicated that a final decision was pending. The Southern and NRC staff determined that a summary of an expected transportation study would be requested and provided through the RAI process. Depending on the method chosen, there are several areas that require additional information that was not provided in the ER or supplemental information. For instance, if barging of components is selected, the terrestrial subject matter experts (SMEs) will need to know if dredging of the federal navigation channel will be required, how much material will be removed from the river, from where, and what will be done with the dredge spoils. If large components are to be moved by rail or road, an assessment of infrastructure upgrades and potential effects on wetlands and other habitats and species of concern will be required. This was not addressed in the revised ER or in the N&SI review matrix.

Additional dredging and in-stream work will be required to upgrade the barge facility (if barging is chosen), install the discharge pipeline, and construct the intake structure. Southern provided a table of estimated acreages and dredging requirements (docketed after the audit) that suggests that the expected quantity of dredge material may be several orders of magnitude greater than evaluated in the ESP, which is inconsistent with Southern's findings in their N&SI review. Clarification of the quantity of dredge materials (if this actually differs from the ESP analysis) and how they will be dispositioned will be needed.

Southern did not identify any changes to the lists of Federal or State threatened or endangered species. No new surveys for rare plant or animal species have been conducted. Georgia Power has entered into a candidate conservation agreement regarding the voluntary reintroduction of the Gopher Tortoise to the northern portion of the Vogtle Site and has made the related documents available to NRC staff. NRC will want to independently contact the U.S. Fish and Wildlife Service and the GDNR to update lists of potential species of concern for the COL effort. During the transmission line tour, Southern indicated that Georgia Power has cooperative agreements with the

GDNR regarding the management and protection of rare species in areas such as transmission line corridors. No documents concerning such agreements were available at the audit but would be useful for assessing if there are any changes to the potential impact of creating and maintaining the proposed new transmission line corridor.

Southern determined that there will be several small changes to the amount and distribution of wetlands that will be disturbed, they have updated wetland delineations and jurisdictional determinations. In addition, they are preparing a 404 permit application to submit to the ACOE that will address all wetland issues. The staff will need at least a summary of this application (or the entire application once completed) as part of its review because it provides Southern's best estimates of the size and location of wetland impacts, as well as proposed mitigation measures.

No new information about the location of the new transmission line corridor is available. Georgia Power has just started the process of identifying and acquiring the right-of-way and is not likely to be finished for several years.

Data Gathering

Documents were not to be taken away from the site audit. All items in the electronic reading room, at the site audit, and Southern's update to the new and significant matrix (performed at the request of the NRC while at the audit) were docketed the week of October 12, 2009.

Appendix A

Vogle COL Site Audit Schedule

Vogtle Detailed COL Site Audit - Schedule for the Week of September 28, 2009

Day/Time	What	Where	Who-PNNL	Who-NRC	Who-Southern	Who-Other Gov' Agency
Monday, September 28, 2009						
AM	Travel	Airport	Michael Sackschewsky, Kim Leigh, Beverly Miller, Phil Meyer, Michelle Niemeyer, Michael Smith, Tara O'Neil,	Mallecia Sutton Nancy Kuntzelman, Michael Masnik, Jill Caverly, Daniel Mussatti, Steven Shaffer, Timothy Frye, Scott Flanders, John Fringer, Gregory Hatchett, Ann Hodgdon, Sarah Price Jenny Davis?	<u>Southern</u> Tom Moorer Dale Fulton Matt Montz Bob Allen Bob Brinkman- Wed. <u>Tetra Tech</u> Karen Patterson Mary Hoganson Phil Young	--N/A
6:30 PM	NRC/PNNL Team meeting	Wingate	All	All	--	--
Tuesday, September 29, 2009						
6:45 AM	Meet in hotel lobby to go to Vogtle site	Wingate	All	All	--	
8:00 AM	Arrive Vogtle site/Badging (remember to bring your driver's license/agency badge)	Main Gate	All	All		
8:30 – 9:00 AM	Introductory meeting: room logistics, review of schedule, safety, purpose (SNC & NRC)	Vogtle Units 3&4 Conference Room (Trailer #2)	All	All	All	N/A

Day/Time	What	Where	Who-PNNL	Who-NRC	Who-Southern	Who-Other Gov' Agency
9:00 – 10:00 AM	General discussion of “new and significant process”	Vogtle Units 3&4 Conference Room (Trailer #2)	All	All	All	N/A
10:00 – Noon	<u>General Site Tour:</u> (windshield tour of the site and recent construction activities)	Vogtle Units 3&4 Conference Room (Trailer #2)	All	All	Allen, Moorer, Montz, Fulton	
12:10 – 1:00 PM	Catered lunch (remember to bring \$)	Vogtle Units 3&4 Conference Room (Trailer #2)	All (7)	All (12)	All	
1:00- 4:30 PM	Break-Out Sessions – primarily for PNNL / NRC to review information and Data. SNC counterparts available as needed. Aquatic & Terrestrial					
		Vogtle Units 3&4 Conference Room (Trailer #2 & several small offices in Trailers 1, 2, & 11)	Sackschewsky, Miller	Kuntzelman, Masnik	Montz	
	Hydrology	Vogtle Units 3&4 Conference Room (Trailer #2 & several small offices in Trailers 1, 2, & 11)	Meyer	Caverly	Fulton	

Day/Time	What	Where	Who-PNNL	Who-NRC	Who-Southern	Who-Other Gov' Agency
	Socio/BC/N4P	Vogtle Units 3&4 Conference Room (Trailer #2 & several small offices in Trailers 1, 2,& 11)	Niemeyer	Mussatti	Hoganson, Moore	
	Rad Issues	Vogtle Units 3&4 Conference Room (Trailer #2 & several small offices in Trailers 1, 2,& 11)	Smith	Shaffer	Young	
	Cultural	Vogtle Units 3&4 Conference Room (Trailer #2 & several small offices in Trailers 1, 2,& 11)	O'Neil	Davis	Fulton	
	Land Use, Non-Rad Health	Vogtle Units 3&4 Conference Room (Trailer #2 & several small offices in Trailers 1, 2,& 11)		Fringer	Moore	

Day/Time	What	Where	Who-PNNL	Who-NRC	Who-Southern	Who-Other Gov' Agency
4:30 - 5:00 PM	NRC/PNNL team debrief meeting: Daily discussion of: 1) what was accomplished in breakout sessions; 2) status of Info. Needs; 3) issues or concerns	Vogtle Units 3&4 Conference Room (Trailer #2)	All	All	All	--
5:00 PM	Leads Meeting to discuss further agenda items and issues	Vogtle Units 3&4 Conference Room (Trailer #2)	Sackschewsky, Leigh	Sutton	Moorer, Fulton	--
Wednesday, September 30, 2009						
8:00 – 8:30 AM	General meeting: announcements, concerns, etc.	Vogtle Units 3&4 Conference Room (Trailer #2)	All	All	All	
8:30 - 12:00	Continuation of new and significant discussions (With SNC counter parts) on-site tours as needed	Vogtle Units 3&4 Conference Room (Trailer #2)	Hydro -Meyer	Caverly,	Fulton	
		Vogtle Units 3&4 Conference Room (Trailer #2)	Socio - Niemeyer	Mussatti	Hoganson	
		Vogtle Units 3&4 Conference Room (Trailer #2)	Rad - Smith	Shaffer	Young	

Day/Time	What	Where	Who-PNNL	Who-NRC	Who-Southern	Who-Other Gov' Agency
8:30 AM - Noon	Transmission line Tour	Off site	Sackschewsky, Miller, O'Neil	Kuntzleman, Sutton, Masnik	Moorer, Brinkman, Montz	
12:00 – 1:00 PM	Catered lunch (remember to bring \$)	Vogtle Units 3&4 Conference Room (Trailer #2)	All - 7	All - 12	All	
1:00-4:00 PM	Continuation of new and significant discussions (With SNC counter parts) on-site tours as needed	Vogtle Units 3&4 Conference Room (Trailer #2 & several small offices in Trailers 1, 2,& 11)	Ecology- Sackschewsky, Miller	Kuntzleman, Masnik	Montz	--
		Vogtle Units 3&4 Conference Room (Trailer #2 & several small offices in Trailers 1, 2,& 11)	Cultural- O'Neil	Davis	Fulton	
		Vogtle Units 3&4 Conference Room (Trailer #2 & several small offices in Trailers 1, 2,& 11)	Rad - Smith	Shaffer	Young	

Day/Time	What	Where	Who-PNNL	Who-NRC	Who-Southern	Who-Other Gov' Agency
		Vogtle Units 3&4 Conference Room (Trailer #2 & several small offices in Trailers 1, 2, & 11)	Hydro - Meyer	Caverly	Fulton	
		Vogtle Units 3&4 Conference Room (Trailer #2 & several small offices in Trailers 1, 2, & 11)	Socio - Niemeyer	Mussatti	Hoganson	
4:00 PM	NRC/PNNL team debrief meeting: Daily discussion of: 1) what was accomplished in breakout sessions; 2) status of Info. Needs; 3) issues or concerns	Vogtle Units 3&4 Conference Room (Trailer #2)	All	All	All	--
5:00 PM	Meeting with Tom to discuss further agenda items and issues	Vogtle Units 3&4 Conference Room (Trailer #2)	Sackschewsky, Leigh	Sutton	Moorer, Fulton	
Thursday, October 1, 2009						
AM	Travel	Airport	O'Neil		--	--

Day/Time	What	Where	Who-PNNL	Who-NRC	Who-Southern	Who-Other Gov' Agency
8:00 – 12:00	Continue new and significant discussions as needed and then close out	Vogtle Units 3&4 Conference Room (Trailer #2)	As Needed	As Needed		
PM	Travel	Airport	all		--	
Friday, October 2, 2009						
AM/PM	Travel	Airport	none	?	--	--

Appendix B
Information Needs

**Information Needs
Vogtle COL Site Audit September 2009**

**Number = number of original information need.
Letter = information need added to the list of original information needs during the site audit.**

Info Needs #	Information Needed	Responsibility/ Submitted by
G-	General	
G-1	Make available originals of all COL ER Revision 0 figures in .jpeg, .png or .tif format at a resolution of at least 300 dpi, and sized correctly. Please make available the electronic version of all ER figures in black and white.	Michael Sackschewsky/ Kim Leigh
G-2	<p>Make available all Geographic Information Systems (GIS) and/or CAD data/databases used to support the ER analysis and results that contain any new information concerning existing and proposed conditions. The data should generally include, but are not limited to:</p> <ul style="list-style-type: none"> • All existing and proposed site infrastructure data (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.) • Location data (official property boundary, official unit point location, exclusion area boundary, and other relevant boundaries on-site or regionally) • All surface and groundwater hydrologic data (watershed/sub basin boundaries, stream/river channels, springs, sinkholes, flood boundaries, reservoir boundaries, site storm water drainage, levees, hydrogeologic study boundaries, aquifers, potentiometric contours, well locations, surface water monitoring sites, etc.) • All terrestrial and aquatic ecological data (wetlands, ponds, terrestrial and aquatic sampling sites, wildlife/habitat areas, land use/land cover, and threatened and 	Michael Sackschewsky/ Kim Leigh

Info Needs #	Information Needed	Responsibility/ Submitted by
	<p>endangered species locations).</p> <ul style="list-style-type: none"> • Terrain and bathymetric data (LiDAR, contours, river cross sections, bathymetric point samples, etc.) • Socioeconomic data (sector data at various radii, census blocks with 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.) • Geology and soils data (site and vicinity data, faults, folds, seismic activity, etc.) 	
G-4	Make available (for reading at the site audit) all documents currently in the electronic reading room.	Michael Sackschewsky/ Kim Leigh
G-5	Provide a knowledgeable expert(s) to discuss contents of Section 11.2 of the COL ER.	Michael Sackschewsky/ Kim Leigh
G-6	<p>Make available large wall map(s) at the site audit that show key features related to the proposed construction and preconstruction activities, including those in progress:</p> <ul style="list-style-type: none"> • Proposed temporary and permanent facilities • Proposed construction lay-down 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) 	Michael Sackschewsky/ Kim Leigh

Info Needs #	Information Needed	Responsibility/ Submitted by
	<ul style="list-style-type: none"> • Proposed rail line spur • Proposed haul roads • Proposed wetlands to be impacted (permanent & temporary) by acreage & type 	
G-7	Provide a knowledgeable expert(s) to discuss the irreversible commitments of resources as described in Section 11.5 of the COL ER.	Michael Sackschewsky/ Kim Leigh
G-8	Provide a knowledgeable expert(s) to discuss Section 11.6 of the COL ER.	Michael Sackschewsky/ Kim Leigh
G-9	Provide a knowledgeable expert(s) to discuss the current status of authorizations from consultations with Federal, State, Regional, and local governments as well as affected Native American tribal agencies	Michael Sackschewsky/ Kim Leigh
LU-	Land Use/Transmission Lines/Need for Power	
LU-1	Provide a knowledgeable expert(s) to discuss whether there is any new information concerning the route of the planned transmission line beyond what is shown in Figure 4-1 in the ESP FEIS.	Paul Hendrickson
LU-2	Provide a knowledgeable expert(s) to discuss whether there is any new information related to zoning for the Vogtle site.	Paul Hendrickson
NFP-1	Provide a knowledgeable expert(s) to address any new and significant information as it relates to the need for power.	Paul Hendrickson
TE-	Terrestrial Ecology	
TE-2	Provide a knowledgeable expert(s) who can discuss any new information concerning threatened and endangered species surveys in disturbance areas, including any rail corridor upgrades that have not been surveyed.	Amanda Stegen
TE-3	Provide any updates (correspondence/consultations/meeting summaries) with Georgia and	Amanda Stegen

Info Needs #	Information Needed	Responsibility/ Submitted by
	<p>South Carolina state and Federal agencies regarding status of environmental permits or authorizations (e.g. wetland jurisdictional determination from Army Corps, Section 10 and 404 permit from Army Corps, Section 401 water quality certification from Georgia DNR, Federal Depredation Permit, State Depredation permit), mitigation strategies, and monitoring requirements.</p>	
TE-4	<p>Provide the isopleth map of salt deposition that is the output of any updated SACTI runs. If there is new information, provide a SME who can discuss any depositional changes on a seasonal basis and discuss the terrestrial communities that occur in the areas of deposition.</p>	Amanda Stegen
TE-5	<p>Provide a knowledgeable expert(s) who can discuss any significant new projects (both public and private projects) occurring or planned in the vicinity of VEGP or the transmission right-of-way and that may contribute to cumulative impact on important species, wetlands, or other habitats.</p>	Amanda Stegen
TE-6	<p>Provide a knowledgeable expert(s) who can discuss the applicant's process for reviewing new and significant information in relation to terrestrial issues.</p>	Amanda Stegen
TE-7	<p>Provide a knowledgeable expert(s) who can discuss any changes to the total acreage, both permanent and temporary, that will be disturbed during construction, including disturbance for any rail upgrades. This person should be able to describe any changes in total number of acres disturbed and changes in total acres by habitat type between the ESP and the COL.</p>	Amanda Stegen
TE-8	<p>Provide a knowledgeable expert(s) that can discuss any changes to the location of the barge slip or any other structures along the river (e.g., cooling water intake structure).</p>	Amanda Stegen
TE-9	<p>Provide a knowledgeable expert(s) to discuss the recent upgrades to the rail spur and any projected upgrades to the rail corridor that may be needed.</p>	Amanda Stegen
TE-10	<p>Provide a knowledgeable expert(s) to discuss the Candidate Conservation Agreement (gopher tortoise reintroduction)</p>	Amanda Stegen
TE-11	<p>Provide a knowledgeable expert(s) to discuss any significant new information concerning dredging of the Savannah River during construction (including the Federal navigation channel (FNC) and from the barge facility to the FNC) and disposal locations of possible dredged material.</p>	Amanda Stegen
TE-12	<p>Provide a knowledgeable expert(s) to discuss any changes in wetland acreage to be</p>	Amanda Stegen

Info Needs #	Information Needed	Responsibility/ Submitted by
	disturbed and indirect impacts to wetlands, based on any changes to the site plan.	
TE-13	Provide a knowledgeable expert(s) to discuss any new information concerning the status of the proposed transmission line review.	Amanda Stegen
TE-14	Provide a knowledgeable expert(s) to discuss any new information concerning construction dewatering, specifically related to Mallard Pond and the stream below the pond.	Amanda Stegen
TE-15	Provide a knowledgeable expert(s) to discuss any new information concerning the preconstruction land clearing activities that have already taken place onsite.	Amanda Stegen
AE-	Aquatic Ecology	
AE-1	Provide a knowledgeable expert(s) to discuss any recent upgrades to the rail spur and any projected upgrades to the rail corridor and any associated impacts to aquatic resources.	Becky Krieg
AE-2	Provide a knowledgeable expert(s) to discuss the status of environmental permits/authorizations and any updates (correspondence/consultations/meeting summaries) from the Georgia and South Carolina state agencies as well as any Federal agencies (e.g., Section 10 and 404 permit from Army Corps, Federal depredation permit, Georgia DNR Section 401 water quality certification, Georgia DNR general permit for stormwater discharges, state depredation permit). Make available copies of environmental permits/authorizations obtained thus far.	Becky Krieg
AE-3	Provide a knowledgeable expert(s) to discuss the process for reviewing new and significant information in relation to aquatic ecology issues, including fish spawning in the vicinity of the VEGP site, shortnose sturgeon, and freshwater mussels.	Becky Krieg
AE-4	Provide a knowledgeable expert(s) to discuss any changes to the location of the barge slip or any other structures along the river (e.g., cooling water intake structure) and any changes in total acreage and habitats (both aquatic and terrestrial) disturbed.	Becky Krieg
AE-5	Provide a knowledgeable expert(s) to discuss any significant new information concerning dredging of the Savannah River during construction (including the Federal navigation channel (FNC) and between the barge facility and the FNC) and disposal locations of possible dredged material. Make available copies of associated correspondence with regulatory	Becky Krieg

Info Needs #	Information Needed	Responsibility/ Submitted by
	agencies.	
AE-6	Provide a knowledgeable expert(s) to discuss any significant new information regarding the bathymetry of the Savannah River in the vicinity of the intake and barge slip, between the barge slip and the FNC, and within the FNC.	Becky Krieg
AE-7	Provide a knowledgeable expert(s) to discuss any significant new information concerning the status of land clearing activities and stormwater management facilities, especially as they relate to aquatic resources (e.g., Mallard Pond).	Becky Krieg
AE-8	Provide a knowledgeable expert(s) to discuss any significant new projects (both public and private projects) occurring or planned in or along the Savannah River that may contribute to cumulative impact on important species or aquatic habitats	Becky Krieg
AE-9	Provide a knowledgeable expert(s) to discuss any modifications to the design of the cooling water intake structure that have the potential to affect aquatic resources (e.g., flow velocity in the intake canal, intake flow rates, hydraulic zone of influence, blowdown flow rates).	Becky Krieg
S/EJ-	Socioeconomics/Environmental Justice/Cost-Benefit	
S/EJ-1	Provide a knowledgeable expert(s) who can address new and significant information as it applies to the socioeconomic aspects of the region. This includes zoning, infrastructure, housing, transportation, taxes and economy.	Michelle Niemeyer
S/EJ-2	Provide a knowledgeable expert(s) with knowledge of any new outreach activities to various communities in the region.	Michelle Niemeyer
S/EJ-3	Provide contact information in regards to such outreach activities and all references for staff review.	Michelle Niemeyer
CB-1	Provide a knowledgeable expert(s) to address new and significant information as it relates to benefits and costs.	Michelle Niemeyer
CR-	Cultural Resources	

Info Needs #	Information Needed	Responsibility/ Submitted by
CR-1	Make available any consultation correspondence between applicant, Tribes, SHPO and interested parties regarding the COLA, if any.	Ellen Prendergast-Kennedy
CR-2	Make available the MOA that is being developed for impacts to 9BK416 resulting from the intake structure and discuss the status and purpose of MOA and identify the signatories.	Ellen Prendergast-Kennedy
CR-3	Provide a knowledgeable expert(s) to discuss details of the site disturbance in relation to cultural resources surveys and known cultural resources, and to discuss whether new areas need to be disturbed and therefore inventoried for cultural resources. (If so, staff requests a tour to new sites if impacted).	Ellen Prendergast-Kennedy
CR-4	Provide a knowledgeable expert(s) to discuss any change in borrow pit location that may impact cultural resources.	Ellen Prendergast-Kennedy
CR-5	Provide a knowledgeable expert(s) to discuss any change in the location or dimensions of the intake structure and its impact to cultural resources.	Ellen Prendergast-Kennedy
CR-6	Provide a knowledgeable expert(s) to discuss any increase in land acreage to be disturbed and the effect on cultural resources.	Ellen Prendergast-Kennedy
CR-7	Provide a knowledgeable expert(s) to discuss any modifications to the barge slip (including dredging) and the impacts to cultural resources.	Ellen Prendergast-Kennedy
CR-8	Provide a knowledgeable expert(s) to discuss any plans to avoid 9BK423.	Ellen Prendergast-Kennedy

Info Needs #	Information Needed	Responsibility/ Submitted by
MET-	Meteorology	
MET-1	Provide a knowledgeable expert(s) to discuss the new and significant information review for Section 2.3 (Meteorology and Air Quality), including any changes to the EAB, LPZ, or site receptors (nearest garden, goat, cow) that might change the site X/Q's or D/Q's.	Jeremy Rishel
MET-2	Provide a knowledgeable expert(s) to discuss whether there are any changes in expected air-related emissions, either from the cooling towers or supplementary systems, in going to Rev 17 of the DCD.	Jeremy Rishel
RHH-	Radiological Human Health	
RHH-1	Provide a knowledgeable expert(s) that can discuss any significant new information concerning onsite management of LLW, including any plans for an additional radwaste storage facility.	Michael Smith
RHH-2	Provide a knowledgeable expert(s) to discuss any recent revisions to the Offsite Dose Calculation, including any changes that give consideration to the proposed dairy farm to be located approximately 6 miles to the south of the VEGP site.	Michael Smith
RHH-3	Provide a knowledgeable expert(s) to discuss 2006–2008 annual effluent release reports for existing Units 1 and 2 at the VEGP site.	Michael Smith
RHH-4	Provide a knowledgeable expert(s) to discuss how changes from AP1000 DCD Revision 15 to DCD Revision 17 might affect the radiological health analyses for normal operations.	Michael Smith
ACC-	Accidents	
ACC-1	Provide a knowledgeable expert(s) to discuss any changes to the AP1000 design basis accident analyses based on AP1000 DCD Revision 17.	Van Ramsdell
ACC-2	Provide a knowledgeable expert(s) to discuss severe accident consequence assessments based on updated site information and any revisions to severe accident source terms for	Van Ramsdell

Info Needs #	Information Needed	Responsibility/ Submitted by
	AP1000 DCD Revision 17.	
ACC-3	Provide access to the input to and output from a revised severe accident consequence assessment (MACCS runs), if available.	Van Ramsdell
ACC-4	Provide a knowledgeable expert(s) who can discuss possible changes in release category frequency that might be associated with an updated PRA for the AP1000 based on DCD Revision 17.	Van Ramsdell
ACC--5	Provide a knowledgeable expert(s) who can discuss how design changes from AP1000 DCD Revision 15 to DCD Revision 17 might affect the SAMDA analysis.	Van Ramsdell