

**Attachment D: Cultural Resource Consultation Letters**



J. Ed Burchfield, Jr.  
Vice President  
Oconee Nuclear Station

Duke Energy  
ON01VP | 7800 Rochester Hwy  
Seneca, SC 29672  
o. 864.873.3478  
f. 864.873.5791  
Ed Burchfield @duke-energy.com

**BY U.S. MAIL**  
**RETURN RECEIPT REQUESTED**

November 11, 2019

Mary Louise Worthy, Chief  
Piedmont American Indian Association Lower Eastern Cherokee Nation of SC  
3688 Warrior Creek Church Rd  
Gray Court, SC 29645

**RE: Duke Energy – Oconee Nuclear Station Units 1, 2 and 3 Subsequent License Renewal**

Dear Chief Worthy:

Duke Energy Carolinas, LLC (Duke Energy) is preparing an application for renewing the operating licenses for Oconee Nuclear Station Units 1, 2 and 3 (ONS) for an additional 20 years (see Table 1). Duke Energy is contacting you for assistance in assessing the impacts from continued operation during this renewed license period.

**Table 1. ONS Licensing Dates**

<b>ONS Unit</b>	<b>License Expiration Date</b>	<b>Extended License Expiration Date</b>
Unit 1	February 6, 2033	February 6, 2053
Unit 2	October 6, 2033	October 6, 2053
Unit 3	July 19, 2034	July 19, 2054

As part of the renewal process, the U.S. Nuclear Regulatory Commission (NRC) requires that the license renewal application include an environmental report (ER) that assesses the impacts from continued operation and any refurbishment undertaken to enable the continued operation of the units. The ER addresses the potential to impact historic and cultural resources including tribal cultural resources on or near the ONS site.

While environmental impacts of an existing facility were assessed during original licensing, and license renewal is unlikely to have significant additional or different impacts, the NRC may request a consultation with the South Carolina State Historic Preservation Office (SHPO) and the Piedmont American Indian Association (PAIA) Lower Eastern Cherokee Nation of SC regarding license renewal. Should the NRC consultation take place, the time frame for its conduct is anticipated to be within a few months of Duke Energy's application submittal, currently scheduled for 2021.

To facilitate our assessment and a smooth consultation by the NRC, we are contacting you early in the application process seeking input from you regarding the effects that license renewal activities may have on historic and cultural resources within the station's surrounding area and any questions or additional information necessary for the consultation process. Figures depicting the station site and the vicinity within a 6-mile radius of the station are enclosed, and a brief discussion of the station and its operations during the extended period of operation is provided below.

ONS is located approximately eight miles northeast of Seneca, South Carolina (SC) on the southern shore of Lake Keowee. The ONS site is situated on 510 acres in eastern Oconee County, SC. In accordance with NRC regulations, the transmission lines within the scope of the license renewal are those located within the ONS site boundary.

During the license renewal term, Duke Energy proposes to continue operating the units as currently operated. There are currently no ground-disturbing activities anticipated at the ONS site during the subsequent license renewal period. Currently, Duke Energy does not anticipate any refurbishment as a result of the technical and aging management program information that will be submitted in accordance with the NRC license renewal process.

Duke Energy does not anticipate the continued operation of ONS to adversely affect the environment or any cultural or historic resources.

As stated earlier, this letter seeks your input on our proposed continued operation of ONS on historic and cultural resources, including tribal cultural resources, within the surrounding area of the station. We appreciate your notifying us of your comments and any information you believe Duke Energy should consider in the preparation of the ER. Duke Energy plans to include this letter and any response you provide in the ER.

Should you or your staff have any questions or comments, please contact Lisa Leatherman at (828) 369-4534 / [Lisa.L Leatherman@duke-energy.com](mailto:Lisa.L Leatherman@duke-energy.com).

Sincerely,



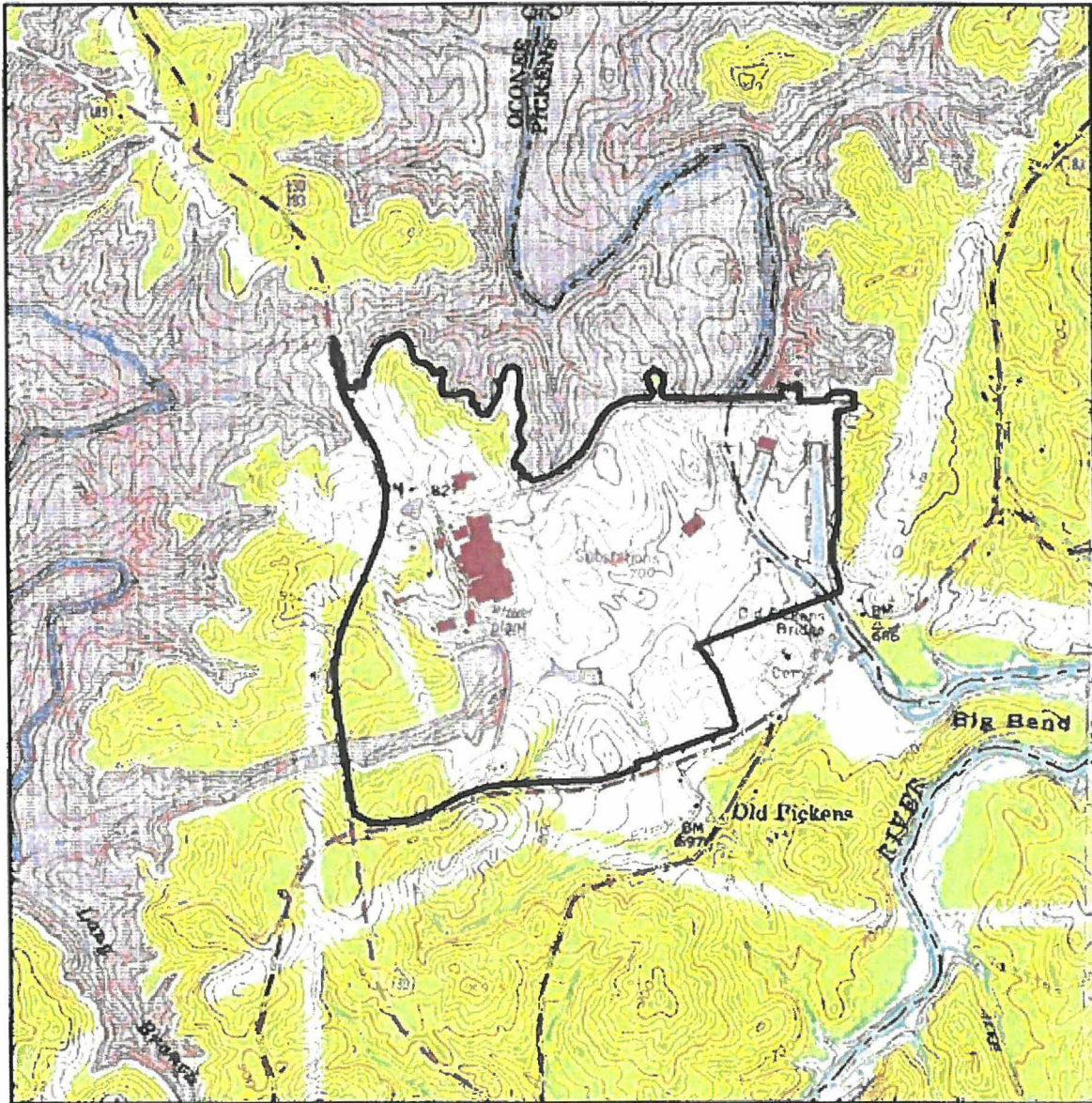
J. Ed Burchfield, Jr  
Site Vice President  
Oconee Nuclear Station

Attachments:

Figure 1. ONS Site

Figure 2. ONS 6-mile Vicinity

Figure 1. ONS Site

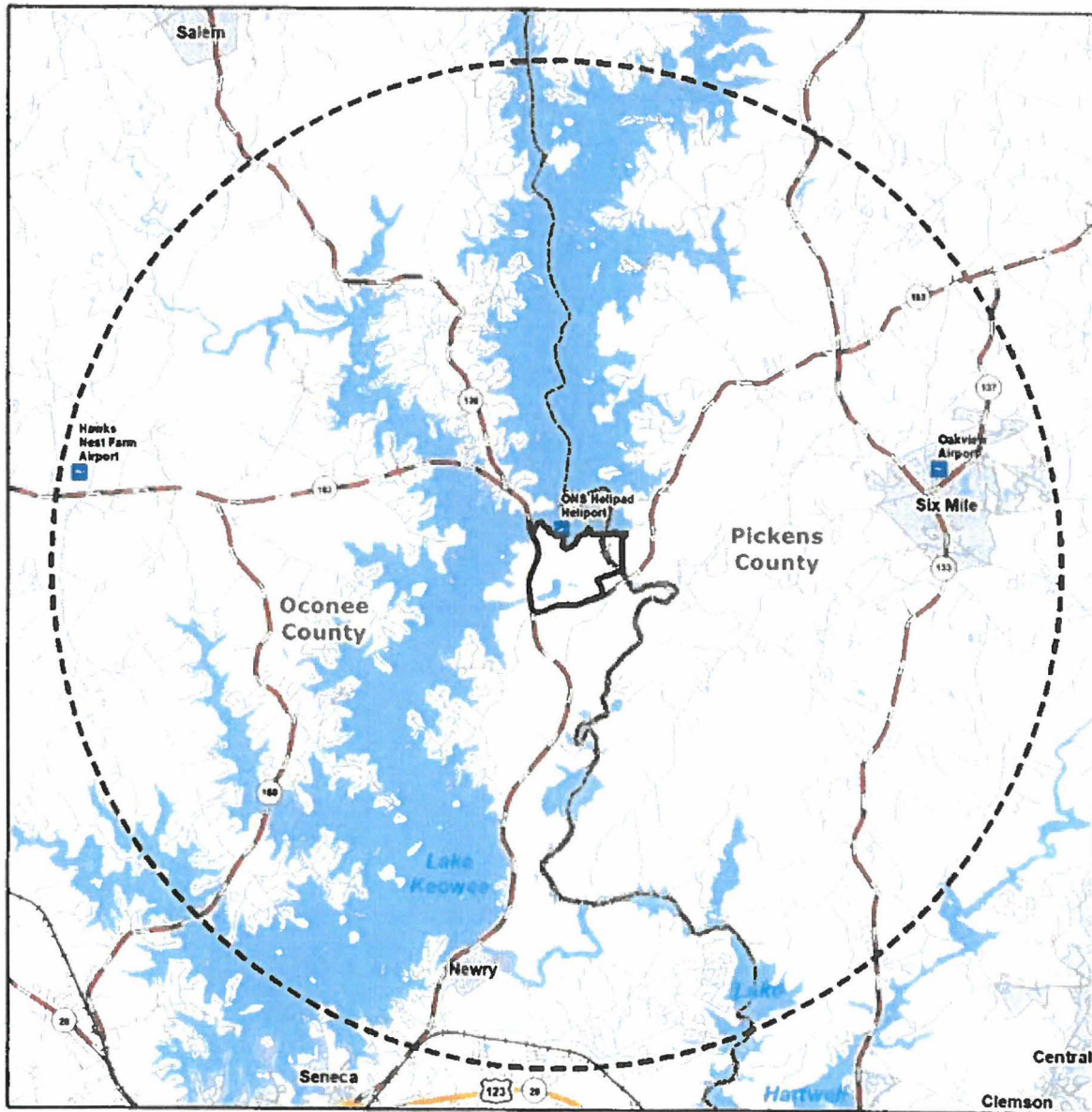


Legend

ONS Site

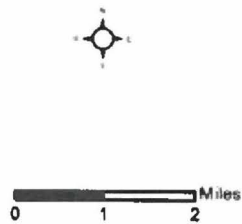
0 0.25 0.5 Miles

Figure 2. ONS 6-mile Vicinity



**Legend**

- |               |               |
|---------------|---------------|
| Airport       | Surface Water |
| Helipad       | ONS Site      |
| U.S. Route    | 6-Mile Radius |
| State Highway | Place         |
| Local Road    | County        |
| Railroad      |               |





J. Ed Burchfield, Jr.  
Vice President  
Oconee Nuclear Station

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November 11, 2019

Mary Louise Worthy, Chief  
Piedmont American Indian Association Lower Eastern Cherokee Nation of SC  
3688 Warrior Creek Church Rd  
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Dear Chief Worthy:

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ONS is located approximately eight miles northeast of Seneca, South Carolina (SC) on the southern shore of Lake Keowee. The ONS site is situated on 510 acres in eastern Oconee County, SC. In accordance with NRC regulations, the transmission lines within the scope of the license renewal are those located within the ONS site boundary.

During the license renewal term, Duke Energy proposes to continue operating the units as currently operated. There are currently no ground-disturbing activities anticipated at the ONS site during the subsequent license renewal period. Currently, Duke Energy does not anticipate any refurbishment as a result of the technical and aging management program information that will be submitted in accordance with the NRC license renewal process.

Duke Energy does not anticipate the continued operation of ONS to adversely affect the environment or any cultural or historic resources.

As stated earlier, this letter seeks your input on our proposed continued operation of ONS on historic and cultural resources, including tribal cultural resources, within the surrounding area of the station. We appreciate your notifying us of your comments and any information you believe Duke Energy should consider in the preparation of the ER. Duke Energy plans to include this letter and any response you provide in the ER.

Should you or your staff have any questions or comments, please contact Lisa Leatherman at (828) 369-4534 / [Lisa.L Leatherman@duke-energy.com](mailto:Lisa.L Leatherman@duke-energy.com).

Sincerely,



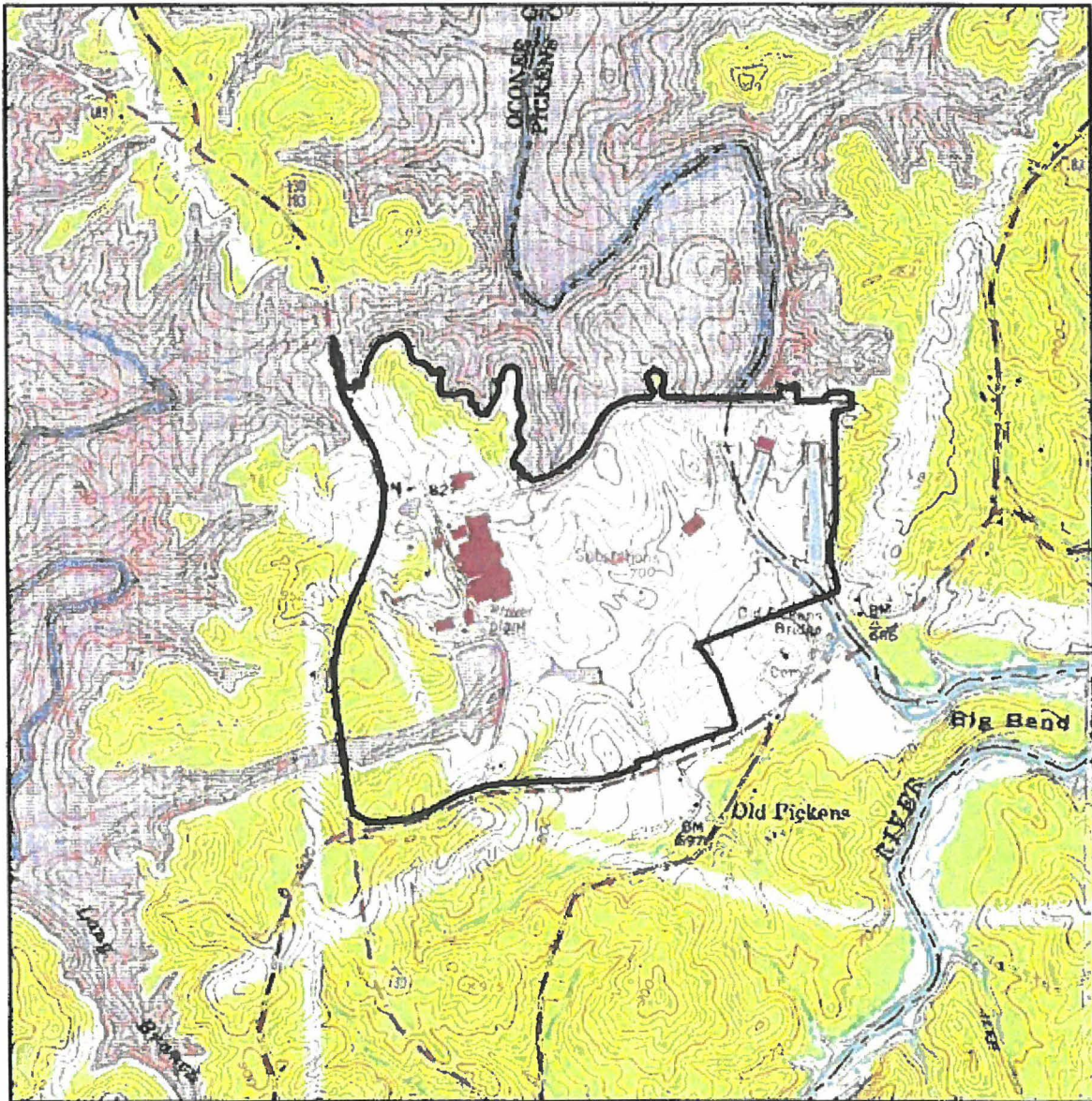
J. Ed Burchfield, Jr  
Site Vice President  
Oconee Nuclear Station

Attachments:

Figure 1. ONS Site

Figure 2. ONS 6-mile Vicinity

Figure 1. ONS Site



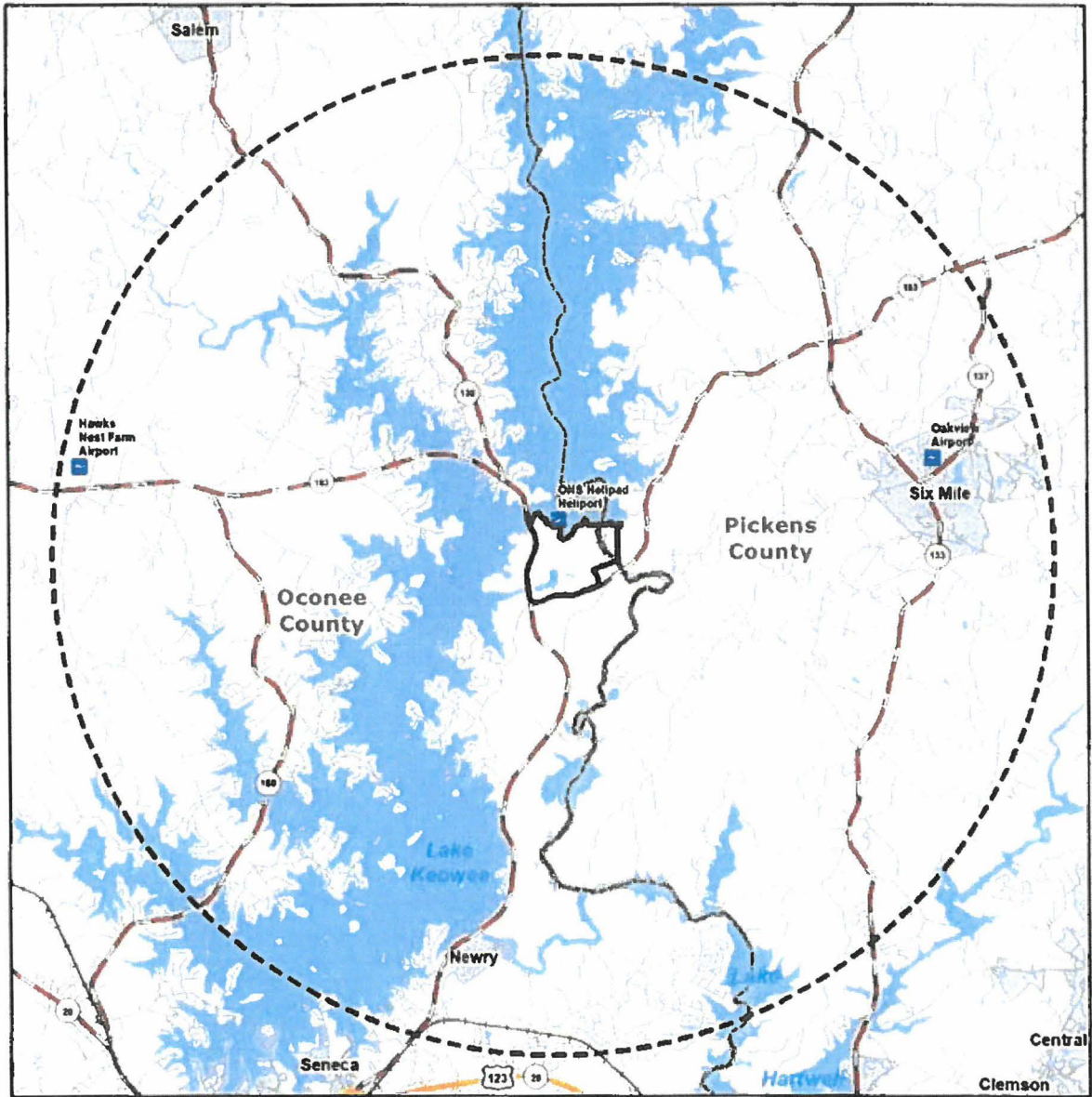
Legend  
[Thick black outline] ONS Site



0 0.25 0.5 Miles



Figure 2. ONS 6-mile Vicinity



**Legend**

-  Airport
-  Heliport
-  U.S. Route
-  State Highway
-  Local Road
-  Railroad
-  Surface Water
-  ONS Site
-  6-Mile Radius
-  Place
-  County





J. Ed Burchfield, Jr.  
Vice President  
Oconee Nuclear Station

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November 11, 2019

James Floyd, Principal Chief  
Muscogee (Creek) Nation  
PO Box 580  
Okmulgee, OK 74447

**RE: Duke Energy – Oconee Nuclear Station Units 1, 2 and 3 Subsequent License Renewal**

Dear Chief Floyd:

Duke Energy Carolinas, LLC (Duke Energy) is preparing an application for renewing the operating licenses for Oconee Nuclear Station Units 1, 2 and 3 (ONS) for an additional 20 years (see Table 1). Duke Energy is contacting you for assistance in assessing the impacts from continued operation during this renewed license period.

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To facilitate our assessment and a smooth consultation by the NRC, we are contacting you early in the application process seeking input from you regarding the effects that license renewal activities may have on historic and cultural resources within the station's surrounding area and any questions or additional information necessary for the consultation process. Figures depicting the station site and the vicinity within a 6-mile radius of the station are enclosed, and a brief discussion of the station and its operations during the extended period of operation is provided below.

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As stated earlier, this letter seeks your input on our proposed continued operation of ONS on historic and cultural resources, including tribal cultural resources, within the surrounding area of the station. We appreciate your notifying us of your comments and any information you believe Duke Energy should consider in the preparation of the ER. Duke Energy plans to include this letter and any response you provide in the ER.

Should you or your staff have any questions or comments, please contact Lisa Leatherman at (828) 369-4534 / [Lisa.L Leatherman@duke-energy.com](mailto:Lisa.L Leatherman@duke-energy.com).

Sincerely,



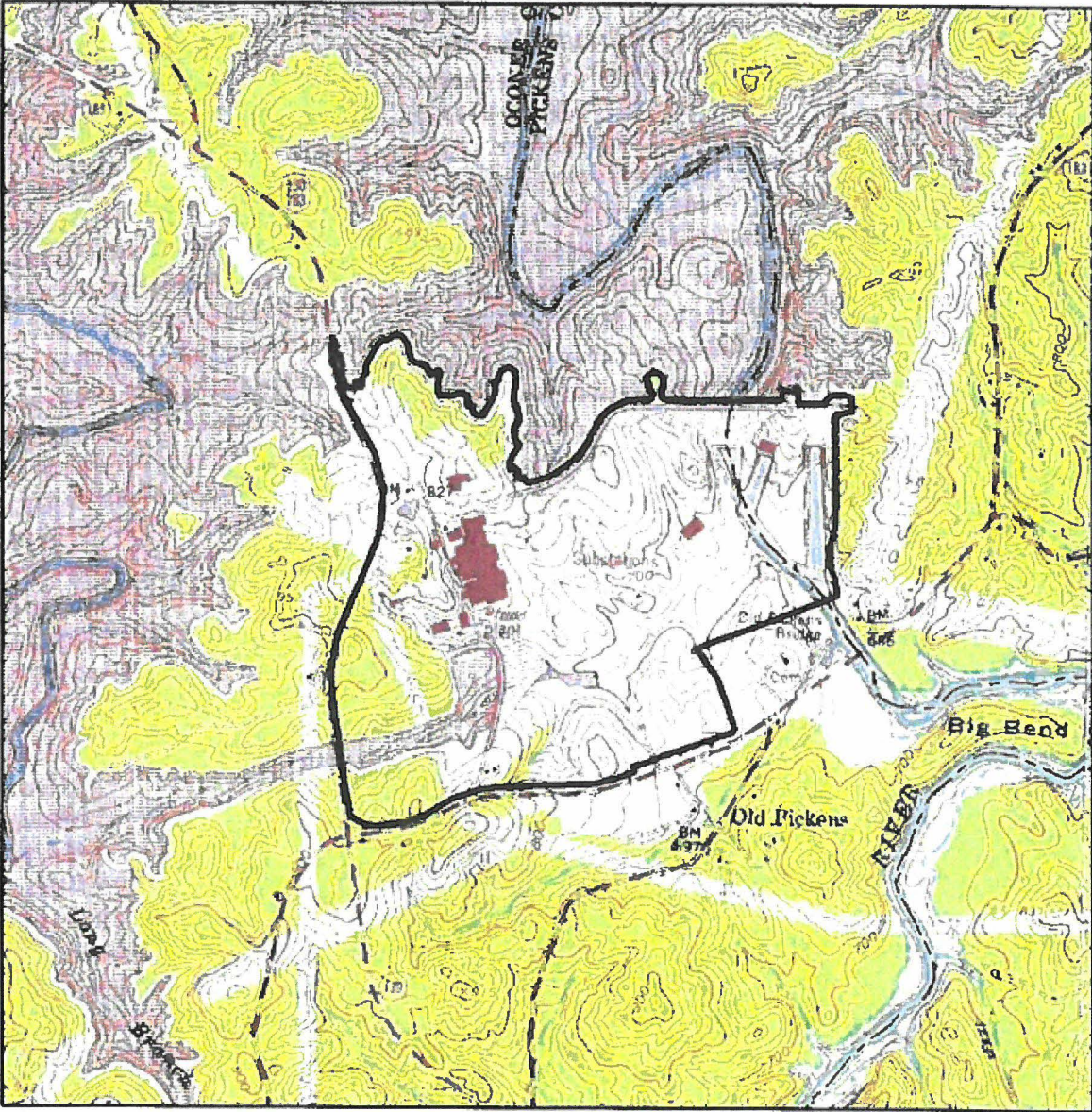
J. Ed Burchfield, Jr  
Site Vice President  
Oconee Nuclear Station

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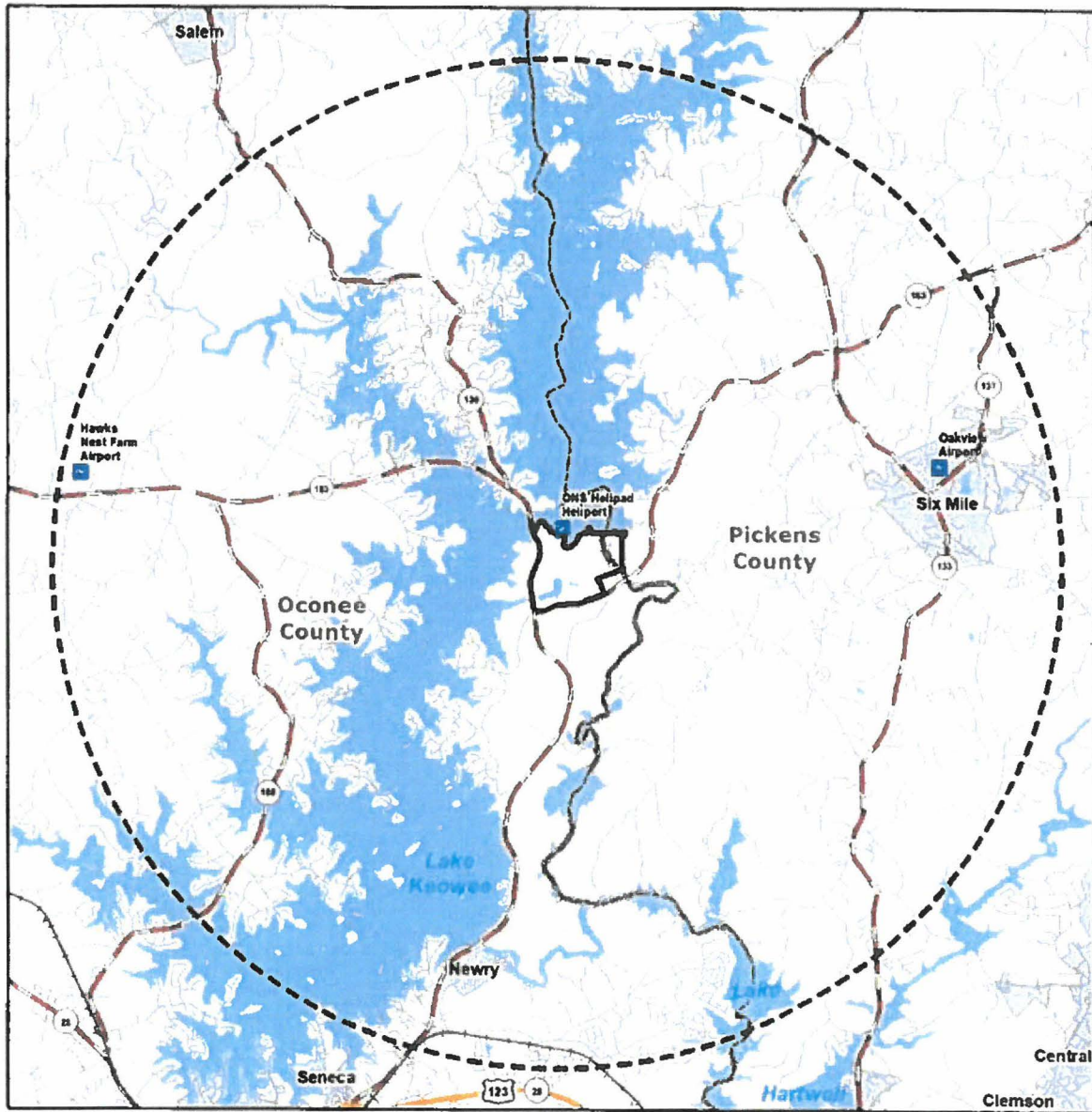


**Legend**  
[Thick black outline] ONS Site



0 0.25 0.5 Miles

Figure 2. ONS 6-mile Vicinity



**Legend**

- Airport
- Heliport
- U.S. Route
- State Highway
- Local Road
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- 6-Mile Radius
- Place
- County





J. Ed Burchfield, Jr.  
Vice President  
Oconee Nuclear Station

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† 864.873.5791  
Ed.Burchfield @duke-energy.com

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**RETURN RECEIPT REQUESTED**

November 11, 2019

Bill Harris, Chief  
Catawba Indian Nation  
996 Avenue of the Nations  
Rock Hill, SC 29730

**RE: Duke Energy – Oconee Nuclear Station Units 1, 2 and 3 Subsequent License Renewal**

Dear Chief Harris:

Duke Energy Carolinas, LLC (Duke Energy) is preparing an application for renewing the operating licenses for Oconee Nuclear Station Units 1, 2 and 3 (ONS) for an additional 20 years (see Table 1). Duke Energy is contacting you for assistance in assessing the impacts from continued operation during this renewed license period.

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Should you or your staff have any questions or comments, please contact John Crutchfield at (980) 373-2288 / [John.Crutchfield@duke-energy.com](mailto:John.Crutchfield@duke-energy.com).

Sincerely,



J. Ed Burchfield, Jr  
Site Vice President  
Oconee Nuclear Station

**Attachments:**

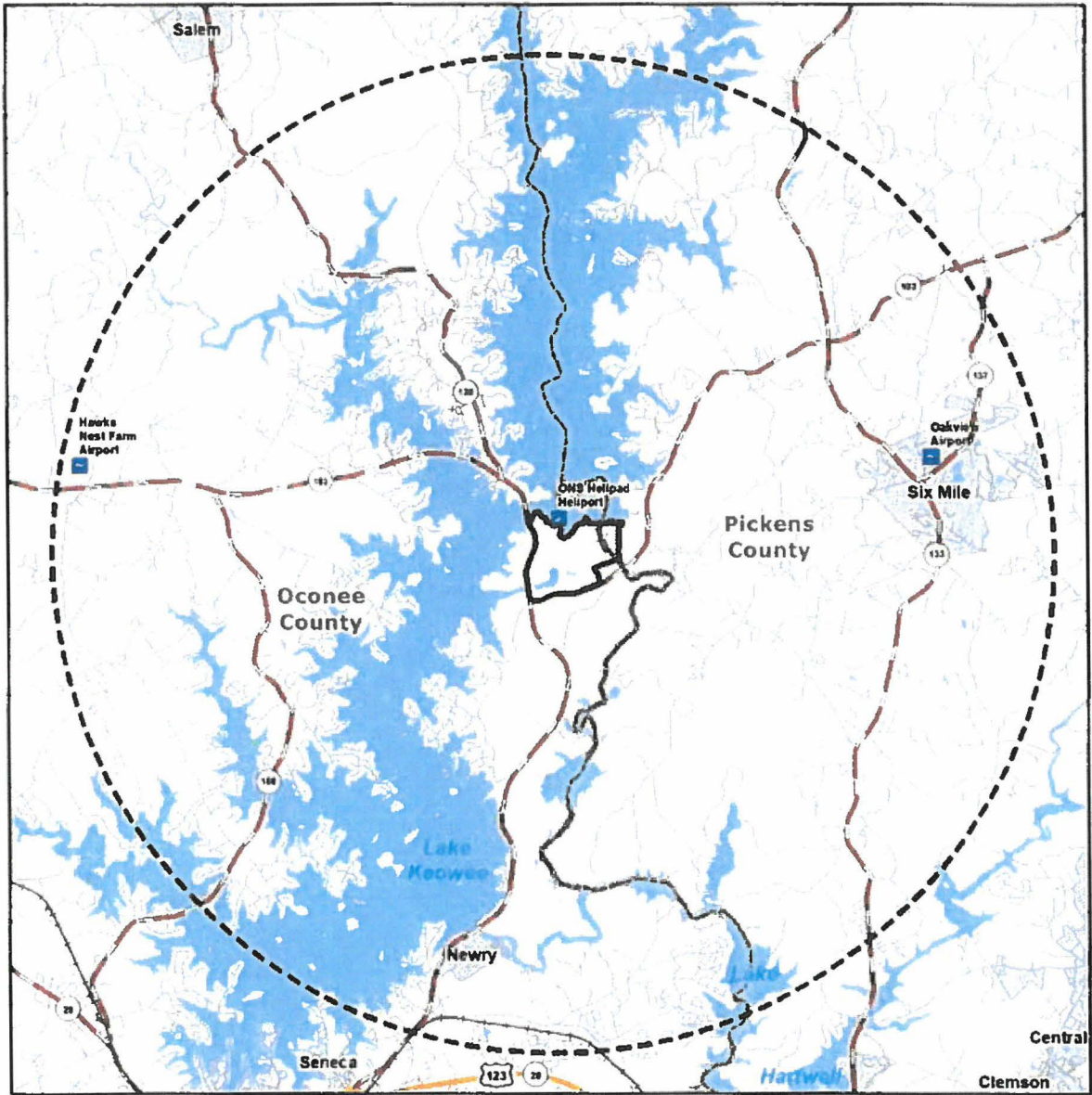
Figure 1. ONS Site

Figure 2. ONS 6-mile Vicinity





Figure 2. ONS 6-mile Vicinity



**Legend**

-  Airport
-  Heliport
-  U.S. Route
-  State Highway
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J. Ed Burchfield, Jr.  
Vice President  
Oconee Nuclear Station

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Ed.Burchfield@duke-energy.com

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November 11, 2019

Elizabeth Johnson  
South Carolina Department of Archives and History  
8301 Parklane Road  
Columbia, SC 9223

**RE: Duke Energy – Oconee Nuclear Station Units 1, 2, and 3 Subsequent License Renewal**

Dear Ms. Johnson:

Duke Energy Carolinas, LLC (Duke Energy) is preparing an application for renewing the operating licenses for Oconee Nuclear Station Units 1, 2, and 3 (ONS) for an additional 20 years (see Table 1). Duke Energy is contacting you for assistance in assessing the impacts from continued operation during this renewed license period.

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This letter seeks input from the South Carolina (SC) state historic preservation office (SHPO) regarding such effects in the vicinity of ONS. Also, as part of the renewal process, the NRC may request a consultation in accordance with Section 106 of the National Historic Preservation Act

of 1966, as amended (16 USC 470), and the federal Advisory Council on Historic Preservation regulations (36 CFR 800) with your agency regarding the license renewal. The timeframe for the NRC consultation request is anticipated to be within a few months of Duke Energy's application submittal, currently scheduled for 2021.

To facilitate our assessment and a smooth consultation by the NRC, we are contacting you early in the application process seeking input regarding the effects that license renewal activities may have on historic and cultural resources within the station's environs and any questions or additional information necessary for the consultation process. Figures depicting the station site and the vicinity within a 6-mile radius of the station and a table of known archaeological sites and historic properties in the station's vicinity are enclosed, and brief discussion of the station and its operations during the extended period of operation is provided below.

The ONS site is situated on 510 acres in eastern Oconee County and western Pickens County, South Carolina (SC), approximately 8 miles northeast of Seneca, SC, on the southern shore of Lake Keowee. In accordance with NRC regulations, the transmission lines within the scope of the license renewal are those located within the ONS site boundary.

There is no documentation of a cultural resources survey of the 510-acre property conducted prior to the construction of ONS; however, surveys were conducted prior to the construction of Lake Keowee. No NRHP-eligible cultural resources have been confirmed within the 510-acre ONS property. No structures within the ONS property have been documented through the Historic American Buildings Survey (HABS) or Historic American Engineering Record (HAER) programs. This license renewal will extend the ONS operating license from 60 to 80 years. During this period, some of the ONS-associated structures will be greater than 50 years of age; however, there are no anticipated changes to use or construction plans that may alter their current status.

There are 103 offsite resources within 6 miles of ONS. Known archaeological sites and historic properties within a 6-mile radius of ONS are presented in Table 2, but due to the large number of resources, the table is restricted to NRHP-listed resources, as well as those that are potentially eligible, determined eligible, or very close proximity. There are three NRHP-listed resources within 6 miles of ONS.

During the license renewal term, Duke Energy proposes to continue operating the units as currently operated. There are currently no ground-disturbing activities anticipated at the ONS site during the subsequent license renewal period. Currently, Duke Energy does not anticipate any refurbishment as a result of the technical and aging management program information that will be submitted in accordance with the NRC license renewal process.

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As stated earlier, this letter seeks your input on our proposed continued operation of ONS on historic and cultural resources, including tribal cultural resources, within the environs of the station. We appreciate your notifying us of your comments and any information you believe Duke Energy should consider in the preparation of the ER. Duke Energy plans to include this letter and any response you provide in the ER.

Should you or your staff have any questions or comments, please contact Christy Churchill at (980) 373-4183/ [Christy.Churchill@duke-energy.com](mailto:Christy.Churchill@duke-energy.com).

Sincerely,



J. Ed Burchfield, Jr  
Site Vice President  
Oconee Nuclear Station

Attachments:

Table 2. Archaeological Sites and Historic Properties within a 6-mile Radius of ONS

Figure 1. ONS Site

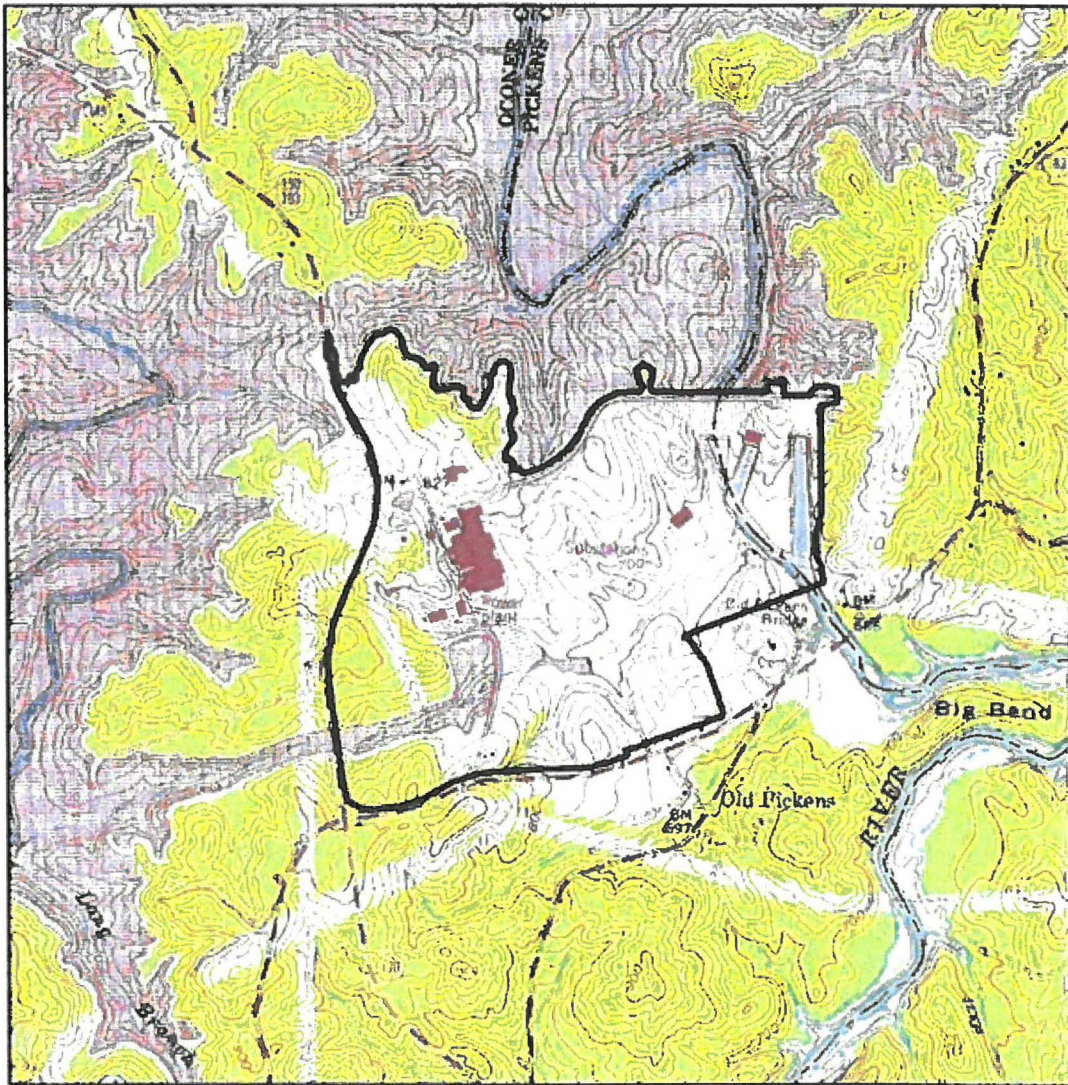
Figure 2. ONS 6-mile Vicinity

**Table 2. Archaeological Sites and Historic Properties within a 6-mile Radius of ONS<sup>(a)</sup>**

Site ID#	County	Quadrangle	NRHP Status
38OC0001	Oconee	Old Pickens	Not evaluated
38OC0002	Oconee	Old Pickens	Not evaluated
38OC0036	Oconee	Old Pickens	NRHP listed
38OC0105	Oconee	Old Pickens	Probably not eligible
38OC0225	Oconee	Old Pickens	Probably not eligible
38OC0460	Oconee	Old Pickens	Potentially eligible
38OC0466	Oconee	Old Pickens	Potentially eligible
38PN0001	Pickens	Old Pickens	Not evaluated
38PN0002	Pickens	Old Pickens	Not evaluated
38PN0004	Pickens	Old Pickens	Not evaluated
38PN0005	Pickens	Old Pickens	Not evaluated
38PN0012	Pickens	Old Pickens	Not evaluated
38PN0051	Pickens	Old Pickens	Probably not eligible
38PN0149	Pickens	Old Pickens	Recommend additional work
38PN0178	Pickens	Old Pickens	Not eligible
38PN0179	Pickens	Old Pickens	Not eligible
0004	Oconee	Seneca	NRHP listed
0029	Oconee	Old Pickens	NRHP listed

a. Due to the large number of sites (103) within 6 miles of ONS, only sites that are potentially eligible, determined eligible, or in very close proximity are included.

Figure 1. ONS Site



Legend  
[Black Outline] ONS Site

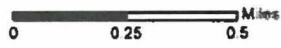
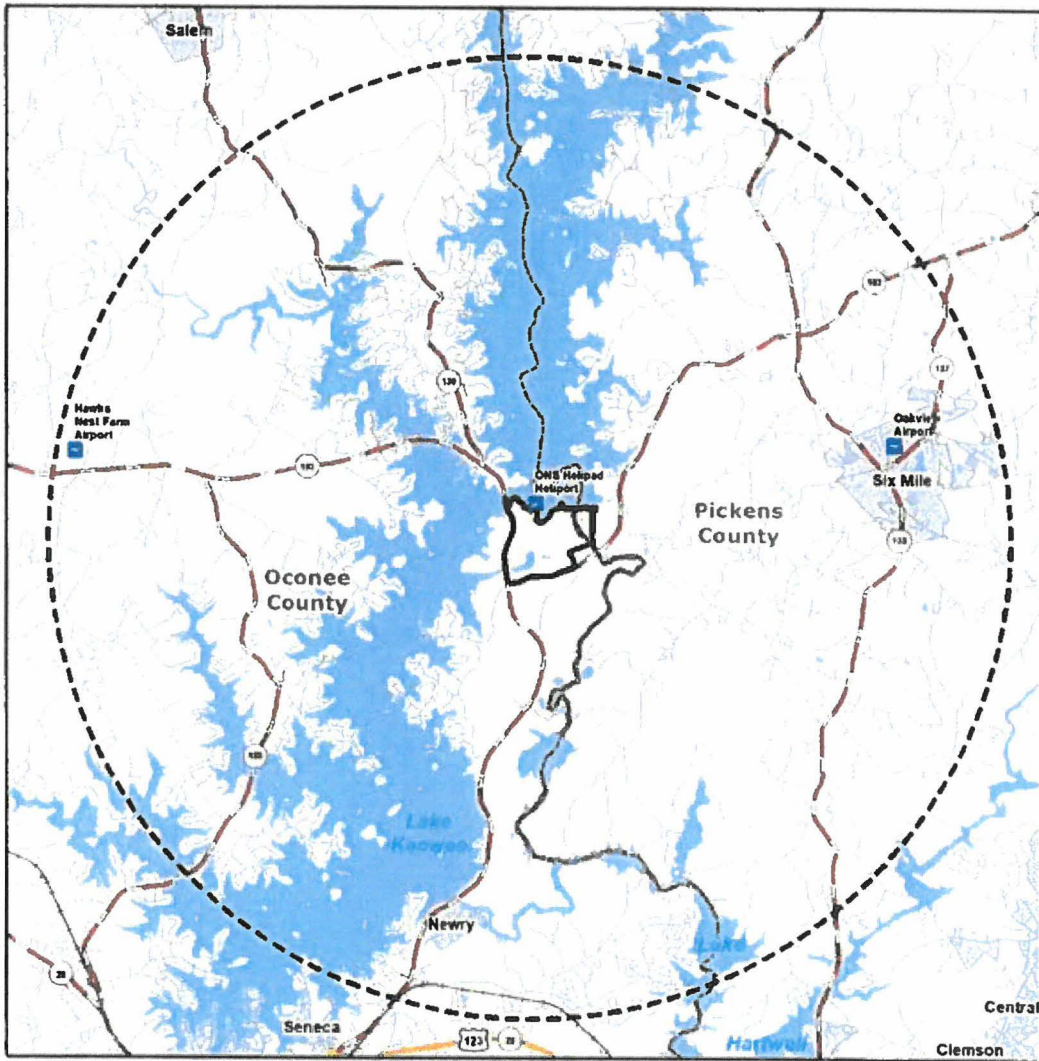


Figure 2. ONS 6-mile Vicinity



Legend

- Airport
- Heliport
- U.S. Route
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- County



0 1 2 Miles



December 5, 2019

J. Ed Burchfield, Jr.  
Oconee Nuclear Station  
Duke Energy  
ON01VP/7800 Rochester Hwy  
Seneca, SC 29672

Re: Duke Energy – Oconee Nuclear Station Units 1, 2, and 3 Subsequent License  
Renewal  
Pickens and Oconee counties, South Carolina  
SHPO Project No. 19-EJ0085

Dear Mr. Burchfield:

Thank you for your letter of November 11, 2019, which we received on November 14, regarding the application by Duke Energy to renew the operating licenses for Oconee Nuclear Station Units 1, 2 and 3 (ONS). The State Historic Preservation Office (SHPO) is providing comments to Duke Energy as part of the application process which includes preparation of an environmental report assessing impacts from continued operation. The Nuclear Regulatory Commission may request a consultation pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR 800. Please note that consultation with the SHPO is not a substitution for consultation with Tribal Historic Preservation Offices, other Native American tribes, local governments, or the public.

Thank you for providing the list of offsite resources within a 6 mile vicinity of the ONS that are listed in the National Register of Historic Places (NRHP), “potentially eligible”, determined eligible or in very close proximity. (Please see [our statement on the use of the term “potentially eligible”](#) for future reference.) There are no currently documented historic properties on the 510-acre ONS site, and no documentation of a cultural resources survey to identify historic properties having been conducted prior to ONS construction. We note that after a review of the site file for 38OC0105 we concur that no additional work is needed at that site. Also, please reference the above-ground NRHP listed properties by name, and delete the site numbers as these do not appear to correspond to a SHPO assigned site number.

We understand that no additional ground-disturbing activities are proposed to occur during license renewal period. However, if additional ground-disturbing activities were to be proposed we would recommend a cultural resources survey and consultation with our office prior to

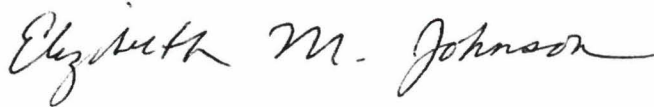


ground-disturbance. We recommend the survey because the project area is in direct proximity to known archaeological sites and historic properties and contains moderate to high probability areas in which there is reasonable likelihood for the occurrence of prehistoric and/or historic cultural resources. Also, as the ONS-structures will become greater than 50 years of age during the renewal period we recommend that Duke Energy evaluate these associated structures for NRHP eligibility once they reach 50 years of age.

Finally, we recommend development of a management plan to spell out how cultural resources will be managed. This plan could include a plan for the evaluation of the associated structures for NRHP eligibility, a plan for conducting cultural resources survey if ground-disturbing activities are proposed, and any avoidance and buffering measures that are in place.

Please refer to SHPO Project Number 19-EJ0085 in any future correspondence regarding this project. If you have any questions, please contact me at (803) 896-6168 or [ejohnson@scdah.sc.gov](mailto:ejohnson@scdah.sc.gov).

Sincerely,

A handwritten signature in cursive script that reads "Elizabeth M. Johnson".

Elizabeth M. Johnson  
Director, Historical Services, D-SHPO  
State Historic Preservation Office

Cc: Christy Churchill, Duke Energy



J. Ed Burchfield, Jr.  
Vice President  
Oconee Nuclear Station

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**BY U.S. MAIL**  
**RETURN RECEIPT REQUESTED**

November 11, 2019

Jonathan Leader  
State Archaeologist  
SC Institute of Archaeology and Anthropology  
1321 Pendleton Street  
Columbia, SC 29208

**RE: Duke Energy – Oconee Nuclear Station Units 1, 2, and 3 Subsequent License Renewal**

Dear Mr. Leader:

Duke Energy Carolinas, LLC (Duke Energy) is preparing an application for renewing the operating licenses for Oconee Nuclear Station Units 1, 2, and 3 (ONS) for an additional 20 years (see Table 1). Duke Energy is contacting you for assistance in assessing the impacts from continued operation during this renewed license period.

**Table 1. ONS Licensing Dates**

<b>ONS Unit</b>	<b>License Expiration Date</b>	<b>Extended License Expiration Date</b>
Unit 1	February 6, 2033	February 6, 2053
Unit 2	October 6, 2033	October 6, 2053
Unit 3	July 19, 2034	July 19, 2054

As part of the renewal process, the U.S. Nuclear Regulatory Commission (NRC) requires that the license renewal application include an environmental report (ER) assessing the impacts from continued operation and any refurbishment undertaken to enable the continued operation of the units. The ER addresses the potential to impact historic and cultural resources on or near the ONS site.

This letter seeks input from the South Carolina (SC) state historic preservation office (SHPO) regarding such effects in the vicinity of ONS. Also, as part of the renewal process, the NRC may request a consultation in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC 470), and the federal Advisory Council on Historic Preservation regulations (36 CFR 800) with your agency regarding the license renewal. The timeframe for the NRC consultation request is anticipated to be within a few months of Duke Energy's application submittal, currently scheduled for 2021.

To facilitate our assessment and a smooth consultation by the NRC, we are contacting you early in the application process seeking input regarding the effects that license renewal activities may have on historic and cultural resources within the station's environs and any questions or additional information necessary for the consultation process. Figures depicting the station site and the vicinity within a 6-mile radius of the station and a table of known archaeological sites and historic properties in the station's vicinity are enclosed, and brief discussion of the station and its operations during the extended period of operation is provided below.

The ONS site is situated on 510 acres in eastern Oconee County and western Pickens County, South Carolina (SC), approximately 8 miles northeast of Seneca, SC, on the southern shore of Lake Keowee. In accordance with NRC regulations, the transmission lines within the scope of the license renewal are those located within the ONS site boundary.

There is no documentation of a cultural resources survey of the 510-acre property conducted prior to the construction of ONS; however, surveys were conducted prior to the construction of Lake Keowee. No NRHP-eligible cultural resources have been confirmed within the 510-acre ONS property. There are 103 offsite resources within 6 miles of ONS. Known archaeological sites and historic properties within a 6-mile radius of ONS are presented in Table 2, but due to the large number of resources, the table is restricted to NRHP-listed resources, as well as those that are potentially eligible, determined eligible, or very close proximity. There are three NRHP-listed resources within 6 miles of ONS.

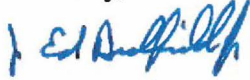
During the license renewal term, Duke Energy proposes to continue operating the units as currently operated. There are currently no ground-disturbing activities anticipated at the ONS site during the subsequent license renewal period. Currently, Duke Energy does not anticipate any refurbishment as a result of the technical and aging management program information that will be submitted in accordance with the NRC license renewal process.

Duke Energy does not anticipate the continued operation of ONS to adversely affect the environment or any cultural or historic resources.

As stated earlier, this letter seeks your input on our proposed continued operation of ONS on historic and cultural resources, including tribal cultural resources, within the environs of the station. We appreciate your notifying us of your comments and any information you believe Duke Energy should consider in the preparation of the ER. Duke Energy plans to include this letter and any response you provide in the ER.

Should you or your staff have any questions or comments, Christy Churchill at (980) 373-4183/  
[Christy.Churchill@duke-energy.com](mailto:Christy.Churchill@duke-energy.com).

Sincerely,



J. Ed Burchfield, Jr  
Site Vice President  
Oconee Nuclear Station

Attachments:

Table 2. Archaeological Sites and Historic Properties within a 6-mile Radius of ONS

Figure 1. ONS Site

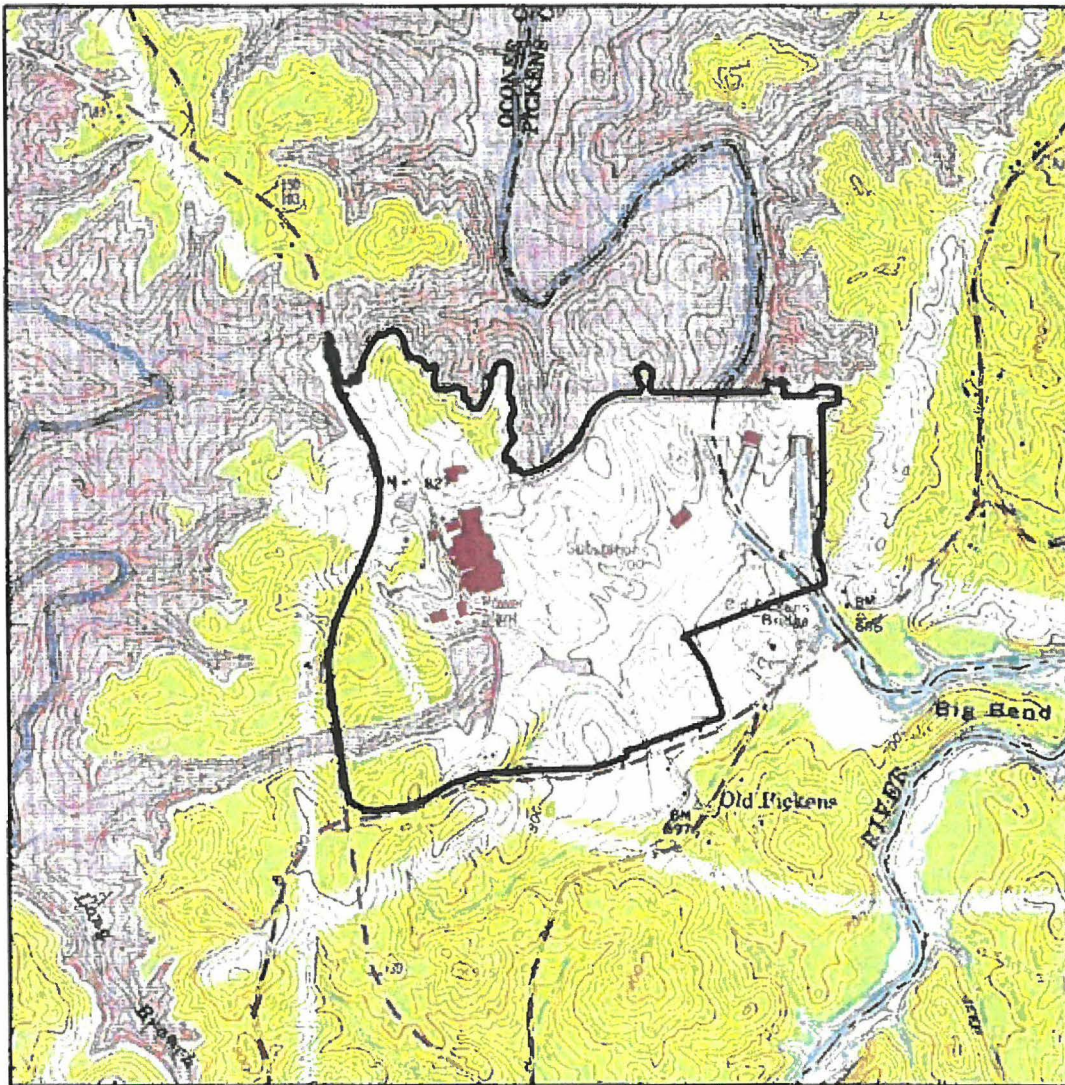
Figure 2. ONS 6-mile Vicinity

Table 2. Archaeological Sites and Historic Properties within a 6-mile Radius of ONS<sup>(a)</sup>

Site ID#	County	Quadrangle	NRHP Status
38OC0001	Oconee	Old Pickens	Not evaluated
38OC0002	Oconee	Old Pickens	Not evaluated
38OC0036	Oconee	Old Pickens	NRHP listed
38OC0105	Oconee	Old Pickens	Probably not eligible
38OC0225	Oconee	Old Pickens	Probably not eligible
38OC0460	Oconee	Old Pickens	Potentially eligible
38OC0466	Oconee	Old Pickens	Potentially eligible
38PN0001	Pickens	Old Pickens	Not evaluated
38PN0002	Pickens	Old Pickens	Not evaluated
38PN0004	Pickens	Old Pickens	Not evaluated
38PN0005	Pickens	Old Pickens	Not evaluated
38PN0012	Pickens	Old Pickens	Not evaluated
38PN0051	Pickens	Old Pickens	Probably not eligible
38PN0149	Pickens	Old Pickens	Recommend additional work
38PN0178	Pickens	Old Pickens	Not eligible
38PN0179	Pickens	Old Pickens	Not eligible
0004	Oconee	Seneca	NRHP listed
0029	Oconee	Old Pickens	NRHP listed

a. Due to the large number of sites (103) within 6 miles of ONS, only sites that are potentially eligible, determined eligible, or in very close proximity are included.

Figure 1. ONS Site

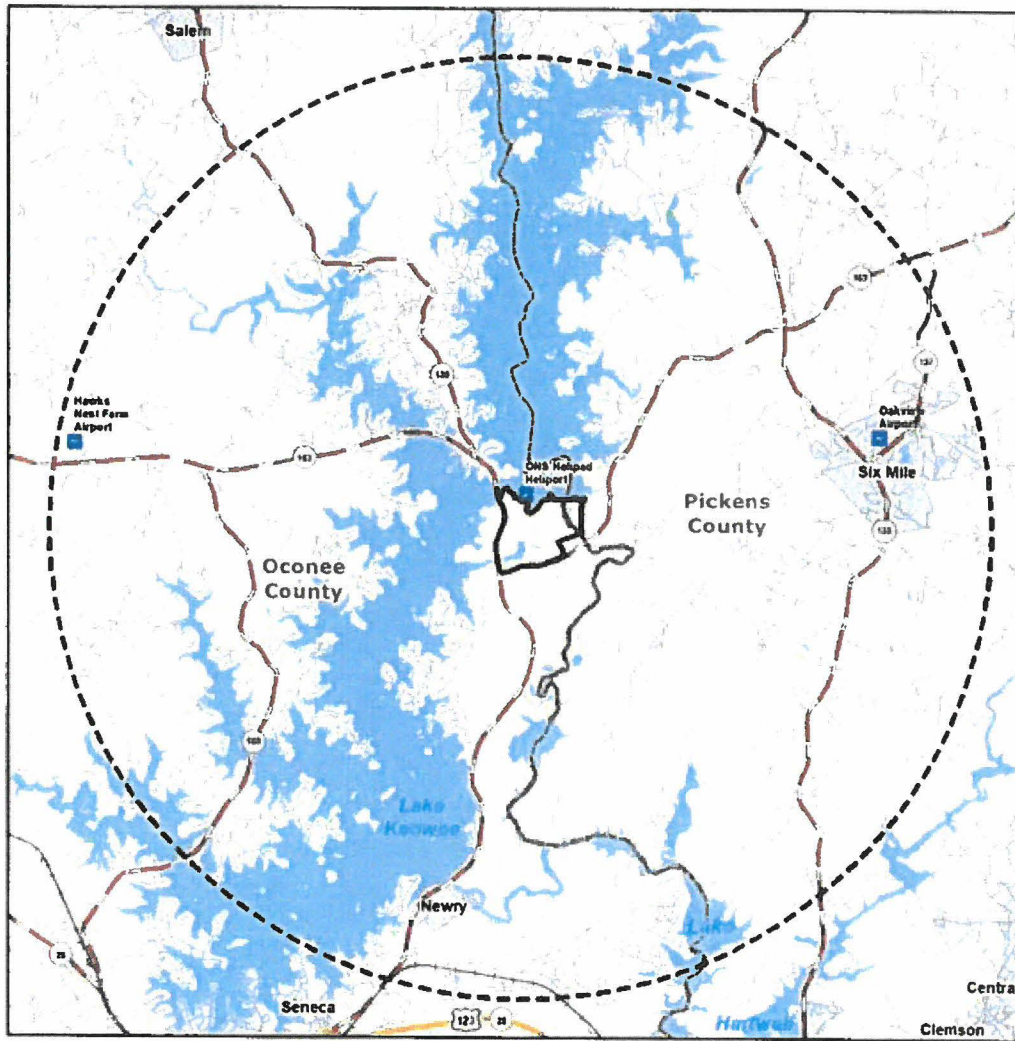


Legend  
[Black Outline] ONS Site



0 0.25 0.5 Miles

Figure 2. ONS 6-mile Vicinity



Legend

- |               |               |
|---------------|---------------|
| Airport       | Surface Water |
| Heliport      | ONS Site      |
| U.S. Route    | 6-Mile Radius |
| State Highway | Place         |
| Local Road    | County        |
| Railroad      |               |



**Attachment E: CWA Water Letters**





BOARD MEMBERS

Lachlan L. Hyatt, Chairman  
William M. Wilson, Vice-Chairman  
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# SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

August 2, 1976

BRANCH  
E. KENNETH AYCOCK, M.D., M.P.H., COMMISSIONER  
J. MARION SIMS BUILDING — 2600 BULL STREET  
COLUMBIA, SOUTH CAROLINA 29201  
AUG 03 1976  
EPA-REGIO  
ATLANTA, GA.

Mr. Paul J. Traina  
Director, Enforcement Division  
U.S. Environmental Protection Agency  
1421 Peachtree St., N.E.  
Atlanta, Georgia 30309

Re: State Certification  
Duke Power Company  
Oconee Nuclear Station  
Oconee County

Dear Mr. Traina:

Pursuant to Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1251, 1341; hereafter the "Act"), the State of South Carolina issues this certification for the referenced industry as an applicant for a NPDES permit to discharge into navigable waters. Certification is issued with the following comments:

1. Page 2 of the permit - Once Through Cooling Water  
Delete the third paragraph "Permittee's discharge ..." and add the following:

"The waters at sample point #504 shall not exceed a monthly average temperature of 32.2°C(90°F) nor shall the monthly average water temperature at sample point #603 be more than 1.67°C(3°F) greater than that of waters at sample point #501. Sample points #501, #504, and #603 as described in the Semi-Annual Report period ending December 31, 1975 submitted by Duke Power Company to the Nuclear Regulatory Commission are defined as follows:

- #501 - in Lake Keowee near the Little River Dam
- #504 - in Lake Keowee at the Keowee Hydro intake
- #603 - in Lake Hartwell at S.C. Highway 93 bridge

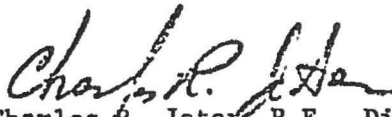
Temperatures at these points shall be monitored once per week at a depth of 0.3 meters."

RECEIVED  
ENFORCEMENT  
DIVISION  
AUG 3 11 58 AM '76

A letter to Paul Traina.  
Page 2  
August 2, 1976

2. Page 6 of the permit - Sewage Treatment Plant  
Recommend that the measurement frequency for BOD<sub>5</sub>, TSS, and Fecal Coliform be once per month.

Sincerely,

  
Charles R. Jeter, P.E., Director  
Industrial & Agricultural Wastewater Division  
Bureau of Wastewater & Stream Quality Control

CRJ/JP/jk

AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"),

Duke Power Company  
P.O. Box 2178  
Charlotte, North Carolina 28201

is authorized to discharge from a facility located at

Oconee Nuclear Station  
P.O. Box 1175  
Seneca, South Carolina

to receiving waters named Lake Keowee from discharge points enumerated herein, as serial numbers 001, 002, 003, 004 and 005

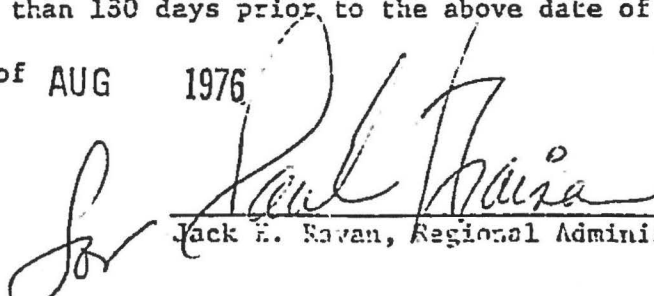
During the effective period of this permit

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, and III hereof.

This permit is a modification of the NPDES permit issued for this facility on December 31, 1974, and replaces that permit in its entirety. This modified permit shall become effective 30 days after receipt.

This modified permit and the authorization to discharge shall expire at midnight, February 18, 1980. Permittee shall not discharge after the above date of expiration without prior authorization. In order to receive authorization to discharge beyond the above date of expiration, the permittee shall submit such information, forms, and fees as are required by the Agency authorized to issue NPDES permits no later than 130 days prior to the above date of expiration.

Signed this 30 day of AUG 1976

  
\_\_\_\_\_  
Jack E. Ravan, Regional Administrator

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on effective date and lasting through expiration the permittee is authorized to discharge from outfall(s) serial number(s) 001 discharged to Lake Keowee

- Once-through cooling water

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Daily Average</u>	<u>Instantaneous Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow-m <sup>3</sup> /Day (MGD)	N/A	N/A	Hourly	Recorder or Calculation
Temperature Rise °C(°F)	N/A		Hourly	Recorder or Calculation
Free available chlorine (mg/l)		See Below	1/week	Grabs
Total residual chlorine (mg/l)		See Below	1/week	Grabs

After July 1, 1977, free available chlorine shall not exceed an average concentration of 0.2 mg/l and a maximum instantaneous concentration of 0.5 mg/l at the outlet corresponding to an individual unit. Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit may discharge free available or total residual chlorine at any one time unless the permittee can demonstrate to the Regional Administrator that the unit(s) cannot operate efficiently at or below this level of chlorination.

Discharge temperature shall not exceed 37.8°C (100.0°F) for a time period in excess of two hours, unless critical hydrological and meteorological conditions are combined with high customer demand which cannot be met from other sources. Under these latter conditions, the discharge temperature shall not be allowed to exceed 39.4°C (103.0°F). Maximum temperature rise above intake shall be limited to 12.2°C (22°F) when the intake temperature is greater than 20°C (68°F).

Permittee's discharge from Keowee Hydro Station to Lake Hartwell may not exceed a daily average temperature of 32°C (90°F). Discharge temperature from Keowee Hydro Station shall be measured by continuous recorder.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Chlorine at an outlet corresponding to an individual unit prior to mixing with other waste streams, temperature at condenser intake and discharge.

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

*See page 4*

During the period beginning effective date \_\_\_\_\_ and lasting through June 30, 1977  
 the permittee is authorized to discharge from outfall(s) serial number(s) 002 - Wastewater treatment system discharged  
 to Lake Hartwell

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	Daily Average	Daily Maximum	Measurement Frequency	Sample Type
Flow—m <sup>3</sup> /Day (MGD)	N/A	N/A	1/week	Weir reading
Oil and Grease (mg/l)	N/A	N/A	2/month	Grab
Total Suspended Solids (mg/l)	N/A	N/A	2/month	Grab

The pH shall not be less than N/A standard units nor greater than N/A standard units and shall be monitored once each week by taking a grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):  
 discharge from the wastewater treatment system prior to mixing with any other waste stream.

MODIFIED Page 3 of 15  
 Permit No. SC0000515  
 PART I

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

During the period beginning July 1, 1977 and lasting through expiration the permittee is authorized to discharge from outfall(s) serial number(s) 002 - Wastewater treatment system discharged to Lake Hartwell. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	Daily Average	Daily Maximum	Measurement Frequency	Sample Type
Flow—m <sup>3</sup> /Day (MGD)	N/A	N/A	1/week	Weir reading
Oil and Grease (mg/l)	15	20	2/month	Grab
Total Suspended Solids (mg/l)	30	100	2/month	Grab

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once each week by taking a grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): discharge from the wastewater treatment system prior to mixing with any other waste stream.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning effective date and lasting through expiration the permittee is authorized to discharge from outfall(s) serial number(s) 003 - Radwaste System discharged to the Keowee Hydro Tailrace

This discharge is regulated by the Nuclear Regulatory Commission under the provisions of operating license's DPR-38, DPR-47 and DPR-55 and is monitored and reported to the Nuclear Regulatory Commission.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning July 1, 1977 and lasting through expiration the permittee is authorized to discharge from outfall(s) serial number(s) 004\* - Sewage Treatment Plant Discharged to wastewater treatment system

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	mg/l		Organisms per 100 ml (Geometric mean)		Measurement Frequency	Sample Type
	Daily Avg	Daily Max	Daily Avg.	Daily Max		
Flow-m <sup>3</sup> /Day (MGD)	N/A	N/A	N/A	N/A	1/month	during sampling
BOD <sub>5</sub>	30	45	N/A	N/A	1/quarter	grab
Total Suspended Solids	30	45	N/A	N/A	1/quarter	grab
Fecal Coliform Bacteria	N/A	N/A	200	400	1/quarter	grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): sewage treatment plant discharge prior to mixing with any other waste stream.

\*Serial number assigned for monitoring and identification purposes.



A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning July 1, 1977 and lasting through expiration the permittee is authorized to discharge from outfall(s) serial number(s) 005\* Metal Cleaning discharged from station settling basin(s)

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type
Flow-m /Day (MGD)	N/A	N/A	1/batch	Instantaneous and/ Calculation
Copper, Total (mg/l)	1.0	1.0	1/batch	Grab
Iron, Total (mg/l)	1.0	1.0	1/batch	Grab

Metal cleaning wastes shall mean any cleaning compounds, rinse waters, or any other waterborne residues derived from cleaning and metal process equipment including, but not limited to, steam generator tube cleaning.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Settling basin(s) discharge prior to mixing with any other waste streams.

\*Serial number assigned for monitoring and identification purposes.

B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

a. Achieve operational level sewage treatment plant - 6/30/77

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

Note: Any construction of new waste treatment facilities or alterations to existing waste treatment facilities will require a permit or authorization for construction in accordance with applicable state law and regulation.

### C. MONITORING AND REPORTING

#### 1. *Representative Sampling*

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

#### 2. *Reporting*

Monitoring results obtained during the previous 3 months shall be summarized for each month and reported on a Discharge Monitoring Report Form (EPA No. 3320-1), postmarked no later than the 28th day of the month following the completed reporting period. The first report is due on January 28, 1977. Duplicate signed copies of these, and all other reports required herein, shall be submitted to the Regional Administrator and the State at the following addresses:

Environmental Protection Agency  
Water Enforcement Branch  
345 Courtland Street, N. E.  
Atlanta, Georgia 30308

AND

South Carolina Department of  
Health and Environmental Control  
2600 Bull Street  
Columbia, South Carolina 29201

#### 3. *Definitions*

- a. The "daily average" concentration means the arithmetic average (weighted by flow) of all the daily determinations of concentration made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily determination of concentration shall be the arithmetic average (weighted by flow) of all the samples collected during that calendar day.
- b. The "daily maximum" concentration means the daily determination of concentration for any calendar day.
- c. "Weighted by flow" means the summation of each sample concentration times its respective flow in convenient units divided by the summation of the flow values.
- d. "Nekton" means free swimming aquatic animals whether of freshwater or marine origin.
- e. For the purpose of this permit, a calendar day is defined as any 24-hour period.

4. *Test Procedures*

Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304(g) of the Act, under which such procedures may be required.

5. *Recording of Results*

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of sampling;
- b. The dates the analyses were performed;
- c. The person(s) who performed the analyses;
- d. The analytical techniques or methods used; and
- e. The results of all required analyses.

6. *Additional Monitoring by Permittee*

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form (EPA No. 3320-1). Such increased frequency shall also be indicated.

7. *Records Retention*

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the State water pollution control agency.

## A. MANAGEMENT REQUIREMENTS

### 1. *Change in Discharge*

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the permit issuing authority of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

### 2. *Noncompliance Notification*

If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation specified in this permit, the permittee shall provide the Regional Administrator and the State with the following information, in writing, within five (5) days of becoming aware of such condition:

- a. A description of the discharge and cause of noncompliance; and
- b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

### 3. *Facilities Operation*

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

### 4. *Adverse Impact*

The permittee shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

### 5. *Bypassing*

Any diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions of this permit is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit. The permittee shall promptly notify the Regional Administrator and the State in writing of each such diversion or bypass.

## 6. *Removed Substances*

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

## 7. *Power Failures*

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

- a. In accordance with the Schedule of Compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities;

or, if such alternative power source is not in existence, and no date for its implementation appears in Part I,

- b. Halt, reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

## B. RESPONSIBILITIES

### 1. *Right of Entry*

The permittee shall allow the head of the State water pollution control agency, the Regional Administrator, and/or their authorized representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

### 2. *Transfer of Ownership or Control*

In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Regional Administrator and the State water pollution control agency.

### 3. *Availability of Reports*

Except for data determined to be confidential under Section 308 of the Act, all reports prepared in accordance with the terms of this permit shall be available for public

inspection at the offices of the State water pollution control agency and the Regional Administrator. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act.

#### 4. *Permit Modification*

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

#### 5. *Toxic Pollutants*

Notwithstanding Part II, B-4 above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee so notified.

#### 6. *Civil and Criminal Liability*

Except as provided in permit conditions on "Bypassing" (Part II, A-5) and "Power Failures" (Part II, A-7), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

#### 7. *Oil and Hazardous Substance Liability*

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

#### 8. *State Laws*

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.

9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected hereby.

PART III

OTHER REQUIREMENTS

- A. In the event that waste streams from various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property attributable to each controlled waste source shall not exceed the specified limitation for that waste source.
- B. If the permittee, after monitoring for at least six months, determines that he is consistently meeting the effluent limits contained herein, the permittee may request of the Regional Administrator that the monitoring requirements be reduced to a lesser frequency or be eliminated.
- C. There shall be no discharge of polychlorinated byphenyl compounds such as those commonly used for transformer fluid.
- D. The company shall notify the Regional Administrator in writing not later than sixty (60) days prior to instituting use of any additional biocide or chemical used in cooling systems, other than chlorine, which may be toxic to aquatic life other than those previously reported to the Environmental Protection Agency. Such notification shall include:
  1. Name and general composition of biocide or chemical.
  2. Frequency of use.
  3. Quantities used.
  4. Proposed effluent limitations.
  5. EPA registration number.



- E. Intake screen wash water may be discharged without limitations or monitoring requirements.
- F. Copies of environmental reports required by the Nuclear Regulatory Commission which are pertinent to water quality in Lake Keowee or Lake Hartwell shall be submitted to the Regional Administrator and State Director.
- G. By June 30, 1977, low volume wastes (wastewater from all sources except those for which specific limitations are otherwise required in this permit, including, but not limited to waste waters from wet scrubber air pollution control systems, ion exchange water treatment systems, water treatment evaporator blowdown, laboratory and sampling streams, floor drainage, cooling tower basin cleaning wastes and blowdown from recirculating house service water systems) shall be discharged to the wastewater treatment system. Permittee shall continue established procedures designed to minimize oil and grease discharges.

State Certification: The State Pollution Control Agency has certified the discharge(s) covered by this permit with conditions in accordance with section 401 of the Federal Water Pollution Control Act Amendments of 1972, which requires that conditions of certification shall become conditions of the permit. In the event of any conflict between the conditions of this permit and those in the attached certification, the more restrictive shall rule.



September 29, 2020

J. Ed Burchfield, Jr.  
Site Vice President  
Oconee Nuclear Station  
ON011VP / 7800 Rochester Hwy.  
Seneca, SC 29672

Dear Mr. Burchfield:

I am writing in response to your letter to Fran Marshall dated August 19, 2020 in which you request confirmation that the Oconee Nuclear Station's (ONS) current Clean Water Act Section 401 Water Quality Certification applies to the ONS second renewal.

The South Carolina regulations governing the issuance of 401 Water Quality Certifications (R.61-101) provide DHEC with the authority to certify federal licenses and permits for activities which during construction or operation may result in any discharge to a navigable water. These regulations clearly tie our certifications to a federal permit or license. As noted in your letter, our records indicate that DHEC's most recent 401 Water Quality Certification was issued on August 2, 1976. Thus, unless there is a new federal permit or license associated with the ONS second renewal that may result in a discharge to navigable waters, our position is that the most recent certification remains valid and no additional 401 Water Quality Certification will be required.

If you have any questions, please contact me at (803) 898-3105 or at [prestohs@dhec.sc.gov](mailto:prestohs@dhec.sc.gov).

Sincerely,

Heather S Preston, Director  
Water Quality Division  
SCDHEC – Bureau of Water

cc: Fran Marshall - SCDHEC



J. Ed Burchfield, Jr.  
Vice President  
Oconee Nuclear Station

Duke Energy  
ON01VP | 7800 Rochester Hwy  
Seneca, SC 29672

o: 864.873.3478  
f: 864.873.5791  
Ed.Burchfield@duke-energy.com

**BY U.S. MAIL**  
**RETURN RECEIPT REQUESTED**  
7019 2280 0000 1128 5705

August 19, 2020

Fran Marshall  
South Carolina Department of Health and Environmental Control  
2600 Bull Street  
Columbia, SC 29201

**RE: Duke Energy – Oconee Nuclear Station Units 1, 2, and 3 Subsequent License Renewal,  
Request for Verification of Clean Water Act Section 401 Certification**

Dear Ms. Marshall,

The purpose of this letter is to request that South Carolina Department of Health and Environmental Control (DHEC) confirm that the site's current Clean Water Act Section 401 Water Quality Certification applies to the second renewal of Oconee Nuclear Station's (ONS) federal operating licenses and that no additional certification is required from DHEC to satisfy the requirements of Section 401 prior the issuance of the license renewal.

On April 17, 2019, Mike Ruhe (Duke Energy) and Heather Preston (DHEC) discussed the CWA Section 401 WQ Certification for ONS. Heather Preston responded in an email to Mike Ruhe, on April 17, 2019 confirming that DHEC's most recently issued 401 Water Quality Certification for the ONS project (dated August 2, 1976) was still valid.

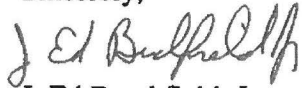
The ONS federal operating licenses were originally issued in 1973-1974, and renewed in 2000. ONS discharges to Lake Keowee and the Keowee River under NPDES permit SC0000515 and NPDES General Permit SCR000000 for Storm Water Discharges Associated with Industrial Activity. These discharges would continue during the second license renewal period of its federal operating license in compliance with permits SC0000515 and SCR000000 and any subsequent

renewals of these permits. Duke Energy does not propose any additional discharges for the operation of ONS.

To facilitate the second renewal of the ONS federal operating license, Duke Energy kindly requests that DHEC confirm that ONS's 401 Water Quality Certification issued on August 2, 1976 remains in effect for ONS for the requested license renewal term, and that the U.S. Environmental Protection Agency's new "Clean Water Act Section 401 Certification Rule" to implement the water quality certification process, effective September 11, 2020, will not impact this applicability.

Should you or your staff have any questions, comments, or need additional information, please contact Mike Ruhe at (704) 996-0356 / [Mike.Ruhe@duke-energy.com](mailto:Mike.Ruhe@duke-energy.com).

Sincerely,



J. Ed Burchfield, Jr  
Site Vice President  
Oconee Nuclear Station

cc: Heather Preston, SC-DHEC

## Attachment 1

### Clean Water Act Section 401 Certification Rule Certification Request Information Items

The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief.

The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.

**Project Proponent:** Duke Energy Carolinas, LLC (Duke Energy)

**Point of Contact:** Mike Ruhe (980) 373-3231 / [Mike.Ruhe@duke-energy.com](mailto:Mike.Ruhe@duke-energy.com)

**Proposed project and applicable federal licenses:** Renewal of the following licenses issued by NRC for continued operation of Oconee Nuclear Station under its current configuration for an additional 20 years beyond the current license expiration.

License	License No.	Expiration
Oconee Nuclear Station Unit 1 Renewed Facility Operating License	DPR-38	February 6, 2033
Oconee Nuclear Station Unit 2 Renewed Facility Operating License	DPR-47	October 6, 2033
Oconee Nuclear Station Unit 3 Renewed Facility Operating License	DPR-55	July 19, 2034

**Discharge location:**

A map of the ONS location and 6-mile vicinity is shown on Figure 1. The location of the external NPDES outfalls are shown on Figure 2.

**Discharge description, receiving waters, treatment, and monitoring:**

- NPDES Permit #SC0000515 Outfall 001**, non-contact cooling water consisting of condenser circulating water and miscellaneous non-contact cooling water  
**Receiving Water:** Lake Keowee approximately 1,200 feet NE of the station  
**Treatment prior to discharge:** None  
**Discharge monitoring:** hourly sampling for effluent flow and temperature (intake and effluent)
- NPDES Permit #SC0000515 Outfall 002**, process wastewater composed of yard drains, air handling units, decant monitor tank, tendon gallery sumps, turbine building sump monitor tanks, Reverse Osmosis (RO) reject flow and RO cleaning flow, Standby

Shutdown Facility sump, intake dam underdrain system, oil and chemical product unloading/ storage areas, yard drainage areas, turbine building sumps, chemical metals cleaning, CCW gravity drain tests and condenser unwatering

**Receiving Water:** Keowee River downstream of Keowee Hydro

**Treatment prior to discharge:** Conventional Wastewater Treatment System consists of three (3) treatment ponds. The ponds are identified as Chemical Treatment Ponds (CTP) 1, 2 and 3. CTP 1 and 2 are parallel ponds that operate in a batch mode. One pond will be in service receiving wastes, while the other pond is either providing treatment, discharging, or in standby. The treatment provided by CTP 1 and 2 includes: sedimentation, neutralization, mixing, aeration and chemical oxidation. Pumps are provided for re-circulation or controlled discharge to CTP 3. Treatments to inputs into CTP 3 include neutralization, precipitation, mixing, dechlorination, and oxidation.

**Discharge monitoring:** weekly sampling of effluent flow and pH; monthly sampling for Total Suspended Solids, oil and grease, and Total Residual Chlorine

3. **NPDES Permit #SC0000515 Outfall 004**, process wastewater from the Liquid Radwaste Treatment System Discharge

**Receiving Water:** Keowee River approximately 200 feet below Keowee Hydro

**Treatment prior to discharge:** The Liquid Radwaste system removes and controls radionuclide concentrations in radiologically contaminated water. The waste streams are collected in holding tanks for processing in batches through filters, and /or appropriate mass transfer bed materials. The mass transfer bed materials include ion exchange resin, zeolites, activated carbon, or other appropriate adsorption materials. Oxidation and neutralization may also be used, if the waste does not meet process specifications. The type and amount of treatment provided for each batch of waste depends on the type and quantity of radiological contamination present. The treated waste is collected in holding tanks prior to discharge. All liquids are treated to NRC effluent release criteria (10 CFR Part 20). They are then discharged to the Keowee River after mixing with the Keowee Hydro Station Tailrace in compliance with NRC requirements (10 CFR Part 50).

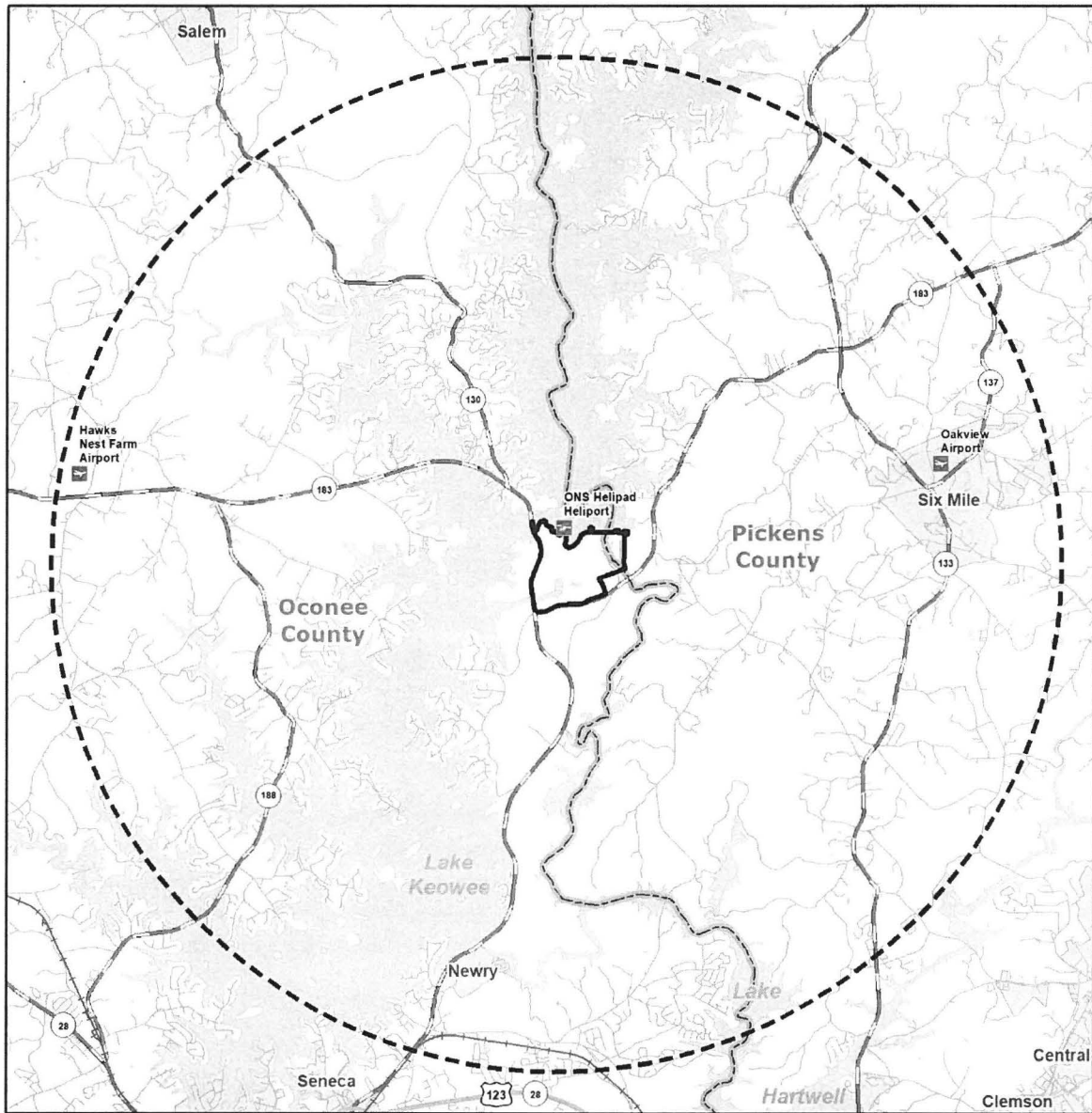
**Discharge monitoring:** monthly sampling for effluent flow and pH

4. **NPDES General Permit SCR000000** for Storm Water Discharges Associated with Industrial Activity – stormwater is collected in yard drains and routed to Chemical Treatment Pond 3 which discharges to NPDES Permit #SC0000515 Outfall 002.

Note: NPDES Permit #SC0000515 Outfall 007 is a discharge of noncontact cooling water and dewatering/sump water from Keowee Hydro which is operated under a separate federal license, Federal Energy Regulatory Commission License No. 2503-154.

**Other federal, interstate, tribal, state, territorial, or local agency authorizations required for the proposed project:** See Tables 1 and 2.

**Figure 1. ONS Site and 6-Mile Radius**



**Legend**

-  Airport
-  Heliport
-  U.S. Route
-  State Highway
-  Local Road
-  Railroad
-  Surface Water
-  ONS Site
-  6-Mile Radius
-  Place
-  County





**Figure 2. NPDES-Permitted External Outfalls at ONS**



**Legend**  
[Thick black line] ONS Site  
[Dashed line] County



0 1,000 2,000 Feet

**Table 1. ONS Environmental Permits for Current Operations**

<b>Agency</b>	<b>Authority</b>	<b>Requirement</b>	<b>Number</b>	<b>Expiration Date</b>	<b>Authorized Activity</b>
NRC	Atomic Energy Act, 10 CFR 50	ONS license to operate Unit 1	DPR-38	2/6/2033	Operation of ONS Unit 1
NRC	Atomic Energy Act, 10 CFR 50	ONS license to operate Unit 2	DPR-47	10/6/2033	Operation of ONS Unit 2
NRC	Atomic Energy Act, 10 CFR 50	ONS license to operate Unit 3	DPR-55	7/19/2034	Operation of ONS Unit 3
NRC	10 CFR Part 72, Subpart B	Site-specific ISFSI	SNM-2503	1/31/2050	Operation of a dry storage ISFSI under a site-specific license.
NRC	10 CFR Part 50 10 CFR Part 72, Subpart K	ISFSI	N/A	7/19/2034	Operation of a dry storage ISFSI under the ONS units' licenses.
Atlantic Compact Commission	Omnibus Low-Level Radioactive Waste Interstate Compact Consent Act (1980 and amended in 1985)	Compacts have the authority to limit the export or import of LLRW out of or into the compact region.	N/A	N/A	Atlantic Interstate LLRW Management Compact does not require import or export permits.
FERC	Federal Power Act, 18 CFR 5.1	Keowee-Toxaway Hydroelectric Project license	2503-154	August 31, 2046	Operate and maintain the Keowee-Toxaway Hydroelectric Project (the project provides backup power for ONS and includes the ONS intake dike).

<b>Agency</b>	<b>Authority</b>	<b>Requirement</b>	<b>Number</b>	<b>Expiration Date</b>	<b>Authorized Activity</b>
USACE	Article 403 of Keowee-Toxaway Hydroelectric Project license	Operating agreement for Duke Energy projects and downstream federal projects	None	August 31, 2046	Agrees to a new critical reservoir elevation for Lake Keowee of 790 feet above msl.
USFWS	Migratory Bird Treaty Act 50 CFR Part 13 50CFR 21.27	Migratory bird SPUT	MB000257-0	3/1/2022	Authorized to collect, transport, and temporarily possess carcasses and partial remains of migratory birds and emergency relocation of nests of migratory birds other than eagles or threatened or endangered species.
USDOT	49 CFR 107 Subpart G	Registration	Reg. No: 052219550045B	6/30/2020	Hazardous materials shipments.
EPA	40 CFR 261	Small quantity hazardous waste generator	SCD043979822	12/31/2019	Hazardous waste generator registration.
SCDHEC	Coastal Zone Management Act Section 307(c)(3)(A)	Consistency determination with the SC Coastal Management Program	NA	NA	ONS is not located in the SC coastal zone.
SCDHEC	SC R. 61-119	Surface water withdrawal permit	37PN001	10/29/2043	Surface water withdrawal from Lake Keowee.

<b>Agency</b>	<b>Authority</b>	<b>Requirement</b>	<b>Number</b>	<b>Expiration Date</b>	<b>Authorized Activity</b>
SCDHEC	South Carolina Groundwater Use and Reporting Act	Coastal plain groundwater withdrawals	NA	NA	ONS is not located in the coastal plain and is not required to permit and report groundwater withdrawals.
SCDHEC	SC R.61-62	Conditional major operating permit, air sources	CM-1820-0041	12/31/2027	Operation of auxiliary boiler.
SCDHEC	SC R.61-79.262.13	SQG annual declaration	DHEC 2701 form	Annual submittal	Annual SQG declaration.
SCDHEC	SC 61-107.19	Class 2 landfill post-closure permit	373303-1601	1/11/2038	Post-closure permit for closed and capped onsite landfill.
SCDHEC	40 CFR 280; SC R. 61-92	UST registration for SC regulated tanks	Registration numbers: 11174, 11843	7/31/2019	Operation of USTs.
SCDHEC	Clean Water Act, Section 402; SC R. 61-9	NPDES permit	SC0000515	9/30/2013 (due to submittal of a timely renewal application the permit is administratively extended and remains in effect until a final permit decision is	Discharges of wastewater to surface water.

<b>Agency</b>	<b>Authority</b>	<b>Requirement</b>	<b>Number</b>	<b>Expiration Date</b>	<b>Authorized Activity</b>
				made on the renewal)	
SCDHEC	SC R. 61-9	NPDES general permit for discharges from pesticide application	SCG160000 Facility Coverage No. SCG16006	3/31/2021	Discharges to surface waters from pesticide application.
SCDHEC	40 CFR122.26; SC R. 61-9	General NPDES permit for construction activities	SCR100000	12/31/2017 (this general permit continues in effect until the subsequent general permit becomes effective)	Discharge of stormwater; ONS files notices of intent for construction activities under the general construction stormwater permit.
SCDHEC	SC R. 61-9	General NPDES permit for industrial activities	SCR000000 Facility Coverage No. SCR000074	9/30/2021	Discharge of industrial stormwater permit.
SCDHEC	SC R. 61-9.610	Operation of a satellite sewer system	Permit Coverage No. SSS000909	NA	Notification of satellite sewer owner.
SCDNR	Migratory Bird Treaty Act	Migratory bird depredation permit	MD-4-20	12/21/2020	State authorization associated with the USFWS MB000257-0 permit.

<b>Agency</b>	<b>Authority</b>	<b>Requirement</b>	<b>Number</b>	<b>Expiration Date</b>	<b>Authorized Activity</b>
SCDHEC	SC R. 61-81	Environmental laboratory certification	Certification No. 37756001	3/3/2021	Certifies testing for pH, residual chlorine, and temperature.
SCDHEC	SC R. 61-81	Environmental laboratory certification	Certification No. 37761001	3/5/2021	Certifies testing for pH.
SCDHEC	SC R. 61-105	Infectious waste registration	Registration No. SC37-0051G	7/31/2022	Registers ONS as a generator of infectious waste.
SCDHEC	SC R. 61-86.1	Group license for asbestos abatement activities	Group License No. 8045	Various by licensed individuals' training dates	Licenses individuals for asbestos abatement activities onsite.
SCDHEC	SC Radioactive Waste Transportation and Disposal Act, SC R. 61-83	SC radioactive waste transport permit	0020-39-19-X	12/31/2019	Transport of radioactive waste within South Carolina.
Tennessee Department of Environmental Control (TDEC)	TDEC Rule Chapter 0400-20-10-.31 & .32	Radioactive waste license-for-delivery	T-SC007-L19	12/31/2019	Shipment of radioactive material to a licensed disposal/processing facility within Tennessee.
OJRSA	SC R. 61-9	Significant industrial wastewater discharge permit	IW-000003	3/31/2024	Discharge of industrial wastewater into the Coneross Creek wastewater treatment facility.

**Table 2. Environmental Authorizations and Consultations for ONS License Renewal**

<b>Agency</b>	<b>Authority</b>	<b>Requirement</b>	<b>Remarks</b>
NRC	Atomic Energy Act [42 USC 2011 et seq.]	License renewal	Applicant for federal license must submit an ER in support of license renewal application.
USFWS	Endangered Species Act Section 7 [16 USC 1636]	Consultation	Requires federal agency issuing a license to consult with the USFWS, regarding federally protected species.
SCDNR	10 CFR 51, Subpart A, Appendix B, Table B-1, Special Status Species and Habitat	Consultation	State-level agency for South Carolina protected species to assist in identifying adverse impacts to protected species resulting from continued operation of the facility.
South Carolina Department of Archives and History	National Historic Preservation Act Section 106	Consultation	Requires federal agency issuing a license to consider cultural impacts and consult with SHPO and/or tribal historic preservation officer.
Eastern Band of Cherokee Indians	National Historic Preservation Act Section 110	Consultation	Requires federal agency issuing a license to consider cultural impacts and consult with SHPO and/or tribal historic preservation officer.
United Keetoowah Band of Cherokee Indians in Oklahoma	National Historic Preservation Act Section 110	Consultation	Requires federal agency issuing a license to consider cultural impacts and consult with SHPO and/or tribal historic preservation officer.
Cherokee Nation	National Historic Preservation Act Section 110	Consultation	Requires federal agency issuing a license to consider cultural impacts and consult with SHPO and/or tribal historic preservation officer.
Catawba Indian Nation	National Historic Preservation Act Section 110	Consultation	Requires federal agency issuing a license to consider cultural impacts and consult with SHPO and/or tribal historic preservation officer.
SCDHEC	10 CFR 51, Subpart A; Regulatory Guide 4.2, Rev. 1, Supplement 1, Section 3.9	Consultation	The applicant should consult the State agency responsible for environmental health regarding the potential existence and concentration of

<b>Agency</b>	<b>Authority</b>	<b>Requirement</b>	<b>Remarks</b>
			microorganisms in the receiving waters for plant cooling water discharge.