

UNITED STATES NUCLEAR REGULATORY COMMISSION  
SOUTHERN NUCLEAR OPERATING COMPANY ET AL.  
DOCKET NO. 52-011  
VOGTLE ELECTRIC GENERATING PLANT ESP SITE  
EARLY SITE PERMIT AND LIMITED WORK AUTHORIZATION  
ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

By letter dated April 20, 2010, Southern Nuclear Operating Company, Inc. (“SNC” or “applicant”), on behalf of itself and the co-owners of the Vogtle Electric Generating Plant (VEGP), submitted a license amendment request (LAR) to amend the Early Site Permit (ESP) and Limited Work Authorization (LWA) that was issued to SNC and the same co-applicants on August 26, 2009, for the VEGP site. The LAR was supplemented by letters dated April 23, 2010; April 28, 2010; May 5, 2010; and May 13, 2010. In particular, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 52.39(e), the request seeks to amend the ESP Site Safety Analysis Report (SSAR) to allow the use of Category 1 and 2 backfill material obtained from additional onsite borrow areas that were not previously approved for use in the limited construction activities authorized under the ESP LWA. Accordingly, the U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an amendment that would authorize SNC to obtain additional sources of Category 1 and Category 2 backfill material at locations on the VEGP site other than the three borrow areas specified in the Site Safety Analysis Report (SSAR). By letter dated May 13, 2010, the applicant requested that the NRC consider issuing a limited scope approval (LSA) of a subset of onsite locations pending the NRC determination on the remainder of the borrow sources identified in the LAR. The applicant noted that the borrow

sources that would be encompassed by this limited scope approval are in areas for which impacts were previously analyzed in the environmental review documented in NUREG 1872, Vol. 1, "Final Environmental Impact Statement for an Early Site Permit (ESP) at the Vogtle Electric Generating Plant Site" (ESP FEIS) (NRC 2008). In response to this request, the staff intends to issue its technical evaluation of the requested LSA prior to making a determination regarding the entire LAR. Under 10 CFR 51.21, Criteria for and Identification of Licensing and Regulatory Actions Requiring Environmental Assessments, the NRC has prepared an environmental assessment (EA) evaluating the impacts associated with the LSA sought under the proposed amendment. Based on this EA, the NRC has reached a Finding of No Significant Impact.

## ENVIRONMENTAL ASSESSMENT

### Background:

In August 2009, the NRC issued an early site permit (ESP) and limited work authorization (LWA) to SNC and several co-applicants for the VEGP site in Burke County, Georgia. An ESP is an NRC approval of a site suitable for construction and operation of one or more new commercial nuclear reactors. An LWA, which may be requested as part of an ESP application authorizes the commencement of limited safety-related construction activities with prior approval of the Commission. The NRC's detailed review of the environmental impacts of constructing and operating two new units (Units 3 and 4) at the VEGP ESP site is documented in NUREG-1872, Vol. 1, "Final Environmental Impact Statement for an Early Site Permit (ESP) at the Vogtle Electric Generating Plant Site" (ESP FEIS) (NRC 2008). Southern submitted an application in April 2008 for combined licenses (COLs) for proposed Units 3 and 4; as permitted by NRC regulations, the COL application references the VEGP ESP. The COL application has been docketed and is still under NRC review.

The ESP LWA issued for the VEGP site authorized SNC to undertake the following safety-related construction activities:

- Installation of engineered backfill
- Installation of retaining walls (mechanical stabilized earth walls)
- Installation of lean concrete backfill
- Installation of mudmats
- Installation of waterproof membrane

SNC started performing limited safety-related construction activities at the VEGP site in March 2010 as authorized by the LWA. Based on the excavations performed since the start of the LWA activities, the applicant has determined that the onsite borrow sources described in the ESP SSAR will not provide sufficient quantities of Category 1 and 2 backfill to complete the permitted activities. Pursuant to 10 CFR 52.39(e), the holder of an ESP may not make changes to the ESP, including the SSAR, without prior Commission approval. In accordance with 10 CFR 52.39(e) and 10 CFR 50.90, SNC submitted a LAR to acquire borrow material from areas not previously identified in the ESP SSAR.

Identification of the Proposed Action:

The proposed action, as described in the SNC request for the amendment in accordance with 10 CFR 50.90, would allow SNC to use backfill for its LWA activities that would be obtained from additional borrow sources not previously described in the ESP SSAR or approved by the NRC. SNC has identified localized deposits of suitable material within the Barnwell Group of the Upper Sand stratum located within the VEGP site.

On May 13, 2010, Southern supplemented its April 20, 2010, LAR to request a “limited scope approval” (LSA) of a subset of the borrow locations identified in the LAR. Although the onsite areas to which the LSA request is limited were not identified in the ESP SSAR or evaluated in the NRC staff’s ESP safety review as potential sources of backfill, they were

previously identified and evaluated in the ESP FEIS as areas that would be affected by activities associated with building Units 3 and 4. These selected areas are described in the LSA request and in the ESP FEIS as follows:

- Cooling Tower
- Temporary Parking
- Temporary Warehouse, Office, and Laydown
- Spoils Areas.

Under SNC's request for an LSA for the additional backfill sources, the applicant would seek to recover suitable backfill material from those locations to support the backfill-placement activities previously authorized by the ESP LWA.

Need for the Proposed Action:

As stated in SNC's amendment request, the LSA portion of the proposed amendment in accordance with 10 CFR 50.90 is needed because, based on current estimates of suitable backfill material recovered from the three borrow areas identified in the ESP SSAR, additional borrow sources are necessary to complete the previously authorized LWA activities.

Environmental Impacts of the Proposed Action:

In August 2008, as part of its review of the ESP and LWA application, the NRC issued a detailed review of the direct, indirect, and cumulative environmental impacts of constructing and operating proposed Units 3 and 4 at the VEGP site. The evaluation of the environmental impacts associated with building VEGP, Units 3 and 4 is documented in the ESP FEIS, particularly in Chapters 4 and 7. Those chapters evaluated environmental impacts anticipated to the areas that are now proposed in the LSA request as sources of onsite backfill and addressed in this EA (cooling towers, temporary parking, temporary warehouse, office, laydown and spoils area). Given that the LSA requests separate approval of a subset of the locations described by the LAR, this EA separately evaluates the activities associated with acquiring

additional backfill from those onsite borrow sources and summarizes the radiological and non-radiological environmental impacts that may result from granting the LSA portion of the amendment request. The details of the NRC staff's safety review of the LSA request will be provided in the safety evaluation document associated with that determination. The NRC staff will prepare a separate safety evaluation and environmental assessment to document its determination on the remaining backfill sources encompassed by the LAR.

### DESCRIPTION OF THE SITE

The VEGP site is located in rural Burke County, Georgia, approximately 42 km (26mi) southeast of Augusta, Georgia. As evaluated in the ESP review, VEGP, Units 3 and 4 would be located within the VEGP site, adjacent to the existing VEGP, Units 1 and 2. The center line of the proposed VEGP, Units 3 and 4 would be located approximately 640 m (2100 ft) west and 120 m (400 ft) south of the center of the Unit 2 containment building. Unit 4 would be located approximately 244 m (800 ft) west of Unit 3. The VEGP site is generally bounded by River Road, Hancock Landing Road, and the Savannah River. The VEGP site occupies approximately 1285.5 hectares (ha) [3169 acres (ac)] of land, and it is located directly across the Savannah River from the U.S. Department of Energy's (DOE's) Savannah River Site (ESP FEIS) (NRC 2008).

### NONRADIOLOGICAL IMPACTS

#### *Land Use Impacts*

The staff analyzed land-use impacts associated with site preparation and construction activities for the proposed VEGP, Units 3 and 4, including ground disturbing activities at the VEGP site, in the ESP FEIS. In the FEIS, the staff determined that the land use impacts associated with building the two new units would not be detectable or would be so minor that they would neither destabilize nor noticeably alter any important attribute of the resource.

NRC staff reviewed the environmental evaluation for additional onsite borrow areas submitted by SNC in support of the LSA on May 13, 2010 (ML101340649). In this submittal, SNC noted that the environmental impacts of activities requested under the LWA as related to the additional borrow areas (cooling towers; temporary parking; temporary warehouse, office, and laydown; and spoils area) are consistent with and bounded by the analysis and conclusion contained in the ESP FEIS.

Based on the information provided by SNC and the NRC staff's independent analysis in the ESP FEIS, the NRC staff concludes that any land use impacts of site preparation and construction activities associated with the borrow areas identified in the LSA would be encompassed (in location as well as intensity) by impacts to those areas that were previously analyzed and documented in the ESP FEIS and determined not to be significant or destabilizing to the resource. Therefore, there would be no significant land use impact associated with the acquisition of Category 1 and 2 backfill material from these borrow sources on the VEGP site.

#### Surface and Groundwater Impacts

In the ESP FEIS, the staff analyzed the effects of site preparation and construction activities for VEGP, Units 3 and 4 on surface water and groundwater. As noted in the ESP FEIS, during construction of VEGP Units 3 and 4, SNC would be required to implement environmental controls as specified in its Clean Water Act authorizations and employ best management practices (BMPs) during site preparation and construction activities. The impacts of hydrological alterations resulting from construction activities would be localized and temporary, and the National Pollutant Discharge Elimination System (NPDES) storm water permits, Section 401 Certification, and U.S. Army Corps of Engineers (USACE) permit would minimize impacts (ESP FEIS) (NRC 2008).

Accordingly, the staff determined that the surface water and groundwater impacts associated with building the two new units would not be detectable or would be so minor that they would neither destabilize nor noticeably alter any important attribute of the resource.

SNC stated in its May 13, 2010, submittal (ML101340649) to the NRC that the borrow areas proposed for excavation to acquire additional material are currently covered under SNC's NPDES permit for construction storm water. Excavations for backfill materials would not intersect the water table, and the excavation would not require dewatering; thus, impacts to groundwater resources would be negligible (ML101270283). The activities contemplated by the LSA request are consistent with those evaluated in the ESP FEIS, would likewise be localized and temporary, and would not result in additional impacts to water resources. Therefore, the conclusions reached in the FEIS with respect to surface water and groundwater remains bounding and valid for the LSA activities.

Based on the information provided by SNC and the control measures that would be employed during site preparation and construction activities on the VEGP site, the NRC staff concludes that acquisition of the additional onsite backfill would not result in significant impacts to surface and groundwater quality.

#### *Terrestrial Resources Impacts*

In the Vogtle ESP FEIS, the NRC staff analyzed impacts to terrestrial resources, including wildlife habitat, wetlands, and important species, from building the proposed VEGP Units 3 and 4. The staff determined that the impacts to terrestrial resources associated with building the two new units would not be detectable or would be so minor that they would neither destabilize nor noticeably alter any important attribute of the resource.

NRC staff reviewed the environmental evaluation for additional onsite borrow areas submitted by SNC on May 13, 2010 (ML101340649). In this submittal, SNC noted that the impacts from LSA activities occurring in the locations of the cooling towers; temporary parking;

temporary warehouse, office, laydown; and spoils areas are consistent with and bounded by the analysis and conclusion contained in the ESP FEIS.

Based on the information provided by SNC and the NRC analysis in the ESP FEIS, the staff concludes that site preparation and construction activities at these locations have already been analyzed and documented in the ESP FEIS, and that the terrestrial resource impacts of activities that would be conducted pursuant to the LSA request are consistent with the impacts previously examined and found not to be significant. Therefore, there would be no significant impact to terrestrial resources from acquiring backfill from the locations on the VEGP site identified in the LSA request.

#### *Aquatic Resources Impacts*

In the Vogtle ESP FEIS, the NRC staff analyzed impacts to aquatic resources from building the proposed VEGP Units 3 and 4. The staff considered impacts to onsite aquatic resources from erosion and sedimentation associated with site storm water management, but noted SNC's storm water drainage management plans and its planned use of BMPs to minimize erosion impacts. The staff determined that the impacts to aquatic resources associated with building the two new units would not be detectable or would be so minor that they would neither destabilize nor noticeably alter any important attribute of the resource.

Based on the information provided by SNC and the NRC analysis in the ESP FEIS, the staff concludes that site preparation and construction activities at the proposed borrow locations have been previously analyzed and documented in the ESP FEIS, and that the aquatic resource impacts of activities that would be conducted pursuant to the LSA request are consistent with the impacts previously examined and found not to be significant. Therefore, there would be no significant impacts to aquatic resources associated with acquiring backfill from the locations on the VEGP site identified in the LSA request.

### Threatened and Endangered Species Impacts

In the Vogtle ESP FEIS, the NRC staff evaluated the potential for construction-related impacts to State- and Federally-listed threatened and endangered species from building the proposed Vogtle Units 3 and 4. No State-listed plant or animal species or animal were known to occur on the VEGP site within the onsite backfill borrow areas identified in the LSA request. With the exception of the American alligator (*Alligator mississippiensis*), no Federally listed threatened or endangered species are known to occur at the VEGP site. As described in the FEIS, an alligator has previously been observed in Mallard Pond on the VEGP site; however, alligators appear to be relatively common in the Savannah River near and on the VEGP site, and construction impacts on alligators, would be considered to be negligible because any displacement would be temporary and there is ample wetlands habitat in the region. That conclusion covers impacts from disturbance of the onsite areas identified in the LSA request; accordingly, no additional significant impacts to alligators are anticipated. In addition, no critical habitat for threatened and endangered species would be impacted as a result of the site preparation and construction activities associated with the excavation of the additional backfill identified in the LSA request.

In 2007, as part of the NRC's responsibilities under Section 7 of the Endangered Species Act, the NRC staff prepared a Biological Assessment (BA) (NRC 2007) for submission to the U.S. Fish and Wildlife Service (USFWS) evaluating potential impacts on threatened and endangered species. The NRC staff determined in the BA that limited site-preparation activities for the proposed VEGP Units 3 and 4 would not be likely to adversely affect any Federally-listed species. The USFWS concurred with this determination on September 19, 2008 (USFWS 2008).

Based on the NRC staff's review, including previous consultation with the FWS and the analysis done in the ESP FEIS, obtaining backfill from the locations specified in the LSA request

is not expected to alter terrestrial or aquatic habitat in a manner different from that previously analyzed and found not to be significant. Therefore, the NRC staff concludes that there would be no significant impacts to State or Federal threatened or endangered species associated with acquiring backfill from the locations on the VEGP site identified in the LSA request.

#### *Socioeconomic Impacts and Environmental Justice*

In the Vogtle ESP FEIS, the NRC staff evaluated the potential socioeconomic impacts associated with the construction of two new units (Units 3 and 4) at the VEGP site. As described in the ESP FEIS, SNC estimated a workforce of 3400 workers during peak construction. The staff determined that for most aspects of its socioeconomic analysis, the impacts associated with building the two new units would not be detectable or would be so minor that they would neither destabilize nor noticeably alter any important attribute of the resource. The staff found that there would be a noticeable but not destabilizing effect on traffic along River Road near the VEGP site as a result of activities supporting the building of the new units.

As stated in SNC May 13, 2010 (ML#101340649), the LAR activities are consistent with those evaluated in the ESP FEIS and would have no additional impact to socioeconomics. The activities requested by the LSA would not necessitate any additional workforce above that estimated in the ESP FEIS and would occur concurrently with other site preparation activities previously evaluated. Accordingly, the staff concludes that the socioeconomic impacts of activities that would be conducted pursuant to the LSA request are consistent with the impacts previously examined in the ESP FEIS and found not to be significant. With respect to the traffic impacts along River Road evaluated in the ESP FEIS, the staff concludes that the impacts associated with the LSA activities would represent a minor fraction of those impacts and would not have any additional cumulative significance. Based on the above information, the NRC staff

concludes that there would be no significant socioeconomic impacts associated with acquiring backfill from the locations on the VEGP site identified in the LSA request.

In the Vogtle ESP FEIS, the staff conducted an environmental justice impacts analysis to evaluate the potential for disproportionately high and adverse human health and environmental effects on minority and low-income populations that could result from the construction and operation of two new units at the VEGP site. Based on that review, the staff found no significant environmental justice impacts. As discussed in this EA, the impacts of activities contemplated by the LSA request are consistent with the impacts of the activities already analyzed in the ESP FEIS and do not increase the potential for adverse or disproportionate impacts on minority and low-income populations. Accordingly, the staff concludes that there would be no disproportionately high and adverse impacts to minority and low-income populations associated with acquiring backfill from the locations on the VEGP site identified in the LSA request.

#### *Cultural and Historic Resources Impacts*

In the Vogtle ESP FEIS, the NRC staff evaluated the potential impacts to cultural and historic resources associated with the construction of two new units (Units 3 and 4) at the VEGP site. As described in the ESP FEIS, cultural resource identification efforts within the area of potential effect (APE) indicated the presence of 17 archaeological sites; only two are eligible for listing in the National Register of Historic Places. Two other sites are potentially eligible (9BK419 and 9BK420). The two eligible sites (9BK416 and 9BK423) are located adjacent to the proposed facilities. Based on the result of the cultural resource investigations (including testing) and consultation with SNC, the Georgia State Historic Preservation Officer (SHPO), determined that the proposed project (construction of Units 3 and 4 at VEGP) would affect site 9BK416, but not adversely. SNC and the Georgia SHPO entered into a Memorandum of Understanding (MOU) to preserve the balance of site 9BK416 and to conduct further investigation within the area as directed by Georgia SHPO. Accordingly, the staff found that there would be a

noticeable but not destabilizing effect on historic and cultural resources as a result of activities supporting the building of the new units.

With respect to the activities associated with the LSA request, there would be no disturbance in the areas where sites 9BK419 and 9BK420 are located, and as a result there would be no adverse affect to these resources. The two sites are located within the APE, but are outside the ground disturbance footprint for the activities proposed by the LSA request.

SNC has procedures in place to ensure the protection of undiscovered historic or archaeological resources if discovered during project activities. The onsite backfill locations identified in the LSA request are not in culturally sensitive areas and were included in the cultural resource investigations and consultations with the Georgia SHPO concerning the APE. Additionally, the areas proposed to be impacted by the LAR activities were previously disturbed by the construction of VEGP Units 1 and 2. Therefore, the staff concludes the LSA request would have no adverse effect on historic properties.

#### *Air Quality Impacts*

In the Vogtle ESP FEIS, the NRC staff evaluated the potential impacts to air quality associated with the construction of two new units (Units 3 and 4) at the VEGP site. Site preparation and construction activities at the VEGP site, including excavation of onsite backfill materials, would result in temporary impacts on local air quality from vehicle and construction equipment emissions from fugitive dust. The Air Protection Branch of the Georgia Department of Natural Resources (GaDNR) Environmental Protection Division, which regulates air-quality control for the State of Georgia, does not require a permit for dust generated by construction activities. As stated in the ESP FEIS, SNC stated that it would develop a dust-control plan prior to construction that would include specific dust-mitigation measures. Emissions from site preparation and construction activities would be based on the level and duration of a specific activity, but the impact would be expected to be temporary and limited in magnitude (ESP FEIS,

NRC 2008). Accordingly, the staff determined in the ESP FEIS that the impacts to air quality associated with building the two new units would not be detectable or would be so minor that they would neither destabilize nor noticeably alter any important attribute of the resource.

Based on the information provided by SNC and the NRC analysis in the ESP FEIS, the staff concludes that site preparation and construction activities at the proposed borrow locations have been previously analyzed and documented in the ESP FEIS, and that the air quality impacts of activities that would be conducted pursuant to the LSA request are consistent with the impacts previously examined and found not to be significant. Therefore, there would be no significant impacts to air quality associated with acquiring backfill from the locations on the VEGP site identified in the LSA request.

#### *Non-radiological Health Impacts*

In the Vogtle ESP FEIS, the NRC staff evaluated the potential non-radiological health impacts associated with the construction of two new units (Units 3 and 4) at the VEGP site. Non-radiological health impacts to the public and workers from the proposed action would include exposure to fugitive dust, vehicle and construction equipment exhaust, occupational injuries, noise, and the transport of materials and personnel to and from the VEGP site. The staff determined in the ESP FEIS that the non-radiological health impacts associated with building the two new units would not be detectable or would be so minor that they would neither destabilize nor noticeably alter any important attribute of the resource.

Based on the information provided by SNC and the NRC analysis in the ESP FEIS, the staff concludes that site preparation and construction activities at the proposed borrow locations have been previously analyzed and documented in the ESP FEIS, and that the non-radiological health impacts of activities that would be conducted pursuant to the LSA request are consistent with the impacts previously examined and found not to be significant. Therefore, there would be

no significant non-radiological health impacts associated with acquiring backfill from the locations on the VEGP site identified in the LSA request.

#### Non-radioactive Waste Impacts

In the Vogtle ESP FEIS, the NRC staff evaluated the potential non-radiological waste impacts associated with the construction of two new units (Units 3 and 4) at the VEGP site. The nonradioactive waste impacts the staff evaluated included impacts to land, water, and air. Regulated practices for managing air emissions from construction equipment and temporary stationary sources, BMPs for controlling fugitive dust, and vehicle inspection and traffic management plans would minimize impacts to air. With the aforementioned controls in place, the staff found that impacts of non-radioactive waste from the construction of Units 3 and 4 would not be significant.

Based on the information provided by SNC and the NRC analysis in the ESP FEIS, the staff concludes that site preparation and construction activities at the proposed borrow locations have been previously analyzed and documented in the ESP FEIS, and that the non-radiological waste impacts of activities that would be conducted pursuant to the LSA request are consistent with the impacts previously examined and found not to be significant. Therefore, there would be no significant non-radiological waste impacts associated with acquiring backfill from the locations on the VEGP site identified in the LSA request

#### SUMMARY OF NON-RADIOLOGICAL IMPACTS

The staff has reviewed the potential non-radiological impacts that would occur as a result of the activities proposed in the LSA request and finds that the effects are consistent with the analysis and conclusion in Chapter 4 and Chapter 7 of the ESP FEIS. Therefore the staff concludes that approving the LSA request would not result in significant changes in impacts to land use, surface and groundwater resources, terrestrial and aquatic resources, threatened and

endangered species, socioeconomic factors and environmental justice, cultural and historical resources, air quality, non-radiological human health and non-radioactive waste.

## RADIOLOGICAL IMPACTS

### *Radiological Health Impacts*

In the Vogtle ESP FEIS, the NRC staff evaluated the potential radiological health impacts associated with the construction of two new units (Units 3 and 4) at the VEGP site. The source of radiation exposure for construction workers include direct radiation exposure from liquid radioactive waste discharges, and exposure from gaseous radioactive effluents from the existing VEGP Units 1 and 2 during site preparation and construction of VEGP Units 3 and 4. In Chapter 4 and Chapter 7 of the ESP FEIS, the NRC staff reviewed SNC estimates of dose to workers during site preparation and construction activities, and found the doses to be well within the NRC annual exposure limits (i.e. 1mSv [100mrem]) designed to protect the public health, even if workers exceed an occupancy rate of 2080 hr/yr. The activities proposed under the LSA request would be a minor fraction of the overall construction activities for the proposed Units 3 and 4 and worker doses would accordingly be expected to remain well within the applicable exposure limits. Therefore, the NRC staff concludes that radiological impacts to construction workers as a result of the LSA request would be negligible.

### SUMMARY OF RADIOLOGICAL IMPACTS

The activities associated with obtaining backfill from the locations specified in the LSA request would not result in a significant increase in occupational radiation exposure compared to the exposures previously evaluated in the ESP FEIS and found not to be significant. The staff has reviewed the potential radiological health impacts that would occur as a result of the LSA activities and found that the analyses of radiological health impacts prepared in the ESP FEIS for the full range of site preparation and construction activities are bounding. Therefore,

the NRC staff concludes that granting the proposed amendment would not result in changes to the radiological health impacts described within the ESP FEIS and found not to be significant.

#### Alternatives to the Proposed Action

As an alternative to the proposed action, the NRC staff considered denial of the proposed amendment (i.e., the “no-action” alternative). Denial of the amendment request would avoid the minimal environmental impacts described in this EA. However, for the reasons already stated, the LSA request is limited to disturbance of areas expected to be affected by site preparation activities that were previously evaluated in the ESP FEIS. If NRC were to deny the amendment request, SNC would still need to obtain the quantities of material necessary to complete backfill of the VEGP Units 3 and 4 power-block excavations.

Other possible alternatives to the proposed action would be the use of other onsite or offsite borrow sources. If sufficient quantities of suitable backfill material are not acquired from the onsite sources specified in the LSA request, SNC would need to obtain backfill material from other onsite or offsite borrow sources. However, since the quantity of backfill needed remains unchanged regardless of the source from which it is obtained, the land area (and associated land disturbance) needed to obtain the material from another onsite or offsite source would be comparable to that of the requested onsite sources. Since the areas proposed under the LSA request are ones where land disturbance was already anticipated (as evaluated in the ESP FEIS), the staff concludes that it is unlikely that the use of other onsite sources would be environmentally preferable to the sources defined in the LSA request. Additionally, with respect to the offsite source alternative, SNC would need to demonstrate that backfill obtained offsite would have the same properties that were the basis for approving the onsite sources specified in the ESP SSAR. Furthermore, if suitable material is extracted from such an offsite source, it would have to be transported to the VEGP ESP site. Even assuming any additional impacts associated with transporting material to the VEGP site would be minimal, the staff concludes

that use of offsite borrow sources is unlikely to be an environmentally preferable alternative to the sources defined in the LSA request.

#### Agencies and Persons Consulted

The NRC staff consulted with a number of Federal, State, regional, Tribal, and local organizations regarding the environmental impacts of granting the ESP and LWA, which included the environmental impacts of site preparation activities associated with the areas from which the applicant proposes to obtain backfill under the LSA request. A complete list of organizations contacted can be found in the ESP FEIS (NRC 2008). Furthermore, in support of its review of the LAR, including the LSA request, the NRC staff contacted representatives of the Georgia SHPO, GaDNR, and the USFWS. The NRC staff consulted with these organizations in connection with the ESP FEIS, including with respect to potential impacts to onsite areas expected to be affected by site preparation activities. In discussions with the NRC staff concerning the April 20 LAR request, these organizations raised no environmental concerns regarding the onsite areas to which the LSA request is limited.

#### Finding of No Significant Impact

The NRC staff has prepared this EA in support of its review of the proposed action. On the basis of this EA, the NRC finds that there are no significant environmental impacts from the proposed action. Acquiring the backfill from the specified localized deposits of suitable material within the Barnwell Group of the Upper Sand stratum located within the VEGP site is within the scope of environmental impacts previously analyzed in the ESP FEIS for the VEGP ESP site, because acquiring onsite backfill from the specified sources would be such a small subset of the site preparation and construction activities associated with building the proposed Units 3 and 4, and because the applicable impacts were already determined by that review to be undetectable or so minor that they would neither destabilize nor noticeably alter any important attribute of the

relevant resources, the NRC staff has determined that there would be no significant environmental impacts associated with granting the LSA request.

Further Information:

The VEGP amendment request is available electronically at the NRC's Electronic Reading Room at <http://www.nrc.gov/reading-rm/adams.html>. From this site, persons can access the NRC's Agency-wide Documents Access and Management System (ADAMS). The ADAMS accession number for the April 20, 2010 amendment request is [ML101120089](#), this request was supplemented on April 23, 2010 ([ML101160531](#)), April 28, 2010 ([ML101230337](#)), and May 5, 2010 ([ML101270283](#)). The ADAMS accession number for the May 13, 2010 supplement requesting the LSA is ML101340649. The ADAMS accession number for the complete EA is ML101380114. The ADAMS accession numbers for the ESP FEIS are ML082240145 and ML082240165, ML082260203, and ML082550040. If persons do not have access to ADAMS or have problems accessing the documents located in ADAMS, contact the NRC Public Document Room Reference staff at 1-800-397-4209, or 301-415-4737, or via e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov).

References:

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.

U.S. Fish and Wildlife Service (USFWS). 2008. Letter from U.S. Fish and Wildlife Service, Athens, Georgia to U.S. Nuclear Regulatory Commission, Washington, DC. Re: USFWS 15 Log# 08-FA-0473. September 19, 2008. Accession No. ML082760694.

U.S. Nuclear Regulatory Commission. 2007. *Biological Assessment for Threatened and Endangered Species and Designated Critical Habitat for the Vogtle Electric Generating Plant Early Site Permit Application*. U.S. Nuclear Regulatory Commission, Washington, D.C. [Accession No. ML080100451](#)

relevant resources, the NRC staff has determined that there would be no significant environmental impacts associated with granting the LSA request.

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U.S. Nuclear Regulatory Commission. 2007. *Biological Assessment for Threatened and Endangered Species and Designated Critical Habitat for the Vogtle Electric Generating Plant Early Site Permit Application.* U.S. Nuclear Regulatory Commission, Washington, D.C. [Accession No. ML080100451](#)

ADAMS Accession Number: ML 101380114

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