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BUREAU OF AIR REGULATION

August 16, 2000

Mr. Joseph Kahn, P.E.  
Bureau of Air Regulation  
Florida Department of Environmental Protection  
2600 Blair Stone Rd.  
Tallahassee, Florida 32399-2400

Dear Mr. Kahn:

Re: Crystal River Helper Cooling Towers  
Withdrawal of Permit Modification Application  
Permit # 017-0004-007AC, PSD FL-139A

On September 20, 1999, Florida Power Corporation (FPC) submitted an application to modify the construction permit for the helper cooling towers at the Crystal River plant. This application requested removal of the requirement to perform EPA Method 5 particulate testing on these cooling towers. As you know, the DEP recently issued an Order on Request for an Alternate Sampling Procedure (ASP) for the cooling towers. This ASP replaces the permit requirement to perform Method 5 particulate testing with a work practice standard.

Since it is no longer necessary to modify the construction permit, FPC withdraws the September 20, 1999 modification application. FPC will request that the ASP be incorporated into the Crystal River Title V operation permit.

Thank you for your cooperation on this issue. Please contact Mike Kennedy at (727) 826-4334 if you have any questions.

Sincerely,

W. Jeffrey Pardue, C.E.P.  
Director

EPA

NPS

ONE POWER PLAZA, 263 - 13th Avenue South, BB1A, St. Petersburg, FL 33701-5511 •  
P.O. Box 14042, BB1A • St. Petersburg • Florida 33733-4042 • (727) 820-5151  
*A Florida Progress Company*

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 04-Aug-2000 03:55pm

**From:** Martin Costello TAL  
COSTELLO\_M

**Dept:** Air Resources Management

**Tel No:** 850/921-9511

**To:** Joseph Kahn TAL

( KAHN\_J )

**Subject:** Crystal River ASP

attached is the ASP which allows a work practice instead of PM testing. It went out June 9th.

Let me know if you need a signed copy.

Marty

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the matter of:	)	Permit No.	0170004-
004-AV	)		
	)		AC 09-
162037	)		
	)		PSD-FL-139
Florida Power	)		
Corporation,	)		
	)		
Petitioner.	)	ASP No.	00-E-01

ORDER ON REQUEST  
FOR  
ALTERNATE PROCEDURES AND REQUIREMENTS

Pursuant to Rule 62-297.620, Florida Administrative Code (F.A.C.), Florida Power Corporation petitioned for approval to use a work practice involving inspection and preventative maintenance in lieu of EPA Methods 1 through 5 for particulate matter on one cell of Petitioner's forced draft "helper cooling towers" every five years. The forced draft "helper cooling towers" consist of 36 cells. The Crystal River Power Plant is located in Citrus County.

Having considered Petitioner's written request and all supporting documentation, the following Findings of Fact, Conclusions of Law, and Order are entered:

FINDINGS OF FACT

1. Petitioner's forced draft "helper cooling towers" are used during the warmer months to cool salt water which has been used to remove waste heat from steam generating Units 1, 2 and 3 at the Crystal River Power Plant.

2. Petitioner is currently required by permit to conduct testing for particulate matter emissions on one cell of the forced draft "helper cooling towers" every 5 years.

3. Petitioner requested relief from the requirement to use EPA Methods 1 through 5 for particulate matter testing of the forced draft "helper cooling towers" due to the unusual testing conditions and poor sampling location.

4. Section 1.2 of EPA Method 1 states, "This method is applicable to flowing gas streams in ducts, stacks, and flues. The method cannot be used when: (1) flow is cyclonic or swirling (see Section 2.4), or (3) the measurement site is less than two stack or duct diameters downstream or less than half a diameter upstream from a flow disturbance."

5. Section 2.1 of EPA Method 1 states, " Sampling or velocity measurement is performed at a site located at least eight stack or duct diameters downstream and two diameters upstream from any flow disturbance such as a bend, expansion, or contraction in the stack or duct or from a visible flame. If necessary an alternative location may be selected at a position, at least two stack or duct diameters downstream and a half diameter upstream of any flow disturbance."

6. Section 2.4 of EPA Method 1 states, "In most stationary sources, the direction of stack gas flow is essentially parallel to the stack walls. However, cyclonic flow may exist (1) after such devices as cyclones and inertial demisters following venture scrubbers, or (2) in stacks having tangential inlets or other duct configurations which tend to induce swirling; in those instances, the presence or absence of cyclonic flow must be determined. If the average value of  $\omega$  is greater than 20, the overall flow condition in the stack is unacceptable and alternative methodology subject to the approval of the Administrator, must be used to perform accurate sample and velocity traverses."

7. Based on a physical inspection of the forced draft "helper cooling towers" by Department personnel the only available sampling location is at the exhaust of the tower immediately behind the fan. So the sampling location does not conform to the minimum upstream and downstream criteria for distance from a flow disturbance specified in the method.

8. Based on a physical inspection of the forced draft "helper cooling towers" by Department personnel the proximity of the only available sampling location to the axial flow fan is such that the flow at the sampling location is expected to be of a cyclonic nature.

9. Correspondence with William Grimley of the EPA Emission Measurement Center stated, "Martin: I copied your original message to about 8 people; didn't get much response; - Dan Bivins will be calling you to discuss, but it [EPA Method 5 testing] does seem unnecessary " (Exhibit 1)

10. Personnel at the EPA Emission Measurement Center have been unable to locate any evidence that EPA Methods 1 through 5 have ever been validated for

forced draft cooling towers as evidenced by Dan Bivins statement, "I have not seen any data that would substantiate any meaningful results from a Method 5 test on cooling towers." (Exhibit 2)

11. Petitioner provided information and stated, "Currently an annual inspection of the towers is conducted following the end of each operating season (the towers are used from May through October). As a result of conversations with you (Mr. Joseph Kahn) and Mr. Martin Costello, FPC proposes to conduct an additional inspection of the towers and their components during the operating season. (Exhibit 3)

12. Pursuant to conversations between Petitioner and Mr. Martin Costello, a proposed program of daily and weekly inspection of the forced draft "helper cooling towers" was drafted in order to ensure that the towers are operated and maintained so as to minimize emissions of particulate matter. (Exhibit 4)

#### CONCLUSIONS OF LAW

1. The Department has jurisdiction to consider Petitioner's request pursuant to Section 403.061, Florida Statutes (F.S.), and Rule 62-297.620, F.A.C.

2. Pursuant to Rule 62-297.340(2), F.A.C., the Department may require Petitioner to conduct compliance tests that identify the nature and quantity of pollutant emissions if, after investigation, it is believed that any applicable emission standard or condition of a permit is being violated.

3. Petitioner has provided reasonable justification that proposed work practice will provide a sufficient substitute for the required EPA Method 5 testing.

#### ORDER

1. Having considered Petitioner's written request and supporting documentation, it is hereby ordered that:

The drift elimination system on the helper cooling towers shall be maintained so as to minimize pluggage and to insure timely repair of broken sections of the drift eliminators. During the warm months when the helper cooling towers are used, the following work practice shall be implemented, in lieu of EPA Method 5, to demonstrate compliance with the originally designed removal efficiency (no more than 0.004% drift rate):

(a) Daily "walkdown" inspection of each operational cell visually checking for problems with the drift eliminators such as pluggage, algae build-up, and mechanical components (fans and pumps).

(b) Daily visual inspection of the cells which are in operation to ascertain the presence of higher than expected visible emissions when atmospheric conditions allow, and follow-up inspections and correction of problems when the daily visual inspection of the cells indicates a problem.

(c) Weekly visual inspection of the inlet water screens and prompt correction when broken sections or pluggage is discovered.

2. Any problems detected during the work practice inspections identified in items

1 (a) through (c) shall be documented in a log identifying the cell (or water screen), the inspector, the time (when discovered and hours operated before the problem was corrected), and a description of the problem and the corrective actions taken. This log shall be maintained onsite and shall be made available to DEP upon request. The log shall be maintained so as to provide an indication as to whether routine inspections have been conducted as required even when there are no problems to record.

#### PETITION FOR ADMINISTRATIVE REVIEW

The Department's proposed agency action will become final upon signature unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed agency action may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within twenty-one days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within twenty-one days of publication of the public notice or within twenty-one days of receipt of this notice, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within twenty-one days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a

copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of how and when petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action;

(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and

(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in

accordance with the requirements set forth above.

Mediation is not available in this proceeding.

RIGHT TO APPEAL

Any party to this order has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

DONE AND ORDERED this \_\_\_\_\_ day of \_\_\_\_\_, 2000 in  
Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

\_\_\_\_\_  
HOWARD L. RHODES  
Director  
Division of Air Resources Management  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

(850) 488-0114



**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy clerk hereby certifies that a true copy of the foregoing was mailed to Mr. Michael Kennedy, Manager of Air Programs, FPC, One Power Plaza, #263, 13 Avenue South, Florida 33701-5511, on this \_\_\_\_\_ day of June, 2000

Clerk Stamp

**FILING AND ACKNOWLEDGMENT**

**FILED**, on this date, pursuant to  
120.52(11), Florida Statutes, with the  
designated Department Clerk, receipt  
of \_\_\_\_\_ which is hereby  
acknowledged.

\_\_\_\_\_  
Clerk

\_\_\_\_\_  
Date