

Vogtle Electric Generating Plant Combined License Supplement New and Significant Information Site Audit Report May 3-6, 2010

The Vogtle Electric Generating Plant (VEGP), Units 3 and 4 supplement new and significant information (N&SI) site audit was held the week of May 3-6, 2010, 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
Greg Hatchett	Branch Chief, Cultural Resources
Mallecia Sutton	Environmental Project Manager
Nancy Kuntzelman	Terrestrial Ecology

Pacific Northwest National Laboratory (PNNL) Team

Name	Area of Responsibility
Michael Sackschewsky	Team: Lead, Site and Technical Overview, Terrestrial Ecology
Tara O'Neil	Cultural Resources
J. Amanda Stegen	Terrestrial Resources

Contacts with other governmental organizations:

- John Jenson, Georgia Department of Natural Resources (GDNR), Wildlife Resources Division, attended the site audit on 5/4/10.
- Elizabeth Shirk, GDNR Historic Preservation Division, participated via conference call, Tuesday, 5/4/10.
- Jim Ozier, GDNR, Wildlife Resources Division, participated via conference call, 5/5/10.

Southern and Tetra Tech staff

Organization	Name
Southern	Tom Moorer
Southern	Matthew Montz
Southern	Dale Fulton
Southern	Bob Allen
Southern	Paulo Albuquerque
Southern /Georgia Power	Bob Brinkman
Southern/Tetra Tech	Karen Patterson

General Logistics

NRC and PNNL staff traveled to Augusta, GA on May 3, 2010. The supplemental N&SI site audit was held May 4 and May 5, 2010. The supplemental N&SI site audit took place within a classroom at the old administration training building located within the VEGP, Units 1 and 2 protected zones. The meeting room also contained a collection of materials used by Southern to document its new and significant information review pertaining to the proposed license amendment.

Overview of Activities

NRC, PNNL, and Southern staff initially met Tuesday morning, May 4, 2010, to discuss the actions that Southern plans to perform pursuant to the proposed license amendment. Topics discussed included the physical areas that would be affected, the Red-Cockaded Woodpecker Safe Harbor Agreement that affects portions of the affected areas especially in the southern borrow area Notice of Intent (NOI 25), the status of the Pocket Gophers within the northern borrow area NOI 28, recent surveys that had been conducted in these areas and the status of cultural resources in both borrow areas. The group then toured NOI 28 borrow site area Tuesday afternoon and observed the changes that had occurred to NOI 3. This tour included areas where Pocket Gophers had been trapped and where they were released.

Upon return to the hotel Tuesday evening, Mallecia Sutton and Tara O'Neil had a conference call with Ms. Elizabeth Shirk of the GDNR Historic Preservation Division to discuss Southern's proposed actions and the potential need for additional consultation between NRC and the Georgia State Historic Preservation Officer was required.

On Wednesday morning, the group toured the Units 3 and 4 construction site including the Unit 3 excavation and various locations where soil materials were being stockpiled and or processed. The group then took a tour of NOI 25 before returning to the meeting room. Wednesday afternoon was devoted to the examination of Southern's new and significant information review documentation and further discussion of ecological and cultural resource issues.

Nancy Kuntzelman, Mallecia Sutton, Amanda Stegen, Mike Sackschewsky, Bob Brinkman, and Matt Montz had a brief conference call Wednesday afternoon with James Ozier of the GDNR Wildlife Resources Division to discuss the Red-Cockaded Woodpecker Safe Harbor Agreement and the Pocket Gopher relocation efforts.

Summary of Issues or Concerns by Technical Discipline

The site audit focused on the areas of terrestrial and cultural resources. Subject-area specific summaries of the new and significant information audit are provided below.

Terrestrial Ecology

The NRC staff reviewed new and potentially significant terrestrial ecology information specifically related to the six additional areas that Southern identified as sources of additional backfill at the VEGP site. This information was submitted by Southern on March 12, 2010, (Southern 2010, attachment 6). Two NOI areas (NOI 6 and NOI 10) were previously evaluated in the early site permit (ESP) Environmental Impact Statement (EIS) (NRC 2008). The NRC staff focused their May 2010, review on the remaining areas that had not previously been reviewed in the ESP EIS or areas that had been expanded from what was reviewed in the ESP EIS [(a portion of NOI 3, NOI 25, and NOI 28 (originally submitted as NOI 26 and NOI 27)]. The NRC staff reviewed all available reference documents, evaluated site planning maps, conducted a general site tour, and inspected all NOI areas that will be used as sources of additional backfill.

In general, the NRC staff found the process used by Southern for new and significant information to be reasonable and found the applicant's rationale for its determination of new and significant information for terrestrial resources to be consistent with NRC's overall guidance. However, information related to a portion of NOI 3, NOI 25, and NOI 28 is considered by the NRC staff to be both new and potentially significant.

Southern made statements during this audit that the finalization of site plans is ongoing and some of the information concerning construction designs, layout, and resulting disturbances is still subject to change. Small incremental changes are expected to continue as designs are finalized and as construction details evolve. Any major changes to the site plan after the environmental audit should be communicated by Southern to the NRC to allow the agency to determine if further evaluation is warranted.

During the tours around the site, it appeared Southern has implemented the required erosion and storm water control measures. Installation of these measures are covered under a storm water permit issued by the Georgia Environmental Protection Division (EPD), through an individual NOI for each action. Southern indicated that staff from the Georgia EPD visited the VEGP site quarterly to examine erosion control measures and had recently inspected the VEGP site spending three days checking all of the silt fencing. Southern has installed some 23 miles of onsite silt fencing in association with site preparation activities for VEGP, Units 3 and 4. Southern also stated that the area delineated by each NOI will be stabilized with seed mix approved by the Georgia EPD.

As each area is closed out by the onsite contractor, Southern intends to transition each area into the long-term land management plan that will include replanting with Longleaf Pine (*Pinus palustris*), if possible. Southern will provide a narrative to NRC on the intended plans for transition to long-term land management the week of May 10, 2010.

We examined maps depicting the Red-Cockaded Woodpecker Safe Harbor Agreement areas and maps depicting the overall disturbance footprint, including areas NOI 3, NOI 25, and NOI 28. Southern plans to submit maps of all the RCW Safe Harbor Agreement areas on the VEGP site to the NRC the week of May 10, 2010. Southern indicated a total of 268 acres that have not been previously evaluated in the ESP EIS will be temporarily disturbed to obtain backfill. This value is slightly higher than the acreage estimates submitted to the NRC (Southern 2010), due to changes made to the limits of disturbance associated with the erosion and control measures. During the audit, Southern stated they estimate 52 acres of the approximately 900 acres currently enrolled in the RCW Safe Harbor Agreement will be temporarily disturbed during the clearing of areas associated with additional backfill. Currently Southern has no baseline responsibilities under the RCW Safe Harbor Agreement. Southern does not have any active clusters or nest trees onsite, and there are no clusters on neighboring lands within foraging distance. This information is contained in Attachment A of the RCW Safe Harbor Agreement, which Southern plans to submit to NRC the week of May 10, 2010. On May 5, 2010, NRC and Southern held a conference call with Jim Ozier, GDNR, to confirm there are currently no baseline responsibilities associated with the RCW Safe Harbor Agreement at the Vogtle site. Mr. Ozier stated that there are no RCW clusters onsite and RCWs would not be foraging onsite as the closest cluster is on the Savannah River Site approximately 5-6 miles away. In addition, Mr. Ozier stated the RCW Safe Harbor Agreement would not hamper on-site development.

In the March 12, 2010, new and significant submittal, Southern indicated several Southeastern Pocket Gopher mounds had been discovered during a February 2010 environmental walkdown of NOI 28. Southern staff worked with GDNR biologists on a coordinated trapping and relocation effort in March 2010 to move individual Pocket Gophers prior to clearing. Southern plans to submit the relocation plan to NRC the week of May 10, 2010. John Jenson, GDNR, met with NRC staff on May 4, 2010, to discuss the relocation effort. He stated that he knows of very few Pocket Gopher locations in Burke County and although the Southeastern Pocket Gopher is a threatened species in Georgia, it does not have any special protection on private lands under state laws. He noted that private landowners have no responsibility to contact GDNR regarding the presence of state-listed species, and that Southern's efforts to protect the gopher were voluntary. Southern, Georgia Power, and GDNR are discussing the possibility of funding a graduate student to study the Southeastern Pocket Gopher on the Vogtle site.

Details on the Pocket Gopher relocation, the specific estimates for acreages of disturbance at each NOI, and additional information discovered during the NOI tours is described below.

NOI 3

NOI 3 includes 41.6 acres of habitat previously reviewed in the ESP EIS. The area has been expanded and now includes an additional 19.3 acres that will be temporarily disturbed. This additional acreage was not previously evaluated by the NRC staff in the ESP EIS.

During the NOI tours on May 4, 2010, NRC staff viewed the northwest corner of NOI 3. NOI 3 has already been cleared and erosion control measures have been installed. The habitat in the additional 19.3 acres consisted of recently planted longleaf and Slash Pine (*Pinus elliotii*). As shown in Attachment A of the RCW Safe Harbor Agreement, NOI 3 contains two of the tracts in Compartment 1 (tracts E200103 and E200104). E200103 contains approximately 15 acres of 4-year-old Slash Pine and E200104 contains approximately 4 acres of 7-year-old Longleaf Pine. Southern intends to retain these 19 acres in the RCW Safe Harbor Agreement and to replant this area in Longleaf Pine, if possible, once the area has been stabilized and the NOI is closed out.

NOI 28

Southern provided information on NOI 26 and NOI 27 in the March 12, 2010, submittal (Southern 2010). In addition to combining NOI 26 and NOI 27, Southern expanded this area by 23 acres to incorporate the footprint of the existing and new rail lines. This new enlarged area is now identified as NOI 28. A total of 94 acres of recently planted Longleaf Pine (1999 plantings) will be removed at this site. Information on this change will be submitted to NRC the week of May 10, 2010. In February 2010, Southern staff identified several Southeastern Pocket Gopher colonies in NOI 28. Southern contacted Sharon Holbrooks, GDNR, in early March 2010 to discuss a relocation plan for the Southeastern Pocket Gophers. Southern submitted a draft relocation plan to GDNR on March 4, 2010. Southern submitted the revised relocation plan to GDNR on March 11, 2010, after incorporating GDNR comments. GDNR and Southern met at the site the week of March 8, 2010, to trap and relocate the Pocket Gophers. Southern trapped and relocated three female Pocket Gophers during the trapping effort. These three Pocket Gophers were moved to an onsite location on the northern part of the property within the RCW Safe Harbor Agreement area. This area was chosen by Southern and approved by GDNR because it is known to contain Southeastern Pocket Gophers. Southern has been monitoring the specific location where Pocket Gophers were trapped in NOI 28 to ensure there is not continued ongoing gopher activity. In addition, Southern is monitoring the relocation area weekly for new mounding activity. Southern plans to share data on relocation efforts with GDNR. On April 28, 2010, Southern completed another walkdown of NOI 28 to look for RCWs, their cavity trees, and any other environmental issues. They found 20-30 previously undiscovered Pocket Gopher mounds in the southwestern portion of NOI 28. Southern indicated they intend to try to trap and relocate these gophers prior to clearing this site.

On May 4, 2010, NRC staff, John Jenson, GDNR, and Southern personnel visited NOI 28. During the walkdown of this site, we visited the areas where the Pocket Gophers had been trapped. There were no new mounds in the area and it appeared the trapping effort was successful. Mr. Jenson pointed out several sandhills milkvetch (*Astragalus michauxii*) plants, a Georgia state threatened species in the southwestern portion of NOI 28, northeast of the Pocket Gopher trapping location. Southern indicated they plan to call Tom Patrick, GDNR Botanist, to discuss potential relocation of the plants prior to clearing. In addition, we found an active Chuck-will's-widow (*Caprimulgus carolinensis*) nest containing two eggs. Southern staff stated that they will not clear the area until the young have fledged in accordance with the Migratory Bird Treaty Act. Southern also indicated they will revise the critical environmental area procedures to include stop work procedures if a bird's nest is observed during work activities that may affect nesting birds.

Southern intends to provide a narrative to NRC the week of May 10, 2010, to describe how they will handle the newly discovered state threatened plant and the active bird nest in NOI 28. This NOI does not include any areas included in the RCW Safe Harbor Agreement.

NOI 25

Southern indicated that a total of 140 acres of habitat would be removed at this location in their March 12, 2010, submittal. During the audit discussions with Southern, this total was revised to 154 acres. The revision was based on the stormwater erosion control plan for NOI 25 that was submitted to the Georgia EPD. This area includes 43 acres of Longleaf Pine planted in 1956, 78- acres of planted Loblolly Pine (*Pinus taeda*), 15 acres of Longleaf Pine planted in 1963, and 18 acres of Longleaf Pine planted in 2000. In its March 12, 2010, submittal (Southern 2010) Southern stated that 18 acres of the recently planted Longleaf Pine (2000 planting) currently enrolled in the RCW Safe Harbor Agreement would be removed at this site. After review of the NOI and RCW Safe Harbor Agreement maps at the site audit, Southern revised this value to include an additional 15 acres of planted Longleaf Pine (1963 planting). Both of these tracts are in Compartment 5 of the RCW Safe Harbor Agreement. The 18-acre tract is shown as E200555 and the 15-acre tract is part of E200503. Southern intends to keep these 33 acres in the RCW Safe Harbor Agreement and to replant this area in Longleaf Pine, if possible, once the area has been stabilized and the NOI is closed out.

On May 5, 2010, NRC staff and Southern personnel visited NOI 25 and conducted a walkdown of the eastern half of this area, including both tracts (E200555 and E200503) currently enrolled in the RCW Safe Harbor Agreement that will be altered and 43 acres of Longleaf Pine planted in 1956. The Longleaf Pine in this NOI appeared to be with a DBH of less than 10 inches. Currently, the habitat does not appear adequate to support nesting RCWs. No Federal or state-listed threatened or endangered species were encountered on the walkdown.

During the close-out of this new and significant information environmental audit, the NRC staff determined that no additional information will be requested by the NRC staff to complete its current environmental review provided Southern submits to the NRC the requested follow-up information documented in this audit report. Any future revisions to the site disturbance footprint submitted by Southern to the NRC may warrant a new N&SI environmental review.

Cultural Resources

The NRC staff reviewed new information submitted on March 12, 2010, by Southern for Vogtle Electric Generating Plant Units 3 and 4 Combined License Application - Supporting Information for Environmental Report Review (Southern 2010).

The new information consisted of the applicant acquiring backfill material from areas not previously analyzed by the NRC staff. The new on-site backfill areas include NOI-3, NOI-25, and NOI-28. NOI-28 was formally known as NOI-26 and NOI-27 and has now been combined and called NOI-28. All areas are within the site boundary of the Vogtle plant and are within the area of potential effect (APE) for the cultural resources analysis.

The NRC staff participated in a tour to ground truth the areas identified by the applicant to be impacted by its backfill operations in order to evaluate potential impacts to known cultural resources.

- NOI-3 – This area is known as the strip pile area and 41.6 acres of this area was included in the ESP analysis. NOI-3 will be increased by an additional 19.3 acres that will be disturbed. This area is within the APE for cultural resources and was included in previous cultural resource studies (New South Associates 2006a and b). There are no known cultural resources in the NOI-3 area and this area is not considered to be a sensitive area with regard to cultural resources.
- NOI-25 – This area is known as the former borrow area 1C. This area is within the APE for cultural resources and was included in previous cultural resource studies (New South Associates 2006a). There are no known cultural resources in the NOI-25 area and this area is not considered to be a sensitive area with regard to cultural resources.
- NOI-28 – This NOI is made up of the areas north and south of the rail spurs and now encompasses NOI-26 and NOI-27. This area is within the APE for cultural resources and was included in previous cultural resource studies (New South Associates 2006a and 2006b). Known cultural resources occur within this area and include 9BK415, 9BK22, 9BK414 and 9BK21. A brief summary of the resources are described below from New South Associates 2006a:

9BK415 – is an early to late 20th century house site located on the side slope of a ridge. The test pits revealed debris approximately 200 by 200 feet in size. Artifacts include roofing tin, clothing, light fixtures, concrete, brick, enameled tin-ware, car parts, and white-ware. The site lacks features, is eroded, and is less than 50 years old. The area has been clear-cut and addressing any significant research questions is unlikely. Therefore, site 9BK415 is recommended as not eligible for inclusion in the National Register of Historic Places. The SHPO concurred with this finding by letter (GDNR 2007).

9BK22 – the test pits revealed one artifact and consisted of a late Paleo-Indian/Early Archaic Hardaway/Dalton point.

9BK414 - is a late 19th to early 20th century house site located on a ridge knoll. This may be the W.M. Buxton house, which shows up in this vicinity on a 1909 map of Burke County. It was identified in regular interval shovel testing. Surface trash piles consisted of roofing tin, bed springs, and a few fragments of bottle glass and ceramics. Kitchen related artifacts consisted of two pieces of refined earthenware with blue exterior and white interior, two plain white granitewares, and one red green and purple transfer printed ware, two pieces of amethyst glass and several other types and colors of glass. A machine cut glass bottle was found and dated 1925-1938. The amethyst glass is dated between the 1880s and 1917. Three wire nails were discovered and generally date around the 1880s. Disturbance to the site appears to be great and it is likely that whatever structure was here was raised and removed; the surrounding area has been clear cut and replanted in pines. The site lacks intact above ground architectural features and no subsurface midden deposits were found, addressing any significant research questions is unlikely.

Therefore, site 9BK414 is recommended as not eligible for inclusion in the National Register of Historic Places. The SHPO concurred with this finding by letter (GDNR 2007). Addressing

9BK21 – the test pits revealed a Middle Mississippian Madison type point and a chert flake. The NRC/PNNL teams reviewed and evaluated the applicant's new and significant analysis to determine whether additional information may be requested to complete its environmental review. No additional information is needed for the cultural resources assessment from the applicant.

The applicant did not have discussions with the SHPO regarding the new information areas NOI-3, NOI-25, and NOI-28.

The applicant stated that procedures were put in place and are being followed with regard to pre-construction and construction activities that would identify measures that would need to be taken if historic or cultural resources are discovered during ground disturbing activities.

The applicant made statements during the new information 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 that affect more sensitive portions of the VEGP site could impact known cultural resource sites that are eligible for the National Register of Historic Places.

NRC/SHPO Conference Call – Tuesday, May 4, 2010 at 4:50 pm

Attendees: Mallecia Sutton (NRC), Tara O'Neil (PNNL), and Betsy Shirk (GDNR-SHPO)

- The NRC staff discussed the environmental audit for new information and explained that the NOI-3, NOI-25, and NOI-28 backfill areas were included in the APE for the proposed action. These areas are not located in culturally sensitive areas. There are no eligible or potentially eligible properties located within NOI-3, NOI-25 and NOI-28 backfill areas. The SHPO was satisfied with the NRC assessment of the new information and agreed that the APE has been studied and is well known with regard to cultural resources. The SHPO asked if NRC would be documenting the Section 106 process of the National Historic Preservation Act (NHPA) through the National Environmental Policy Act (NEPA) process. NRC will continue to comply with Section 106 through the NEPA process and include this analysis within the supplemental EIS. NRC and SHPO agreed on the approach forward. NRC and SHPO agreed that the SHPO did not need to visit the Vogtle site to tour and review documents on May 5, 2010, based on the NRC assessment that these new areas were within the APE and previously surveyed and studied. The SHPO was available and willing to travel, if needed.

Documents Requested

No documents were taken from the site audit. However, the NRC staff requested several documents that Southern indicated it could provide for the docket during the week of May 10, 2010. These documents included:

- 1) A map showing all of the various NOI areas and overall disturbance area on the VEGP site.
- 2) The Southeastern Pocket Gopher relocation plan that Southern developed in cooperation with the GDNR.
- 3) A written narrative covering the following topics:
 - a. General long-term stabilization restoration plans for the affected areas
 - b. Plans for revising critical area procedures to include migratory birds
 - c. How Southern plans to address impacts to a new State-threatened plant species identified in NOI 28.
- 4) A revised cooling system intake structure drawing or CAD files of the drawing that was included in Southern's Clean Water Act Section 404 permit application submitted to the Army Corps of Engineers. *[this is not specifically related to the proposed license amendment, but is a follow-on from previous requests]*

References

Georgia Department of Natural Resources (GDNR) 2007. Georgia Department of Natural Resources, Early Site Permit – Draft EIS Vogtle Electric Generating Plant. Letter from Georgia Department of Natural Resources to U.S. Nuclear Regulatory Commission. December 27, 2010, Accession No. ML080070095.

New South Associates (NSA) 2006a. Intensive Archaeological Survey of the Proposed Expansion Areas at the Vogtle Electric Generating Plant

New South Associates (NSA) 2006b. Addendum Report: Intensive Archaeological Survey of Proposed Expansion Areas at the Vogtle Electric Generating Plant: Borrow Pit Area

SOUTHERN (Southern) 2010. Vogtle Electric Generating Plant Units 3 and 4 Combined License Application - Supporting Information for Environmental Report Review Accession No. ML100750038.

U.S. Nuclear Regulatory Commission (NRC). 2008. *Final Environmental Impact Statement for an Early Site Permit (ESP) at the Vogtle Electric Generating Plant Site. Main Report*. NUREG-1872, Vol. 1, Washington, D.C