

December 22, 2010

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SUBJECT: RESPONSE TO ESSENTIAL FISH HABITAT CONSERVATION  
RECOMMENDATIONS REGARDING PROPOSED LEVY NUCLEAR PLANT  
UNITS 1 AND 2

Dear Mr. Croom:

The U.S. Nuclear Regulatory Commission (NRC) received your letter, dated October 26, 2010, providing the National Marine Fisheries Service's (NMFS) comments and conservation recommendations in response to the draft environmental impact statement (DEIS) and essential fish habitat (EFH) assessment, respectively, for the construction and operation of the proposed Levy Nuclear Plant (LNP) Units 1 and 2 site in Levy County, Florida. As cooperating agencies, the NRC and the U.S. Army Corps of Engineers (USACE) have conducted a joint EFH consultation with NMFS in association with reviews of the application submitted by Progress Energy Florida (PEF) for combined licenses from the NRC and a Department of the Army permit from USACE. The joint EFH consultation was initiated pursuant to Section 305 of the Magnuson-Stevens Fishery Conservation and Management Act (Public Law 94-265, December 1996) (the "Act"), and the EFH assessment was included in Appendix F of the DEIS, which was issued in August 2010. This letter focuses on responding to the EFH conservation recommendations for the purpose of concluding the EFH consultation by the NRC, as required by Section 305(b)(4)(B) for the Act. It is our understanding that the USACE will respond to the NMFS by separate letter.

In the EFH assessment, the NRC and USACE determined that construction and operation of proposed Units 1 and 2 at the LNP site would have minimal adverse effects on EFH within the Crystal Bay area of the Gulf of Mexico, Old Withlacoochee River, and Cross Florida Barge Canal (CFBC), as a result of the loss of spawning, nursery, forage, and/or shelter habitat for the 14 species evaluated. NMFS's EFH conservation recommendations from your October 26, 2010, letter are reproduced below:

- 1) A minimum 5-year baseline survey should be developed and coordinated with state and Federal natural resource agencies to determine site-specific, year-round impacts to fish and invertebrate resources present at the cooling water intake site following plant operation. Acquired data could then be used to quantitatively calculate potential impacts to LNP operations on identified fishery resources and, if determined necessary, to develop and implement Best Management practices and adaptive management mitigation options to further reduce such impacts.

- 2) A minimum 3-year Submerged Aquatic Vegetation (SAV) survey, conducted between June 1 through September 30, should be conducted in portions of the Gulf of Mexico offshore of the cooling water discharge canal at the Crystal River Energy Complex facility to determine if discharge of additional cooling water from LNP operations is resulting in adverse impacts to SAV. Following SAV sampling and if survey results indicate diminished SAV densities are occurring as a result of discharge of LNP cooling water, an SAV mitigation plan should be developed in consultation with state and Federal natural resource agencies.
- 3) The filling of approximately 4.5 acres of estuarine emergent marsh habitats for proposed blowdown pipeline corridor routing between the LNP and existing Crystal River Energy Complex facility should not be authorized. Alternatively, necessary pipeline construction should be aligned through available upland areas between these sites.
- 4) If it is determined there is a need for dredging portions of the Gulf of Mexico immediately offshore from the Cross Florida Barge Canal, then benthic surveys should be conducted. Such surveys should also include benthic habitat assessments to determine the presence and abundance of SAV and hardbottom habitats. Results of these surveys should be provided to NMFS staff for review.
- 5) Provided unavoidable hardbottom and SAV impacts are expected to occur as a result of Item 4, above, development of a conceptual compensatory mitigation plan for impacts to marine habitats should include the following elements: 1) description of the mitigation plan; 2) quantification of anticipated impact acreage verses proposed mitigation acreage and justification for the proposed mitigation acreage; 3) scientific criteria for determining mitigation success; 4) a project and mitigation implementation schedule; 5) targeted climax communities expected in mitigation area(s), including their acreage and configurations; 6) material and methods to be used to achieve the intended mitigation; 7) comprehensive 5-year monitoring and reporting schedules; and 8) contingency plans by which equivalent mitigation would be completed if the proposed mitigation fails.

In addition, your letter recommends that the NRC and USACE coordinate with the Federal Energy Regulatory Commission (FERC) to assess the potential cumulative effects of the Levy Nuclear and Inglis Hydropower Plants' (IHP) operations on diadromous species and their associated habitats and address preliminary measures for protection, mitigation, and enhancement of these resources.

Although the NRC considered the mitigative measures in the EFH assessment, the NRC's statutory authority under the Atomic Energy Act of 1954, as amended, does not allow the NRC to impose on NRC licenses the mitigative measures described in your letter. Instead, the Florida Department of Environmental Protection (FDEP) as delegated by the Environmental Protection Agency and USACE have such authority under the Clean Water Act. Therefore, regarding Items 1, 2, 4, and 5, above, the NRC encourages NMFS to collaborate with the FDEP or USACE to implement: 1) baseline fish and invertebrate surveys by the cooling water intake site; 2) SAV surveys; 3) potential benthic survey associated with dredging in the Gulf of Mexico; and 4) development of a conceptual compensatory mitigation plan for impacts to marine habitats that could occur as a result of dredging in the Gulf of Mexico.

In April 2010, a petition for Notification to Modify the State's Site Certification Application for the Levy project was submitted by PEF to the FDEP. The primary purpose of the modification is to avoid 4.5 acres of estuarine emergent marsh habitats as presented in EFH conservation recommendation number three. The FDEP is expected to decide on the petition in January 2011.

Although not an EFH conservation recommendation, your October 26, 2010, letter recommended that the NRC and the USACE coordinate with FERC to assess the potential cumulative effects of the proposed LNP and the proposed IHP on diadromous species and their associated habitats as well as addressing preliminary measures for protection, mitigation, and enhancement of these resources. The review team is unaware of any diadromous fish species that currently or historically inhabited the Withlacoochee River. The review team did evaluate the potential for cumulative impacts associated with the IHP and the LNP in Section 7.3.2 of the August 2010 DEIS. The review team concluded that construction of the hydropower plant could temporarily affect downstream migration of fish from Lake Rousseau to the Withlacoochee River but would have no effect on the CFBC or the Old Withlacoochee River. The review team also found that the IHP is isolated from impacts on the CFBC because the Inglis Lock bypass channel and the Withlacoochee River are not hydraulically connected to the CFBC. The construction and operation of the IHP would have no effect on fish populations or EFH in the CFBC. Thus, the staff concluded that the hydropower project would have no detectable incremental cumulative impact on EFH or fish populations affected by the building and operating of LNP. Therefore, the review team finds no reason to coordinate with FERC to further assess the potential cumulative effects of the IHP and LNP on diadromous species, EFH, or the local fishery.

This response letter concludes the NRC's portion of the joint EFH consultation regarding construction and operation of proposed Units 1 and 2 at the LNP site. The USACE will complete its consultation with the NMFS through a separate letter. If you have any questions concerning the response to NMFS's EFH conservation recommendations, please contact Mr. Douglas Bruner of my staff at 301-415-2730, or via e-mail to [Douglas.Bruner@nrc.gov](mailto:Douglas.Bruner@nrc.gov).

Sincerely,

**/RA/ By Nilesh C. Chokshi Acting For**

Scott C. Flanders, Director  
Division of Site and Environmental Reviews  
Office of New Reactors

Docket Nos.: 52-029 and 52-030

cc: See next page

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Docket Nos.: 52-029 and 52-030

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Letter to Miles M. Croom from Scott C. Flanders dated December 22, 2010

SUBJECT: RESPONSE TO ESSENTIAL FISH HABITAT CONSERVATION  
RECOMMENDATIONS REGARDING PROPOSED LEVY NUCLEAR PLANT  
UNITS 1 AND 2

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