

LIMITED WORK AUTHORIZATION
VOGTLE ELECTRIC GENERATING PLANT UNIT 4
SOUTHERN NUCLEAR OPERATING COMPANY, INC.
GEORGIA POWER COMPANY
OGLETHORPE POWER CORPORATION
MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA
CITY OF DALTON, GEORGIA
DOCKET NO. 52-026

Limited Work Authorization No. LWA-002

1. The Nuclear Regulatory Commission (the NRC or the Commission) has found that:
 - A. The application for a limited work authorization (LWA) for Vogtle Electric Generating Plant (VEGP) Unit 4 filed by Southern Nuclear Operating Company, Inc. (SNC) acting on behalf of Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and the City of Dalton, Georgia, an incorporated municipality in the state of Georgia acting by and through its Board of Water, Light and Sinking Fund Commissioners (City of Dalton), herein referred to as "the VEGP owners," meets the applicable standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations;
 - B. There is reasonable assurance that the activities authorized under Section 2.B of this LWA will be performed in conformity with the application, as amended, the provisions of the Act, and the Commission regulations set forth in 10 CFR Chapter I;
 - C. There is reasonable assurance that the activities authorized by this LWA can be conducted without endangering the health and safety of the public and will not be inimical to the common defense and security;
 - D. There are no unresolved safety issues related to the activities identified in Section 2.B of this LWA;

- E. SNC¹ is technically qualified to engage in the activities authorized by this LWA in accordance with the Commission regulations set forth in 10 CFR Chapter I;
 - F. After weighing the environmental, economic, technical, and other benefits of the activities identified in Section 2.B of this LWA against environmental and other costs and considering reasonable available alternatives, the issuance of this LWA subject to the conditions for protection of the environment set forth herein is in accordance with Subpart A of 10 CFR Part 51 and all applicable requirements have been satisfied; and
 - G. The site redress plan incorporated into this LWA will adequately redress the activities performed under the limited work authorization, if construction is terminated by the holders, the underlying application is withdrawn by the applicant or denied by the NRC, or the limited work authorization is revoked by the NRC.
2. Based on the foregoing findings regarding this limited work authorization, LWA No. LWA-002 is hereby issued to SNC, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and the City of Dalton, Georgia (the LWA holders) to read as follows:
- A. This LWA applies to the VEGP Unit 4, a light-water nuclear reactor and associated equipment (the facility), owned by the VEGP Owners. The facility would be located adjacent to existing VEGP Units 1 and 2 on a 3,169-acre coastal plain bluff on the southwest side of the Savannah River in eastern Burke County, GA, approximately 15 miles east-northeast of Waynesboro, GA, and 26 miles southeast of Augusta, GA, and is described in the final safety analysis report (FSAR), as supplemented and amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby authorizes SNC, pursuant to Sections 103 and 185 of the Act and 10 CFR 50.10(e)(2), to perform the following activities under this LWA: installation of reinforcing steel, sumps and drain lines and other embedded items in the nuclear island (NI) foundation base slab as identified in AP1000 Design Control Document (DCD), Rev. 19, Section 3.8 and placement of concrete for the NI foundation base slab as described in AP1000 DCD, Rev. 19, Section 3.8.
 - C. The LWA is subject to and the LWA holders shall comply with all applicable provisions of the Atomic Energy Act of 1954, as amended, and the rules, regulations, and orders of the Commission, including the conditions set forth in 10 CFR Chapter I, now or hereafter in effect.
 - D. The LWA is subject to and SNC shall comply with the conditions specified and incorporated below:
 - 1) The Site Redress Plan and Environmental Protection Plan in Appendices A and B, respectively, of this LWA are hereby incorporated into this LWA.

¹ SNC is authorized by the VEGP owners to exercise responsibility and control over the physical construction, operation, and maintenance of the facility.

- 2) The Site Redress Plan shall be implemented by the LWA holders if construction is terminated by the holders, the underlying application is withdrawn by the applicant or denied by the NRC, or the LWA is revoked by the NRC.
- E. Any activities performed pursuant to this LWA and as identified in Section 2.B of this LWA, are subject to the conditions for the protection of the environment set forth in the EPP attached as Appendix B to this LWA.
- F. The holders of this LWA are subject to the requirements of 10 CFR Part 21, "Reporting of Defects and Noncompliance," and, with respect to activities authorized under this LWA, are subject to the requirements of 10 CFR 50.55(e), as of the date of issuance of this LWA.
- G. This LWA is effective as of its date of issuance and shall remain in effect until termination by the holders, revoked by the NRC, or effectiveness of a final agency decision denying the combined license application associated with this LWA.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Michael R. Johnson, Director
Office of New Reactors

February 10, 2012
Date of Issuance

Appendices:

Appendix A – Site Redress Plan

Appendix B – Environmental Protection Plan (Nonradiological)

APPENDIX A

VOGTLE ELECTRIC GENERATING PLANT UNIT 4

SITE REDRESS PLAN

1.1 Introduction

A Limited Work Authorization (LWA) allows the holders to perform certain activities set forth in the LWA prior to receiving a combined license (COL) (i.e., permission to initiate construction). However, in order to perform these activities, the LWA application must include a plan for site redress that provides for restoration if construction is terminated by the holders, the underlying application is withdrawn by the applicant or denied by the NRC, or the LWA is revoked by the NRC.

Part 6 of the Southern Nuclear Operating Company (SNC) COL application describes activities that may occur after the U.S. Nuclear Regulatory Commission (NRC) issues an LWA to SNC for the Vogtle Electric Generating Plant (VEGP) site, but before the NRC issues a COL. These LWA activities are subject to regulation 10 CFR 50.10(d) (effective November 8, 2007). In accordance with this regulation, Part 6 also describes the SNC plan for redress of LWA activities should SNC terminate construction of VEGP Unit 4. This site Redress Plan has been developed to provide reasonable assurance that redress carried out under the plan would achieve an environmentally stable and aesthetically acceptable site.

1.2 Site Description

The site selected for two new nuclear units, designated VEGP Units 3 and 4, is the existing 3,169-acre VEGP site in Burke County, in east-central Georgia, on the Savannah River. The site is approximately 100 miles northwest of Savannah, Georgia, and 26 miles southeast of Augusta, Georgia, directly across the river from the U.S. Department of Energy's Savannah River Site (Barnwell County, South Carolina). SNC proposes to construct VEGP Units 3 and 4 adjacent to, and west of, existing VEGP Units 1 and 2.

1.3 Plant Ownership

Currently the land selected for new VEGP Units 3 and 4 is jointly owned by Georgia Power Company (Georgia Power or GPC), Oglethorpe Power Corporation, Municipal Electric Authority of Georgia and the City of Dalton, an incorporated municipality in the State of Georgia. SNC is the exclusive operating licensee of the existing VEGP nuclear units, and has been authorized by GPC, acting as agent for the VEGP owners, to apply for an LWA for the VEGP site. SNC has no ownership interest in the existing or proposed units at VEGP.

GPC and SNC are subsidiaries of Southern Company, Inc., and SNC is the licensed operator for all Southern Company nuclear generating facilities. SNC's business purpose is management and operation of nuclear generating facilities owned by Southern Company subsidiaries. The COL Application, Part 1, provides additional information about Southern Company, GPC, VEGP owners and SNC.

Prior to any site preparation activities, the VEGP owners would grant sufficient rights to SNC for SNC to perform the activities described in this plan.

1.4 Limited Work Authorization Activities

The activities that SNC is authorized to perform under this LWA are as follows:

- Installation of reinforcing steel, sumps and drain lines, and other embedded items in the nuclear island (NI) foundation base slab.
- Placement of concrete for the NI foundation base slab.

LWA activities would take place within the area of excavation and would result in construction of structures located below grade. The structures would be composed primarily of materials that are inert (e.g., soil, rock, gravel, concrete) or relatively inert (e.g., waterproof membrane). Degradable materials intended for temporary use, such as some concrete formwork, would be removed prior to backfill. In addition to the LWA requested activities discussed above, the following ancillary activities would be performed to support the identified LWA activities:

- Installation of construction laydown areas to be used to store bulk materials and to fabricate portions of the requested LWA items, such as assembling reinforcing steel sections to be placed in the base slab formwork prior to the NI concrete pours.
- Construction of two concrete batch plants.
- Transportation of material to the site.

1.5 Site Redress Plan

1.5.1 Site Redress Plan Objectives and Considerations

The purpose of site redress is to reverse, mitigate, or stabilize environmental impacts incurred during LWA activities. The objective of this site redress plan is to ensure that, in the event the VEGP Units 3 and 4 site is not fully developed to provide new nuclear power generation, it would be returned to an unattended, environmentally stable and aesthetically acceptable condition.

Site redress activities will be implemented commensurate with the degree of site modification resulting from LWA activities. Redress activities will reflect applicable land use and/or zoning requirements of local, state and federal agencies, and possible future use scenarios. In scoping the redress activities, SNC will consider certain variables including, but not limited to:

- Future ownership of the site.
- Potential environmental contamination that either pre-dates, or is a result of, site preparation activities.
- Potential liabilities associated with any facility or structure remaining following completion of the redress activities.

In planning for site redress, two general categories of options would be considered:

- Topographic approaches that accomplish the objective and preserve the potential of the site for future industrial use.
- Completion or addition of site development features that enhance the value of the site for potential future industrial use.

Decisions by SNC, the VEGP owners, and state or local land use authorities and industrial development authorities on potential future uses would inform specific redress activities. Redress activities, if necessary, would begin when the LWA activities are terminated by the holders, the underlying application is withdrawn by the applicant or denied by the NRC, or the LWA is revoked by the NRC. Redress activities would include actions to terminate or transfer local and state permits, and designate structures or improvements that would remain and those that must be removed. A detailed scope and schedule will be prepared prior to initiating redress activities. Redress activities will comply with applicable environmental requirements and necessary permits will be obtained prior to beginning redress activities. If, prior to the commencement of redress activities, acceptable uses consistent with the current state of the site's development were identified, SNC would tailor the site redress plan as much as possible to support the alternative uses. In the event that ownership of structures developed for VEGP Units 3 and 4 were transferred to the existing VEGP Units 1 and 2, the new structures would be included in the existing units decommissioning plan.

Between termination of the LWA activities or the decision to discontinue plant construction, and commencement of site redress activities, water quality, air quality, stormwater runoff, solid waste, and the protection of any critical ecological elements will be maintained in compliance with approved permits and regulatory requirements.

1.5.2 Description of Site Redress

SNC LWA activities would take place within the area of preconstruction excavation, below grade. SNC's preferred method of redress for these LWA structures would be burial in place. Georgia regulation 391-3-4-.2 provides for permits for solid waste disposal. Regulation 391-3-4-06 provides for a permit by rule for disposal of inert waste, defined to include earth and earth-like products, concrete, cured asphalt, rock and bricks. SNC believes that it would make better economic, environmental, and safety sense to bury the structures in place rather than demolishing them and removing debris for disposal elsewhere. Removal would simply use up available landfill space elsewhere.

Prior to initiating site redress activities, SNC would discuss with the Georgia Department of Natural Resources (GDNR) the acceptability of burial of the LWA structures in place as a landfill under Georgia solid waste management rules. SNC might need to obtain a variance to cover material that does not fit the State definition of "inert," such as steel and waterproof membrane. However, SNC believes that a variance would be reasonable given that the material would not be likely to produce leachate of environmental concern.

Site redress would ensure that no significant amounts of degradable materials, such as temporary construction formwork, would remain below grade but would be removed and disposed of properly at a permitted landfill. Buried structures (e.g., foundations and utilities) would be evaluated and exhumed if required. Structures approaching grade level would be demolished as necessary to allow a minimum of two feet of final cover.

If the GDNR did not approve in-place disposal, SNC would demolish and remove LWA structures in accordance with Georgia requirements. Any area that became contaminated (non-radiological) as a result of LWA activities or LWA redress activities would be remediated in compliance with Georgia law and regulations. Backfill placement would be in accordance with good engineering practices using material from the original excavation to the extent still available.

Final site redress would include regrading the area to conform to the surrounding land surface and to mitigate erosion from stormwater runoff. The disturbed area would be revegetated to ensure stabilization and an aesthetically pleasing landscape. SNC would provide all required notifications to the GDNR. If GDNR had approved closure as a landfill, SNC would ensure that appropriate deed notices were filed.

1.5.3 Controls to Mitigate Impacts During Redress Activities

Methods used to ensure environmental protection and regulatory compliance during site redress would include best management practices for noise control, traffic control, sediment and erosion control, air quality control, control of potential pollutant sources, stockpile management, and spill prevention, control, and response.

1.5.3.1 Noise Control

During redress activities, ambient noise levels would be similar to those during site preparation activities. Noise would be controlled to maintain compliance with all federal regulations. Neither Georgia nor Burke County has noise ordinances. Procedures and a hearing conservation program would be developed for redress activities.

The heavy equipment needed for demolition, clearing, excavating, grading, trash disposal, and land filling operations would be the major source of noise pollution. Standard noise dampening devices on equipment, together with the location of the primary work site below grade, are expected to be sufficient to keep off-site noise levels at acceptable levels or lower. In addition, major redress activities would be constrained to weekdays and other activities would be limited on weekends.

1.5.3.2 Traffic Control

The highway access to VEGP would experience increased traffic during redress activities, similar to traffic increases during site preparation activities. SNC has assumed that redress activities would involve 250 workers or less. Based on the analysis of construction impacts, River Road has the capacity for an additional 1,200 cars per hour. Workers would access the site via the construction access road.

Traffic control on and off site would adhere to the applicable local, state, and federal requirements.

1.5.3.3 Erosion and Sediment Controls

Most of the area of LWA activities was cleared, paved, or graveled during site preparation activities. The runoff from the footprint would be controlled by a stormwater management system. During redress activities, disturbances to the existing ground surface could potentially increase the runoff sediment load. However, the location of LWA activities within the excavation area will minimize the risk of runoff offsite. Measures would be taken consistent with the Georgia Erosion and Sediment Control Act and implementing regulations to avoid concentrated flows with a high potential to transport sediment. Visual inspections of erosion controls would monitor the effectiveness of the controls and aid in determining if other mitigation measures are necessary. Where necessary, special erosion control measures would be implemented to further minimize impacts to the Savannah River, onsite streams or ponds, and existing units' operations. Site redress activities would include the use of appropriate stabilization methods to

mitigate the long-term erosion of sediment into the river and would be in compliance with an approved Erosion and Sedimentation Control Plan, which is required by the Georgia Department of Natural Resources and the federal Clean Water Act.

Sediment and erosion control would conform to the following best management practices:

- If periodic inspections or other information indicate that a control measure is ineffective, the control measure would be modified or replaced as necessary.
- In the event that sediment escapes the site during redress activities, off-site accumulations of sediment would be removed to minimize off-site impacts, to the extent practical.
- Sediment would be removed from sediment traps or sedimentation ponds as needed.
- Good housekeeping practices would be implemented to prevent litter, demolition debris, and chemicals from becoming pollutant sources for stormwater discharges.
- Erosion and sediment runoff would be controlled through the use of accepted structural and stabilization practices.
- Where practical, disturbed soil areas would be reseeded with maintenance seed (if activities are temporary) or permanent seed mix (for permanent or final cover) as soon as possible after redress activities are completed.
- Where practical, excelsior blankets would be mulched or installed, and slopes greater than 3H:1V would be reseeded. Mulch would be applied as soon as possible after seeding to reduce runoff and promote vegetation.
- Sidehill slopes would be furrow-contoured as practical. Otherwise, the final grading would be performed in a manner that would result in tracks and depressions contoured across the slope instead of down.
- The time that bare soil is exposed before being stabilized would be minimized.
- The disturbance to existing vegetation would be minimized.
- No solid materials, including demolition materials, would be discharged to waters of the United States, unless authorized under an approved permit.

1.5.3.4 Air Quality Controls

Dust, smoke, and engine exhaust are sources of air pollution. During redress activities, controls would be imposed to mitigate air emissions from such sources. The most traveled roads would be paved or sprinkled periodically if not paved, to reduce dust. Bare areas would be seeded to provide ground cover. Air pollution control regulations related to open burning or the operation of fuel-burning equipment would be followed. Permits and operating certificates would be secured where required. Fuel-burning equipment would be maintained in good mechanical order to reduce excessive emissions. Water sprinkling of laydown, storage, and parking areas, unpaved roads, and other areas of the site would suppress dust.

1.5.3.5 Potential Pollutant Sources (Effluents, Wastes, Spills, and Material Handling)

During redress activities, there would be many possible pollutant sources. Best management practices would be followed to ensure protection of soils, groundwater and surface water from accidental spills or releases of pollutants.

1.5.4 Potential Contamination

Any spills during site preparation or redress activities would be remediated in compliance with the requirements of this plan. The area would be returned to its baseline state post-redress.

1.5.5 Potential Liabilities

If ownership of the site is transferred, neither SNC nor the VEGP owners would have further liability with regard to site redress.

1.6 Financial Responsibility

It is the financial responsibility of the VEGP owners to provide the funding to redress the new plant footprint on the VEGP site in the event that site preparation activities are performed and construction is subsequently terminated by the holders, the underlying application is withdrawn by the applicant or denied by the NRC, or the LWA is revoked by the NRC.

1.7 NRC Notification Upon Completion

SNC would notify the NRC upon completion of activities addressed by this Site Redress Plan. The site would be made available for inspection, and any documentation that the NRC may require would be provided to confirm the satisfactory completion of the redress activities.

APPENDIX B

VOGTLE ELECTRIC GENERATING PLANT UNIT 4

ENVIRONMENTAL PROTECTION PLAN

(NONRADIOLOGICAL)

1.0 Objectives of the Environmental Protection Plan

The Environmental Protection Plan (EPP) objectives are to ensure compliance with Biological Opinions issued pursuant to the Endangered Species Act of 1973, as amended (ESA), and to ensure that the U.S. Nuclear Regulatory Commission (NRC) is kept informed of other environmental matters. The EPP is intended to be consistent with Federal, State, and local requirements for environmental protection.

2.0 Environmental Protection Issues

In the Final Supplemental Environmental Impact Statement (FSEIS) dated March 2011, the staff considered the environmental impacts associated with the construction and operation of Vogtle Electric Generating Plant Unit Nos. 3 and 4. This EPP applies to the LWA holders' actions affecting the protected environmental resources evaluated in the FSEIS and the LWA holders' actions that may affect any newly discovered protected environmental resources.

2.1 Aquatic Resources Issues

Federal agencies other than the U.S. Nuclear Regulatory Commission (NRC), such as the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers, have jurisdiction to regulate aquatic resources under the Federal Water Pollution Control Act (Clean Water Act or CWA) and the Rivers and Harbors Appropriation Act of 1899 (RHA). Certain water quality environmental considerations identified in the FSEIS, including effluent limitations, monitoring requirements, and mitigation measures, are regulated under the LWA holders' CWA permits, such as National Pollutant Discharge Elimination System and Section 404 permits, and RHA Section 10 permit. Nothing within this EPP shall be construed to place additional requirements on the regulation of aquatic resources except the imposition of the requirements in a Biological Opinion under the ESA (see Section 2.3).

2.2 Terrestrial Resources Issues

Several statutes govern the regulation of terrestrial resources. For example, the U.S. Fish and Wildlife Service (FWS) regulates matters involving migratory birds and their nests in accordance with the Migratory Bird Treaty Act. Activities affecting migratory birds or their nests may require permits under the Migratory Bird Treaty Act. The FWS also regulates matters involving the protection and taking of bald and golden eagles in accordance with the Bald and Golden Eagle Protection Act.

2.3 Endangered Species Act of 1973

The NRC may be required to protect some aquatic resources and terrestrial resources in accordance with the ESA. If a Biological Opinion is issued to the NRC in accordance with ESA Section 7 prior to the issuance of the combined license, the LWA holders shall comply with the terms and conditions set forth in the Incidental Take Statement of the Biological Opinion. If any Federally listed species or critical habitat occurs in an area affected by construction or operation of the plant that was not previously identified as occurring in such areas, including species and critical habitat that were not previously Federally listed, the LWA holders shall inform the NRC within four hours of discovery. The time of discovery is identified as the specific time when a decision is made to notify another agency or to issue a press release. Similarly, the LWA holders shall inform the NRC within four hours of discovery of any take, as defined in the ESA, of a Federally listed species or destruction or adverse modification of critical habitat. The four-hour discovery notifications shall be made to the NRC Operations Center via the Emergency Notification System. The LWA holders shall provide any necessary information to the NRC if the NRC initiates or reinitiates consultation under the ESA.

Unusual Event - The LWA holders shall inform the NRC of any onsite mortality, injury, or unusual occurrence of any species protected by the ESA within four hours of discovery, followed by a written report in accordance with Section 4.1. The time of discovery is identified as the specific time when a decision is made to notify another agency or to issue a press release. Such incidents shall be reported regardless of the LWA holders' assessment of causal relation to plant construction or operation.

3.0 Consistency Requirements

The LWA holders shall notify the NRC of proposed changes to permits or certifications concerning aquatic or terrestrial resources by providing the NRC with a copy of the proposed change(s) at the same time it is submitted to the permitting agency. The LWA holders shall provide the NRC with a copy of the application for renewal of permits or certifications at the same time the application is submitted to the permitting agency.

Changes to or renewals of such permits or certifications shall be reported to the NRC within 30 days following the later of the date the change or renewal is approved or the date the change becomes effective. If a permit or certification, in part or in its entirety, is appealed and stayed, the NRC shall be notified within 30 days following the date the stay is granted.

4.0 Administrative Procedures

4.1 Plant Reporting Requirements: Non-routine Reports

A written report shall be submitted to the NRC within 30 days of occurrence of any unusual event described in Section 2.3 of this EPP. The report shall: (a) describe, analyze, and evaluate the event, including extent and magnitude of the impact and plant operating characteristics at the time of the event, (b) describe the probable cause of the event, (c) indicate the action taken to correct the reported event, (d) indicate the corrective action taken to preclude repetition of the event and to prevent similar occurrences involving similar components or systems, and (e) indicate the agencies notified and their preliminary responses.

4.2 Review and Audit

The LWA holders shall provide for review and audit of compliance with Section 2.3 of this EPP. The audits shall be conducted independently of the individual or groups responsible for performing the specific activity. A description of the organizational structure utilized to achieve the independent review and audit function and results of the audit activities shall be maintained and made available for inspection.

4.3 Records Retention

Records required by this EPP shall be made and retained in a manner convenient for review and inspection. These records shall be made available to the NRC on request. The records, data, and logs relating to this EPP shall be retained for five years or, where applicable, in accordance with the requirements of other agencies.

4.4 Changes in Environmental Protection Plan

A request for a change in the EPP shall include an assessment of the environmental impact of the proposed change and a supporting justification. Implementation of such changes in the EPP shall not commence prior to NRC approval of the proposed changes in the form of a license amendment incorporating the appropriate revision to the EPP.

The LWA holders shall request a license amendment to incorporate the requirements of any Terms and Conditions set forth in the Incidental Take Statement of applicable Biological Opinions issued subsequent to the effective date of this EPP.