

**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

**In re: Nuclear Cost Recovery  
Clause**

**DOCKET NO. 100009  
Submitted for filing: March 1, 2010**

**DIRECT TESTIMONY  
OF JON FRANKE  
  
ON BEHALF OF  
PROGRESS ENERGY FLORIDA**

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**IN RE: NUCLEAR COST RECOVERY CLAUSE**

**BY PROGRESS ENERGY FLORIDA**

**FPSC DOCKET NO. 100009**

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**I. INTRODUCTION AND QUALIFICATIONS**

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**Q. Please state your name and business address.**

**A.** My name is Jon Franke. My business address is Crystal River Nuclear Plant, 15760 West Power Line Street, Crystal River, Florida 34428.

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

**A.** I am employed by Progress Energy Florida, Inc. ("PEF" or the "Company") in the Nuclear Generation Group and serve as Vice President – Crystal River Nuclear Plant.

**Q. What are your responsibilities as the Vice President at the Crystal River Nuclear Plant?**

**A.** As Vice President – Crystal River Nuclear Plant, I am responsible for the safe operation of the nuclear generating station. The Plant General Manager, Engineering Manager and Training sections report to me. Additionally, I have indirect responsibilities in oversight of major project activities at the station. Through my management team I have about 420 employees that perform the daily work required to operate the station and provide engineering and training support to the station.

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FPSC - CCH/RECOVERY GROUP

1 **Q. Please summarize your educational background and work experience.**

2 **A.** I have a Bachelor's degree in Mechanical Engineering from the United  
3 States Naval Academy at Annapolis. I have a graduate degree in the same  
4 field from the University of Maryland and a Masters of Business  
5 Administration from the University of North Carolina at Wilmington.

6 I have over 20 years of experience in nuclear operations. I  
7 received training by the U.S. Navy as a nuclear officer and oversaw the  
8 operation and maintenance of a nuclear aircraft carrier propulsion plant  
9 during my service. Following my service in the Navy, I was hired by  
10 Carolina Power and Light and have been with the company through the  
11 formation of Progress Energy. My early assignments involved  
12 engineering and operations, including oversight of the daily operation of  
13 the Brunswick nuclear plant as a Nuclear Regulatory Commission  
14 ("NRC") licensed Senior Reactor Operator. I was the Engineering  
15 Manager of that station for three years prior to assignment to Crystal River  
16 as the Plant General Manager in 2002. Approximately two years ago I  
17 was promoted to my current position.

18  
19 **II. PURPOSE AND SUMMARY OF TESTIMONY**

20 **Q. What is the purpose of your direct testimony?**

21 **A.** My direct testimony supports the Company's request for cost recovery  
22 pursuant to the nuclear cost recovery rule for certain costs incurred in  
23 2009 for the Crystal River 3 ("CR3") Extended Power Uprate project. My

1 testimony also supports the Company's request for a prudence  
2 determination of the costs incurred for the project in 2009.

3 Specifically, I will describe the construction costs incurred for  
4 which PEF is seeking recovery of the carrying costs. I will explain why  
5 those construction costs were reasonable and necessary to accomplish the  
6 uprate. My testimony further supports the prudence of those costs by  
7 describing the process by which vendors and technology were selected. I  
8 will also provide testimony regarding PEF's project management policies  
9 and procedures that are designed to manage project costs and maintain the  
10 project schedule and explain why they are reasonable and prudent.

11  
12 **Q. Do you have any exhibits to your testimony?**

13 **A.** No, however, I am sponsoring the cost portions of Schedules T-4, T-4A,  
14 T-6, and Appendix B, and sponsoring Schedules T-6A through T-7B of  
15 the Nuclear Filing Requirements ("NFRs"), which are included as part of  
16 the exhibits to Will Garrett's testimony. Schedule T-4 reflects Capacity  
17 Cost Recovery Clause ("CCRC") recoverable Operations and  
18 Maintenance ("O&M") expenditures for the period. Schedule T-4A  
19 reflects CCRC recoverable O&M expenditure variance explanations for  
20 the period. Schedule T-6 and Appendix B reflect the construction  
21 expenditures for the project by category. T-6A reflects descriptions of the  
22 major cost categories of the expenditures. T-6B reflects explanations for  
23 the significant variances between these expenditures and previously filed  
24 projections. Schedule T-7 is a list of the contracts executed in excess of

1 \$1.0 million. Schedule T-7A reflects details pertaining to the contracts  
2 executed in excess of \$1.0 million. Schedule T-7B reflects contracts  
3 executed in excess of \$250,000, but less than \$1.0 million.

4 All of these schedules are true and accurate.

5  
6 **Q. Please summarize your testimony.**

7 **A.** The Crystal River Unit 3 Uprate Project (“CR3 Uprate”) is expected to be  
8 completed in three phases and is expected to result in the Company  
9 generating an additional estimated 180 MWe of efficient nuclear power.  
10 The Company successfully completed the first phase of the project during  
11 the 2007 refueling outage, and it was brought online in January 2008.  
12 During 2009, PEF incurred reasonable and prudent costs to plan for and  
13 carry out the second phase of the project, which occurred during the 2009  
14 refueling outage. PEF also incurred some costs in support of the third  
15 phase of the project, currently scheduled for the next CR3 refueling  
16 outage. This included incurring costs necessary to secure long lead-time  
17 equipment necessary for the phase 3 outage work. The work performed for  
18 the second phase of the uprate project was completed and the equipment  
19 was installed during the 2009 refueling outage. The CR3 unit is now in an  
20 extended outage but currently is expected to return to service in 2010.  
21 The extended outage at CR3 does not impact the uprate project  
22 construction costs, either for the 2009 work or the work to be completed  
23 during the next refueling outage. Progress Energy is presently reviewing

1 the schedule for the 2011 outage and may decide to shift the outage to  
2 2012. Such a shift would likely change the timing of some project costs.

3 As demonstrated in my testimony, and the NFRs filed as exhibits  
4 to Mr. Garrett's testimony, PEF took adequate steps to ensure that the  
5 costs it incurred were reasonable and prudent. When selecting vendors,  
6 PEF utilized a Request for Proposals ("RFP"), or competitive bidding,  
7 process where appropriate, and used reasonable business judgment to  
8 select sole-source vendors when an RFP was not possible. For all its  
9 contracts, PEF negotiated as favorable contract terms as it could given  
10 market conditions to provide reasonable cost certainty and appropriate  
11 risk-sharing. Accordingly, the Commission should approve PEF's uprate  
12 project costs incurred in 2009 as reasonable and prudent pursuant to the  
13 nuclear cost recovery rule.

14  
15 **III. DESCRIPTION AND STATUS OF CR3 UPRATE PROJECT**

16 **Q. Please explain when and how the CR3 Uprate project will be**  
17 **accomplished.**

18 **A.** The CR3 power uprate project is planned for completion in three  
19 scheduled refueling outages for CR3. As I noted above, given the current  
20 CR3 outage, PEF may shift its scheduled 2011 refueling outage to 2012.  
21 If this occurs, PEF anticipates completing the third phase of the uprate  
22 during this outage. By completing this work during the times when CR3  
23 will already be offline, customers receive the benefits of the CR3 Uprate  
24 project without incurring replacement energy costs.

1 Phase I, the MUR, was installed during the 2007 refueling outage  
2 and went on-line on January 31, 2008. The MUR is a series of  
3 engineering analyses to measure the “secondary heat balance” with  
4 improved accuracy through modifications to plant instrumentation and  
5 associated calculations. The improved accuracy in measuring the  
6 secondary heat balance allows the rated thermal power to be increased by  
7 41 thermal megawatts (“MWt”) and plant electrical generation to increase  
8 by approximately 12 megawatts electric (“MWe”).

9 Phase 2 of this project is a series of improvements to the efficiency  
10 of the secondary plant also known as the Balance of Plant (“BOP”). The  
11 current BOP phase 2 work was completed during the 2009 CR3 refueling  
12 outage. This work included fuels analysis, safety analysis and system and  
13 program reviews for the license application; project management  
14 activities, including project plans, governance and oversight to ensure  
15 reasonable costs; permitting activities to obtain environmental permits for  
16 facilities and other construction activities; labor costs associated with  
17 mobilizing and maintaining temporary facilities to house the extra  
18 personnel needed; and outage work including, among other things,  
19 installation of four moisture separator reheaters, two secondary cooling  
20 heat exchangers; two turbine bypass valves and mufflers; modification of  
21 the turbine generator electrical output bus duct cooling system;  
22 replacement of the turbine generator exciter; rescaled integrated control  
23 system; and installation of a fiber optic “backbone” to interface with the  
24 new turbine monitoring equipment.

1                   The third and final phase of the uprate is to be completed during  
2 CR3's next scheduled refueling outage. At that time, PEF anticipates  
3 completing the remaining work necessary to provide the remaining 140  
4 MWe power uprate, called the Extended Power Uprate ("EPU"). The  
5 BOP phase improvements were sized to support the EPU. The EPU  
6 maximizes the output of the reactor and the BOP to their ultimate  
7 estimated capacity.

8                   The current Phase 3 scope of work also includes installing new,  
9 larger Low Pressure Turbines for the unit. Based on blade disc slippage  
10 during the manufacturer's bunker spin testing in April 2009, the Company  
11 decided to defer installation of the Low Pressure Turbine replacements at  
12 CR3. PEF is currently negotiating with the turbine manufacturer  
13 regarding the Low Pressure Turbines and evaluating its options for  
14 finalizing this part of the Phase 3 work.

15                   The remaining phase of the CR3 Uprate project is currently on  
16 schedule to be performed during the next scheduled CR3 refueling outage.

17  
18 **Q.           Have the improvements made with the BOP phase been completed?**

19 **A.**       Yes, the improvements were completed. The CR3 unit will return to  
20 service after the extended, unplanned outage because a delamination of the  
21 concrete in the containment building wall was discovered while work was  
22 being done for the Steam Generator Replacement ("SGR") project.

23



1 **Q. Did the CR3 Uprate project work have something to do with the**  
2 **extended outage?**

3 **A.** No. The delay is unrelated to the CR3 Uprate project.  
4

5 **Q. How did PEF choose the vendors with which it contracted during the**  
6 **2009 timeframe?**

7 **A.** PEF employed a competitive bidding process to choose the vendors with  
8 which it contracted in 2009 for the various projects associated with the  
9 CR3 Uprate project. PEF issued an RFP, evaluated the RFP responses  
10 based on a variety of factors (including price, dependability of the vendor,  
11 technical considerations, and the like), and chose the vendor that provided  
12 the best value for the price.

13 A detailed description of the contracts executed in excess of  
14 \$250,000, including the dollar value and term of the contract, the method  
15 of vendor selection, the identity and affiliation of the vendor, and current  
16 status of the contract, is contained in Schedules T-7 through T-7B,  
17 included in the exhibit to Mr. Garrett's testimony.  
18

19 **IV. COSTS INCURRED IN 2009 FOR CR3 UPRATE PROJECT**

20 **Q. Has the Company incurred costs for the CR3 Uprate project in 2009?**

21 **A.** Yes, PEF incurred costs related to the last two phases of the CR3 Uprate  
22 project. The total capital expenditures for 2009, gross of joint owner  
23 billing and exclusive of carrying cost, were \$118,140,493. These costs  
24 cover (i) license application costs, (ii) project management costs, (iii)

1           permitting costs, (iv) on-site construction facility costs, (v) power block  
2           engineering, procurement and related construction costs, and (vi) non-  
3           power block engineering, procurement, and related construction costs.  
4           Schedule T-6A further details these costs.

5  
6           **Q.       Please describe the total License Application costs incurred and**  
7           **explain why the Company incurred them.**

8           **A.**       The License Application costs reflected on the T schedules were  
9           \$20,016,839. These licensing application activities are necessary to gain  
10          regulatory commission approval of the license change. These activities  
11          include fuels analysis, safety analysis and system and program reviews.

12  
13          **Q.       Please describe the total Project Management costs incurred and**  
14          **explain why the Company incurred them.**

15          **A.**       The Company incurred Project Management costs of \$21,154,156. The  
16          Company's Project Management costs include the following Project  
17          Management activities:

18          (1) project administration, including project instructions, staffing, roles  
19          and responsibilities, and interface with accounting, finance, and senior  
20          management;

21          (2) contract administration, including status and review of project  
22          requisitions, purchase orders, and invoices, contract compliance, and  
23          contract expense reviews;

- 1 (3) project controls, including schedule maintenance and milestones, cost  
2 estimation, tracking and reporting, risk management, and work scope  
3 control;
- 4 (4) project management, including project plans, project governance and  
5 oversight, task plans, task monitoring plans, lessons learned, and task item  
6 completions;
- 7 (5) project training, including the uprate project training program, training  
8 of personnel in accordance with the training program, and maintaining  
9 training records; and
- 10 (6) management of CR3 Uprate licensing work.

11 Each activity was conducted under the Company's project  
12 management and cost control policies and procedures that I describe in my  
13 testimony below. Such costs are necessary to ensure that the scope of  
14 work is adequate to achieve the uprate project objectives, that the  
15 engineering and construction labor, material, and equipment, provided by  
16 PEF or outside vendors for the project, is available when needed at a  
17 reasonable cost, and that the project schedule can be maintained.

18 The CR3 Uprate project was planned to be completed during the  
19 2009 and 2011 CR3 refueling outages. Through the Project Management  
20 activities that I have identified, the Company successfully completed the  
21 2009 work on-schedule. These necessary CR3 Uprate project costs are  
22 reasonable and prudent.  
23

1 **Q. Please describe the total Permitting costs incurred and explain why**  
2 **the Company incurred them.**

3 **A.** Permitting costs incurred were \$882,003 for permitting needs for 2009.  
4 These costs were necessary for the permitting activities to support the  
5 construction work in 2009. PEF incurred costs to develop the  
6 environmental report associated with the LAR. PEF also incurred  
7 Permitting costs to obtain the environmental permits for facilities and  
8 other construction activities. These Permitting costs were prudently  
9 incurred.

10  
11 **Q. Please describe the total On-Site Construction Facilities costs incurred**  
12 **and explain why the Company incurred them.**

13 **A.** On-Site Construction Facilities costs incurred were \$1,203,995.  
14 This represents the labor costs associated with mobilizing and  
15 maintaining temporary facilities to house the extra  
16 personnel needed to implement Phase 2 of the EPU. These On-Site  
17 Construction Facilities costs were prudently incurred.

18  
19 **Q. Please describe the total costs incurred for the Power Block**  
20 **Engineering, Procurement and related construction cost items and**  
21 **explain why the Company incurred them.**

22 **A.** The Company incurred \$71,243,000 for Power Block Engineering,  
23 Procurement, and related construction cost items. Most of the costs

1 incurred in this category in 2009 were associated with the outage scope of  
2 work which included:

- Installation of 4 Moisture Separator Reheaters
- Installation of 2 Secondary Cooling Heat Exchangers
- Installation of 2 Moisture Separator Reheater Shell Side Drain Heat Exchangers
- Installation of 4 Turbine Bypass Valves and Mufflers
- Modification of the Turbine Generator Electrical Output Bus Duct Cooling System
- Installation of 2 Condensate Heaters
- Replacement of the Turbine Generator Exciter
- Turbine Generator Electrical Stator Rewind
- Rescaled Integrated Control System
- Installation of a fiber optic "backbone" to interface with new turbine monitoring equipment
- Installation of 2 Secondary Cooling Pumps and Motors
- Installation of a Turbine Lube Oil Cooler
- Installation of Heater Drain Valves
- Plant computer updates
- Facilities

3 PEF's 2009 Power Block Engineering and Procurement costs were  
4 necessary for the timely completion of the CR3 Uprate work during the 2009  
5 refueling outage and the next planned refueling outage. These costs were  
6 prudently incurred.

7  
8 **Q. Please describe the total costs incurred for the Non-Power Block**  
9 **Engineering, Procurement and related construction cost items and**  
10 **explain why the Company incurred them.**

11 **A.** These costs total \$3,640,540. They are associated with the studies the  
12 Company completed on the effects of the increased heat at the Point of  
13 Discharge. These costs are necessary for the project because PEF will not

1 be able to complete the full uprate without analyzing and accommodating  
2 the higher water temperature in the discharge canal. These costs were  
3 prudently incurred.

4  
5 **Q. How did actual capital expenditures for January 2009 through**  
6 **December 2009 compare to PEF's estimated/actual projection for**  
7 **2009?**

8 **A.** PEF's actual capital expenditures in 2009 were over PEF's  
9 estimated/actual projection by \$602,941. This variance is primarily driven  
10 by additional Licensing Amendment Request preparation costs and  
11 Permitting activities partially off-set by Non-Power Block Engineering  
12 work. The variances are explained below.

13 At the time of the Estimated/Actual filing, the assigning of  
14 costs into the filing categories was based on general assumptions that were  
15 determined to be the most appropriate guidelines to assign costs to the  
16 categories at that time. As the project has matured and a more detailed  
17 task structure has been implemented, the Company established a new  
18 and more accurate method for assigning costs to the various categories.  
19 This change did not affect the total project cost or the total capital  
20 expenditure variance, but did affect variances within individual categories,  
21 particularly in Project Management, Power Block Engineering, and On-  
22 Site Construction Facilities.

1                   **License Application:**

2                   The 2009 License Application capital expenditures on the T-6 schedule  
3                   were \$20,016,839 with a total estimate of \$16,277,263, resulting in a  
4                   variance of \$3,739,576. The actual cost of the License Amendment  
5                   Request increased due to additional, more detailed information included in  
6                   the LAR. During 2009, the Company convened a previously planned  
7                   expert panel to review the LAR preparation. This panel was part of the  
8                   project plan to ensure quality control of products and as a part of industry  
9                   best practices. Further analysis and engineering work was conducted to  
10                  increase the level of detail provided in the content of the Request and in  
11                  the supporting documentation. The expert panel review determined that  
12                  such changes in format and content would provide greater assurance of  
13                  NRC acceptance and reduced review complexity, resulting in fewer  
14                  Requests for Additional Information (“RAIs”) and responses.

15  
16                  **Project Management:**

17                  Project Management capital expenditures were \$21,154,156. The original  
18                  estimate was \$39,666,137, resulting in a variance of \$18,511,981. This  
19                  variance is primarily driven by the new method for assigning costs to  
20                  categories as discussed above.

21  
22                  **Permitting:**

23                  Permitting capital expenditures were \$882,003. The original estimate was  
24                  \$151,463, resulting in a variance of \$730,540. The variance was primarily

1 due to the need for environmental permits to support the project and  
2 temporary facilities that were not originally anticipated in the projected  
3 facilities plan.

4  
5 **On-Site Construction Facilities:**

6 On-Site Construction Facilities capital expenditures were \$1,203,955. The  
7 original estimate was \$4,223,713, resulting in a variance of \$3,019,758.

8 This variance is primarily driven by actuals only capturing the labor to  
9 manage facilities work due to the change in method for assigning costs to  
10 the categories as described above. All costs to mobilize, rent, and  
11 maintain the temporary facilities needed to house the additional personnel  
12 for the EPU Phase 2 implementation that were estimated for this category  
13 are being appropriately captured in the Power Block Engineering category.

14  
15 **Power Block Engineering:**

16 Power Block Engineering capital expenditures were \$71,243,000. The  
17 original estimate was \$52,560,048, resulting in a variance of \$18,682,952.

18 This variance is primarily driven by the new method for assigning costs to  
19 categories explained above.

20  
21 **Non-Power Block Engineering:**

22 Power Block Engineering capital expenditures were \$3,640,540. The  
23 original estimate was \$4,658,928, resulting in a variance of \$1,018,388.

24 This variance is primarily driven by scope and schedule changes



1 associated with Point of Discharge/Cooling Tower work. As the  
2 engineering evaluation of the New Forced Draft Cooling Tower  
3 progressed, the location of the tower was changed. The new location  
4 relieved the project of relocating a warehouse, thus reducing the project  
5 cost for 2009. Also in 2009, the recirculation line work that was  
6 scheduled to start was put on hold for further evaluation and rescheduled  
7 for 2010.

8  
9 **V. ALL COSTS INCLUDED FOR THE CR3 UPRATE ARE**  
10 **“SEPARATE AND APART FROM” THOSE COSTS NECESSARY**  
11 **TO RELIABLY OPERATE CR3 DURING ITS REMAINING LIFE**

12 **Q. Are the CR3 Uprate project costs included in the NCRC docket for**  
13 **recovery separate and apart from those that the Company would have**  
14 **incurred to operate CR3 during the extended life of the plant?**

15 **A.** Yes, PEF has only included for recovery in this proceeding those costs  
16 that were incurred solely for the CR3 Uprate. In other words, the  
17 Company only included uprate costs that would not have been incurred  
18 but for the CR3 Uprate project. As stated in testimony provided in the last  
19 proceeding, PEF completed several scoping or feasibility studies to  
20 determine the exact nature of the changes necessary to implement the CR3  
21 Uprate project. There are no costs included in the CR3 Uprate project that  
22 would be needed to continue the operation of the plant for an additional  
23 twenty years.

1 **VI. PROJECT MANAGEMENT AND COST CONTROL OVERSIGHT**

2 **Q. Has the Company implemented project management and cost control**  
3 **oversight mechanisms for the CR3 Uprate project?**

4 **A.** Yes. The Company is utilizing several policies and procedures to ensure  
5 that the costs for the CR3 Uprate project are reasonably and prudently  
6 incurred and that the project remains on schedule. The CR3 Uprate  
7 project is being undertaken by the Company consistent with its Project  
8 Management Manual, which has been in place at the Company and used to  
9 manage capital projects since early in this decade.

10 Additionally, because the CR3 Uprate project is a major capital  
11 project for the Company, the project must comply with the Company's  
12 policies and procedures in its Major Capital Projects – Integrated Project  
13 Plan that was issued in 2009. The CR3 Uprate project was also approved  
14 in accordance with the Company's Project Evaluation and Authorization  
15 Process. This evaluation and project authorization process has been in  
16 place at the Company for many years. Finally, the CR3 Uprate project is  
17 subject to the Progress Energy Project Governance Policy, which also has  
18 been in place for many years.

19  
20 **Q. Can you describe some of the project management and cost control**  
21 **policies or procedures in the Company's project management**  
22 **documents that are being used to manage the CR3 Uprate project and**  
23 **control project costs?**

1           A.           Yes. PEF has several control mechanisms in place to manage the CR3  
2           Uprate project and the costs incurred on the project. By utilizing these  
3           policies, PEF is able to effectively keep the CR3 Uprate project on  
4           schedule and ensure that costs incurred are reasonable and prudent.  
5           Additionally, we developed new policies where appropriate to manage the  
6           project.

7                         For example, the CR3 Uprate project management team conducts a  
8           wide variety of regular, internal meetings. These regular meetings allow  
9           the project management team to monitor the progress of the project, its  
10          costs, and to incorporate the collective knowledge and experience of the  
11          team in addressing the scope of the work, the cost of the work,  
12          engineering and construction implementation of the work items, and  
13          schedule performance. During these meetings PEF's project management  
14          team reviews team member roles and responsibilities, tasks are identified,  
15          and the necessary steps to implement the tasks, including incorporating  
16          lessons learned, are planned. Any staffing issues are discussed and  
17          addressed. Procurement under contracts, through the status of  
18          requisitions, purchase orders, and invoices for necessary engineering and  
19          material, is addressed as well as the status of administration of the  
20          contracts with outside vendors. Project training updates are provided.  
21          The status of work on the uprate licensing is regularly discussed. Risk  
22          management is discussed and addressed. Finally, project management  
23          expectations are communicated and implemented by the CR3 Uprate  
24          project management team.

1 PEF's CR3 Uprate project managers also meet regularly with  
2 outside contract vendors working on the project to review the contract  
3 scope of work, engineering and construction implementation of that work  
4 scope, and the schedule for the work under the vendor contracts. Project  
5 requisitions, purchase orders, and invoices are discussed. Project  
6 management expectations are communicated to the outside vendors. By  
7 maintaining supervision over the project, the project schedule, and the  
8 work performed by outside vendors, PEF is able to anticipate and manage  
9 scope changes, if any, and project expenditures.

10 There are other regular project reviews too. CR3 Uprate project  
11 managers prepare Project Cost Reports that include all contract, labor,  
12 equipment, material and other project cost transactions recorded to the  
13 CR3 Uprate project. Monthly Department Cost Reports reflecting  
14 department capital expenditures for the CR3 Uprate project are also  
15 prepared by the department managers and/or financial analysts. These  
16 reports are regularly reviewed by the CR3 Uprate project management  
17 team.

18 PEF also has monthly PEF Finance Committee meetings, in which  
19 management reviews the CR3 Uprate project costs. Prior to these  
20 meetings, responsible project managers and Finance Management for the  
21 organization review various monthly cost and variance analysis reports for  
22 the capital budget. Variances from total budget or projections are  
23 reviewed, discrepancies are identified, and corrections made as needed.  
24 The specific reports used are the Cost Management Reports produced by

1 PEF Accounting. All cost reporting for the CR3 Uprate project is tied  
2 back to the Cost Management Reports which are tied back to the Legal  
3 Entity Financial Statements. In addition to the monthly Finance  
4 Committee meetings, senior management will periodically review the CR3  
5 Uprate project to monitor its cost and ensure that it is on schedule.  
6

7 **Q. Does the Company have any policies or procedures in place to assess  
8 and mitigate project risks?**

9 **A.** Yes. PEF has a robust risk identification and mitigation process. The  
10 Company routinely assesses various project risks and assigns each risk  
11 with a probability of occurrence and level of importance in terms of effect  
12 on project schedule and cost. PEF then develops multiple mitigation  
13 strategies to eliminate or minimize the risk. The Company keeps detailed  
14 logs of these risk analyses, which are updated on a periodic basis. By  
15 utilizing this risk management process, the Company can effectively  
16 identify and prevent risk factors from affecting the project schedule and  
17 cost.

18 **Q. Are employees involved in the CR3 Uprate Project trained in the  
19 Company's project management and cost control policies and  
20 procedures?**

21 **A.** Yes, they are. PEF's project management team for the CR3 Uprate project  
22 has been trained in these Company policies. There are formal Project  
23 Manager qualification requirements for projects of various sizes as well as  
24 for other roles within the Project Team (Designated Representative, Field

1 Lead, etc.). Members of the CR3 Uprate project management team have  
2 experience implementing these project management and cost control  
3 policies and procedures successfully on other Progress Energy projects.  
4 Members of the Project Team also have been hired from other  
5 organizations bringing a rich mixture of experience to meet the project's  
6 demands.

7  
8 **Q. How has this experience helped the Company's employees with the**  
9 **project management of the CR3 Uprate project?**

10 **A.** PEF incorporated lessons learned from its experience with the uprates at  
11 other Progress Energy nuclear plants. Having been through those uprates,  
12 the Company has valuable experience that the Company can rely on in the  
13 course of this uprate project. The Company's prior experience adds value  
14 to all aspects of this uprate project, including staffing, vendor  
15 relationships, scheduling, and cost management.

16  
17 **Q. You mentioned outside vendors on the CR3 Uprate project. How does**  
18 **the Company ensure that its selection and management of outside**  
19 **vendors is reasonable and prudent?**

20 **A.** First, a requisition is created in the Passport Contracts module for the  
21 purchase of services. The requisition is reviewed by the appropriate  
22 Contract Specialist in Corporate Services, or field personnel on the CR3  
23 Uprate project, to ensure sufficient data has been provided to process the  
24 contract requisition. The Contract Specialist prepares the appropriate

1 contract document from pre-approved contract templates in accordance  
2 with the requirements stated on the contract requisition.

3 The contract requisition then goes through the bidding or  
4 finalization process. Once the contract is ready to be executed, it is  
5 approved online by the appropriate levels of the approval matrix pursuant  
6 to the Approval Level Policy and a contract is created. Contract invoices  
7 are received by the CR3 Uprate project managers. The invoices are  
8 validated by the project managers and Payment Authorizations approving  
9 payment of the contract invoices are entered and approved in the Contracts  
10 module of the Passport system.

11 When selecting vendors for the CR3 Uprate project, as I indicated,  
12 PEF utilizes bidding procedures through an RFP process when possible for  
13 the particular services or materials needed to ensure that the chosen  
14 vendors provide the best value for PEF's customers. When an RFP cannot  
15 be used, PEF ensures that the contracts with the sole source vendors  
16 contain reasonable and prudent contract terms with adequate pricing  
17 provisions (including fixed price and/or firm price, escalated according to  
18 indexes, where possible). When deciding to use a sole source vendor, PEF  
19 provides sole source justifications for not doing an RFP for the particular  
20 work.

21 In some instances where a sole source vendor must be used, for  
22 example, the vendor selected has particular experience with the plant or  
23 the work required, thus making it advantageous for that vendor to  
24 accomplish the work. In other instances where a sole source vendor is

1 selected, the vendor has a fleet contract (which was secured through an  
2 RFP prior to the CR3 project) in which it provides service for other  
3 Progress Energy nuclear plants. Because of this working relationship, and  
4 the vendor's ongoing knowledge of and experience with Progress  
5 Energy's nuclear plants, it is reasonable for PEF to continue working with  
6 these vendors.

7 The Company has a sole source contract with the vendor AREVA.  
8 Based on its association with Babcock Wilcox, the designer of the CR3  
9 plant, AREVA has particular familiarity and experience with operations of  
10 the plant that makes contracting with them advantageous. Two  
11 amendments to the contract were issued in November and December 2009  
12 respectively related to design and licensing engineering labor for uprate  
13 equipment and the LAR.

14  
15 **Q. Does the Company verify that the Company's project management**  
16 **and cost control policies and procedures are followed?**

17 **A.** Yes, it does. PEF uses internal audits to verify that its program  
18 management and oversight controls are being implemented and are  
19 effective in practice. During the first quarter of 2009, an audit was  
20 conducted to review financial controls related to the Nuclear Plant Cost  
21 Recovery Rule for the CR3 Uprate project. These processes were found  
22 effective. On July 2, 2009, an audit was completed regarding the  
23 effectiveness of project management and cost management for the CR3  
24 Uprate project. Areas needing improvement were risk management,



1 earned value analysis and KPI reporting. The Financial Controls Internal  
2 Auditing Program, financial status reporting, and information and process  
3 management were found effective. As a result of the audit, observations  
4 and recommendations were provided for improvement. The Company  
5 implemented the recommended action plans, and action items with target  
6 dates prior to January 2010 have been completed. Additionally, the  
7 Company's project management policies themselves, included in the  
8 Company project management documents that I have described above,  
9 contain their own mechanisms to ensure that they are followed and  
10 effectively implemented.

11  
12 **Q. Are the Company's project management and cost control policies and**  
13 **procedures on the CR3 Uprate project reasonable and prudent?**

14 **A.** Yes, they are. These project management policies and procedures reflect  
15 the collective experience and knowledge of the Company. As a result,  
16 Company employees have, in preparing the policies and procedures  
17 reflected in the Company's major capital project management documents  
18 that I have identified above, incorporated their experience and knowledge  
19 of project management policies and procedures that work within the  
20 Company and within the industry. These policies and procedures have  
21 also been tested by the Company on other capital projects. Any lessons  
22 learned from those projects have been incorporated in the current policies  
23 and procedures. We revised several of our project management policies in  
24 2009 to incorporate lessons learned. We believe, therefore, that our

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project management policies and procedures are consistent with best practices for capital project management in the industry and are reasonable and prudent.

**Q. Does this conclude your testimony?**

**A. Yes, it does.**