

DEPARTMENT OF THE ARMY PERMIT

Permittee: **DUKE ENERGY CAROLINAS, LLC**

**526 SOUTH CHURCH STREET
CHARLOTTE, NC 28202**

Permit No: **SAC-2009-122-SIR**

Issuing Office: **CHARLESTON DISTRICT**

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

The work consists of construction of two new nuclear power units and associated ancillary facilities, including a drought contingency pond, intake and refill structures, and roads and road crossings at the site. The proposed work also includes the enlargement of a culvert along an existing railroad right-of-way and the construction of four new transmission lines to be installed within two different routes totaling approximately 31 miles of new right-of-way within Cherokee and Union counties, South Carolina. Attached plans depict the project in five separate geographic elements labeled as Project Area Components A – E to meet the growing demand in the states of South Carolina and North Carolina in accordance with the attached drawings entitled: William States Lee III Nuclear Station, Cherokee County, SC. Sheets Key Map thru Sheets B and Sheets C thru Sheets E28 of E28 dated November 9, 2011 and Sheets B1 thru B 37 of E 28 dated October 9, 2011.

Project Location:

The proposed project is located in and adjacent to the Broad River (Ninety-Nine Islands Reservoir) and London Creek, and in tributaries and their adjacent wetlands which flow into the Broad River and London Creek at locations of the proposed William States Lee III Nuclear Station at 1313 McKowns Mountain Road near Gaffney, in Cherokee County, South Carolina. Latitude North¹: 35.035900, Longitude West: -81.513748

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **30 September 2040**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

Refer to ENG FORM 1721, NOV 86

EDITION OF SEP 82 IS OBSOLETE

(33 CFR 325 (Appendix A))

¹ This location is the approximate center of the proposed nuclear units in PAC A.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

SEE PAGES 4 thru 9.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- Section 404 of the Clean Water Act (33 U.S.C. 1344).
- Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
- b. This permit does not grant any property rights or exclusive privileges.
- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.

- e. Damage claims associated with any future modification, suspension, or revocation of this permit.
4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
- a. You fail to comply with the terms and conditions of this permit.
 - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Christopher M Fallon
 (PERMITTEE)
 DUKE ENERGY CAROLINAS, LLC

9/29/15
 (DATE)

Christopher M. Fallon
 PRINT NAME

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

[Signature]
 (DISTRICT ENGINEER)
 MATTHEW W. LUZZATTO, P.E., PMP, LTC
 or his Designee
 Tina B. Hadden
 Chief, Regulatory Division

9/29/15
 (DATE)

 (TRANSFEREE)

 (DATE)

A. SPECIAL CONDITIONS FOR PERMIT #: SAC-2009-122-SIR

- A. That the permittee agrees to provide all contractors associated with construction of the authorized activity a copy of the permit and drawings. A copy of the permit will be available at the construction site at all times.
- B. That the permittee shall submit a signed compliance certification to the Corps within 60 days following completion of the authorized work and any required mitigation. The certification will include:
1. A copy of this permit;
 2. A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions;
 3. A statement that any required mitigation was completed in accordance with the permit conditions;
 4. The signature of the permittee certifying the completion of the work and mitigation.
- C. That the permittee recognizes that its commitment to perform and implement the following conditions was a deciding factor toward the favorable and timely decision on this permit and that the permittee recognizes that a failure on its part to both actively pursue and implement these conditions may be grounds for modification, suspension or revocation of this Department of the Army authorization:
1. That the permittee agrees to utilize best management practices during construction and perform the work as proposed. The permittee must implement practices that will minimize erosion and migration of sediments on and off the project site during and after construction. These practices should include the use of appropriate grading and sloping techniques, mulches, silt fences, or other devices capable of preventing erosion, migration of sediments and bank failure. All disturbed land surfaces and sloped areas affected by the project must be stabilized.
 2. That the permittee agrees that the drainage/conveyance system shall be designed by a licensed Professional Engineer (PE) and constructed by the permittee (or his designated assignee) to provide for the proper drainage of surface water of the drainage area of which it is a part, to permit the flow of natural or manmade watercourses. In addition, the drainage/conveyance system shall be sufficient to prevent any appreciable increase in water surface elevations or expansion/increases of the flood hazard area.
- D. Water Quality Certification
1. The fifteen (15) permit conditions stated in the Water Quality Certification issued by South Carolina Department of Health and Environmental Control pursuant to Section 401 of the Clean Water Act dated January 2, 2014, are hereby incorporated as special conditions of this Department of the Army permit.
- E. Avoidance and Minimization
1. The permittee understands and agrees that the direct fill in waters of the U.S. will continue to be minimized to the maximum extent practicable. The permittee further understands and agrees that the following procedures and best management practices will be implemented to minimize the impacts of the discharges from construction activities associated with Lee Nuclear Station and mitigation sites during construction:
 2. The activities authorized by this permit shall be executed in such a manner that any impacts to stream beneficial uses are minimized. In-stream beneficial uses include, but are not limited to, the protection of fish and wildlife habitat, maintenance of waste assimilation, recreation, navigation, and cultural and aesthetic values.

3. All excavation, dredging, or filling in surface waters shall be accomplished in a manner that minimizes bottom disturbance and turbidity.
4. Once the project is initiated, it will be carried to completion in an expeditious manner in order to minimize the duration of disturbance to the environment.
5. Construction activities will avoid to the greatest extent practicable, encroachment into any wetland/riverbank areas not designated as impact areas.
6. Construction activities within the Ninety-Nine Island Reservoir/Broad River will be minimized during the months of March, April, May, and June because of potential impacts to fish spawning.
7. Final design of the river intake structure shall incorporate sound engineering practices to prevent bank erosion or scour to the maximum degree possible to minimize the potential for bank erosion or scour due to site-specific depths and flow.
8. The diffuser structure will be attached to the face of the Ninety-Nine Islands dam and installed by barge and divers, minimizing impact to the substrate of Ninety-Nine Islands Reservoir.
9. The relocation of SC 329 will utilize a bridge, rather than a causeway to cross the newly created impoundment, minimizing effects on water circulation.
10. Culverts for SC 329 will be countersunk to provide for low-flow conditions and aquatic organism passage.
11. Except as noted on the permit drawings, excavated material will not be stockpiled in the adjacent wetlands, but placed on barges or on high ground, to the maximum extent practicable.
12. Machinery or heavy equipment in temporarily impacted wetlands shall be placed on mats or geotextile fabric, or other suitable means shall be implemented, to minimize soil disturbance to the maximum extent practicable. Mats, fabrics, or other measures shall be removed as soon as the work is complete in the temporarily impacted wetland.
13. Transmission line towers are to be set back as far as practicable from the Scenic Broad River Corridor.

F. Protected Species

1. Any clearing associated with construction of transmission lines within areas that represent suitable habitat for the federally threatened Northern long-eared bat (*Myotis septentrionalis*; NLEB) must occur outside the roosting season.
 - a) All clearing activities in Project Area Component D and Project Area Component E (West and East Transmission Line corridors, respectively) must occur between November 15 and March 31 to avoid potential impacts to the NLEB.
 - b) If clearing activities cannot be performed during the time frame in (a) above, the permittee is required to notify this office so additional consultation with USFWS can be initiated.

G. Historic and Cultural Resources

1. That the permittee agrees to immediately stop all relevant construction or operation activity in the event of the inadvertent discovery of any cultural resource, including human remains. Upon such discovery, the permittee will immediately contact this office as well as the SHPO report the discovery and await instructions regarding how to proceed.
2. That the permittee agrees to follow and comply with all provisions of the Memorandum of Agreement executed specifically for this project: *Cultural Resource Management Plan and Agreement among U.S. Army Corps of Engineers, South Carolina Department of Archives and History State Historic*

Preservation Office, Catawba Indian Nation and Duke Energy Carolinas, LLC regarding William States Lee III Nuclear Station, Units 1 and 2 and New 230 kV and 525 kV Transmission Lines. The MOA includes a Cultural Resource Management Plan (CRMP) for all elements of the project during construction and operation, as well as the signed Agreement that implements the CRMP. The entirety of the MOA is incorporated by reference as a Special Condition of this permit.

H. Compensatory Mitigation

1. Basis for Credit Calculations

- a) For the purpose of calculating credits under this Permit, both for impacts and for mitigation, the protocols given in *Guidelines for Preparing a Compensatory Mitigation Plan* (Last Revised June 24, 2011), will be used, without consideration for future revisions to that document. These guidelines will continue to be utilized until completion of monitoring.

2. Required Credits

- a) As compensatory mitigation under this Permit, the permittee agrees to provide not less than 54 credits of wetland mitigation and 483,583 credits of stream mitigation. Mitigation will be provided through restoration, enhancement and preservation activities at two permittee-responsible mitigation sites as described in the *2012 CMP*, the *2014 Supplement*, and any relevant special conditions of this Permit.

The compensatory mitigation at the Woods Ferry portion of Sumter National Forest must be approved by USFS. If, however, USFS does not authorize the permittee to perform work at the Woods Ferry site as described in the *2012 CMP* and the *2014 Supplement*, the permittee understands and agrees that it will be required to perform alternative compensatory mitigation through coordination with the Corps. A USFS determination not to authorize the permittee to perform the planned compensatory mitigation activities at the Woods Ferry site may be grounds for modification, suspension or revocation of the Department of the Army authorization.

- b) Additional Credits. It is anticipated that the cumulative mitigation credits generated by the two permittee-responsible mitigation sites will equal or exceed the number of credits needed to fully offset unavoidable impacts to jurisdictional waters from the Project. If, however, at the conclusion of the monitoring periods for the overall mitigation plan, there is a net deficit for either stream or wetland credit accounting, the permittee shall purchase the required credits from commercial mitigation banks. Should commercial credits not be available, the permittee understands and agrees that it will be required to provide additional permittee-responsible mitigation through coordination with the Corps.

3. Permittee-Responsible Mitigation

- a) The *2012 CMP* and *2014 Supplement* comply with the requirements of 33 CFR 332.4(c). The final details of certain aspects of the mitigation plan will continue to be developed by the permittee, subject to Corps oversight and approval. These details will be incorporated into the Turkey Creek Tract Site Plan and the Woods Ferry Watershed Plan(s), with specifications as

given below. These documents will be supplied for Corps review and approval no later than 90 days prior to commencing mitigation construction at each permittee-responsible mitigation location.

- b) Turkey Creek Tract Site Plan. Upon completion of final easement design, the permittee will provide the Corps with a Turkey Creek Tract Site Plan in accordance with 33 CFR 332.4(c)(4 and 6-13). These easements will be preserved in perpetuity, following the guidance and document template “State of South Carolina Conservation Easement and Acceptance” provided in Appendix F of the Charleston 2010 Mitigation Guidelines.
- c) Woods Ferry Watershed Plans. In consultation with USFS Enoree District, the permittee and their mitigation contractor(s) will develop and submit for Corps review no later than 90 days prior to commencing mitigation activities a Watershed Plan for each of the four watersheds at this site in accordance with 33 CFR 332.4 (c) (7-12). Final awarding of compensatory mitigation credits under 33 CFR 332.4(c)(6) will occur at the conclusion of each watershed’s monitoring period taking into account the final As-Built plans, any adaptive management modifications, and any areas of non-performance. Since the Woods Ferry site is located on Federal land with existing USFS mandates for conservation, no further action is needed by the Applicant to comply with 33 CFR 332.4(c)(4).

4. Timing of Mitigation

- a) Turkey Creek Tract. Conservation easements at the Turkey Creek Tract must be field-demarcated and recorded prior to the commencement of the authorized work. The sole exception is that the permittee may choose to enact the railroad upgrades up to one (1) year prior to final easement recording at the Turkey Creek Tract with the acknowledgment that this will increase temporal loss and result in a commensurate discounting when final credits are calculated for this site.
- b) Woods Ferry Mitigation Component. Mitigation construction activities at the Woods Ferry site will commence no later than one (1) year prior to commencement of construction on the embankment structures of Pond C. The USFS EIS analyzed implementation of the compensatory mitigation in a sequential fashion to reduce detrimental effects on recreational activities within the Woods Ferry portion of Sumter National Forest. Accordingly, each of the four watersheds will be considered an independent entity for the purposes of construction and monitoring schedules. All compensatory mitigation construction activities will continue concurrent with Pond C construction; therefore, all Sumter reaches are proposed to have a concurrent credit schedule.

5. Turkey Creek Tract Mitigation Credit Considerations

- a) The Preliminary Jurisdictional Determination for the Turkey Creek Tract was issued by the Corps on January 21, 2015. This determination quantified an additional 33,475 linear feet of jurisdictional streams beyond that used to calculate credits in the *2012 CMP*, thus raising the total restoration length from 177,048 to 210,523 linear feet of stream. Final compensatory mitigation credits proposed for this site will be recalculated on easement As-Built plans and submitted to the Corps in the Turkey Creek Tract Plan.

6. Woods Ferry Mitigation Component Credit Considerations

- a) The permittee understands and agrees that the final design carried forward for each watershed at the Woods Ferry site should reflect the most appropriate aquatic system for each reach, based on the desired and achievable hydrological and ecological functional lift. Therefore, selected post-restoration aquatic resource types may differ from the pre-restoration type for some reaches. A likely example is conversion of an incised and functionally-impaired single-thread channel into a braided channel, linear wetland, or wet meadow system. Similarly, the USFS EIS gives references to localized conversion of headwater streams into wetland meadows as being more reflective of historic conditions.

Therefore, the permittee agrees that in such cases:

- i. Any proposed type conversion will be reviewed by the Corps in the Watershed Plan(s) prior to commencement of any compensatory mitigation construction.
- ii. Any type conversion, as described above that is approved by the Corps review of Watershed Plan(s), of an existing length of jurisdictional stream at the Woods Ferry Mitigation Component, shall not be considered an additional loss of waters requiring compensatory mitigation.
- iii. Any areas within the restoration corridors where the permittee is able to demonstrate and quantify the restoration or creation of jurisdictional wetlands at the conclusion of the monitoring period will be included in the final awarding of wetland mitigation credits for this site.

I. Erosion Control

1. Prior to beginning any land disturbing activity, the permittee agrees to place appropriate erosion control measures, such as fences, silt barriers, or other devices, between the disturbed area and the affected waterway or wetland, and maintained in a functioning capacity until the area is permanently stabilized. All excavated materials not used as backfill will be hauled off site or placed on high ground and properly contained and permanently stabilized to prevent erosion.
2. Upon project completion, the permittee agrees that all disturbed areas will be permanently stabilized with vegetative cover, riprap or other erosion control methods as appropriate.
3. The permittee agrees that all temporarily impacted streams and wetlands shall be restored to their original elevations and contours within 45 calendar days following construction with the same vegetative cover type originally present.

J. Best Management Practices

1. All necessary measures will be taken to prevent oil, tar, trash and other pollutants from entering the adjacent offsite areas.
2. To the greatest extent practicable, clearing of riparian vegetation within wetlands and waters of the U.S. will be conducted manually and low-growing, woody vegetation and shrubs will be left intact to maintain stream bank stability and reduce erosion. The exception will be the 50-foot buffer around the proposed drought contingency Pond C, which will be mechanically cleared and grubbed. Rights-of-way through and adjacent to wetlands will be maintained by hand clearing rather than with chemicals to reduce the potential for contamination of downstream aquatic resources, to the extent practicable.
3. Vegetation clearing (including timber harvest) and grubbing will be scheduled, to the extent practicable, to avoid the migratory bird nesting season (generally March through June).

4. Construction of the dam, the railroad culvert, and SC 329 culverts will be accomplished using pumps to divert the flow of London Creek or subject tributaries. Placement of culverts for temporary construction roads will be accomplished while the streams are in a dry condition.
5. Any riprap used at the project will consist of clean stone or masonry material free of all potential sources of pollution.
6. Only clean earthen material free of all potential sources of pollution will be used as backfill.
7. All construction, construction access, and demolition activities associated with this project shall be accomplished in a manner that minimizes construction materials or waste materials from entering surface waters, unless authorized by this permit. Wet, excess, or waste concrete shall be prohibited from entering surface waters.
8. Transmission Lines. Cutting of vegetation within the buffers and jurisdictional areas will be performed consistent with Duke Energy's standard operating procedures for vegetative maintenance.