



# United States Department of the Interior

## Fish and Wildlife Service

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Mr. Mark D. Notich  
Chief, Rules, Directives and Editing Branch  
U. S. Nuclear Regulatory Commission  
M.S. T6-D59  
Washington, DC 20555-0001

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RULES AND DIRECTIVES  
BRANCH  
USNRC

RE: Draft Environmental Impact Statement NUREG-1872 for an Early Site Permit (ESP) at the Vogtle Electric Generating Plant Site  
USFWS File # 06-FA-1890

ER 07/752  
Dear Mr. Notich:

The U. S. Fish and Wildlife Service (Service) of Region IV has reviewed the Draft Environmental Impact Statement (DEIS) published in September, 2007. These comments apply to the DEIS submitted to the U. S. Nuclear Regulatory Commission (NRC) by Southern Nuclear Operating Company, Inc. (Southern) for an early site permit (ESP) to (1) approve a site within the existing Vogtle Electric Generating Plant (VEGP) boundaries as suitable for the construction and operation of a new nuclear power generating facility and (2) issue an ESP for the proposed location at the VEGP site, adjacent to the existing VEGP Units 1 and 2. The existing Plant Vogtle is located near Waynesboro, Georgia on the Savannah River. The Savannah River separates South Carolina and Georgia; therefore, these comments are provided by the Service's Ecological Services (ES) Offices in Georgia and South Carolina (Charleston ES). These comments are submitted under provisions of the Fish and Wildlife Coordination Act, (16 U.S.C. 661 *et seq.*).

Service personnel from the Georgia ES office have communicated and met with representatives from the NRC, Southern, consultants, various state and local government agencies, and interested non-governmental organizations. We attended public meetings, environmental audits, and tours of the Vogtle facilities including a boat tour of the Savannah River at this location. These comments have also been provided to the Department of Interior Office of Environmental Policy and Compliance. The DEIS is well written and addresses most of the Service's concerns and incorporates suggestions made during meetings and discussions.

SONSE Review Complete  
template = ADM-013

ERFDS = ADM-03  
Add = M. Notich (mnr)  
C. Guerrero (exg3)

## **General Comments:**

### Channel Dredging

The document does not address dredging of the Savannah River channel that is likely needed to move required construction material up the river from Savannah Harbor to the site. The U. S. Corps of Engineers, Savannah District (USACE) has not maintained the Savannah River below Augusta, Georgia for navigation since the late 1970's. According to the USACE, previous barge shipments to Barnwell for reactor disposal required a discharge of between 10,000 cfs and 15,000 cfs in December of 2004. Vogtle construction will likely require many shipments (15-30) and it would be impossible to plan and provide that many shipment windows with releases that are incidental to flood control or pulse flow releases; therefore, it appears dredging of the federal navigation channel would be required.

The channel dredging would be a major impact of the project and, if it is necessary for construction, needs to be disclosed and thoroughly evaluated in the DEIS. Channel dredging would impact mussel beds because the beds are found in the sediment deposition areas where there is some protection from scouring flows occurring in the main channel. Habitat for fish and other aquatic organisms would also be impacted.

Dredging the river will have direct impacts on freshwater mussels by: (1) physical removal of the animals with the dredge spoil, (2) alteration of habitat, including eliminating sediment bars and removal of debris and other in-stream structures that provide refugia from scouring high-water flow, (3) alteration of habitat for fish spawning, potentially reducing numbers of host fish available for successful mussel reproduction, and (4) depending on the site selection for spoil disposal, potential degradation of backwater slough or oxbow habitat, which supports a variety of mussel species.

## **Specific comments:**

Page 5-6. The USACE Savannah River drought plan only specifies a maximum discharge. In other words, Level 1 specifies a maximum weekly average of 4,200 cfs and Level 2 a maximum weekly average of 4,000 cfs. The only minimum discharge requirement is the daily average of 3,800 cfs, which applies in drought or non-drought. Therefore, the weekly average discharge can frequently be about 3800 cfs during levels 1 and 2, depending on hydropower needs. Furthermore, the USACE has implemented a modification to the drought plan which reduces the daily average to 3,600 cfs during severe drought and is currently considering further flow reductions. The drought plan discussion needs to be modified to clarify the flow requirements and the withdrawal percentages need to be recalculated. In addition, Drought Level 4 needs to be evaluated using information on reservoir inflow which is available at the USACE web site.

Page 4-28. The document discusses mussel fauna in the project area and states that the Atlantic pigtoe is not known to occur in the Savannah River. In 2006, the Fish and Wildlife Service conducted a freshwater mussel survey in the Savannah River to determine species composition and distribution of mussels. This study encompassed the portion of the river from the Augusta Shoals region (RM 203) near the Fall Line downstream to the tidewater region (RM 22.8) near Savannah. This survey evaluated 39 sites using both shallow water (snorkeling and grubbing) and deep water (SCUBA) survey techniques. A total of 26 freshwater mussel species were identified during the

survey efforts (Table 1). With the exception of sites within the Augusta Shoals area, mussels were generally unevenly distributed in the surveyed areas, which is reflective of the distribution and quality of microhabitats within a particular river segment. In general, mussels were most abundant in the thalweg habitats at the base of the river bank, and rare to absent in the shifting sand dominated runs in the center of the channel.

Atlantic pigtoe (*Fusconia masoni*) and Savannah liliput (*Toxolasma pullus*) were both observed in the 2006 mussel survey. Both of these species are experiencing range-wide declines and are likely to be elevated to candidate status within the next two years. The population of Savannah liliput upstream of Little Hell boat landing (Allendale County, South Carolina) is probably the largest remaining population of this species and impacts to that habitat should be avoided.

The 2006 discovery of four species not previously known to occur in South Carolina demonstrates the gross lack of knowledge regarding the mussel fauna of the Savannah River. The objective of the 2006 mussel survey was to attempt to estimate species composition and distribution in the Savannah River; however, it should be noted that time and funding restrictions allowed surveyors to visit only a small portion of the available habitat in the river.

**Table 1. Mussel Species Located in 2006 Savannah Mussel Survey**

<b>Species</b>	<b># of Sites Where Found in 2006 Survey</b>	<b>Conservation Status in SC State Wildlife Plan</b>
<i>Alasmidonta arcula</i> ** (arc mussel)	1	Not previously known from SC
<i>Alasmidonta undulata</i> (triangle floater)	1	Highest priority
<i>Anodonta couperiana</i> (barrel floater)	4	Highest priority
<i>Anodonta implicata</i> (alewife floater)	2	High priority
<i>Elliptio angustata</i> (Carolina lance)	9	Moderate priority
<i>Elliptio complanata</i> (eastern elliptio)	27	Moderate priority
<i>Elliptio congarea</i> (Carolina slabshell)	33	Moderate priority
<i>Elliptio fisheriana</i> (northern lance)	5	High priority
<i>Elliptio folliculata</i> (pod lance)	10	High priority
<i>Elliptio fraterna</i> (brother spike)	3	Highest priority
<i>Elliptio hopetonensis</i> (Altamaha slabshell)	15	Not previously known from SC

<i>Elliptio icterina</i> (variable spike)	34	Moderate priority
<i>Elliptio lazarus</i> (=arctata) (delicate spike)	3	Not previously known from SC
<i>Elliptio producta</i> (Atlantic spike)	15	Moderate priority
<i>Elliptio roanokensis</i> (Roanoke slabshell)	19	High priority
<i>Elliptio</i> sp.*	1	n.a.
<i>Fusconaia masoni</i> ** (Atlantic pigtoe)	2	Highest priority
<i>Lampsilis cariosa</i> (yellow lampmussel)	12	Highest priority
<i>Lampsilis dolabraeformis</i> ** (Altamaha pocketbook)	1	Not previously known from SC
<i>Lampsilis splendida</i> (rayed pink fatmucket)	17	High priority
<i>Leptodea ochracea</i> (tidewater mucket)	1	High priority
<i>Pyganodon cataracta</i> (eastern floater)	6	Low priority
<i>Toxolasma pullus</i> (Savannah lilliput)	1	Highest priority
<i>Unio merus carolinianus</i> (Florida pondhorn)	11	Low priority
<i>Utterbackia imbecillis</i> (paper pondshell)	2	Low priority
<i>Villosa delumbis</i> (eastern creekshell)	18	Moderate priority

\* An unusual form, likely *E. icterina*

\*\* Putative ID pending genetics analysis

Page 4-27. The robust redhorse is a state listed species but not federally listed. The multi-agency Robust Redhorse Conservation Committee (Georgia Power is a member) was formed in 1995 to determine why the fish had declined and to restore the species to a sustainable level without the need to be listed under the Federal Endangered Species Act. No known spawning occurs within the Vogtle project area; however, there is little doubt that the species moves through this river stretch during spawning.

Page 4-29 & 4-30: No red-cockaded woodpeckers (RCW) were located on the plant site. The closest active RCW group is located on the DOE Savannah River Site approximately ten miles from the Vogtle site. However, the DEIS mentions a Red-Cockaded Woodpecker Safe Harbor Agreement signed in June of 2007 in cooperation with the Georgia Department of Natural Resources and Georgia Power/Southern Nuclear. This agreement includes the Plant Vogtle Site and will in the future maintain and enhance habitat for the RCW at this location.

We appreciate the opportunity to review the DEIS. Should you have questions or concerns please contact Strant Colwell of the Georgia Ecological Services office at (912) 265-9336 or Ed Eudaly of the Charleston, South Carolina Ecological Services office at (843) 727-4707.

Sincerely,

*Strant J. Colwell*

Field Supervisor  
Sandra S. Tucker

*for*

cc: USFWS, Charleston, South Carolina, Tim Hall  
USFWS, Brunswick, Georgia, Sandy Tucker