BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Nuclear Cost Recovery Clause

DOCKET NO. 090009

Submitted for filing:
August 10, 2009

REDACTED

REBUTTAL TESTIMONY OF GARRY MILLER

ON BEHALF OF
PROGRESS ENERGY FLORIDA

IN RE: NUCLEAR COST RECOVERY CLAUSE

BY PROGRESS ENERGY FLORIDA

FPSC DOCKET NO. 090009

REBUTTAL TESTIMONY OF GARRY MILLER

I. INTRODUCTION AND QUALIFICATIONS.

Q. Please state your name and position.

A. My name is Garry Miller. I am the General Manager of Nuclear Plant Development ("NPD") for Progress Energy. I am responsible for the siting, technology selection, engineering, licensing, regulatory, pre-construction planning, contracts, and other scope of activities for the development, engineering, and construction of the Company's nuclear power plants in Levy, County, Florida, designated as Levy Units 1 and 2 (the "Levy Nuclear Project" or "LNP") for Progress Energy Florida, Inc. ("PEF" or the "Company").

Q. Are you the same Garry Miller who filed Direct Testimony in Docket No. 090009?

A. Yes. I filed direct testimony in support of PEF's actual costs for the LNP on March 2, 2009 and I adopted the testimony of Daniel L. Roderick, as well as my testimony, both filed in Docket No. 080009 with respect to the actual costs incurred in 2006 and 2007 for the LNP. The testimony of Mr. Roderick is

attached to my rebuttal testimony as Exhibit No. ___(GM-3). My testimony from Docket 080009 is attached to my rebuttal testimony as Exhibit No. ___ (GM-4). I understand that the Commission is reviewing the prudence of the 2006, 2007, and 2008 LNP costs and my March 2, 2009 testimony and my adoption of the testimony of Mr. Roderick and my prior testimony supports the prudence of all of these actual costs. I also filed direct testimony on PEF's behalf on May 1, 2009 in support of the reasonableness of the actual/estimated 2009 and projected 2010 LNP costs.

Q. Have you reviewed the Intervenor and Staff Testimony filed in this Docket?

A. Yes, I have. I have reviewed and I will provide rebuttal testimony to the following intervenor and Staff direct testimony: (1) William R. Jacobs, Jr. ("Jacobs"), filed on behalf of the Office of Public Counsel ("OPC"); (2) Arnold Gundersen, filed on behalf of Southern Alliance for Clean Energy ("SACE"); (3) Mark Cooper, filed on behalf of SACE; (3) Peter Bradford, filed on behalf of White Springs Agricultural Chemicals, Inc. d/b/a PCS Phosphate – White Springs ("PCS Phosphate"); and (4) Mr. William Coston and Mr. Geoff Cryan, filed on behalf of the Florida Public Service Commission ("FPSC" or the "Commission") Staff. I did not review the testimony of Mr. Small filed on behalf of the Commission Staff. My understanding is that Mr. Small addresses the allocation of costs to the LNP for land held for future use for one of the Levy parcels and Mr. Will Garrett will address that testimony on behalf of the Company. Mr. Jeff

Lyash will also provide rebuttal testimony to certain Intervenor and Staff witness direct testimony in this proceeding.

Q. Do you have any exhibits to your rebuttal testimony?

A. Yes. I am sponsoring the following exhibits:

- Exhibit No. ___ (GM-3), Testimony of Daniel L. Roderick filed in Docket No. 080009 with respect to the actual site selection incurred in 2006 and 2007 for the LNP;
- Exhibit No. ___ (GM-4), Testimony of Garry Miller filed in Docket No. 080009 with respect to the actual costs incurred in 2006 and 2007 for the LNP;
- Exhibit No. ___ (GM-5), Excerpts of the Jacobs Deposition, witness for the Office of Public Counsel ("OPC"), taken July 27, 2009 in this proceeding;
- Exhibit No. ___ (GM-6), PEF Response to OPC Third Set of Interrogatories to PEF, No. 36;
- Exhibit No. ___ (GM-7), PEF Responses to Staff Fourth Set of Interrogatories to PEF, No. 39 and PCS Phosphate's First Set of Interrogatories to PEF, No. 6;
- Exhibit No. ___ (GM-8), October 6, 2008 NRC letter from Brian Anderson, Lead Project Manager, to Mr. James Scarola, Senior Vice President and Chief Nuclear Officer, Progress Energy, Inc.
- Exhibit No. ___ (GM-9), Excerpts of NRC Official Transcript of Proceedings, Levy Nuclear Plant Combined License Application Public Meeting: Afternoon Session, Docket No. 52-029 and 52-030, December 4, 2008 at Crystal River, Florida;

- Exhibit No. ___ (GM-10), Progress Energy correspondence with the NRC regarding the NRC resolution of the CH2MHILL quality assurance;
- Exhibit No. ___ (GM-11), June 2009 Consortium Monthly Project Status Report; and
- Exhibit No. ___ (GM-12), PEF Response to PCS Phosphate's First Set of Interrogatories to PEF, No. 10.

The Jacobs deposition excerpts are taken from the sworn deposition testimony. The other exhibits were prepared by the Company and are true and correct.

II. SUMMARY OF REBUTTAL TESTIMONY.

Q. Please summarize your rebuttal testimony.

A. This proceeding concerns the prudence of PEF's actual costs incurred on the LNP and the reasonableness of PEF's estimated 2009 and projected 2010 LNP costs. Neither Staff nor the intervenors challenge the prudence of any specific, actual cost that PEF incurred on the LNP. Neither Staff nor the intervenors challenge the reasonableness of any specific, estimated and projected LNP cost.

OPC and other intervenors do claim that PEF was unreasonable and imprudent in executing the Engineering, Procurement, and Construction ("EPC") contract for the LNP when PEF did in December 2008. They are wrong. PEF's execution of the EPC Agreement in December 2008 was a reasonable and prudent management decision. Notably, intervenors do not claim the EPC agreement was an unreasonable or imprudent contract for PEF and its customers, indeed, they fail to note the benefits of signing the EPC agreement at all. These benefits for PEF

far outweighed the risks that were known at that time and justified execution of the contract. OPC and intervenors improperly rely on information learned after the EPC agreement was executed to claim the risk of regulatory approval was higher than it really was when the EPC agreement was signed. They also refer to a multitude of other risks, such as the impact of the economy on sales, load, and financing, federal and state regulatory policy uncertainty, among others, to claim PEF should have waited to execute the EPC agreement until there was more certainty regarding these risks. PEF properly assessed and managed these risks throughout the project, including at the time of EPC contract execution, but it is impossible to obtain certainty on all risks before proceeding with a long-term project like the LNP. Under the view of OPC and intervenors, no long-term project, including any nuclear power plant, would ever be built.

Indeed, intervenors SACE's and White Springs' real challenge here is to the decision to proceed with the development of nuclear power plants in Florida at all. Under the guise of addressing the feasibility of completing the LNP they claim changes in projections of load and fuel forecasts from one year to the next, rehash risks that were identified in the need proceeding and that are present with the development of the LNP or any other nuclear power plant, and then suggest that the Commission reverse its decision rendered just last year granting the need to move forward with the LNP. PEF, however, does not make decisions with respect to this long-term project that way. PEF view this project in terms of its long-term benefits when it addresses the cost and risk of proceeding with the LNP. Year-to-year variations in load, fuel forecasts, and other factors are

expected, especially when the period to site, permit, design, engineer, and construct the plant is approximately ten years, but they cannot be controlling, otherwise no utility, including PEF, would ever build a nuclear power plant, or any long-term, base load generation project.

That does not mean PEF ignores the risks associated with the development of the LNP. Rather, PEF appropriately identifies the risks, analyzes them, implements appropriate mitigation strategy, and then monitors them, but all risks cannot be eliminated. The mere fact that a risk that was identified materializes as an actual event does not mean that PEF acted unreasonably or imprudently and it does not mean you stop the project if you still maintain the view of the long-term benefits of the project.

III. PEF TESTIMONY UNDISPUTED BY INTERVENORS AND STAFF.

Q. What do you understand the Commission will determine in this proceeding?

A. My understanding is that, pursuant to Section 366.93, Florida Statutes, and Rule 25-6.0423, F.A.C., the Commission will determine (1) the prudence of PEF's actual LNP costs for 2006, 2007, and 2008 and (2) the reasonableness of PEF's actual/estimated LNP costs for 2009 and projected LNP costs for 2010. The Commission also reviews PEF's program management, contracting, and oversight controls and PEF's accounting and cost oversight controls to determine if they are reasonable and prudent. Finally, the Commission will review and approve the Company's analysis of the feasibility of completing the nuclear power plants pursuant to Rule 25-6.0423(5)(c)5, F.A.C.

Q. Have any of the Staff and intervenor witnesses asserted in their testimony that PEF's actual LNP costs for 2006, 2007, and 2008 are not prudent?

A. No, they have not. Not a single Staff or intervenor witness contends that any of the actual costs the Company incurred for the LNP for 2006, 2007, and 2008 are imprudent.

Q. Have any of the Staff or intervenor witnesses asserted in their testimony that any of PEF's actual/estimated 2009 costs and projected 2010 costs are unreasonable?

A. No, none of them assert that any specific actual/estimated 2009 LNP cost or any specific projected 2010 LNP cost is not reasonable. As I explained in my May 1, 2009 direct testimony, PEF's actual/estimated 2009 LNP costs, excluding transmission costs, are approximately $275.9 million, as shown by cost category on Schedule AE-6 of Exhibit No. ___ (TGF-1). Likewise, I explained that PEF's projected 2010 LNP costs, excluding transmission costs, are approximately $100.4 million, as shown by cost category on Schedule P-6 of Exhibit No. ___ (TGF-2). I further explained at pages 16 and 17 of my direct testimony that these actual/estimated 2009 LNP costs and projected 2010 LNP costs reflected the current schedule shift and the Company's focus on obtaining key state and federal permits for the LNP while fulfilling previous contractual obligations. I also explain what these estimated and projected costs are for and why the Company must incur them in 2009 and 2010 at pages 18 to 24 of my May 1, 2009 direct

testimony. None of the intervenor witnesses challenge the reasonableness of any of these specific cost estimates and projections.

OPC's witness, Jacobs, does make the generic claim at page 27 of his testimony, that PEF has not met its burden to demonstrate that the "projected" costs for 2009 and 2010 are reasonable. He bases his position on the simple assertion that the 2009 and 2010 costs are not known because the impact of the suspension of the EPC agreement. (Jacobs Test., p. 27, L. 6-7, 8-10). First, it should be noted that Jacobs does not challenge the reasonableness of any of the specified 2009 and 2010 costs that the Company must incur to fulfill existing contractual obligations and to obtain the necessary state and federal permits for the LNP. Second, Jacobs' assertion is simply wrong; these obligations and this work are known now, and will have to be met and performed in 2009 and 2010. Further, it is unlikely that the suspension and modification of the EPC agreement will have a material impact on PEF's expenditures on the LNP in 2009 or 2010. The nature of the work projected for this year and next is largely permitting and licensing, which will proceed regardless of the results of the ongoing modifications of the EPC agreement. It is, of course, possible PEF's projected costs may change, but that is the nature of projections. That is what the true-up mechanism is for in the rule. In sum, the costs we have projected continue to be reasonable estimates for the LNP work that must be done in 2009 and 2010.

Q. Do the Staff or intervenor witnesses assert that PEF's LNP program management, contracting, and oversight controls are unreasonable or imprudent?

A. No, they do not.

Q. Do the Staff or intervenor witnesses assert that PEF's LNP accounting and cost oversight controls are unreasonable or imprudent?

A. No, they do not.

IV. INTERVENOR AND STAFF TESTIMONY.

Q. What do the intervenor witnesses claim in their testimony?

A. Jacobs' testimony boils down to two basic assertions. First, he claims PEF's decision to sign the EPC contract when it did was not reasonable under the circumstances that he erroneously describes, based primarily on the benefit of improper hindsight. Jacobs characterizes the Nuclear Regulatory Commission ("NRC") review of the Company's Limited Work Authorization ("LWA") request leading up to execution of the EPC agreement based not on what the NRC actually said and did at that time but based on what the NRC said and did after the EPC agreement was executed. Jacobs further engages in innuendo about joint ownership and "other reasons" for the schedule shift in the project that demonstrate Jacobs either does not understand Progress Energy senior management and the Board's decision-making process regarding the execution of the EPC agreement for the LNP, or is intent on mischaracterizing it. Indeed, what

is most revealing about Jacobs' opinion is what he knows but fails to tell this Commission about the reasons for execution of the EPC agreement. Mr. Jacob's recommendations all flow from this single erroneous claim. If PEF was reasonable in signing the EPC agreement when it did, which I demonstrate below, then Mr. Jacob's recommendations should be rejected.

Second, Jacobs and the other intervenor witnesses challenge PEF's feasibility analysis in my testimony. They claim it is inadequate based on unstated "standards," when no specified feasibility "standards" appear anywhere in the rule and, further, argue for a feasibility review that undermines any regulatory certainty for this project and fails to promote utility investment in nuclear power plants as the Legislature directed. Further, such a "feasibility" review is simply not the way reasonable, prudent management views the feasibility of completing a long-term, base load nuclear generation project. Such projects must be assessed based on the long-term benefits they provide customers, and that is the way management approaches them. No one would ever build a nuclear power plant, or any other, long-term, base load generation, based on yearly changes in fuel, cost, or load projections.

I will respond to the testimony of these intervenor witnesses from my perspective as the person responsible for the licensing, pre-construction, and contract negotiation and management of the LNP. Mr. Lyash will provide rebuttal testimony from senior management's perspective on the testimony challenging PEF's decision to sign the EPC agreement and the feasibility of completing the plant.

V. REASONABLENESS AND PRUDENCE OF EXECUTING THE EPC AGREEMENT.

Q. Was PEF reasonable and prudent in executing the EPC Agreement when it did in December 2008?

A. Yes, for several reasons, but two principal ones. [redacted] As I explain below, the schedule shift would have necessarily occurred anyway had PEF not signed the EPC agreement.

Second, PEF did properly assess and manage the risks associated with the LNP at the time of EPC contract execution, including the regulatory approval risk including the LWA. Based on what PEF knew at the time of signing the EPC agreement, and not having the benefit of what later occurred as Jacobs does, PEF reasonably expected issuance of a LWA on an acceptable schedule. PEF certainly did not expect, and had no reason to expect, that the NRC would adopt a review schedule that effectively eliminated the issuance of an LWA entirely. Indeed, as late as December 4, 2008, approximately three weeks before the EPC agreement was executed, NRC leadership responsible for the Levy project made statements in public meetings near the Levy site about their expectations for completing an

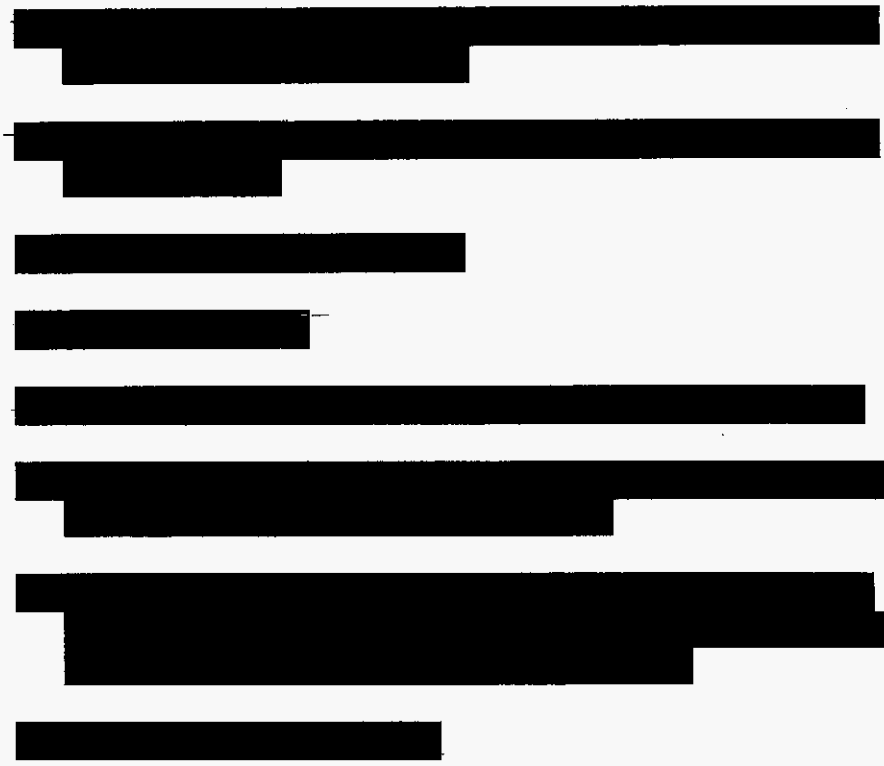
LWA review in approximately two years, as further discussed below. Just because a risk materializes does not mean PEF should have known it would occur or that PEF's risk management was in any way improper. That is the case here. The elimination of all risks prior to execution of the EPC agreement was simply impossible. And, if as Jacobs suggests, PEF should have either eliminated all risks or waited until PEF had certainty, PEF would never build the LNP, or any project for that matter.

Third, execution of the EPC agreement at this time was appropriate to keep the LNP on schedule to meet the in-service dates for the Levy units. The EPC agreement was the best means to meet the schedule most efficiently and productively and to ensure more certainty as to schedule and cost as the project moved forward. Proceeding without an EPC agreement would have required some other contractual mechanism(s), such as a new Letter of Intent and continuation of the separate master service agreement work orders with the Consortium, to keep the project moving forward at all but that certainly would mean a schedule shift or delay.

Q. What were the contractual benefits that PEF preserved for PEF and its customers by executing the EPC Agreement on December 31, 2008?

A. These favorable contract terms and conditions included, but are not limited to:

[redacted]



As a member of the PEF team negotiating the EPC agreement with Westinghouse and Shaw, Stone, & Webster (the "Consortium"), [redacted] Mr. Lyash explains in his testimony that, based on direct discussions with the Consortium's senior management, [redacted]

[redacted]

As a result, [redacted]

[redacted] The EPC agreement established the detailed timeframe for all of the activities necessary to design and build the Levy units.

[redacted]

[redacted] given that there was no indication that such a change by the NRC was forthcoming. [redacted]

Q. But Jacobs claims you said in your deposition that PEF would not have signed the EPC agreement if PEF had received the NRC review schedule the NRC issued in February in early December. Is that right?

A. No, what I clearly said was that it could not be signed "in the form" that it was signed because the schedule shift necessarily caused changes in the EPC agreement. But recall that [redacted]

[redacted]

[redacted]

Q. Jacobs also argues PEF is in a weaker position now because it executed the EPC Agreement than PEF would have been if PEF did not execute the EPC Agreement. Do you agree?

A. No. [redacted]

[redacted] we would not be in a strong negotiating position, as Jacobs implies, without any support whatsoever. Indeed, Jacobs never even read our EPC agreement, he has never negotiated one, and he has never negotiated with either member of the Consortium. See Exhibit No. ___ (GM-5) (Jacobs Dep. Excerpt, pp. 14, 29, 77-78).

Q. Jacobs also claims PEF's bargaining position would have improved had PEF delayed signing the EPC agreement until the LWA and the other risks "were known or clarified." Do you agree?

A. No. As I explained above, it is impossible to eliminate all risk or achieve certainty with respect to all risks on a project, which is what Jacobs suggests PEF should have done. Risks can only be "known" or "clarified" with certainty when the risk occurs or the passage of time or events eliminate the risk. Waiting for all

"other risks" that Jacobs identifies to be "known or clarified" means you would never build this project or any other long-term project. All long-term projects have such "other risks" -- the risks with respect to changing economic conditions, project financing, potential changes in political and regulatory support and policy, and the supply of labor and material needs -- that Jacobs and the other intervenor witnesses identify in their testimony. Certainly a project like the LNP that takes ten years to site, license and permit, design, engineer, and construct has these "other risks." All of them cannot be eliminated or "clarified" with any certainty during the course of this project. Jacobs admitted as much in his deposition, agreeing that he did not know that these "other risks" could be fully resolved at the time of execution of the EPC agreement and that they are "ongoing issues." See Exhibit No. ___ (GM-5) (Jacobs Dep. Excerpt, pp. 53-54).

Q. Did PEF properly analyze and manage the LWA and "other risks" that Jacobs and some of the other intervenor witnesses raise?

A. Yes. Consistent with PEF corporate risk management policy, the LNP risk management process actively identifies and tracks risk in a logical, coherent framework. This risk management process allows PEF to evaluate, prioritize, and develop courses of action to mitigate or avoid major project risks. PEF's risk management process includes (1) risk management planning, (2) risk identification, (3) qualitative risk analysis, (4) quantitative risk analysis, (5) risk response planning, and (6) risk monitoring and control. PEF's nuclear project risk management process is contained in the Nuclear Plant Development Process

Document for Risk Management and the Company's Project Management Center of Excellence. This risk management process was independently reviewed by Gary R. Doughty, with Janus Management Associates, Inc., and determined to be consistent with best management practices in the industry, including well-managed nuclear projects, and the risk management practices used by the United States Department of Defense and the DOE. Jacobs and Staff admittedly reviewed PEF's project management, contracting, and oversight controls, which include PEF's risk management policies and processes, and nowhere in their testimony do they express the opinion that PEF's risk management policies and processes were unreasonable or imprudent.

I will now turn to and explain how PEF analyzed the LWA issue and the "other risks" that Jacobs claims the mere presence of which rendered unreasonable the execution of the EPC agreement and explain why PEF was reasonable in its analysis of these issues or risks and reasonable in its approach to them under its risk management policies and processes.

VI. THE LWA.

Q. Can you remind us what a LWA is, Mr. Miller?

A. Yes. As I explained in my May 1, 2008 direct testimony, a LWA is a limited work authorization issued by the NRC under 10 CFR Parts 50 and 52. It allows a utility that is constructing a nuclear plant to do certain site work prior to the issuance of the COL. Thus, when the COL is issued, the utility can begin actual construction of the safety-related nuclear reactor building. The LWA request was

part of the Combined Operating License Application ("COLA") and can be reviewed and authorized by the NRC in advance of the overall issuance of the COL.

Q. What scope of work was included in PEF's LWA?

A. In the Company's COLA filed with the NRC on July 30, 2008, the Company included a LWA that included the following scope of work: Preparation of the nuclear island foundation surface with dental concrete; placement of the Roller Compacted Concrete ("RCC") under the nuclear islands; installation of the mudmat beneath each nuclear island; installation of waterproofing beneath the mudmat for each nuclear island; installation of rebar in the nuclear island concrete foundations; erection of safety-related concrete placement forms; installation of the Turbine Building, Annex Building, and Radwaste Building foundation drilled shafts; installation of circulating water piping between the cooling tower basins and the entrance point to the turbine building condensers; and installation of the raw water system intake structure and make-up line to the cooling tower basin. The Company also indicated that other preconstruction dewatering work, the diaphragm wall and permeation grouting, necessary for the excavation of the site where the foundation of the units would be placed would be performed that was outside the scope of the LWA. This work was later included in the scope of the LWA at the NRC's request, as I also described in my May 1, 2008 direct testimony.

Q. In layman's terms, can you describe what this LWA work turned out to be?

A. Yes. The diaphragm wall and permeation work are necessary for dewatering the site. In other words, we are digging a hole and keeping the ground water out. The diaphragm wall keeps water out from the peripheral sides of the excavation and the permeation grouting keeps water from percolating up from the bottom of the excavation. The only reason for the installation of the diaphragm wall and grout is to establish a water barrier to support the dewatering required for excavation. The other items within the LWA scope generally provide a flat surface and placement of rebar and forms for the later foundation construction for the units which would only be poured upon issuance of the COL. So, we were excavating a hole, keeping the water out, and placing rebar and forms awaiting the commencement of construction, under the requested LWA scope.

Q. Why did PEF include a LWA in its COLA?

A. PEF included a LWA in its COLA because certain preconstruction work was necessary at the site to meet the in-service dates for Levy Units 1 and 2. In the Commission proceeding on the Company's petition for a determination of need for Levy Units 1 and 2, the Company presented the LNP schedule as an exhibit to the testimony of Daniel Roderick. This schedule included the LWA and was the schedule necessary to meet the 2016 and 2017 in-service dates for the units. The Company presented evidence in that proceeding that additional base load nuclear generation was needed in this time period. In its Order granting the Company's

petition, the Commission agreed that PEF had demonstrated a reliability need for base load capacity by 2016.

A LWA was also appropriate for the LNP. Allowance of certain preconstruction work in advance of a Construction Permit, now replaced by the COL under the new Part 52 process, is a long-standing practice of the NRC. The NRC even amended its rules under 10 CFR Parts 50 and 52 in 2007 to provide for LWA work scope that can be authorized by the NRC for execution prior to a COL, and to address other specific preconstruction work that can be done without any NRC authorization. With the LWA rulemaking in 2007, therefore, the NRC was informing and reaffirming the industry that preconstruction work prior to the issuance of a COL was allowed and could be granted. Otherwise, there was no reason for the NRC to adopt a revised rule specifically providing for the issuance of LWAs under 10 CFR Parts 50 and 52.

Q. Was the fact that no LWA had been issued by the NRC a reason not to request a LWA?

A. No. The amended LWA rule is relatively new and there have been only a limited number of COLAs filed with the NRC so far so the lack of precedent under the current LWA rule is not surprising. What is surprising is Jacob's reliance on this lack of precedent to claim that PEF should have assumed the NRC would take a "conservative" position regarding the review of the requested LWA. (Jacobs, p. 10, L. 1-11). Apparently, Jacobs believes PEF should have assumed the NRC would not grant the LWA review schedule PEF requested because the NRC had

not granted any LWA review schedule. This makes no sense. Under this logic, no one should ever request an LWA because none had been issued. By extension under the same logic, no utility should build an advanced technology nuclear power plant in the United States because none have been built. PEF certainly was reasonable in relying on the NRC's implementation of a recently revised rule that expressly provided for LWAs despite the lack of any precedent.

Additionally, as I noted above, the NRC has as a matter of practice authorized certain preconstruction work in advance of a permit or COL under prior iterations of the NRC's rules. In fact, regulations at the time allowed the performance of non-nuclear related site activities at the Crystal River Unit 3 ("CR3") site. Indeed, the closest geological conditions to the LNP site are at the CR3 site, not the Voglte site, and the CR3 unit was successfully constructed and has been operating for about 30 years.

Q. Was the NRC aware that PEF was going to request an LWA in its COLA?

A. Yes. PEF first notified the NRC in a public meeting on January 10, 2008 that the LNP COLA would include a LWA request. On March 5, 2008, PEF formally notified the NRC in response to RIS 2008-001 that its COLA would include an LWA. Also, on June 30, 2008, prior to submitting its COLA with the LWA to the NRC at the end of July 2008, PEF management met with the NRC to review the COLA submittal and LNP schedule.

Q. Did the NRC tell PEF not to submit a COLA with a LWA or that PEF's COLA would be rejected if it included a LWA?

A. No, it did not. In fact, the NRC's public stance based on the amendment to the rule in 2007 and public comments was that the NRC would in fact entertain LWA requests and, therefore, considered them appropriate. In a May 22, 2007 public meeting, the NRC indicated that review of an LWA, resulting in issuance of the FEIS and FSER could in fact be completed in 12 plus or minus 6 months.

Q. Was the LWA identified in the Company's risk management process?

A. Yes, all LNP regulatory approvals, schedule events, and other factors possibly having an impact on the LNP were identified as a potential risk in the Company's risk management process, identified in the risk management tool or register, evaluated for likelihood and impact or consequence, given an impact statement, and a response or action plan. It is important to remember that this is a "living" document and process; it constantly changes and the risk matrix is constantly revised as needed to address subsequent events or changes over time. For example, leading up to the filing of the COLA with the LWA, the risk assessment focused on meeting the date targeted for filing the COLA, which was met. After the COLA was filed in late July 2008, the risk assessment addressed the regulatory approval risk as the next step in the process.

LWA approval was separately identified and evaluated [redacted]

[redacted]

[redacted]

This risk assessment was included in the Company's Integrated Project Plan, which provided senior management with the details on the project scope to support funding for the LNP and EPC contract execution. Subsequent to filing the COLA, the NRC review schedule for the COLA, which included the LWA, was included for management attention in the monthly Nuclear Plant Development ("NPD") Performance Reports. The COLA and the interaction with the NRC was also a standard topic at the weekly Levy Integrated Nuclear Committee ("LINC") meetings. The LINC provided the means by which senior management and all Company departments involved in or affected by the LNP reviewed, addressed the status of the LNP, and identified action items for the LNP on a weekly basis. Through the LINC and NPD Performance Reports, as with other project documents, the interactions with the NRC regarding the COLA, including the LWA, and NRC review schedule were communicated to management.

Notably, Jacobs agreed in his deposition that PEF had identified the COLA, including the LWA, approval as a risk, and developed and implemented a reasonable risk mitigation plan for this risk. First, he agreed that after submitting the COLA to the NRC, the Company did not have control over the project schedule, rather the NRC did. See Exhibit No. ___ (GM-5) (Jacobs, Dep. Excerpt, p. 45, L. 3-8). Second, he agreed that he had reviewed the Company's

risk management process and that this risk management was part of the project management processes that he found to be reasonable and prudent. (Id. at p. 45, L. 16-23). Third, he agreed the Company's risk management process included a risk matrix that identified the COLA licensing issue, including the LWA, as a risk, and that the Company developed a risk management action plan for this licensing risk that involved what most utilities do with respect to that risk, namely, [redacted] (Id. at pp. 45-47). He further agreed that this risk mitigation action plan was the only reasonable action plan to address the licensing risk and that the Company would not have done something different. (Id. at p. 48, L. 2-17). Finally, he agreed that PEF implemented this risk mitigation action plan with respect to the COLA and LWA and that he did not have an opinion that PEF did not do something that it should have done with respect to this risk mitigation strategy. (Id. at P. 48, L. 18-25; p. 49, L. 1-3). In other words, Jacobs recognizes that PEF did everything that PEF reasonably could have done to address the potential risk that the NRC did not issue a schedule for the LWA and other items in the PEF COLA consistent with PEF's requested schedule.

Q. Did the Company prepare the design analysis necessary to develop a sound LWA scope of work?

A. Yes, it did. The Company's LWA scope was developed by the Joint Venture team as part of the COLA application using industry recognized domestic and

international experts in such fields as site engineering and geology, including Paul C. Rizzo Associates, Inc., Moretrench, and Soletanche. Notably, Jacobs' company has hired Paul C. Rizzo Associates, Inc. and Jacobs considers Mr. Rizzo to be a highly qualified geotechnical expert. See Exhibit No. ___ (GM-5) (Jacobs, Dep. Excerpt, pp. 38-40). The design incorporated proven applications of site design and engineering to the preconstruction and LWA activities. For example, the dewatering work, the diaphragm wall and permeation grouting, are common to construction in areas with high ground water tables. Florida projects with similar excavation and dewatering designs include the construction of additional cooling towers at the Crystal River Energy Complex, which included sheet pile excavations with grouted seals and the Miami, Florida, NW 4th Street Sewage Pump Station, which used steel sheet piling and extensive cement grouting. Additional larger scale domestic and international projects using similar excavation and dewatering designs as the Levy Project are identified in Exhibit No. ___ (GM-6) to my rebuttal testimony.

Q. What about the NRC's request that you include the dewatering work in the LWA scope in September 2008. Did that indicate that the NRC was concerned with the dewatering work or the sub-foundation design for the LNP?

A. No, it did not. All this request indicated was that the NRC wanted to review the dewatering work in connection with its review of other LWA work. Prior to this request, PEF had excluded the dewatering work from the scope of the LWA

because excavation is not construction under the NRC's LWA rule and the dewatering activities are unrelated to the safety-related structures, systems, and components ("SSC's"), which is the case with respect to the dewatering work on the LNP. Again, the dewatering work is necessary only for the excavation so the Company can excavate the hole and keep the ground water out. The NRC's request that PEF include the dewatering work in the LWA scope in fact indicated that the NRC was reviewing the LWA, as PEF requested the NRC to do. Further, when the NRC docketed the Company's COLA, including the LWA, on October 6, 2008, that action indicated that the entire application was sufficient for NRC review and that there were no inherent problems in applying the design to the site that prevented NRC review. Jacobs agreed in his deposition that the docketing of the COLA represented by the October 6, 2008 letter meant that the NRC was going to undertake to review the COLA application and everything in it, including the LWA. See Exhibit No. ___ (GM-5) (Jacobs, Dep. Excerpt, p. 89, L. 1-13).

Q. Did the inclusion of the dewatering items in the scope of the LWA mean that the Company's requested review schedule for LWA issuance would not be granted?

A. No. The inclusion of the dewatering items in the scope of the LWA did not impact the review schedule at all. It did require re-sequencing of the physical site work in order to perform it more in parallel, rather than in series, to ensure that the construction schedule could still be met, which was the case. [redacted]

[redacted]

[redacted] As the Staff audit report notes, the Company retained Burns & Roe to assist the Company in its EPC contract negotiations by reviewing the initial price book and supporting cost library data and initial construction schedule provided the Company by the Consortium. Burns & Roe noted [redacted] to include the dewatering work in the LWA scope at the NRC's request in September 2008. Burns & Roe was not provided the NRC review schedule and was not commenting on the schedule for regulatory review and approval of the LWA at all.

Inclusion of these items within the LWA still left the NRC approximately thirty (30) months to review and issue the LWA from the COLA submittal. The Company identified the site, engaged the necessary COLA contractors and subcontractors to develop the site design, had the engineering and geological testing and analysis completed, including the drilling and technical evaluation of 108 soil borings, completed the geotechnical evaluation, prepared the design for the sub-foundation and foundation, and submitted this information to the NRC in approximately eighteen (18) months. The Company reasonably believed about 30 months was sufficient time to review what it took the Company about 18 months to complete and provide to the NRC. This is the principle reason, together with

the advice of all our experts and input from the industry regarding the propriety of an LWA for the LNP, that the Company evaluated the risk of not obtaining the LWA [redacted]. And, at no time before January 23, 2009 did the NRC indicate that it was not going to review the LWA at all, which was the effect of the NRC's subsequent decision to review the LWA work only on the same time schedule as the COL.

Q. Did the Company maintain a close interface with the NRC with respect to its LWA and COLA?

A. Yes, it did. The Company began with meetings, presentations, and written responses to the NRC and its technical reviewers even before it submitted its COLA with the LWA to explain to the NRC the Levy site, the COLA, and the LWA. These occurred on January 10, 2008, February 20, 2008, March 5, 2008, and June 30, 2008. Coinciding with the submittal of the COLA to the NRC the Company met with the NRC technical reviewers on July 28, 2008 to update the prior presentations and review the LWA scope. After the COLA was submitted the Company and the NRC had calls or meetings on September 5, 2008, September 9, 2008, October 1, 2008, December 3-4, 2008, and January 6, 2009 in addition to written communications. A list and brief description of some of these interactions with the NRC regarding the Company's COLA, including the LWA, is attached as Exhibit No. ___ (GM-7) to my rebuttal testimony. In addition, PEF's staff regularly communicated with the NRC staff during the time period on a frequent basis. Finally, prior to execution of the EPC agreement, Mr. Jeff Lyash

and Mr. Bill Johnson went to Washington to meet with the NRC leadership. At no time during or following any of these interactions with the NRC did the NRC indicate that it would not review the LWA before the COL thereby effectively eliminating the LWA for the LNP.

Q. By the way, if the Company had assessed the risk of not obtaining the LWA [redacted] would the Company's mitigation plan and efforts been any different than it was?

A. No. Even though the Company assessed the risk of not obtaining a LWA [redacted] the Company always recognized that the [redacted] Accordingly, the Company fully invested in its mitigation plan to maintain the interaction with the NRC and see to it that the NRC had what it needed to make that decision. In fact, there is no dispute that those are the appropriate actions to take and that we were executing our mitigation plan. This is what you do after you submit the permit or application, is maintain interaction with the agency and timely respond to inquiries – a point with which Jacobs agrees. See Exhibit No. ___ (GM-5) (Jacobs, Dep. Excerpt pp. 47-48). And, as Jacobs also agrees, once the Company submits its permit or application to the agency for review and approval, the Company loses control over its ability to move the project forward. (Id. at p. 45. L. 3-8). That control goes to the agency during the review process. That was certainly true for the Company's COLA and LWA submittal to the NRC.

Q. You mentioned the NRC October 6, 2008 letter indicating that the NRC had docketed the Company's COLA earlier, Jacobs claims the Company was unreasonable in assuming that there would not be at least a long delay in the LWA review and issuance after receiving that letter. Do you agree?

A. No, I do not. The part of the October 6, 2008 NRC docketing letter relevant to Jacobs' comments says:

> "Your application submittal letter requested that the NRC consider the following milestones when preparing our complete and integrated review schedule: Final Environmental Impact Statement ("FEIS") in June 2010, [the LWA] issuance in September 2010, and COL issuance in January 2012. Because of the complexity of the site characteristics and the need for additional information, it is unlikely that the LNP COLA review can be completed in accordance with this requested timeline. The NRC staff expects to interact with you as the safety and environmental review schedules are developed."

See Exhibit No. __ (GM-8) to my rebuttal testimony. When the NRC says that it is "unlikely" the LNP COLA review can be completed in accordance with "this" requested "timeline" the NRC clearly means the dates for each of the items specifically identified in the preceding sentence – the FEIS, LWA, COL – might shift but the NRC does not say that the NRC was "unlikely" to review any of the items in the "requested timeline" – such as the LWA -- at all, which is what the NRC ultimately did. Reviewing the LWA for issuance at the same time as the COL means no LWA will be issued because the very purpose of the LWA is to allow the utility to commence the work within the LWA scope before the COL issuance. Jacobs even agreed in his deposition that the decision to review the LWA on the same schedule as the entire COLA meant there will be no LWA before the COL. See Exhibit No. __ (GM-5) (Jacobs, Dep. Excerpt, p. 87, L. 19-23).

The NRC, therefore, did not say in the letter the October 6, 2008 letter that it was "unlikely" PEF would get the LWA, which is in effect what occurred. Instead, the only reasonable reading of the October 6, 2008 letter -- and the way I and everyone else at PEF read it -- was that it might be "unlikely" to get the LWA in September 2010, or any of the other requested items on the "timeline" requested, because the NRC tied the statement that it was "unlikely" to get the review to the "timeline" PEF requested. Nowhere in the letter, however, does the NRC say that it was "unlikely" PEF was going to get a LWA at all. If the NRC intended to say that it was "unlikely" PEF would get a LWA, then, the NRC would have said so directly, instead of referencing the specific "timeline" for the items PEF requested.

The NRC did say, as Jacobs points out, that its uncertainty about the specific "timeline" for the items requested by PEF was because of the complexity of the site characteristics, but that is not all the NRC said. Jacobs ignores the full statement, which was the NRC was uncertain about the requested "timeline" because "of the complexity of the site characteristics and the need for additional information." This letter was received only two months after PEF submitted its COLA to the NRC so it is not surprising that the NRC might need some "additional information" to address the complexity of the site before developing the review schedule. The NRC included Requests for Additional Information ("RAIs") with the October 6, 2008 letter requesting further information about the site that the Company answered on November 20th. After this information was provided the NRC did not in any way indicate that it was insufficient to develop

the review schedule and the NRC in fact proceeded to do so. Reading these terms with the knowledge that existed at that time, they in no way suggest that the NRC was not going to issue the LWA.

Jacobs reads more into this letter because he knows now what the NRC said in late January 2009. On January 23, 2009, the NRC for the first time told PEF that, because of the geotechnical scope, the LWA and COLA were going to be on the same review schedule. See Exhibit WRJ(PEF)-3, p. 28 of 233. Jacobs improperly relies on this hindsight information to suggest that the NRC meant more than it actually said in the October 6, 2008 letter. Jacobs claims the NRC "expressed serious doubts" and identified "concerns" in the October 6, 2008 letter when these terms nowhere appear in that letter. This is nothing more than Jacobs' subjective characterization of the letter -- which Jacobs agreed was the case in his deposition, See Exhibit No. __ (GM-5) (Jacobs, Dep. Excerpt, p. 90, L. 3-25; p. 91, L. 22-25, p. 92, L. 1-10) -- based on his interpretation of later events. However, the direct communication to PEF by the NRC on January 23, 2009 clearly shows that when the NRC intended to say that the NRC was going to review the LWA and COLA on the same review schedule that is exactly what the NRC said. See Exhibit WRJ(PEF)-3, p. 28 of 233. No one, including Jacobs, can point to the same express message being communicated by the NRC to PEF before January 23, 2009. (Id. at p. 100, L. 5-12).

Q. Jacobs also suggests at page 8 of his testimony that the NRC statements about the complexity of the site characteristics in the October 6, 2008 letter

was somehow a cause for concern regarding the Company's LWA request. Do you agree?

A. No. The purpose of the NRC's review of the Company's COLA is the application of the AP1000 design to the specific Levy site. NRC review of the general deployment of the AP1000 reactor design is underway under a separate Reference COLA ("R-COLA"). This means that the NRC then focuses its review of the PEF COLA on how Levy site-specific characteristics such as geology, seismology, etc., meet the design assumptions of the AP1000 Design Control Document, or "DCD" for specific deployment at the Levy site. As part of this review geotechnical questions through RAIs are expected.

The NRC docketed the Levy COLA, including the LWA, which indicated that the NRC believed the application was technically sufficient for application of the AP1000 design to the Levy site even with the complex geotechnical and site characteristics. The NRC would not have docketed the PEF COLA if the NRC doubted the ability to construct the AP1000 nuclear power plants on the Levy site because of the site geology or other site characteristics.

The mere fact that the NRC was asking such questions about the complex site characteristics does not mean that the NRC was not going to issue the LWA. The design, engineering, and construction of nuclear power plants are complex, but that does not mean it cannot be done. The five nuclear power plants operating in Florida today were built on complex sites, including the one at Crystal River within 10 miles of the Levy site and closer to the coast. PEF addressed the site complexity in its detailed geotechnical review of the site to arrive at the site sub-

foundation and foundation design that PEF submitted to the NRC with its COLA including its LWA. And, prior to January 23, 2009, the NRC never said it could not issue the LWA for reasons of site complexity or for any other reason.

Q. What about Jacobs claim at page 7 of his testimony that the failure to receive the review schedule within thirty days of the October 6, 2008 letter was reason enough for PEF to be concerned about its requested review schedule, was that a reason for PEF to believe its requested review schedule was in jeopardy with the NRC?

A. No. The NRC told us in the October 8, 2008 letter that the NRC was not going to issue the review schedule until the NRC received additional information from the Company. We, therefore, did not expect a review schedule from the NRC before a reasonable time after November 20, 2008, which is the date PEF answered the NRC's RAIs, for the NRC to review the additional information PEF provided and develop a review schedule. This time period, however, included the holidays and we were told by the NRC that holiday schedules were impacting the development of the review schedule. The delay had nothing to do with the substance of PEF's requested review schedule.

Moreover, there is no rule or obligation of any type for the NRC to release a review schedule within thirty days of docketing the COLA. Even Jacobs agreed that there is no NRC requirement to issue a review schedule thirty days after the COLA is docketed, no NRC statement voluntarily committing to such a release schedule, and no NRC statement that suggests the utility should be concerned

with the review schedule if the utility does not receive it within this thirty-day period. See Exhibit No. ___ (GM-5) (Jacobs Dep. Excerpt, pp. 109, 112).

Q. After PEF received the October 6, 2008 letter from the NRC and before PEF signed the EPC agreement, did the NRC make any additional public statements regarding the NRC's expectations for the time required to review an LWA request?

A. Yes. On December 4, 2008, NRC leadership responsible for the Levy project made statements at a Levy public meeting specifically regarding their expectation for the time period for the NRC to review a LWA request. The NRC Project Manager for Levy (Brian Anderson) in response to a question from the public at the Levy Environmental Impact Statement ("EIS") Scoping meeting, stated:

> Just to give you a ballpark time frame, we expect that somewhere on the order of two years will be required to complete our **entire** review process for the limited work authorization. And that's a ballpark time frame. The detailed review schedule activities will be made publically available once we've completed the development of our schedule.

See Exhibit No. ___ (GM-9) to my rebuttal testimony, (emphasis added). This NRC response was made after the Company had received the October 6, 2008 docketing letter that Jacobs misinterprets. This response was also made at a public meeting specifically focused on Levy and was only approximately three weeks in advance of the Company's decision to execute the EPC agreement. This response was also made by the same Brian Anderson who signed the October 6, 2008 docketing letter as the NRC Lead Project Manager. See Exhibit No. __ (GM-8) to my rebuttal testimony. Mr. Anderson's statement about the time frame

for NRC review of the LWA at the NRC scoping meeting for the Levy project reinforced PEF's belief that the LWA approval, separate from the COL issuance, was still expected for the LNP and still within the PEF review schedule that PEF had requested. Again, PEF provided the NRC approximately 30 months to review and approve the LWA that was premised on work PEF performed and provided to the NRC in about 18 months and, here, the NRC Staff management on the LNP said the NRC could complete the entire LWA review process in about 24 months.

Q. Jacobs also claims that PEF was unreasonable in believing that the NRC would grant an LWA after the October 6, 2008 letter because of PEF's efforts to impress on the NRC the need for the NRC to meet the Company's "aggressive" schedule. Do you agree with his characterization of what was communicated to the NRC?

A. No, I do not. What the Company meant when it said its schedule was aggressive was that one of the requested items was requested on a timeline that was a couple of months ahead of the schedule for the item that the NRC had publicly identified. This was the FEIS, which PEF was requesting a couple of months earlier than the NRC had previously indicated that it could issue a FEIS. The Company did not mean that the schedule for all of the items requested was "aggressive," as Jacobs implies at page 9, lines 1-2 of his testimony. The approximate 30 months allotted for review and issuance of the LWA was definitely not an aggressive schedule, given that the Company had taken 18 months to prepare all of the material necessary for the LWA, and the NRC had publicly said on December 4, 2008 that

its entire LWA review process would take about 24 months. Likewise, the requested 42-month period for issuance of the COL was not aggressive but in fact was in line with numerous public statements by the NRC regarding when a COL could be expected. The NRC did in fact issue a review schedule that accommodates issuance of the COL in approximately 42 months.

Q. Was the work of CH2MHILL a factor in the NRC's determination regarding the review schedule for the LWA and COL as Jacobs implies at page 10 of his testimony?

A. No, it was not. First, Jacobs does not tell the Commission that the quality assurance issues with CH2MHILL were first identified on the Harris project in North Carolina through PEF management oversight and quality assurance procedures that led PEF to identify this, step in and implement procedures to ensure that the issues were corrected, and monitor the work carrying over to the LNP COLA. As a result, what this demonstrates is that PEF's quality assurance management processes work.

Second, the CH2MHILL issues did not involve the quality of the technical work they performed rather their issues were with the extensive documentation of the review of that work and the extensive documentation of the qualifications and training of the reviewers to meet NRC standards that the NRC rules require. These issues were corrected.

Third, these issues did not delay the completion of this work in time to submit the LNP COLA. The LNP COLA, with the LWA, was timely submitted at the end of July 2008.

Finally, the Company worked closely with the NRC technical staff throughout the COLA process. The NRC participates in the site investigations and testing and all information is made available to the NRC. If this documentation issue was a concern to the NRC they certainly would have told PEF that it was. The NRC did not. In fact, as a result of the Progress Energy corrective actions taken with respect to the CH2MHill work on the Harris COLA, the NRC was involved in an audit review and, on April 7, 2008 issued a letter to PEF regarding this review in which the NRC stated that: "The staff has reviewed the responses provided in the PE letter dated March 3, 2008, which address each of the issues identified in the NRC audit report as Audit Response Request (ARR-01) and found that PE's reply to the ARR-01 is responsive to our concerns. We have no further questions or comments at this time." See Exhibit No. ___ (GM-10) to my rebuttal testimony.

Q. When the NRC informed PEF that it was not going to review the LWA earlier than the COL such that there could be no LWA in advance of the COL for the LNP, did the NRC indicate that its decision was in any way based on something PEF did or did not do?

A. No, the NRC's reason for not reviewing the LWA in advance of the COL was that the NRC believed it needed more time to review the geotechnical issues for both

the LWA and the COL. At no point on January 23, 2009 or thereafter did the NRC tell PEF that its decision not to review and therefore not to issue the LWA was because PEF did something it should not have done or did not do something it should have done. This decision was a complete surprise to PEF and to the industry.

VII. THE "OTHER RISKS" WERE PROPERLY EVALUATED AND MANAGED.

Q. You discussed the Company's risk management policies and practices with respect to the LNP earlier, did those policies and practices address the "other risks" that Jacobs and the other intervenor witnesses mention?

A. Yes, it did. In fact, we had identified these "other risks" early in the project, incorporated them into our risk matrix, and in fact brought them to management's attention in the IPP and other documents before the EPC agreement was executed. For example, project financing, material cost escalation, and the availability of skilled craft labor, among many others, were identified as risks, evaluated, and assigned risk mitigation strategies that the Company employed throughout the past year and continues to employ, as modified when necessary to do so. PEF has appropriately managed these risks under the changing circumstances and will continue to do so. Notably, again, not one intervenor or Staff witness challenges PEF's risk management policies and practices as unreasonable.

Risk management, however, does not mean risk elimination or risk certainty. Jacobs, again, relies on Board statements and presentations in April

2009 under the circumstances that existed then, namely, the NRC determination driving the schedule shift had already occurred, to claim PEF should have done something differently in December. See Jacobs Test., pp. 12-14. In April 2009, the Company was looking forward, not backwards, trying to make the best decision at that point with respect to the LNP project. In any event, as I explained above, these risks were known from the beginning of the project and they were actively monitored and managed under various risk mitigation strategies. It is simply unrealistic and in fact impossible to wait for the elimination of risk or risk certainty as Jacobs and the other intervenor witnesses suggest. If PEF did that PEF would never build the LNP or any other long-term project for that matter. No utility would.

Q. Jacobs also asserts that the Company should not have executed the EPC Agreement when it did because PEF did not have joint owners signed up at page 15 of his testimony. Do you agree?

A. No. Jacobs apparently does not understand the fundamental business reality that no joint owner is going to sign a joint ownership agreement and commit to investing in a project without an executed EPC agreement that explains what that commitment is in a final executed form. This is what the Company meant when it said that joint ownership was "linked to" or "closely tied to" the EPC agreement.

Furthermore, the Company has always expressed an interest in having joint ownership in the LNP, commencing in the need proceeding. The Company explained there the benefits of sharing costs and risk through joint ownership to

PEF and its customers. The Company still prefers joint ownership for these reasons. But the Company cannot force joint owners to participate. The ultimate decision to sign a joint ownership agreement of some type will be made by each potential joint owner participant. Even Jacobs agrees that Progress doesn't have any control over potential joint owners to make them sign a joint ownership agreement. See Exhibit No. ___ (GM-5) (Jacobs Dep. Excerpt p. 45, L. 9-15).

Q. Mr. Gundersen, at page 9 of his testimony, claims the LNP schedule also received a "setback" when the NRC Atomic Safety and Licensing Board ruled that it would hear certain contentions to the LNP. Do you agree with his characterization?

A. No, I do not. Potential hearings to address contentions is part of the public participation in this regulatory process for review of new nuclear power plant licenses, it is anticipated, and it is in fact incorporated in the LNP COL schedule. Therefore, it is not a "setback" to the schedule if such hearings take place; the schedule provides time for such hearings.

Q. Mr. Gundersen also claims at page 10 of his testimony that PEF's COLA process has not taken into account critical emergency planning issues involving the proximity of the LNP to the Crystal River site. Do you agree?

A. No, I do not. Once the Levy site was selected and work began on development of the Levy Emergency Plan ("EP"), Progress Energy engaged the affected counties of Citrus, Levy, and Marion Counties, and the State of Florida on the

development of this plan in February 2007, taking into account the proximity of the two sites, and the overlapping Emergency Planning Zones ("EPZs"). The Levy EP is a key component of the Levy COLA submitted on July 30, 2008, and is included in Part 5 of the COL application. The layout of emergency planning Protective Actions Zones ("PAZs") were specifically designed based on the proximity of these two sites in consultation with the affected counties and the State of Florida. Further, Progress Energy has responded to RAIs from the NRC on the Levy EP, as with other site-specific subjects, including questions about the overlapping EPZs. Progress Energy has also contracted an Evacuation Time Estimate ("ETE") analysis that considers simultaneous evacuations from both sites, that is expected to be completed this August, and will be provided in a future update to the Levy EP.

VIII. FEASIBILITY.

Q. Mr. Miller do you believe your feasibility analysis in your testimony complies with what the Commission requires?

A. Yes, I do. The rule requires the Company to file a detailed analysis of the long-term feasibility of completing the power plant. Rule 25-6.0423(5)(c)5, F.A.C. The rule does not say feasibility of the project, as Jacobs erroneously asserts at page 18 of his testimony. Since feasibility means "capable of being done or carried out," the rule requires us to analyze whether completion of the power plant is capable of being done or carried out.

To determine if completion of the plant is capable of being done or carried out from a project management perspective, we evaluate whether the plant is both technically feasible and legally feasible. Jacobs does not dispute that these are in fact factors in determining the feasibility of completing nuclear power plants. See Exhibit No. ___ (GM-5) (Jacobs Dep. Excerpt p. 120).

In my direct testimony and, as Jacobs notes, in my deposition I explained that technical feasibility means can the AP1000 design selected for this site be deployed at the Levy site. Based on my project management experience working with this design and its application to the Levy site, the input from the team of experts we have employed to assist us on this project, and my own nuclear and mechanical engineering background and experience, I testified that the LNP is technically feasible. Nothing we have seen or reviewed suggests that the AP1000 design cannot be deployed at the site, indeed, regulatory reviews are proceeding to do just that. All Jacobs can come up with to claim there is an issue about the technical feasibility of the plants is a [redacted] in its March 2009 report regarding the [redacted] and prior to the Company's adoption of its revised risk mitigation program. Jacobs Test., p. 19, L. 25-32. [redacted] in the May 2009 Consortium Monthly Project Status Report that Jacobs references. [redacted]

[redacted] See Exhibit No. ___ (GM-11) to my rebuttal testimony. Again, there is always regulatory uncertainty prior to actually obtaining the regulatory license or permit, and therefore some risk that it might not be obtained. This does not mean you do not go forward with the project. If it did, you would never build a nuclear power plant.

I described in detail in my direct testimony the current regulatory status of the LNP, explaining what we have achieved, what we did not achieve – the LWA discussed in detail above, what we have done in response to that change in the NRC review process, and what our expectations are for the future permits, approvals, authorizations, and licenses for the LNP. Jacobs fails to acknowledge the numerous land use authorizations, permits, licenses, or other approvals that have been achieved for the LNP that are included in my direct testimony and the numerous ones that are on schedule that are identified in my testimony and at Exhibit 3 on page 19 of the Staff Report reviewing PEF's Project Management Internal Controls for the Nuclear Plant Uprate and Construction Projects. See Exhibit Number CC-1 to Staff Testimony. For example, the Administrative Law Judge issued his recommended decision and order to approve PEF's SCA on May 15, 2009. The point is, despite the NRC decision regarding the LWA, the NRC has deemed PEF's COLA sufficient for review and established a schedule consistent with PEF's other requested timelines, including issuance of the COL in 42 months. There is no reason to expect that PEF will not be able to obtain the authorizations, permits, and licenses to construct and operate the Levy units at the Levy site.

Jacobs does not dispute this. He simply rehashes the LWA issuance and calls it a "regulatory problem." Jacobs Test., p. 20, L. 1-7. That is his characterization, not the NRC's. The NRC has accepted the LNP COLA for review and issued a review schedule. The NRC would not have done so if the NRC believed there was an existing "regulatory problem" with the site. Jacobs and the other intervenors further claim the federal and state "energy policy landscape" render the project infeasible based on their own speculation about what that energy policy will ultimately be and their own speculation about the resulting future effects of that policy, if and when and in whatever form it is ultimately passed. This is nothing more than an argument for one energy policy over another. This Commission has already determined there is a need for the LNP after a proceeding where all those alternative energy policy arguments were made. The "feasibility" analysis under the Commission's rule implementing the nuclear cost recovery statute following a determination of need cannot be the vehicle to revisit that determination now or each year. Mr. Lyash will address this argument in detail from the Company's senior management perspective in his rebuttal testimony.

Q. Do you have similar concerns with the "feasibility" analysis that OPC and the intervenors seem to suggest is required each year?

A. Yes, I do. Jacobs never explains what he believes this "feasibility" analysis to be in his direct testimony but Mr. Cooper says it is the cost-effectiveness analysis that FPL performed and that appears to be what they are all suggesting. In fact,

Jacobs ultimately conceded that was the case in his deposition. See Exhibit No. ___ (GM-5) (Jacobs Dep. Excerpt, pp. 115-117). We, of course, performed this analysis for the need case because the need statute required it, and we included it in our discussion of feasibility last year because we had just completed our need case while this docket was on-going. But the rule here does not say provide a detailed analysis showing the project is cost-effective, rather, it says provide a detailed analysis showing the completion of the nuclear power plant is feasible. These are two different things. Mr. Lyash will address this issue from the Company's senior management perspective, but from a project management perspective, that is not the way we view the feasibility of completion of the LNP. I explained in my direct testimony, in my deposition, and again here in my rebuttal testimony the Company's perspective regarding whether completion of the LNP is feasible.

Q. Do you mean to say that the total project cost is not a consideration in the Company's determination of whether completion of the nuclear power plants is feasible?

A. No, I do not. The Company always considers the total project cost of the project. As I explained in my May 1, 2008 direct testimony, the Company provided the Commission its current, approved, budgeted total cost for the LNP, which at this time remains approximately $17.2 billion. As I further explained, that total project cost estimate may change depending on the outcome of the current negotiations with the Consortium to amend the EPC agreement, but until those

negotiations are concluded, the total capital cost estimate remains the current budgeted amount of $17.2 billion. The fact that this total project cost number may change and likely will change does not affect our determination that the LNP is still feasible because we have no reason to believe today that the negotiations with the Consortium will yield an unreasonable, unprincipled revised project cost estimate for the schedule shift and amendment to the EPC agreement.

Again, PEF is not asking the Commission to "ignore" cost, as Jacobs asserts at page 21 of his testimony, rather PEF is saying that, based on what PEF knows today, PEF does not believe that PEF will receive commercially unreasonable price terms from the Consortium for the EPC contract amendment such that the completion of the nuclear power plants is not "capable of being done or carried out," i.e. not feasible. This is not some "theoretical" determination, as Jacobs calls it, (Jacobs Test., p. 21, L. 7); rather it is the reasonable and prudent project management process of evaluating the LNP in a measured, step-wise way.

As I explained in answer to the discovery responses Jacobs refers to, which I have attached as Exhibit No. ___ (GM-12) to my rebuttal testimony, the Company has and will continue to consider project costs, among many other factors in determining whether to continue to proceed with the project, i.e. whether the completion of the plants is capable of being done or carried out. The Company weighs all of these factors, which include the risks identified by the intervenors, against the benefits of proceeding with the LNP. These benefits are explained in my May 1, 2008 direct testimony: (1) PEF continues to need base load capacity in the future; (2) new, advanced-design nuclear power remains the

best available technology to provide reliable, base load electric service and make significant reductions in greenhouse gas emissions, (3) nuclear generation meets the need for more diverse energy portfolio, and (4) nuclear generation reduces PEF's reliance on fossil fuels that can be volatile in price, subject to supply disruptions, and susceptible to foreign government and market influences.

Q. Does Jacobs really disagree with your point that the cost of the project is not per se determinative of the project's feasibility?

A. No, he does not. He says he disagrees but he then admits that "project cost is not the sole factor in determining if a project is feasible." (Jacobs Test., p. 21, L. 16-17) (emphasis added). That is what "per se" means, that project cost is not "per se" determinative of feasibility means it is not "by itself" the, or the "sole," determinative factor.

Q. By the way, do you agree that your statements that the continued long-term benefits that led the Company to select the LNP have not fundamentally changed are inconsistent with the April 15, 2009 Board presentation?

A. No, Jacobs is wrong again when he asserts this at page 20 of his testimony. Mr. Lyash was there and will address this in his rebuttal testimony, but from reviewing the presentation bullet points, which serve as discussion points during the meeting, I see that my statements regarding the fact that the reasons for developing nuclear generation are fundamentally unchanged are encompassed in that presentation. While Mr. Johnson emphasizes the near-term impacts and risks

on proceeding with the LNP the summary includes the discussion point that Levy nuclear remains vital to Progress Energy's Balanced Solution. See Exhibit No. WRJ(PEF)-3, p. 58 of 233. I know that the Balanced Solution encompasses the development of nuclear generation for the reasons that I describe that were the basis for our need petition and that are included in our current IPP for the LNP.

Q. Did the Company comply with Commission Rule 25-6.0423(8), F.A.C.?

A. Yes, it did. The Rule requires the utility to file a detailed statement of project costs sufficient to support a Commission determination of prudence and that is what the Company did. Under the Commission's rule, the prudence determination is limited to actual costs incurred, in this case for the LNP, the costs incurred from 2006 to 2008. The Company filed the necessary detailed statement of project costs for the Commission to make this prudence determination. In fact, not a single intervenor or Staff witness challenges the prudence of any of the Company's actual costs incurred from 2006 to 2008, as I explained earlier. Indeed, even Jacobs must acknowledge that his claim that the Company was unreasonable in signing the EPC agreement does not affect the Commission's determination of prudence in this proceeding (as made clear in his recommendations), because the EPC agreement was signed on the last day of 2008 and all 2008 and prior year LNP costs had already been incurred. See Exhibit No. ___ (GM-5) (Jacobs Dep. Excerpt, p. 35, L. 5-16).

IX. STAFF REPORT: PEF'S PROJECT MANAGEMENT INTERNAL CONTROLS FOR THE NUCLEAR PLANT UPRATE AND CONSTRUCTION PROJECTS.

Q. Have you reviewed the Staff Report on PEF's Project Management Internal Controls for the Nuclear Plant Uprate and Construction Projects?

A. Yes, I have.

Q. Are you familiar with the cost increases in the Competitively Bid Contracts that Staff references in the Report?

A. Yes. As Staff indicates, the costs under the contracts with the Joint Venture Team on the LNP have increased beyond their original contract amount. As Staff notes we have explained, these cost increases are the result of additions to the scope of work and not the result of errors or inefficiency. Indeed, Staff nowhere includes in the report any error or inefficiency with respect to these costs that they found and they note that the Company documented these additions as directed by Company policies and procedures. I did want to supplement the explanation provided in the report for these increases.

As Staff explains, the Joint Venture Team was engaged after a competitive bid process for the COLA preparation for both the Harris and Levy sites. PEF was aware that the Greenfield site in Florida compared to the existing nuclear site in North Carolina would result in higher costs. PEF notes that PEF believed that bidding both COLAs out at the same time would still result in efficiencies and costs savings compared to separate requests for proposal ("RFPs") for both sites

and that the bids from all bidders for the Florida site would be proportionally higher. Compared to other, multiple site RFPs done sequentially in the industry the Harris and LNP COLA RFP results were more favorable. Also, each scope change for the JVT contract was separately evaluated against industry standards and target time and material costs to ensure PEF obtained the most competitive cost value for the work. Once the Levy site was selected, its unique geology, hydrology, and other environmental surroundings -- compared to the "reference site" described in the RFP for the COLA work – drove the need for specific contract work scope changes. For example, the Levy site required 108 borings to characterize the geotechnical substrate while the Harris reference site in the RFP only required 84 borings simply because the Levy site geology is different. Likewise, Levy is a marine site where cooling water make-up is drawn from the Gulf of Mexico. Specific aquatic species sampling was necessary to fully characterize this site, whereas marine type sampling work was not included in the reference site RFP. In each case where a work scope change was necessary for the Levy COLA work, PEF management went through a detailed review to validate the incremental scope and the associated cost. All of these costs, therefore, were reasonable and prudent and necessary for the completion of the Levy COLA filed with the NRC.

X. CONCLUSION.

Q. Does this conclude your rebuttal testimony?

A. Yes.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition to Establish Discovery Docket Regarding Actual and Projected Costs for Levy Nuclear Project, by Progress Energy Florida, Inc.

DOCKET NO. 080149

Submitted for filing:
May 1, 2008

DIRECT TESTIMONY OF DANIEL L. RODERICK IN SUPPORT OF SITE SELECTION COSTS

ON BEHALF OF PROGRESS ENERGY FLORIDA

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reliable generation of electricity from the Company's CR3 nuclear plant. All plant functions, including the Plant General Manager, Engineering Manager, Training Manager, and Licensing, reported to me and were under my supervision.

Q. Please summarize your educational background and work experience.

A. I have a Bachelor of Science and Master of Science degree in Industrial Engineering from the University of Arkansas and have completed the NRC program for a Senior Reactor Operator License. I have been at CR3 since 1996, serving in my current position as Vice President Nuclear Projects and Construction and, prior to that position, Director of Site Operations, Plant General Manager, Engineering Manager, and Outage Manager, respectively. Prior to my employment with the Company, I was employed for twelve years with Entergy Corporation at its Arkansas Nuclear One plant in Russellville, Arkansas with responsibilities in Plant Operations and Engineering.

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. What is the purpose of your direct testimony?

A. The purpose of my direct testimony is to support the Company's request for cost recovery pursuant to the nuclear cost recovery rule for site selection costs incurred prior to the Company's need determination filing on March 11, 2008, for the construction of the Company's proposed Levy Nuclear Power Plants.

Q. Do you have any exhibits to your testimony?

A. No, I am not sponsoring any exhibits. I am, however, sponsoring portions of Schedules SS-7 through SS-8B of the Nuclear Filing Requirements ("NFRs"), which are included as part of the exhibits to Lori Cross' testimony. Specifically, I will support all of Schedule SS-7, which is a description of the nuclear technology selected. I am sponsoring those portions, not related to transmission, of Schedule SS-8, which is a list of the contracts executed in excess of $1.0 million. Accordingly, I sponsor all but pages 5 and 6 of Schedule SS-8A, which reflects details pertaining to the contracts executed in excess of $1.0 million. I am also sponsoring those portions, not related to transmission, of Schedule SS-8B, which is a list of the contracts executed in excess of $200,000. Mr. Dale Oliver will sponsor those portions of the site selection NFRs related to transmission.

All of the portions of these schedules, which I sponsor, are true and accurate.

Q. Please summarize your testimony.

A. The Company incurred site selection costs prior to filing its need determination on March 11, 2008 to select an advanced reactor technology for its Levy Nuclear Project, to select a site for the new nuclear units, and to begin preparation of the Combined Operating License Application ("COLA"). PEF needed to enter into these contracts and incur costs during this time period to maintain the licensing and construction schedule

to successfully bring Levy Unit 1 into commercial service in 2016. As demonstrated in this testimony, in my testimony filed simultaneously in this docket in support of the actual/estimated and projection NFR schedules, and in the site selection NFR schedules attached to Ms. Cross' testimony, PEF took adequate steps to ensure these site selection costs were reasonable and prudent. PEF negotiated favorable contract terms under the then-current market conditions and circumstances.

For all the reasons provided in these testimonies and in the NFR schedules, the Commission should approve PEF's site selection costs incurred prior to March 11, 2008 as reasonable and prudent pursuant to the nuclear cost recovery rule.

III. SITE SELECTION COSTS INCURRED PRIOR TO MARCH 11, 2008 FOR LEVY NUCLEAR PLANT

Q. Did PEF incur any costs prior to March 11, 2008 for its Levy Nuclear Project?

A. Yes, PEF incurred site selection costs associated with its continued evaluation of the reactor technology for its Levy Nuclear Project and the negotiation of the contract for the engineering, design, and construction of all facilities necessary to place this reactor technology in commercial operation at the Levy site. In addition, PEF incurred costs for the selection of the Levy site as the preferred site for the development of nuclear generation. PEF also incurred costs for the process of

obtaining a COLA for the project. Levy Units 1 and 2 are scheduled to be built at a site selected in Levy County, Florida for commercial service in 2016 and 2017, respectively.

Q. Have you filed other testimony in this docket?

A. Yes, simultaneous with the filing of this testimony, I have filed testimony in support of the Company's actual/estimated and projected costs for the Levy Nuclear Project. In that testimony, I explained the prudence and necessity of the costs incurred from March 12, 2008 to March 31, 2008 for the technology chosen and the development of the COLA. The Company incurred the same categories of costs, in 2007 and 2008, prior to the Company filing the petition need determination on March 11, 2008. The Company incurred $29.6 million in site selection costs for these categories. Thus, for the reasons stated in my testimony in support of the actual/estimated and projected costs, the Company's site selection costs, related to the choice of technology and the COLA preparation, for 2006, 2007 and 2008 are reasonable and prudent.

Q. Does your simultaneously-filed testimony also provide details regarding the executed contracts for the choice of technology and the COLA preparation?

A. Yes, in my testimony supporting the Company's actual/estimated and projected costs, I describe the Westinghouse and Shaw Stone & Webster contracts, as well as the COLA contract with the Joint Venture team of Sargent & Lundy, CH2M Hill, and Worley Parson. Details regarding these contracts are also provided in

Schedules SS-8 and SS-8A, which are part of Exhibits No. __ (LC-4) and (LC-5). The contracts are listed in these schedules for 2007 and for 2008. For the reasons provided in my simultaneously-filed testimony, and for the reasons in the site selection schedules, the contract terms, as well as the site selection costs incurred pursuant to those contracts, are reasonable and prudent.

Q. What did the Company incur, for 2006, 2007, and 2008, in site selection costs to select the reactor technology, select the Levy site, and for the COLA preparation?

A. The Company incurred $2.8 million in site selection costs for these categories in 2006, $20.5 million in 2007, and $8.3 million for 2008. These costs also include costs related to engineering assistance in determining whether the Levy site could support the development of nuclear generation. The Company had to incur these costs to ensure that the commercial in-service date will be met. These site selection costs are reasonable and prudent.

Q. How did the Company choose the Levy site as the preferred site to develop nuclear generation?

A. The Company completed a detailed site selection study, which resulted in the selection of the Levy site. This study was produced in response to Staff's Fourth Request for Production of Documents in Docket Number 080148, PEF's need determination proceeding. It contains bates ranges PEF-LNN-002576 through PEF-LNN-2830.

Q. To summarize, were all the site selection costs that the Company incurred prior to filing its need petition on March 11, 2008 for the Levy Nuclear Project reasonable and prudent?

A. Yes, the specific cost amounts contained in the schedules, which are attached as exhibits to Ms. Cross' testimony, reflect the reasonably and prudently incurred costs which are described above for the Levy Nuclear Project work prior to March 11, 2008.

Q. Does this conclude your testimony?

A. Yes, it does.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition to Establish Discovery Docket Regarding Actual and Projected Costs for Levy Nuclear Project, by Progress Energy Florida, Inc.	DOCKET NO. 080149 Submitted for filing: April 22, 2008

CMP 2
COM 5
CTR 1
ECR 3
GCL 2
OPC ____
RCA 2
SCR ____
SGA ____
SEC ____
OTH ____

DIRECT TESTIMONY OF GARRY MILLER

ON BEHALF OF PROGRESS ENERGY FLORIDA

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IN RE: PETITION TO ESTABLISH DISCOVERY DOCKET REGARDING ACTUAL AND PROJECTED COSTS FOR LEVY NUCLEAR PROJECT BY PROGRESS ENERGY FLORIDA, INC.

BY PROGRESS ENERGY FLORIDA

FPSC DOCKET NO. 080149

DIRECT TESTIMONY OF GARRY MILLER

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name and business address.

A. My name is Garry Miller. My business address is 100 East Davie Street, TPP 15, Raleigh, NC 27601.

Q. By whom are you employed and in what capacity?

A. I am employed by Progress Energy Carolinas ("PEC") in the capacity of General Manager – Nuclear Plant Development & License Renewal. As General Manager – Nuclear Plant Development & License Renewal, I am responsible for the siting, management, and oversight of all major land purchases, and other contracts necessary for the construction of Progress Energy Florida's ("PEF's" or the "Company's") proposed Levy Nuclear Power Plants.

Q. What are your responsibilities as the General Manager Nuclear Plant Development & License Renewal?

A. I am responsible for new nuclear plant development in both the Carolinas and Florida, including Engineering, Licensing, and Project Controls (including scheduling, contracts, commercial matters, training, document control, records management, and project management). All the major contracts approved to date on the Levy project, and for nuclear plant development, have been under my management and responsibility.

Q. Please summarize your educational background and work experience.

A. I have a Bachelor of Science degree in Nuclear Engineering from North Carolina State University. I also have a master's degree in Mechanical Engineering from North Carolina State University. I have approximately thirty years of experience in the nuclear industry. My experience involves engineering and maintenance experience at all of Progress Energy's nuclear plants and the Corporate office. I have held Engineering Manager positions at the Brunswick Nuclear Plant and Robinson Nuclear Plant. I have held the position of Chief Engineer for Nuclear Generation Group (NGG). I have also held the position of Maintenance Manager at Progress Energy's Harris Nuclear Plant.

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. What is the purpose of your direct testimony?

A. The purpose of my direct testimony is to support the Company's request for cost recovery pursuant to the nuclear cost recovery rule for certain

costs incurred from January through December 2007 for the acquisition of real property necessary to support the construction of the Company's proposed Levy Nuclear Power Plants.

Specifically, I will describe the land acquisition costs that have been incurred, for which PEF is seeking recovery of the carrying costs. I will explain why it was reasonable and necessary for the Company to incur those land acquisition costs in the timeframe it did.

Q. Do you have any exhibits to your testimony?

A. No, I am not sponsoring any exhibits. I am, however, sponsoring Schedules T-7 through T-8B of the Nuclear Filing Requirements ("NFRs"), which are included as part of the exhibits to Will Garrett's testimony. Schedule T-7 is a description of the nuclear technology selected in 2007. Schedule T-8 is a list of the contracts executed in excess of $1.0 million in 2007. Schedule T-8A reflects details pertaining to the contracts executed in excess of $1.0 million. Schedule T-8B reflects details pertaining to contracts executed in excess of $200,000, but less than $1 million, of which there were none in 2007 for the Levy project.

All of these schedules are true and accurate.

Q. Please summarize your testimony.

A. The Company incurred real estate acquisition costs in 2007 to acquire land necessary for its Levy Nuclear Project. PEF needed to acquire this real

property in 2007 to maintain the licensing and construction schedule to successfully bring Levy Unit 1 into commercial service in 2016. As demonstrated in my testimony and the NFR schedules attached to Mr. Garrett's testimony, PEF took adequate steps to ensure these acquisition costs were reasonable and prudent. PEF negotiated favorable contract terms under the then-current market conditions and circumstances.

For all the reasons provided in my testimony and in the NFR schedules, the Commission should approve PEF's costs incurred in 2007 as reasonable and prudent pursuant to the nuclear cost recovery rule.

III. COSTS INCURRED IN 2007 FOR LEVY NUCLEAR PLANT

Q. Has PEF incurred any costs in 2007 for its Levy Nuclear Project?

A. Yes, PEF incurred real estate acquisition costs to acquire the site for its Levy Nuclear Project. Levy Units 1 and 2 are scheduled to be built at a site selected in Levy County, Florida for commercial service in 2016 and 2017, respectively.

Q. How did PEF choose the Levy site as the location for its new nuclear power plants?

A. The Company's Nuclear Plant Development Group ("NPD") utilized the Electric Power Research Institute ("EPRI") siting guide, a widely accepted guidance document for evaluating new nuclear power plant sites, and

applicable Nuclear Regulatory Commission ("NRC") regulatory guidance, to review and evaluate potential sites. Based on certain on-site analyses, initial screening analyses, and on weighing strategic and transmission considerations, NPD ultimately concluded that the Levy County site presented the best overall site as compared to the other sites considered.

After initially selecting the Levy County site, PEF executed a Purchase and Sales Agreement to acquire the parcel, known as the Rayonier parcel, from the land owner in 2006. This allowed PEF to conduct more detailed testing to ensure the viability of the site for a nuclear plant, consistent with NRC regulatory guidance and regulations. These analyses showed that the site was suitable for new nuclear plants.

Q. Please generally describe the Rayonier Purchase and Sales Agreement.

A. PEF negotiated the Rayonier Purchase and Sales Agreement to provide PEF the opportunity to ensure that the site was suitable for nuclear plant development. Once those evaluations were complete, PEF closed on the property in September 2007. PEF took several steps during the negotiation of the Agreement to ensure that it received favorable terms under the circumstances and market conditions. First, during the initial negotiations for the Rayonier property, PEF maintained its anonymity by utilizing a third-party representative, who acted on PEF's behalf. PEF did this to reduce the likelihood that property owners would inflate their initial

asking price solely based on the knowledge that the buyer was a large utility. PEF also used comparable sales from the area to negotiate the most appropriate price for that real estate market. In addition, PEF engaged in lengthy negotiations with the property owner to obtain the lowest possible price on the best possible terms.

One favorable contract term is that the Agreement provides for an additional payment to the land owner once PEF has obtained its Combined Operating License ("COL") from the NRC. Thus, in the event the Company does not complete the process of obtaining a COL for the nuclear plants for any reason, the Company will not have to pay any additional money for the land. In addition to this price benefit, PEF's acquisition of this parcel will be a benefit to its customers even if Levy Units 1 and 2 are not ultimately constructed. Good sites, such as this one, with access to an adequate water supply that can accommodate base load and other generating units, are rare in Florida and becoming harder to find and acquire. PEF may be able to utilize this site for alternative generating units in the future.

The purchase price negotiated for the Rayonier parcel is a reasonable and prudent price, given the circumstances and nature of the transaction. The other terms of the Rayonier contract are also reasonable and prudent. Further details of this contract are contained in Schedule T-8 and T-8A, attached as an exhibit to Mr. Garrett's testimony.

Q. Why did PEF acquire land at this time?

A. PEF needed to acquire this parcel in 2007 to ensure that the NRC licensing process and construction would be completed timely for Levy Unit 1 to go on-line in 2016. For example, PEF has already started to order long lead-time materials for the Westinghouse AP-1000 reactors, which allows PEF to stay on schedule and to preserve favorable pricing for key components. Additionally, and most significantly, PEF plans to file its Site Certification Application ("SCA") with the Florida Department of Environmental Protection ("DEP") in the second quarter of 2008, and the Combined Construction and Operating License Application ("COLA") with the NRC in the third quarter of 2008. We expect the DEP approval process to take 12-15 months and the NRC license approval process to take approximately 42 months. Placing these orders and obtaining key regulatory approvals on a timely basis will be critical to maintaining the construction schedule, meeting budgets, and moving forward with the project. All of these efforts required PEF to have a site already selected for its nuclear reactor units.

In addition, certain pre-construction activities, such as construction of site access roads, office building, and training center, must commence in 2008 to ensure the proposed commercial in-service date can be met. Assuming PEF receives all regulatory approvals on schedule, it will commence on-site preparation and pre-construction activities in 2010. PEF plans to begin the pour of safety-related concrete; i.e., starting with

the reactor foundation in 2012, and expects completion of the balance of plant by the end of 2015. Thus, the acquisition of the property in 2007 was necessary, reasonable, and prudent to maintain PEF's construction schedule.

Q. Has the Company purchased other real property for the Levy Nuclear Project?

A. Yes, PEF executed a purchase agreement and closed on another parcel, known as the Lybass parcel, in December 2007. This parcel is contiguous to the southern border of the Rayonier parcel, and also includes a smaller parcel contiguous to the northwest corner of the Rayonier property and abutting the U.S. 19 highway. Acquisition of this property was necessary to provide access to the Levy site to the Cross Florida Barge Canal, which in turn provides access to the Gulf of Mexico -- the cooling water source for the nuclear units. The Lybass parcel also permits greater construction and employee access to the Levy site along the U.S. 19 highway. In addition, part of the Lybass parcel provides access to transmission exit corridors from the Levy nuclear units.

Like the Rayonier Purchase and Sale Agreement described above, the Lybass contract was required to maintain the licensing and construction schedule for Levy Units 1 and 2. The Lybass parcel will likewise provide benefits to PEF's customers by serving as a potential future site for alternative generation. Indeed, as described more fully in

Mr. Garrett's testimony, the Company will allocate a portion of the parcel as land held for future use.

The purchase price for the Lybass parcel is reasonable and prudent, given the nature and circumstances of the transaction. The remainder of the contract provisions are also reasonable and prudent. Further details of the Lybass contract are contained in Schedule T-8 and T-8A, attached as an exhibit to Mr. Garrett's testimony.

Q. **Why did the Company purchase a greater amount of the Lybass property than was needed for the Levy project?**

A. The landowners would only sell a minimum of 2,150 acres, therefore, the only way PEF could acquire the necessary land rights for the transmission, piping and heavy haul path corridors, would have been to condemn a portion of the Lybass property. The Company first analyzed how much land was necessary to accommodate the four 500kV transmission lines exiting the site and the corridor necessary to locate the intake and discharge piping and heavy haul road on the Lybass property. The Company estimated that it would need at least a 1,000 foot corridor through the western portion of the Lybass property comprising approximately 220 acres. The Company next retained a qualified Florida real estate appraiser, and outside eminent domain counsel, to assist the Company in its evaluation of the alternative cost to condemn the 1,000 foot corridor for the Levy Nuclear Project. Under Florida law, the costs

included the likely value of the property, hiatus damages, any damages to the remainder of the Lybass property, and any legal fees and other costs resulting from a condemnation proceeding that PEF likely would be required to pay. Based on this evaluation, and considering that any eminent domain trial would be before a Levy County jury, the Company decided to purchase the entire property.

Q. **Has the Company incurred any other costs for the Levy Nuclear Project?**

A. Yes, PEF incurred costs pursuant to a third, separate contract. PEF executed a Nominee Agreement with a real estate agent to provide real estate acquisition services to identify potential sites and help the Company choose, negotiate, and contract for what ultimately became the Rayonier and Lybass parcels. The company acted as PEF's agent in this process. This contract was necessary for the acquisition of the two parcels that make up the Levy site. The company was chosen for its familiarity with Florida real estate, its experience with negotiating large real estate purchase contracts, and its familiarity with PEF. For this contract, PEF negotiated favorable contract terms under the then-current market conditions and circumstances. Indeed, PEF's real estate agent performed its contract services successfully and below the original contract price. The costs incurred under this contract are thus reasonable and prudent.

Further details of the contract are contained in Schedule T-8 and T-8A, attached as an exhibit to Mr. Garrett's testimony.

Q. To summarize, were all the costs that the Company incurred in 2007 for the Levy Nuclear Project reasonable and prudent?

A. Yes, the specific cost amounts contained in the schedules, which are attached as exhibits to Mr. Garrett's testimony, reflect the reasonably and prudently incurred costs which are described above for the Levy Nuclear Project work in 2007.

Q. Does this conclude your testimony?

A. Yes, it does.

IN THE MATTER OF

In Re: Nuclear Power Plant Cost Recovery Clause

Transcript of Deposition of

William R. Jacobs, Jr., Ph. D.

Volume I
On July 27, 2009

CONFIDENTIAL TRANSCRIPT

Reported by Elizabeth R. Hollingworth
Certified Court Reporter

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Nuclear Power Plant Cost Recovery Clause

Docket No. 090009-E1

- - -

Deposition of WILLIAM R. JACOBS, JR., Ph.D.,
Taken by J. MICHAEL WALLS,

Before Elizabeth R. Hollingsworth,
Certified Court Reporter,

At the Offices of GDS Associates, Inc.,
Marietta, Georgia,

On Monday, July 27, 2009,
Beginning at 9:04 a.m. and ending at 2:28 p.m.

- - -

CONFIDENTIAL

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WILLIAM R. JACOBS, JR., Ph.D

EXHIBIT INDEX
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July 27, 2009

9:04 a.m.

(Whereupon the reporter provided a written disclosure to all counsel pursuant to OCGA 9-11-28.)

MR. WALLS: I think Al Taylor is the only one on the phone that is bound by a confidentiality agreement. If you could confirm that, Al, so we could start.

MR. TAYLOR: That is correct.

WILLIAM R. JACOBS, JR., Ph.D.,

being first duly sworn, was examined and testified as follows:

CROSS-EXAMINATION

BY MR. WALLS:

Q Dr. Jacobs, I'm going to begin your deposition testimony, and I want to make sure first that you had a chance to review the notice and the requested documents attached to it.

A Yes, I did.

Q And did you bring documents with you in response to that request?

A Yes. I brought the -- well, I brought several documents, one of the documents that we downloaded off the NRC Web site related to these

He has many years' experience. He was the vice president in charge of construction of a nuclear project and has worked in the nuclear field for many, many years.

Q Now, I believe you also brought with you and produced some documents that you downloaded from the NRC Web site; is that correct?

A That's correct.

Q Besides the documents in discovery and the NRC documents that you downloaded from the Web site, were there any other documents that you reviewed in this matter in connection with your opinions in this case?

A No.

Q Did you review the EPC?

A I did not review the EPC.

Q Did Mr. McGaughy review the EPC?

A No.

Q Did Mr. Cook review the EPC?

A No.

Q Why not?

A I guess one reason is that it was in Tallahassee. It was restricted, and it was difficult to get down there to review. The other

advisor to them for the start-up in the first year of operation for the Kori-1 Nuclear project. So I was essentially an advisor to the plant manager of the Kori-1 during the first year of operation.

Q And when was that?

A That was 1977 through '79.

Q Have you ever negotiated an engineering procurement and construction contract for a nuclear power plant?

A Not for a nuclear power plant. I have negotiated the EPC contracts but not for a nuclear plant.

Q Have you ever negotiated an engineering and procurement contract for a nuclear power plant?

A No, I have not.

Q Have you ever managed the application process for a new nuclear power plant at the Nuclear Regulatory Commission?

A No, I have not.

Q Now, in preparing your testimony in the nuclear cost recovery docket, we discussed what you reviewed. And one thing you didn't mention was the Nuclear Cost Recovery Statute.

your opinion, apply and interpret the rule in a manner that is consistent with the legislative purpose?

A Yes.

Q Now, would you also agree with me that before the Commission in this proceeding is the prudence of Progress Energy Florida's cost for the leading nuclear project for the years 2006, 2007, and 2008?

A Yes.

Q Would you also agree with me that your testimony includes no opinion that Progress Energy Florida's leading nuclear project costs for those years, 2006, 2007, and 2008, are imprudent?

A That's correct.

Q Would you agree with me that an issue before the Commission is the prudence of Progress Energy Florida's Crystal River-3 uprate cost for the years 2006, 2007, and 2008?

A Yes.

Q And would you agree with me that your testimony includes no opinion that Progress Energy Florida's CR-3 uprate costs for 2006, 2007, and 2008 are imprudent?

Q Was that testimony filed before the South Carolina Public Service Commission?

A Yes. Concerning other contacts that were made related to the LNP, Mr. McGaughy, I was reminded, spoke to Paul Rizzo, Rizzo Associates. Jim and I have know Rizzo for years, and his name came up in the review of documents, and Jim called him and had a conversation.

And he really didn't relate much of that conversation to me. He just said, Rizzo said it was an interesting project, and nothing specific came out of that.

Q So you don't have any substantive information from Mr. Rizzo about the project?

A No.

Q How do you know Mr. Rizzo?

A Worked with him for probably 20 years on various projects. And at this point in time, the hydro project that I mentioned being developed in Texas, Paul Rizzo Associates is the owner's engineer for that project. But I've known Paul for 20, 25 years probably.

Q When you say "worked with," what do you mean by that? Did you hire him?

A We have hired him and worked on

various cases where -- I'm trying to think. It was a case involving designing of pipe supports. I think that they have some expertise in that area. So just off and on have worked mainly, I guess, with him on projects.

Q When you say "we hired him," do you mean GDS?

A GDS, yes.

Q And what do you understand his expertise to be in?

A Well, his primary expertise is -- well, I don't know if I know that. I know that they do a lot of hydroelectric work, a lot of dam renovation/rehabilitation.

But they also work on nuclear plant geology matters. One of the Rizzo engineers that I'm working with on the hydro project is working on developing the geological data for several new potential nuclear plants, and I guess he was involved in the LNP project.

Q And for the hydro work you're talking about, was Paul Rizzo Associates doing the geological technical work there?

A Yes, in the design, the preliminary design of the unit.

Q And GDS Associates wouldn't have hired Paul Rizzo Associates to do the work that you hired him for if you didn't believe him to be qualified to do the work; correct?

A That's correct, of course.

Q Do you consider him to be a highly qualified expert in the area of geotechnology and science?

A Yes, I do.

Q I want to turn to your discussion about your issues and concerns beginning at page five of your testimony.

A Okay.

Q And at page five, line 24 to 25 continuing over to page six, lines one and two --

A Yes.

Q -- you say, "It's not clear that PEF had met its burden to demonstrate that these risks have been adequately considered when making critical project decisions."

A Yes.

Q Do you see that?

A Yes.

Q By critical project decisions, you mean the decision to sign the EPC contract when

review schedule that supported the project schedule as envisioned at that time.

Q Now, would you agree with me that after submitting the COLA application to the NRC, that at that point in time, the utility did not have control over the project schedule, that the NRC had control over that project schedule?

A Yes, I do agree.

Q And would you agree with me that the decision for joint owners to sign up to a joint ownership agreement is ultimately the decision of those joint owners, that Progress doesn't have control over those joint owners to make them sign a joint ownership agreement?

A Of course I agree.

Q Now, you reviewed the risk management process that the company had; correct?

A Yes.

Q And that was part of the project management project documents and processes that you reviewed and found to be reasonable and prudent; correct?

A Yes.

Q And didn't the risk management process entail a risk matrix that the company had?

risk matrix, you have to come up with a risk mitigation or action plan; correct?

A Yes.

Q What was that risk mitigation or action plan for the COLA?

[redacted]

Q And do you believe that to be a reasonable action plan or mitigation strategy for that risk?

A I think that's what most utilities do, yes.

Q Would you agree with me that that risk mitigation action plan or strategy would be the same no matter what risk level you assign to the COLA or LWA application?

A I don't think I would agree with that. I think if you assigned it a higher risk number further up the matrix, you would develop more resources to making sure that those actions

happened.

Q Meaning you would do more of that same risk management?

A More of that same thing.

Q Right. So you wouldn't do something different; right?

A That's correct.

Q Because that is really the only risk mitigation strategy you can adopt as a utility for the COLA application; correct?

A That is correct. I would say -- you may get into this -- on the LWA aspect, they did remove certain activities from the initial LWA request that were in the LWA request and then added other activities at the request of the NRC. So, again, that was part of their attempt to mitigate the risk.

Q Would you agree with me that Project Energy Florida implemented its action plan or risk mitigation strategy with respect to the COLA application including the LWA?

A Yes, I do.

Q I didn't see anywhere in your opinion in your testimony where you had an opinion that Progress did not do something that it should have

done with respect to that risk mitigation strategy; is that correct?

A That's correct.

Q And what's the risk mitigation plan for dealing with joint owners?

A I think it's similar. Continue to communicate with the joint owners to provide them any information that they request regarding the project and try and keep working with them to convince them to join the project.

Q And was that Project Energy Florida's risk mitigation strategy for dealing with joint owners?

A I believe it was.

Q And did Project Energy Florida undertake and engage in that risk mitigation strategy?

A I believe they did, yes.

Q And I didn't see anywhere in your opinion in your testimony where you indicated that Progress Energy didn't do something that it should have done with respect to that risk mitigation strategy for joint owners; correct?

A That's correct.

Q Would you agree with me that the

A Which revision?

Q Yes.

A Seventeen.

Q So just so I understand what you're saying, you're not saying that before signing the EPC agreement on December 31, 2008, that Progress should have resolved or fully understood the DCD 17 revision issue?

A That's correct. That does have a potential of impacting the COLA, the referenced COLA, referenced COL I should say, issuance.

Q And that's also identified in Progress Energy's risk management process and risk matrix; correct?

A I believe that's correct, yes.

Q Turning to item four on page seven, is it also true that you're not saying that before signing the EPC on December 31, 2008, Progress Energy should have resolved or fully understood the deterioration in the capital markets, the broad economic weakness, and legislative uncertainty?

A I think those would be factors in that decision to sign the EPC contract. I don't know that they could have fully resolved them at that

time. They're ongoing issues.

Q Isn't that always going to be the case, Mr. Jacobs, with respect to issues about the capital markets, the economy, and legislative uncertainty? Isn't that always going to be the case throughout the course of this ten-year project?

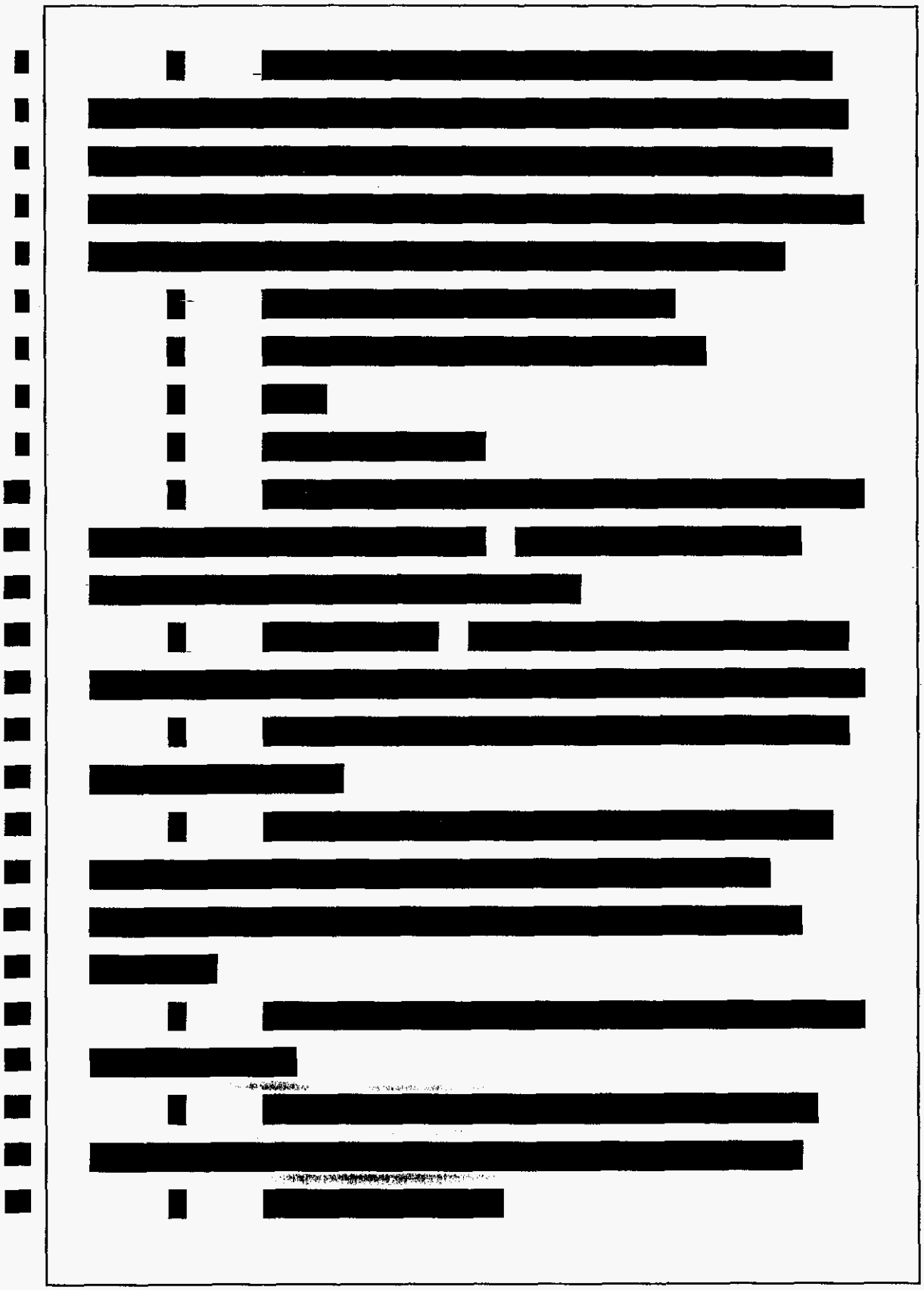
A I mean, I think you would agree that the economy and the capital markets have been in an almost unheralded situation, you know, in the last 18 months.

It's not been business as usual in those markets. It's been a very dramatic, abnormal situation. So that's kind of the situation that, you know, as pointed out later, additional time will bring more clarity to those conditions.

I'm not saying just because of those, they should have not signed the EPC contract, but they would have been factors in signing.

Q Would you agree with me that the deterioration in the capital markets is a risk that's beyond the utilities' control?

A Well, they certainly aren't in control of it, but they can control whether or not to



Q Have you ever negotiated with Westinghouse?

A No.

Q What about Shaw? Have you ever negotiated with them?

A No.

Q I'm going to another topic if you want another break. Or if you're okay, I'll go on.

A Let's go on.

Q Now, Mr. Jacobs, do you know what an LWA is?

A I believe I do, yes.

Q What is it?

A It's a Limited Work Authorization.

Q And what does that mean?

A It's an authorization to perform a certain limited scope of work prior to receiving a COL.

Q And what is a COL?

A COL is a combined license. Some people mistakenly say combined operating license, but it stands for a combined license, that authorizes the licensee to construct, test, and operate the nuclear power plant assuming that all the tests and requirements, called ITACS, during

in this COLA are going to questions about applying that design to the site?

A That's correct.

Q And that necessarily involves geotechnical issues, doesn't it?

A Of course, yes.

Q Now, on page nine, lines four through nine of your testimony, you reference the January 23, 2009 conference call between the NRC and PEF; correct?

A Yes.

Q And there you indicate that PEF was communicating that the NRC had told them that the LWA has requested and COLA geotechnical scope require the same critical path duration, and they do not have the resources to process an LWA; correct?

A Yes.

Q Would you agree with me that the NRC decision to review an LWA on the same schedule as the entire COLA will mean that there will be no LWA before the COL?

A That's what it means to me.

Q And would you also agree with me that before you prepared your testimony in this case,

Q And in the first paragraph, they say, quote, "This letter informs you that the NRC staff has completed its acceptance review and has determined that your application is acceptable for docketing"; correct?

A That's correct.

Q That means they're going to undertake to review the COLA application; correct?

A That's right.

Q And everything in it; right?

A That's correct.

Q Including the LWA?

A Yes.

Q Now, you testified at page seven, lines four through six that, quote, "This occurred despite the fact that the NRC had expressed serious doubt about the schedule on October 6, 2008." Did I read that accurately?

A Yes.

Q And by "this," you're talking about signing the EPC contract?

A That's what I was trying to -- yes, that's correct.

Q And the October 6, 2008 reference is a reference to the October 6th, 2008 docketing

letter marked as Exhibit 5; correct?

A Right, as cited there in my testimony.

Q If you could turn to the letter, I would like you to underline the words serious doubt in that letter for me and read that sentence.

MR. REHWINKEL: You want him to write on the exhibit?

MR. WALLS: Yes.

A Well, I don't think that's a problem because I don't believe the words serious doubt appear in this letter.

Q Well, please review it and tell me.

A That's my interpretation of the NRC's words, "it is unlikely that the LNP COLA review can be completed in accordance with this requested timeline." That is my interpretation that by those words, the NRC is expressing serious doubt.

Q So you agree with me that the words, quote, serious doubt, quote, appear nowhere in that letter; correct?

A Yes, and they're not quoted here. That's not intended to be a direct quote to the letter. That's my interpretation.

Q So you would agree with me the NRC never said in the October 6, 2008 letter that the NRC had serious doubts about PEF's schedule?

A No. They expressed the belief that it was unlikely that it would be able to meet the time schedule requested.

Q But they never said they had serious doubts about this?

A No, they did not.

Q Now, if we could turn to page eight, lines 11 through 12 of your testimony.

A Yes.

Q Do you see there where it says, quote, "An October 6, 2008 letter from the NRC accepted the LNP COLA for docketing but identified concerns related to LNP's site," end quote?

A Yes.

Q The October 6, 2008 letter is the same letter that's been marked as Exhibit 5 for your deposition; correct?

A Yes.

Q Could you also turn to that letter and show me where the word concerns appears in the letter.

A Again, that is my interpretation of

this letter. I don't believe the word concerns appears in the letter.

Q Well, please review it. I would like to know.

A All right. I do not believe the word concerns appears.

Q So you would agree with me that NRC never said in the October 6th, 2008 letter that it had, quote, "concerns," did it?

A No, they did not. Again, we had an earlier discussion of the meaning of concerns, and I believe concerns relate to the number of questions that they have that they do reference here that they're going to require additional information to develop a complete and integrated schedule.

Q And that information was, in fact, provided by the company to the NRC by November 20th, 2008; correct?

A That's correct.

Q And you're not aware of any expression by the NRC at that time that that information was inadequate; correct?

A That's correct.

Q Now, at the bottom of page eight

Q And it's going up to when the decision was issued?

A Well, it's going up to the January 23rd phone call --

Q When NRC communicated their --

A -- when they communicated their decision.

Q Can you cite for me an NRC rule, interpretation, or a decision where the NRC says it's required to issue a review schedule within 30 days of docketing the COLA?

A I don't believe it's required. It's just a typical time frame.

Q And the document you had, was that something you looked at to determine, quote, "the typical time frame"?

A No. No. This is just a chronology of NRC correspondence.

Q Can I see that?

A (Witness complies.)

(Whereupon a document was identified as Petitioner's Exhibit 6.)

Q If you could, describe for the court reporter what Exhibit 6 is, please.

A It is a chronology of correspondence

interpretation. I'm not saying that it is 100 percent sure that they wouldn't get it.

Q So then you disagree with his interpretation; correct?

A Okay. I disagree with his interpretation.

Q Can you cite for me an NRC rule, interpretation, or decision where the NRC said it will voluntarily issue a review schedule within 30 days?

A No.

Q Can you cite to me any NRC rule, interpretation, decision, or comment where the NRC has said if the NRC does not issue a review schedule in 30 days after the docketing of the COLA, that the utilities should be concerned with the review schedule?

A No.

Q You claim at page nine, line 14 that the company precipitously changed the project schedule by 20 to 36 months. Do you see that language?

A Yes.

Q What do you mean by precipitously?

A Abruptly.

the circumstances.

Q Well, let's back up. You said the rule requires a detailed analysis of the long-term feasibility?

A Right.

Q What does that look like?

A It can look in many different forms. Ultimately to me it would be a comparison of the total project costs over the life of the project compared to alternatives, alternative generation.

So we would need to look at the cost of the project, cost of the fuel, cost of O&M, operating cost of the project versus those same factors for the alternatives, combined cycle, gas-fired plant, coal-fired plant.

And typically people do essentially -- I'm trying to think of the right term now. Present value of revenue requirements are the two alternatives. And, in fact, the company has done that in some of their scenarios where the difficulty is a lot of these factors aren't known. You don't know what the cost of gas or coal may be. You don't know what amount of carbon tax may or may not be imposed.

So the company has done some scenario

analysis to show under what conditions the cost is economic and under what conditions it's not.

So those are the types of things. But they weren't submitted, you know, with their filing. I believe the only thing they submitted was -- I know they did some looking at future gas costs I think was one other factor. But it was certainly not a detailed analysis.

Q And what you described, Mr. Jacobs, isn't that, in fact, the cost effectiveness analysis that is done in a need determination proceeding?

A Yes. Although I was not involved in that proceeding, but my belief is that that would be done.

Q And your belief is that each year the company should conduct a cost effective analysis for the LNP as part of the feasibility analysis? Is that your testimony?

A That would be one way to do it.

Q Well, if that's one way to do it and you say there are many forms, what are the other ways to do it?

A Well, if you look at what FP&L did, they do I guess a shortened version of that.

They look at -- I'm trying to recall exactly. They calculate a capital cost to break even I guess for the nuclear plant, and they look at those factors.

They look at the cost of the alternative fuel costs and calculate back out I guess you would say a capital cost that the nuclear plant should be at or below in order to demonstrate that it's economic. So that's another kind of a little bit shortened version.

Q Isn't that just taking the same cost effective test and working backward?

A Working backwards, yes.

Q So that's one, two. Is there any other form?

A There may be. I mean, those are the two that typically -- typically it's a present value revenue requirements type of determination.

Q When you say typically, what do you mean by typically?

A We do feasibility costs all the time at GDS. You know, our clients are looking at various -- they've got a certain load requirement that they must meet. They're looking at how to meet those, how to meet that load; you know, a

Q That's not what the rule says, is it?

A That's correct. It's not.

Q In fact it says "feasibility of completing the power plant"; correct?

A That would make more sense. I think this essentially means the same thing. The feasibility of the project means of completing the project from that point on. But you are correct. That is not an accurate, direct quotation.

Q And what does feasibility mean? What's the common understanding of that word?

A Well, I think that projects can be undertaken and completed based on looking at all the various factors involved. And I think the company has identified them pretty well.

The technical feasibility, it has to be technically feasible to build. You couldn't propose a fusion-powered plant, you know. It has to be a current technology. It has to be able to be constructed and meet the regulatory requirements.

An example would be a coal-fired plant these days. I think it would be very difficult to conclude that that was feasible under the

36. Gary Miller Testimony, May 1, 2009. Please cite examples and provide descriptions of similar large construction projects using similar dewatering measures.

Answer

The dewatering and excavation design for the nuclear islands at the Levy site involved both domestic and international experts including Paul C. Rizzo Associates, Inc., Moretrench, and Soletanche. These experts were tasked with identifying solutions to address both lateral and vertical water movement in addition to successful dewatering of any in-leakage. Considering the key requirements stated above, the expertise of these organizations was used to develop a cost effective and technically sound dewatering plan for the Levy Project.

Smaller scale Florida projects with similar excavation and dewatering designs include the construction of additional cooling towers at the Crystal River Energy Complex which included sheet pile excavations with grouted seals and the Miami, Florida, NW 4th Street Sewage Pump Station which used steel sheet piling and extensive cement grouting.

Larger scale domestic and international projects using similar excavation and dewatering designs as the Levy Project include:

- The US Capitol Visitors Center, Washington, D.C. which utilized a total of 125 diaphragm wall panels, extending to depths up to 80 feet. Circular jet grout columns were installed for the structural connections between the diaphragm wall and the existing structures for support of excavation and ground water control.
- The Central Artery/Tunnel, Boston, MA, which was constructed using diaphragm walls extending 120 feet below grade with permeation grouting to limit groundwater flow.
- Two International Finance Center, Hong Kong, China, used diaphragm wall panels with an approximate depth of 125 feet. A 21 feet reinforced concrete slab completed the foundation design.
- Dassault Aviation Building, Saint Cloud, France, utilized a 71 feet diaphragm wall and a 9 feet grouted slab.
- Le Figaro Office Building, Paris, France, used a foundation made of conventional and buttressed diaphragm walls approximately 49 feet tall and a grouted bottom 19 feet thick.

All of the above were constructed in saturated soil conditions near a river, ocean, or sea.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Nuclear Cost Recovery Clause.	)	Docket No. 090009-EI
	)	Served: July 27, 2009

PROGRESS ENERGY FLORIDA, INC.'S RESPONSES TO STAFFS' FOURTH SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC., (Nos. 39-55)

Progress Energy Florida, Inc. ("PEF" or "Company") responds to Public Service Commission Staff's ("Staff's") Fourth Set of Interrogatories (Nos. 39-55) as follows:

Question # 39

39.) Please describe PEF's actions directed at identifying and assessing the NRC's acceptance and timeline review prior to PEF's July 30, 2008 COL and LWA application for Levy Nuclear Plant Units 1 and 2. Include in your response PEF's estimate of the NRC's acceptance review timeline and a listing of all documents including analysis, reports, and studies memorializing PEF's actions and/or relied on in developing the estimate.

Answer

PEF notified the NRC in a public meeting on January 10, 2008 that the LNP COLA would include a request for LWA. This was followed by formal notification to the NRC in response to RIS 2008-001 on March 5, 2008. In a public meeting on May 22, 2007, the NRC had indicated that review of an LWA, resulting in issuance of the Final Environmental Impact Statement (FEIS) and Final Safety Evaluation Report (FSER) could be completed in 12 ± 6 months.

NRC requirements allow the option of either a separate FEIS to support the LWA or a single FEIS can be developed to support the LWA and COLA. PEF had concerns about the impacts that a separate FEIS for the LWA might have on the COLA/LWA review schedule, particularly due to the significant involvement of the US Army Corps of Engineers, and worked with the industry to conduct a public meeting on February 20, 2008 to discuss the FEIS. The key points addressed in this meeting were the need to ensure coordination with the US Army Corps of Engineers and to identify that it would be more efficient use of resources to complete a single FEIS for the COLA and LWA rather than a separate FEIS for the LWA and COLA.

PEF met with NRC on January 10, 2008 and on July 28, 2008 to review the geotechnical issues that would need to be addressed for Levy. The goal of these meetings was to ensure that the challenges presented by the geotechnical issues were identified and to review the approach being taken to address these technical challenges.

PEF management also met with NRC managers on June 30, 2008 and Sept 9, 2008 to discuss the need for Levy and overall plans for the project. This included the proposed timelines for review. There was no indication from NRC that the LWA review could not be conducted in advance of the COLA. This was also reinforced on September 5, 2008 when the NRC requested that the LWA scope request be revised and in the docketing letter of October 6, 2008 when the NRC requested additional information to support the development of the LWA review schedule. These requests clearly indicated that the NRC was developing a schedule for the LWA with no indication that the review time would require the same duration as the COLA.

In summary, PEF met with the NRC on the following dates:

- January 10, 2008 – Review LNP Geotechnical Considerations and Identify that LWA was planned
- June 30, 2008 – Drop-in meeting by Progress Energy management to review with NRC management the LNP overall project and planned schedule
- July 28, 2008 – Review LNP Geotechnical Information, site preparation and foundation conceptual design and discuss LWA scope
- September 9, 2008 – Drop-in meeting by Progress Energy management to review with NRC management the LNP overall project and planned schedule. The focus of this meeting was to review the need for power, project activities completed, the review timelines that were desired and the LWA scope.

None of these interactions with the NRC provided a reason for PEF to believe that an LWA review would take as long as the COLA review and approval of 42 months.

Documents supporting this response are listed below and are contained in STAFF 4th POD Q22:

- Executive Summary For Submittal Of Limited Work Authorization For Levy Site Cola
- Progress Energy Presentation To NRC Regarding Geotechnical Review For The Levy Nuclear Plant
- Agenda For Public Meeting With Progress Energy And NRC To Discuss Geotechnical Topics At The Levy County Site
- U S Army Corps Of Engineers EIS Interface Issue
- Progress Energy-NRC Meeting To Discuss Interface Between Army Corps Of Engineering And The LWA Request To The NRC
- Summary Of Discussion Points For NRC Meeting Including Involvement Of U S Army Corps Of Engineers
- Progress Energy Letter To NRC Announcing Plans To Submit A Full Cola Application Including LWA For The Levy Nuclear Plant
- Minutes From Meeting Regarding LNP Schedule And License/Permits Needs
- Levy Nuclear Plant Update Presentation For NRC Drop-In Visit
- Progress Energy Presentation To NRC For Levy Nuclear Plant Geotechnical Review

- Attendees List For Progress Energy Public Meeting With NRC To Discuss Geotechnical Topics For Levy Nuclear Plant
- Progress Energy Presentation To NRC Regarding Status And Schedule For Levy Nuclear Plant

Question # 6

Reference Miller May 2009 Testimony, , p. 6; line 11) Please describe all discussions PEF had with the Nuclear Regulatory Commission ("NRC") prior to and following the submission of its proposed schedule regarding the Limited Work Authorization ("LWA"). (Reference Miller Testimony, p. 12).

Answer

January 10, 2008 – Progress Energy met with NRC technical reviewers in a public meeting with the following objectives:

- Introduce Levy site and project timeline
- Review foundation conditions at Levy
- Review foundation concepts under consideration

At this meeting Progress Energy also identified to the NRC that an LWA would be requested for LNP.

February 20, 2008 – Progress Energy presented to NRC in a public meeting organized by NEI. The objectives of this presentation were:

- Introduce Levy site and project timeline
- Review US Army Corps of Engineer Involvement
- Discuss Impacts of LWA Rule
  - NRC – US Army Corps of Engineer Interface
  - NRC – Corps of Engineer MOU (1975)
  - NEPA Requirements
- Outline Considerations to Address

March 5, 2008 – Progress Energy provided response to NRC Regulatory Issue Summary 2008-01, *"Process for Scheduling Acceptance Reviews Based On Notification Of Applicant Submission Dates For Early Site Permits, Combined Licenses, And Design Certifications And Process For Determining Budget Needs For Fiscal Year 2010"* This response formally notified the NRC that Progress Energy would request an LWA for Levy;

> " Progress Energy expects to submit a complete (COL) application for the proposed two-unit project in Levy County, Florida on July 30, 2008. The application will include a request for an LWA with a requested LWA approval by the fourth quarter of 2010."

June 5, 2008. – NRC Public Meeting to discuss the COLA process (LWA not specifically discussed).

June 30, 2008. – Progress Energy Meeting with NRC staff to review the Levy COLA schedule and receive feedback from the NRC.

July 28, 2008 – Progress Energy met with NRC technical reviewers in a public meeting. Objectives of this meeting were:

- Update Staff regarding previous presentation
  - Geotechnical Investigations and Site Characterization
  - Foundation Design Concept and Construction
- Present new information
  - Karst Investigation and Characterization
  - Liquefaction Evaluation and Results
  - Contingency Plans
- Review LWA scope

July 30, 2008 – LNP COLA with LWA requests submitted to NRC. (NPD-NRC-2008-022)

August 21, 2008 - Progress Energy personnel met with NRC in a public meeting in Rockville, MD to provide an overview of the LNP COLA.

September 5, 2008 – A conference call between NRC and Progress Energy was conducted to review additional information needed to support the NRC sufficiency review.

September 12, 2008 – In response to the NRC conference call conducted on September 5, 2008, Progress Energy submitted supplemental information for LNP COLA to NRC . (NPD-NRC-2008-031). Progress Energy followed up with a call to the NRC to receive feedback on the filing.

October 1, 2008. – Progress Energy call with NRC Staff regarding vote to docket Levy COLA and request for additional RAIs.

October 6, 2008 – NRC docketing letter received (ML082760352) accepting the LNP COLA and LWA for review. Additional RAIs for Progress Energy included with docketing letter.

January 23, 2009 – A conference call between NRC and Progress Energy was conducted to review the milestone schedule for the LNP COLA. In this call, NRC first identified that the LWA could not be reviewed on a schedule in advance of the COL.

February 4, 2009 – A conference call between NRC and Progress Energy was conducted to discuss:

- Potential reduction in the scope of work for LNP LWA
- Info re diaphragm wall (will tie-backs be included and method of installation)
- Geotech review planned if LWA scope revised to include diaphragm wall only
- Challenges with review of grout installation.

February 18, 2009. – NRC letter to Progress Energy transmitting the NRC Levy COLA review schedule.

April 28 & 29, 2009 – NRC technical reviewers visit to Levy site to meet with Progress Energy and review the site geological conditions and actions required to support the foundation plan

April 30, 2009 – Progress Energy executives met with NRC senior management to identify that Progress Energy would withdraw the request for LWA and that a schedule shift for LNP of at least 20 months would be announced.

May 1, 2009. Progress Energy Notification to Withdraw Request for Limited Work Authorization letter to NRC.

In addition to the specific communications with the NRC referenced above, the Company regularly communicated with the NRC staff on a frequent basis throughout this time frame.

October 6, 2008

Mr. James Scarola, Senior Vice President
and Chief Nuclear Officer
Progress Energy, Inc.
P.O. Box 1551
Raleigh, NC 27602

SUBJECT: ACCEPTANCE REVIEW FOR THE LEVY COUNTY NUCLEAR POWER PLANT UNITS 1 AND 2 COMBINED LICENSE APPLICATION

Dear Mr. Scarola:

By letter dated July 28, 2008, Progress Energy Florida, Inc. (PEF) submitted its application to the U.S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for two AP1000 advanced passive pressurized water reactors in accordance with the requirement contained in 10 CFR Part 52, "Licenses, Certifications and Approvals for Nuclear Power Plants." This letter informs you that the NRC staff has completed its acceptance review and has determined that your application is acceptable for docketing. These reactors will be identified as Levy Nuclear Power Plant (LNP) Units 1 and 2 and are to be located at a site in Levy County, Florida. The docket numbers established for LNP Units 1 and 2 are 52-029 and 52-030, respectively.

The LNP combined license application (COLA) incorporates by reference Appendix D to 10 CFR Part 52 and the AP1000 Design Control Document submitted by Westinghouse as Revision 16. As allowed by 10 CFR 52.55(c), at your own risk, you have referenced a design certification application that has been docketed but not granted. Therefore, your COL review schedule is dependent on the review schedule for the design certification. In addition, as a subsequent combined license applicant, your COL application review schedule is also dependent on the review schedule for the Tennessee Valley Authority's Bellefonte Units 3 and 4 COLA (the reference COLA for the AP1000 design center). Because it utilizes the standard content contained in the reference COL application (R-COLA), it is incumbent upon PEF to remain cognizant of the resolution of the standard technical issues that will be addressed during the NRC review of the Bellefonte R-COL application. If you determine that it is necessary to resolve a standard issue differently for the LNP Units 1 and 2 COLA, you must notify the NRC immediately so that we may determine the review impact of this standard issue being considered as site specific.

As discussed with your staff, the date that we intend to publish a schedule for review can not be determined until additional information is provided by you. Although our acceptance review determined that the LNP COLA is complete and technically sufficient, the complex geotechnical characteristics of the Levy County site require additional information in order to develop a complete and integrated review schedule. Enclosure 1 contains this Request for Additional Information (RAI).

As necessary, other RAIs will be issued separately. Because of the scheduling uncertainty in the areas of geotechnical science and structural engineering, the NRC staff does not intend to commence a review of these areas until all associated RAIs are sufficiently answered. For all other sections of the LNP COLA, the NRC staff intends to commence reviews based on the availability of resources.

Your application submittal letter requested that the NRC consider the following milestones when preparing our complete and integrated review schedule: Final Environmental Impact Statement issuance in June 2010, Limited Work Authorization issuance in September 2010, and COL issuance in January 2012. Because of the complexity of the site characteristics and the need for additional information, it is unlikely that the LNP COLA review can be completed in accordance with this requested timeline. The NRC staff expects to interact with you as the safety and environmental review schedules are developed.

Enclosure 2 is a notice of acceptance for docketing. This notice is being forwarded to the Office of the Federal Register. A separate notice will be published in accordance with the provisions of 10 CFR 2.104, regarding the hearing.

Should you have any questions, please contact me at (301) 415-9967 or send an e-mail to Brian.Anderson@nrc.gov.

Sincerely,

/RA/

Brian Anderson, Lead Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-029
52-030

Enclosures:
1. Request for Additional Information
2. Federal Register Notice

As necessary, other RAIs will be issued separately. Because of the scheduling uncertainty in the areas of geotechnical science and structural engineering, the NRC staff does not intend to commence a review of these areas until all associated RAIs are sufficiently answered. For all other sections of the LNP COLA, the NRC staff intends to commence reviews based on the availability of resources.

Your application submittal letter requested that the NRC consider the following milestones when preparing our complete and integrated review schedule: Final Environmental Impact Statement issuance in June 2010, Limited Work Authorization issuance in September 2010, and COL issuance in January 2012. Because of the complexity of the site characteristics and the need for additional information, it is unlikely that the LNP COLA review can be completed in accordance with this requested timeline. The NRC staff expects to interact with you as the safety and environmental review schedules are developed.

Enclosure 2 is a notice of acceptance for docketing. This notice is being forwarded to the Office of the Federal Register. A separate notice will be published in accordance with the provisions of 10 CFR 2.104, regarding the hearing.

Should you have any questions, please contact me at (301) 415-9967 or send an e-mail to Brian.Anderson@nrc.gov.

Sincerely,

/RA/

Brian Anderson, Lead Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-029
52-030

Enclosures:
1. Request for Additional Information
2. Federal Register Notice

ADAMS Accession No.: ML082760352

OFFICE	DNRL/NWE1:LA	DNRL/NWE1:PM	OGC	DNRL/NWE1:BC
NAME	KGoldstein R. Butler for	BAnderson	SBrock	SCoffin
DATE	10/02/08	10/02/08	10/06/08	10/02/08

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Request for Additional Information
Levy County Units 1 and 2
Progress Energy Florida, Inc.
Docket No. 52-029 and 52-030

QUESTIONS for Geosciences and Geotechnical Engineering Branch 1 (RGS1)
SRP Section: 02.05.01 - Basic Geologic and Seismic Information
Application Section: SRP 2.5.1

02.05.01-1
Please summarize the information being used as the technical basis for the dissolution rates presented, including documentation of the basis for indicating that dolomitized limestone dissolves less readily than non-dolomitized limestone, to enable an adequate assessment of karst development as a potential future geologic hazard. Include any references necessary.

02.05.01-2
Reference is made to a "subset" of the regional fracture system which apparently exhibits the same orientation as fractures in the regional fracture system (Attachment 2, pg. 4 of supplement, Karst Discussion).

Please qualify whether these "subset" fractures are simply smaller-scale features (i.e., having a shorter length along strike but the same orientation) than the regional fractures, and discuss whether or not they could exercise local control on dissolution. Please also discuss the pertinence of the observed fracture spacings in the outcrops relative to the regional fracture sets.

02.05.01-3
The supplement states that grouting will inhibit the development of karst by preventing the flow of groundwater through the grouted zones beneath the nuclear island (Attachment 2, pg. 15 of supplement, Permeation Grouting Discussion).

Please address the potential issue of how altering the groundwater flow regime by grouting could affect dissolution below and around the periphery of the grouted zone to assure that this aspect has been considered.

02.05.01-4
The supplement refers to a "shelf" within the Avon Park Formation defined by lowered shear wave velocity measurements (Attachment 2, pg. 15 of supplement, Permeation Grouting Discussion).

Please qualify this "shelf" in the Avon Park Formation to clearly indicate lithology involved relative to composition, thickness, lateral distribution, and material properties.

02.05.01-5
The supplement lists assumptions and postulations used to calculate lateral dimensions of borehole features (Attachment 2, pg. 7 of supplement, Karst Discussion - Excess Grout Takes), and states that 9.9 ft is the maximum lateral extent of dissolution cavities at depth. Considering a fracture spacing of 19 ft., if dissolution developed along two parallel fractures with this spacing, then the resulting cavity could easily exceed 9.9 ft. if the two cavities coalesced at depth.

Please discuss the uncertainty involved in the estimate of a 9.9 ft. maximum lateral extent for dissolution cavities and the potential for coalescing dissolution cavities at depth.

02.05.01-6
The supplement cites Dr. A. Randazzo (Attachment 2, pg. 7 of supplement, Karst Discussion - Excess Grout Takes) as supporting the statement that the horizontal dimension of dissolution features associated with vertical fractures is a fraction of the vertical dimension, but does not summarize the information documenting the statement that lateral extent of dissolution features developed along fractures is about 20% of the vertical dimension.

Please summarize the evidence, with appropriate references, for the statement that lateral extent of dissolution features related to fractures is only about 20% of their vertical dimension.

02.05.01-7
The supplement refers to estimates as "conservative" for definition of a 10-ft. maximum lateral extent for dissolution voids at any depth (Attachment 2, pg. 8 of supplement, Karst Discussion - Excess Grout Takes), even though subsurface investigations do not appear to clearly document this lateral limit due to borehole spacing and depth.

Please summarize the evidence leading to the conclusion that dissolution cavities will be no greater than 10 ft. in lateral extent, since that dimension is used as the basis for design of the RCC. Please discuss whether or not it is anticipated that voids of that size presently exist within the proposed grout zone and explain the approach that will be followed if large voids are discovered based on grout takes.

QUESTIONS for Geosciences and Geotechnical Engineering Branch 1 (RGS1)
SRP Section: 02.05.02 - Vibratory Ground Motion
Application Section: SRP 2.5.2

02.05.02-1
Please describe your plans for ensuring the shear wave velocity post-grouting was appropriately represented in the site response analyses you performed in your previous calculation of the GMRS.

02.05.02-2
Please provide additional justification why geophysical tools, such as resistivity, microgravity, and seismic tomography, were not used to characterize the extent of subsurface voids at depth. Please also describe your plans for any post-grouting geophysical testing to assure that dissolution cavities are filled and demonstrate post-grouting uniformity of the site.

QUESTIONS for Geosciences and Geotechnical Engineering Branch 1 (RGS1)
SRP Section: 02.05.04 - Stability of Subsurface Materials and Foundations
Application Section: SRP 2.5.4

02.05.04-1
Please provide a sufficiently detailed discussion to justify that the borings adequately characterize karst at depth at the site, and that the existing borehole spacing is sufficient to characterize the lateral dimension of dissolution cavities and assess their correlation and interpreted lack of connectivity between boreholes.

02.05.04-2
The Avon Park Formation may contain dissolution voids, soil-filled dissolution voids, and highly variable strengths of subsurface rock materials based on Rock Quality Designation (RQD), shear wave velocity measurements, and compressive strength test results from intact samples.

a. Please provide a more detailed explanation of how the supporting rock profile was modeled in the Finite Element (FEM) analysis. Include a detailed explanation of how the material properties for subsurface materials supporting the RCC were determined for application in the FEM. Indicate how variablity in the rock mass, voids and low density soil-filled voids were modeled in the FEM.

b. Please describe how the results from the FEM were compared with shear strength in the Avon Park Formation in the static and dynamic bearing capacity calculations. Please provide sample calculations.

c. Please describe how rock mass properties were determined for use in the U.S Army Corps of Engineers (USACE) bearing capacity equations you referenced, and provide a sample calculation for bearing capacity using the USACE method for static and dynamic loads.

d. Please indicate how the limestone supporting the RCC meets the uniformity requirements for subgrade reaction.

02.05.04-3
The supplement states that, because incremental shear stresses at El -150 ft were only 2 psi, characterization of subsurface conditions below this depth were considered to be adequate and, consequently, settlement magnitudes were deemed to be appropriate.

a. Given the small number of borings, please discuss the basis for the conclusion that larger voids which may collapse and consequently affect settlement do not exist below El -150 ft.

b. Please provide a sketch of the rock profile assumption, including rock mass elastic properties used in the elastic settlement analyses. Provide a sample calculation using the Boussinesq stress distribution down to 2B. Please indicate how rock mass elastic properties for the settlement calculation were determined and how karst features were incorporated into the rock mass property determinations for settlement analysis.

QUESTIONS for Structural Engineering Branch 1 (AP1000/EPR Projects) (SEB1)
SRP Section: 03.08.05 - Foundations
Application Section: 3.8.5.1

03.08.05-1
Under, SRP Section 3.8.5, "Foundations," the staff reviews the adequacy of foundations of all Seismic Category I structures. A foundation is a structural element that connects the superstructure and the supporting medium, such as soils or rocks. The purpose of the foundation is to hold the superstructure in place and to transmit all loads of the superstructure to the underlaying soils or rocks.

Levy FSAR Section 3.8.5.1, "Description of the Foundations," references FSAR Section 2.5.4, "Stability of Subsurface Materials and Foundations," for a description of the foundation depth of overburden and depth of embedment. FSAR Section 2.5.4 describes that, below the NI basemat, a 35-foot thick RCC bridging mat will be used to transmit the NI loads under static and dynamic conditions to the karst foundation. However, details regarding how this bridging mat will transform the NI loads to the karst foundation are not provided.

Staff requests the applicant to:

(a) Describe the methods used to transmit the static and dynamic loads of the NI through the bridging mat to the karst foundation, and justify the use of the RCC bridging mat between the NI basemat and the karst foundation.
(b) Provide requirements of material, installation, and compaction for the RCC bridging mat, and the analysis and design methods for the bridging mat.

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Official Transcript of Proceedings

NUCLEAR REGULATORY COMMISSION

Title: Levy Nuclear Plant Combined License Application Public Meeting: Afternoon Session

Docket Number: 52-029 and 52-030

Location: Crystal River, Florida

Date: Thursday, December 4, 2008

Work Order No.: NRC-2550 Pages 1-115

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I N D E X

P-R-O-C-E-E-D-I-N-G-S

MR. CAMERON: Good afternoon, everybody. If you could all take a seat we'll get started with today's meeting.

Good afternoon everyone. My name is Chip Cameron and I work for the Executive Director for Operations at the Nuclear Regulatory Commission.

And we are going to try not to use any acronyms today that we don't explain, but we will be using NRC for Nuclear Regulatory Commission.

And it is my pleasure to serve as your facilitator for today's meeting. And in that role I'll try to help all of you to have a productive meeting this afternoon.

Now, our subject for today is the environmental review process that the NRC is going to conduct as one part of its evaluation of the license application we received from Progress Energy Florida to build and construct two new nuclear power plants in the site in Levy County.

And what I would like to do is just spend a few minutes on some meeting process issues so you know what to expect this afternoon. And I would like to tell you about the format for today's meeting,

going to prepare as it's environmental review covers a broad range of issues, so you may hear a lot of different topics raised by people in the audience when we go to the time for comments.

The NRC staff is also going to tell you that we're taking written comments on these issues and they will tell you the date that those comments have to be submitted. But we wanted to be here with you in person today and to listen to your comments. And any comments that are submitted or that are made during this meeting will carry the same weight as a written comment.

And you may hear some comments today, you may hear some information today that will prompt you to submit a written comment. And there is certainly nothing wrong with speaking today and also submitting a written comment to us.

We will have time for a few questions between the NRC presentations and when we go to comment for you. But it will be limited because we do want to get to listening to you.

And the NRC staff will be here after the formal close of today's meeting to talk to you about any issues that you might have.

meeting.

And when we go to the comment period, we've asked everybody to fill out one of those yellow cards if you want to talk today. And I will just call your name and ask you to come up here, if you could, so that you can address everybody. And I am going to ask that you limit your -- this is a guideline. I am going to ask that you limit your comments to five minutes. And I appreciate the fact that many of you have spent time preparing your comments. And I apologize in advance if five minutes is not enough time to complete your comments, but usually five minutes is enough time for someone to summarize what their concerns are.

If you have a prepared statement we will attach that to the transcript and it will also be counted as a formal comment to us. So I would just ask you to follow the five-minute rule.

What you say is going to be important not only for the NRC staff, but also for people in the audience who may hear a concern, or a point, an issue that they haven't thought of before. So we will try to keep that to five minutes.

You are not going to hear the NRC staff

commenting on anything that you say today. We are going to listen carefully. We are going to take that back to Washington, D.C., Rockville, Maryland, where our headquarters are, to carefully consider those comments.

And finally, just please extend courtesy to everyone here today. You may hear opinions today that you don't share, that you disagree with. And I would just ask you to please extend courtesy and respect the speaker who is giving that comment even though you might disagree with it.

Let me introduce the NRC staff, first of all, the speakers today. This is Gregory Hatchett right here. And Greg is the Branch Chief of the Environmental Projects Branch, and the people who work for him are responsible for doing the environmental review of these new reactor license applications. And he is going to give you a welcome and an overview of the NRC and the NRC responsibilities.

Then we're going to get to the heart of the NRC review process and we have Mr. Douglas Bruner with us. He is the Project Manager for the environmental review of the Progress Energy Florida

application. And he will tell you about the environmental review but he is also going to cover aspects of the entire NRC review process.

And then we will go out to you for a few questions after both Greg and Doug have talked. I also want to introduce a few other people and we have Brian Anderson. Brian is the Project Manager for the safety aspect of the review, safety aspect; Doug Bruner, environmental review. And Brian is with us in case we have questions on the safety aspects or in case anybody wants to talk to Brian about the safety aspects after the meeting closes.

Our Senior Manager today is Drew Persinko, Andrew Persinko right here. And he is the Deputy Division Director of the Site and Environmental Review Division.

All of the people I introduced to you are in our Office of New Reactors. Doug, Greg, Drew, environmental side; and Brian is on the safety side.

And with that I think I'm going to turn it over to Greg to say a few words to you and we will get on with the substance of the meeting. And thank you very much for being here to help the NRC with this important decision. Gregory?

Mr. HATCHETT: Like Chip said, I want to welcome everybody here to the scoping meeting for the Levy Project for NRC'S portion of the review of the combined license. And I appreciate everyone coming out and taking time out of their busy schedule to be a part of this process. Let me have the next slide.

But as he said, real quickly, my name is Greg Hatchett. I'm the Branch Chief of the Environmental Review Branch and I want to touch quickly on the purpose of the meeting.

And as it indicates here up on the slide, in general the purpose of the meeting is to focus on the scoping portion of NRC's NEPA review for the license application.

Having said that, I want to step back for a moment and remind folks of the outreach meeting that was held back in June where we talked about NRC's review process in general, and the likelihood of an application being provided to the NRC by Progress Energy Florida.

The company having provided that application in the late June time frame, NRC began its review process of that application to do an acceptance review and then to subsequently docket

that application, and following the docketing process to then begin a detailed review of the application to determine its adequacy, its efficiency for licensing.

That process has begun in earnest and now we're here today to talk to you about or to discuss with you environmental concerns so the Commission can develop its Environmental Impact Statement. And this is what we call the scoping process. Let me have the next slide.

Again, in June we talked generically about the licensing process. Today Doug Bruner, when he gets up here, is going to provide a little bit more detail or overview again of that licensing process where he is going to discuss both safety and environmental.

But we're primarily here for the environmental review which we have, we've kicked it off. We're into the detail process which includes gathering environmental information that we would not otherwise have specifically about the site and its environment from you all, which is a very important process. And then he's going to talk a little bit about hearings and he is going to talk in more detail about public involvement. Let me have the next

slide, please.

This is the part about the NRC process that gets me a bit excited. And it gets me excited because I believe our process works best when we have a very diverse and broad group of stakeholders providing input into our process. It helps us make a better decision.

And so what we're hoping for, what I'm hoping for out of this meeting is that we get very constructive and meaningful feedback from everyone here so that we can go forward and complete our Environmental Impact Statement. Because without it we can't really do a good job.

So again, I appreciate everyone being here. I'm very excited about folks being a part of this process. And at this point in time I'm going to turn it over to Doug.

MR. BRUNER: Thank you, Greg. Again, my name is Doug Bruner. I am the NRC Project Manager for the environmental portion of this evaluation.

And what I am going to do initially is describe why the U. S. Nuclear Regulatory Commission exists; then I'm going to briefly describe the NEPA process or introduce you to NEPA. And then I'm going

to discuss how NEPA is incorporated into the NRC review process.

In any event, the U.S. Nuclear Regulatory Commission is a federal regulatory agency. We exist to regulate the civilian, commercial, industrial, academic and medical uses of nuclear materials in order to protect the public health, public's health and safety, as well as the environment.

Now, NEPA, the National Environmental Policy Act, it was signed into law on January 1, 1970. The Act establishes national environmental policy for the protection, maintenance, and enhancement of the environment and provides a means for carrying out that goal, which is the Environmental Impact Statement. And I'll be getting into more detail later on in this presentation. Next slide, please.

As you heard from Greg, Progress Energy is seeking a combined license for two new reactors. This combined license is a combined construction permit and operating license with conditions and it is issued by the NRC. It is an NRC decision that authorizes an applicant to construct and operate a nuclear plant at a specific site in accordance with

federal law and regulations.

Progress Energy Florida submitted the combined license application on July 30, 2008 for two AP1000 reactors, Units 1 and 2, to be built at the Levy County site. Next slide, please.

This is also an introductory slide and I will go into more detail further into the presentation. But this slide shows the major portions of the staff's review. NRC's regulations allow COL applications to reference what are called certified designs, or designs that were docketed but not yet approved.

The AP1000 reactor design, is revision fifteen. It was certified by the NRC through a rulemaking. The rulemaking process includes a specific opportunity for public comment. The AP1000 reactor design is being modified by Westinghouse and it is being reviewed by the NRC staff. This design, if acceptable, would again be certified by rulemaking.

Progress Energy is interested in using this revised AP1000 design and their COL application references this design. Additionally, the staff conducts site-specific safety review of the design as

would be located at the Levy County site.

And we also perform an analysis of the environmental impact of using that design at the site, which is what I am going to go into today. But what I do need to mention is that the environmental review is completely independent of the safety review.

Now, it is also important to mention at this point that as part of the COL application, the applicant has requested a limited work authorization. It is also known as an LWA. If approved, the LWA would allow the applicant to perform certain activities associated with the construction of foundations. The LWA is components of both the safety and the environmental reviews. It is important to state that the activities assumed by the applicant under the LWA do not guarantee approval of the COL. Next slide, please.

This slide provides an overview of the application review process. And an applicant will submit an application to the NRC and it undergoes both a safety review and an environmental review. These two reviews run in parallel. The objective of the safety review is, or the product of the safety

review is, the final safety evaluation report. And the product of the environmental review is the Environmental Impact Statement, which is what I'm here to discuss today.

The safety review complies with regulations in order to protect the public health and safety, and the environmental review focuses on the plant's impact on the environment. Both the safety review and the environmental review are subject to hearing, and the Environmental Impact Statement as well as the final Safety Evaluation Report are used in the hearing process for, by the Commission. It is actually used as the main body of evidence in the hearing for the Commission to make a decision on whether or not to approve the license.

Again, the primary purpose of today's meeting is to discuss the environmental review of the Levy -- of the review, or the environmental portion of the review. However, before I do that I think it is important to introduce some areas covered by the safety review. Can I get the next slide please.

The design of the facility. Progress Energy plans to use the amended AP1000 reactor design, as I previously mentioned. In terms of site

suitability, the safety report describes how environmental factors affect the plant design. We look at geologic, and seismic, and hydrologic concerns. We also look at flooding, hurricanes and tornadoes. We incorporate quality assuredness into the safety review. We look at adequate physical security, and we conduct this review in consultation with the Department of Homeland Security. We look at emergency preparedness, and we conduct this review in consultation with the Federal Emergency Management Agency. We also look at operator training. This ensures that the operators for the potential new plant or new units are properly trained to operate the units in a safe manner.

And, as mentioned earlier, Brian Anderson is with us here today. He is the Lead Safety Project Manager for this project. Next slide, please.

The environmental review, which is the subject of today's meeting, is guided by the National Environmental Policy Act. It is also known as NEPA. NEPA requires federal agencies to use a systematic approach and to consider the environmental impacts associated with the major federal actions that have the potential to significantly affect the human

environment. It is a disclosure tool which involves input from the public and by law requires the development of an Environmental Impact Statement.

The NRC has determined that issuing a combined license for a nuclear facility is a major federal action. As such, the staff develops an Environmental Impact Statement before the Commission takes action, or takes final action on the license application. Next slide, please.

As part of the NRC's environmental review, we plan to evaluate the potential environmental impacts of the construction and operation of two new AP1000 units at the Levy County site. NRC's regulations for implementing NEPA are at, in 10 CFR 51. And the NRC has established a systematic decision-making process to be applied during the environmental review which is our Environmental Standard Review Plan. It's also known as NUREG 1555. The regulations and guidance documents can be found on NRC's website at www.nrc.gov.

During the environmental review we provide opportunities for public involvement during the scoping period, which we're currently in right

now. And the results of our review will be docketed in the draft and final Environmental Impact Statement of the Levy County project, and the public will have an opportunity to comment on the draft Environmental Impact Statement. Throughout the entire review process the NRC maintains an open and transparent review process. Next slide, please.

This slide provides an overview of our environmental review process. And an applicant will submit an application to the NRC and it will undergo an acceptance review. We look at the application to see if it complies with our regulations and is sufficiently complete to warrant a further review. If it does, then we docket the application and we submit a Notice of Intent in the Federal Register to prepare an Environmental Impact Statement and to conduct scoping.

For the Levy County application, it was submitted on July 30th to the NRC. It was docketed on October 6th and the Notice of Intent was submitted in the Federal Register on October 24, 2008. Now, what this does is open up a sixty-day window for public comment, and which is why we are right here in this area.

Now, in terms of the information gathering stage, that's why we're in your community today. And we, throughout the week we've been meeting with the Applicant. We visited the site as well as the surrounding area, and we've been discussing the environmental report with the Applicant. We're asking questions and we're trying to obtain more information.

As part of the information gathering stage, we're also here to meet with you tonight for this scoping period. We're interested in your comments. You are familiar with the community and we would like to know about your community and what your concerns are.

In the later half of next year you should see the draft Environmental Impact Statement issued. Again, there will be a notice in the Federal Register notifying you. And what that's going to do is open up another seventy-five-day period for you to comment on the draft Environmental Impact Statement.

In this first process it gives sixty days and down here it will be seventy-five days. And we will incorporate your comments into the Environmental Impact Statement, and then we will issue the final

Environmental Impact Statement in 2010. And the final Environmental Impact Statement will be used as the primary body of evidence in the hearing, environmental evidence in the hearing, and as well the safety review. And it will be used to assist the Commission in making a decision on whether or not to approve the license. Next slide, please.

I would like to use this slide to refocus on why we are here today. We have come to your community with the hope that you will share with us those environmental issues and values that you believe are important for us to consider as we conduct our review. Since we do not live in the community, you may be aware of environmental issues that should be considered before the NRC completes its assessment.

In addition to providing comments and information here today, you have the opportunity to continue to share your comments or provide additional information to us through December 23rd. That's the end of the sixty-day scoping period.

In a later slide it will list how you can send comments to us after today's record is closed, and all comments received during the scoping process

will be included in the scoping summary report. And the scoping summary report should be issued sometime in April or May and it will be identified on our website to notify you.

As mentioned earlier, comments applicable to the NRC's environmental review will be considered in NRC's development of the draft Environmental Impact Statement. Next slide, please.

This slide shows the various sources that we use to obtain information. And the key point that I want to make is that the Staff's EIS is an independent evaluation of the effects of the plant, of the proposed plant, on the environment and local community. Although we're starting with the Applicant's environmental report, we are investigating information from many other sources. Next slide, please.

To conduct our review we've assembled a team, an interdisciplinary team, of NRC staff with backgrounds in the scientific and technical disciplines. The NRC has contracted with the Pacific Northwest National Laboratory. They are a Department of Energy laboratory, and the Information Systems Laboratory to assist us with preparation of the

Environmental Impact Statement.

The NRC team is comprised of experts with wide-ranging topics related to environmental issues as well as nuclear power plants. Next slide, please.

Again, you can submit your written comments for the scoping process through December 23. We do have copies of the Federal Register of Notice of Intent on the tables there in the back of the room. And this notice, the notice itself will describe how you, the public, can submit your scoping comments. And this slide also shares, or the next slide will show that information.

Once the staff completes the draft Environmental Impact Statement, the NRC will make it publically available to allow the public to provide comments on the draft Environmental Impact Statement. As I mentioned earlier, this opens up a seventy-five day window for your comments. Additionally, in 2009 we will have another public meeting here in your community, not necessarily at this facility, but in the community, to share the results of our review and to receive your comments.

Your comments will be evaluated and addressed in the final Environmental Impact

Statement, and the Agency expects to issue the Final Environmental Impact Statement in 2010.

An integrated schedule for the Levy County project has not been finalized and the milestone dates are estimated. And the NRC's website, and specifically the project website, project webpage, will provide that information when it becomes available. And the link to the Levy County web page is listed on this next slide. Next slide, please.

Comments on today's meeting can be provided by mail, e-mail, or in person at these following addresses, and I will be providing this slide at the end of the presentation for your information. Next slide, please.

I am now going to go into the hearing process. The hearing process offers another opportunity to have public involvement, and the public has sixty days from the publishing of the hearing to petition to -- from the publishing of the hearing notice to petition to intervene in the hearing. Anyone who wishes to file a petition to intervene should give the hearing notice close attention. It provides important information related

to intervention. And it is important to note that that should be published within the next few days in the Federal Register.

In order to file a Petition to Intervene, you must obtain digital certificate approval in advance or seek a waiver from the digital certificate requirement. And information regarding the process will be provided in the hearing notice and on the website on this slide.

It is also important not to wait until the last week of the notice period because it can take up to ten days to receive your digital certificate. Next slide, please.

Once more, the environmental review process is beginning and the public comment period for scoping ends on December 23. You can participate in the scoping process here today and the meeting on the draft Environmental Impact Statement. The NRC web page for the Levy County project can help you stay informed of related topics such as scheduling and access to the draft and Final Environmental Impact Statement.

To petition for leave to intervene in the hearing process, again you must receive digital

certificate approval before you can file a petition, and then the hearing covers both the safety and the environmental reviews. And to obtain more information you can go to the web page at the -- or connect on the link at the bottom of this slide. Next slide, please.

Again, my name is Doug Bruner. I am the Environmental Project Manager for this project. Brian Anderson is the Safety, the lead Safety Project Manager. And our contact information is listed here.

In addition, as I previously mentioned, our documents can be reviewed on NRC's website at the link provided here. We've also been fortunate that the local libraries have provided shelf space to us and we have the environmental report at the Citrus County Coastal Regional Library, as well as the Bronson Public Library, and the Dunnellon Branch Library. They are here for your convenience.

If you wish to be on our mailing list, make sure your name and address are provided to one of our NRC staff at the registration desk. This is one way of ensuring that you will be notified of upcoming meetings and ensuring that you will get copies of the draft and final Environmental Impact

idea. Will they be able to start work on the site like the middle of next year once the state issues the permit to do auxiliary buildings, roads and stuff like that to the site, or will it be a longer process than that?

MR. CAMERON: Okay. Let's answer that. And, of course, that's dependent on whether we grant the LWA. But can you provide us any information on that last part?

MR. ANDERSON: The activities that have been requested under the limited work authorization cannot be started until an LWA is issued. So until our LWA review is complete, and if the LWA request is approved, only then can those limited work activities begin. And, like I said, we're still developing the complete review schedule. And once that review schedule is completed that will be made publically available.

Just to give you a ballpark time frame, we expect that somewhere on the order of two years will be required to complete our entire review process for the limited work authorization. And that's a ballpark time frame. The detailed review schedule activities will be made publically available

once we've completed the development of our schedule.

MR. CAMERON: Thank you very much. We have Andy Kugler from the NRC staff that is going to add a little footnote.

MR. KUGLER: Okay. Thank you, Chip. One thing I wanted to make clear because there is some confusion about this, I think. There are some activities that the Applicant may want to take on site to prepare the site that don't require NRC authorization. So, for instance, you mentioned putting roads in. That activity does not require an NRC authorization. It has nothing to do, no relationship to reactor safety. So there are some things they can undertake before we have issued a limited work authorization or a combined license.

Now, there are still permits and licenses they may require from other agencies, either federal, or state, or local and they still have to get those authorizations. And we don't have control over that or over the timing of that. But what Brian was talking about is the authorization to start undertaking some limited activities that we have to authorize that are related to safety.

MR. CAMERON: Thank you. That's an

Progress Energy

10 CFR 52.3

Serial: NPD-NRC-2008-005
March 3, 2008

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

Subject: Response to Quality Assurance Audit Report for Shearon Harris Nuclear Power Plant Units 2 and 3
NRC Project Number 738

Gentlemen:

Progress Energy – Carolinas (PEC) has received the report, dated February 15, 2008, of the quality assurance audit conducted by the NRC during the period between October 29, 2007, and November 2, 2007. The audit reviewed the implementation of selected portions of the quality assurance programs of PEC and its contractors related to the development of a combined license application (COLA) for potential new plant construction at the Shearon Harris Nuclear Power Plant (Harris) site.

The NRC audit report identified several issues that were combined into an audit response request (ARR-001). The enclosures to this letter provide PEC's response to ARR-001. Enclosure 1 hereto provides a description of the overall issue and a summary of PEC's position with respect to it. Enclosure 2 addresses in detail each of the deficiencies identified in the NRC audit report. The information also includes, with respect to each deficiency, a description of PEC's basis for concluding that, notwithstanding the deficiency, the work performed by CH2MHILL in support of the Harris COLA was adequately controlled and of sufficient quality for the safety-related activities that rely on such work.

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

Sincerely,

Garry Miller, General Manager
Nuclear Plant Development

Enclosures:
1. Description and Summary of Quality Assurance Issues
2. Discussion of Deficiencies

cc (w/enclosures): 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
U.S. NRC Resident Inspector, SHNPP Unit 1
Ms. Serita Sanders, Project Manager, Division of New Reactor Licensing

Enclosure 1 -- Description and Summary of Quality Assurance Issues

During the NRC audit of the Harris COLA, the audit team identified the following deficiencies regarding the implementation of the CH2MHILL Quality Assurance (QA) program supporting the COLA development. These deficiencies include the failure to:

1) Develop adequate design control procedures reflective of the organizational structure of CH2MHILL;
2) Adequately control the administrative preparation of geological/boring data;
3) Adequately control document revision status related to site field work procedures;
4) Programmatically specify what documents are to be controlled as QA records; and
5) Develop adequate qualification documentation and training records for specific disciplines involved in site work activities.

Except as specifically addressed otherwise, PEC acknowledges the identified deficiencies, which are further discussed in Enclosure 2.

As discussed in the NRC audit report, Progress Energy conducted an audit of CH2MHILL in March 2007 and identified significant programmatic issues with the CH2MHILL QA program. The audit did not include field activities. These problems resulted in the issuance of a Stop Work Order on March 12, 2007. At that time, CH2MHILL had not completed any deliverables in support of the Harris COLA project. Immediate corrective actions were taken to address the programmatic deficiencies and interim corrective actions were established to ensure that design deliverables issued by CH2MHILL met applicable quality standards.

The Stop Work Order was lifted by PEC on May 1, 2007 based on its assessment of the corrective actions completed by CH2MHILL that addressed the issues identified during the audit. These corrective actions included:

- Revisions to the Nuclear Business Group (NBG) Quality Assurance Manual
- Revisions to the NBG Quality Assurance implementing procedures
- Revision of the Quality Assurance Project Plan
- Revisions to and development of new Project Instructions specific to Progress Energy's COLA project work
- Retraining of NBG corporate and project staff on the appropriate Quality Assurance requirements.

In addition, the following compensatory measures were implemented by CH2MHILL:

1) Require an independent review of all deliverables by the CH2MHILL Recovery Manager
2) Require a readiness review of the deliverables by the CH2MHILL Management Review Board prior to issue.

The actions taken focused on ensuring that programs and processes were in place and properly implemented to ensure that CH2MHILL final deliverables in support of the Harris COLA product met required technical and quality standards. A subsequent audit by PEC in October 2007 confirmed completion of required corrective actions and determined that improvements in the CH2MHILL QA program were evident. However, neither CH2MHILL nor PEC reviewed at the time the documentation of the Harris site characterization activities that provided the inputs required to support development of the Harris COLA deliverables.

The deficiencies noted by the NRC related to problems with site characterization activities. These problems should have been identified and corrected by CH2MHILL and PEC. However, the existence of these problems do not indicate that programmatic issues currently exist with the CH2MHILL QA program that would bring into question the acceptability of the data that was generated through CH2MHILL's site investigations. As identified in the PEC October 2007 audit of CH2MHILL, noticeable improvements in CH2MHILL's quality program were evident due to CH2MHILL's addition or revision of procedures, implementation of a rigorous corrective action program, addition of experienced management staff, and increased personnel training.

PEC has conducted or directed the performance of extensive reviews of the work performed by CH2MHILL and its subcontractors in support of the Harris COLA. These reviews included:

1. PEC established a Joint Venture Independent QA Team that included QA and Geotechnical experts from Sargent & Lundy and Worley Parsons, to perform an independent assessment of the Harris site characterization field work. The team was to propose and verify implementation of effective corrective actions to resolve identified issues and to ensure that any impacts to the accuracy and completeness of the Harris COLA have been identified. The results of this review are documented in the Joint Venture Independent Assessment Report dated February 21, 2008.

2. CH2MHILL established a formal procedure (NBG-QA-16-03) and formed a Rapid Response Team to identify, compile, and evaluate the data and documentation for the Harris COLA project field work activities performed between 2006 and early 2007. The data collection and evaluation were done according to existing Quality Assurance

Program procedures with stringent controls and checklists developed specifically for this evaluation activity. The review resulted in the determination that the field data were "qualified" for their intended use. Results are documented in the "Data Qualification Report for the Progress Energy Harris COLA Project" (338884-RPT-011).

3. CH2MHILL also performed a detailed "crosswalk" of the applicable requirements from NQA1 (1994), Subpart 2.20, "Quality Assurance Requirements for Subsurface Investigations for Nuclear Power Plants," against the Quality Assurance Program implemented by CH2MHILL in its site work. The crosswalk was developed to demonstrate that, to the extent that differences existed between the Quality Assurance Program and Subpart 2.20, the differences did not result in non-conforming work activities, or if non-conforming work activities resulted, the non-conformances have been identified and corrected. The results of this review are documented in CH2MHILL Data Qualification Report (338884-RPT-011).

4. An outside consultant, experienced in similar site characterization field work, conducted a review of the approach taken by PEC and the Joint Venture Team members, including CH2MHILL, to address the NRC- identified concerns. The consultant reviewed the deficiencies identified and corrective actions implemented and was able to confirm that appropriate actions were taken to resolve the identified concerns.

Identified issues arising from these reviews were captured in the CH2MHILL corrective action program and collectively reviewed to assess the overall impact to the Harris COLA through CH2MHILL Corrective Action Report 338884-CR-008-08.

The various review activities conducted by PEC, CH2MHILL and Joint Venture teams led to the following conclusions:

1. The subsurface investigation field activities performed by CH2MHILL and its subcontractors at the Harris site produced technically acceptable results with appropriate controls adequately implemented.

2. After application of CH2MHILL's corrective action program, the site characterization activities conducted at the Harris site meet the intent of the Basic and Supplementary requirements of ASME NQA-1 (1994).

Through these efforts, PEC has determined that the corrective actions taken are appropriate and result in comprehensive resolution of the deficiencies identified by the NRC. In addition,

PEC has reviewed identified deficiencies and the corrective actions and reports provided by CH2MHILL, the Joint Venture Team and an outside consultant and concluded that the work performed by CH2MHILL in support of the Harris COLA was adequately controlled and of sufficient quality for safety-related activities.

The NRC audit report requested a detailed discussion that describes the actions taken to correct the deficiencies, including the methods used to evaluate the adequacy of corrective actions implemented by CH2MHILL and their impact on the accuracy and completeness of the Harris COLA. Enclosure 2 addresses in detail each of the deficiencies identified in the NRC audit report. The information also includes, with respect to each deficiency, a description of the basis relied on by PEC for concluding that, notwithstanding the deficiency, the work performed by CH2MHILL in support of the Harris COLA was adequately controlled and of sufficient quality for the safety-related activities that rely on such work.

Enclosure 2 – Discussion of Deficiencies

Deficiency #1
Failure to develop adequate design control procedures reflective of the organizational structure of CH2M

NRC Issue:

NBG-QA-03-01 provides further and specific guidance to CH2M's engineering calculation package preparers on the process for design control. This procedure was revised in response to significant programmatic deficiencies identified during PE's audit of CH2M. The details of this audit are discussed in more detail in Section 3.11 of this report. However, the NRC audit team observed that the context of this revision included text directly from NQA-1-1994 without proper consideration of the organizational structure of CH2M. Specifically, the revised procedure referenced a "Design Manager," "Project Assistant" and "Project CADD Coordinator" which are positions that do not exist within the CH2M organization. Therefore, the guidance described in NBG-QA-03-01 cannot be implemented as written and is a programmatic deficiency of the CH2M QA program. This is identified as an example of the programmatic deficiencies identified in ARR-001 discussed in Section 1.1 of this report. [NRC Audit Report PROJ0740-2007-001, Section 3.2.b.1]

PEC Response:

While the condition identified by the NRC Staff in this deficiency is correctly stated based on the information reviewed by the NRC during the audit, it does not result in a shortcoming of the design control process as it was applied by the CH2MHILL QA program for the Harris work, because there were project-specific standards that defined the design control process for that project. Accordingly, this deficiency does not have a direct impact on the work performed by CH2MHILL for the Harris COLA Project.

The following information is provided to clarify the scope and intent of CH2MHILL's corporate design control procedure NBG-QA-03-01. Procedure Section 3.4, Design Team Organization, states, "The Project Design Team typically consists of four roles." It also adds, "The design project is typically organized according to Figure 2" (emphasis added). CH2MHILL developed the procedure to allow flexibility of organizational structure based on the Scope of Work, size and complexity of various CH2MHILL corporate projects. As allowed in Section 4.1 of NBG-QA-03-01, CH2MHILL elected to

have the Project Manager serve as the Design Manager for the Harris COLA Project. The CH2MHILL Quality Assurance Project Plan for Progress Energy "Combined License" Applications, which is the project document that defines how the CH2MHILL quality assurance program is implemented for the Harris COLA project, has been revised to specifically clarify and define who performs the roles and responsibilities of the Design Manager for the Harris COLA Project.

CH2MHILL does not currently have any nuclear projects where a "Project Assistant" or a "Project CADD Coordinator" are assigned, because the project activities do not warrant their assignment. No such assignments were made for the Harris COLA project.

Based on the information presented above, PEC believes that the condition described in Deficiency # 1 had no impact on the appropriateness of the design or field work activities performed by CH2MHILL for the Harris COLA project.

Deficiency #2

Failure to adequately control the administrative preparation of geological/boring data

NRC Issue:

Examples of administrative deficiencies, such as incomplete, unclear, and inconsistent information were identified by the NRC audit team during the review of geological/boring data and were brought to the attention of PE project personnel. These administrative deficiencies were entered into the corrective action program as corrective action reports (CARs) 338884-CR-007-07, 338884-CR-009-07, and 338884-CR-012-07. At the conclusion of the NRC audit, these CAR items remained open. The failure of PE and CH2M to adequately control the preparation of geological/boring data is considered an example of the programmatic deficiency identified in ARR-001 discussed in Section 1.1 of this report. [NRC Audit Report PROJ0740-2007-001, Section 3.4.b.2]

PEC Response:

In addition to the CRs noted in the NRC deficiency, CH2MHILL initiated Condition Report CR-338884-CR-037-07 to identify and disposition administrative and technical deficiencies in the geological and boring data developed by CH2MHILL and its subcontractors. The CR tabulated each deficiency by identifying the deficiency, the affected document and page number, the correct information that should be shown in the affected document, the basis for the correction, and the disposition in the form of the corrective action completion. Additionally, each deficiency was evaluated for its impact to the technical adequacy of the work product, and the engineering justification for the impact conclusion was provided.

The CH2MHILL Data Qualification Report was prepared by a Rapid Response Team that was charged by CH2MHILL senior management to identify, compile, and evaluate the data and documentation for the Harris COLA project field work activities performed between 2006 and early 2007. The purpose was to determine whether the data developed by CH2MHILL and its subcontractors in support of the Harris COLA Project were "qualified for submittal," in accordance with CH2MHILL's procedure NBG-QA-15-02, "Data Qualification and Evaluation Process". It was the intent of this data qualification process, as documented in the report, to demonstrate that the Harris field data were obtained, developed, and processed in compliance with applicable quality assurance requirements. The Data Qualification Process is designed to provide assurance that the data are acceptable for use in downstream documents, such as the

Final Safety Analysis Report and the design calculations and analyses that rely on those data.

The data qualification inputs were selected and evaluated, as shown in the Data Qualification Report, to ensure that there was a 100 percent evaluation of the Harris COLA's field work data (e.g., 83 boreholes, hydrological monitoring wells, and surface geophysical work activities).

The Harris COLA field data (e.g., Soil Boring Logs, Rock Coring Logs, Field Log Books, Daily Inspection Diaries, and Tailgate Meeting Forms) underwent a series of internal and external reviews. The Rapid Response Team and CH2MHILL's Chief Geotechnical engineer performed two internal, independent reviews on these data. The Team performed the detailed quality assurance/quality control review of the data and identified deficiencies for input into the Corrective Action Program. The team focused on two elements: Field Record Production and Issue Resolution. Issues identified during the data review were dispositioned through CH2MHILL's Corrective Action Program.

The review resulted in the determination that the field data were "qualified" for their intended use. In addition, CH2MHILL revised the final field borehole gINT log records, Engineering Design File-018, based on the Corrective Action Program discrepancy dispositions. All 83 of the borehole gINT logs were reviewed and corrective actions implemented, as appropriate, to ensure that the data met required quality standards.

In addition to the actions taken by CH2MHILL, a Joint Venture (JV) assessment team was established to perform an independent examination and assessment of CH2MHILL site characterization field activities to determine if the CH2MHILL field activities and supporting documentation were acceptable. Members of this team included geotechnical and QA experts from JV members other than CH2MHILL. The assessment team evaluated the CH2MHILL site activities to confirm full compliance with regulatory and Code (ASME NQA-1) requirements. The sampling and testing of soil (overburden) materials was not considered as part of this review, since this site consists of minimal soil cover that will not impact the safety-related foundation design of the power plants. Thus, the review of data for the existing 83 borings was focused on the materials encountered below the bedrock surface, or top of rock.

The objective of this evaluation was to ascertain the technical and quality acceptability of the CH2MHILL data by:

1. Evaluation of applicable CH2MHILL QA programs, procedures and processes for compliance with the requirements of ASME NQA-1 and supplement/revise said documents as necessary to achieve full compliance;
2. Development of a model Site Investigation Work Plan (SIWP) in accordance with the new QA processes (developed in step 1. above) for performing rock boring, site testing and laboratory testing of rock core samples to establish acceptance criteria for evaluating past activities;
3. Development of a model SIWP in accordance with the required QA processes for performing groundwater monitoring of selected wells to establish acceptance criteria for evaluating past activities;
4. Review and comparison of historic CH2MHILL field documentation (prior to NRC audit) to the acceptance criteria requirements established in the above described model SIWPs;
5. Identification of differences (gaps) between the historic field documentation and the model SIWPs developed by the Assessment Team (see 2 and 3 above);
6. Review of CH2MHILL's corrective action system to assure that identified differences were properly identified and resolved;
7. Summarization of the results of the independent assessment in a report that assesses the acceptability of previous CH2MHILL site activities.

The Independent Assessment team performed an evaluation of the following areas:

1. Surveying Activities
2. Exploratory Rock Coring
3. Geophysical Testing, including:
    a. Downhole testing
    b. Pressuremeter tests
4. Groundwater Monitoring, including:
    a. Well location
    b. Well installation
    c. Water levels
    d. Well purging
    e. Well slug testing
    f. Field data
5. Laboratory Examination

The Independent Assessment Team's evaluation of the five areas noted above identified 22 issues and sub-issues related to the NRC-identified deficiencies. These

additional items were entered into the CH2MHILL corrective action program, and the necessary corrective actions have been completed.

Based on the information presented above, PEC has concluded that, notwithstanding the administrative deficiencies identified by the NRC and other reviewing organizations, that resolution of these deficiencies through the corrective action program resulted in data of sufficient quality for the safety-related activities for the Harris COLA project.

Deficiency #3

Failure to adequately control document revision status related to site field work procedures

NRC Issue:

The NRC audit team noted that different procedure revisions were identified in the final report than what was prescribed in the Harris COLA Site Investigation Work Plan. The OYO P-S Suspension Seismic Velocity Logging procedure was revision 1.31 in the final report and revision 1.2 in the work plan. The Down-hole Seismic Velocity Logging Procedure was Revision 1.1 in the final report and revision 1.0 in the work plan. At the time of the NRC audit, neither PE nor CH2M were aware of this discrepancy. This issue was immediately entered into PE's corrective action program as CAR 338884-CR-011-07. At the conclusion of the NRC audit, this CAR item remained open. The failure of PE and CH2M to adequately control document revision status is considered an example of the programmatic deficiency identified in ARR-001 described in Section 1.1 of this report.

The NRC audit team also determined that there was no formal QA review completed of the Harris COLA Site Investigation Work Plan. Additionally, it was noted that technical procedures used by two subcontractors, for rock pressure meter testing and suspension logging, did not clearly specify training and qualification requirements for the test operators. These deficiencies were entered into PE's corrective action program as CAR 338884-CR-010-07. At the conclusion of the NRC audit, this CAR item remained open. The failure of PE and CH2M to perform a formal QA review of the completed Harris COLA Site Investigation Work Plan is considered an example of the programmatic deficiency identified in ARR-001 described in Section 1.1 of this report. [NRC Audit Report PROJ0740-2007-001, Section 3.6.b.2]

PEC Response:

This deficiency asserts three different issues. Each is addressed separately below.

1. Vendor Procedure Revisions

The Site Investigation Work Plan (SIWP), Revision 3, pursuant to which CH2MHILL performed its field work at the Harris site, includes as attachments GEOvision procedures OYO P-S Suspension Seismic Velocity Logging Procedure (Attachment B-6), and The Down-hole Seismic Velocity Logging Procedure (Attachment B-11).

GEOvision has acknowledged that its final report incorrectly referenced Revision 1.31 of the OYO P-S Suspension Seismic Velocity Logging procedure, whereas it should have referenced Revision 1.2, which was the one used in conducting the work and was in accordance with the work plan. Therefore, this deficiency was in the nature of an administrative error without substantive significance. This deficiency and corrective action was addressed in Condition Report 338884-CR-011-07.

GEOvision has also confirmed that the final report correctly referenced Revision 1.1 of the Downhole Seismic Velocity Logging procedure as the procedure used to perform the work at the Harris site, as opposed to Revision 1.0 which was identified in the SIWP. Condition Report 338884-CR-11-07 addressed this deficiency and corrective action. The corrective action involved a step-by-step review of the two revisions of the procedure to identify changes, and an evaluation of the changes to determine their impact on the quality and technical adequacy of the work performed. CH2MHILL concluded, based on an evaluation of the changes, that the use of Revision 1.1 of the procedure did not impact the technical adequacy or the quality of this work activity. The investigation for Condition Report 338884-CR-011-07 identified additional work activities performed per procedures outside the SIWP. Each instance was reviewed and an engineering evaluation determined that these discrepancies did not impact the technical adequacy of the work product.

2. QA Review of SIWP

This deficiency was addressed in CH2MHILL Condition Report 338884-CR-010-07. Investigation of this deficiency confirmed the NRC finding that a QA review of the SIWP was not conducted prior to issuing Revisions 1, 2, or 3 of the SIWP. As part of the corrective action, a QA review of each revision of the SIWP was conducted. The investigation concluded that the SIWP revisions, though lacking some quality attributes, were adequate to ensure that the site investigations conducted were complete and would provide data with sufficient technical content and quality attributes to support the Harris COLA.

The JV Independent Assessment team confirmed through its evaluation of the SIWP that the appropriate testing requirements (field instructions/procedures) were referenced and attached to the plan, and that the lack of a QA review of the work plan had no discernable adverse effect on the acceptability of the subsurface investigation results.

PEC concluded from these reviews that the Harris COLA activities performed under the SIWP were adequately controlled and met quality requirements for safety-related activities.

3. Training and Qualification Requirements

This deficiency was addressed in CH2MHILL Condition Report CR 338884-CR-10-07. The condition report confirmed that the training and qualification requirements were not specifically identified in the test procedures for rock pressure meter testing and suspension logging. CH2MHILL corrective actions included contacting the subcontractors to determine the qualification requirements for personnel conducting these tests, reviewing the information provided and verifying the qualification for these personnel. CH2MHILL evaluated the qualification documentation and verified the personnel performing the testing activities were appropriately qualified and trained to perform this work at the Harris Site.

PEC reviewed the actions taken by CH2MHILL and the information provided by the subcontractors and concluded that the issues identified in this deficiency have been appropriately resolved and the quality of the field data generated by CH2MHill and its subcontractors for the Harris COLA project is adequate.

Deficiency #4

Failure to programmatically specify what documents are to be controlled as QA records

NRC Issue:

Project QA managers for PE and its contractors were interviewed with regard to their processes for the collection, storage, and maintenance of QA records. Although the NRC audit team verified that most records sampled were developed and controlled in accordance with the applicable program guidance, the team did identify an area of concern regarding the records generated by CH2M and its subcontractors. Specifically, the NRC audit team identified that CH2M's QA record program did not specify what documents were to be controlled as QA records. PE immediately entered this issue into its corrective action program as CAR 338884-CR-014-07. At the conclusion of the NRC audit, this CAR remained open. The failure by CH2M to specify what documents were to be controlled as QA records is identified as an example of the programmatic deficiency identified in ARR-001 described in Section 1.1 of this report. [NRC Audit Report PROJ0740-2007-001, Section 3.11.b.2]

PEC Response:

This deficiency is documented in CH2MHILL Condition Reports 338884-CR-014-07 and 338884-CR-011-08. Corrective actions from these CRs were twofold:

1. Revision of Project Instruction 338884-PI-03-07 to clearly define the field documents which must be controlled as field records. These documents include:
    a. The completed attachments from the Field Safety Instruction;
    b. The completed Quality Inspection Checklists;
    c. Completed M&TE logs;
    d. Completed field calibration forms;
    e. Completed training rosters;
    f. Completed Site characterization logs and data sheets, including those completed by subcontractors (e.g., soil boring logs, soil characterization logs, and point break test logs);
    g. Completed sample management documents;
    h. Completed documents which identify authorized site activities, including personnel and their affiliation;
    i. Completed field change documentation, processed per NBG-05-01, Document Development and Change;

j. Completed documents generated from the various field sites and offices, such as calculations, engineering design files, technical memoranda, etc.

2. Revision of the QA Project Plan to clearly identify what documents constitute QA records for the project. These documents are:
   a. NBG Procedures
   b. Department Instructions
   c. NBG Quality Assurance Manual (QAM)
   d. Quality Assurance Project Plan (QAPP)
   e. Site Work Implementation Plan (SWIP)
   f. Project Instructions
   g. M&TE Usage Log, History File, Inventory Log, Calibration Log
   h. Design Record Documents (DRDs)
   i. Engineering Design Files (EDFs)
   j. Calculations and Design Related Documents
   k. Design Input Transmittals (DITs) and DIT Log
   l. Request for Information (RFIs) Form, Documentation, Weekly Status Report
   m. Software Documents
   n. COLA Chapters (text, tables, figures, validation package)
   o. Personnel Training/Qualification Records
   p. Assessment Reports
   q. Assessment Schedules
   r. Audit Report
   s. Condition Reporting and Corrective Action Documentation
   t. Correspondence
   u. Document History Files Packages
   v. MRB Meeting Minutes
   w. ENG-FM-003 Forms
   x. ENG-FM-010 Forms
   y. Evaluated Suppliers List
   z. Management and Independent Assessments
   aa. PE Response Letter and Comment Resolution Form
   bb. QA Record Transmittal/Receiving Forms, QA Records Review Checklists
   cc. Rapid Response Team Charter, Data Packages, MRB Minutes
   dd. Record of Auditor Qualification/Certification
   ee. Stop Work Order
   ff. Surveillance Report
   gg. Procurement Documents and Purchase Orders

Since the initiation of the project, CH2MHILL has maintained quality records as required by the Project Quality Procedure (referred to as Quality Assurance Project Plan or QAPP after Revision 2) which specified QA record requirements as follows:

> "Sufficient records shall be maintained to furnish evidence of activities affecting quality. The records shall include at least the following: Operation logs and the results of reviews, training records, inspections, tests, audits, monitoring of work performance, and materials/site analyses. The records shall also include closely-related data such as qualifications of personnel, procedures and equipment. Inspection and test records shall as a minimum identify the date performed, inspector or data recorder, the type of observation, the results, the acceptability, and the action taken in connection with any deficiencies noted."

PEC conducts an Owners Acceptance Review (OAR) of the COLA and supporting documents (drawings, reports, calculations). Documents receiving an OAR are maintained as QA records. Therefore, those CH2MHILL documents that are supplied as inputs to the COLA are also maintained by PEC as QA records.

Based on the information presented above, PEC concluded that appropriate mechanisms are in place for classifying relevant records as QA records for the Harris COLA project so that they can be properly controlled.

Deficiency #5

Failure to develop adequate qualification documentation and training records for specific disciplines involved in site work activities

NRC Issue:

The NRC audit team identified several deficiencies in the CH2M training and qualification program. Specifically, the CH2M QA program did not contain adequate quaiification and training records for personnel qualified as "Calibration Personnel," Geologists," "Field Engineers," and "Software Verifiers." The NRC audit team identified that there was no apparent training program established for qualifying personnel to perform calibration of measuring and test equipment, nor were there any on-the-job training records that would indicate that personnel were qualified to perform the calibration activity. Additionally, the quality records for the positions of "Geologist," "Field Engineer," and "Software Verifier," consisted only of resumes and a training log indicating attendance at an indoctrination session on CH2M QA programs. The NRC audit team was unable to identify specific qualification records for individuals classified under these job titles. The failure of CH2M to develop adequate qualification and training records are considered examples of the programmatic deficiencies identified in ARR-001 described in Section 1.1 of this report. [NRC Audit Report PROJ0740-2007-001, Section 3.13.b.2]

PEC Response:

The qualification and training of CH2MHILL and subcontractor personnel performing field work activities at the Harris site was not adequately documented or readily retrievable at the time of the audit. Since that time, CH2MHILL has identified and retrieved existing qualification and training records, both internally and from subcontracted companies. CH2MHILL has also obtained signed statements from project management personnel to certify adequate qualification and training had been conducted prior to performing field work activities at the Harris site.

Qualification of Personnel - The CH2MHILL qualification requirements for education and experience are stated in procedure NBG-QA-02-01, Appendix A. Records were reviewed to identify the CH2MHILL and subcontractor personnel that performed work at the Harris site. Information sources included existing qualification and training records, time reporting records, and daily field documentation. Existing documentation of each individual's qualifications (e.g., resumes, work experience and dates of employment, and licenses) was also retrieved. The records of qualifications for each individual

identified were compared to the qualification requirements in NBG-QA-02-01 and the results were documented to ensure that individuals were qualified for the role they performed as part of the site investigation. The Project Manager reviewed the individuals' qualifications and supplied a signed statement certifying that, based on the review of qualification records, each individual that performed field activities at the Harris site was qualified prior to performing work. As a result of this effort, previously identified deficiencies regarding qualification of personnel have been resolved. Documentation of qualifications is now on file at CH2MHILL for individuals who performed work at the Harris site.

The NRC audit report identified deficiencies regarding the documentation of qualifications of specific positions including calibration personnel, geologists, field engineers, and software verifiers. The CH2MHILL qualification procedure, NBG-QA-02-01, Appendix A, lists the qualification requirements by the following types of positions: Manager, Supervisor, Operators, Technicians, Maintenance, Technical Staff, Quality, Inspection and Test, and Administrative. Appendix B to the procedure provides expanded information regarding the educational requirements for each type of position and also provides several typical job designations that would fall under each position type.

Geologists, field engineers, and software verifiers fall under the position type of "Technical Staff." Calibration personnel are classified as "Technicians." The training and qualification requirements for these positions are set forth in procedure NBG-QA-02-01 and its attachments.

CH2MHILL has confirmed that those personnel who worked at the Progress Energy Harris site were indeed qualified in accordance with position-specific qualification requirements prior to the performance of the work at the site. CH2MHILL has also confirmed the qualifications of the software verifiers who did not work on site, but worked in support of the project.

The results of this review confirmed that the qualification of personnel who performed work at the Harris site met established CH2MHILL requirements.

Training of Personnel - In conjunction with the efforts described above regarding qualification of personnel, training of individuals that performed work at the Harris site and documentation of that training were also subjected to a comprehensive review. As identified in the NRC audit, the available documentation of training consisted only of

logs of individuals indicating attendance at training sessions on specified CH2MHILL programs and procedures.

To supplement the existing training documentation, information was gathered that demonstrates that adequate training was provided and documented for CH2MHILL employees and subcontractors prior to their performing work at the Harris site. Sources of information included training rosters, daily field documentation of site work, and electronic training notifications, including participant responses. In addition, project management, including the CH2MHILL field team leads, have supplied signed statements certifying that personnel that performed work at the Harris site were adequately trained prior to performing work. Evidence of training provided is now on file at CH2MHILL for individuals involved in Harris site investigation activities, either in the form of contemporaneous evidence of training or subsequent trainer statements.

Qualified and trained CH2MHILL field team leads were on site directly overseeing the field work activities. Field team leads were interviewed as part of this investigation, and confirmed that their observation of the manner in which the actual work was accomplished provided evidence that personnel were, in fact, adequately qualified and trained to perform their assigned tasks. This information further supports the conclusion that personnel performing work demonstrated adequate knowledge and understanding to satisfactorily complete assigned tasks.

Documentation of training as described above is now on file at CH2MHILL for individuals involved in Harris site investigation activities.

Calibration training - Deficiency 5 also states: "The NRC audit team identified that there was no apparent training program established for qualifying personnel to perform calibration of measuring and test equipment, nor were there any on-the-job training records that would indicate that personnel were qualified to perform the calibration activity." The audit team correctly states that there was no training program for qualifying the personnel of CH2MHILL and its onsite subcontractors to perform calibration of measuring and test equipment (M&TE), but this does not constitute a deficiency in the CH2MHILL QA program because no calibration of measuring and test equipment was conducted onsite. Instead, calibration of such equipment was performed offsite by qualified subcontractors or vendors. These calibrations were performed to National Institute of Standards and Technology standards and/or the lab performing the calibration was accredited by the National Voluntary Accreditation Program or the American Association for Laboratory Accreditation. A basis for

acceptance was determined for equipment identified in the Engineering Design Files as well as equipment identified by Measuring and Test Equipment Logs.

During the audit, the NRC identified an instance of a CH2MHILL employee filling out an M&TE calibration form but no M&TE calibration training records were available for this employee. Condition Report 338884-CR-013-07 was initiated to address this discrepancy. It was determined that the individual in question had inappropriately used a M&TE form to document the field verification of a piece of non-measuring and test equipment.

Based on the information presented above, PEC believes that the conditions described in Deficiency # 5 had no impact on the appropriateness of the design or field work activities performed by CH2MHILL for the Harris COLA project.

April 7, 2008

MEMORANDUM TO: Stephanie M. Coffin, Chief
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

FROM: Juan D. Peralta, Chief */RA/*
Quality & Vendor Branch 1
Division of Construction Inspection
& Operational Programs
Office of New Reactors

SUBJECT: REVIEW OF RESPONSE TO AUDIT RESPONSE REQUEST TO NRC AUDIT REPORT OF PROGRESS ENERGY PRE-COMBINED OPERATING LICENSE APPLICATION ACTIVITIES CONDUCTED BETWEEN OCTOBER 29, 2007, AND NOVEMBER 2, 2007

By Letter dated March 3, 2008, Progress Energy (PE) provided a response to the U.S. Nuclear Regulatory Commission (NRC) Quality Assurance Audit Report for Shearon Harris Nuclear Power Plant Units 2 and 3 dated February 15, 2008. The report described the quality assurance audit conducted by the NRC on pre-combined license application (COLA) activities performed by PE and its sub-contractors in support of the Harris COLA development program. The audit was conducted during the period between October 29, 2007, and November 2, 2007.

The staff has reviewed the responses provided in the PE letter dated March 3, 2008, which address each of the issues identified in the NRC audit report as Audit Response Request (ARR-01), and found that PE's reply to the ARR-01 is responsive to our concerns. We have no further questions or comments at this time.

CONTACT: Greg S. Galletti, CQVP/DCIP/NRO
301-415-1831

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Docket 090009-EI
Progress Energy Florida
Exhibit No. ____ (GM-11)
54 Pages

THIS DOCUMENT IS REDACTED IN ITS ENTIRETY

Question # 10

Please list each of the "number of factors" PEF will be weighing in assessing how to proceed with the project." (Miller May 2009 Testimony, p. 14; lines 22-23)

Answer

PEF will be weighing many factors including: the overall projected cost of the project; the terms and conditions of any EPC contract amendment; availability of labor, materials, and equipment; continued legislative, regulatory, and customer support for the project at both the state and federal levels; the ability to access necessary capital; the ability to obtain capital on reasonable terms and conditions; the outcomes of PEF's pending base rate proceeding and nuclear cost recovery clause proceeding; the NRC's completion of its review of the AP1000 DCD revisions 17; the ability to obtain all necessary permits in a timely manner; federal and state policies on climate change, renewable energy, and energy efficiency; micro- and macro-economic conditions; customer load growth; the ability to site and construct the necessary transmission facilities for the project; and the ability to obtain joint ownership on acceptable terms and conditions. In addition, there may arise other factors that could affect the company's decision to proceed which are not known or foreseeable at this time.