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July 1, 2008

Mr. Mike Halpin, Administrator
Siting Coordination Office
Florida Department of Environmental Protection
2600 Blainstone Road, MS 48
Tallahassee, Florida 32399

RE: Site Certification Application, Progress Energy Florida Levy Nuclear Plant Units 1 and 2; Powerline Transmission Corridor, Levy County, Florida; First Completeness Review and Request for Additional Information

Dear Mr. Halpin:

The Division of Habitat and Species Conservation, Habitat Conservation Scientific Services Section of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated agency review of the Site Certification Application for the Progress Energy Florida Levy Nuclear Plant Units 1 and 2 project and the associated Powerline Transmission Lines Project and provide the following comments for consideration in the application completeness review.

Project Description

Progress Energy Florida proposes to build and operate two 1154 (nominal electrical) megawatt electric (MWe) advanced passive light water nuclear reactors (proposed Levy Nuclear Plant Unit 1 [LNP 1] and proposed Levy Nuclear Plant Unit 2 [LNP 2]). LNP 1 and 2 will be located in Levy County, Florida. The project also includes several new and expanded 500-kilovolt (kV) and 230-kV electrical transmission lines and substations, a new rail line, new site access roads, and new offsite cooling water disposal pipelines that will connect the Levy Nuclear Plant site to the existing Crystal River Nuclear Facility. The site is located adjacent to and north of the Cross Florida Barge Canal approximately seven miles from the coast.

Requested Information

Listed species surveys. The applicant, in the Environmental Report (Volumes 8 and 9), indicated that various listed species (gopher tortoises [threatened], Florida scrub jays [threatened], red-cockaded woodpeckers [species of special concern], Sherman's fox squirrel [species of special concern]) were found at the proposed Levy Nuclear Plant site and in or adjacent to the proposed Powerline Transmission corridors. FWC records indicate that the transmission corridors are also within the range of the Florida mouse (species of special concern), which is unlikely to have been detected during observational surveys. The explanations of survey methodologies contained in Chapter 6 are very brief. We request that the applicant provide additional information on the methodologies used to survey for listed species, dates and times when the surveys were conducted, location maps of the surveys and transect locations, and specific locations and numbers of listed species found. It is also not clear what monitoring studies and survey protocols will be conducted during and after construction. The applicant will need to provide

additional information that describes the monitoring plans and protocols, for all species (aquatic and terrestrial), that are anticipated to be conducted during construction, after construction, and for operational monitoring. We will need more detailed survey information prior to completion of the Levy Nuclear Plant and the associated Powerline Transmission Lines application.

Gopher tortoises. Chapter 6, Section 6.5.1.2.1, indicates that a gopher tortoise relocation plan will be developed in accordance with FWC guidelines. After the spring of 2009, new gopher tortoise management permitting requirements will be in place. These permits require either on-site or off-site relocation of all gopher tortoises potentially impacted by development, and a mitigation contribution to the FWC will be required for all relocation permits. We encourage Progress Energy to conduct on-site relocations to address any gopher tortoise issues, especially in the vicinity of the transmission lines, rather than off-site relocations where suitable habitat exists. The applicant will need to indicate if the on-site relocation plan is intended for different segments of the transmission corridor and plant location or as a complete "unit." The applicant will also need to identify any off-site recipient site locations for the relocation of the gopher tortoises. Chapter 6, Section 6.5.1.2.1 Important Species, does not provide any conservation measures for state-listed Florida mice or Sherman's fox squirrels. The applicant will need to provide conservation and mitigation measures for state-listed species in accordance with Chapter 68A-27, Florida Administrative Code.

Red-cockaded woodpeckers. Sec. 5.4.4.3 Biota Doses (pages 5-51 & 52), talks about the exposure of air-borne radiation to the terrestrial biota. "Table 5.4-16 shows that with the exception of the red-cockaded woodpecker (RCW) and northern bobwhite, the doses meet the 25 milliRoentgen equivalent man per year (mrem/yr) whole body dose equivalent criterion in 40 CFR 109." Using Fig. 2.7-16 – Wind Rose Jan. 1, 2001, to Dec. 31, 2005, approximately 20% of the winds in this area will be blowing onto inhabited red-cockaded woodpecker clusters and planned clusters on Goethe State Forest.

Also in Sec.5.4.4.3, "From an ecological viewpoint, population stability is considered more important to the survival of the species than the survival of individual organisms. Thus higher doses are permitted." While generally this is true for a widely dispersed viable population, an isolated population requires the survival of as many individuals as possible for its continued success. The following is from the Recovery Plan for the red-cockaded woodpecker (*Picoides borealis*) Second Revision; U.S. Fish and Wildlife Service. "...The buffering effect of helpers against annual variation operates only when helpers can readily occupy breeding vacancies as they arise. Helpers do not disperse very far and typically occupy vacancies on their natal territories or a neighboring one. If groups are isolated in space, dispersal of helpers to neighboring is disrupted and the buffering effect of the helper class is lost. When this happens, populations become much less likely to persist through time. Cooperative breeding system does not allow rapid annual growth of populations." The population of red-cockaded woodpeckers on Goethe has only 40 active clusters; organized into two subpopulations, one in the Black Prong area of Goethe and the other in the southern end of Goethe, in the Daniels Island and Apex tracts, with little contact between both subpopulations. Subpopulations reach stability when they support 30 or more active clusters and therefore these subpopulations are not ecologically stable. For this reason, the State has directed substantial resources

toward managing these subpopulations so they are sustained. The applicant should describe mitigation measures that will be undertaken to address the potential impacts to the red-cockaded woodpecker clusters and planned clusters on Goethe State Forest.

Manatees. The environmental report (4.3.2.2, page 4-47) states that standard manatee conditions will be followed and professional biologists will serve as boat-based observers during certain phases of construction. The applicant should provide information detailing how observers will be selected, whether they have any previous experience observing for manatees, how many observers will be assigned to the construction areas and how many hours per day each observer will be assigned to work.

The environmental report (4.3.2.2, page 4-46) states that a cofferdam will be used to minimize release of sediment to the Cross Florida Barge Canal. The applicant should describe the procedure that will be used to ensure that manatees are not trapped behind the cofferdam.

The environmental report (4.3.2.2, page 4-46) describes the components of the cooling water intake structure as an intake structure, vertical bar screens, traveling screens, pumps and a pump house. The applicant should describe what access, if any, manatees could potentially have to the completed cooling water intake structure and what measures are being taken, if necessary, to prevent access.

Aquatic systems. The applicant has provided information on the biological characterization of the Cross Florida Barge Canal in the vicinity of the Levy Nuclear Plant site in the Environmental Report and in the National Pollution Discharge Elimination System (NPDES) permit application. The applicant indicates that benthic invertebrate sampling was conducted by the "approved Aquatic Sampling Work Plan." A short summary is provided in Volume 5, NPDES permit, Attachment 2; Volume 8, Section 2.4.2.6; and also in Volume 9, Chapter 6. The applicant has indicated that the cooling water intake structure will affect flows and aquatic life in the Cross Florida Barge Canal for a distance of five miles from the Inglis Lock and Dam. We request that the applicant provide a copy of the "aquatic sampling work plan," detailed survey protocols for the macro-invertebrates, the various plankton communities, and fish communities. We request the applicant indicate where the new aquatic sampling stations will be located on the old Withlacoochee River channel. We also request the applicant provide a sampling protocol that would be initiated during operation of the plant in order to address impingement and entrainment. Further, we request that the applicant develop a mitigation plan to address impacts to aquatic life.

We request that the applicant consider providing a mitigation plan that includes the creation of multiple breaches along the earthen berm that extends into Withlacoochee Bay (Gulf of Mexico) from the Cross Florida Barge Canal. Historically, freshwater would enter the bay, flow southward and support a euryhaline system consisting of oysters and other estuarine organisms. With the creation of the berm for the Cross Florida Barge Canal, this supply of freshwater was diverted offshore. A hydrographic analysis should accompany the mitigation plan in order to model the modified flow pattern that would result from the creation of the proposed breaches and the ultimate consequence on the local salinity regime.

Previous mitigation was required for the effluent from the existing Crystal River Plant. Since the applicant proposes to use the existing Crystal River Plant's discharge canal, we request information regarding any marine or estuarine mitigation efforts associated with the construction and operation of the existing Crystal River Plant. This should include detailed descriptions of the specific activities, along with the outcomes of each activity. We also request that the applicant address the whether the mitigation was successful in terms of achieving the predefined goals.

Cumulative impacts. The Environmental Report (volumes 8 and 9) for the proposed plant facility and the transmission lines does not appear to contain an analysis of the cumulative impacts of the proposed facility and its transmission lines in conjunction with the Crystal River Nuclear Facility and transmission lines and other activities in the area. We recommend that a thorough cumulative effects analysis be conducted that includes, at a minimum, effects on marine/estuarine habitat and species, atmospheric deposition of material from both power plants, bird migration/transmission line mortality, and impacts of the transmission line on habitat and species.

Potential restoration of the Withlacoochee River. Volume 9, Section 4.1.1.1.2.3, provides information on the land use plan effects with the construction of the Levy County Plant. The applicant should explain impacts to plant operations if the lock and dam are removed from Lake Rousseau and possible impacts to the plant and operations if restoration of the Withlacoochee River is pursued in the future. In addition, the applicant should describe alternatives for different water intake structure locations that would allow for future restoration of the Cross Florida Barge Canal.

Recreational access. The applicant should indicate if there will be any security zones established in any areas of the proposed facility that would restrict access to areas currently open to fishing and hunting activities.

Transmission lines. Volumes 2-4 provide information on the Transmission Line Corridors. The text, tables, and figures associated with each section of the transmission lines indicates possible occurrence of state- and federally listed species. It is not clear how much of the area was actually surveyed for listed species. Please see the comments on the Environmental Report for additional information that is needed regarding survey and monitoring. The text indicates that a 25-foot buffer will be provided for any gopher tortoise burrows and relocation of the tortoises if necessary. The text also indicates that necessary buffers will be maintained around the bald eagle nests. Proposed transmission line corridors would cause take of habitat for the threatened Florida scrub jay on state and private lands. Volume 3, Section 9-A5, Brookridge Line, did not address the presence or migration of whooping cranes in nearby Chassahowitzka Wildlife Management Area or on the Goethe State Forest. It is not clear from the text what avoidance, minimization or mitigative measures will be taken, during construction and maintenance of the transmission lines, to protect and conserve the other listed species. The applicant will need to provide conservation and mitigation measures for state-listed species in accordance with Chapter 68A-27, Florida Administrative Code.

Descriptions of each section of the transmission lines, contained in Volumes 2-4, indicated that additional right-of-way will be needed to co-locate much of the transmission line system. Depending upon the line and location, the additional right-of-way may vary even within the same line. Some of the lines are adjacent to or cross public conservation lands. The applicant will need to address the State's Linear Facilities Policy where proposed transmission corridors would cross public conservation lands. The applicant should also indicate what measures will be undertaken during construction and routine maintenance to prevent interference with necessary habitat management on these conservation lands.

Sec. 5.6.1.1 states that "The majority of listed species observed in the LPC [Levy Plant Complex], LCR [Crystal River Energy Complex switchyard], and LCFS [Central Florida South Substation] corridors are mobile avian species that could relocate to similar habitat during construction activities." The listed avian species this project is likely to affect are listed in large part because there is insufficient suitable habitat remaining to support the species; this is true not just on private lands but also on public lands. Lands converted or altered during the construction of this project are unlikely to support listed species post-construction unless habitat restoration and management activities are planned. This statement assumes that other suitable, unoccupied habitat is available and near the displaced individuals, clans, or groups. The applicant should describe methods to minimize or mitigate for species that will be displaced.

Thank you for the opportunity to review this proposed power plant. If your staff has any specific questions regarding our comments, I encourage them to contact Theodore Hoehn (850-488-3831; email ted.hoehn@myFWC.com).

Sincerely,



Mary Ann Poole, Director
Office of Policy and Stakeholder Coordination

map/tsh

ENV 1-3-2

Progress Levy Nuclear_1452

cc: Jamie Hunter, Progress Energy
Emily Norton, FWC, Tallahassee