

INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 27-Jan-2000 03:22pm

From: Martin Costello TAL
COSTELLO_M

Dept: Air Resources Management

Tel No: 850/488-0114

To: Joseph Kahn TAL

(KAHN_J)

CC: Martin Costello TAL

(costello_m)

Subject: FWD: Re: Re: Helper Cooling Towers

see attached

INTEROFFICE MEMORANDUM

Date: 26-Jan-2000 10:41am
From: J-Michael.Kennedy
J-Michael.Kennedy@fpc.com
Dept:
Tel No:

Subject: Re: Re: Helper Cooling Towers

Marty,

I'm checking with the plant environmental specialist to ensure that he's ok with your proposal. He left yesterday for a funeral, however, so it will be a few days before I can give you a definite answer. Should be Monday or so. Thanks.

Mike

-----Original Message-----

From: Martin.Costello
/internet/dd.RFC-822=Martin.Costello@dep.state.fl.us
[mailto:Martin.Costello@dep.state.fl.us]
Sent: Monday, January 24, 2000 4:04 PM
To: J-Michael.Kennedy /internet/dd.RFC-822=J-Michael.Kennedy@fpc.com
Cc: Martin.Costello /internet/dd.RFC-822=Martin.Costello@dep.state.fl.us
Subject: Re: Helper Cooling Towers
Sensitivity: Confidential

The permit condition could read like this:

The drift elimination system shall be maintained daily to minimize pluggage and to repair any broken sections of the drift eliminator. The following work practice shall be used to demonstrate compliance with the original removal efficiency (no more than 0.04 % drift rate, or 11.89 lb/hr):

- 1) daily visual inspection of each operational cell checking for pluggage, problems with the drift eliminators, algae build-up, and mechanical components problems (fans and pumps). Any problems shall be documented in a log identifying the cell, the problem, the inspector, the time(when discovered and when corrected), and a discription of corrective actions taken. This log shall be maintained onsite and shall be made available to DEP when requested.
- 2) daily visual inspection of the cells which are in operation looking for higher than expected visible emissions, and follow-up inspection and correction when this inspection indicates a problem.

3) weekly visual inspection of the inlet water screens and prompt correction when broken sections or pluggage is discovered.

Mike, does this look ok?

Marty Costello

Ed's - Marty,

Ed's -

Ed's - After we spoke yesterday, I checked back with the plant regarding their

Ed's - regular inspection and maintenance procedures on the Crystal River

Ed's - Helper Cooling Towers. The following is a summary of the items we had

Ed's - questions about.

Ed's -

Ed's - 1) A daily "walkdown" of the all of the towers is performed. A visual

Ed's - inspection is performed, checking for any problems, such as pluggage or

Ed's - holes in the drift eliminators, algae build-up, and any problems with

Ed's - mechanical components (pumps, fans, etc.). Perhaps, as a work practice

Ed's - standard in the permit, this could replace the additional inspection

Ed's - that I proposed in my letter to Joe Kahn. The daily walkdown is, of

Ed's - course, much more frequent and catches any problems early.

Ed's -

Ed's - 2) The water entering the towers was formerly treated with chlorine to

Ed's - inhibit algae formation. This practice was gradually stopped, because

Ed's - it was found that algae buildup is not a significant problem. The water

Ed's - entering the towers is filtered mechanically (screens). This greatly

Ed's - reduces the amount of material in the water that could cause problems

Ed's - such as pluggage of the drift eliminators and damage to mechanical

Ed's - components.

Ed's -

Ed's - I hope this helps. Feel free to call me at (727) 826-4334.

Thanks.

Ed's -

Ed's - Mike Kennedy

Ed's -

INTEROFFICE MEMORANDUM

Date: 26-Jan-2000 08:38am
From: Joseph Kahn TAL
KAHN_J
Dept: Air Resources Management
Tel No: 850/921-9519

To: Martin Costello TAL (COSTELLO_M)

Subject: FPC Helper Cooling Towers

Marty,

I have conferred with Pat Comer regarding the FPC helper cooling towers and she agrees with me that an alternate sampling procedure is the appropriate mechanism to address FPC's request. Basically, the emissions monitoring section has already decided that the test method is not valid and that daily visual inspection is valid and sufficient to show compliance, and this determination essentially constitutes an alternate sampling procedure, as provided by rule. What remains to be done is to codify that decision into an ASP order.

Pat disagrees that the Department should now make a determination that the original BACT be relaxed ten years after the fact because the test method is now thought to be inaccurate. I agree with her, particularly given that when the original permit was issued the emission rate limit was increased by a factor of ten to account for the uncertainties of the test method. (I mentioned this to you previously.) As I discussed with you, I am reluctant to delete the emission limit or the drift limit in the present permitting action.

I am still convinced that the appropriate way to handle FPC's request is to issue an ASP order. The order could substitute daily visual inspection and annual inspection by the manufacturer for the test method. This will also address my concern because the emission limit would remain in the permit. Note by the way that the BACT drift limit is 0.004%, not 0.04% as Mike Kennedy states in his latest letter. The difference is the factor of 10 that was used to increase the hourly emissions limit to 11.89 lb/hr.

I reviewed your proposed language regarding inspections. Your proposal to use visible emissions as an indicator of a problem may conflict with the language of the final Title V permit because that permit notes that visible emissions testing is not applicable because the emissions will include salt water droplets (which, of course include the particulate matter -- salt). If you are clear that what is intended is a daily visual observation to note irregularities in the tower emissions, that may be OK because it will not imply that a Method 9 test is needed. Also, I believe it is important to have the manufacturer inspect the cells annually, to provide a third party check on their condition. The manufacturer's report should be kept by FPC with the other records.

Let me know when you get a response from FPC and tell me if you need additional information from them to draft an order. I need to hear from you quickly because this project is on the clock. Thanks.

-Joe

INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 24-Jan-2000 04:10pm
From: Martin Costello TAL
COSTELLO_M
Dept: Air Resources Management
Tel No: 850/488-0114

To: Joseph Kahn TAL (KAHN_J)
CC: Martin Costello TAL (costello_m)

Subject: FWD: Helper Cooling Towers

I have sent the following draft language to Mike Kennedy and will send his comments when he replies.

See attached which shows that a daily visual inspection of each cell is the current practice. I would require that at least once per week each cell is inspected visually while operating the cell. The permit condition could read like this:

The drift elimination system shall be maintained daily to minimize pluggage and to repair any broken sections of the drift eliminator. The following work practice shall be used to demonstrate compliance with the original removal efficiency (no more than 0.04 % drift rate, or 11.89 lb/hr):

- 1) daily visual inspection of each operational cell checking for pluggage, problems with the drift eliminators, algae build-up, and mechanical components problems (fans and pumps). Any problems shall be documented in a log identifying the cell, the problem, the inspector, the time(when discovered and when corrected), and a description of corrective actions taken. This log shall be maintained onsite and shall be made available to DEP when requested.
- 2) daily visual inspection of the cells which are in operation looking for higher than expected visible emissions, and follow-up inspection and correction when this inspection indicates a problem.
- 3) weekly visual inspection of the inlet water screens and prompt correction when broken sections or pluggage is discovered.

INTEROFFICE MEMORANDUM

Date: 19-Jan-2000 09:46am
From: J-Michael.Kennedy
J-Michael.Kennedy@fpc.com
Dept:
Tel No:

Subject: Helper Cooling Towers

Marty,

After we spoke yesterday, I checked back with the plant regarding their regular inspection and maintenance procedures on the Crystal River Helper Cooling Towers. The following is a summary of the items we had questions about.

1) A daily "walkdown" of the all of the towers is performed. A visual inspection is performed, checking for any problems, such as pluggage or holes in the drift eliminators, algae build-up, and any problems with mechanical components (pumps, fans, etc.). Perhaps, as a work practice standard in the permit, this could replace the additional inspection that I proposed in my letter to Joe Kahn. The daily walkdown is, of course, much more frequent and catches any problems early.

2) The water entering the towers was formerly treated with chlorine to inhibit algae formation. This practice was gradually stopped, because it was found that algae buildup is not a significant problem. The water entering the towers is filtered mechanically (screens). This greatly reduces the amount of material in the water that could cause problems such as pluggage of the drift eliminators and damage to mechanical components.

I hope this helps. Feel free to call me at (727) 826-4334. Thanks.

Mike Kennedy

INTEROFFICE MEMORANDUM

Date: 18-Jan-2000 07:58am
From: Joseph Kahn TAL
KAHN_J
Dept: Air Resources Management
Tel No: 850/921-9519

To: Martin Costello TAL (COSTELLO_M)

Subject: FPC Crystal River Helper Cooling Towers

Marty,

FPC responded to the request for additional information I sent on October 11th. You will get a copy of this shortly. I noted a procedural problem with FPC's request to stop testing the tower cells for PM. Rule 62-297.310(7)(a)3. requires that a PM test be conducted prior to renewal of the operating permit since there is an applicable emission limit. The only provision in rule to vary that requirement is Rule 62-297.310(c) which states that a permittee may obtain an order providing that compliance be demonstrated by an alternate procedure per Rule 62-297.620. It appears clear to me that an alternate sampling procedure order is required before I can remove the testing requirement from the PSD permit. Since these orders are done by your section, please review FPC's request per Rule 62-297.620 and let me know if additional information is required from FPC. If not, let me know when you can prepare an alternate sampling procedure order. I want to respond to FPC by February 4th if additional information is needed, so please respond to me by then. Let me know if you have any questions. Thanks.

-Joe



RECEIVED

JAN 10 2000

BUREAU OF AIR REGULATION

January 6, 2000

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

Dear Mr. Kahn:

Re: Crystal River Helper Cooling Towers - Removal of Requirement to Test
Request for Additional Information

In response to your letter of October 11, 1999, Florida Power Corporation (FPC) offers the following regarding the above-referenced permit amendment application.

1. Summary of previous test results.

In June, 1993 one cell from each cooling tower was tested using Method 5 (there are a total of four towers with nine cells in each tower). The following table summarizes the results of the testing.

<u>Tower/Cell</u>	<u>Drift Rate (%)</u>	<u>Emiss. Rate (lb/hr)</u>	<u>Water Flow (gal.min.)</u>	<u>% of Capacity</u>
1-1	0.0040	1.18	20,254	99.2
2-3	0.0025	0.69	18,886	92.5
3-6	0.0030	0.82	18,722	91.7
4-9	0.0027	0.76	19,233	94.2

The permitted drift rate for these towers is 0.04%, which corresponds to a particulate limit of 11.89 lb/hr at maximum water flow capacity. Therefore, the test results are a factor of ten or more lower than the permitted levels.

2. Additional Inspection

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 and Mr. Martin Costello, FPC proposes to conduct an additional inspection of the towers and their components during the operating season.

Mr. Joseph Kahn, P.E.
January 6, 2000
Page Two

3. Changes to the Drift Elimination System

Other than routine repair and maintenance of component parts, no changes have been made to the drift elimination system since its original installation.

Thank you for your consideration of this request. Please contact me at (727) 826-4334 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Michael Kennedy".

J. Michael Kennedy, Q.E.P.
Manager, Air Programs

cc: SWD
M. Costello, BAMMS