



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office  
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Chief, Rules and Directives Branch  
Division of Administrative Services  
(Mailstop T6D59)  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

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Dear Sir or Madam:

The National Marine Fisheries Service (NMFS) has reviewed NUREG-1437, Supplement 4 concerning the Generic Environmental Impact Statement for License Renewal of Nuclear Plants; Edwin I. Hatch Nuclear Plant (Hatch Project), Units 1 and 2 (SEIS). The Hatch Project is located on the Altamaha River in Appling County, Georgia. The SEIS was prepared by the U.S. Nuclear Regulatory Commission (NRC) in response to an application by Southern Nuclear Operating Company (Licensee) to renew the operating licenses for the Hatch Project for an additional 20 years.

General Comments:

In general, the document is well written and adequately addresses project-related effects on existing fishery and aquatic resources of the Altamaha River. Based on our review of the SEIS and supporting information, we concur with your staff's determination that the project's effects on diadromous fishery resources are not significant at this time. However, we are concerned that these impacts may become much greater during the license period since impingement and entrainment of adult fish and/or their eggs and larvae are likely to increase. The Altamaha River is currently the focus of cooperative efforts by state and Federal natural resource agencies to protect and restore fishery and other aquatic resources. The river's diadromous fish populations include striped bass (*Morone saxatilis*), American shad (*Alosa sapidissima*), blueback herring (*Alosa aestivalis*), American eel (*Anguilla rostrata*), Atlantic sturgeon (*Acipenser oxyrinchus*), and the Federally-listed endangered shortnose sturgeon (*Acipenser brevirostrum*). Although populations of these species have been seriously reduced throughout their range, the Altamaha River continues to support relatively modest numbers of these fish, and may harbor the largest remnant population of shortnose sturgeon south of Cape Hatteras, North Carolina.

Template = ADM-013

E-RIDS = ADM-03  
CAR = ANN BERANEK (AFB)  
A. KUGLER (ASKI)



### Specific Comments:

Pages 2-22 through 23, Section 2.2.5. This section discusses potential impingement and entrainment of fish. Data used to support the analysis include five (5) years of sampling data that were collected between 1975-1980. The data indicate that low levels of impingement and entrainment of diadromous species life stages occurred during this period. While this may accurately reflect previous and even current conditions, it does not consider the effect of ongoing and future restoration of fish populations. Therefore, this section should be expanded in the final document to address population changes that could occur during the new license term if larger numbers of fish eggs and larvae are present due to restoration efforts.

Page 4-7, Section 4.1, Paragraph 3. This section discusses the environmental impacts of the plant's cooling water system on entrainment of subadult fish. The paragraph refers to the NRC Generic EIS which states: "Entrainment of fish has not been found to be a problem at operating nuclear power plants with this type of cooling system and is not expected to be a problem during the license renewal term." It is further stated that: "The staff has not identified any significant new information during its ...site visit, the scoping process, or its evaluation of other available information. Therefore, the staff concludes that there are no impacts of entrainment of fish and shellfish in early life stages with this type cooling system during the renewal term beyond those discussed in the GEIS." This view does not sufficiently consider that significant elevation in entrainment of eggs and larvae of anadromous species, particularly American shad, blueback herring, striped bass, and Atlantic and shortnose sturgeons, is possible as a result of population increases during the license renewal period. Based on experience in other southeastern rivers where diadromous fish restoration efforts have been implemented, it is possible that restoration goals (upstream migration past the Hatch Plant) for anadromous fish species such as American shad could produce more than 250,000 spawners during the license renewal term. The current size of spawners in the Altamaha is not known, but it is likely to increase as management efforts are implemented and changes in water column density of eggs and larvae could be significant. Accordingly, a detailed explanation of these impacts, including mitigative measures that could be implemented, should be provided in the final environmental document for the project.

### Summary Comments:

Considering that ongoing and future fishery restoration efforts in the Altamaha River could significantly affect the environmental consequences of operating the power plant, those consequences need to be addressed. The NMFS also believes that the NRC should establish a process for ensuring effective and timely coordination between the NRC, the Licensee, and resource agencies regarding fish impingement and entrainment since further coordination will be needed during the license renewal process. More specifically, the process should address initiation of agency coordination in response to expected changes in fish populations and elevated effects of impingement and entrainment at the Hatch Plant; monitoring and other studies that may be needed; and possible modification of final license conditions as may be needed to restore and sustain fish populations.

Finally, in accordance with the Endangered Species Act of 1973, as amended, it is the responsibility of the appropriate Federal regulatory agency to review its activities and programs and to identify any activity or program that may affect endangered or threatened species and their habitat. If it is determined that these activities may adversely affect any species listed as endangered or threatened, formal consultation with our Protected Resources Division must be initiated. That office may be contacted at the letterhead address, or at (727) 570-5312.

The NMFS looks forward to further coordination with NRC, the Licensee, the Georgia Department of Natural Resources, and the U.S. Fish and Wildlife Service in this matter. Related questions or comments should be directed to the attention of Mr. Prescott Brownell at our Charleston Area Office. He may be reached at 219 Fort Johnson Road, Charleston, South Carolina 29412-9110, or at (843) 762-8591.

Sincerely,

A handwritten signature in black ink, appearing to read "Andreas Mager, Jr.", with a long horizontal flourish extending to the right.

Andreas Mager, Jr.  
Assistant Regional Administrator  
Habitat Conservation Division

FWS, Athens  
EPA, Atlanta  
GA DNR, Social Circle  
SAFMC  
F/SER3  
PSP - Schreiber