



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401

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Fishes and Wildlife Service
11/2/02

Chief, Rules Review and Directives Branch
U.S. Nuclear Regulatory Commission
Mail Stop T6-D59
Washington, D.C. 21555-0001

Attention: Andrew Kugler

Re: *NUREG-1437, Final Supplement 7 to the Generic Environmental Impact Statement Regarding North Anna Power Station (NAPS), Units 1 and 2*

Dear Sir:

The U.S. Department of the Interior, Fish and Wildlife Service has reviewed the Virginia Electric and Power Company (VEPCO), Final Environmental Impact Statement (FEIS), to relicense the above referenced project and offers the following comments. The Service is responding pursuant to the Clean Water Act (33 U.S.C. § 1251 *et seq.*) and the National Environmental Policy Act (42 U.S.C. 4321-4347), and our authorities under the Fish and Wildlife Coordination Act (FWCA) (16 U.S.C. 661-667e) and the Endangered Species Act (ESA) (16 U.S.C. 1531 *et seq.*).

General Comments

The U.S. Fish and Wildlife Service (FWS) has identified and assessed the potential impacts at North Anna Lake and River for VEPCO to take the necessary steps for natural resource protection and enhancement during their license renewal. According to the FEIS, no new data was collected or changes made to benefit natural resources during this relicensing period. In light of the past improvements and the current condition of the North Anna Lake and River, the FWS has provided new and significant information that applies to the operation of NAPS. When the NAPS had its' initial environmental review in 1973, certain measures such as diadromous fish surveys and fish passage were delayed because of acid mine drainage (AMD). The AMD impact is no longer a significant issue, and the FEIS describes the fish populations in the Lake as "well balanced" and "diverse and relatively stable" with "diversity of fish and mussel populations in the North Anna River". As has been achieved at hundreds of dams in the Chesapeake Bay Watershed, the reestablishment of historical spawning habitats will be a success story for fish, VEPCO, and the people in the watershed. For the NAPS management to achieve this goal of fish passage, VEPCO, the Nuclear Regulatory Commission (NRC), and FWS need to reopen our dialogue on this most important issue.

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Specific Comments

The FWS reaffirms our conclusion that the North Anna operations adversely affects natural resources.

- ▶ Anadromous, catadromous, and native fish are blocked from spawning habitats in the spring and other times of the year when fish are searching for forage, refuge, or suitable habitats. Anadromous fish are documented in the North Anna River to the “Fall Hole” upstream of Interstate 95, and similar latitudes in the South Anna and Mattaponi Rivers. It is reasonable to believe that shad and herring can ascend upstream only an additional 20 miles from the Fall Hole to the North Anna Dam. For American eel passage, an Atlantic States Marine Fisheries Commission Fish Management Plan recommends restoring eels to their historical habitat and increasing their abundance in habitats where they currently reside. In addition to restoring fish to their historical and preferred habitats, freshwater mussel populations are distributed in a watershed by the movement of mussel fish host species that are native to the North Anna River. The mussels and fish host will benefit from fish passage at the dam. The starting point to address the passage issue should be a focused migration study to determine the extent of fish movements to the dam during average and high flows.
- ▶ The North Anna facility lacks a component of the cooling water intake system that VEPCO has developed at the Surry Power Station. The traveling mesh screens at the Surry Power Station include a spray wash system that removes the biota from the screens and returns them to the James River. The North Anna facility utilizes a similar technology for the screens, but fails to provide the mechanism to return the biota unharmed back to the Lake. The traveling screens and wash system at Surry clearly minimize aquatic impacts more than the North Anna facility, which discards the impinged biota into a disposal bin. A similar process, such as at Surry, could be developed to minimize the aquatic impacts by returning the impinged biota safely back to the Lake. To further minimize the impacts, in the process of replacing worn or damaged screens, the service recommends mesh less than or equal to one millimeter wide and entrance velocities less than or equal to 0.5 feet per second (Gowan and Garman 1999).
- ▶ The cooling water discharge is also a potential hazard to fish. Unlike the Surry Power Station that discharges to the mouth of the tidal James River, the North Anna Station discharges into a series of open canals that flow back to the Lake. While the thermal discharge is likely to have a greater effect in the colder months, the increased temperatures in the summer could also have an adverse effect on fish behavior and ecology in the Lake.
- ▶ The FWS agrees that the potential is low for the North Anna Power Station to adversely affect bald eagle, *Haliaeetus leucocephalus*, a federally threatened species. Our concern is for the incidental mortality to migratory birds associated with the transmission lines. In the event of migratory bird mortality, VEPCO should complete a Raptor Incident Report for the FWS and the appropriate State agencies.

Summary Comments and Recommendations

The FWS recommends that the NRC adopt the following items in order to establish up-to-date protection of fish and wildlife resources at North Anna Power Station:

1. Install upstream fish passage at the dam for diadromous and native fish;
2. Develop a method to return impinged fish from the cooling water intake screens back to the lake. When the intake screens are replaced, install a mesh size of one millimeter or less wide;
3. Minimize any impacts from the thermal discharges on fish distribution, spawning, and feeding; and
4. Maintain an efficient recording and reporting system for migratory bird mortality at the North Anna Power Station.

We appreciate the opportunity to review the environmental document and provide comment on natural resource protection. If you have any questions regarding these comments, please contact David W. Sutherland of the Service's Chesapeake Bay Field Office by phone at (410) 573-4535, or by e-mail at David_Sutherland@fws.gov.

Sincerely,



for John P. Wolflin
Supervisor

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References

Gowan, C. and G. Garman. 1999. Design criteria for fish screens in Virginia: Recommendations based on a review of the literature. *Prepared for:* Virginia Department of Game and Inland Fisheries, Richmond, VA.