

# PUBLIC SUBMISSION

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**Docket:** NRC-2015-0039

Westinghouse Electric Company, LLC; Columbia Fuel Fabrication Facility

**Comment On:** NRC-2015-0039-0088

Westinghouse Electric Company, LLC, Columbia Fuel Fabrication Facility

**Document:** NRC-2015-0039-DRAFT-0090

Comment on FR Doc # 2021-21053

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## Submitter Information

**Email:** RigginL@dnr.sc.gov

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**Government Agency:** South Carolina Department of Natural Resources

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## General Comment

South Carolina Department of Natural Resources Comments

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## Attachments

2021113 NRC License Westinghouse Electric Company DEIS\_SCDNR Comments

# South Carolina Department of Natural Resources

1000 Assembly Street Suite 336  
PO Box 167  
Columbia, SC 29202

November 13, 2021

Office of Administration  
Mail Stop: TWFN-7-A60M  
U.S. Nuclear Regulatory  
Commission, Washington, DC 20555-0001

electronic submission

RE: Westinghouse Electric Company, LLC Draft Environmental Impact Statement; Columbia Fuel  
Fabrication Facility; Nuclear Regulatory Commission; Docket ID: NRC-2015-0039

To Whom It May Concern,

The South Carolina Department of Natural Resources (SCDNR) is the state agency charged by state law with the management, protection, and enhancement of wildlife, fisheries, and marine resources in South Carolina. SCDNR is responsible for formulating comprehensive policies for water resources through a State Water Plan to address issues affecting water supply, water quality, navigation, hydroelectric power, outdoor recreation, fish and wildlife needs, and other water resource interests. SCDNR is also charged with the statewide responsibilities for regulating watercraft operation and associated recreation on state waters, conducting geological surveys and mapping, promoting soil and water conservation, management of invasive aquatic plants, flood mitigation, drought response planning and coordination, and the state scenic rivers program. SCDNR's mission is to serve as the principal advocate for and steward of South Carolina's natural resources. (SCDNR authorities and responsibilities are described in Titles 48, 49 and 50, South Carolina Code of Laws (1976), as amended).

Due to the SCDNR's responsibilities as a steward for the state's natural resources, we have enclosed comments for the purpose to aid the development of the Final Environmental Impact Statement to assess the relicensing of this facility.

Thank you for the opportunity to participate in the review of this project and provide comments.

Sincerely,



Office of Environmental Programs Director  
South Carolina Department of Natural Resources

cc: DHEC



Robert H. Boyles  
Director  
Lorianne Riggins  
Director, Office of  
Environmental Programs

**Westinghouse Electric Company, LLC; Columbia Fuel Fabrication Facility  
Draft Environmental Impact Statement  
Nuclear Regulatory Commission      NRC-2015-0039**

**Project Summary**

Westinghouse Electric Company, LLC (WEC) requested a license renewal for its Columbia Fuel Fabrication Facility (CFFF) in December 2014 for a period of 40-years to continue fabricating low-enriched uranium fuel assemblies for commercial nuclear power reactors from the U.S. Nuclear Regulatory Commission (NRC). In June 2018, the NRC published a finding of no significant impact (FONSI) concerning the license. However, in July 2018, a leak at the CFFF facility caused uranium to enter the subsurface beneath the building. Additionally, another leak of uranium into the subsurface of the main building occurred in 2011 resulting from a buried pipe. Due to these incidents, the NRC decided to re-open its environmental review, withdrawing the previously published FONSI and reinitiating the National Environmental Policy Act review process. As such, the SCDNR provides the following information to assist in the development of the Final Environmental Impact Statement.

**SCDNR Comments**

The following comments are in reference to the Draft Environmental Impact Statement (DEIS) (ML21209A213) published originally on August 6, 2021 and reopened for comment again on September 28, 2021.

*2.2.2.1.2 Environmental Monitoring Program*

- SCDNR finds the sample size of one fish per year to be a poor indicator of uranium and Tc-99 levels. Appropriate sample sizes should include at least 3-5 individuals and samples should be collected at multiple locations to allow for statistical comparison. Suggested locations for additional fish sampling would include a site on Mill Creek above possible contamination and other sites within Sunset Lake and Gator Pond.

*3.1.1 Site Vicinity*

- Please note that the Mill Creek Mitigation Bank (SAC-2014-00222), an approved stream and wetland mitigation bank under the Compensatory Mitigation Framework authorized by the U.S. Army Corps of Engineers, is within 5 miles of the project area located on a 1,769-acre parcel at Latitude 33.823886°N and Longitude -80.884224°W. Please include this property when describing the site vicinity.

*3.3 Surface Water Resources*

The SCDNR recommends that further consideration be given to what impacts may exist to the facility and associated resources if a drought occurs. How would operations affect water quality if minimum flows continued to an extended drought? Could a drought result in a higher concentration of contaminants in the Congaree River?

Additionally, does the facility follow the City of Columbia's Drought Management Plan and Drought Ordinance? If so, include this information in the Final EIS and how that would affect their water use and Columbia's overall water supply.

*3.5 Ecological Resource*

Sections 3.5.1 and 3.5.2 overlook analysis for the potential impacts to herpetofauna that may inhabit wetlands within the floodplain associated with Sunset Lake, Gator Pond, Mill Creek or the Congaree River. Additionally, while contamination levels in surface waters are within health standards for maximum contaminant levels, the standard and threshold for tolerance to contamination for other organisms, especially those species, such as frogs that exhibit cutaneous respiration, cannot be assumed to

be the same. The impacts of organisms that depend on those isolated wetlands and the impacts to those species should also be considered in development of a Final EIS. Also, because the emphasis for impacts to aquatic resources has been evaluated solely based on the direct discharges to the Congaree River or surface overland flow and the distance before any contaminants would reach the Congaree River, the SCDNR requests more consideration be given in a Final EIS for mitigating measures to prevent impacts to herpetofauna, such as mechanisms in place to deter entry into the project's lagoons with the use of sediment fencing and a mortality monitoring protocol. Additionally, open surface water lagoons within the project footprint should also be covered to prevent use by a variety of water bird species. Similarly, since the drainage ditch between the main facility building and Sunset Lake had high levels of TCE, the SCDNR recommends a prevention plan for entry by herpetofauna.

Also, please note that according to the SCDNR Heritage Trust Database, a repository for all rare and both federally and state threatened species data, there are several species that could potentially inhabit the site. Please see the attached table (Attachment A) of known occurrences of species within five miles of the site and a known element of occurrence from the SCDNR Heritage Trust Database of white catfish on the property and Mill Creek is likely to contain Flat Bullhead, Banded Killifish and Cedar Creek Crayfish. All these species are of moderate conservation priority under the South Carolina State Wildlife Action Plan<sup>1</sup>.

For regulated species the following were missing from the appropriate tables.

- Table 3-3 should include the following state listed species: Spotted Turtle (threatened), Carolina Gopher Frog (endangered), Carolina Pygmy Sunfish (threatened), Southern Hognose Snake (threatened), and Wood Stork.
- Table 3-4 is missing the federally protected species Canby's Cowbane *Tiedemannia canbyi*.
- Table 3-5 is missing the following migratory bird species that could be within or in the vicinity of the project footprint: Anhinga, Great Egret, Great Blue Heron, Red-shouldered Hawk, Yellow-billed Cuckoo, Pileated Woodpecker, Snowy Egret, Acadian Flycatcher, Yellow-breasted Chat, Baltimore Oriole, Black-and-white Warbler, Blue Grosbeak, Scarlet Tanager, Summer Tanager, Carolina Chickadee, Black-throated Blue Warbler, Prairie Warbler, Yellow-throated Warbler, Chestnut-sided Warbler, Pine Warbler, Carolina Wren, Brown Thrasher, Barn Owl, Blue-winged Warbler, Yellow-throated Vireo and White-eyed Vireo.

Additional information regarding these species that are protected under federal or state statutes can be found at: <https://www.dnr.sc.gov/species/index.html> and <https://www.fws.gov/southeast/pdf/fact-sheet/south-carolina-species-list-by-county.pdf>.

Regarding the ecological resources, the SCDNR finds that impacts to these resources needs to be assessed with additional information, such as monitoring the use of the project site by wildlife and how they are affected, to determine if the impacts are indeed small.

### 3.7 Climatology, Meteorology, and Air Quality

In accordance with the South Carolina State Climatology Office, the following clarifications are needed for the Final EIS.

- In Section 3.7.1.3 Winds, page 3-64 line 4 and 5 should be corrected to state "and higher average winds occur from November to April."
- In Section 3.7.1.4 Severe Weather, page 3-64 line 17-19 should have an additional sentence to state "These events were likely all that were in the database, but lightning and lightning damage are far more common than what is reported."

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<sup>1</sup> SCDNR State Wildlife Action Plan [www.dnr.sc.gov/swap](http://www.dnr.sc.gov/swap)

- In Section 3.7.1.4 Severe Weather, page 3-65 line 22-25 mentions Hurricane Floyd and SCDNR Climatologist find that this is not applicable to the project site as there was no significant effect on Richland County from that storm. However, more data regarding Hurricane Hugo should be included as this storm moved inland and had a recorded 8-hour period of winds gusting past 40 mph and a peak gust of 64 mph at the Columbia Metropolitan Airport. Additionally, further down in line 25-27, Richland County has been impacted by more than three tropical systems and two hurricanes since 1930. More data regarding hurricanes and tropical storms that have impacted the state can be found here: <https://www.dnr.sc.gov/climate/sco/hurricanes/>.
- Please note the discussion regarding sea level rise in Section 3.7.1.6 is not relevant to the project location. However, there are other components of the 2018 Fourth National Climate Assessment that could be included specifically impacts of temperature changes within the Southeast Chapter of the Assessment: <https://nca2018.globalchange.gov/chapter/19/>.

Attachment A: SCDNR Heritage Trust Database Element of Occurrence Data within 5 miles of the project site.

Species Full Name	G Rank	S Rank	Federal Protection Status	State Protection Status	State Wildlife Action Plan Priority	Last Observation Date
<b>PLANTS</b>						
Bog St. John's-wort, Creeping St. John's-wort - <i>Hypericum adpressum</i>	G3	S2	Not Applicable	Not Applicable	High	6/1/1974
Carolina Birds-in-a-nest, Carolina Macbridea - <i>Macbridea caroliniana</i>	G2G3	S3	<b>ARS: At-Risk Species</b>	Not Applicable	High	8/8/1967
Green Fringed Orchid, Ragged Fringed Orchid, Ragged Orchid - <i>Platanthera lacera</i>	G5	S2	Not Applicable	Not Applicable	Not Applicable	6/5/2006
Winter Grapefern - <i>Botrychium lunarioides</i>	G4?	S1	Not Applicable	Not Applicable	Moderate	11/28/1997
<b>FISHES</b>						
Banded Killifish - <i>Fundulus diaphanus</i>	G5	S1	Not Applicable	Not Applicable	Moderate	7/13/1949
Banded Sunfish - <i>Enneacanthus obesus</i>	G5	S3S4	Not Applicable	Not Applicable	Moderate	10/20/2000
Blackbanded Sunfish - <i>Enneacanthus chaetodon</i>	G3G4	S2S3	Not Applicable	Not Applicable	High	<i>No Data</i>
Carolina Lance - <i>Elliptio angustata</i>	G4	S3	Not Applicable	Not Applicable	Moderate	8/14/2002
Carolina Pygmy Sunfish - <i>Elassoma boehlkei</i>	G2	S1	Not Applicable	<b>ST: State Threatened</b>	Highest	2/1/2013

<b>Species Full Name</b>	<b>G Rank</b>	<b>S Rank</b>	<b>Federal Protection Status</b>	<b>State Protection Status</b>	<b>State Wildlife Action Plan Priority</b>	<b>Last Observation Date</b>
Cedar Creek Crayfish - <i>Procambarus chacei</i>	G4	S4	Not Applicable	Not Applicable	Moderate	<i>No Data</i>
Cedar Creek Crayfish - <i>Procambarus chacei</i>	G4	S4	Not Applicable	Not Applicable	Moderate	4/18/1955
Cedar Creek Crayfish - <i>Procambarus chacei</i>	G4	S4	Not Applicable	Not Applicable	Moderate	10/25/2007
Coastal Plain Crayfish - <i>Procambarus ancylus</i>	G4G5	S4S5	Not Applicable	Not Applicable	Moderate	<i>No Data</i>
Eastern Pondhorn - <i>Uniomerus carolinianus</i>	G4	S3	Not Applicable	Not Applicable	Not Applicable	5/16/2006
Eastern Pondhorn - <i>Uniomerus carolinianus</i>	G4	S3	Not Applicable	Not Applicable	Not Applicable	9/13/1995
Eastern Pondhorn - <i>Uniomerus carolinianus</i>	G4	S3	Not Applicable	Not Applicable	Not Applicable	5/19/1998
Eastern Pondhorn - <i>Uniomerus carolinianus</i>	G4	S3	Not Applicable	Not Applicable	Not Applicable	10/8/2002
Flat Bullhead - <i>Ameiurus platycephalus</i>	G4	S4	Not Applicable	Not Applicable	Moderate	5/26/2009
Northern Lance - <i>Elliptio fisheriana</i>	G4	SNR	Not Applicable	Not Applicable	Not Applicable	6/20/2006
Northern Lance - <i>Elliptio fisheriana</i>	G4	SNR	Not Applicable	Not Applicable	Not Applicable	7/24/1996
Northern Lance - <i>Elliptio fisheriana</i>	G4	SNR	Not Applicable	Not Applicable	Not Applicable	9/13/1995

Species Full Name	G Rank	S Rank	Federal Protection Status	State Protection Status	State Wildlife Action Plan Priority	Last Observation Date
Northern Lance - <i>Elliptio fisheriana</i>	G4	SNR	Not Applicable	Not Applicable	Not Applicable	5/19/1998
Roanoke Slabshell - <i>Elliptio roanokensis</i>	G3	S2	Not Applicable	Not Applicable	High	8/14/2002
Santee Crayfish - <i>Procambarus blandingii</i>	G4	S4	Not Applicable	Not Applicable	Moderate	No Data
Sawcheek Darter - <i>Etheostoma serrifer</i>	G5	S4	Not Applicable	Not Applicable	Moderate	No Data
Sawcheek Darter - <i>Etheostoma serrifer</i>	G5	S4	Not Applicable	Not Applicable	Moderate	8/3/2010
Shortnose Sturgeon - <i>Acipenser brevirostrum</i>	G3	S3	<b>LE: Federally Endangered</b>	<b>SE: State Endangered</b>	Highest	1/1/2019
Snail Bullhead - <i>Ameiurus brunneus</i>	G4	S3S4	Not Applicable	Not Applicable	Moderate	No Data
White Catfish - <i>Ameiurus catus</i>	G5	SU	Not Applicable	Not Applicable	Moderate	No Data
White Catfish - <i>Ameiurus catus</i>	G5	SU	Not Applicable	Not Applicable	Moderate	7/15/1977
<b>BIRDS</b>						
Barn Owl - <i>Tyto alba</i>	G5	S4	Not Applicable	Not Applicable	Moderate	1985
Great Blue Heron - <i>Ardea herodias</i>	G5	S5	Not Applicable	Not Applicable	Moderate	2014
<b>MAMMALS</b>						
Eastern Fox Squirrel - <i>Sciurus niger</i>	G5	S3S4	Not Applicable	Not Applicable	Moderate	5/1/1980
Rafinesque's Big-eared Bat - <i>Corynorhinus rafinesquii</i>	G3G4	S2	Not Applicable	<b>SE: State Endangered</b>	Highest	7/25/2002



<b>Species Full Name</b>	<b>G Rank</b>	<b>S Rank</b>	<b>Federal Protection Status</b>	<b>State Protection Status</b>	<b>State Wildlife Action Plan Priority</b>	<b>Last Observation Date</b>
Swamp Rabbit - <i>Sylvilagus aquaticus</i>	G5	S2?	Not Applicable	Not Applicable	High	1989-01