

PMLevyCOLPEm Resource

From: Bruner, Douglas
Sent: Tuesday, May 12, 2009 3:54 PM
To: Snead, Paul
Cc: LevyCOL Resource; Palmrose, Donald; Moser, Michelle
Subject: Levy Teleconference
Attachments: Levy Clarifications and Questions - DRAFT.xls

Paul,

The information provided below identifies the open items that the NRC would like to discuss with PEF during Thursday's teleconference. This information also compliments the attached DRAFT table that summarizes previous discussions and open-ended items.

The teleconference is scheduled for 1:00 EDT, Thursday, May 14. Information to call in to the teleconference is as follows:

Toll Free Number: 888-469-3143
Participant Passcode: 24315

Potential RAIs are identified below:

- H-A
- H-G and H-I: Requests for GIS and/or native files to support publication of the DEIS (We have these for those created in the ER, but not those included in RAI responses or in the SCA. HI-I is a specific request but it has been suggested that this be turned into a blanket request for all GIS shapefiles for NEW figures included in the RAI responses and in the SCA. The blanket request will then also include those specific to Hydrology.
- H-M: Received clarification from USACE today. PNNL currently working on discussing this with Florida DEP.
- TE-C: Received clarification from USACE today. PNNL will work with USACE for drafting potential RAI
- SE-F

Clarifications needed from Progress on Thursday include:

H-G- 5/6/09 Telecon: There was some confusion regarding what water table conditions should be used to represent baseline conditions. Staff have discussed that baseline conditions should include the impacts of all current permitted users within the model domain. Comparison to the pre-development case may not be necessary. PEF should include in the potential RAI clarification a discussion of the rationale for using 2001 conditions for model calibration and representation of current conditions. The following figures should be included in the RAI clarification (or attached TM) and native or GIS files will be requested in a combined RAI request (during the call it was decided that shape files would be preferred). This list replaces the requested figures in cell E11:

- 1) Updated model water budget (see clarification H-L) for LNP and permitted users (Figure 8 in RAI response),
- 2) Potentiometric contour maps (SAS and UFA) for stress period 2 steady state results (permitted users only),
- 3) Contour maps (SAS and UFA) showing incremental drawdown impacts associated with LNP operations, either assuming steady state conditions or for a 60 year transient run, relative to baseline conditions (i.e., the potentiometric surfaces presented in item 2, not predevelopment),
- 4) A wetlands map SAS incremental drawdown impacts associated with LNP operations overlaid (scaled to impacted area),
- 5) Contour maps (SAS and UFA) showing incremental drawdown impacts associated with the maximum-week withdrawal conditions of 5.8 mgd relative to baseline conditions, and
- 6) potentiometric contour maps (SAS and UFA) for stress period 2 steady state results (permitted users only) that accounts for projected increases in adjacent permitted usage within the model domain over the life of the project.

SE-E: Can PEF supply the requested information as a supplement to the prior response to RAI 4.4.2-9?

In order to allow staff to calculate sales and use tax revenue that would be generated during construction of LNP, NRC would like to discuss the following:

- 1) Reference for the assertion that “most of these purchases of equipment and materials will qualify for Florida’s steam production and pollution control sales tax exemption” made in section 4.4.2.2.1 of the ER and in PGN’s Response to NRC RAI# 4.4.2-9. Staff has found an exemption for steam that is produced for certain purposes, including to operate pollution control equipment; and an exemption for equipment to generate electricity that will be primarily used for the manufacture of tangible goods in Florida; but nothing for equipment used to generate electricity for residential and commercial uses in Florida and nothing for pollution control equipment.
- 2) Verification that PEF considered the value of Florida use tax to be paid on non-exempt material and equipment purchased outside Florida in considering tax revenue that would be generated during construction.
- 3) If the response to 1 and 2 changes the tax impact conclusions in section 4.4.2.2.1, PEF may need to revise conclusions
- 4) Reference for the assertion in PGN’s response to the RAI that the state would send 0.5% of sales tax revenue back to the local area to fund local services. Also clarify whether “local area” means “counties” or something else. Explain the calculations in the following sentences describing distribution of sales tax revenue: “About \$.29 million would go to the counties in rough proportion to the distribution of the construction workforce, as presented in ER Table 4.4-1. The remaining \$1.71 million would go to the state, which would send some of the funds (0.5 percent) back to the local area to fund local services.”

Please call me if you have questions.

Thanks,

Doug

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Levy clarifications and questions (as of 5/12/09)

No.	Clarification or Question	Subject Area	SMEs	Question	Action Required	Notes:	Potential RAI
H-A	Question	Hydrology	Prasad Miracle	(1) Regarding CREC Unit 3 power uprate, provide details of PEF modeling for the CREC discharge canal and thermal plume in the Gulf.	Potential RAI to request additional details of PEF modeling for the CREC discharge canal and thermal plume in the Gulf, when available.	<p>4/23/09 Telecon: Doug Yowell (PEF/CREC) provided an overview of the planned CREC power uprate during today's teleconference. PEF has initiated meetings with FDEP for developing a permitting strategy. PEF will apply to modify the combined NPDES for CREC Units 1, 2, and 3. PEF will be at 30% design stage in early June, at which time they will apply to FDEP to modify the NPDES. This information will be publicly available when submitted to FDEP (too premature to provide to NRC at this time). Shortly afterward (~2 months), PEF will apply to NRC for the power uprate.</p> <p>At this time, initial PEF modeling shows no increase in discharge flow rate; but does show an increase in thermal discharge temperature (without mitigation). However, PEF plans to mitigate for the increased thermal discharge to maintain below NPDES permitted level (i.e., 3-hr rolling average < 96.5 F at the exit of the discharge canal). The intake velocity will be maintained < 0.5 fps.</p> <p>The thermal mitigation involves construction of a new supplemental cooling tower with intake and discharge from/to the existing discharge canal. Dechlor and/or chlorine are expected to be used for the new supplemental cooling tower (as for the existing supplemental cooling towers) and will be included in the modified NPDES.</p> <p>4/29/09 Telecon: Paul Snead (PEF) reiterated information provided during 4/23/09 telecon. An RAI will be required to request additional information.</p>	<p>The staff has recently become aware that CREC Unit 3, a nuclear power plant, will request a power uprate from the NRC. Due to this uprate, the discharges and temperatures in the CREC discharge canal will change. The LNP units will discharge the CWS and service water system blowdown, and effluents from demineralized use and sanitary system to the CREC discharge canal. Please provide information regarding the following: (1) the time frame of the uprate when the discharges to the canal from CREC Unit 3 would change and its relation with the timing of the commencement of LNP operations, (2) a description of the new operational discharges and associated temperatures from CREC Units 1-5, (3) a description of the operation of the existing and any new helper cooling towers, (4) a schematic representation of the CREC discharge canal showing the locations of various discharges from the CREC units and the LNP units and the locations of intakes and discharges for the helper cooling towers, (5) the discharges and temperatures of the effluents in (4) above, (6) a description of how changes to the canal associated with CREC Unit 3 uprate are included in the effluent plume analysis at the discharge point in the Gulf of Mexico, (7) a table showing the effluent discharges, effluent temperatures, effluent salinities, ambient temperature, and ambient salinity at the discharge point in the Gulf of Mexico for summer and winter conditions (a) before the addition of the LNP discharge and (b) after the addition of the LNP discharge, and (8) figures showing the extent of the effluent plume in the Gulf of Mexico along with the dilution contours (a) before the addition of the LNP discharge and (b) after the addition of the LNP discharge. Basis: 10 CFR 51.71(d); ESRP 5.3.2</p>
H-B	Clarification	Hydrology	Baber Berg Prasad Vermeul Miracle	(2) Provide "salt balance" modeling that predicts how the CFBC and the relic arm of the Withlacoochee River may change after LNP intake starts to operate that can be referenced in the EIS for our impacts assessment.	Closed.	4/29/09 Telecon: Staff clarified the question to be about whether TMEM-079 had been docketed. The document had been submitted as an attachment to PEF response to RAI 5.2.2-1; however, that response indicated TMEM-079 would be provided in the reading room. PEF clarified that the document was included on the docket.	
H-C	Question	Hydrology	Prasad	(22) Regarding CREC Unit 3 uprate: in Tech Memo TMEM-078, the combined discharge for CREC Units 1-3 is smaller after uprate (1878.15 mgd) than what it is currently (1897.9 mgd) - why?	PEF Supplemental RAI Response (TBD), may follow DEIS publication.	<p>4/29/09 Telecon: A followup telecon will be scheduled when Mitch Griffin (PEF) is available. This item was discussed so that PEF was clear on what was being requested.</p> <p>5/6/09 Telecon: Mitch Griffin was available for discussions. The post-uprate combined discharge from CREC Units 1-3 is based upon preliminary information available to PEF at this time. The recommended uprate plan for CREC Unit 3 calls for turbine upgrade and placement of new helper cooling towers to be located near the firing range. The evaporative loss from the helper cooling towers is one of the reasons that the combined discharges may be less. PEF will provide a response based on currently available information; however, this information may not be final before the Draft EIS is scheduled to be completed.</p>	
H-D	Question	Hydrology	Prasad	(23) Regarding Visual Plumes analysis: a. Describe the approach for representing the 2-km jetty in the model b. What are the side slopes of the CREC discharge canal? c. TMEM-078 states "actual dimensions and dilutions are only valid for a short distance." How short? How does it affect impact assessment in the Gulf? d. The maximum temperature of the LNP blowdown is stated to be 94.4 F in TMEM-076 and 89.1 F in TMEM-078. Why the difference?	PEF Supplemental RAI Response June 12, 2009.	<p>4/29/09 Telecon: A followup telecon will be scheduled when Mitch Griffin (PEF) is available. This item was discussed so that PEF was clear on what was being requested.</p> <p>(a) Staff requested clarification on the limitations of the model regarding the 2-km jetty and what work arounds were required in the model to compensate for the limitations. (b) Staff requested a description of the side slopes used in the model and the actual conditions. For item (c) staff requested an explanation of the differences in maximum blowdown temperature reported in TMEM-076 (94.4 F) and TMEM-078 (89.1 F). 5/6/09 Telecon: Mitch Griffin was available for discussions.</p> <p>(a) the model does not account for boundaries. In order to simulate the effects of the 2-km jetty that extends from the mouth of the canal along the south embankment of the CREC discharge canal into the Gulf, a reflection-type analysis was adopted by assuming that the CREC discharge canal was twice its width, with the hypothetical portion on the south side of the canal embankment/jetty. The flow in the canal was also doubled. This hypothetical scenario allows accounting for the jetty's effect as a barrier to flow. Only the northern half of the resulting hypothetical plume was considered in impact assessment. The approach for such a workaround is described in Visual Plumes help file and also in "Environmental Discharge Modeling," authored by Lauren Davis (page 80, paragraph 1). (b) the model uses rectangular cross section for the CREC discharge canal. The channel width in VP analysis was set to 75 ft, equal to the bottom width of the CREC discharge canal. The side slopes could be estimated from schematics provided in TMEM-078 but may not be necessary. (c) there are multiple boundaries present in the simulation domain, including the bottom boundary; PEF's analysis only considered "near-field"; the plume hits the bottom boundary within 50-100 m of the mouth of the CREC discharge canal; the plume has a tendency to stay near the bottom; PEF's analysis did not consider tides because the mixing time is short, of the order of a few minutes; salinity of discharge is expected to be higher than that of ambient water in the Gulf because of concentration increase as the CWS water passes through the CWS system (d) 89.1 F is the design discharge temperature during summer from LNP; for NPDES permitting support, PEF used a temperature 6 F higher than the wet bulb temperature -- this corresponds to 94.4 F; a new analysis is available with temperature set to 92.5 F (FDEP request) Staff encountered problems running the VP input files provided by PEF (divide-by-zero errors in PDS). PEF will re-examine the VP input files and provide workarounds -- either new input files that have been verified to run and produce results that PEF used or re-running</p>	

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H-M	Question	Hydrology	Prasad	(31) In response to RAI 2.3.1-1, the applicant stated that "floodplain storage loss will be mitigated as required by Levy County, SWFWMD, FDEP, and FEMA." What are these requirements?	PEF Supplemental RAI Response June 12, 2009, summarizing teleconference discussion. Need further discussion with USACE (scheduled for 5/8/09). Following discussion with USACE, an RAI may be required.	4/29/09 Telecon: PEF indicated that ER Table 1.2-1 summarizes Federal, State, and local rules and permit requirements. This was followed by a discussion regarding floodplain mitigation (compensation). PEF indicated the floodplain compensation may involve hundreds of acres being excavated to lower elevation. PEF indicated it has some preliminary information and that there may be information in the EPR application to the State. Don Hambrick (USACE-Jacksonville) indicated this may go outside of the region that PEF had previously described to the USACE as having the potential to be disturbed. This was new information to the staff. PEF indicated it would follow up on this soon; perhaps at next week's teleconference. 5/6/09 Telecon: PEF stated that floodplain loss compensation is described in the SCA. Places to look in the SCA: Volume 6/Section 6/Appendix 10.4/Attachment A7. A floodplain loss compensation plan will be submitted by PEF to FDEP 90 days prior to start of LNP construction. The state requires a "cup-to-cup" volume compensation. Approximately 110.5 ac-ft of volume will be disturbed due to LNP. Areas where mitigation may take place are identified during wetlands mitigation; however, Zone A floodplain mappings are based on "desktop" estimates. The estimated impact is approximately 0.5 inch rise in water level. The impact is not expected to extend offsite. FDEP SCA Conditions are listed as Items XXVII(a) on page 22, XXVII(h) on page 26, XXXVIII(a)(4) on page 68, and XI(a). PEF may summarize this discussion in an RAI response. 4/29/09 Telecon: PEF will confirm and provide supplemental response.
H-N	Clarification	Hydrology	Prasad	(32) There appears to be a typo in the response to RAI 2.3.1-3. The FAC rule should be cited as 62-302.520(3)(g).	PEF Supplemental RAI Response June 12, 2009.	Closed.
H-O	Clarification	Hydrology	Prasad	(33) In response to RAI 2.3.3-1, the applicant described a water quality sampling program in the CREC discharge canal carried out during 2008 and continuing in 2009. Please clarify that there is no water quality data available for the CREC discharge canal prior to when the current sampling effort began.	Closed.	4/29/09 Telecon: PEF indicated no water quality data are available for the CREC discharge canal prior to the current sampling effort.
AQ-A	Question	Aquatic Ecology	Miracle	(3) Provide information regarding control measures used for biofouling of intake and discharge structures at CREC and proposed biofouling control measures to be used for the CWIS in the CFBC. (ESRP 5.3.2) For example, provide a discussion of how intake structures are to be cleared of barnacle and mussel biofouling. Will biocides be used to control biofouling in the discharge structures?	PEF Supplemental RAI Response June 12, 2009.	4/29/09 Telecon: PEF indicated it would clarify with a supplemental response that similar control measures as used for CREC would be utilized (e.g., use of Clamtrol [Spectra-CT-1300] every few weeks, along with mechanical cleaning).
AQ-B	Clarification	Aquatic Ecology	Miracle	(4) Provide information on how blowdown pipelines from LNP will connect with the CREC discharge. Specifically, will the LNP blowdown outfall discharge directly into the CREC discharge canal, or will it connect to existing CREC discharge piping from units 4 and 5? (ESRP 4.3.2)	PEF Supplemental RAI Response June 12, 2009.	4/29/09 Telecon: PEF indicated it would clarify with a supplemental response. PEF preference is to discharge into main channel with pipe into a head wall. The facility is not designed yet; however, PEF indicated that channel 4/5 will not be used. PEF indicated that some additional information is available in TMEH-078.
Acc-A	Clarification	Accidents	Ramsdell	(5a) The response to NRC RAI 7.1-1 provided in PGN RAI ID L-0080 contains isotopic source terms for design basis accident calculations. The response is incomplete and in at least one instance contains source terms that are not consistent with doses listed in ER and the AP1000 DCD. Consequently, staff has the following request: a. Isotopic source terms were not provided for the worst 2-hr period for use in calculating EAB doses for 6 DBAs. Provide the worst 2-hr isotopic source terms for the following AP1000 design basis accidents: I. main steam line break with accident initiated iodine spike II. main steam line break with pre-existing iodine spike III. locked rotor accident with feedwater IV. rod ejection accident V. steam generator tube rupture with accident initiated iodine spike VI. steam generator tube rupture with pre-existing iodine spike.	PEF will request information from Westinghouse and inform NRC of status.	4/28/09 Telecon: PEF will request information from Westinghouse. PNNL indicated that the source term for the worst 2-hour period was needed for the six accidents. PEF will request the information from Westinghouse, but is not able to commit on when the information can be provided to the NRC.
Acc-B	Clarification	Accidents	Ramsdell	(5b) The response to NRC RAI 7.1-1 provided in PGN RAI ID L-0080 contains isotopic source terms for design basis accident calculations. The response is incomplete and in at least one instance contains source terms that are not consistent with doses listed in ER and the AP1000 DCD. Consequently, staff has the following request: b. Isotopic source terms provided in the response for the rod ejection accident for the 8 to 24 hr period and the 24 to 96 hr period are not consistent with the DCD and Levy County LPZ doses for those periods. Provide correct source terms or correct the doses.	PEF will request information from Westinghouse and inform NRC of status.	4/28/09 Telecon: PEF will request information from Westinghouse. Discussions indicated that staff confirmatory calculations match the DCD results for the LPZ (0 to 8 hour and 4 to 30 day); however, there appears to be an error with the dose and/or source term calculations for the 8 to 24 hour and 24 to 96 hour periods. PEF indicated it will contact Westinghouse to confirm the dose calculations; however, PEF is not able to commit on when the information will be provided to the NRC.
TE-A	Clarification	Terrestrial Ecology	Baber	(6) PEF Response to NRC RAI 2.4.1-1: a. The updated tables on seasonal observations of wildlife included the south property as part of the LNP site. Break out the wildlife observations for the south property as a separate category. b. Table 2.4-5 Important Species. Provide a map showing the locations for all federal listed species, state listed species and state species of concern observed by PEF contractors on or adjacent to the LNP site, the south property and the blowdown pipeline corridor. c. Provide the number of pedestrian surveys conducted monthly for wildlife and wildlife habitat between September 2006 and November 2008.	PEF Supplemental RAI Response June 12, 2009.	4/29/09 Telecon: (a) PEF indicated it would provide a supplemental response with table delineations for the south property. (b) PEF raised concern about disclosing listed species locations as providing this information could be made public. If not, then PEF indicated the information would be made available in the reading room. Staff indicated that this level of detail had been provided for the transmission lines. PEF indicated the gopher tortoise report that indicates these locations is available in the reading room. (c) No specific species surveys have been conducted on site, unless the species was known to be on site (e.g., gopher tortoise). No specific surveys for other threatened and endangered species. PEF indicated it could provide the number of field visits conducted, but not how many of the field visits supported species survey effort.

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TE-B	Clarification	Terrestrial Ecology	Baber	<p>(7) PEF Response to NRC RAI 2.4.1-2:</p> <p>a. Justify why the remnant reach of the Withlacoochee River and the Cross Florida Barge Canal, which are crossed by the transmission corridor, do not represent waterfowl concentration areas.</p> <p>b. Justify why the Withlacoochee River, which is crossed twice by the Central Florida South transmission corridor, does not represent a waterfowl concentration area.</p> <p>c. Provide the distance between the adjacent waterfowl concentration areas identified in the PEF response and the LNP site or associated facilities.</p>	PEF Supplemental RAI Response June 12, 2009.	4/29/09 Telecon: The person knowledgeable of transmission lines was not available. This item was discussed so that PEF was clear on what was being requested. PEF will follow up with a supplemental response.
TE-C	Clarification	Terrestrial Ecology	Baber	<p>(8a) PEF Response to NRC RAI 2.4.1-3:</p> <p>a. Provide a GIS file containing the delineated wetlands and project features that were used to produce the new wetlands map.</p> <p>b. Clarify whether the wetlands map is based upon the completed field delineations for wetlands or is based upon the existing FLUCCS mapping.</p> <p>c. The wetland acreages in Table 2.4.1-3-001 include the south property as part of the LNP site. Break out the wetland acreages for the south property as a separate category/column.</p> <p>d. The FLUCCS wetland cover types identified in Table 2.4.1-3-001 are not consistent with the FLUCCS wetland types noted in the ER Table 2.4-1. Examples – no Stream and Lake Swamps (Bottomland) (FLUCCS 615) is identified in Table 2.4.1-3-001; no freshwater marshes (FLUCCS 641) is identified in Table 2.4.1-3-001; many acres of Wetland Forested Mixed (FLUCCS 641 is identified in ER Table 2.4-1, but less than an acre is noted in Table 2.4.1-3-001; Explain these discrepancies.</p>	PEF Supplemental RAI Response June 12, 2009. Need further discussion with USACE (scheduled for 5/8/09). Following discussion with USACE, an RAI may be required.	<p>4/29/09 Telecon:</p> <p>(a) PEF indicated it will provide requested information.</p> <p>(b) PEF indicated the maps have been modified based on the FLUCCS mapping and the latest survey information. Discrepancies with earlier information reflect the latest on-the-ground work. USACE and FDEP are in process of completing the delineation. The approved jurisdictional impact areas are near completion for the State and USACE, but the mitigation area is not ready. This information may not be completed for the DEIS, but staff indicated this information will need to be available for the FEIS. The maps provided by PEF will not change for the impact areas, but may change slightly for the mitigation area. In response to a question, PEF indicated that offsite impact/mitigation areas have not been delineated. PEF indicated there is no timeline for completing the offsite delineations and argued that it is separate from the COL action. Don Hambrick (USACE-Jacksonville) disagreed and indicated USACE would need to have a mitigation plan for the offsite areas finalized prior to the FEIS. Don Hambrick indicated USACE had not received mitigation plans.</p> <p>(c) PEF indicated it will provide requested information.</p> <p>(d) PEF indicated it will update cover types to match baseline conditions.</p>
TE-D	Clarification	Terrestrial Ecology	Baber	<p>(8b) PEF Response to NRC RAI 2.4.1-3:</p> <p>e. According to the new wetlands map, much of the tree plantation cover type is now identified as wetland. Yet Wetlands Table 2.4.1-3-001 does not list any hydric tree plantation. Why is this and how is hydric tree plantation accounted for?</p> <p>f. Do the acreages of the FLUCCS wetland cover types identified in Table 2.4.1-3-001 reflect adjustments to the boundaries of the FLUCCS cover types derived from the on-the-ground wetland delineations that were completed? If not, what do the acreages represent?</p> <p>g. Table 2.4.1-3-002 combines temporary and permanent wetland impacts for the Pipeline LNP to CFBC, and the Pipeline CFBC to CREC facilities. Separate out the permanent and temporary wetland impacts for these facilities.</p> <p>h. Table 2.4.1-3-002 does not identify any impact to hydric tree plantation, yet a substantial portion of on-site tree plantation is wetland. Is this correct?</p> <p>i. Explain what the 50' Buffer to the CFBC is. Explain the nature of the temporary impacts that will occur here and whether it can or will be restored.</p>	PEF Supplemental RAI Response June 12, 2009.	<p>4/29/09 Telecon:</p> <p>(e) PEF indicated it will update cover types to match baseline conditions.</p> <p>(f) PEF indicated the acreages reflect FLUCCS that have been updated to reflect on-the-ground delineations.</p> <p>(g) The person knowledgeable of transmission lines was not available. This item was discussed so that PEF was clear on what was being requested. PEF will follow up with a supplemental response. Staff clarified that a breakdown by permanent and temporary impacts was not included for the pipeline, as down for other facilities.</p> <p>(h) PEF indicated it would update this table.</p> <p>(i) PEF indicated the pipes would be buried, according to latest plan. Mechanical equipment will operate within a 50-foot buffer and that the buffer area would be restored. The pipeline will be north of the side cast or partially in the sidecast along the north side of the CFBC, then cross the CFBC near Highway 19, then continue west along the south side of the CFBC until heading south the CREC along an existing right of way. The disturbed areas will be mitigated in accordance with the permits. PEF indicated that typically the applicant provides a restoration/mitigation strategy and USACE determines if it is acceptable. PEF indicated it could provide more detail to support the permitting decision.</p>
TE-E	Clarification	Terrestrial Ecology	Baber	<p>(8c) PEF Response to NRC RAI 2.4.1-3:</p> <p>j. Justify how enhanced herbaceous wetlands can attain full maturity and wetland functions in 5 years.</p> <p>k. Justify how enhanced planted pine wetlands can attain full maturity and wetland functions in 5-15 years.</p> <p>l. Provide interpretation and support for contention that grouting and reinforced diaphragm walls will prevent construction dewatering from impacting adjacent wetlands.</p> <p>m. Provide interpretation and support for contention that groundwater drawdown of up to ½ foot will not impact adjacent wetlands.</p> <p>n. Provide a GIS file containing groundwater drawdown isopleths.</p> <p>o. Table 2.4.1-3-003 (Wetland and Upland Impacts Along Transmission Lines) does not distinguish between wetland and upland impacts. Most of the FLUCCS cover types listed under Wetland Type appear to be upland communities. Revise this table to provide separate estimates of upland impacts and wetland impacts by FLUCCS cover types along the transmission lines.</p>	PEF Supplemental RAI Response June 12, 2009.	<p>4/29/09 Telecon:</p> <p>(j) Don Hambrick (USACE-Jacksonville) indicated 5 years was typical.</p> <p>(k) Don Hambrick (USACE-Jacksonville) 5-15 years appeared too short a period to restore pine/savannah to full maturity. PEF will review statement and justification.</p> <p>(l) PEF indicated it will provide some additional detail. PEF indicates it expects minimal impact in areas exterior to the bathtub. The only potential impact would result from leakage into the bathtub, which grout is intended to minimize. PEF will provide reference to the dewatering plan.</p> <p>(m) PEF indicated it will clarify model and results. PEF referenced to TMEM-074, Rev. 1 (November 2008).</p> <p>(n) PEF indicated it will provide this information.</p> <p>(o) The person knowledgeable of transmission lines was not available. This item was discussed so that PEF was clear on what was being requested. PEF will follow up with a supplemental response.</p>
TE-F	Clarification	Terrestrial Ecology	Baber	<p>(9) PEF Response to NRC RAI 2.4.1-4:</p> <p>a. The wetland mitigation plan identifies logging and thinning as major tools to restore/enhance disturbed pine plantations. Most of these plantations are young (less than 20 years old). Clarify whether nonmerchantable stands will be logged/thinned, or whether trees will be allowed to mature before implementing harvest prescriptions.</p> <p>b. The wetland mitigation plan identifies frequent controlled burning as major tool to restore/enhance disturbed pine plantations. Provide an assessment of how realistic the option of frequent controlled burning is for lands surrounding the LNP.</p> <p>c. PEF provides no firm commitment to restoring wetlands and uplands on remaining undeveloped lands on the LNP site. Without a firm commitment, the EIS analysis will assume that restoration and associated wildlife enhancement will not occur.</p>	PEF Supplemental RAI Response June 12, 2009.	<p>4/29/09 Telecon:</p> <p>(a) PEF indicated it will provide requested information.</p> <p>(b) PEF indicated it currently does this in the vicinity of its Harris plant. The burning is done on a rotating basis (so burning every year somewhere, but a particular location is burned every 2 to 4 years. This is an extensive program.</p> <p>(c) PEF indicated a final mitigation plan has not been developed. There is a commitment to Levy County for a buffer zone. The mitigation plan will be premature for the DEIS and will be finalized for the FEIS.</p>

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TE-G	Clarification	Terrestrial Ecology	Baber	<p>(10) PEF Response to NRC RAI 4.3.1-1:</p> <p>a. Table 4.3.1-1-001 fails to provide the acreage of temporary and permanent impacts for upland plant communities; only wetland impacts are provided. Revise the table to include the missing information. Clarify whether the acreages of the FLUCCS cover types identified in Table 4.3.1-1-001 reflect adjustments to the boundaries of the FLUCCS cover types derived from the on-the-ground wetland delineations that were completed. If not, what do the acreages represent? Differentiate between the LNP site and the southern property.</p> <p>b. Figure 4.3.1-1 is illegible. Provide a GIS file containing cover types and project features so that the NRC may produce a legible figure for the EIS. The cover types to be provided must be for the individual FLUCCS types present on-site so that they match revised Table 4.3.1-1-001; they should not be combined into broad categories as presented in Figure 4.3.1-1. Clarify whether the acreages of the FLUCCS cover types identified in Figure 4.3.1-1 reflect adjustments to the boundaries of the FLUCCS cover types derived from the on-the-ground wetland delineations that were completed. If not, what do the cover types represent? Differentiate between the LNP site and the southern property.</p> <p>c. Based upon response to a request for BMPs to restore temporary impacts, the NRC will assume that PEF has not yet committed to any BMPs and will assess temporary impacts in the EIS accordingly.</p> <p>d. PEF indicates that no seed mix is needed for wetlands that are temporarily impacted because an adequate native seed bank is present. However, PEF did not provide its approach to upland areas that are temporarily impacted. Address the upland areas.</p> <p>e. PEF discussion of the value of the 3 stormwater ponds as habitat for wildlife is insufficient to determine benefits to wildlife. Provide the following additional information: acreage of each pond; the hydrological attributes of each pond (e.g., permanent surface water, seasonal surface water – the ER is contradictory on this matter; extent and manner of seeding and planting to be pursued in the littoral zone; potential value as an attractant to wildlife.</p>	PEF Supplemental RAI Response June 12, 2009.	4/29/09 Telecon: (a) PEF indicated it will provide this information. (b) PEF indicated the GIS files will be provided. (c) PEF indicated it will attempt to provide some additional detail to strengthen the response. Staff indicated, as an example, the PEF response to RAI 4.3.1-5 included a little more detail. (d) PEF indicated it will attempt to provide some additional detail to strengthen the response. Staff indicated, as an example, the PEF response to RAI 4.3.1-5 included a little more detail. (e) PEF indicated it will provide information in a supplemental response.
TE-H	Clarification	Terrestrial Ecology	Baber	<p>(11) PEF Response to NRC RAI 4.3.1-2:</p> <p>a. Explain how integrating new transmission lines into the existing grid system will reduce bird collisions.</p> <p>b. PEF identified a number of mitigation measures from the literature that can be implemented to reduce bird collisions with transmission lines. However, PEF did not commit to using any of these measures. A permitting condition proposed from the State of Florida is a requirement for an Avian Protection Plan, but PEF provides no measures to be included in the plan. Identify the measures PEF intends to employ to minimize bird collisions with transmission lines.</p>	PEF Supplemental RAI Response June 12, 2009.	4/29/09 Telecon: (a) The person knowledgeable of transmission lines was not available. This item was discussed so that PEF was clear on what was being requested. PEF will follow up with a supplemental response. (b) The person knowledgeable of transmission lines was not available. This item was discussed so that PEF was clear on what was being requested. PEF will follow up with a supplemental response. PEF indicated it will have a company-wide avian protection plan.
TE-I	Clarification	Terrestrial Ecology	Baber	<p>(12) PEF Response to NRC RAI 4.3.1-5:</p> <p>a. Clarify intent with regards to establishing a wildlife corridor between the Goethe State Forest and the south property.</p> <p>b. A commitment is made to use BMPs to minimize the spread of invasive species following land disturbance, including the use of native seed mixes. This seems to contradict the response to NRC RAI 4.3.1-1. Please clarify.</p> <p>c. PEF states that success criteria in the wetland mitigation plan include an invasive species component. No success criteria are provided in the wetland mitigation plan. Invasive species control in the plan is limited to one sentence on page 26 that says invasives will be removed. Please clarify.</p>	PEF Supplemental RAI Response June 12, 2009.	4/29/09 Telecon: (a) PEF indicated the wildlife corridor is not finalized. PEF indicated it could provide locations that are being considered and that this information will be included as part of the mitigation plan. This information will be clarified prior to the FEIS. (b) PEF indicated it would provide a supplemental response. (c) PEF indicated it would provide a supplemental response.
TE-J	Clarification	Terrestrial Ecology	Baber	<p>(13) PEF Response to NRC RAI 4.3.1-7:</p> <p>a. PEF states that the source of off-site fill has not yet been determined, but that existing material stockpiled from construction of the CFBC would be used if needed. Describe the state of these existing stockpiled materials. If this material is represented by material sidecast from construction of the CFBC 40-50 years ago, this material now supports plant and wildlife communities. Excavation of this material would contribute to additional, substantial impacts to wildlife. Clarify the potential need, source and state of fill.</p>	PEF Supplemental RAI Response June 12, 2009.	4/29/09 Telecon: (a) PEF indicated it would provide a supplemental response.

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TE-K	Clarification	Terrestrial Ecology	Baber	<p>(14) PEF Response to NRC RAI 5.3.3.2-1: a. Add the LNP site boundary to the salt isopleths maps. b. Update the isopleths maps to account for the estimated deposition rates during normal operation and the conversion to kg/ha/mo. c. The Crystal River Salt Deposition Study PEF provided did not include the final annual report as an attachment. Rather, it included excerpts from a 1998 modeling study (with missing pages). It provides no assessment of impacts to vegetation from salt deposition. Provide the final annual report that addresses salt drift impacts to vegetation.</p>	PEF Supplemental RAI Response June 12, 2009.	<p>4/29/09 Telecon: (a) PEF indicated it will add boundaries to the isopleth map and provide in a supplemental response. (b) PEF indicated the map values can be converted to kg/ha/mo by multiplying by (10)(1.5). No additional information is required.</p> <p>This was followed by a discussion of the per-year basis of the modeling, in response to a staff question. PEF indicated the time frame was selected to obtain 5-year contiguous period with nearly complete data set. One-year results indicate variability from year to year. Results within 1000 feet of source (i.e., cooling towers) are interpolated and not dependable (an artifact or characteristic of the model). Staff asked if measurements had been made at CREC for close-in model validation and PEF indicated they had not. Staff asked if other studies were available and PEF referenced to the author of the SACTI code (Anthony Policastro).</p> <p>(c) PEF indicated that they could not locate the final annual report for the CREC Salt Deposition Study. This was a historic document produced by Florida Power Corp. (prior to PEF). Staff asked if this report could be tracked down at FDEP and PEF indicated it would follow up with FDEP to determine if the document was on file. Staff asked if the Talbot model could be entered to the docket and PEF indicated likely not because of copyright restrictions (it is a journal article).</p>
NP-A	Question	Need for Power	Anderson	<p>(15) Provide additional explanation and discussion of Federal incentives mentioned in Section 10.4.2.3 of the ER. Please describe how the provisions of the Energy Policy Act of 2005 specifically mitigate projected construction and operations costs over the life of the proposed facilities. Quantify the anticipated amount of Federal incentives likely to apply to the proposed action from the following: * Production tax credit for the first advanced reactors brought on line in the United States * Federal risk insurance benefits expected as part of the Nuclear Power 2010</p>	Closed.	Withdrawn 4/24/09.
NP-B	Question	Need for Power	Anderson	<p>(16) Provide additional discussion relative to ER Section 10.4.3. Identify the important conclusions to be drawn from the summary in Table 10.4.1. Identify and discuss the balancing of all internal and external benefits and costs and provide a characterization of the net economic benefit (or cost) to society of the proposed action, based on this assessment. For costs and benefits that cannot be precisely determined at this time, provide additional discussion of them in relative terms compared to the expected internal construction and operation costs. —to facilitate amplified discussion of the benefit/cost balance.</p>	Closed.	Withdrawn 4/24/09.
SE-A	Clarification	Socioeconomics	Quick	<p>(17) Response to NRC RAI 4.4.2-1, PGN RAI ID# L-0122.</p> <p>PEF moved from a table (ER Table 2.5-9) that showed employment by county to a table (RAI Response Table 4.4.2-1-001) that shows employment by Metropolitan Statistical Areas (MSAs) and Non-MSAs. Because the new table does not let staff segregate employment for the counties of interest, staff cannot use the PEF response to analyze employment in the Heavy and Civil Engineering Construction, NAICS 237000, in those counties.</p> <p>Staff request that PEF return to the source for ER Table 2.5-9 and provide employment and wage data for NAICS 237000 (even though it includes some construction categories that may not be applicable to power plant construction) as a subcategory of general construction. At a minimum, staff would like employment data for Levy, Marion, and Citrus Counties for 1990, 2000 and 2005. Staff checked the source and noted that these data are available – Staff would prefer they provide it, but we will retrieve it if they do not.</p>	PEF Supplemental RAI Response June 12, 2009.	<p>4/28/09 Telecon: PEF will provide information as supplement to response to NRC RAI 4.4.2-1, PGN RAI ID# L-0122 by 2nd week of June 2009.</p> <p>The discussion indicated that PNNL was not able to track heavy construction employment back to the county level. PNNL requested that PEF pull information from the original table (ER table 2.5.9) for Levy, Marion, and Citrus Counties. PEF indicated that there is no county-level data for 2007, but data for 2005 and historical data can be provided. PEF will supplement the RAI with additional tri-county related data and provide the information to the NRC by the second week of June.</p>
SE-B	Clarification	Socioeconomics	Quick	<p>(19) Response to Information Need SE-7: Provide source of the new table provided in the response; is it the same as ER Table 2.5-9? Please provide a more specific source than "US Census Bureau" for the tables provided in Attachment 1: SE-7-001_Hvy_Const_Emp_2006.pdf, SE-7-002_Pwr_Comm_Const_Emp_2006.pdf, SE-7-003_Utility_Const_Emp_2006.pdf.</p>	PEF Supplemental RAI Response June 12, 2009.	<p>4/28/09 Telecon: PEF will provide information as supplement to response to NRC RAI 4.4.2-1, PGN RAI ID# L-0122 by 2nd week of June 2009.</p> <p>PNNL needs a citation to track employment and wage data back to a source. PEF will supplement the Information Need, and the information will be provided to the NRC by the second week of June. An additional RAI will not be necessary.</p>
SE-C	Question	Socioeconomics	Quick	<p>(20) Provide the reference for Levy County budget figures shown in Table 2.5-12 and discussed in Section 2.5.2.1.2. The cited references are for Citrus and Marion Counties.</p>	PEF Supplemental RAI Response June 12, 2009.	<p>4/28/09 Telecon: PEF will investigate and provide update during 4/29/09 telecon.</p> <p>PNNL cannot locate the reference for the Levy County budget figures in the ER. PEF indicated that the information may have been provided under the Citrus County budget. PEF will track down the source for the budget figures and, if in error, will supplement the information. Information will be provided to the NRC by the second week of June.</p> <p>4/29/09 Telecon: PEF indicated the Levy County budget information had been provided by the County in tabular form by fax. PEF indicated this information will be provided as a supplemental response.</p>

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SE-D	Clarification	Socioeconomics	Quick	(21) 019_Attachment 2.5.2-1A.pdf from PGN response to NRC RAI 2.5.4-1 shows the census block groups in which the African-American population meets at least one of the two criteria. The text in the RAI response indicates that 60 blocks within the 50-mi radius have African-American populations that are 20 percent greater than the Florida average (or greater than 34.6 percent) and that, of the 60, 41 have African-American populations of 50 percent or more. Provide a revised figure that distinguishes the location of the 41 blocks with 50 percent or more from the other 19 blocks.	PEF Supplemental RAI Response June 12, 2009.	4/28/09 Telecon: PEF will provide information as supplement to response to NRC RAI 2.5.4-1 by 2nd week of June 2009. The discussion indicated that minority populations cannot be distinguished on the aforementioned figure, and that the information is generally provided in census blocks. Although PEF indicated that going to a finer gradation is not required per NUREG-1555, they will supplement the information with a more detailed figure. The information will be provided to the NRC by the second week of June.
SE-E	Clarification	Socioeconomics	Quick	(34) Response to NRC RAI 4.4.2-9. In order to allow staff to calculate sales and use tax revenue that would be generated during construction of LNP, provide the following information: 1) Provide a reference for the assertion that "most of these purchases of equipment and materials will qualify for Florida's steam production and pollution control sales tax exemption" made in section 4.4.2.2.1 of the ER and in PGN's Response to NRC RAI# 4.4.2-9. Staff has found an exemption for steam that is produced for certain purposes, including to operate pollution control equipment; and an exemption for equipment to generate electricity that will be primarily used for the manufacture of tangible goods in Florida; but nothing for equipment used to generate electricity for residential and commercial uses in Florida and nothing for pollution control equipment. 2) Verify that PEF considered the value of Florida use tax to be paid on non-exempt material and equipment purchased outside Florida in considering tax revenue that would be generated during construction. 3) If the response to 1 and 2 changes the tax impact conclusions in section 4.4.2.2.1, provide revised conclusions. 4) Provide a reference for the assertion in PGN's response to the RAI that the state would send 0.5% of sales tax revenue back to the local area to fund local services. Also clarify whether "local area" means "counties" or something else. Explain the calculations in the following sentences describing distribution of sales tax revenue: "About \$ 29 million would go to the counties in rough proportion to the distribution of the construction workforce, as presented in ER Table 4.4-1. The remaining \$1.71 million would go to the state, which would send some of the funds (0.5 percent) back to the local area to fund local services."	New clarification. Need to raise with PEF.	
SE-F	Question	Socioeconomics	Quick	(35) In order to allow staff to calculate property tax revenue that would be generated during operation of LNP, provide a reference for the assertion in section 4.4.2.2 of the ER that tax valuation would be based on the cost of construction, less the pollution control components.	New question. Need to raise with PEF.	
Met-A	Question	Meteorology	Berg	(18) Anticipated delivery date for updated PAVAN runs with 2-year data set.	PAVAN input/output files will be provided as supplemental information on July 1, 2009. A full supplemental response will be provided in later part of July 2009.	4/29/09 Telecon: A safety RAI response indicated this information will be provided in July 2009. PEF indicated it would provide PAVAN input/output files by July 1, 2009 for the 2-year data set. A supplemental response explaining the update in more detail will come in later part of July 2009.