

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**In re: Nuclear Power Plant Cost
Recovery Clause**

DOCKET NO. 080009

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REBUTTAL TESTIMONY OF DANIEL L. RODERICK

**ON BEHALF OF
PROGRESS ENERGY FLORIDA**

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IN RE: NUCLEAR COST RECOVERY CLAUSE

BY PROGRESS ENERGY FLORIDA

FPSC DOCKET NO. 080009

REBUTTAL TESTIMONY OF DANIEL L. RODERICK

I. INTRODUCTION AND SCOPE OF TESTIMONY

1
2 **Q. Please state your name.**

3 **A. My name is Daniel L. Roderick.**

4
5 **Q. Did you file Direct Testimony on February 29, 2008 and May 1, 2008**
6 **in this docket, as well as Supplemental Direct Testimony on July 1,**
7 **2008?**

8 **A. Yes, I filed direct and supplemental direct testimony in support of PEF's**
9 **actual/estimated and projected costs for the Crystal River 3 ("CR3")**
10 **Uprate project.**

11
12 **Q. Have you reviewed the intervenor testimony of William R. Jacobs, Jr.,**
13 **filed on behalf of the Office of Public Counsel ("OPC")?**

14 **A. Yes, I have read Mr. Jacobs' testimony, specifically as it pertains to PEF's**
15 **request for cost recovery under the nuclear cost recovery clause.**

16
17 **Q. What is the purpose of your rebuttal testimony?**

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1 **A.** The purpose of my rebuttal testimony is to respond to Mr. Jacobs'
2 apparent assertion that the Commission should require PEF to conduct an
3 analysis to ensure that any costs associated with the license renewal for
4 CR3 have not been included as part of the Company's request for cost
5 recovery for the CR3 Uprate project. Mr. Jacobs' apparently suggests that
6 this analysis should be a condition to PEF's recovery of its CR3 Uprate
7 project carrying costs through the Capacity Cost Recovery Clause (CCRC)
8 under the Nuclear Power Plant Cost Recovery rule, despite the fact that
9 PEF has already performed such an analysis. I will also address how the
10 Company conducted this analysis and determined whether a particular
11 project should be included in the CR3 Uprate project or whether it was a
12 maintenance item under base rates.

13
14 **Q.** **Does Mr. Jacobs contend that PEF's CR3 Uprate project costs are**
15 **unreasonable or imprudent?**

16 **A.** No, he does not. Mr. Jacobs apparently agrees with PEF that its CR3
17 Uprate project actual costs are prudent and its CR3 Uprate project
18 projected costs are reasonable.

19
20 **Q.** **Does Mr. Jacobs present any evidence that PEF is seeking to recover**
21 **carrying costs on CR3 Uprate project costs that are actually needed**
22 **for the CR3 license renewal and not the CR3 Uprate project?**

1 A. No, he does not. Mr. Jacobs, on pages 9-10 of his testimony, merely
2 provides hypothetical examples of what might happen if a utility were
3 required to make some changes to its nuclear plant for license renewal that
4 were also needed for an uprate at the plant. In fact, Mr. Jacobs
5 specifically references PEF's steam generator replacement as an example
6 of something he assumes is necessary for the extension of CR3's operating
7 life in its license renewal application to the Nuclear Regulatory
8 Commission (NRC) (page 10). However, Mr. Jacobs admits, as he must,
9 that "PEF has not requested that the cost of the steam generator
10 replacement project be recovered via the Nuclear Plant Cost Recovery
11 mechanism." (page 10)

12
13 **Q. Do you agree with Mr. Jacobs' assumption that the steam generators**
14 **are being replaced so that the CR3 license will be extended?**

15 A. No, I do not. Apart from the fact that Mr. Jacobs admits that PEF has not
16 requested that the cost of the steam generator replacement project be
17 recovered via the Nuclear Plant Cost Recovery mechanism, the
18 Company's decision to replace the steam generators is not related to its
19 license renewal application. The steam generators are being replaced
20 because the tubing material used has exhibited over time a tendency
21 toward corrosion and cracking phenomena that will require an increase in
22 refueling interval inspections, time required for these inspections, potential
23 power reductions in operation, and potential repairs. To avoid these future

1 costs and to ensure that CR3 will continue to operate without significant
2 power reductions, Progress Energy decided to replace the steam generators
3 at CR3.

4
5 **Q. Did OPC ask the Company in discovery for any analysis of the capital**
6 **requirements for the CR3 Uprate project and the CR3 license**
7 **renewal?**

8 **A.** No, we did not receive any discovery asking for this information despite
9 receiving and responding to dozens of interrogatories and producing
10 thousands of pages of documents in response to document requests since
11 the Company filed its petition and testimony in this docket on February
12 29, 2008. I was also deposed by OPC on July 1, 2008 and Mr. Jacobs was
13 present at my deposition. I was not asked in that deposition if the
14 Company's license renewal application for CR3 requires the replacement
15 of equipment that is also being replaced in the CR3 Uprate project. Had
16 OPC asked for any of this information, Mr. Jacobs would have known that
17 none of the relevant capital costs for the CR3 Uprate project are necessary
18 for the license renewal for CR3 and he could have avoided filing
19 testimony with respect to PEF.

20
21 **Q. Are any of the capital costs for the CR3 Uprate project for which PEF**
22 **is requesting cost recovery in this proceeding necessary for the license**
23 **renewal for CR3?**

1 **A.** No. No CR3 Uprate project capital costs are necessary for the license
2 renewal. The capital cost items identified in the Company's filings in this
3 proceeding are associated entirely with the CR3 Uprate project. The
4 license renewal application process was initiated before the CR3 Uprate
5 project and is entirely separate from the CR3 Uprate project.

6
7 **Q.** **Has the Company conducted any analysis to determine if any capital**
8 **modifications and costs are necessary to obtain a renewed license**
9 **from the NRC?**

10 **A.** Yes. For approximately three years, PEF has been working on obtaining a
11 renewed license for CR3 from the NRC. As part of that process, PEF has
12 conducted an aging analysis of the various components of CR3. In this
13 analysis, PEF reviewed each piece of equipment within the scope of
14 License Renewal to determine whether it would be able to continue safe
15 operation for an additional twenty years or whether it was necessary to
16 replace it as a condition for receiving a renewed license.

17
18 **Q.** **What were the results of this analysis?**

19 **A.** PEF did not identify any piece of equipment that will need to be replaced
20 in order to obtain the license renewal from the NRC. PEF expects to
21 submit its application to the NRC in January 2009 and, in its application,
22 PEF does not expect to make any recommendations for any necessary
23 equipment replacements.

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Q. The Company regularly conducts maintenance of plant equipment. Has PEF included any of these maintenance costs into the uprate project costs?

A. Absolutely not. PEF has diligently evaluated the uprate project costs to only include those costs for which the uprate has a significant impact on the particular piece of equipment. This issue has arisen several times throughout the planning for the scope of the uprate project, and each time the Company has analyzed the particular cost on a case-by-case basis to determine whether it should fairly be included as an uprate cost.

For example, the control complex chiller is nearing the end of its expected life. Having a new chiller may be beneficial to the uprate project. However, because the CR3 Uprate project is not directly dependent on the chiller being replaced, and because the uprate does not have a significant impact on the performance of the chillers, the Company opted to replace the chiller as part of routine, base rate maintenance.

Another example involves the replacement of feedwater heat exchangers. Due to flow accelerated corrosion (FAC), the walls of the various vessels, pipes and tubes in the nuclear plant can become thin and therefore more prone to fail. PEF must carefully monitor wall thinning to identify components or sections of pipes that need replacement. The uprate will increase the flow rate and temperature. Both these changes result in the walls of the tubes becoming thinner more quickly than if the

1 uprate was not completed. Although PEF could have included the
2 replacement of all components that are somewhat impacted by the uprate,
3 PEF opted to not replace them as part of the uprate because the uprate only
4 incidentally affects their performance. Thus those components will be
5 monitored and replaced as needed as part of normal plant maintenance.
6

7 **Q. How did PEF make the decision whether to include a particular
8 equipment upgrade or replacement in the uprate project?**

9 **A.** PEF continually analyzed whether a particular equipment modification or
10 replacement should be included in the scope of the uprate project as it
11 planned the project scope. These issues regularly arose, and we resolved
12 them by continually interfacing with plant personnel and management
13 during project meetings. We consciously went through the exercise of
14 determining what was part of the uprate project in the engineering and
15 planning for the project. We used our engineering judgment and our
16 extensive, specialized knowledge of the plant materials and equipment, to
17 decide what plant components would be impacted by the uprate and, thus,
18 should properly be included in the uprate project. We have carefully
19 separated the uprate project scope from maintenance items at the CR3
20 plant.

21
22 **Q. Does this conclude your testimony?**

23 **A.** Yes, it does.