PMLevyCOLPEm Resource

From: Snead, Paul [paul.snead@pgnmail.com]
Sent: Friday, March 27, 2009 1:34 PM
To: Bruner, Douglas
Subject: NPD-NRC-2009-043 - Response to Levy ER-USACE RAIs without attachments
Attachments: NPD-NRC-2009-043 - Final Response to Levy ER-USACE RAIs.pdf

Doug:

Attached, for your information, is a PDF copy of the responses to the USACE Environmental RAIs for Levy that have been signed and are being sent to the NRC in today's mail. The attachments are not included with this PDF, but you should be receiving 4 copies of the attachment CDs with this mailing next week.

Please let me know if you have any questions.

Thanks,

Paul Snead
Lead Environmental Specialist
Nuclear Plant Development
Progress Energy
paul.snead@pgnmail.com
(919) 546-2836

Hearing Identifier: Levy_County_COL_Public
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Recipients:
"Bruner, Douglas" <Douglas.Bruner@nrc.gov>
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Progress Energy

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March 27, 2009

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

LEVY NUCLEAR POWER PLANT, UNITS 1 AND 2
DOCKET NOS. 52-029 AND 52-030
RESPONSE TO USACE REQUEST FOR ADDITIONAL INFORMATION REGARDING THE ENVIRONMENTAL REVIEW

Reference: Letter from Douglas Bruner to James Scarola, dated February 24, 2009, "Request for Additional Information Regarding the Environmental Review of the Combined License Application for the Levy Nuclear Power Plant, Units 1 and 2"

Ladies and Gentlemen:

Progress Energy Florida, Inc. (PEF) hereby submits a response to the United States Army Corps of Engineers (USACE) request for additional information (RAI) provided in Enclosure 2 of the referenced letter.

A response to the USACE RAIs is provided in Enclosure 1. Enclosure 2 provides a list of files included on the attached CD (Attachment 1). These files have been prepared in accordance with NRC electronic submittal guidance. A pre-flight report is included as Enclosure 3 that lists the files that do not pass pre-flight, but are deemed acceptable based on the reasons noted in the enclosure.

If you have any further questions, or need additional information, please contact Bob Kitchen at (919) 546-6992, or me at (919) 546-6107.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on March 27, 2009.

Sincerely,

Garry D. Miller
General Manager
Nuclear Plant Development

Enclosures/Attachment

Progress Energy Carolinas, Inc.
P.O. Box 1551
Raleigh, NC 27602

cc (with 4 copies of Enclosures/Attachment):
Mr. Douglas Bruner, U.S. NRC Environmental Project Manager

cc (without attached CD):
U.S. NRC Director, Office of New Reactors/NRLPO
U.S. NRC Office of Nuclear Reactor Regulation/NRLPO
U.S. NRC Region II, Regional Administrator
Mr. Brian C. Anderson, U.S. NRC Project Manager

Levy Nuclear Power Plant Units 1 and 2
Response to USACE Request for Additional Information Regarding the Environmental Review, dated February 24, 2009

NRC/USACE RAI #	Progress Energy RAI #	Progress Energy Response
USACE-1	L-0146	Response enclosed – see following pages
USACE-2	L-0147	Response enclosed – see following pages
USACE-3	L-0148	Response enclosed – see following pages
USACE-4	L-0149	Response enclosed – see following pages
USACE-5	L-0150	Response enclosed – see following pages
USACE-6	L-0151	Response enclosed – see following pages
USACE-7	L-0152	Response enclosed – see following pages
USACE-8	L-0153	Response enclosed – see following pages
USACE-9	L-0154	Response enclosed – see following pages
USACE-10	L-0155	Response enclosed – see following pages

NRC Letter No.: ER-USACE

NRC Letter Date: February 24, 2009

NRC Review of Environmental Report

NRC RAI #: USACE-1

Text of NRC RAI: Provide plans for disposition of dredging spoils.

The ER states that sediments will be characterized prior to commencement of construction activities, however the fate of displaced sediments is not provided. Information and drawings regarding disposition and containment of dredged spoils and discharge of return water during construction need to be provided to the NRC as a cooperating agency with the U.S. Army Corps of Engineers (USACE).

PGN RAI ID #: L-0146

PGN Response to NRC RAI:

All work conducted in and adjacent to wetlands and submerged lands will employ best management practices (BMPs) and will be conducted in accordance with state and federal permitting criteria. These practices may include operational and management controls specific to the site and techniques employed.

Construction activities in three areas may disturb or displace the sediments of the Cross Florida Barge Canal (CFBC): the barge slip, the intake structure, and the pipeline crossing. Both the barge slip and the intake structure will be constructed behind the existing CFBC shoreline. Most excavation will take place in uplands prior to removing the final earthen plug between the excavated area and the canal. Because the proposed activities will occur in uplands, only minor sediment displacement and disruption will take place. The blowdown pipeline crossing of the CFBC will require dredging. A trench will be dredged for the blowdown pipes that will extend across the CFBC, a distance of about 250 feet. Following their placement, the blowdown pipes will be covered to a minimum depth of 3 feet below the CFBC canal bottom.

Prior to any dredging, sediments in the construction area will be tested using the Toxicity Characteristics Leaching Procedure (TCLP) per U.S. Environmental Protection Agency (EPA) Method 1311. Results will be evaluated using the criteria published in 40 Code of Federal Regulations (CFR) 261.24. This evaluation will determine whether the sediments are classified as hazardous and whether or not disposal will need to comply with provisions of the Resource Conservation and Recovery Act (RCRA). Based on this evaluation, the most appropriate sediment management and disposal procedures will be determined.

Soils will be removed from the shoreline area in the barge slip and intake structure areas using a backhoe. A suction dredge with a cutter head or an environmental dredge will be used for the pipeline crossing. The dredging techniques used may be modified based on the material classification or conditions encountered.

Dredged materials will be placed in confined areas located near the dredging sites for dewatering. Solids will be allowed to settle and water will be drained to an adjacent cell where dewatering will occur through evaporation and percolation. Any residual water will be tested prior to release back to the CFBC. A National Pollutant Discharge Elimination System

(NPDES) general stormwater permit will be required for the release of water, and any discharge would need to meet Florida surface water quality standards published in Chapter 62-302, Florida Administrative Code (F.A.C.) Solids will be excavated for use as Levy Nuclear Plant Units 1 and 2 (LNP) on-site fill, trench backfill, or for on-site or off-site disposal.

If sediments are not considered hazardous, standard dredging practices and appropriate BMPs will be used. Examples of BMPs that may be employed include using floating turbidity barriers, turbidity monitoring, and following the Standard Manatee Conditions for In-Water Work (2005) to avoid potential impacts to manatees. A sediment evaluation will be performed in accordance with USACE protocol (Reference USACE-1) to aid in the assessment of disposal options. If the physical characteristics of the sediment are suitable, the sediments will be used to backfill the pipe trench, used on-site as fill material (thereby reducing the need to import additional material), or disposed of on upland areas of the site. If the sediment characteristics are not suitable for use as fill material or are considered to pose a threat to groundwater or wetlands, for example, due to salt content, the sediments will be transported to a landfill for offsite upland disposal.

If sediment contaminants exceed thresholds as defined in 40 CFR 261.24, dredging will be conducted under BMPs to minimize the potential for sediment release to the water column. Sediments considered to be potentially hazardous would be transported to an offsite licensed hazardous waste landfill for upland disposal. Sediment materials treated on-site would be available for use as fill or would be transported to an approved on-site or off-site upland site.

Drawings of dredging sites and containment areas have not been prepared at this time but will be provided when available.

References:

Reference USACE-1. *Evaluation of Dredged Material Proposed for Disposal at Island, Nearshore, or Upland Confined Disposal Facilities* — Testing Manual. U.S. Army Corps of Engineers, January 2003.

Associated LNP COL Application Revisions:

None.

Attachments/Enclosures:

None.

NRC Letter No.: ER-USACE

NRC Letter Date: February 24, 2009

NRC Review of Environmental Report

NRC RAI #: USACE-2

Text of NRC RAI: Characterize the cultural resources beyond the first substation.

Characterize the cultural resources within new transmission line corridor(s) beyond the first substation. Provide copies of the two desktop archaeological investigations completed by Golder and Associates that are referenced in the SCA.

PGN RAI ID #: L-0147

PGN Response to NRC RAI:

Two preliminary cultural resources reports were prepared as part of the transmission line corridor selection process. They are included in the State of Florida Site Certification Application (SCA) as Attachments 9-A4-3 (Inglis-Ocala/ Inglis-High Springs), 9-A5-3 (Crystal River to Brookridge), 9-A6-3 (Brookridge to Brooksville West), and 9-A7-3 (Crystal River to Crystal River East) in Volume 3 and Section 9A-8-3 (Polk-Hillsborough-Pinellas) in Volume 4. The reports will be available in the Progress Energy-provided Reading Room. These reports include the areas beyond the first substation. The transmission line corridors beyond the first substation are centered on existing transmission line rights of way (ROWs).

Progress Energy Florida, Inc. (PEF) anticipates approval of the State of Florida SCA by the Florida Siting Board in August-September 2009. This approval will include certification of PEF's proposed electrical transmission line corridors. A proposed condition of certification (XXXV) sets out the process for reviewing and finalizing the final ROW locations. This requires PEF to submit the final proposed ROWs to the various state agencies for review post-certification. Once this condition is satisfied, the ROWs can be finalized.

A separate proposed condition of certification (XXVI.B) reads: "with respect to the Certified Transmission Lines, after the ROW has been selected, PEF shall conduct a survey of sensitive cultural resource areas, as determined in consultation with the Department of State, Division of Historical Resources (DHR). A qualified cultural resources consultant will identify an appropriate work plan for this project based on a thorough review of the certified corridor. Prior to beginning any field work, the work plan will be reviewed in consultation with DHR. Upon completion of the survey, the results will be compiled into a report which shall be submitted to DHR. If practicable, sites considered to be eligible for the National Register shall be avoided during construction of the transmission line and access roads, and subsequently during maintenance of the ROWs. If avoidance by the proposed ROW of any discovered sites is not practicable, impact shall be mitigated through archaeological salvage operations or other methods acceptable to DHR, as appropriate. If historical or archaeological artifacts are discovered at any time within the project site, PEF shall stop work immediately and shall notify the [Department of Environmental Protection] DEP Southwest District office and the Bureau of Historic Preservation, Division of Historical Resources, R.A. Gray Building, Tallahassee, Florida 32399-0250, telephone number (850) 487-2073, and PEF shall consult with DHR to determine appropriate action. For

informational purposes, PEF shall provide a copy of the cultural resources surveys to Hillsborough County for the portions of the certified transmission lines within Hillsborough County. [Sections 267.061 and 403.531, F.S.]”

Although the final ROWs have not been approved by the State of Florida, in most areas they are centered on existing transmission line ROWs. PEF is in the process of soliciting bids to complete the cultural resources work for this project. The cultural resources surveys, including beyond the first substation, should be completed by the end of 2009.

Associated LNP COL Application Revisions:

None.

Attachments/Enclosures:

None.

NRC Letter No.: ER-USACE

NRC Letter Date: February 24, 2009

NRC Review of Environmental Report

NRC RAI #: USACE-3

Text of NRC RAI: Provide documentation describing the cultural resources scope of work to date, what remains to be completed, and a schedule for completion.

Provide to the documentation describing the cultural resources scope of work to date, what remains to be completed, and a schedule for completion (including pedestrian survey and subsurface testing) for power lines beyond the first substation. Information and schedule are required to assure surveys are sufficient and completed for inclusion into the Final EIS to meet USACE needs.

PGN RAI ID #: L-0148

PGN Response to NRC RAI:

Two preliminary cultural resources reports were conducted as part of the transmission line corridor selection process. The reports are included in the SCA as Attachments 9-A4-3 (Inglis-Ocala/ Inglis-High Springs), 9-A5-3 (Crystal River to Brookridge), 9-A6-3 (Brookridge to Brooksville West), and 9-A7-3 (Crystal River to Crystal River East) in Volume 3 and Section 9A-8-3 (Polk-Hillsborough-Pinellas) in Volume 4. The reports will be available in the Progress Energy-provided Reading Room.

PEF anticipates approval of the State of Florida SCA by the Florida Siting Board in August-September 2009. Included in the proposed conditions for the State of Florida Site Certification is a condition (XXVI. B) that reads “with respect to the Certified Transmission Lines, after the ROW has been selected, PEF shall conduct a survey of sensitive cultural resource areas, as determined in consultation with the Department of State, Division of Historical Resources (DHR). A qualified cultural resources consultant will identify an appropriate work plan for this project based on a thorough review of the certified corridor. Prior to beginning any field work, the work plan will be reviewed in consultation with DHR. Upon completion of the survey, the results will be compiled into a report which shall be submitted to DHR. If practicable, sites considered to be eligible for the National Register shall be avoided during construction of the transmission line and access roads, and subsequently during maintenance of the ROWs. If avoidance by the proposed ROW of any discovered sites is not practicable, impact shall be mitigated through archaeological salvage operations or other methods acceptable to DHR, as appropriate. If historical or archaeological artifacts are discovered at any time within the project site, PEF shall stop work immediately and shall notify the DEP Southwest District office and the Bureau of Historic Preservation, Division of Historical Resources, R.A. Gray Building, Tallahassee, Florida 32399-0250, telephone number (850) 487-2073, and PEF shall consult with DHR to determine appropriate action. For informational purposes, PEF shall provide a copy of the cultural resources surveys to Hillsborough County for the portions of the certified transmission lines within Hillsborough County. [Sections 267.061 and 403.531, F.S.]”

Although the final ROWs have not been approved by the State of Florida, in most areas they are centered on existing transmission line ROWs. PEF is in the process of soliciting bids to complete the cultural resources work for the transmission ROWs. The cultural resources surveys, including beyond the first substation, should be completed by the end of 2009. Based on the current NRC schedule (September 2010) for completion of the LNP Combined License Application (COLA) Final Environmental Impact Statement (EIS), it is anticipated that cultural resource reviews will be completed in time for inclusion in the Final EIS.

Associated LNP COL Application Revisions:

None.

Attachments/Enclosures:

None.

NRC Letter No.: ER-USACE

NRC Letter Date: February 24, 2009

NRC Review of Environmental Report

NRC RAI #: USACE-4

Text of NRC RAI: Provide additional information on waterfowl resources along the transmission corridor (beyond the first substation).

ER Section 2.4.1 does not provide a discussion of waterfowl resources along the transmission lines. Provide a description of waterfowl concentration areas and habitats along the transmission corridors (beyond Enclosure 1, the first substation).

PGN RAI ID #: L-0149

PGN Response to NRC RAI:

Many lakes and ponds in Florida serve as waterfowl concentration areas by providing critical foraging resources for large numbers of both resident and wintering migratory ducks. Generally, waterfowl hunting in Florida is permitted on any water body that has public access, unless it is closed for a specific reason, such as location within a park or in an area where the discharge of firearms is prohibited. No significant waterfowl concentration areas are located within the LNP site or transmission corridors, although areas that provide sufficient quantity and quality of habitat to support congregations of resident and wintering waterfowl occur in the surrounding areas. Outlined below are descriptions of areas adjacent to the LNP, as well as to the entire length of the proposed Levy to Citrus (LPC), Levy to Crystal River (LCR), Levy to Central Florida South (LCFS), Crystal River to Brookridge (CB), Brookridge to Brooksville West (BBW), Polk to Hillsborough to Pinellas (PHP), Citrus to Crystal River East (CCRE), Inglis to Ocala (IO), and Inglis to High Springs (IS) transmission corridors that provide potential waterfowl concentration habitat.

Lake Rousseau

Lake Rousseau is a 12-mile-long approximately 3,700-acre (ac.) man-made impoundment in Citrus County that lies on the trace of the Withlacoochee River. It is part of the Marjorie Harris Carr Cross Florida Greenway and is fed by both the Rainbow River and Lake Panasoffkee to the east. The proposed LPC, LCR, LCFS, IO, and IS transmission corridors (Common Corridor) lie to the west of this 12-mile-long man-made impoundment. No impacts to this regional waterfowl concentration area are anticipated.

Lake Tsala Apopka

Lake Tsala Apopka is an approximately 19,000-ac. system of heavily vegetated, interconnected freshwater marshes and shallow lakes in Citrus County. The northern-most portion of the lake system (Hernando Pool) is located south of State Road 200 and south of the proposed LCFS transmission corridor. No impacts to this waterfowl concentration area are anticipated.

Lake Panasoffkee

Lake Panasoffkee and the Lake Panasoffkee Wildlife Management Area are located in Sumter County, south of State Road 44 and west of Interstate 75. This approximately 9,000-ac. lake outfalls to the Withlacoochee River to the west. The proposed LCFS transmission corridor is located north of both Lake Panasoffkee and the management area; therefore, no impacts to this waterfowl concentration area are anticipated.

Lake Thonotosassa

Lake Thonotosassa is an approximate 839-ac. lake that is part of the Pemberton Creek/Baker Canal Watershed in Hillsborough County. The lake is located approximately 0.25 mile south of the proposed PHP corridor and is surrounded by residential development. The proposed transmission corridor is located north of the lake; therefore, no impacts to this waterfowl concentration area are anticipated.

Unnamed Lakes and Ponds

Numerous small urban lakes and ponds are located along the PHP corridor between the Lake Tarpon Substation in Pinellas County and Kathleen Substation in Polk County. A few of the ponds are natural; however, a large portion of them are man-made stormwater features associated with residential development. The proposed PHP transmission corridor will cross several of these small water bodies, although these crossings will be located within existing transmission ROWs. Replacement of the existing transmission structures will not require any additional crossings of these features. No significant adverse impacts to these potential waterfowl concentration areas are anticipated.

Impact Avoidance, Minimization, and Mitigation

In order to avoid and/or minimize impacts to waterfowl concentration areas, the transmission corridors have been selected to avoid significant surface water features. No structures, access roads, or aerial crossings of significant waterfowl concentration areas will occur. In order to minimize wetland impacts further, transmission lines will be co-located within existing ROWs whenever possible. Any unavoidable wetland impacts will be mitigated in consultation with the Florida Department of Environmental Protection (FDEP) and the U.S. Army Corps of Engineers (USACE). Wetland mitigation will ensure that the loss of wetland functions associated with construction of the transmission lines, including wildlife and waterfowl habitat, are appropriately replaced through enhancement, restoration, and/or preservation of wetland habitat or through the purchase of wetland mitigation credits from an agency-approved mitigation bank that will promote conservation of wetland resources within the Central Florida region. Through the project's avoidance, minimization, and mitigation efforts, no significant adverse impacts to waterfowl or waterfowl concentration areas are anticipated.

Associated LNP COL Application Revisions:

None.

Attachments/Enclosures:

None.

NRC Letter No.: ER-USACE

NRC Letter Date: February 24, 2009

NRC Review of Environmental Report

NRC RAI #: USACE-5

Text of NRC RAI: Provide additional information needed to update and complete the impact assessment for wetland resources.

ER Section 4.3.1 provides an impact assessment for wetland resources. Provide the following items to update and complete this assessment:

- A Unified Mitigation Assessment Method (UMAM) table for the impacted wetlands, any wetlands within 300 feet of impacted wetlands (for indirect effects) and for the mitigation wetlands.
- A discussion to explain the UMAM functional assessment for impact wetlands and for mitigation wetlands.
- Updated estimates of wetland and upland impacts along the transmission lines beyond the first substation.

PGN RAI ID #: L-0150

PGN Response to NRC RAI:

Tables summarizing Uniform Mitigation Assessment Method (UMAM) scores for impacted wetlands, wetlands within 300 feet of impacted wetlands, and potential mitigation wetlands are attached as 001_Attachment USACE-5A.pdf, 002_Attachment USACE-5B.pdf, and 003_Attachment USACE-5C.pdf, respectively.

The UMAM, developed by the FDEP, was used to evaluate the function of uplands and wetlands identified within the study area in regards to expected wildlife species in accordance with guidelines set forth in 62-345 F.A.C. The purpose of UMAM is to provide a standardized procedure for assessing wetland functions, the degree of functional loss due to an impact, and the amount of mitigation needed to offset those losses.

Three main parameters are assessed under the UMAM protocol. Each parameter is given a score between 0 (lowest) and 10 (highest) in increments of 1.0. The final score is a weighted average. UMAM variables considered for each wetland include: Location and Landscape, Water Environment, and Community Structure. Assessment areas were scored based on the current condition (without project scenario) and compared with proposed impact or mitigation (with project scenario) scores to determine the Relative Functional Gain for the project.

Wetland Impact Areas

Without Project – Assessment areas were generally given a score of 4 for the Location and Landscape Support category, due to limited habitat availability in surrounding landscapes, wildlife access limited by distance and barriers, adverse effects on wildlife by area land

uses, and hydrologic impediments that limit assessment areas from providing benefits downstream. Water Environment scores ranged from 2 to 10 and were based on the differences in land management practices, including ditching, bedding, haul roads, and their effects on the habitat. Community Structure scores ranged from 2 to 9 and were based on the degree of regeneration/recruitment, cover of desirable species, species diversity, and the quality of structure available to wildlife. Wetland areas typically scored toward the higher range of the category.

With Project – Impacts to assessment areas are considered to be direct and permanent, resulting in a total loss of function according to UMAM, and they receive a score of zero.

Mitigation Areas

Without Project – In general, conditions at mitigation areas were similar to wetland impact areas as described above. Mitigation areas were generally given a score of 4 for the Location and Landscape Support based on ongoing land management practices and support to wildlife as described above. Water Environment scores ranged from 4 to 10, and Community Structure scores ranged from 3 to 10.

With Project – Mitigation areas were scored under optimal conditions based on identified restoration, enhancement, or preservation opportunities. Location and Landscape Support scores for wetland mitigation areas were 9 for increased optimal habitat availability and removal of current land uses (silviculture). Water Environment scores were only slightly greater than the “Without Project” scenario due to few hydrologic enhancement opportunities. The exception was in planted pine wetland areas, which scored a 9 based on improvements to the habitat once silviculture activities end. Community Structure scored a 9 based on removal of slash pine from wetlands and natural regeneration/recruitment particularly in transition communities along with changes in current land use, such as logging. Uplands mitigation areas scored a 9 based on optimal structural habitat, regeneration/recruitment potential, and typical age/size distribution of vegetation species once desired land management plans are implemented.

The amount of time for mitigation implementation to maturity between the “Without Project” and “With Project” scenarios was based on forested wetlands and ranged from 5 to 15 years. Herbaceous wetlands were assigned 5 years to reach maturity. Risk factors ranged from 1.5 (high) for planted pine wetlands to 1.25 (low) for all other wetlands and upland assessment areas.

Transmission Line Upland/Wetland Impacts to First Substation

Within each proposed corridor, a conceptual ROW was developed to identify potential worst-case impacts based upon the specific width requirements for the given transmission segment. Water management district land use/land cover data were used to determine the amount and type of wetlands within each conceptual ROW.

Access roads and structure pads were placed within the conceptual ROW and the approximate acreage of wetland impact calculated. Conservative UMAM scores were assigned to each forested and herbaceous wetland type within the conceptual ROW, and loss of functional value calculated for fill impact associated with construction of roads and structure pads, as well as clearing impact associated with conversion of forested wetlands to

herbaceous systems. These are the numbers that were used in the conceptual mitigation plan.

Once a final ROW in a corridor is selected, PEF will conduct more detailed surveys to verify the habitats and extent of jurisdictional wetlands in accordance with USACE and FDEP wetland delineation methodologies. PEF anticipates approval of the State of Florida SCA by the Florida Siting Board in August-September 2009. This approval will include certification of PEF's proposed electrical transmission line corridors. A proposed condition of certification (XXXV) sets out the process for reviewing and finalizing the ROW locations. This requires PEF to submit the final proposed ROWs to various state agencies for review post-certification. Once this condition is satisfied, the ROWs can be finalized and the detailed reviews of terrestrial ecology will be completed, likely by the end of 2009. After the field surveys are done, a UMAM table for impacted wetlands and indirect impacts can be completed.

Tables for impacts to uplands (Table 1) and wetlands (Table 2) along the transmission lines beyond the first substation are provided below.

Table 1
Estimates of Impacts to Uplands along Transmission Lines beyond First Substation

Segment	Land Use (FLUCCS)	Wetland Type	Area (ac.)
Segment 5	411	Pine Flatwoods	0.0
	412	Longleaf Pine – Xeric Oak	6.4
	413	Sand Pine	1.3
	421	Xeric Oak	0.3
	434	Hardwood – Conifer Mixed	0.1
	441	Coniferous Plantations	0.5
		Subtotal	**8.6**
Segment 6	412	Longleaf Pine – Xeric Oak	1.0
		Subtotal	**1.0**
Segment 7	411	Pine Flatwoods	3.4
	424	Melaleuca	0.3
	434	Hardwood – Conifer Mixed	31.8
	441	Coniferous Plantations	0.6
		Subtotal	**36.1**

Notes:

Segment 5 = Citrus Substation to Brookridge Substation

Segment 6 = Brookridge Substation to Brooksville West Substation

Segment 7 = Kathleen Substation to Lake Tarpon Substation

Table 2
Estimates of Wetland Impacts along Transmission Lines beyond First Substation

Segment	Land Use (FLUCCS)	Wetland Type	Area (ac.)
Segment 5	530	Reservoirs	0.0
	615	Stream and Lake Swamps (Bottomland)	0.0
	621	Cypress	0.0
	630	Wetland Forested Mixed	0.0
	641	Freshwater Marshes	1.1
	653	Intermittent Ponds	0.0
		Subtotal	**1.1**
Segment 6	615	Stream and Lake Swamps (Bottomland)	0.0
		Subtotal	**0.0**
Segment 7	510	Streams and Waterways	0.6
	520	Lakes	0.9
	530	Reservoirs	6.3
	534	Reservoirs < 10 Acres	0.4
	615	Stream and Lake Swamps (Bottomland)	3.4
	621	Cypress	2.4
	630	Wetland Forested Mixed	3.8
	631	Wetland Scrub	0.1
	641	Freshwater Marshes	32.4
	643	Wet Prairies	0.9
	653	Intermittent Ponds	0.0
		Subtotal	**51.0**

Notes:

Segment 5 = Citrus Substation to Brookridge Substation

Segment 6 = Brookridge Substation to Brooksville West Substation

Segment 7 = Polk to Hillsborough to Pinellas

Associated LNP COL Application Revisions:

None.

Attachments/Enclosures:

See 001_Attachment USACE-5A.pdf, 002_Attachment USACE-5B.pdf, and 003_Attachment USACE-5C.pdf.

NRC Letter No.: ER-USACE

NRC Letter Date: February 24, 2009

NRC Review of Environmental Report

NRC RAI #: USACE-6

Text of NRC RAI: Provide additional information needed to assess the potential effects of the transmission lines (beyond the first substation) on terrestrial and wildlife resources.

ER Sections 4.3.1 and 5.6.1 provide a limited discussion of how construction activities, maintenance, and BMPs applicable to the transmission lines would affect terrestrial and wildlife resources. Provide the following information to enable NRC staff to assess the potential for adverse impacts from transmission lines (beyond the first substation) on terrestrial habitats:

- Proposed BMPs to minimize impacts to terrestrial, wetland and wildlife resources on the transmission corridors.
- Proposed BMPs for restoration of temporary impacts on transmission corridors (including information on seed mixtures for erosion control, and on invasive species monitoring and control).
- Proposed wildlife enhancement practices or management along transmission lines to benefit important wildlife.

PGN RAI ID #: L-0151

PGN Response to NRC RAI:

- Proposed BMPs to minimize impacts to terrestrial, wetland, and wildlife resources on the transmission corridors:

As the locations of the ROWs are selected in the transmission line corridors, PEF will analyze the habitats and develop BMPs to minimize impacts to terrestrial, wetland, and wildlife resources. At this time, most of the corridors past the first substation are proposed to be located within existing ROWs, with a widening of the ROW in some limited areas. These BMPs could include the use of sedimentation and erosion control measures to limit erosion into wetland areas. This will minimize impacts to existing terrestrial and wildlife resources. These same sediment and erosion control measures can be used to limit vehicle access into sensitive areas, such as wildlife habitat or wetland areas. PEF will also limit construction activities to non-nesting seasons for certain wildlife species, or if construction must occur during these periods, monitor the nesting wildlife and reduce the duration of the construction. PEF will also use existing access roads in wetland areas to the greatest extent practicable to reduce the amount of wetlands impacted by transmission line ROWs. PEF is also proposing to collocate many of the new transmission lines with existing transmission lines, which will reduce the number of new ROWs needed.

- Proposed BMPs for restoration of temporary impacts on transmission corridors (including information on seed mixtures for erosion control and on invasive species monitoring and control):

In acquiring the ROWs for the construction of transmission lines, PEF will often purchase only an easement that grants the right to construct, operate, and maintain the transmission line. The remaining land rights remain with the underlying fee owner of the property. PEF uses BMPs, including those for sedimentation and erosion control, to minimize impacts on the transmission line ROWs. In wetland areas, PEF will not plant specific seed mixtures after clearing; instead, PEF will allow the seed bank already present to revegetate these areas. This method is extremely effective due to the 365-day growing season in Florida. In the upland areas, PEF will work with the underlying fee owner to restore the ROW for their approval. PEF will also employ this method where the ROWs may cross public lands. PEF will work with the land manager of that parcel to restore the ROWs to their specifications. Invasive species monitoring and control for ROWs is generally addressed on a case-by-case basis by PEF. Invasive species control within ROWs is largely ineffective unless invasive species management is practiced in adjacent properties. PEF frequently works with land managers to control invasive species where ROWs cross public lands, because such properties usually have invasive species control programs in place.

- Proposed wildlife enhancement practices or management along transmission lines to benefit important wildlife:

In acquiring the ROWs for the construction of transmission lines, PEF will often purchase only an easement that grants the right to construct, operate, and maintain the transmission line. The remaining land rights remain with the underlying fee owner of the property. In these cases, PEF may not have the right to conduct wildlife management or enhancement practices within the ROWs. In portions of the transmission system where PEF is the fee owner of the property or where the ROWs may cross public lands, PEF will work with the public land manager and/or the National Wild Turkey Federation to enhance wildlife management by planting feed plots for wildlife.

Associated LNP COL Application Revisions:

None.

Attachments/Enclosures:

None.

NRC Letter No.: ER-USACE

NRC Letter Date: February 24, 2009

NRC Review of Environmental Report

NRC RAI #: USACE-7

Text of NRC RAI: Provide additional information on the post-certification process for addressing listed species along the proposed transmission corridor (beyond the first substation).

A small percentage of the proposed transmission corridors have been surveyed for listed species. ER Section 5.6.1.1 states that the finalized rights-of-way for the transmission corridors will be surveyed as part of a post-certification process pursuant to state certification under the Florida Electrical Power Plant Siting Act. Provide additional information and a schedule for the post-certification process for addressing listed species along the proposed transmission corridors beyond the first substation.

PGN RAI ID #: L-0152

PGN Response to NRC RAI:

PEF anticipates approval of the State of Florida SCA by the Florida Siting Board in August-September 2009. This approval will include certification of PEF's proposed electrical transmission line corridors. A proposed condition of certification (XXXIX) requires PEF to complete species-specific surveys for listed species. In developing the corridor, PEF mapped the habitats within the corridor and an assumption was made that any listed species that may occur within the habitats identified were assumed to be present. Florida Natural Areas Inventory (FNAI) data were also used to map potential occurrences of listed species. Table 1 lists the specific listed species that occur or may occur within the final ROWs, according to the Florida Fish and Wildlife Conservation Commission, in their proposed condition of certification XXXIX.

Table 1
Listed Species That Occur or May Occur within the Final ROWs

Common Name	Scientific Name	FL Status	Federal Status
Gopher frog	Rana capito	SSC	
Eastern indigo snake	Drymarchon couperi	T	T
Florida pine snake	Pituophis melanoleucus mugitus	SSC	
Short-tailed snake	Stilosoma extenuatum	T	
Gopher tortoise	Gopherus polyphemus	T	
Florida scrub jay	Aphelocoma coerulescens	T	T
Little blue heron	Egretta caerulea	SSC	

Common Name	Scientific Name	FL Status	Federal Status
White ibis	Eudocimus albus	SSC	
Southeastern American kestrel	Falco sparverius paulus	T	
Florida sandhill crane	Grus canadensis pratensis	T	
Whooping crane	Grus americana	SSC	E*(federal lands)
Bald Eagle	Haliaeetus leucocephalus	**	**
Red-cockaded woodpecker	Picoides borealis	SSC	E
Snail kite	Rostrhamus sociabilis plumbeus	E	E
Florida mouse	Podomys floridanus	SSC	
Sherman's fox squirrel	Sciurus niger shermani	SSC	
Florida black bear	Ursus americanus floridanus	T*	

Notes:
*except in Baker and Columbia Counties or in Apalachicola National Forest
**While the bald eagle has been both state and federally delisted, it is still governed by the state bald eagle management plan and the federal Bald and Golden Eagle Protection Act.

E= Endangered
SSC = Species of Special Concern
T = Threatened

Once the final ROWs are selected, PEF will map the habitats and perform preliminary surveys of these habitats for the presence/absence of listed species. The results of the preliminary surveys will be used to develop species-specific survey plans that will be finalized after consultation with the State of Florida Fish and Wildlife Conservation Commission and the U.S. Fish and Wildlife Service. Once approval is received for the survey plans by the appropriate agencies, the surveys will be conducted and the results provided to the agencies. Appropriate mitigation methods will be developed in consultation with the agencies, as necessary.

Preliminary listed species surveys should be completed by the end of 2009. The detailed surveys will be conducted after that time.

Associated LNP COL Application Revisions:

None.

Attachments/Enclosures:

None.

NRC Letter No.: ER-USACE

NRC Letter Date: February 24, 2009

NRC Review of Environmental Report

NRC RAI #: USACE-8

Text of NRC RAI: Provide GIS files of the planned transmission corridors expected to be impacted as a result of the proposed action for corridors going beyond the first substation.

Provide GIS-based transmission corridor analysis and data for NRC and USACE review of lines going beyond the first substation. The response to audit information needs included only the currently existing transmission lines. The staff needs to know the extent of any planned transmission routing and corridor widening activities.

PGN RAI ID #: L-0153

PGN Response to NRC RAI:

The separate layers for geographic information system (GIS) files were submitted under separate cover via letter NPD-NRC-2008-088 on December 17, 2008, as supplemental information to "Responses to Information Needs Levy Nuclear Plant Environmental Site Audit, December 2-5, 2008." These files include GIS data for transmission corridors up to and beyond the first substation.

The GIS data files related to transmission routes and corridors are located on the Vector_1_of_1 disc:

VECTOR\07389573D.gdb

This folder is an ESRI file geodatabase. These files need to be viewed using ESRI software. The names of the files in this folder that pertain to transmission corridor data are as follows:

Data\Corridors
Data\Corridors_Buffer_halfmi
Data\Corridors_Buffer_quartmi
Data\Corridors_mask_LC
Data\Corridors_mask_LFCS
Data\Corridors_mask_LCR
Data\ExistingHVTransmission
Data\LandUse_AndersonII_Golder
Data\LandUse_AndersonII_Golder_LCFS
Data\LandUse_AndersonII_Golder_LCR
Data\LandUse_AndersonII_Golder_LPC
Data\LandUse_FLUCFCS_and_AndersonII_Golder_predissolve
Data\LandUse_FLUCFCS_Golder
Data\LUBBW230
Data\LU_CB230
Data\LU_CCRE

Data\LU_ISIO
Data\LU_KLT230
Data\LU_LCFS
Data\LU_LCR
Data\LU_LPC
Data\Substations
Data\Substations_Proposed_Areas

Associated LNP COL Application Revisions:

None.

Attachments/Enclosures:

None.

NRC Letter No.: ER-USACE

NRC Letter Date: February 24, 2009

NRC Review of Environmental Report

NRC RAI #: USACE-9

Text of NRC RAI: Provide an overall schedule for the transmission line studies and surveys for lines going beyond the first substation.

Provide a schedule and plan for when the transmission line studies and surveys (e.g., cultural resources, terrestrial ecology) for lines going beyond the first substation will be completed, as well as an indication as to whether they will be completed for inclusion in the Final EIS.

PGN RAI ID #: L-0154

PGN Response to NRC RAI:

PEF anticipates approval of the State of Florida SCA by the Florida Siting Board in August-September 2009. This approval will include certification of PEF's proposed electrical transmission corridors. A proposed condition of certification (XXXV) sets out the process for review of the final ROW locations. This condition requires PEF to submit the final proposed ROW to various state agencies for review post-certification. Once this condition is satisfied, the ROW can be finalized and the detailed ROW reviews of cultural resources and terrestrial ecology will be completed. The cultural resources reviews should be completed by the end of 2009. The detailed review of terrestrial ecology surveys should also be completed by the end of 2009. These surveys will be submitted to the appropriate agencies for review.

Two preliminary cultural resources reports were prepared as part of the transmission line corridor selection process. The reports are included in the SCA as Attachments 9-A4-3 (Inglis-Ocala/ Inglis-High Springs), 9-A5-3 (Crystal River to Brookridge), 9-A6-3 (Brookridge to Brooksville West), and 9-A7-3 (Crystal River to Crystal River East) in Volume 3 and Section 9A-8-3 (Polk-Hillsborough-Pinellas) in Volume 4. These reports included the areas beyond the first substation. Although the final ROWs have not been identified by PEF and approved by the State of Florida, in most areas they are centered on existing transmission line ROWs. PEF is in the process of soliciting bids to complete the cultural resources work for this project. The cultural resources reviews should be completed by the end of 2009.

PEF conducted a physical review with recorded field observations of the terrestrial resources on the transmission line corridors where access was available. The FNAI database was also used to determine occurrences of threatened and endangered (T&E) species along these corridors. Further terrestrial surveys, updating habitat maps, and doing preliminary T&E surveys will be initiated in conjunction with wetland delineation efforts. The habitats that were mapped with land use codes and include field observations are discussed in Section 9A1.3.6.7 (Levy to Citrus), Section 9A2.3.6.7 (Levy to Crystal River), Section 9A3.3.6.7 (Levy to Central Florida South), Section 9A4.3.6.7 (North & South Admin), Section 9A5.3.6.7 (Crystal River to Brookridge), Section 9A6.3.6.7 (Brookridge to Brooksville West), Section 9A7.3.6.7 (Citrus to Crystal River East), and Section 9A8.3.6.7 (Polk to Hillsborough to Pinellas).

Based on the current NRC schedule (September 2010) for completion of the LNP COLA Final EIS, it is anticipated that cultural resource reviews and terrestrial resource reviews will be completed in time for inclusion in the Final EIS. Upon completion, the cultural resources reviews and the terrestrial ecology reviews for the transmission corridor ROW will be made available to the NRC.

Associated LNP COL Application Revisions:

None.

Attachments/Enclosures:

None.

NRC Letter No.: ER-USACE

NRC Letter Date: February 24, 2009

NRC Review of Environmental Report

NRC RAI #: USACE-10

Text of NRC RAI: Assure sufficient information is provided to evaluate the probable impacts of the project on the public interest.

Pursuant to 33 CFR 320.4, the USACE conducts a Public Interest Review (PIR) of all permit applications. Below is the list of the public interest factors, as found in the regulation. The USACE considers all of the factors relevant to its review of the LNP project. The USACE will consider both cumulative and secondary impacts of the project on these public interest factors. The "LNP project" includes all of the project components subject to Department of the Army (DA) permit application SAJ-2007-490 (IP-GAH).

Public Interest Review Factors, as listed in 33 CFR 320.4:

(1) Conservation:
(2) Economics:
(3) Aesthetics:
(4) General environmental concerns:
(5) Wetlands:
(6) Historic and cultural resources:
(7) Fish and wildlife values:
(8) Flood hazards:
(9) Floodplain values:
(10) Land use:
(11) Navigation:
(12) Shore erosion and accretion:
(13) Recreation:
(14) Water supply:
(15) Water quality:
(16) Energy needs:
(17) Safety:
(18) Food and fiber production:
(19) Mineral needs:
(20) Considerations of property ownership:

Preliminary review of information submitted by the applicant for the DA permit application and the Environmental Report, and based on the expectation that additional information, as requested by these RAIs and the RAIs from the NRC's site audit, will be received from the applicant, it appears that information will be provided to initiate USACE evaluation for most of the public interest factors. However, it appears information for some project components and their impact on particular public interest factors has not been provided, such as the effect of the construction and operation of the intake/discharge structures and the barge slip on navigation; and the effect of the construction and operation of the intake/discharge structures and the barge slip on shore erosion and accretion.

PGN RAI ID #: L-0155

PGN Response to NRC RAI:

The effects of construction and operation of the intake/discharge structures and the barge slip on navigation are expected to be minimal. These structures will be located approximately 7 miles inland from the mouth of the CFBC at the Gulf of Mexico. During construction and, to a lesser degree, during operation, there will be an increase in traffic on the CFBC as barges convey heavy components and construction material to the barge slip for unloading and trucking to the site. This increase in barge traffic is expected to have little to no effect on navigation. Boat traffic in the barge canal is light in general and almost nonexistent in the area of the intake/discharge structures and the barge slip. Additionally, given the width of the canal in this area (approximately 200 feet), no adverse impacts on local or regional navigation are anticipated.

The barge slip will be designed and constructed so as minimize potential shore erosion and accretion by using BMPs during construction. Retention of the earthen plug during construction will also reduce the potential for erosion and sedimentation.

Associated LNP COL Application Revisions:

None.

Attachments/Enclosures:

None.

Listing of Files Included on CD Provided as Attachment 1

Filename	Description
001_Attachment USACE-5A.pdf	UMAM Scores Impacted Wetlands
002_Attachment USACE-5B.pdf	UMAM Scores for Wetlands Within 300 Feet of Impacted Wetlands
003_Attachment USACE-5C.pdf	UMAM Scores for Potential Mitigation Wetlands

Enclosure 3

Pre-Flight Report for Files Included on CD Provided as Attachment 1

ELECTRONIC SUBMISSION/PREFLIGHT REPORT: LNP ER RAI SUBMITTAL - USACE

This table serves as the electronic submission/preflight report for the LNP ER RAI submittal in support of the LNP COLA. The following files where checked for items related to electronic submission/preflight acceptance. The results of the review are shown below. For files that do not pass preflight, the reason for the error is provided, however all files within this submittal are deemed compliant with the NRC electronic requirements as noted.

	Files Checked		Acceptance Review				Preflight Review		
			CTRL A						
Item #	File Name	File Size (MB)	Word Searchable? (Y/N)	Fast Web View ? (Y/N)	No Security? (Y/N)	Fonts Embedded? (Y/N)	Preflight (Pass/Fail)	Failure Reason	Comments
1	001_Attachment USACE-5A.pdf	<15MB	Y	Y	Y	Y	FAIL	300 PPI	LOGOS <300 PPI, CLEAR AND LEGIBLE.
2	002_Attachment USACE-5B.pdf	<15MB	Y	Y	Y	Y	PASS	N/A	N/A
3	003_Attachment USACE-5C.pdf	<15MB	Y	N	Y	N	PASS	N/A	N/A