

Matilda Sanders

From: Dana Greene [DanaG@hgslaw.com]  
Sent: Monday, May 15, 2006 10:15 AM  
To: Filings@psc.state.fl.us; Cochran Keating  
Cc: Alex.Glenn@pgnmail.com; Ralph VonFossen  
Subject: Docket 060162-EI  
  
Attachments: Docket 060162-EI - PEF's Response to Staff's Information Request.pdf



Docket  
2-EI - PEF's R

Please see attached Progress Energy Florida's (PEF's) Response to Staff's Information Request regarding PEF's petition for approval to recover modular cooling tower costs through the fuel cost recovery clause. The original is being hand-delivered to your office today.

Thank you.

Dana Greene  
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## Hopping Green & Sams

Attorneys and Counselors

**Writer's Direct Line:  
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May 15, 2006

**BY E-MAIL & HAND-DELIVERY**

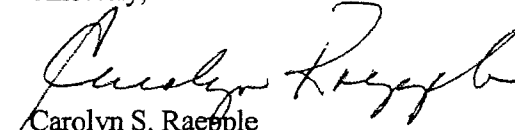
Wm. Cochran Keating IV, Esq.  
Attorney  
Florida Public Service Commission  
Capital Circle Office Center  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

**Re: Docket No. 060162-EI - Petition by Progress Energy Florida, Inc. for approval to recover modular cooling tower costs through fuel cost recovery clause.**

Dear Mr. Keating:

Attached is Progress Energy Florida's (PEF's) Response to Staff's Information Request of April 26, 2006, regarding PEF's petition for approval to recover modular cooling tower costs through fuel cost recovery clause. Please do not hesitate to call me if you have any questions or comments.

Sincerely,



Carolyn S. Raeppe

Enclosure.

cc: Division of the Commission Clerk and Administrative Services  
Division of Economic Regulation (Von Fossen)  
R. Alexander Glenn, Esq.

**Docket No. 060162-EI**  
**Progress Energy Florida, Inc.**  
**Response to Staff Information Request of 4/26/06**

1. **In 1993, Progress installed helper cooling towers (HTCs) on the north bank of the discharge canal at the Crystal River generating site. Please explain why those towers were installed, and please indicate the cost of the towers and the method by which that cost was recovered.**

**Response:** The Helper Cooling Towers (HCT's) were installed as a result of negotiations with the Florida Department of Environmental Protection (FDEP) and the U.S. Environmental Protection Agency (EPA) as a means of offsetting the perceived thermal impacts to the receiving body of water caused by the operation of Unit 3. The thermal limit of 96.5 deg. F on a 3-hour rolling average was also implemented as part of the thermal mitigation agreement. The cost of the HCT's was approximately \$90 million and is being recovered as a part of base rates.

2. **Please describe the HTCs in terms of size, performance, pump-size, and energy demand. In your response, please compare the size, performance, and cost of the HTCs to the size, performance, and cost of the modular cooling towers**

**Response:** Existing HCT design criteria:

- 36 cells - each cell is 50 ft wide x 50 ft long x 55 ft tall
- 4 cooling towers, 9 fan cells per tower (36 cells total)
- Each cooling tower has 4 pumps with a capacity of 171,750 gallons per minute (gpm)
- 103 deg. F inlet water \*
- 89.5 deg. F outlet water \*
- Approximately 16 megawatts power consumption
- \$90,074,992.00 (1993 \$) / approx. \$124,200,000 (2006 \$)

Modular cooling tower design criteria:

- 67 cooling towers - each tower is 12 ft wide x 30 ft long x 19 ft tall
- 10 fans per tower
- Water for the 67 cooling towers is provided by:
  - 3 pumps @ 15,000 gpm
  - 24 pumps @ 4,000 gpm
  - 39,000 gpm supplied from HCT pumpsfor a total of 180,000 gpm
- 103 deg. F inlet water \*
- 88.2 deg. F outlet water \*
- Approximately 6 megawatts power consumption
- Cost - \$19 million over five years

\* based on 81 deg F ambient wet bulb temperature

**Docket No. 060162-EI**  
**Progress Energy Florida, Inc.**  
**Response to Staff Information Request of 4/26/06**

- 3. Please indicate whether the HCTs have performed as designed and explain the basis for your response.**

**Response:** The cooling towers met or exceeded design performance criteria at installation. The criteria were established to cool 687,000 gpm of water from 103 deg. F to 89.5 deg. F at a given ambient wet bulb temperature. To date there has been no observed degradation in HCT performance.

- 4. Please provide the operational history of the HCTs.**

**Response:** Initial HCT operation began in 1993. The HCTs are operated in the summer months as needed to meet the 96.5 deg F discharge canal temperature limit.

- 5. Please indicate whether Progress has received approval for its modular cooling tower project from the Florida Department of Environmental Protection. If approval is pending, please indicate when Progress anticipates receiving approval.**

**Response:** On April 3, 2006 PEF received the final air construction permit (# 0170004-010-AC) allowing the construction and operation of the modular cooling towers. The construction permit expires on April 30, 2007. Before the permit expires, PEF must revise the Title V permit (# 017004-009-AV) to include the conditions of the construction permit. To expedite this process, in its permit application to the FDEP, PEF requested concurrent processing of the construction and Title V operating permits. The proposed Title V permit is in the EPA review period which will end in mid-May 2006. If EPA has no comment on the permit, it is expected to be finalized by late May or early June 2006.

Upon review of final project scope and description, FDEP determined that a minor modification to the NPDES permit (# FL000159) is required for the operation of the modular cooling towers. Application with supporting documentation has been submitted to FDEP, and a final permit is expected by June 1, 2006.