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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

KEVIN MURRAY

ON BEHALF OF

PROGRESS ENERGY FLORIDA

DOCKET NO. 110007-EI

April 1, 2011

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

A. My name is Kevin Murray. My business address is 299 First Avenue North, Saint Petersburg, Florida, 33701.

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

A. I am employed by Progress Energy as General Manager of Program and Project Development. My previous position was General Manager of Florida Construction Projects.

**Q. What were your responsibilities as General Manager of Florida Construction Projects?**

A. As General Manager of Florida Construction Projects, I was responsible for the oversight of Progress Energy Florida's ("PEF") major fossil generation projects, including the Crystal River Units 4 and 5 air quality control system projects.

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1 **Q. Please describe your educational background and professional experience.**

2 A. I received my Bachelor of Science Degree in Mechanical Engineering from the  
3 University of Arizona. I have 17 years of professional experience in engineering and  
4 project management within the electric power industry. I started my career in the power  
5 industry with Westinghouse Power Generation (now Siemens) based in Orlando, where I  
6 was employed as an engineer working on power plant proposals. During this time, I  
7 received an award for my work on a project in Thailand. I went to work for El Paso  
8 Corporation as an engineer and then as a project manager. I was involved in projects in  
9 both North and South America, including 1-year residency in Brazil. I joined Progress  
10 Energy in 2004 and served as the director of engineering for the Company's new fossil  
11 power projects. In 2008, I was promoted to General Manager of Florida Construction  
12 Projects for PEF, which included responsibility for implementing the Crystal River Units  
13 4 and 5 air quality control system projects.

14

15 **Q. Are you sponsoring any exhibits with your testimony?**

16 A. Yes. I am sponsoring Exhibit No. \_\_ (KM-1), which is an organization chart showing  
17 the organizational structure the Company has established for management and oversight  
18 of internal company personnel and contractors involved in the Crystal River Project.

19

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

21 A. The purpose of my testimony is to summarize the status of PEF's implementation of the  
22 Crystal River Project, including the variance between actual 2010 project expenditures  
23 and the Estimated/Actual projection submitted in Docket No. 100007-EI. I also will

1 describe some of the measures PEF has taken to ensure that the costs incurred for the  
2 Crystal River Project are reasonable and prudent.

3

4 **Q. What is the current status of the Crystal River Project?**

5 A. The Crystal River Project met the in-service dates set forth in the Integrated Clean Air  
6 Compliance Plan originally approved by the Commission in Docket No. 070007-EI.

7 Over the past year, we have achieved several significant project milestones including  
8 placing the Crystal River Unit 4 Selective Catalytic Reduction (SCR) and Flue Gas  
9 Desulfurization (FGD) systems in-service in May 2010.

10

11 All of the Crystal River Unit 4 and 5 projects are now in-service, and the targeted  
12 environmental benefits have been met or exceeded. The Unit 4 and 5 SCRs reduce  
13 nitrogen oxide (NO<sub>x</sub>) emissions by approximately 90%. The Unit 4 and 5 FGDs remove  
14 97% of the sulfur dioxide (SO<sub>2</sub>) emissions. Currently the project team is focused on  
15 completing close out activities such as punch list items, demobilization and site  
16 restoration.

17

18 **Q. How do the actual project expenditures for the Crystal River Project compare with**  
19 **PEF's estimated/actual projections for the period January 2010 to December 2010?**

20 A. The actual total expenditures for the Crystal River Projects in 2010 were \$55.8 million,  
21 which is approximately \$5.8 million (10%) less than projected in PEF's  
22 Estimated/Actual projection. The difference is attributable to the unused portion of the  
23 project's contingency that is used to manage acknowledged risks that are likely to occur

1 during the project. Risks projected to occur during 2010 did not materialize, but may  
2 still occur during the project closeout process.

3

4 **Q. Please describe the management structure that was used to oversee implementation**  
5 **of the Crystal River Project?**

6 A. PEF has established an organizational structure to ensure prudent decision-making and  
7 project oversight as implementation of the Integrated Clean Air Compliance Plan  
8 proceeds. The specific team for the Crystal River Project is as shown in Exhibit No. \_\_\_  
9 (KM-1). The Company assigned me as the General Manager with primary overall  
10 responsibility and accountability for the Crystal River Project. I oversaw all of the  
11 internal team members as well as all of the external contractors working on the project.  
12 My project management team, which also included a dedicated Project Engineer and  
13 Project Controls personnel, worked with Company personnel from other departments,  
14 including Environmental, Health and Safety Services, Corporate Services, Fossil  
15 Generation, Legal, and Regulatory Planning as needed.

16

17 To promote efficient integration of the new equipment with current operations, the  
18 Company also established a Plant Integration Team (PIT) that was involved through the  
19 startup and commissioning process. The PIT was established early in the life of the  
20 Project to allow for plant operational input into the technical and functional requirements  
21 incorporated in the Project design, operational design features, anticipated operation of  
22 the new systems and performance guarantees. During the construction phase, the PIT  
23 provided interface between me and plant operations, and had the primary responsibility

1 for developing operational maintenance procedures for the new equipment. The PIT  
2 also participated in startup integration for commercial operation.

3

4 **Q. Has the Company implemented policies and procedures to ensure proper**  
5 **management of the Crystal River Project and to control project costs?**

6 A. Yes. The project is being implemented in accordance with the Generation  
7 Construction Department's policies and procedures, which prescribe specific  
8 requirements for project management, quality assurance/quality control (QA/QC),  
9 schedule management, cost accounting and reporting, and other aspects of the project  
10 implementation. These policies and procedures reflect the collective experience and  
11 knowledge of the Company. They have been tested on other capital projects of this  
12 nature and reflect lessons learned from those projects. They also are consistent with best  
13 practices for capital project management in the industry.

14

15 **Q. Are employees involved in the Crystal River Project trained in the Company's**  
16 **project management and cost control policies and procedures?**

17 A. Yes, they are. The project management team for the Crystal River Project has been  
18 trained in these policies and procedures.

19

20 **Q. Does the Company verify that the project management and cost control policies**  
21 **and procedures are followed?**

22 A. Yes, it does. PEF uses internal audits to verify that its program management and  
23 oversight control are in place and being implemented.

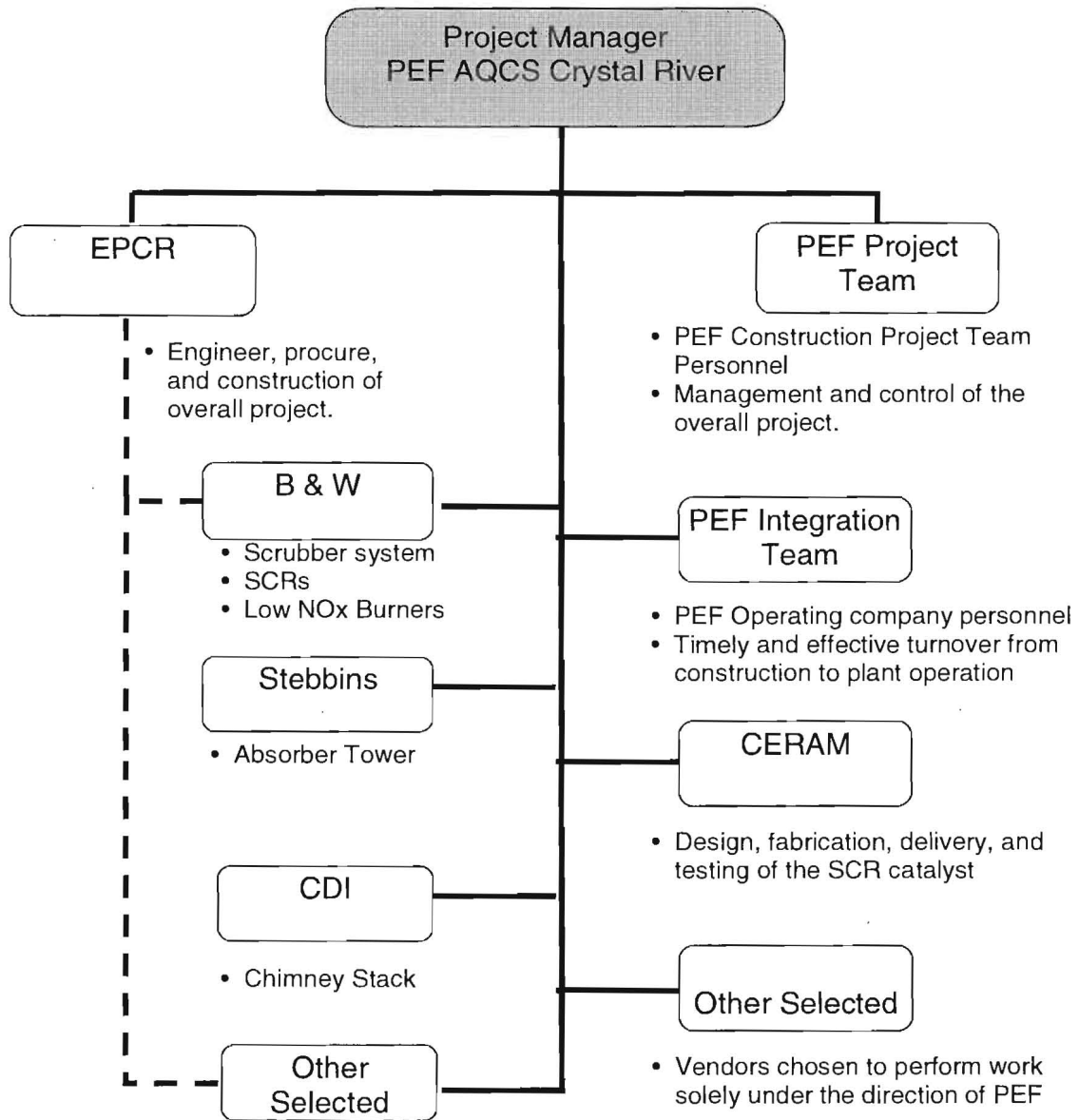
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1 **Q. Has the Company implemented other mechanisms to ensure proper oversight and**  
2 **review of the Crystal River Project?**

3 A. Yes. We have implemented several mechanisms to ensure proper oversight and review  
4 of the Crystal River Project. Among other things, the project management team  
5 regularly prepares Project Cost Reports to track project expenditures against detailed  
6 project scopes to ensure that PEF receives what it contracted for and that any scope  
7 changes are properly evaluated and documented. These reports will continue during the  
8 project closeout process. Also, during construction, we conducted a wide variety of  
9 meetings to maintain supervision of the project and to ensure that Company management  
10 remained fully informed. We conducted regularly scheduled, monthly meetings with  
11 the EPC contractor (Environmental Projects Crystal River or "EPCR") and primary FGD  
12 and SCR design and procurement contractor (Babcock & Wilcox or "B&W") to review  
13 construction progress and the remaining scope of work. Following those meetings, we  
14 held regular monthly meetings with executive management to review the status of the  
15 project and its costs, as well as the administration of the various contracts. Executives  
16 from EPCR and B&W participated in these meetings to ensure that management  
17 expectations were communicated to the outside vendors as well as the project team.

18  
19 **Q. Does this conclude your testimony?**

20 A. Yes, it does.



- Vendors chosen to perform work under contract with PEF by whose day to day activities are coordinated through EPCR.