STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by:

Bernie Cumbie, Plant Manager
Progress Energy Florida
100 Central Avenue, CX1B
St. Petersburg, Florida 33701

Crystal River Power Plant
Permit No. 0170004-010-AC
Portable Cooling Towers

Enclosed is Final Air Permit No. 0170004-010-AC, which authorizes the construction of portable cooling towers for use with Units 1 and 2. The new equipment will be installed at the existing Crystal River Power Plant, which is located north of Crystal River, on Power Line Rd., West of U.S. 19, Citrus County, Florida. As noted in the attached Final Determination, only minor changes and clarifications were made. This permit is issued pursuant to Chapter 403, Florida Statutes.

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 (30) days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Trina L Vielhauer

Trina Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 4/3/06 to the persons listed:

Bernie Cumbie, Progress Energy*
Dave Meyer, Progress Energy
Scott Osbourn, Golder Associates Inc.
Jason Waters, DEP Southwest District Office
Jim Little, EPA Region 4

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Barbara J. Friday (Clerk) 4/3/06 (Date)

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

PERMITTEE:

Progress Energy Florida
Crystal River Power Plant
100 Central Ave. CX1B
St. Petersburg, Florida 33701

ARMS Permit No.	0170004-010-AC
Facility ID No.	0170004
SIC No.	4911
Expires:	April 30, 2007

Authorized Representative:
Bernie Cumbie
Plant Manager

PROJECT AND LOCATION

The proposed project authorizes the installation of portable cooling towers for occasional use with Crystal River units 1 and 2.

The project will be located at the existing Crystal River Power Plant, located north of Crystal River, on Power Line Rd., West of U.S. 19, Citrus County, Florida. The UTM coordinates are Zone 17, 334.3 km E, 3204.5 km N.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department.

APPENDICES

The following Appendices are attached as part of this permit.

Appendix GC-1 Construction Permit General Conditions

Michael G. Cooke, Director
Division of Air Resource Management

FACILITY DESCRIPTION

This facility consists of four coal-fired fossil fuel steam generating units (boilers) with electrostatic precipitators; two natural draft cooling towers for units 4 and 5; helper mechanical cooling towers for units 1, 2 and Nuclear Unit 3; coal, flyash and bottom ash-handling facilities, and relocatable diesel fired generator(s).

This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NO_X), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Based upon the Title V application, the facility is a major source of hazardous air pollutants (HAPs).

The Project consists of the construction and operation of portable cooling towers comprised of 71 or 72 cells (dependent upon manufacturer), with a width of 12' and a height of 11', includes drift eliminators, operates at a maximum seawater flow rate of 180,000 gallons per minute for all cells combined, with a design airflow rate of 25,000 acfm from each cell. Seawater is sprayed through the towers where fan induced air flow causes evaporative cooling. Water vapor, saltwater droplets (drift) and salt particles are emitted. Drift emissions are controlled by drift eliminators.

REGULATORY CLASSIFICATION

Title V Major Source: This facility is a Title V major source of air pollution.

PSD Major Source: For this project, the emissions of PM are subject to a BACT standard.

PERMIT SCHEDULE

- 02-06-06: Date of Receipt of Permit Application
- 02-06-06: Application deemed complete
- 02-22 -06: Intent issued
- 03-02-06: Notice published in the Citrus County Chronicle

RELEVANT DOCUMENTS

The documents listed form the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Application received 2-06-06
- Technical Evaluation and Preliminary BACT Review dated 2-22-06

GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (DEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number 850/488-0114.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications should be submitted to the FDEP Southwest District Office, 13051 N. Telecom Parkway, Temple Terrace, Florida 33637. The phone number is 813/632-7600 and the fax number is 813/632-7668.

3. Terminology: The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code.

4. General Conditions: The owner and operator are subject to, and shall operate under, the attached General Conditions listed in *Appendix GC-1* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]

5. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]

6. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

8. Expiration: This air construction permit shall expire on April 30, 2007. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4) 62-4.080, and 62-4.210, F.A.C]

9. Title V Permit: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit revision is required for continued operation of the permitted emissions unit. A concurrent Title V revision was processed with this Air Construction permit. [Rules 62-4.030, 62-4.050, 62-4.220, and 62-213.420, F.A.C.]

C. Cooling Tower (EU 020)

EMISSIONS UNITS

This section of the permit addresses the following new emissions unit.

ID	Emission Unit Description
020	Portable, Mechanical Draft Cooling Towers with a maximum circulation rate of 180,000 GPM.

EQUIPMENT

1. Cooling Tower: The permittee is authorized to install a portable mechanical draft cooling tower with the following nominal design characteristics: a circulating water flow rate of 180,000 gpm; a design air flow rate of 25,000 acfm per cell; drift eliminators; a drift rate of no more than 0.0015 percent of the circulating water flow. [Application; Design]

EMISSIONS AND PERFORMANCE REQUIREMENTS

2. Drift Rate: Within 60 days of commencing operation, the permittee shall certify that the cooling tower was constructed and installed so as to achieve the specified drift rate of no more than 0.0015 percent of the circulating water flow rate. [Rule 62-212.400 (BACT), F.A.C.]

   {Note: This emissions unit is not subject to a visible emissions limitation. Emissions from this emissions unit include water droplets, so visible emission testing is not possible.}

3. Hours of Operation: The operating hours for the portable cooling towers shall not exceed an equivalent of 2920 hours per calendar year of operation. This condition shall be complied with by limiting the circulating water flow usage through the portable cooling towers to 31.5E9 gallons per calendar year. [Rule 62-212.400 (BACT), F.A.C.]

4. Cooling Tower Design: The portable cooling towers shall be designed, operated and maintained to achieve a drift rate of no more than 0.0015% of the circulating water flow. This equates to an estimated emission rate of particulate matter (PM) from the cooling tower at 35.1 pounds per hour. [Rule 62-212.400 (BACT), F.A.C.]

   {Note: The emission limit is based on a BACT Determination setting the maximum drift emissions at 0.0015%. PM_{10} emissions are estimated to be approximately 6% of the particulate matter emission rate.} [Rule 62-213.440, F.A.C.]

5. Emission Test Method: 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 those calendar days when the portable 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 0.0015% 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 inspections of the inlet water screens and prompt correction when broken sections or pluggage is discovered.
   [Rule 62-213.440 and ASP No. 00-E-01 dated June 7, 2000]

C. Cooling Tower (EU 020)

6. Inspection Log: Any problems detected during the work practice inspections identified in Specific Condition 5. shall be documented in a log identifying the cell (or water screen), the inspector, the time (when discovered and the 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.
[Rules 62-213.440 and 62-297.310(7) and ASP No. 00-E-01 dated June 7, 2000]

7. Circulating Water Flow: Circulating water flow will be measured by monitoring the hours of each circulating water pump. For each hour of operation, each north pump will flow 15 kgpm (900 kgph) and each south pump will flow 4 kgpm (240 khph). The fans in bank C1 through C15 will be monitored for operation. If any of the fans are operating in those cells, the circulating water flow will be 39 kgpm (2,340 kgph). Partial hours of operation shall be prorated. Records of circulating water flow shall be maintained for each calendar month.
[Rule 62-213.440, F.A.C.]

G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a) Have access to and copy and records that must be kept under the conditions of the permit;
b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a) A description of and cause of non-compliance; and
b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages, which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.

G.13 This permit also constitutes:

a) Determination of Best Available Control Technology (X)
b) Determination of Prevention of Significant Deterioration (X); and
c) Compliance with New Source Performance Standards (X).

G.14 The permittee shall comply with the following:

a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c) Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law, which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

TECHNICAL EVALUATION

FINAL BACT REVIEW

AND

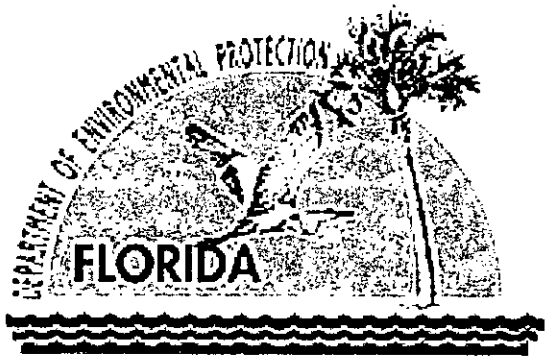
STATEMENT OF BASIS

Progress Energy Florida – Crystal River Units 1 & 2

Portable Cooling Towers

Citrus County

0170004-010-AC
0170004-011-AV



Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
North Permitting Section

March 31, 2006

1. GENERAL INFORMATION

1.1 APPLICANT NAME AND ADDRESS

Progress Energy Florida
100 Central Ave. CN77
St. Petersburg, Florida 33701
Authorized Representative: Bernie Cumbie, Plant Manager

1.2 REVIEWING AND PROCESS SCHEDULE

February 06, 2006	Received Permit Application
February 06, 2006	Application complete

2. FACILITY INFORMATION

2.1 FACILITY LOCATION

The facility is located north of Crystal River, on Power Line Rd., West of U.S. 19, Citrus County. The UTM coordinates are Zone 17; 334.3 km E; 3204.5 km N. This site is located in the same county as the Chassahowitzka National Wildlife Refuge, a Class I PSD Area.

2.2 STANDARD INDUSTRIAL CLASSIFICATION CODES (SIC)

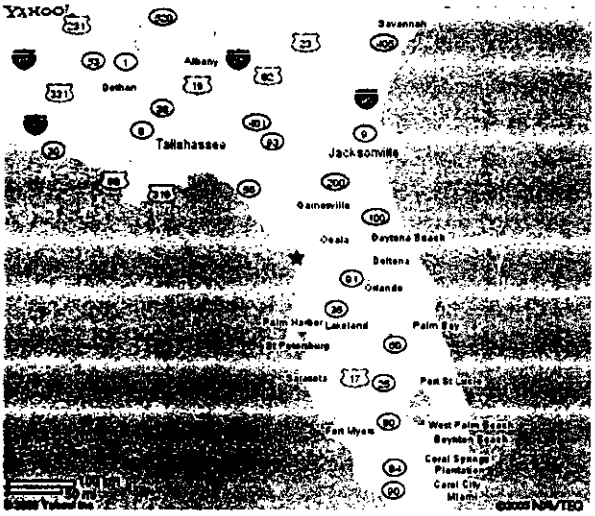
Industry Group No.	49	Electric, Gas and Sanitary Services
Industry No.	4911	Electric Services

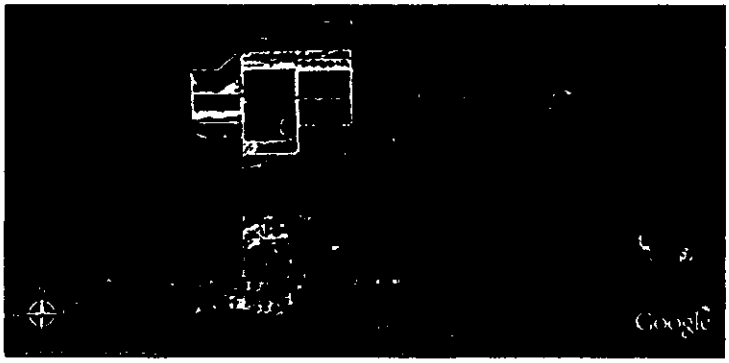
2.3 FACILITY CATEGORY

This facility consists of four coal-fired fossil fuel steam generating units (boilers) with electrostatic precipitators; two natural draft cooling towers for units 4 and 5; helper mechanical cooling towers for units 1, 2 and Nuclear Unit 3; coal, flyash and bottom ash-handling facilities, and relocatable diesel fired generator(s).

This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NO_X), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Based upon the Title V application, the facility is a major source of hazardous air pollutants (HAPs).





3. DESCRIPTION

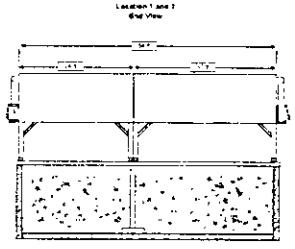
This project addresses the following emissions unit(s):

Emissions Unit No.	Emissions Unit Description
020	Portable, Mechanical Draft Cooling Towers with a maximum circulation rate of 180,000 GPM.

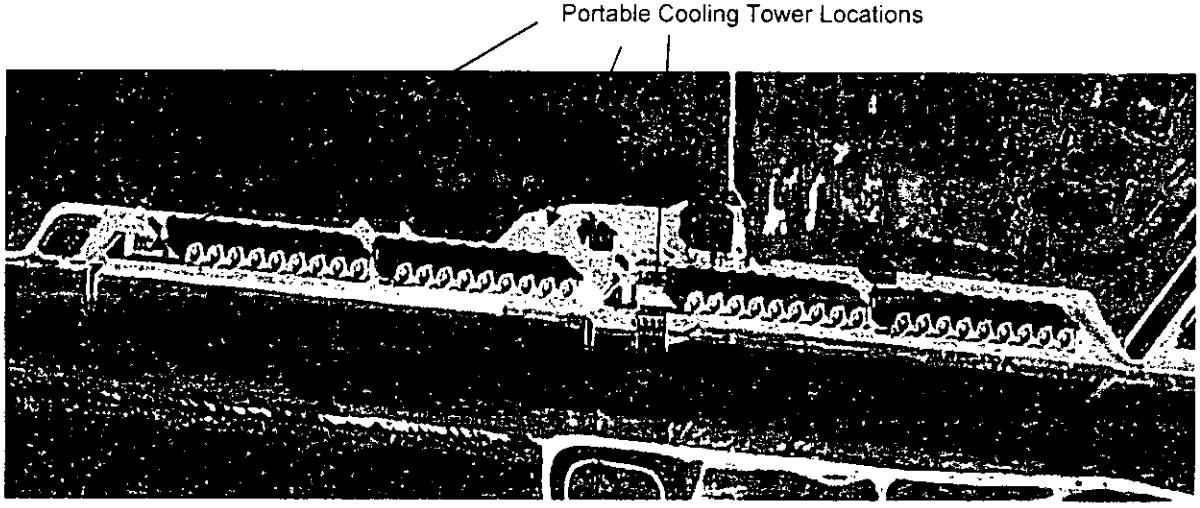
3.1 PROJECT DESCRIPTION

The project involves the installation and subsequent operation of modular (portable) cooling towers. The cooling towers are planned for use with coal-fired units 1 and 2 on a predominantly seasonal basis (late summer and/or early fall). The installation of these cooling towers provides a means of ensuring that the combined cooling water discharge temperature from the facility's steam condensers remains within regulated limits, while minimizing or eliminating the potential for reductions in output on the coal units as a result of the maximum discharge temperature being reached. Brackish water with an average TDS value of 25,307 parts per million (as the cooling medium) and an annual cooling tower usage limitation which is equivalent to 3000 hours per year are proposed.

- Up to 70 rental towers
- Up to 180,000 GPM additional flow
- Up to 2 deg F additional cooling
- Used only a few months per year
- Reduce or eliminate plant derates during summer
- Use existing intake and discharge points



Typical Tower



3.2 DESCRIPTION OF CURRENT STATUS

Fossil fuel steam generators units 1 and 2 are pulverized coal dry bottom, tangentially-fired boilers. Steam generator unit 1 began commercial operation in 1966 and steam generator unit 2 began commercial operation in 1969. These steam generating units are constructed with a discharge of once through cooling water (OTCW) to the site discharge canal and then to the Gulf of Mexico, a Class III marine water, via three outfalls permitted under NPDES Permit FL0000159. Within the subject NPDES Permit, Condition **I.A.4.** limits the above discharge temperature to 96.5° F based upon a 3-hour rolling average. According to information submitted by the applicant, some periods may exist, typically during the late summer, that require limiting the steam generating output on units 1 and 2 in order to comply with the subject NPDES permit condition. The limitation is not predictable, is different from one year to the

next and can even disappear on a day-to-day basis based upon changes in air temperature or rainfall quantities. The sole origin of this potential limitation is NPDES, and it is not related to air emissions.

4. PROJECT EMISSIONS

4.1 EMISSION INCREASES

The following emission increases are indicated by the applicant:

Pollutant	Annual Emissions (TPY)	PSD Threshold (TPY)	PSD Review Required
PM	52.7	25	Yes
PM_{10}	3.2 *	15	No

* Based upon the paper "Calculating Realistic PM_{10} Emissions from Cooling Towers" which is built upon the methodology presented in EPA's AP-42, the portion of PM which is emitted as PM_{10} decreases as the TDS in the circulating water increases. For this project, the high TDS of the brackish water (>25,000 ppm) results in a very small fraction of PM_{10} emissions.

4.2 DE-BOTTLENECKING EVALUATION

The project proposes to add a series of new portable cooling towers that will allow Units 1 and 2 to operate at capacity during periods of peak power demand such as the late summer. Potential emissions increases from the proposed cooling towers will be greater than the PSD significant emission rate for PM (25 tons/year), but less than the PSD significant emission rate for PM_{10} (15 tons/year). The Department did not consider collateral emissions increases from Units 1 and 2 for the following reasons:

- The NPDES permit for Units 1 and 2 restricts the plant's thermal discharge, which may result in reduced operation for one or more of the units. However, Units 1 and 2 currently operate at rated capacity throughout the year, notwithstanding the thermal discharge limitation.
- The thermal discharge restriction only affects plant operation at certain times of the year depending on a combination of factors including load demand, air and water temperatures.
- No physical or operational changes to Units 1 and 2 are being made.
- There are no restrictions in the air permits for Units 1 and 2 that prevent operation at capacity.

Therefore, a determination of Best Available Control Technology (BACT) is required for PM emissions from the cooling towers, but no air quality analysis is imposed because the project is not subject to PSD review for PM_{10}.

5.0 BACT REVIEW

5.1 APPLICANT BACT REVIEW

The applicant proposes drift eliminators as BACT, with a drift rate of 0.0015%, and a total circulating water flow usage limitation of 32.4E9 gallons per year (equivalent to 3000 hours per year of full operation). This yields annual PM emissions of 52.7 TPY and annual PM_{10} emissions of 3.2 TPY.

5.2 DEPARTMENT BACT REVIEW

The Department conducted a BACT review via an inspection of the RACT/BACT/LAER Clearinghouse for mechanical draft cooling towers permitted between January 2003 and January 2006. Based upon this review, the Department concludes that BACT for mechanical draft cooling towers is almost universally based upon drift eliminators. Additionally, BACT emission rates can be established as low as 0.0005% (with 8760 hours per year of operation), or as high as the applicant's recommended BACT rate of 0.0015%. Given that the equipment herein is portable in nature, some deference is granted to the applicant's request for the higher end of the BACT range, as it is reasoned that portable cooling towers may not be able to be constructed to the same tight specifications as permanently installed towers. Lastly, it is noted that the lower end of the BACT range (0.0005%) is 1/3 of the applicant's proposal (0.0015%), and that the applicant does not request authorization to operate 8760 hours per year,

but approximately 1/3 of the year. Accordingly, the Department will establish BACT for this unique project at 0.0015%, but allow operation for only 1/3 of the year, or 2920 hours. In terms of circulating water flow usage, this is equivalent to 31.5E9 gallons per year, which will be established as a permit limit.

5.3 ADDITIONAL IMPACTS

Because PM was the only pollutant that triggered a PSD review, a Class II air quality impact analysis as well as additional analysis of impacts due to the proposed project on soils, vegetation, visibility, growth, and air quality related values (AQRVs) in the nearest PSD Class I areas were not conducted (Rule 62-204.260 (1) and (2), F.A.C.).

In accordance with Rule 62-210.200 (243), F.A.C. PM_{10} emissions are below the PSD significant emission rate. Therefore no air quality analysis is required.

6.0 CONCLUSION

Based on the foregoing technical evaluation of the application, the Department has made a determination that the proposed project is capable of meeting the Department's air emission standards. The Division of Air Resource Management notes that based upon discussions with the Division of Water Resource Management, the implementation of this project is favorably received.

Michael P. Halpin, P.E.
Department of Environmental Protection, Bureau of Air Regulation
North Permitting Section
2600 Blair Stone Road
Tallahassee, Florida
32399-2400

Florida Department of Environmental Protection

Memorandum

TO: Michael G. Cooke

THRU: Trina Vielhauer
J. F. Koerner

FROM: Michael P. Halpin

DATE: March 31, 2006

SUBJECT: Progress Energy Crystal River
PSD Permit Modification – Portable Cooling Towers
DEP File No. 0170004-010-AC

Attached is the final permit modification relative to Progress Energy's Crystal River plant.

The applicant has requested permission to install a set of portable cooling towers as a means of minimizing the possibility that Units 1 and 2 may be required to reduce output, in order to comply with a thermal discharge limit specified with the facility's NPDES permit. Based upon the submitted information and discussion with our Division of Water Resource Management, I find that the project is well-received. It should yield an environmental benefit, as well as allow the facility some flexibility.

A BACT review was required for PM emissions and the Notice was published in the Citrus County Chronicle on March 2, 2006. Only two very minor comments were received from the applicant which were incorporated into the Final Permit.

I recommend your approval.

Attachments

/mph