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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

PATRICIA Q. WEST

ON BEHALF OF

PROGRESS ENERGY FLORIDA

DOCKET NO. 090007-EI

August 28, 2009

Q. Please state your name and business address.

A. My name is Patricia Q. West. My business address is 299 1st Avenue North, St. Petersburg, Florida, 33701.

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

A. I am employed by the Environmental Health and Safety Services Section of Progress Energy Florida (“Progress Energy” or “Company”) as Manager of Environmental Services / Energy Supply Florida. In that position I have responsibility to ensure that environmental technical and regulatory support is provided during the implementation of compliance strategies associated with the environmental requirements for power generation facilities in Florida.

Q. Have you previously filed testimony before this Commission in connection with Progress Energy Florida’s Environmental Cost Recovery Clause?

A. Yes, I have.

1 **Q. Have your duties and responsibilities remained the same since you last filed**
2 **testimony in this proceeding?**

3 A. Yes.

4

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

6 A. This testimony provides estimates of the costs that will be incurred in the year
7 2010 for environmental programs that fall within the scope of my
8 responsibilities to support Progress Energy's power generation group. These
9 programs include the Pipeline Integrity Management Program (Project 3),
10 Aboveground Storage Tanks Secondary Containment Program (Project 4),
11 Phase II Cooling Water Intake 316(b) Program (Project 6), the Integrated Air
12 Compliance Program associated with combustion turbines (Project 7.2) and
13 operation of the air emission controls at Crystal River Units 4 and 5 (Project
14 7.4), Arsenic Groundwater Standard Program (Project 8), Underground Storage
15 Tank Program (Project 10), the Modular Cooling Tower Program (Project 11),
16 the Thermal Discharge Permanent Cooling Tower (Project 11.1), the Green
17 House Gas Inventory and Reporting Program (Project 12), and the Mercury
18 TMDL project (Project 13).

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1 **Q. Have you prepared or caused to be prepared under your direction,**
2 **supervision or control any exhibits in this proceeding?**

3 A. Yes. I am co-sponsoring the following portions of the schedule (TGF-3)
4 attached to Thomas G. Foster's testimony:

- 5 • 42-5P page 3 of 14 - Pipeline Integrity Management
- 6 • 42-5P page 4 of 14 - Above Ground Storage Tank Containment
- 7 • 42-5P page 6 of 14 - Phase II Cooling Water Intake
- 8 • 42-5P page 8 of 14 - Arsenic Groundwater Standard
- 9 • 42-5P page 10 of 14 - Underground Storage Tanks
- 10 • 42-5P page 11 of 14 - Modular Cooling Towers
- 11 • 42-5P page 12 of 14 - Crystal River Thermal Discharge Project
- 12 • 42-5P page 13 of 14 - Greenhouse Gas Inventory and Reporting
- 13 • 42-5P page 14 of 14 - Mercury Total Daily Maximum Loads Monitoring

14
15 **Q. What costs do you expect to incur in 2010 in connection with the Pipeline**
16 **Integrity Management Program (Project 3)?**

17 A. For 2010, we project that Progress Energy will incur a total of \$ \$1,218,000 in
18 O&M and no capital expenditures to comply with the Pipeline Integrity
19 Management ("PIM") regulations (49 CFR Part 195).

20
21 PEF is projecting to spend \$193,000 in O&M on PIM Program Implementation
22 which includes general program management and oversight by PEF employees
23 and contractors who assist with program requirements which include regulatory
24 review, auditing and procedures management, document updates, High

1 Consequence Area (HCA) reviews, spill analyses, integrity assessment planning,
2 pipeline mapping, data integration, risk analyses, preventive and mitigative
3 measures update, and review of alarms and abnormal operating conditions. An
4 additional \$630,000 in O&M will be required to implement risk reduction
5 projects, including bollards at main line valve (MLV)-5, depth of cover repairs
6 and erosion control, atmospheric corrosion inspection and repairs, control room
7 management implementation, pipeline refurbishment MLV operator columns,
8 testing and repair of anodes, Haines Bayshore on-site construction monitor,
9 emergency casing extensions, and public awareness mailing and drills. The
10 Five-Year Reassessment effort will require \$395,000 in O&M expenditures to
11 management the assessment process, including third party review of results,
12 repairs and validation reviews, updating risk analysis and biennial review, and
13 assessment anomaly ranking and documentation close-out.

14

15 **Q. What steps is the Company taking to ensure that the level of expenditures**
16 **for the Pipeline Integrity Management Program is reasonable and prudent?**

17 A. As additional work is identified to comply with the PIM regulations, Progress
18 Energy Florida will identify qualified suppliers of the necessary services through
19 a competitive bidding process.

20

21 **Q. What costs do you expect to incur in 2010 in connection with the**
22 **Aboveground Storage Tank Secondary Containment Program (Project 4)?**

23 A. Progress Energy is projecting to spend \$638,000 in capital expenditures in 2010.
24 These costs are for the tank upgrade work at Bartow which includes: cleaning

1 the tank, performing required inspections, installing and testing new steel double
2 bottom, and preparing and coating the new bottom.

3

4 **Q. What steps is the Company taking to ensure that the level of expenditures**
5 **for the Aboveground Storage Tank Secondary Containment Program is**
6 **reasonable and prudent?**

7 A. As additional work is identified to comply with the Aboveground Storage Tank
8 regulations, Progress Energy Florida will identify qualified suppliers of the
9 necessary services through a competitive bidding process.

10

11 **Q. What costs do you expect to incur in 2010 in connection with the Phase II**
12 **Cooling Water Intake Program (Project 6)?**

13 A. Progress Energy is not anticipating any costs to be incurred in 2010.

14

15 **Q. What costs do you expect to incur in 2010 in connection with combustion**
16 **turbines as part of the Integrated Clean Air Compliance Program (Project**
17 **7.2)?**

18 A. PEF expects to incur \$67,300 in O&M expenditures for the operation and
19 maintenance of predictive emissions monitoring systems at the combustion
20 turbine sites. O&M costs for ongoing software vendor support of these new
21 systems will be \$47,300; and \$20,000 for air emissions testing in the event that
22 such testing is required after maintenance activities.

23

1 **Q. Are there additional costs that you expect to incur in 2010 in connection**
2 **with operation of air emission controls at Crystal River Units 4 and 5 as**
3 **part of the Integrated Clean Air Compliance Program (Project 7.4)?**

4 A. PEF estimates that \$23,056,328 in O&M costs will be spent to support the
5 operation and maintenance of the new air emissions controls that were installed
6 at the Crystal River Energy Complex as outlined in the PEF Integrated Clean
7 Air Plan. Labor costs are expected to be \$3,506,004. This estimate is based
8 upon current staffing levels which were developed after review of similar
9 operations outside of Progress Energy as well as comparison of similar units
10 within the Company. A&G expenses of \$16,871 related to the incremental
11 positions that were created for support of the Integrated Clean Air Compliance
12 Program project. Contractor expenses are expected to be \$2,021,458 for such
13 activities as post-construction modifications not covered by warrantee, new
14 chimney maintenance, limestone and gypsum handling, urea handling, cleaning
15 of pond systems, additional security, gypsum sampler and sample analysis, truck
16 scale maintenance, and contracted equipment maintenance and repairs.
17 Miscellaneous costs for safety equipment and other employee costs are
18 estimated at \$231,759, with parts and materials expected to be \$984,975.
19 Reagent costs (net gypsum sales / disposal, limestone, urea / ammonia, and
20 dibasic acid) are expected to total \$16,295,261.

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1 **Q. What steps is the Company taking to ensure that the level of expenditures**
2 **for the operation of the Crystal River 4 and 5 controls is reasonable and**
3 **prudent?**

4 A. Expenditures will be managed by plant operations personnel and benchmarked
5 against other similar operations. Additional operating and maintenance
6 personnel are only being added as the new equipment and systems are being
7 commissioned and placed into service. The system designs have been reviewed
8 and adjusted to minimize operating and maintenance expenditures as well as
9 capital expenditures.

10

11 **Q. What costs do you expect to incur in 2010 in connection with the Arsenic**
12 **Groundwater Standard Program (Project 8)?**

13 A. Progress Energy continues to work with the Florida Department of
14 Environmental Protection to comply with the terms of the renewed industrial
15 wastewater permit for the Crystal River Energy Complex (January 9, 2007) and
16 the modified Conditions of Certification (November 29, 2007; and June 5,
17 2009). Given this level of uncertainty regarding this program, PEF is not
18 projecting any costs specific to the Arsenic program in 2010.

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1 **Q. What steps is the Company taking to ensure that the level of expenditures**
2 **for the Arsenic Groundwater Standard Program is reasonable and**
3 **prudent?**

4 A. As additional work is identified to comply with the Arsenic standard, Progress
5 Energy Florida will identify qualified suppliers of the necessary services through
6 a competitive bidding process.

7

8 **Q. What costs do you expect to incur in 2010 in connection with the**
9 **Underground Storage Tanks Program (Project 10)?**

10 A. PEF is not anticipating any expenditures in this program during 2010.

11

12 **Q. What costs do you expect to incur in 2010 in connection with the Modular**
13 **Cooling Tower Program (Project 11)?**

14 A. PEF is projecting to spend approximately \$4.2 million in O&M expenditures in
15 2010. These costs are for rental fees associated with the five-year lease
16 agreement that began in 2006.

17

18 **Q. What costs do you expect to incur in 2010 in connection with the Thermal**
19 **Discharge Permanent Cooling Tower (Project 11.1) for 2010?**

20 A. PEF is projecting to spend approximately \$34.6 million in ECRC capital
21 expenditures in 2010. These costs are associated with equipment procurement,
22 site preparation, and construction activities associated with the cooling tower
23 basin, intake/discharge structures, and related systems/structures.

24

1 **Q. What costs do you expect to incur in 2010 in connection with the Green**
2 **House Gas Inventory and Reporting Program (Project 12)?**

3 A. PEF is projecting to spend approximately \$22,500 in O&M in 2010. These
4 costs are for annual Climate Registry fee as well as consulting fees and third-
5 party verification of the inventory.

6

7 **Q. What steps is the Company taking to ensure that the level of the**
8 **expenditure for the Green House Gas Inventory and Reporting Program is**
9 **reasonable and prudent?**

10 A. In 2009 Progress Energy issued a request for proposal to multiple consultants
11 with expertise in the area of green house gas inventory validation. Bids were
12 received and reviewed. A contract effective in May 2009 was established and
13 verification services will be conducted under this contract.

14

15 **Q. What costs do you expect to incur in 2010 in connection with the Mercury**
16 **TMDL Program (Project 13)?**

17 A. Consistent with the March 4, 2009, Petition seeking approval of this new
18 program, PEF expects to spend \$36,077 in 2010. These costs will cover
19 ongoing participation in the FCG / FDEP effort with modeling results and data
20 analyses to be used in the development of upcoming rules.

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- 1 Q. **What steps is the Company taking to ensure that the level of the**
2 **expenditure for the Mercury TMDL Program is reasonable and prudent?**
- 3 A. PEF's has agreed to this level of expenditure in support of the FCG effort with
4 FDEP. No additional funds can be spent without PEF's review and concurrence.
5
- 6 Q. **Does this conclude your testimony?**
- 7 A. Yes it does.