

November 8, 2006

RECEIVED

Trina Vielhauer
Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulations, Bureau Chief
2600 Blair Stone Road

NOV 09 2006

BUREAU OF AIR REGULATION

Re:

**FPL Turkey Point Expansion Project** 

PA 03-45 Conditions of Certification & PSD-FL-338

**Cooling Tower Drift Certification** 

Dear Ms. Vielhauer,

Tallahassee, FL 32399-2400

FPL's Turkey Point Expansion Project Condition of Certification XXVIII.C. 4. and Prevention of Significant Deterioration (PSD) permit PSD-FL-338 Section III. C. 2. read as follows:

"Within 60 days of commencing operation, the licensee shall certify that the cooling tower was constructed to achieve the specified drift rate of no more than 0.0005 percent of the circulating water flow rate."

In accordance with these conditions, FPL is hereby submitting the drift certification letter provided by GEA Power and Cooling, Inc.

Please let me know if you have any questions and/or require additional information. You can reach me at (561) 691-7518.

Sincerely,

Barbara P. Linkiewicz

Environmental Licensing Manager Florida Power & Light Company

CC:

Darrel Graziani, DEP Southeast District Office

Errin Pichard, DEP Division of Air Resource Management

Laxamana Tallam, DEP Southeast District Office

Lee Hefty, DERM Luis Otero, DERM

Steven Palmer, DEP Siting Office



## **GEA Power Cooling, Inc.**

143 Union Blvd., Suite 400 Łakewood, Colorado 80228 Telephone: (303) 987-0123 Facsimile: (303) 987-0101

April 27, 2005

Mr. Dale Woltman
Florida Lakes Power Partners
c/o Black & Veatch Corporation
11401 Lamar Avenue
Overland Park, KS 66211

Subject:

Turkey Point Expansion Project

Homestead, Florida

Subcontract Number 138729.62.0601

GEA Job Number 05-003

Dear Mr. Woltman:

GEA Power Cooling, Inc. hereby certifies that the cooling tower provided at the Turkey Point Expansion Project has been designed and constructed in accordance with the drift rate guarantee as specified in Subcontract Number 138729.62.0601.

Should you have any questions or require additional information, please do not hesitate to contact me at your convenience.

Very truly yours,

Jason Nesseth Project Manager

cc:

A. Atherton

T. Farber



Turkey Point Expansion Project
Project No.: 138729

Cooling Tower
Specification No.: 62.0601

3/31/05

Lightning protection system (specified in the attached Technical Specification)  Erection (specified herein and in the attached Technical Specification)  Tower type  Rectangular, Multi-Cell, Counter Flow, Induced Mechanical Structural framework material  Fiberglass  Circulating water quality  Saltwater from ground - See Attachments 5 and 6  Cooling tower orientation  Long Axis of Tower is East-West  Cooling tower arrangement  Back to Back (Maximum area 650'-0" x 100'-0")  Cooling tower fill media type  Low Clog Vertically Fluted Film Fill - GEA AFE-20  The selected fill shall have a minimum of 10 years of successful in service operation. The Supshall provide a sample of the selected fill to the Purchaser for review.  Economic evaluation of proposals will be made on the basis of the following costs:  Fan motor auxiliary power, per kW  Tower pumping head, per ft H <sub>2</sub> O  \$140,400 per foot For Each Foot of Pump Head in Excess of 42.0 Feet.  Design conditions, each tower  Inlet circulating water flow, gpm  Inlet circulating water temperature, °F  105.6	
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Inlet circulating water temperature, °F 105.6	<b>27</b> 7 I
0.41-4	
Outlet circulating water temperature, °F 87.0	
Ambient wet-bulb temperature, °F 79.1	
Inlet wet-bulb temperature, °F 81.1	
Ambient dry-bulb temperature, °F 95.00	
Drift, maximum percent of inlet circulating 0.0005 water flow	
Off-design conditions, each tower	
Inlet circulating water flow, gpm (lpm) 296,800	
Inlet circulating water temperature, °F 92.6	
Outlet circulating water temperature, °F 77.0	
Ambient wet-bulb temperature, °F 65.3	
Inlet wet-bulb temperature, °F 67.3	
Maximum expected dry-bulb temperature, °F 101.0	
Minimum expected dry-bulb temperature, °F 30.0	
Maximum expected wet-bulb temperature, °F 84.0	
Minimum expected wet-bulb temperature, °F 30.0	