BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Petition on behalf of Citizens of the State of Florida to require Progress Energy Florida, Inc. to refund to customers $143 million

DOCKET NO. 060658
Submitted for filing: January 16, 2007

DIRECT TESTIMONY OF J. MICHAEL KENNEDY ON BEHALF OF PROGRESS ENERGY FLORIDA

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IN RE: PETITION ON BEHALF OF CITIZENS OF THE STATE OF FLORIDA TO REQUIRE PROGRESS ENERGY FLORIDA, INC. TO REFUND CUSTOMERS $143 MILLION

FPSC DOCKET NO. 060658

DIRECT TESTIMONY OF

MIKE KENNEDY

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name and business address.

A. J. Michael Kennedy, P.O. Box 14042, St. Petersburg, Florida 33733.

Q. By whom are you employed and in what capacity?

A. I am employed by Progress Energy Service Company as a Principal Environmental Specialist.

Q. What do you do?

A. In my current role, which I assumed in August 2005, my responsibilities include working on emerging air legislative and regulatory issues for Progress Energy Florida ("PEF" or the "Company") and Progress Energy Carolinas. Prior to that, I managed the environmental permitting and compliance activities in support of Florida Power Corporation's and then PEF's generating fleet, including air permitting and Title V issues. For ease of reference I will refer to Florida Power

Corporation and PEF together as PEF except when circumstances may warrant a distinction between the two companies.

Q. What is the purpose of your testimony?

A. My testimony will address OPC's expert's claims regarding PEF's ability, pursuant to its environmental permits, to burn Powder River Basin ("PRB") sub-bituminous coal at Crystal River Units 4 and 5 ("CR4 and CR5"). My testimony will explain the development of the various environmental permit requirements, as they apply to CR4 and CR5. Finally, I will demonstrate that Mr. Sansom's claims that the lack of inclusion of sub-bituminous coal into PEF's Title V permit was imprudent are inaccurate.

Q. Please describe your education background and professional experience.

A. I earned a Bachelor of Science degree in Meteorology from Purdue University in 1978. Before coming to work at then-Florida Power Corporation, from January 1990 to June 1992, I was a Senior Environmental Scientist at Indianapolis Power & Light Company, where my responsibilities included support of generating plants in the area of air permitting and compliance. From August 1986 to December 1989, I was the Permitting and Planning Manager for the Indianapolis Air Pollution Control Division. I managed the areas of air operating and construction permits, air quality modeling and planning, and regulatory development for Indianapolis/Marion County, Indiana. From June 1978 to July 1986, I worked as an Air Quality Planner for the Indianapolis Air Pollution

Control Division. There I helped develop the State Implementation Plan for compliance with the 1977 Clean Air Act Amendments. I also reviewed air operating and construction permit applications and assisted with compliance inspections at the major sources in the county.

Q. Are you sponsoring any exhibits with your testimony?

A. Yes. I am sponsoring the following exhibits that I prepared or that were prepared under my supervision and control, or they represent business records prepared at or near the time of the events recorded in the records, which records it was a regular practice for me or those who worked with me to keep to perform our responsibilities:

- Exhibit No. ___ (JMK-1), which is a copy of the Conditions of Certification for CR4 and CR5;
- Exhibit No. ___ (JMK-2), which is a copy of the Conditions to Approval;
- Exhibit No. ___ (JMK-3), which is the opinion letter regarding the enforceability of the long-term Massey contract and the transmittal letter to the DEP;
- Exhibit No. __ (JMK-4), which is the initial stack test performed at CR4 using bituminous coal;
- Exhibit No. __ (JMK-5), which is the proof of publication of the public notice of intent to issue Title V air operation permit;

- Exhibit No. __ (JMK-6), which is the Final Determination regarding PEF's Title V permit modification request, including proof of publication of the public notice of intent regarding the same;
- Exhibit No. __ (JMK-7), which is PEF's application for an air construction permit for a short-term trial burn of a sub-bituminous/bituminous mixture; and
- Exhibit No. __ (JMK-8), which is the Notice of Final Permit for the short-term test burn of PRB coal blend at CR4 and CR5.

All of these exhibits are true and correct.

Q. Please summarize your testimony.

A. PEF was granted site certification for CR4 and CR5 in 1978. As part of that certification process, PEF had to comply with certain environmental restrictions regarding the emission of various pollutants, including particulate matter and opacity limits. Prior to the passage of the Title V amendments to the Clean Air Act, PEF only burned bituminous coal in CR4 and CR5 and was able to stay within the emission limits. Sub-bituminous, or PRB, coal, which Mr. Sansom asserts PEF should have been burning at CR4 and CR5, has a different composition and thus is more likely to result in increased particulate matter and opacity. It is possible that burning PRB coal would have caused PEF to violate the limits set by the site certification process. And if a violation could just possibly occur when burning a coal, then PEF would not have burned that coal without taking some additional steps to convince itself and the DEP that the limits

would not be violated. Thus, despite Mr. Sansom's assertions that PEF had the authority to burn sub-bituminous coal in CR4 and CR5 prior to the Title V amendments, PEF did not have the unconditional authority to burn sub-bituminous coal during this time period.

So when applying for its Title V permit, PEF did not, as Mr. Sansom suggests, "abandon" any authority to burn sub-bituminous coal at CR4 and CR5. Rather, to comply with the new, much more rigorous regulatory regime, PEF submitted its application and included the only type of coal for which it could provide reasonable assurance that the emission limits would be met: bituminous coal. This is because bituminous coal was the only coal that CR4 and CR5 had burned and PEF knew that the bituminous coal would meet the emission limits.

In addition, the fact that PEF did not apply for a Title V permit to burn sub-bituminous coal at some prior point in time is not imprudent. It takes approximately 14 months to apply for and obtain a Title V permit modification. The capital changes that must be made in advance of a long-term test burn, which is prudent and necessary before burning a PRB coal blend, would take at least 18 months to install. So even if the Title V permit had been in place, PEF would have still needed to wait for the capital upgrades and the long-term test burn before switching to PRB coal. In essence, not having a Title V permit in place resulted in "no harm, no foul," in terms of timing.

Finally, the fact that the Company is planning to install scrubbers on CR4 and CR5 is relevant to any decision regarding the use of PRB coal at the units. PEF decided in 2004 to add scrubbers to comply with the new mercury

regulations passed by the Environmental Protection Agency ("EPA"). With a scrubber, CR4 and CR5 can burn cheaper, high-sulfur coal and still maintain compliance with other emission limits. But the PRB coal, given its chemical composition, is resistant to the removal of mercury. In fact, even with the scrubbers, if PEF were to burn PRB coal in the units, additional equipment would be needed to remove the mercury from the PRB coal. This information is a factor in the decision whether to switch to a PRB/bituminous coal blend.

II. AIR PERMITTING REQUIREMENTS FOR CR4 AND CR5 FROM 1980's TO 1995

Q. Please explain how air quality was regulated by the state and federal governments prior to the passage of Title V for generating units like CR4 and CR5.

A. The passage of the Title V amendments to the Clean Air Act in 1990 ("Title V") was a watershed event that changed the entire landscape of environmental requirements for power plants. Prior to Title V, in the time period in which CR4 and CR5 were sited, environmental regulations did not require power plant operators to obtain permits that were as specific and detailed as those that are currently required. Owners of proposed power plants were required to comply with state and federal regulations, but they did not have to apply for and satisfy the substantial technical requirements that now must be met with a Title V permit.

The federal permitting process ran concurrently with the state permitting

process and involved much of the same information. On the state side, the owner of a proposed power plant submitted a Site Certification Application to the Florida Department of Environmental Protection ("DEP") that was designed to be "one-stop shopping" for all permits, including water and air. If the site application was approved, the DEP then issued Conditions of Certification. These conditions included requirements regarding emission limits within which the plant was required to stay. But the specific manner in which those emission limits were met was not specified, meaning specific types of fuel that could be used in the unit were not enumerated in the site certification Conditions of Certification.

In addition to these state certification conditions, the owner of the proposed power plant had to obtain a federal construction permit from the EPA. This permit was known as a new source permit or a prevention of significant deterioration ("PSD") permit, and it required similar information to that required for the air portion of the state site certification process. Pursuant to amendments to the CAA passed in 1977, the EPA was most concerned with improving air quality in geographical areas that were not in compliance with certain ambient air standards. So the federal construction permit, once approved, included "Conditions to Approval," which in many ways were quite similar to the state Conditions of Certification. Importantly, the EPA's Conditions to Approval did not contain specifics regarding the type of fuel allowable in the unit. They merely included emission limitations, much like those found in the state Conditions of Certification.

Q. When did PEF receive its site certification for CR4 and CR5?

A. PEF received the site certification approval order for CR4 and CR5 in 1978.

Q. So were CR4 and CR5 subject to the pre-Title V regulatory environment?

A. Yes, CR4 and CR5 were subject to certain Conditions of Certification issued by the state DEP, as well as Conditions to Approval issued by the federal EPA.

Q. Please explain the Conditions of Certification that PEF was required to meet to operate CR4 and CR5.

A. The Conditions of Certification for CR4 and CR5 provided that stack emissions shall not exceed 1.2 pounds of SO_2 per million BTU heat input, nor shall they exceed 0.70 pounds of NOx per million BTU heat input. PEF was required to continuously monitor the emissions, as well as the amount and types of fuel used, to ensure the continued compliance with the emission limits.

The conditions further required that PEF provide to the Department of Environmental Protection ("DEP") the characteristics of the coal to be fired in CR4 and CR5. PEF also had to provide information about long-term contracts in place to ensure that low-sulfur coal would be available to burn at the plant. A copy of the Conditions of Certification can be found in Exhibit No. __ (JMK-1).

Q. How did the EPA's Conditions to Approval compare with the DEP's Conditions of Certification?

A. The federal and state requirements for CR4 and CR5 were very similar, with the exception of particulate matter emissions. The EPA's Conditions to Approval included a mass emission rate limit of 0.10 pounds per million Btu. These Conditions to Approval also provided that opacity limits from stack emissions could not exceed 20%. This emission limit, like the SO_2 and NOx limits, was required to be monitored by periodic stack tests. A copy of the Conditions to Approval can be found in Exhibit No. __ (JMK-2).

Q. Please explain what opacity and mass emission rates measure.

A. Both opacity and mass emission rates are ways to measure the amount of particulate matter released into the atmosphere upon burning a particular fuel. Opacity is a type of visibility measure that limits the density of emissions. An opacity limit of 20% means that only 20% of the light passing through the plume at the point of discharge (i.e. the stack) is obscured. In other words, the plume must be 80% clear.

Mass emission rates actually measure the amount of particulate matter emitted into the air. This limit is enforced by measuring the amount of particulates that are emitted at the stack, as expressed in terms of the amount of heat input to the boiler (which is a measure of the amount of fuel being burned).

Q. In terms of compliance by PEF, how did DEP's Conditions of Certification and EPA's Conditions to Approval interact?

A. PEF was required to comply with both sets of conditions. While there was much overlap between them, the federal Conditions to Approval also addressed limits not addressed in the state Conditions of Certification.

Q. How did PEF comply with the requirements, contained in both the Conditions of Certification and the Conditions to Approval, regarding proof of availability of coal?

A. PEF provided the DEP with a long-term compliance coal contract, the Massey contract, and an opinion letter verifying the enforceability of that contract. A copy of this opinion letter and the transmittal letter to the DEP are attached as Exhibit No. __ (JMK-3).

Q. What kind of coal was contracted for in the Massey contract?

A. The Massey contract gave Electric Fuels Corporation ("EFC") the right to purchase, on behalf of PEF, coal with a maximum of 0.75 percent sulfur and 10.5 percent ash, and a minimum of 12,500 Btu. The coal mines from which the Massey contract coal would be mined were located in Boone County, West Virginia. The term of the contract was for 20 years. Given the specifications described in this correspondence, and the location of the coal mines, the Massey contract that was submitted to the DEP to satisfy the Conditions of Certification for CR4 and CR5 was for bituminous coal.

Q. And did CR4 and CR5 in fact burn this bituminous coal, some of which came from the Massey contract?

A. Yes, CR4 and CR5 burned only bituminous coal from the moment they came online.

Q. What other steps did PEF have to take to comply with the Conditions of Certification and the Conditions to Approval?

A. PEF was also required to conduct a stack performance test for particulates and SO_2 within 180 operating days after each unit came online. PEF provided the DEP with a written report of the results of each test. A copy of the initial test performed at CR4 is provided in Exhibit No. __ (JMK-4). As seen on page 4 of this exhibit, the sample coal had a Btu level of 12,472. Therefore, the type of coal tested for compliance with the emission limits was bituminous coal.

In addition to these initial tests, PEF has conducted annual performance tests for compliance with the particulate matter limits. Because CR4 and CR5 have only burned bituminous coal, each of these stack tests, year after year, has only measured particulate matter produced by burning bituminous coal.

Q. Was PEF able to stay within the 20% opacity limit set by the Conditions of Certification by burning bituminous coal at CR4 and CR5?

A. Yes, during the time period before PEF's Title V permit was issued, PEF maintained compliance with the 20% opacity limit by burning exclusively bituminous coal in CR4 and CR5.

Q. Can you determine, based on your experience, whether PEF would have complied with the opacity limit if PEF had burned sub-bituminous coal in CR4 and CR5 during this pre-Title V period?

A. By burning sub-bituminous coal, it is possible I could not guarantee that PEF would not have violated the 20% opacity limit for CR4 and CR5. Sub-bituminous coal tends to have a relatively high ash content, and is a "dustier" coal, potentially resulting in increased particulate matter emissions and opacity levels. That is why a test burn is important to perform. The DEP is aware of these characteristics of sub-bituminous coal as well, which is why the agency now requires a test burn and a specific permit modification in order to obtain approval to burn this type of coal.

Q. What would happen if PEF exceeded the 20% opacity limit for CR4 and CR5 during this time period?

A. PEF would be in violation of its Conditions to Approval, and the DEP and EPA could issue Notices of Violation. This could result in a penalty of up to $25,000 for each day of the violation.

Q. So is it fair to assert, as Mr. Sansom does, that PEF had authority to burn sub-bituminous coal before the Title V amendments were enforced?

A. No, it is unclear at best whether PEF could have burned sub-bituminous coal. To comply with its Conditions of Certification, it provided the DEP with an actual

contract that indicated a long-term commitment to buy bituminous, not sub-bituminous, coal. The initial stack tests were performed with bituminous coal, not sub-bituminous coal. And the units never burned anything except bituminous coal. Because burning sub-bituminous coal increases particulate matter and opacity levels, and PEF had to adhere to opacity and mass emission rate limits, PEF could not have burned sub-bituminous coal at CR4 and CR5 without at least notifying the DEP and EPA and probably doing a test burn of sub-bituminous coal. PEF did not do such a test burn, thus it did not have the unconditional authority to burn sub-bituminous coal at CR4 and CR5 prior to Title V enactment in 1990, despite Mr. Sansom's assertions.

Q. Does the fact that PEF indicated in its Site Certification Application that it was designing CR4 and CR5 to use a variety of fuels, including sub-bituminous coal, have any effect on the authority to burn sub-bituminous coal?

A. No, because the statements made by PEF in its Site Certification Application are only examples of what the Company planned to do with the units once they came online. PEF was trying to be as flexible as possible in its options for coal. But as the units were being constructed, and the economics and operational issues associated with burning sub-bituminous coal became clearer, PEF opted to burn only bituminous coal. So the only type of coal actually burned in the units, and actually tested for SO_2 and particulate matter, was bituminous coal.

PEF never guaranteed that it would use a blend of sub-bituminous and bituminous coals. And neither the Conditions of Certification nor the Conditions to Approval include any requirement that PEF burn a blend of sub-bituminous coal. The conditions do require that emission levels be met, and that certain tests be conducted to ensure compliance with those levels. And as explained above, because sub-bituminous coal was never actually burned in the units, PEF did not have unconditional authority to burn sub-bituminous coal in CR4 and CR5.

Q. By the way, were PEF's initial Site Certification Application and subsequent fulfillment of its Conditions of Certification and Conditions to Approval matters of public record?

A. Yes, both the initial Site Certification Application, and the subsequent proceedings approving the Application, were matters of public record. In fact, there were public hearings involving the siting of CR4 and CR5. And the records associated with the site certification process were, and still are, available for public review at the Department of Administrative Hearings. These records include the various stack testing reports and contract information provided to the Department.

Q. Did PEF act in any way to conceal its actions in certifying CR4 and CR5 or in reporting the type of coal burned at CR4 and CR5?

A. No, PEF did not conceal, and indeed could not have concealed, its actions. Pursuant to the public records law, now found in Chapter 119, every document

submittal to the Department, as a state governmental agency, is subject to review pursuant to a public records request. Accordingly, all the documents and information described above that were associated with the siting and permitting of CR4 and CR5 are accessible to any member of the public, including the Office of Public Counsel.

III. TITLE V AND ITS EFFECT ON CR4 AND CR5

Q. Please explain the change in the regulatory environment that took place with the passage of the Title V amendments to the Clean Air Act.

A. The 1990 Clean Air Act Amendments, including Title V, were a watershed event, drastically changing the way air pollution was regulated and controlled. This extensive federal legislation imposed several new limitations on power plants.

Specifically, Title V requires owners and operators of existing facilities that are major sources of regulated air pollutants to obtain an operating permit to continue to operate the facility. The operating permit issued pursuant to Title V imposes much more detailed requirements than the previous state air permits and Conditions of Certification that applied to power plants. The permit imposes requirements on how much air pollution the facility may emit, how the plant is to be operated, and the types of pollution control devices required for operation of the plant.

The information that must be provided by the owner/operator to obtain a Title V permit is also more extensive than the information needed to obtain the

previous conditions of site certification. Examples of the additional detail required in the Title V permit applications include: 1) a detailed accounting of all potential air-emitting points through the facility, such as vents, parts washing equipment, and maintenance activities (painting, floor maintenance, etc.); 2) a detailed flow diagram of all significant air-emitting sources at the facility; and 3) detailed fuel specifications and data demonstrating assurance of compliance with all regulatory and permit condition limitations and requirements. The Title V permit process is administered by each state environmental agency, but EPA retains final review over whether a permit will be issued.

Q. How did the standard for obtaining a Title V permit change from obtaining environmental site certification approval, if at all?

A. The application process for obtaining a Title V permit is much more rigorous than that previously required to obtain the federal PSD permit (with the Conditions to Approval) and the state Conditions of Certification. The permit application process significantly changed once the Title V amendments came into effect. For example, before a particular type of coal can be included in the Title V permit, the applicant must be able to provide the DEP with reasonable assurances that the coal can be burned in the unit without violating the emission limits for SO_2, NOx, and opacity.

Q. What must an owner/operator show to provide reasonable assurance to add additional allowable fuels, as required in the Title V permit?

A. Each facility is different, but there are several ways to provide reasonable assurance. If the facility has been burning the particular type of coal, it can provide information regarding the historical emissions of that coal. In the alternative, depending on the type of fuel change requested, the owner/operator of the power plant can use engineering calculations to assure the DEP that emission limits will not be violated. Reliance on engineering analyses, however, is only adequate when the proposed change will clearly not affect an emission limits. For any type of change that may increase any of the emission limits, the DEP and EPA will probably require a test burn of the new requested fuel type. Even if a test burn is not required to obtain a permit modification, a trial burn may be advisable to ensure that the unit can handle the new fuel from an operational standpoint.

Q. Is the Title V permit application process a matter of public record?

A. Yes. Obtaining any type of Title V permit is a matter of public record. First, the entire application file, excluding confidential information, must be made available for public inspection at a DEP office. The applicant for the permit must also publish a notice that specifies the nature and location of the proposed facility, as well as the location of the DEP office where the application and proposed permit may be reviewed. The notice must be published in a newspaper of general circulation in the county in which the permit activity will take place, and it must also be displayed in the appropriate DEP local office. Further, this notice provides that anyone in the public may, within thirty days of the publication of the

notice, send written comments to the DEP about the proposed permit or request a hearing on the proposed permit. So I would certainly characterize the Title V permit process as a matter of public record and open to the public.

Q. Once Title V permits are approved after this notice and comment period, is the final permit available to the public?

A. Yes, for a period of time, all environmental permits were available online at the DEP. More recently, after September 11, the permits can be obtained through a public records request to the DEP, or simply by going to the DEP and requesting to review any permit on file. In fact, the public availability of any environmental permit, in addition to the public nature of the pre-1990 process as I described above, make it hard for me to understand how OPC and Mr. Sansom can contend that PEF did anything to conceal any of these facts.

Q. Did PEF apply for a Title V permit for CR4 and CR5?

A. Yes, PEF submitted its application for a Title V operating permit on June 14, 1996.

Q. Was PEF's Title V application in 1996 and subsequent permit concealed from the public?

A. No, of course not. PEF's application, consistent with the regulations requiring notice and public recordation, was filed in the public record. When PEF's proposed Title V permit was issued by the DEP, the proposed permit was

published and interested parties were given an opportunity to request a hearing, as seen in Exhibit No. __ (JMK-5).

Q. Once an initial Title V permit has been issued, and circumstances arise in which the applicant seeks to modify the permit, how long does it take for an applicant to obtain a modification to that existing Title V permit?

A. That depends on whether a test burn is required to provide reasonable assurance. Assuming that such a trial burn is necessary, the applicant would actually need two permits. The first is a construction permit, which is issued by the state DEP. A construction permit takes about 3-6 months to obtain. The construction permit allows the holder of the permit to conduct a short term trial burn, normally less than 30 days in length, pursuant to the terms of the construction permit. Usually the permit requires the holder to monitor the emissions during the short term test burn and report the findings to the DEP after the burn.

Once the test burn is completed, the applicant then decides whether to seek a permanent modification to the Title V operating permit. A permanent modification allows the applicant to burn the requested fuel on a longer-term basis. The standard for obtaining a permanent modification is the same standard applied to receive the initial Title V air permit. The applicant must provide reasonable assurances that the requested change in fuels will not result in a violation of the unit's emission limits. On average, a permanent modification to a Title V operating permit takes about 6-8 months to obtain.

Q. What reasonable assurance did PEF use to support its Title V permit application in 1996?

A. PEF supported its permit application with historical data, because bituminous coal had been burned at CR4 and CR5 since the units went online. Because compliance with emission limits was maintained while the bituminous coal was burned, this provided adequate reasonable assurance that CR4 and CR5 would remain in compliance with the limits.

Q. Why did PEF only include bituminous coal in its initial Title V permit application?

A. PEF had only burned bituminous coal at CR4 and CR5 since the units went online. In addition, no other type of coal was considered economic at the time the permit application was submitted. Other types of coal, including sub-bituminous, also have certain handling and operational issues that make them significantly different from bituminous coal. For all these reasons, PEF only included bituminous coal in its Title V permit application.

Q. Do you agree with Mr. Sansom's testimony on pages 19-20, where he indicates that PEF abandoned its authority to burn sub-bituminous coal by not including that type of coal in its Title V permit application?

A. No, as I explained above, bituminous coal was the only type of coal burned at CR4 and CR5 prior to the Title V permit application. It was also the only type of coal for which performance tests were completed pursuant to the original

Conditions of Certification. It was the only type of coal that we knew satisfied all requirements of the Conditions of Certification and Conditions to Approval. PEF did not have the authority to burn sub-bituminous coal prior to the Title V permit application, because the characteristics of sub-bituminous coal render it possible to violate the opacity and particulate emission requirements of the Conditions to Approval and Conditions of Certification. And if a violation could just possibly occur when burning sub-bituminous coal, then PEF would not have burned that coal without taking some additional steps to convince itself and the DEP that the limits would not be violated. And so PEF could not have abandoned something it did not have.

In addition, it is like comparing apples to oranges for Mr. Sansom to equate the general "coal" in the original Conditions of Certification to PEF having authority to burn sub-bituminous coal in the more rigorous regulatory environment created by the Title V amendments. As explained above, the requirements to obtain a Title V permit are quite different from what was required to receive the prior conditions of site certification. Because the Title V permit required the reasonable assurance regarding specific types of coal, Mr. Sansom is incorrect to state that PEF had authority to burn sub-bituminous coal in its prior site certification conditions that could simply transfer to the Title V permit.

Q. Did PEF modify its original Title V application?

A. Yes, in the spring of 1999, PEF submitted an application to DEP requesting the modification of its existing air construction Title V permit, to also allow units CR4 and CR5 to use a bituminous coal/briquette mixture as an allowable fuel.

Q. Was a notice of intent published for this proposed permit?

A. Yes, the public notice of intent was published in the Citrus County Chronicle, the county in which the Crystal River site is located, on June 3, 1999. See Exhibit No. __ (JMK-6).

Q. Why did PEF request this modification?

A. I understand that at that time, the briquettes, also known as synfuel, had become an economical choice as a fuel alternative for CR4 and CR5.

Q. What reasonable assurances did PEF have to supply DEP to support its modification request for a briquette/coal mixture of fuel?

A. To provide reasonable assurances to the DEP that the use of the briquette/coal mixture would not result in an increase in emissions, PEF guaranteed that emission levels resulting from the briquettes would be limited at CR4 and CR5 to the average emissions from the prior three years at the units. Because PEF had been emitting at less than the allowable emission levels at the units that were set by the initial Title V permit, this guarantee was sufficient because it actually resulted in a lower emissions level at the units. In addition, the synfuel had a

bituminous base and was to be burned in a mixture with bituminous coal, so the units would never be burning 100% synfuel.

Q. Had PEF ever burned a briquette mixture in the units prior to the modification request?

A. No, PEF had not burned a briquette/coal mixture at CR4 and CR5 prior to its request for a permit modification. But PEF was able to provide reasonable assurances that emission levels would be met, because briquettes have the same base as bituminous coal. Briquettes are formed by taking a bituminous stock and applying chemicals to that stock. PEF had always burned bituminous coal in CR4 and CR5 and thus was quite familiar with how that coal would affect emissions when burned in those units. In addition, as stated above, because the briquettes are formed from bituminous coal (briquettes are 98% to 99% coal and 1% to 2% binder), PEF was able to provide the additional assurance that emission levels would be limited to actual emission output from prior years.

Q. Was PEF's requested modification granted by the DEP?

A. Yes, on June 29, 1999, the DEP issued a modified Title V air construction permit to allow PEF to burn a coal/briquette mixture at CR4 and CR5.

III. PERMIT MODIFICATIONS FOR SUB-BITUMINOUS COAL

Q. Please explain the events surrounding PEF's 2004 test burn.

A. In April 2004, the PEF fuels department began burning a blend of PRB and bituminous coal at CR4. PEF's environmental department learned of the test burn, reviewed the plant's Title V permit, and realized that the units were not specifically permitted to burn sub-bituminous coal. The environmental department then notified the fuels department, which indicated that the test burn was done because the people in the fuels department believed that the units were permitted to burn sub-bituminous blend. The test burn was immediately stopped. PEF then notified the DEP of the test burn. No action was taken by the DEP.

Q. What steps, if any, has PEF taken to be able to burn sub-bituminous, or PRB coal, at CR4 and CR5 pursuant to its Title V permit?

A. In early 2006, the fuels department notified the environmental department that it wanted to test burn a blend of up to 30% PRB coal with the remainder being bituminous coal. On March 3, 2006, PEF applied for an air construction permit for a short-term trial burn of a sub-bituminous/bituminous mixture for about 226 full load operating hours. See Exhibit No. __ (JMK-7).

Q. How did the DEP respond to this permit request?

A. The DEP responded favorably. A little more than a month from the date PEF submitted its application, on April 26, 2006, DEP issued its final construction permit for the short-term test burn of sub-bituminous coal at CR4 and CR5. See Exhibit No. __ (JMK-8).

Q. Did PEF complete a trial burn of the sub-bituminous/bituminous coal mixture at CR4 and CR5?

A. Yes, in May 2006, PEF test burned a blend of the sub-bituminous coal.

Q. What, if anything, did PEF do after this test burn?

A. Because PEF may want to explore a more comprehensive review of the sub-bituminous coal in a long-term test burn, PEF applied for a permanent modification to the Title V operating permit to burn a 30% blend of sub-bituminous coal in CR4 and CR5. PEF submitted its application on September 1, 2006.

Q. What is the status of PEF's requested Title V permit application modification?

A. The DEP has drafted a permit, which has been submitted for public review. This permit received no comments and was forwarded to EPA for review. Pursuant to discussions with the DEP, PEF expects to have the final permit modification issued during the first quarter of 2007.

Q. Are you aware of Mr. Sansom's claims regarding early test burns of sub-bituminous coal?

A. Yes, on page 45 of Mr. Sansom's testimony, he claims that PEF should have test burned sub-bituminous coal at least during the early 1990s, and possibly even right after the units came online in the early 1980s. This way, according to Mr.

Sansom's argument, PEF would have been permitted and ready to buy PRB coal once that coal became more economical.

Q. Do you agree with Mr. Sansom's claims?

A. No. Even assuming that there came a time when PRB coal looked economical, PEF could not have done a test burn in the early 1990's to include sub-bituminous coal in the permit as a "placeholder." As explained by Rod Hatt, a long-term test burn must be done relatively close in time to when the plant expects to burn the different coal. So any test burn completed a significant amount of time before the plant expected to burn that coal would essentially be a waste. The test burn would have to be repeated for operational purposes.

In addition, the length of time in which PEF could have obtained a Title V permit modification is shorter than that needed operationally to complete a long-term test burn. As explained above, it takes approximately 3-6 months to obtain a construction permit to authorize a short-term test burn. After the completion of the short-term test burn, if PEF wanted to consider a long-term burn, it would apply for a Title V permit modification. This permit modification process takes about 6-8 months to complete. So in total, PEF could have obtained a Title V permit modification in approximately 14 months. As Wayne Toms, plant manager at CR4 and CR5, explains in his testimony, the capital improvements necessary to begin a long-term test burn would take a minimum of 18 months, and possibly up to 30 months, to complete. So by the time the capital improvements

necessary to do the long-term test burn were operational at the plant, PEF would have been able to complete the entire permitting process.

Q. Do you have any other issues to discuss regarding the use of a PRB/bituminous coal blend at CR4 and CR5?

A. Yes, I would like to mention the impact that the installation of scrubbers on CR4 and CR5 may have on the issue of whether PRB coal should be burned in these units.

Q. What are scrubbers?

A. A scrubber is a pollution control device that is installed at a coal-fired unit to remove sulfur dioxide from the unit's exhaust. Because scrubbers remove 95% or more of the sulfur dioxide, a unit with a scrubber has a great deal of flexibility in terms of the type of coal that it can burn, including higher-sulfur, less expensive coal, and still remain within the limits of its environmental permit.

Q. Are scrubbers currently required to operate a coal-fired power plant?

A. No, but with the recent promulgation of EPA's Clean Air Interstate Rule (CAIR) and Clean Air Mercury Rule (CAMR), which cap the amount of sulfur dioxide, nitrogen oxides, and mercury that coal-fired units can emit, most utilities will have to install scrubbers on many of their units.

Q. What effect, if any, does burning PRB coal have on scrubbers?

A. It is more difficult to remove mercury from PRB coal. Even though there is less mercury in PRB coal than in bituminous coal, the chemical composition of PRB coal reduces the effectiveness of the scrubber in removing the mercury. Therefore, the scrubber can remove a higher percentage of the mercury from bituminous coal than it can from the PRB coal. Other devices, such as sorbent injection and baghouses, may need to be installed to sufficiently remove the mercury from PRB coal.

Q. Does the Company have any plans to install scrubbers on CR4 and CR5?

A. Yes, currently PEF will install scrubbers on CR5 by the end of 2009 and on CR4 by spring of 2010. The Company is installing these scrubbers to comply with the CAIR and CAMR requirements. It began planning the installation of these scrubbers in 2004, prior to the enactment of CAIR and CAMR, because the Company realized that the rules were being proposed and would likely become requirements.

Q. What concerns, if any, do you have with burning a PRB/bituminous coal blend at CR4 and CR5, given the planned installation of these scrubbers?

A. As explained above, with a scrubber a plant can burn cheaper, higher-sulfur coal. If one of the alleged benefits of PRB coal is the reduced SO_2 emissions, the need for lower-sulfur coal is greatly reduced with a scrubber. And the cost of PRB coal must be compared to high-sulfur coal, not to low-sulfur Central Appalachian "compliance" coal. This makes the price of PRB coal appear less economical. In

addition, because the scrubbers will be less effective at removing the mercury from the PRB coal, additional equipment may be required to maintain compliance with the new mercury emission limits. These additional costs make PRB coal look even less economical.

Q. Does this conclude your testimony?

A. Yes, it does.

State of Florida Department of Environmental Regulation
Florida Power Corporation
Crystal River Units No. 4 & 5
Case No. PA 77-09
CONDITIONS OF CERTIFICATION

GENERAL

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State of Florida Department of Environmental Regulation
Florida Power Corporation
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CONDITIONS OF CERTIFICATION

GENERAL

1. Change in Discharge

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge of any pollutant not identified in the application, or any discharge more frequent than, or at a level in excess of that authorized herein, shall constitute a violation of the certification. Any anticipated facility expansions, production increases, or process modifications which will result in new, different or increased discharges or expansion in steam generating capacity will require a submission of a new or supplemental application pursuant to Chapter 403, Florida Statutes.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any limitation specified in this certification, the permittee shall notify the Southwest District Manager of the Department by telephone during the working day during which said noncompliance occurs and shall confirm this situation in writing within seventy-two (72) hours of first becoming aware of such conditions, supplying the following information:

a. A description and cause of noncompliance; and

b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying event.

3. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this certification. Such systems are not to be bypassed without prior department approval.

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4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including but not limited to such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying event.

5. Right of Entry

The permittee shall allow the Secretary of the Florida Department of Environmental Regulation and/or authorized representatives, upon the presentation of credentials:

a. To enter upon the permittee's premises where an effluent source is located or in which records are required to be kept under the terms and conditions of this permit; and

b. To have access to and copy all records required to be kept under the conditions of this certification; and

c. To inspect and test any monitoring equipment or monitoring method required in this certification and to sample any discharge or pollutants, and

d. To assess any damage to the environment or violation of ambient standards.

6. Revocation or Suspension

This certification may be suspended or revoked pursuant to Section 403.512, Florida Statutes, or for violations of any General or Special Condition.

7. Civil and Criminal Liability

This certification does not relieve the permittee from civil or criminal responsibility or liability for noncompliance with any conditions of this certification, applicable rules or regulations of the Department, or Chapter 403, Florida Statutes, or regulations thereunder.

Subject to Section 403.511, Florida Statutes, this certification shall not preclude the institution of any legal action or relieve the permittee from any responsibilities or penalties established pursuant to any other applicable State Statutes or regulations.

8. Property Rights

The issuance of this certification does not convey any property rights in either real or personal property tangible or intangible, nor any exclusive privileges, nor 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. The applicant will obtain title, lease or right of use from the State of Florida, to any sovereign submerged lands occupied by plant, transmission line structures, or appurtenant facilities.

9. Severability

The provisions of this certification are severable, and if any provision of this certification, or the application of any provision of this certification to any circumstances, is held invalid, the application of such provision to other circumstances and the remainder of the certification shall not be affected thereby.

10. Definitions

The meaning of terms used herein shall be governed by the definitions contained in Chapter 403, Florida Statutes, and any regulation adopted pursuant thereto. In the event of any dispute over the meaning of a term used in these general or special conditions which is not defined in such statutes or regulations, such dispute shall be resolved by reference to the most relevant definitions contained in any other state or federal statute or regulation or, in the alternative by the use of the commonly accepted meaning as determined by the Department.

11. Review of Site Certification

The certification shall be final unless revised, revoked or suspended pursuant to law. At least every five years from the date of issuance of this certification or any National Pollutant Discharge Elimination System Permit issued pursuant to the Federal Water Pollution Control Act Amendments of 1972, for the plant units, the Department shall review all monitoring data that has been submitted to it during the preceding five-year period, for the purposes of determining the extent of the permittee's compliance with the conditions of this certification and the environmental impact of this facility. The Department shall submit the results of its review and recommendations to the permittee. Such review will be repeated at least every five years thereafter.

12. Modification of Conditions

The conditions of this certification may be modified in the following manner:

a. The Board hereby delegates to the Secretary the authority to modify, after notice and opportunity for hearing, any conditions pertaining to monitoring, sampling, or groundwater.

b. All other modifications shall be made in accordance with Section 403.516, F.S.

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SPECIAL

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SPECIAL

I. Air

The Construction and operation of Units No. 4 and 5 at the Crystal River steam electric power plant site shall be in accordance with all applicable provisions of Chapters 17-2, 17-5 and 17-7, Florida Administrative Code. In addition to the foregoing, the permittee shall comply with the following specific conditions of certification:

A. Emission Limitations

1. Stack emissions from Units 4 and 5 shall not exceed the following when burning coal:

   a. SO_2 - 1.2 lb. per million BTU heat input, maximum two hour average.

   b. No_x - 0.70 lb. per million BTU heat input.

2. Stack SO_2 emissions from Units 1 & 2 shall not exceed the following when coal is burned.

   a. Starting six months prior to the operation of Unit 4 - 2.9 lb per Million BTU heat input.

   b. Starting six months prior to the operation of Unit 5 - 2.1 lb per million BTU heat input.

3. The permittee shall not burn a fuel oil containing more than 0.73% sulfur. However, the applicant may petition the Department to revise this condition by (a) demonstrating compliance with Section 17-2.05(6)(e)1, FAC, or (b) installing a flue gas desulfurization unit that will insure compliance with the above emission limitation. The boiler shall not be operated unless this condition is complied with.

4. The height of the boiler exhaust stacks for Units No. 4 & 5 shall not be less than 600 ft. above grade.

5. The permittee shall provide a plot plan of equipment prior to the start of construction, showing the proposed tentative location of flue gas desulfurization (FGD) equipment

so that such equipment can be added at a later date, if installation of such equipment should subsequently become necessary. Prior to installation of any FGD equipment, plans and specifications for such equipment shall be submitted to the Department for review and approval.

6. Particulate emissions from the coal handling facilities:

   a. The applicant shall not cause to be discharged into the atmosphere from any coal processing or conveying equipment, coal storage system or coal transfer and loading system processing coal, visible emissions which exceed 20 percent opacity.

   b. The applicant must submit to the Department within five (5) working days after it becomes available, copies of technical data pertaining to the selected particulate emissions control for the coal handling facility. These data should include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. The Department may, upon review of these data, disapprove the use of such device if the Department determines the selected control device to be inadequate to meet the visible emission limit specified in 6(a) above.

B. Air Monitoring Program

1. The permittee shall install and operate continuously monitoring devices for the Units No. 4 & 5 boiler exhaust for sulfur dioxide, nitrogen oxides and opacity. The monitoring devices shall meet the applicable requirements of Section 17-2.710, Florida Administrative Code.

2. The permittee shall operate the existing ambient monitoring devices for sulfur dioxide as shown on Attachment 1. in accordance with EPA reference methods in 40 CFR, Part 53 and the existing ambient monitoring devices for suspended particulates as shown on Attachment 1. New or existing monitoring devices shall be located as designated by the Department. The frequency of operation shall be every six days as specified by the Department.

3. The permittee shall maintain a daily log of the amounts and types of fuels used and copies of fuel analyses containing information on sulfur content, ash content and heating values to facilitate calculations of emissions.

4. The permittee shall provide sampling ports into the stack and shall provide access to the sampling ports, in accordance

with DER Publication, Standard Sampling Techniques and Methods of Analysis for the Determination of Air Pollutants from Point Source, July 1975.

5. The ambient monitoring program may be reviewed annually beginning two years after start-up of Unit No. 5 by the Department and the permittee.

6. Prior to operation of the source, the applicant shall submit to the Department a standardized plan or procedure that will allow the applicant to monitor emission control equipment efficiency and enable the applicant to return malfunctioning equipment to proper operation as expeditiously as possible.

7. Salt drift deposition, accumulation, vegetative effects and effects on equipment shall be monitored and reported to the department in a manner and frequency approved by the department prior to the operation of the first cooling tower.

C. Stack Testing:

1. Within 60 calendar days after achieving the maximum capacity at which each unit will be operated, but no later than 180 operating days after initial startup, the owner or operator shall conduct performance tests for particulates and SO_2 and furnish the Department a written report of the results of such performance tests.

2. Performance tests shall be conducted and data reduced in accordance with methods and procedures in accordance with DER's Standard Sampling Techniques and Methods of Analysis for Determination on Air Pollutants from Point Sources. July 1975.

3. Performance tests shall be conducted under such conditions as the Department shall specify based on representative performance of the facility. The owner or operator shall make available to the Department such records as may be necessary to determine the conditions of the performance tests.

4. The owner or operator shall provide 30 days prior notice of the performance tests to afford Department the opportunity to have an observer present.

5. Stack tests for particulates and SO_2 shall be performed annually in accordance with conditions C. 2, 3, and 4 above.

D. Reporting

1. For each Unit, stack monitoring, fuel usage and fuel analysis data shall be reported to the Department on a quarterly basis commencing with the start of commercial operation in accordance with 40 CFR, Part 60, Section 60.7., and in accordance with Section 17-2.08, FAC.

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2. Ambient air monitoring data shall be reported to the Department quarterly commencing on the date of certification by the last day of the month following the quarterly reporting period utilizing the SAROAD or other format approved by the Department in writing.

E. Coal Characteristics and Contracts

Before approval can be granted by the Department for use of control devices, characteristics of the coal to be fired must be known. Therefore, before these approvals are granted, the applicant must submit to the Department copies of coal contracts which should include the expected sulfur content, ash content, and heat content of the coal to be fired. These data will be used by the Department in its evaluation of the adequacy of the control devices. Also, the applicant must demonstrate the ability to acquire a low sulfur coal supply of sufficient length to enable the installation of sulfur removal equipment if the supplies of low sulfur coal should not become available or be discontinued. Therefore, the coal contracts must be for a period of at least five (5) years from the date of start-up of the boiler.

F. Coal Information

As an alternative to the submittal of contracts for purchase of coal under condition E above, the applicant may submit the following information:

1. The name of the coal supplier;

2. The sulfur content, ash content, and heat content of the coal as specified in the purchase contracts;

3. The location of the coal deposits covered by the contract (including mine name and seam);

4. The date by which the first delivery of coal will be made;

5. The duration of the contract; and

6. An opinion of counsel for the applicant that the contracts are legally binding.

G. Reporting:

Beginning one month after certification the applicant shall submit to the Department a quarterly status report briefly outlining progress made on engineering design and purchase of

major pieces of equipment (including control equipment). All reports and information required to be submitted under this condition shall be submitted to the Administrator of Power Plant Siting, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32301.

II. Water Discharges

Any discharges into any waters of the State during construction and operation of Units No. 4 & 5 shall be in accordance with all applicable provisions of Chapter 17-3, Florida Administrative Code and 40 CFR, 423, Effluent Guidelines and Standards for Steam Electric Power Generating Point Source Category. Also the permittee shall comply with the following conditions of certification:

A. Plant Effluents and Receiving Body of Water

For discharges made from the power plant the following conditions would apply.

1. Receiving Body of Water (RBW)

The receiving body of water will be determined by the Department to be those waters affected which are considered to be waters of the State within the definition of Chapter 403, Florida Statutes.

2. Point of Discharge (P.O.D.)

The point of discharge will be determined by the Department to be where the effluent physically enters the waters of the State.

3. Thermal Mixing Zone

The zone of thermal mixing for cooling tower blowdown shall not extend beyond the western end of the north bank of the existing discharge canal. During Discharge, the blowdown from the cooling tower for Units No. 4 & 5 shall be withdrawn at the point of lowest temperature of the recirculating cooling water prior to the addition of makeup water. The temperature at the point of discharge into the discharged canal shall not be greater than 96 degrees F., maximum two (2) hour average. The temperature of the water at the end of the discharge canal shall not exceed the limitations of Paragraph 17-3.05(1) (d) when only Units 4 & 5 are operating and one or more of the circulating water pumps from the existing units are operating.

4. Chemical Wastes and Boiler Blowdown

All discharges of low volume wastes (demineralizer regeneration, cooling tower basin cleaning wastes, floor drainage, sample drains and similar wastes), metal cleaning wastes (including

preheater and fireside wash) and boiler blowdown shall comply with Chapter 17-3. If violations of Chapter 17-3 occur, corrective action shall be taken. These wastewaters shall be discharged to an adequately sized and constructed percolation pond.

5. Coal Pile and Ash Landfill Runoff

Coal pile runoff and ash landfill runoff from less than 10-year 24-hour rainfall shall be treated if required by Special Condition III. H. and discharged to an adequately sized and constructed percolation ditch system.

6. Cooling Tower Blowdown

The cooling tower blowdown shall contain no detectable amounts of materials added for corrosion inhibition, including but not limited to zinc and chromium.

7. Chlorine

The quantity of free available chlorine discharged in the blowdown from the cooling tower shall not exceed 0.5 mg/l at any one time and shall not exceed 0.2 mg/l as an average. Neither free available chlorine nor total residual chlorine may be discharged from either unit for more than two hours in any one day and Units 4 or 5 may not discharge chlorine while any other unit is discharging chlorine.

8. pH

The pH of all discharges shall be such that the pH of water in the discharge canal shall be within the range of 6.0 to 8.5, at a distance of 150 meters from the POD into the canal.

9. Polychlorinated Biphenyl Compounds

There shall be no discharge of polychlorinated biphenyl compounds.

B. Water Monitoring Programs

The permittee shall monitor and report to the Department the listed parameters on the basis specified herein. The methods and procedures utilized shall receive written approvel by the Department. The monitoring program may be reviewed annually by the Department, and a determination may be made as to the necessity and extent of continuation, and may be modified in accordance with condition No. 12 of the General Conditions of Certification.

1. Chemical Monitoring

The following parameters shall be monitored as shown during discharge commencing with the start of commercial operation of the first unit and reported quarterly to the Department:

Parameter	Location	Sample Type	Frequency
Flow, Groundwater	Wellfield pipeline	Recorder	Totalizer
Flow, Discharge	C.T. Outfall*	Recorder	Totalizer
Conductivity	C.T. Outfall	Recorder	Continuous
pH	C.T. Outfall	Grab**	Daily
Temperature	C.T. Outfall	Recorder	Continuous
TDS	C.T. Outfall	Grab	Weekly
Total Residual Oxidants	C. T. Outfall	Recorder	Continuous

2. Groundwater Monitoring

a. The groundwater levels shall be monitored continuously at wells as approved by Southwest Florida Water Management District. Chemical analyses shall be made on samples from all monitored wells identified in Condition III. F. below. The location, frequency and selected chemical analyses shall be as given in Condition III. F.

b. The groundwater monitoring program shall be implemented at least one year prior to operation of Crystal River No. 4. The chemical analyses shall be in accord with the latest edition of Standard Methods for the Analysis of Water and Wastewater. The data shall be submitted within 30 days of collection/analysis to the Southwest Florida Water Management District and to the DER Southwest District Office.

c. Conductivity and heavy metals shall be monitored in wells around all ash disposal sites and coal piles.

III. Groundwater

A. General

The use of groundwater from a linear wellfield for plant service water for Units 4 and 5 shall be minimized to the greatest extent practicable, but in no case shall exceed 3 mgd on a maximum daily basis from any new wells or 1.0 mgd on an average annual basis.

B. Well Criteria

The submission of well logs and test results and location, design and constructon of wells to provide plant service water shall be in accordance with applicable rules of the Department of Environmental Regulation and the Southwest Florida Water Management District (SWFWMD). Total water use per month shall be reported monthly to SWFWMD commencing with the start of construction.

* Cooling Tower Outfall Pipe.
** Representative sample.

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C. Well Withdrawal Limits

FPC is authorized to make a combined average annual withdrawl of 1,000,000 gallons of water per day with a maximum combined withdrawl rate not to exceed 3,000,000 gallons during a single day. Withdrawls may be made from a linear wellfield consisting of up to seven (7) wells whose locations are prescribed in the table below.

FPC Well No.	WITHDRAWAL POINT LATITUDE	LONGITUDE	GALLONS PER DAY MAXIMUM	GALLONS PER DAY AVERAGE
PW-1	28 57 36	82 37 48	756,000	262,500
PW-2	28 57 36	82 37 42	756,000	262,500
PW-3	28 57 36	82 37 36	756,000	262,500
PW-4	28 57 36	82 37 30	756,000	262,500
PW-5	28 57 36	82 37 24	756,000	262,500
PW-6	28 57 36	82 37 18	756,000	262,500
PW-7	28 57 36	82 37 13	756,000	262,500

D. Water Use Restriction

Said water is restricted to uses other than main steam condensing. Any change in the use of said water will require a modification of this condition.

E. Emergency Shortages

In the event an emergency water shortage should be declared pursuant to Section 373.175 or 373.246, F.S., by Southwest Florida Water Management District for an area including the location of these withdrawal points, the Department pursuant to Section 403.516, F.S., may alter, modify, or declare to be inactive, all or parts of Special Condition III.A.-G. An authorized Water Management District Representative, at any reasonable time, may enter the property to inspect the facilities.

F. Monitoring and Reporting

FPC shall, within the time limits hereinafter set forth, complete the following items, and if it fails to complete them by the specified time, then Special Condition III.A.-G. shall automatically become null and void.

1. FPC shall install and continuously maintain totalizing flow measurement devices on withdrawal point(s) as listed. Said devices shall have and maintain an accuracy within five percent of the actual flow under the installed operating conditions.

   Permittee shall notify the District upon completion of new installation prior to commencement of withdrawal.

   Alternative flow measuring systems may be substituted upon written approval by the Director of the Regulatory Division of the SWFWMD in advance of installation.

2. FPC shall submit to SWFWMD, on forms available from the District, a record of pumpage for eash meter installed in F.1. above. Said pumpage shall be provided on a monthly basis. Reports will be sent to:

   Chief, Processing and Records
   Southwest Florida Water Management District
   5060 U.S. Highway 41, South
   Brooksville, Florida 33512

3. FPC shall maintain and operate continuous water level recorders on wells MZ-2I, MZ-2D, and PW-7 located at Florida Power Corporation pump test site in Citrus County, Florida. FPC shall manually measure water levels monthly in wells MZ-2S, MZ-1S, MZ-1I and MZ-1D. Detailed hydrographs of water level fluctuations shall be constructed with the data collected from the water level recorders and shall be submitted to SWFWMD monthly.

4. Water quality analysis shall be performed on water withdrawn from each production well and from wells MZ-2I and MZ-2D. The water samples collected from each of the referenced wells shall be collected immediately after removal by pumping of a quantity of water equal to two casing volumes. The water quality analyses shall be performed monthly during the first year of operation, four times (January, May, September, and December) during the second year and twice each year (May and September) thereafter. Results shall be submitted to SWFWMD by the fifteenth (15th) day of the month following the month during which such analyses were performed. Testing for the following constituents is required:

Calcium	Magnesium	Sodium
Potassium	Bicarbonate	Sulfate
Chloride	Nitrate	Total Dissolved Solids
Specific Conductance	Gross Alpha	Total Phosphate
Radium 226 (only if gross Alpha is greater than 15 pci/1)	Radiation	

The design and location of wells MZ-1 and MZ-2 shall be as indicated by the attached Figures 1 and 2 respectively or as modified by the staff of SWFWMD.

5. In the event that SWFWMD determines there is a significant change in the water quality, the Department pursuant to Section 403.516, F.S., may require the permittee to reduce or tease withdrawal from these groundwater sources.

G. Minimum Water Level Restrictions

The Department and SWFWMD may, at a future date pursuant to Section 403.516, F.S., establish a minimum water level in the aquifer or aquifers hydrologically associated with these withdrawals, which may require FPC to reduce or cease withdrawal from these groundwater sources at times when water levels fall below these minimums.

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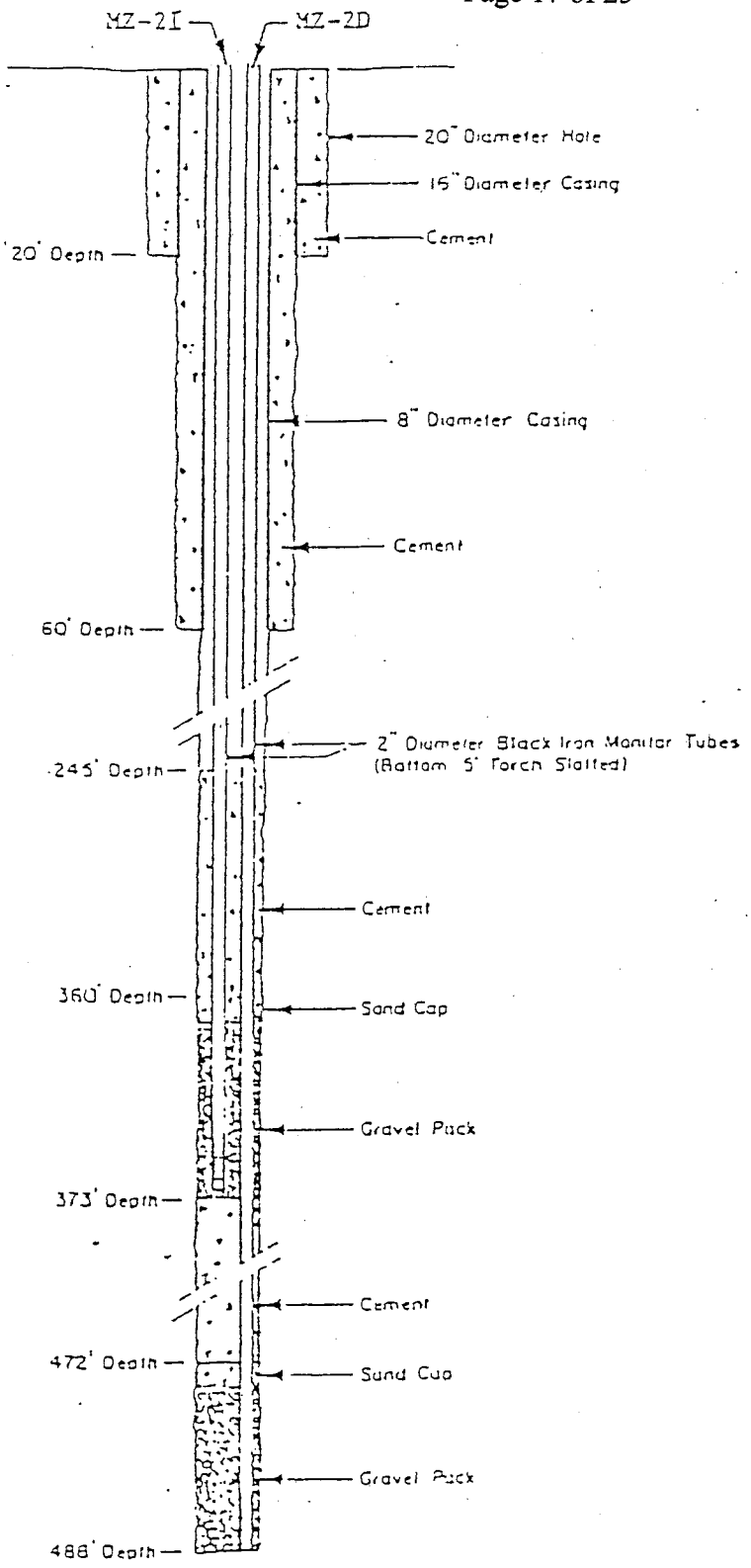


Figure 1. Construction Diagram of Monitor Well MZ-2.

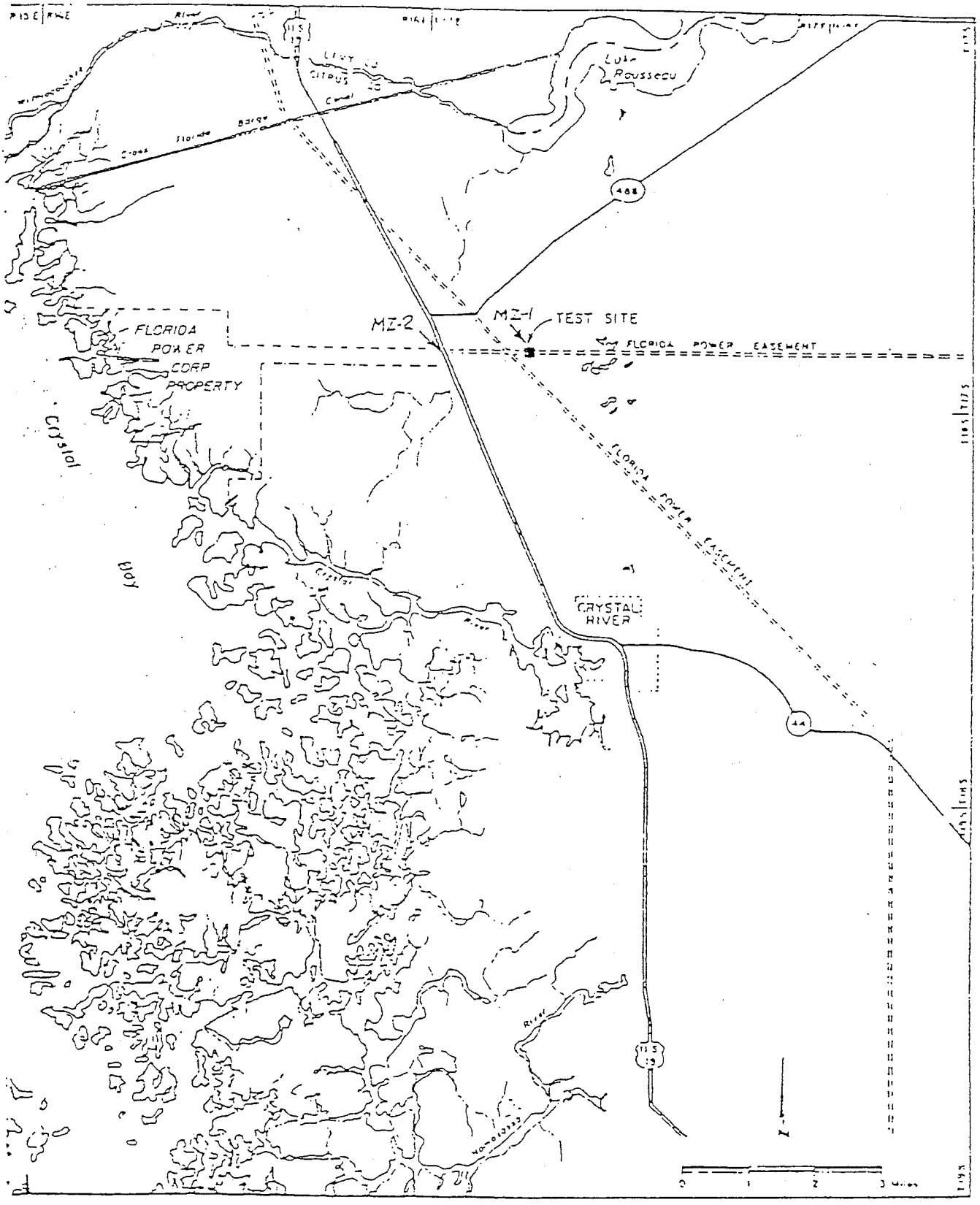


Figure 2. Location of the Test Site.

PEF-FUEL-000255

H. Leachate

1. Compliance

Leachate from the ash landfill, coal storage piles, plant drains collection pond, canal retention system and ditches shall not contaminate waters of the State (including both surface and groundwaters) in excess of the limitations of Chapter 17-3, FAC.

2. Monitoring

A monitoring well system shall be used, commencing with operation, to determine whether or not leachate from the plant drains collection pond, canals, ditches, the ash landfill and coal pile is contaminating the groundwater in violation of Chapter 17-3. The permittee shall keep a monthly record of the monitoring results and shall notify the Southwest District Office of the Department and the Southwest Florida Water Management District when said measurements exceed water quality standards. A quarterly summary of the results of monitoring shall be provided to the Southwest District Manager. The proposed monitoring well system shall be submitted to the Department for approval prior to installation.

3. Corrective Action

When the leachate monitoring system indicates to the Department violation of the groundwater water quality standards of Chapter 17-3, FAC., the appropriate ditches, canal, pond, ash landfill, or coal pile shall be sealed, relocated or closed, or the operation of the affected facility shall be altered in such a manner as to assure the Department that no significant contamination of the groundwater will occur.

IV. Control Measures During Construction

A. Stormwater Runoff

During construction and plant operation, necessary measures shall be used to settle, filter, treat or absorb silt containing or pollutant laden stormwater runoff to limit the suspended solids to 50 mg/l or less at the POD during rainfall periods less than the 10-year, 24-hour rainfall, and to prevent an increase in turbidity to more than 50 Jackson Turbidity Units above background in waters of the State.

Control measures shall consist at the minimum, of filters, sediment traps, barriers, berms or vegetative planting. Exposed or disturbed soil shall be protected as soon as possible to

minimize silt and sediment laden runoff. The pH shall be kept within the range of 6.0 to 8.5, after opportunity for reasonable mixing as defined in II.A.8.

8. Sanitary Wastes

Disposal of sanitary wastes from construction toilet facilities shall be in accordance with applicable regulations of the Department and appropriate local health agency. The sewage treatment plant shall be operated in accordance with Chapters 17-3, 17-16, and 17-19, FAC.

C. Environmental Control Program

An environmental control program shall be established under the supervision of a qualified person to assure that all construction activities conform to good environmental practices and the applicable conditions of certification.

The permittee shall notify the Department if unexpected harmful effects or evidence of irreversible environmental damage are detected during construction, shall immediately cease work and shall provide an analysis of the problem and a plan to eliminate or significantly reduce the harmful effects or damage, and to prevent reoccurrence.

V. Solid Wastes

Solid wastes resulting from construction or operation shall be disposed of in accordance with the applicable regulations of Chapter 17-7, FAC.

Open burning in connection with land clearing shall be in accordance with Chapter 17-5, FAC, no additional permits shall be required, but the Division of Forestry shall be notified prior to burning. Open burning shall not occur if the Division of Forestry has issued a ban on burning due to fire hazard conditions.

VI. Operation Safeguards

The overall design, layout, and operation of the facilities shall be such as to minimize hazards to humans and the environment. Security control measures shall be utilized to prevent exposure of the public to hazardous conditions.

VII. Screening

The permittee shall provide screening of the site through the use of aesthetically acceptable structures, vegetated earthen walls and/or existing or planted vegetation.

VIII. Potable Water Supply System

The potable water supply system shall be designed and operated in conformance with Chapter 17-22, FAC. Information as required in 17-22.05 shall be submitted to the Department prior to construction and operation. The operator of the potable water supply system shall be certified in accordance with Chapter 17-16, FAC.

IX. Transformer and Electric Switching Gear

The foundations for transformers, capacitors, and switching gear necessary for Crystal River Units 4 and 5 to the existing distribution system shall be constructed of an impervious material and shall be constructed in such a manner to allow complete collection and recovery of any spills or leakage of oily, toxic, or hazardous substances.

X. Toxic, Deleterious, or Hazardous Materials

The spill of any toxic, deleterious, or hazardous materials shall be reported in the manner specified by General Conditions 2.

XI. Construction in Waters of the State

No construction on sovereignty submerged lands shall commence without obtaining lease or title from the Department of Natural Resources.

Construction of intake and discharge structures should be done in a manner to minimize turbidity. Sheetpiles or turbidity screens should be used if necessary to prevent turbidity in excess of 50 JTU above background beyond 150 meters from the POD and/or construction site.

XII. Ash Landfill and Coal Piles

*A. Ash Landfill

FPC shall designate a portion of the site as a temporary ash landfill. Associated with the temporary landfill shall be certain sites for the testing and monitoring of leachates and ash pile liners.

Adequate geophysical testing shall be conducted to determine if solution cavities are present under the landfill area. If such cavities are located, such cavities shall be sealed off and stabilized.

The proposed ash landfill area shall be monitored and studied pursuant to a detailed leachate testing and monitoring program to be submitted by FPC to the Department within 30

*Revised (9/14/78)

days of certification for review, and approval, rejection, or modification within 60 days thereafter. The detailed leachate testing and monitoring program shall be consistent with the conceptual leachate monitoring program attached and incorporated herein as Attachment 2.

After approval of the program by the Department, FPC shall conduct the approved testing and monitoring program under the supervision of the Department. Results of the program shall be submitted to the Department for its review and consideration on a monthly basis.

The results of the program will be used by the Department in determining whether FPC has affirmatively demonstrated that Florida Water Quality Standards (17-3 F.A.C) will not be violated, in determining the zone of discharge, and in determining the need for a liner.

If the Department determines that FPC has failed to affirmatively demonstrate that Florida Water Quality Standards (17-3 F.A.C.) will not be violated, FPC shall present to the Department, within 90 days of such determination, a plan of correction, (which may include, if appropriate, a semi-permeable liner) for review and approval by the Department, and for timely implementation by FPC; or FPC shall place an impermeable liner under the final ash landfill site and shall remove all ash from the temporary landfill site and place it on the lined landfill location.

The final cover shall be in compliance with Chapter 17-7, F.A.C., and at least 12" of clay or sufficient suitable liner material shall be placed on the top and exposed sides of each finished landfill cell. Sufficient topsoil to support vegetation shall be placed over the top and side clay liner. The top and exposed sides of the ash landfill shall be vegetated to control erosion.

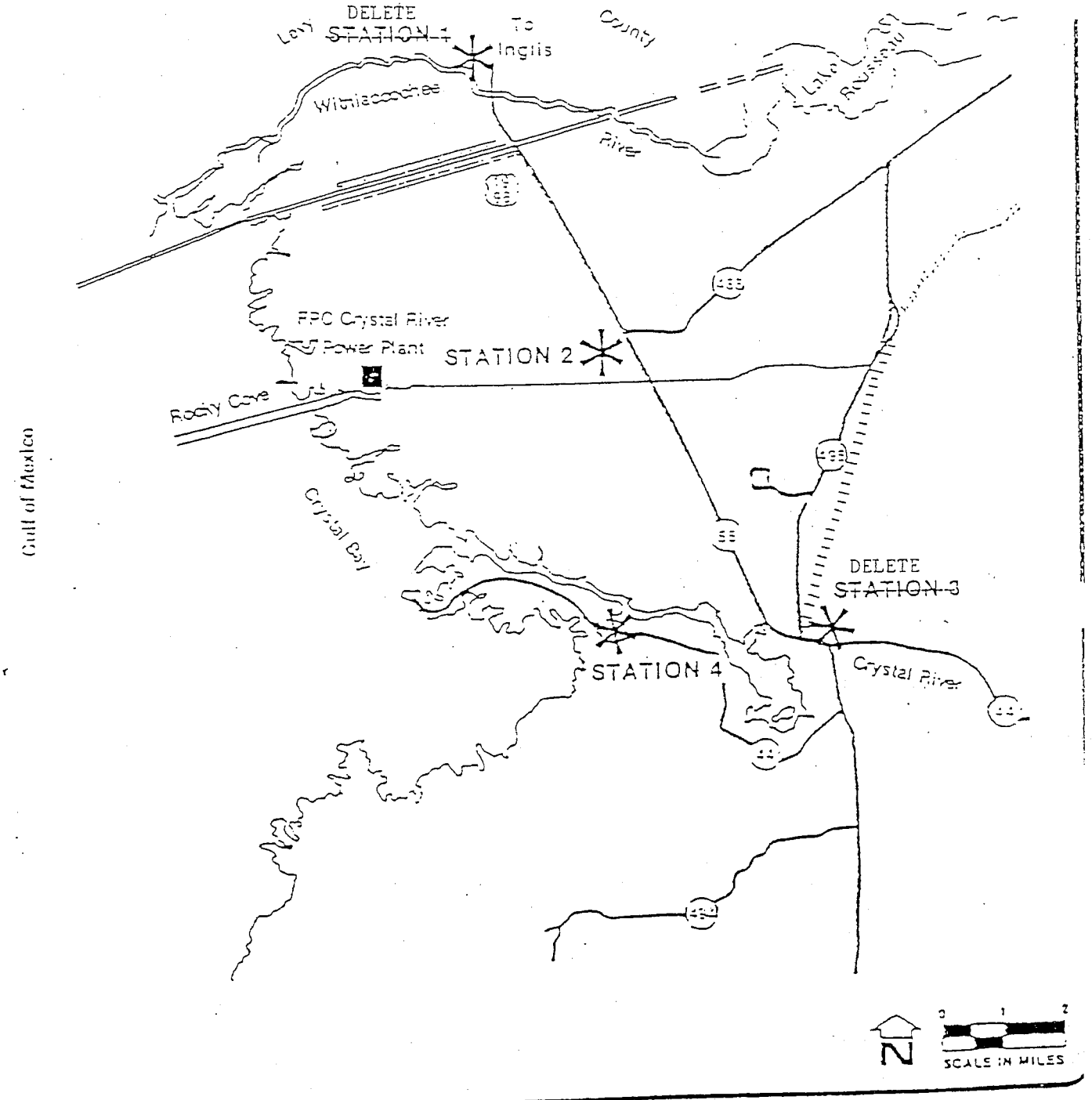
B. Coal Pile

At least two feet of compacted clay, with characteristics similar to montmorillonite, shall be placed underneath any coal pile containing more than 0.2% pyritic sulfur.

XIII. Floodproofing

The power generation equipment and other facilities vital to the operation of the plant shall be constructed in such a manner that water elevations at the 100 year flood will not cause damage to the equipment or necessitate plant shutdown.

Revised 2/13/84



AMBIENT AIR MONITORING LOCATIONS

SOURCE: ENVIRONMENTAL SCIENCE AND ENGINEERING, INC., 1977

FLORIDA POWER CORPORATION

PROPOSED
CRYSTAL RIVER UNITS 4 & 5

CITRUS COUNTY, FLORIDA

Latest Update/Gary Sams
Received 10/5/78

Attachment 2

FLORIDA POWER CORPORATION
CRYSTAL RIVER UNITS 4 AND 5
PROPOSED LEACHATE MONITORING AND TESTING

I. Computerized and Manual Literature Search with the objective of obtaining an adequate data base from literature.

II. Pre-operational Water Table Monitoring Program with the objective to acquire 12-month baseline.

Install 12 Shallow Peizometer Well Points
Install 2 Deep Piezometer Well Points
Monitor Water Table Level
- 1 Well-Recorder to establish degree of tidal influence--one month
- 13 Wells--Weekly

Monitor In Situ (pH, Conducatance, Redox, Dissolved Oxygen)--Weekly (all Wells)
Monitor Key Water Quality Indicators--Monthly (4 Wells)
Monitor Extended Water Quality Indicators--Quarterly (4 Wells)
Monitor Rainfall and Evaporation--Weekly
Develop Flow Net and Water Budget

III. Laboratory Screening of Ash from Low Pyritic Sulfur Coal with the objective of evaluation of leachate formation and attenuation reactions. The program will establish the following:

- Percolation Rates of Compacted Ash (fly and bottom ash)
- Solute Release Rates
- Limestone Neutralization Effectiveness
- Clay Liner Effectiveness
- Correlate Extended and Key Water Quality Indicators
- Total Ash Leachate Capacity
- Active Area vs. Inactive Area Leachate Rates
- Available Fractions of Solutes

Techniques for Screening:

- Shake Test (fly, bottom ash)
- Column Leaching (6-10 months)
  (1) Compacted Fly Ash (Lifts and Liners)
  (2) Alternative Lifts of Ash and Limestone
  (3) Ash with Clay Liner
  (4) Ash with Compacted Limerock and Fly Ash Liner

a

Latest Update/Gary SAms
Received 10/5/78

IV. Evaluate Leachate Attenuation in Subsoil and Water Table Aquifer

- Oxication - Reduction
- Chemical Precipitation/Solubility/pH/Eh
- Adsorption Isotherms
- Ion Exchange Capacity
- Metals Content of Limerock

V. Cost-Effectiveness Evaluation of Alternative Liners

- Water Quality Criteria
- Biological Effects
- Cost of Leachate Control and Treatment
- Cost of Runoff Control and Treatment

VI. Develop Final Design for Field Test Cell Program Defined in Paragraph VII Below

VII. Field Test Cells Program with the Objective of Verifying

Monitor Water Budget
- Direct Infiltration Rates
- Direct Runoff
- Direct Rainfall
- Water Table

Potential Test Cell Configurations
- Ash with Compacted Fly Ash Liner Only
- Ash with Compacted Limestone and Fly Ash Liner
- Alterntive Lifts of Ash and Limestone with Compacted Fly Ash Liner
- Ash with Selected Clay Liner
- Alternative Caps and Vegetation

Monitor Leachate Formation and Attenuation

- 4 Well Clusters per Cell at Three Depths
- Weekly Water Table Elevation In Situ Water Quality from All Wells (pH, Conductance, Redox, Dissolved Oxygen)
- Monthly Key Indicators from 2 Clusters per Cell
- Quarterly Extended Indicators from 2 per Cell
- 2 Base Well Points Shall be Maintained Upslope of the Active Area.

PEF-FUEL-000267

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET
ATLANTA, GEORGIA 30308

MAR 30 1978

Mr. William S. O'Brien, Director
Licensing and Environmental Affairs
Florida Power Corporation
3201 34th Street, S
St. Petersburg, Florida 33711

Dear Mr. O'Brien:

Review of your November 30, 1977, application for two coal-fired steam electric generating units, has been completed. On the basis of this review, we have determined that the conditioned operation of the proposed plant at the specified location will not violate the Class I or Class II air quality increments specified in the EPA regulations for Prevention of Significant Deterioration (PSD). Furthermore, we have determined that this plant will meet the federal regulatory requirement under PSD that Best Available Control Technology (BACT) be used to limit emissions of sulfur dioxide and particulate matter.

A request for public comment regarding the preliminary determination on the above application was published on January 26, 1978. No comments were received during the public comment period. Authority to Construct a Stationary Source is hereby issued for the facility described above, subject to the attached conditions. This Authority to Construct is based solely on the requirements of 40 CFR 52.21, the Federal regulations governing significant deterioration of air quality. It does not apply to NPDES or other permits issued by this agency or permits issued by other agencies. Additionally, construction covered by this Authority to Construct must be initiated by December 1, 1978.

Please be advised that a violation of any condition issued as part of this approval, as well as any construction which proceeds in material variance with information submitted in your application, will be subject to enforcement action.

Authority to Construct will take effect on the date of this letter. The complete analysis which justifies this approval has been fully documented for future reference, if necessary. Any questions concerning this approval may be directed to Ray Cunningham, Chief, Air Strategy Development Section (404/881-3286).

Sincerely yours,

for John A. Little, Deputy

John C. White
Regional Administrator

Attachment

This Approval to Construct would be issued this date Feb. 27, 1978, but for the order entered in Environmental Defense Fund versus Environmental Protection Agency, No. 78-281 (D.D.C). (entered on February , 1978.)

John A. Little

CONDITIONS TO APPROVAL

1. Related to particulate emissions from the boilers:

a. The applicant must submit to EPA, within five working days after it becomes available, copies of all technical data pertaining to the selected control device(s), including formal bids from the vendors awarded the contracts, guaranteed efficiency or emission rate(s), and all design parameters. A list of any additional required information will be sent to the applicant upon receipt of this submittal. Although the type of control device which is described in general in the application has been determined by EPA to be adequate, EPA must review the specific specifications for the control device selected by the company to verify the selected control equipment will enable applicable emission limits to be met by the new units. EPA may, upon review of these data, disapprove the application if EPA determines the selected control device is inadequate to meet the emission limits specified in this conditional approval. EPA shall notify the applicant of EPA's determination under this condition within twenty working days after receipt of all necessary information from the applicant. In the event EPA disapproves the application pursuant to this condition, EPA will state its reasons in writing, identifying the criteria applied and the factors considered.

b. The source must meet an emission limit, as measured under part 3 (below) as follows:

i. Particulate matter emitted to the atmosphere from the boiler shall not exceed 0.18 gram per million calories heat input (0.10 pound per million BTU heat input).

ii. Opacity of emissions from the boilers shall not exceed 20 percent except for one six minute period per hour during which the opacity may not exceed 27 percent. (Use Reference Method 9, Appendix A in 40 CFR 60.)

These emission limitations are identical to those required by Federal New Source Performance Standards, 40 CFR 60.

2. Related to sulfur dioxide emissions from the boilers:

The source must meet an emission limit, as measured under part 3 (below) as follows:

Sulfur dioxide emitted to the atmosphere from each boiler shall not exceed 2.2 grams per million calories heat input (1.2 pounds per million BTU heat input).

This emission limitation is identical to that required by Federal New Source Performance Standards, 40 CFR 60.

3. Stack Testing:

a. Within 60 days after achieving the maximum capacity at which the facility will be operated, but no later than 180 days after initial startup, the owner or operator shall conduct performance tests and furnish EPA a written report of the results of such performance tests.

b. Performance tests shall be conducted and data reduced in accordance with methods and procedures specified by EPA. Reference Methods 1-5 as published in Appendix A of 40 CFR 60 will be used for particulate tests. Reference Method 6 will be used for SO_2 tests.

c. Performance tests shall be conducted under such conditions as EPA shall specify based on representative performance of the facility. The owner or operator shall make available to EPA such records as may be necessary to determine the conditions of the performance tests.

d. The owner or operator shall provide 30 days prior notice of the performance tests to afford EPA the opportunity to have an observer present.

e. The owner or operator shall provide or cause to be provided, performance testing facilities as follows:

i. Sampling ports adequate for test methods applicable to the facility.

ii. Safe sampling platform(s).

iii. Safe access to sampling platform(s).

iv. Utilities for sampling and testing equipment.

f. Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified by EPA. For the purpose of determining compliance with an emission limitation, the arithmetic mean of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the approval of EPA, be determined using the arithmetic mean of the other two runs.

4. Coal Characteristics and Contracts

Before approval can be granted by EPA for purchase of a control device under condition 1.a. above, characteristics of the coal to be fired must be known. Therefore, before these approvals are granted, the applicant must submit to EPA copies of coal contracts which should include the expected sulfur content, ash content, and heat content of the coal to be fired. These data will be used by EPA in its evaluation of the adequacy of the control devices. Also, the applicant must demonstrate the ability to acquire a low sulfur coal supply of sufficient length to enable the installation of sulfur removal equipment if the supplies of low sulfur coal should not become available or be discontinued. Therefore, the coal

contracts must be for a period of at least three (3) years from the date of start-up of the boiler.

5. As an alternative to the submittal of contracts for purchase of coal under condition 4 above, the applicant may submit the following information:

(a) The name of the coal supplier;

(b) The sulfur content, ash content, and heat content of the coal as specified in the purchase contract;

(c) The location of the coal deposits covered by the contract (including mine name and seam);

(d) The date by which the first delivery of coal will be made;

(e) The duration of the contract; and

(f) An opinion of counsel for the applicant that the contract(s) are legally binding.

6. Reporting:

Beginning one month after final conditional construction approval from EPA and ending when submittals required under parts 1.a. and 4. have been evaluated and approved by EPA, the applicant shall submit to EPA a quarterly status report briefly outlining progress made on engineering design and purchase of major pieces of equipment (including control equipment). All reports and information required to be submitted under this part of the PSD review and approval shall be submitted to Mr. Asa B. Foster, Director, Air and Hazardous Materials Division, EPA Region IV, 345 Courtland Street, N.E., Atlanta, Georgia 30308.

7. Emission Control Systems:

Prior to operation of the source, the owner or operator shall submit to EPA a standardized plan or procedure that will allow the company to monitor emission control equipment efficiency and enable the company to return malfunctioning equipment to proper operation as expeditiously as possible.

8. Stack Parameters:

This approval is based on the stack parameters submitted by the Florida Power Corporation on November 30, 1977, Section VI - Stack and Pollutant Emissions Data, EPA Air Pollutant Emissions Report.

9. Related to particulate emissions from the coal handling facilities:

a. The applicant shall not cause to be discharged into the atmosphere from any coal processing or conveying equipment, coal storage system or coal transfer and loading system processing coal, visible emissions which exhibit 20 percent opacity.

b. The applicant must submit to EPA, within five (5) working days after it becomes available, copies of technical data pertaining to the selected particulate emissions control device for the coal handling facility. These data should include, but not be limited to, a copy of the formal bid from the successful bidder, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. EPA may, upon review of these data, disapprove the application if EPA determines the selected control device to be inadequate to meet the visible emission limit specified in 9(a) above.

10. On the date of issuance of EPA's approval to construct Units #4 and #5, the allowable SO_2 emission limits for Units #1 and #2 shall be restricted to no more than 5.00 lb per million BTU heat input on a daily basis, and 4.5 lb/10^6 BTU on a monthly. Forty-five days after the issuance of this approval, and in the future, as may be requested by EPA, the Company shall certify to the Regional Administration, compliance with these emission limits. Chemical fuel analysis shall be deemed appropriate for this certification.

PEF-FUEL-000280

11. Six months prior to start-up of Unit #4, both Units #1 and #2 will meet the emission limit of 2.9 lb SO_2/mm Btu. This emission limit will be demonstrated by the owner or operator by conducting performance tests and furnishing EPA a written report of the results of such performance tests. Conditions 3.b through f. apply to stack tests required under this part.

12. Six months prior to start-up of Unit #5, both Units #1 and #2 will meet the emission limit of 2.1 lb SO_2/mm Btu. This emission limit will be demonstrated by the owner or operator by conducting performance tests and furnishing EPA a written report of the results of such performance tests. Conditions 3.b. through f. also apply to stack tests required under this part.

13. The company will maintain and operate existing Units #1 and #2 with the applicable particulate emission limit of 0.1 lb/mmBtu heat input during the SO_2 emission reduction program established under conditions 11 and 12 above. Failure to maintain compliance during this period and thereafter will subject the company to appropriate enforcement action.

APPENDICES

CHAPTERS - 17-2, (FAC) FLORIDA ADMINISTRATIVE CODE
17-3 "
17-5 "
17-7 "
17-16 "
17-19 "
17-22 "

EPA REFERENCE METHODS IN 40 CFR, PART 53
40 CFR, PART 60
40 CFR, PART 423

DER PUBLICATION, STANDARD SAMPLING TECHNIQUES AND METHODS OF ANALYSIS FOR THE DETERMINATION OF AIR POLLUTANTS FROM POINT SOURCE, JULY, 1975.

USERS MANUAL: SAROAD (STORAGE AND RETRIEVAL OF AEROMETRIC DATA)

CHAPTER 403, FLORIDA STATUTES

SECTION 373.175 or 373.246, FLORIDA STATUTES

STANDARD METHODS FOR THE ANALYSIS OF WATER AND WASTEWATER

Note: Any of the aforementioned documents could be revised from time to time subsequent to the initial issuance of this manual. Efforts will be made to periodically update the reference material. It is recommended, however, that either W. W. Vierday, Licensing Affairs, and/or H. A. Evertz, III, Legal Department, be contacted prior to future referrals to the APPENDICES to verify the status of any governmental referenced document, rule or regulation.

xc: Mr. J. A. Hancock
Mr. R. L. Bourn
Mr. H. A. Evertz
Mr. R. W. Neiser
Mr. D. J. Rowland
Mr. W. S. O'Brien
Mr. N. B. Spake
Mr. E. A. Upmeyer

Florida Power
CORPORATION

CERTIFIED - RETURN RECEIPT REQUESTED

Docket No. 060658
Progress Energy Florida
Exhibit No. _____ (JMK-3)
Page 1 of 6

January 2, 1979

Mr. Hamilton S. Oven, Jr.
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Subject: Approval For Purchase Of Control Device(s)
Florida Power Corporation's
Crystal River Units #4 & #5

Dear Mr. Oven:

In compliance with the SPECIAL CONDITIONS OF CERTIFICATION, specifically pursuant to the provisions of Section I.F., for Crystal River Units 4 & 5, Florida Power Corporation submits the following information for agency review. This transmittal is offered to complete the FDER's prerequisite requirements for granting final approval for purchase of electrostatic precipitators for Crystal River Units 4 & 5. Input requirements for each precipitator, to comply with paragraph I.A.6.b., SPECIAL CONDITIONS, were previously transmitted to you December 19, 1978.

a. The name of the coal supplier:

A. T. Massey Coal Company, Inc., and Elk Run Coal Company, Inc., a wholly owned subsidiary of the A. T. Massey Coal Company.

b. The sulfur content, ash content, and heat content of the coal as specified in the purchase contract:

Sulfur	0.75% Maximum
Ash	10.5% Maximum
BTU	12,500 BTU/Lb. Minimum

c. The location of the coal deposits covered by the contract (including mine name and seam):

The coal deposits are located in Boone County, West Virginia. The coal will be from the Elk Run Mine and preparation plant. The major seams to be mined are the Coalburg and Dorothy (Winifred).

d. The date by which the first delivery of coal will be made:

April 1982

e. The duration of the contract:

Twenty (20) years

f. An opinion of counsel for the applicant that the contract(s) are legally binding:

We submit opinion of counsel, specifically Mr. H. A. Evertz's letter dated December 28, 1978 along with appropriate Exhibits #1 and #2.

In accordance with our review of the SPECIAL CONDITIONS OF CERTIFICATION this transmittal should complete all information required for FDER Approval. A prompt reply regarding this matter will be most appreciated.

Very truly yours,

W. W. Vierday
Manager
Licensing Affairs

WWV/bz

Attachments

xc: Mr. J. A. Hancock

Florida Power
Corporation

December 28, 1978

Florida Power Corporation
3201 - 34th Street South
St. Petersburg, Florida 33711

Re: Crystal River Units 4 and 5
Coal Supply and Delivery Agreement
dated December 12, 1978

Gentlemen:

As your counsel, I have participated in the negotiations and execution of the above contract between Florida Power Corporation (FPC) and Electric Fuels Corporation (EFC). Under the terms of the contract, EFC is obligated to deliver coal to FPC as required by the Crystal River Units 4 and 5. Delivery of the coal is to commence on or about April, 1982. The contract is to continue in full force and effect until December 31, 2004. The coal supplied by EFC to FPC under the contract must have the minimum quality specified in Schedule B of the contract. Said Schedule B is attached to this letter as Exhibit 1.

In order to assure the performance of the above referred to agreement with FPC, EFC has entered into a long term contract with A. T. Massey Coal Company and Elk Run Coal Company. Attached hereto as Exhibit 2 is a copy of an opinion of counsel for EFC that said contract is legally binding and enforceable. The location of the coal deposits and the sulfur, ash, and heat content of the coal to be supplied are identified in Exhibit 2.

Based upon the foregoing, it is my opinion that the contract between FPC and EFC for the supply of compliance coal to the Crystal River Units 4 and 5 is legally binding and enforceable in accordance with its terms.

This opinion of counsel is rendered pursuant to the provisions of Section I F. of the Site Certification for Crystal River Units

4 and 5 issued by the Governor and Cabinet on November 21, 1978, sitting as the Site Certification Board for the State of Florida.

Very truly yours,

H. A. Evertz III

H. A. Evertz III
Senior Counsel

HAE:mrl
Atts:

EXHIBIT 1

Docket No. 060658
Progress Energy Florida
Exhibit No. _____ (JMK-3)
Page 5 of 6

SCHEDULE B

COAL QUALITY SPECIFICATION

COAL SUPPLY AND DELIVERY AGREEMENT

BETWEEN

FLORIDA POWER CORPORATION and ELECTRIC FUELS CORPORATION

	Monthly Weighted Average	Rejection Limits (each delivery)
Moisture % wt. (max.)	20	30
Sulfur lb/MMBTU (max.)	0.6	0.6
BTU/lb. (min.)	9500	8000
Ash % wt. (max.)	9*	11*
Volatile Matter % wt. (min.)	26	22

* Adjustable in direct proportion to BTU.

Note: Specifications as received at Florida Power Corporation's Crystal River facilities.

EXHIBIT 2

CARLTON, FIELDS, WARD, EMMANUEL, SMITH & CUTLER, P. A.

ATTORNEYS AT LAW

TAMPA · ORLANDO · PENSACOLA · TALLAHASSEE

THE EXCHANGE NATIONAL BANK BUILDING
P. O. BOX 3239
TAMPA, FLORIDA 33601
(813) 223 5366

December 21, 1978

Docket No. 060658
Progress Energy Florida
Exhibit No. _____ (JMK-3)
Page 6 of 6

S. A. Brandimore, Esquire
General Counsel
Florida Power Corporation
P. O. Box 14042
St. Petersburg, FL 33733

Re: Electric Fuels Corporation

Dear Mr. Brandimore:

We have reviewed the agreement between Electric Fuels Corporation and A. T. Massey Coal Company and Elk Run Coal Company, Inc., whereby Electric Fuels Corporation has contracted to purchase coal as required for Florida Power Corporation's Crystal River Units Nos. 4 and 5. Such contract provides that A. T. Massey Coal Company, Inc. and Elk Run Coal Company, Inc. will supply coal from seams Coalburg and Dorothy (Winifrede) located within an area to be served by a mine to be designated as "Elk Run Mine" or suitable substitute properties containing coal meeting the quality and quantity specifications of the contract. The coal to be supplied must have a sulphur content not to exceed .75%, an ash content not to exceed 10.5% and a heat content of not less than 12,500 BTU per pound. Delivery is to commence on or about April 1982 and to continue for twenty (20) years thereafter.

It is our opinion that the contract between Electric Fuels Corporation, A. T. Massey Coal Company, Inc. and Elk Run Coal Company, Inc., is legally binding and enforceable in accordance with its terms.

Yours very truly,

CARLTON, FIELDS, WARD,
EMMANUEL, SMITH & CUTLER, P.A.

By _____
Joseph D. Edwards

JDE:jw

EXHIBIT 2

SOURCE TEST REPORT

PRELIMINARY NEW SOURCE PERFORMANCE STANDARD COMPLIANCE TESTING FOR PARTICULATE, SO2 AND NOx

AND

ELECTROSTATIC PRECIPITATOR PERFORMANCE EVALUATIONS AT REDUCED POWER LEVELS

AT

FLORIDA POWER CORPORATION'S
CRYSTAL RIVER STATION
UNIT 4

February 22-25, 1983

Prepared for:

FLORIDA POWER CORPORATION
St. Petersburg, Florida

And

COMBUSTION ENGINEERING, INC.
Environmental Systems Division
Birmingham, Alabama

Prepared by:

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.
PO Box ESE
Gainesville, Florida 32602

March 1983

ESE No. 83 108 100
83 111 100

1.0 INTRODUCTION

On February 22 through 25, 1983, Environmental Science and Engineering (ESE) conducted a series of source emission tests on the outlet stack of Florida Power Corporation's (FPC) Crystal River Station, Unit 4.

The first day's sampling was a preliminary New Source Performance Standard (NSPS) compliance test for particulate, sulfur dioxide (SO2), and nitrogen oxides (NOx) emissions conducted for FPC.

The remainder of the sampling was conducted to determine electrostatic precipitator (ESP) performance at reduced power loads. This sampling was performed for Combustion Engineering, Inc's (CE) Environmental Systems Division.

Sampling was coordinated by Mr. Mark Daily of FPC and Mr. Larry Hawkins and Mr. J. B. Lindsay of CE.

2.0 SUMMARY OF RESULTS

Unit 4 was found to be in compliance with NSPS limits for particulates, sulfur dioxide and nitrogen oxide. Results are summarized in Tables 1, 2, and 3, respectively. The emissions for FPC Runs 1, 2, and 3 averaged 0.0111 pounds of particulates per million BTU (lb/mm BTU) of heat input to the boiler; the SO2 emissions averaged 0.9892 lb/mm BTU and NOx emissions averaged 0.512 lb/mm BTU.

Runs CE-2 and 3 averaged 0.0076 lb/mm BTU and are summarized in Table 4. Runs CE-4, 5, and 6 averaged 0.0118 lb/mm BTU and Runs CE-7, 8, and 9 averaged 0.0266 lb/mm BTU. These emissions are summarized in Tables 5 and 6, respectively.

All particulate data sets show the unit to be in compliance with the NSPS limit of 0.1 lb/mm BTU.

Boiler load and ESP parameters for each series of runs are located on the bottom of each table.

Complete emission data for all three pollutants and sample calculations are presented in Appendix A. Field data sheets and laboratory data sheets are located in Appendices B and C, respectively.

Table 1. Particulate Emissions Summary: FPC Crystal River Station Unit 4
February 22, 1983

Run Number	Time (Start-Finish)	Flow Rate (SCFMD)	Stack Temp. (°F)	H2O (%)	O2 (%)	Isokinetic (%)	Emissions Actual (GR/SCFD)	Emissions Actual (lb/mm BTU)	Emissions Allowable (lb/mm BTU)
FPC-1	1015-1131	1,418,505	290	6.2	6.1	99.3	0.0066	0.0130	0.1
FPC-2	1210-1325	1,417,783	292	6.6	6.1	100.2	0.0049	0.0098	0.1
FPC-3	1355-1510	1,391,894	291	8.0	6.1	101.6	0.0052	0.0103	0.1
	Average	1,409,394	291	6.9	6.1	100.3	0.0056	0.0111	0.1

Unit: 680 MW nominal gross load

ESP: 80 percent of maximum power guarantee (2,221 KW/H)
13 of 80 cells out of operation

(See Appendix D for technical data)

Source: ESE, 1983

Table 2. SO2 Emissions Summary: FPC Crystal River Station Unit 4
February 22, 1983

Run Number	Time (Start-Finish)	Flow Rate (SCFMD)	Stack Temp. (°F)	H2O (%)	O2 (%)	Emissions		
						Actual		Allowable
						(ppm_vdry)	(lb/mm BTU)	(lb/mm BTU)
1	1010-1110	1,418,505	290	6.2	6.1	439	1.0077	1.2
2	1205-1305	1,417,783	292	6.6	6.1	431	0.9897	1.2
3	1350-1450	1,391,894	291	8.0	6.1	423	0.9702	1.2
	Average	1,409,394	291	6.9	6.1	431	0.9892	1.2

Run Numbers correspond to Particulate Runs FPC-1, 2, and 3

Source: ESE, 1983

Table 3. NOx Emission Summary: FPC Crystal River Station Unit 4
February 22, 1983

Run No.	Sample No.	Time	Flow Rate (SCFMD)	Stack Temp. (°F)	H2O (%)	O2 (%)	Emissions Actual (ppm_vdry)	Emissions Actual (lb/mm BTU)	Emissions Allowable (lb/mm BTU)
1	1-1	1010					318	0.527	
	1-2	1025					286	0.473	
	1-3	1040					306	0.506	
	1-4	1055					325	0.538	
	Average		1,418,505	292	6.2	6.1	309	0.511	0.70
2	2-1	1205					278	0.460	
	2-2	1220					318	0.526	
	2-3	1235					301	0.498	
	2-4	1250					327	0.541	
	Average		1,417,783	295	6.6	6.1	306	0.506	0.70
3	3-1	1350					314	0.519	
	3-2	1405					307	0.508	
	3-3	1420					284	0.470	
	3-4	1435					346	0.573	
	Average		1,391,894	295	8.0	6.1	313	0.518	0.70
Average Runs 1, 2, & 3			1,409,394	294	6.9	6.1	309	0.512	0.70

Run numbers correspond to Particulate Runs FPC-1, 2, and 3.

Source: ESE, 1983

Table 5. Particulate Emissions Summary: FPC Crystal River Station Unit 4
February 23-24, 1983

Run Number	Time (Start-Finish)	Flow Rate (SCFMD)	Stack Temp. (°F)	H2O (%)	O2 (%)	Isokinetic (%)	Emissions Actual (GR/SCFD)	Emissions Actual (lb/mm BTU)	Emissions Allowable (lb/mm BTU)
CE-4	1716-1827	1,394,953	284	7.4	6.5	101.2	0.0062	0.0127	0.1
CE-5	0926-1037	1,418,323	280	6.5	6.6	100.3	0.0067	0.0137	0.1
CE-6	1051-1209	1,403,453	279	7.5	6.4	101.2	0.0045	0.0090	0.1
	Average	1,405,576	281	7.1	6.5	100.9	0.0058	0.0118	0.1

Unit: Run CE-4 - 676 MW nominal gross load
Run CE-5 - 682 MW nominal gross load
Run CE-6 - 688 MW nominal gross load

ESP: 43 percent of maximum power guarantee (2,221 KW/H)
9 of 80 cells out of operation

(See Appendix D for technical data)

Source: ESE, 1983

Table 6. Particulate Emissions Summary: FPC Crystal River Station Unit 4
February 25, 1983

Run Number	Time (Start-Finish)	Flow Rate (SCFMD)	Stack Temp. (°F)	H2O (%)	O2 (%)	Isokinetic (%)	Emissions Actual (GR/SCFD)	Emissions Actual (lb/mm BTU)	Emissions Allowable (lb/mm BTU)
CE-7	1003-1114	1,394,473	280	7.1	7.0	101.5	0.0111	0.0234	0.1
CE-8	1135-1246	1,401,702	285	6.7	6.7	100.0	0.0127	0.0263	0.1
CE-9	1305-1419	1,395,516	283	7.3	6.8	100.7	0.0144	0.0300	0.1
	Average	1,397,230	283	7.0	6.8	100.7	0.0128	0.0266	0.1

Unit: Run CE-7 and 8 - 665 MW nominal gross load
Run CE-9 - 670 MW nominal gross load

ESP: 23 percent of maximum power guarantee (2,221 KW/H)
9 of 80 cells out of operation

(See Appendix D for technical data)

Source: ESE, 1983

GUARDIAN SYSTEMS, INC.

2610 - 19TH STREET SOUTH
BIRMINGHAM, ALABAMA 35209
TELEPHONE 205/879-1850

4301 15TH STREET EAST
TUSCALOOSA, ALABAMA 35401
TELEPHONE 205/556-6084

January 31, 1983

Customer: C-E Environmental Systems
P.O. Box 7462-A
B'ham, Al. 35223

Sample type: Coal Sample PO# 2300043

Sample location:

Sample by:

Sample date: Rec'd 1/14/83

Analysis conducted as specified by ASTM.

LABORATORY ANALYSIS REPORT

Laboratory Sample No. 37301
SHORT PROXIMATE ANALYSIS

	As received	Dry basis
Moisture, %	8.08	
Ash,%	9.22	10.03
Sulfur,%	.83	.90
Btu	12,472	13,568
MAF BTU	15,080	
Volatile Matter	31.50	34.27
Fixed Carbon	51.21	55.71
Carbon	69.79	75.92
Hydrogen	4.96	5.39
Nitrogen	1.27	1.38

APPROVED BY Robert E. Lovell

ALL ANALYSIS CONDUCTED ACCORDING TO ASTM ANNUAL STANDARDS.

Florida Power
CORPORATION

bcc: B. J. Covey
B. V. Powers
J. M. Kennedy

File: Crystal River Air Corresp
k:\user\sosbourn\1998\pubnotic.doc
927-616000-AIRCR

Docket No. 060658
Progress Energy Florida
Exhibit No. ___ (JMK-5)
Page 1 of 2

October 27, 1998

Mr. Scott Sheplak, P.E.
Division of Air Resource Management
Florida Department of Environmental Protection
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400

Dear Mr. Sheplak:

Re: FPC Crystal River Facility, Notice of Intent to Issue Title V Air Operation Permit
Revised Draft Title V Permit No. 0170004-004-AV

Enclosed please find the notarized proof of publication received from the Citrus County Chronicle for the Florida Department of Environmental Protection *Notice of Intent to Issue Title V Air Operation Permit* referenced to the above request. The notice was published on October 12, 1998.

If you should have any questions concerning this correspondence, please do not hesitate to contact me at (727) 826-4258.

Sincerely,

Scott H. Osbourn
Senior Environmental Engineer

cc: Bill Thomas, DEP SW District (w/attach)

Attachment

Proof Of Publication

from the

CITRUS COUNTY CHRONICLE

Crystal River, Citrus County, Florida

PUBLISHED DAILY

STATE OF FLORIDA
COUNTY OF CITRUS

Before the undersigned authority personally appeared FELICIA H. SATCHELL of the Citrus County Chronicle, a newspaper published daily at Crystal River, in Citrus County, Florida, that the attached copy of advertisement being a public notice in the matter of the

PERMIT NO. 0170004-004-AV/CITRUS COUNTY

Court, was published in said newspaper in the issues of

OCTOBER 12, 1998

Affiant further says that the Citrus County Chronicle is a newspaper published at Crystal River in said Citrus County, Florida, and that the said newspaper has heretofore been continuously published in Citrus County, Florida, each week and has been entered as second class mail matter at the post office in Inverness in said Citrus County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Felicia H. Satchell

The forgoing instrument was acknowledged before me this 12th day of OCT 19 98

by FELICIA H. SATCHELL

who is personally known to me and who did take an oath.

Jeanette A Schmidt
Notary Public

Jeanette A Schmidt
Notary Public, State of Florida
Commission No. CC 669909
My Commission Exp. 08/16/2001
1-800-3-NOTARY - Fla. Notary Service & Bonding Co.

4401012 MCRN
PUBLIC NOTICE
OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT
STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Title V Revised DRAFT Permit No.: 0170004-004-AV
Crystal River Plant
Citrus County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V air operation permit to Seminole Electric Cooperative, Inc. for the Crystal River Plant located west of U.S. Highway 19, North of Crystal River, south of the Cross State Barge Canal, Citrus County. This permit incorporates the Phase I/II NOx standards into Title IV Acid Rain Part pursuant to Rule 62-214.360 (6), Florida Administrative Code (F.A.C.). The applicant's name and address are: Florida Power Corporation, 3201 34th Street South, St. Petersburg, Florida 33711.

The permitting authority will issue Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the Title V Revised DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Title V Revised DRAFT Permit issuance action for a period of 30 (thirty) days from the publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station # 5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in significant change in this Revised DRAFT Permit, the permitting authority shall issue another Revised DRAFT Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Section 120.569 and 120.57 of the Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station # 35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by any persons other than those entitled to written notice under Section 120.60 (3), F.S. must be filed within fourteen days of publication of the public notice or within fourteen day of receipt of the notice of intent, whichever occurs first. Under Section 120.60 (3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen 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 applicable 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 (F.A.C.).

A petition that disputes the material facts on which the permitting authority'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; 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 petitioner's substantial rights will be affected by the agency determination;

(c) A statement of how and when the 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 state;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle petitioner to relief; and

(f) A demand for relief.

A petition that does not dispute the material facts upon which the permitting authority'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, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority 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 for this proceeding.

In addition to the above, pursuant to 42 United States Code (U.S.C.) Section 7661 d (b) (2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661 d (b) (1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661 d (b) (2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays at:

Permitting Authority:
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-1344
Fax: 850/922-6979

Affected District/Local Program
Department of Environmental Protection
Southwest District Office
4807 Laurel Fair Circle
Tampa, Florida 33619
Telephone: 813/744-6100
Fax: 813/744-6084

The complete project file includes the Revised DRAFT Permit, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 850/921-9532, for additional information.

Published one (1) time in the Citrus County Chronicle: Monday, October 12, 1998.

FINAL DETERMINATION

Florida Power Corporation
Crystal River Power Plant
Citrus County
Coal/Briquette Fuel Mixture

Permit No. 0170004-006-AC

An "Intent to Issue an Air Construction Permit" to allow the combustion of a coal/briquette fuel mixture to Florida Power Corporation for the Crystal River Power Plant located west of U. S. Highway 19, north of Crystal River, south of the Cross State Barge Canal, Citrus County was clerked on May 25, 1999. The "Public Notice of Intent to Issue Air Construction Permit" was published in the Citrus County Chronicle on June 3, 1999. The draft Air Construction Permit was available for public inspection at the Department of Environmental Protection's Southwest District office in Tampa and the permitting authority's office in Tallahassee. Proof of publication of the "Public Notice of Intent to Issue Air Construction Permit" was received on June 24, 1999.

Comments were received and the draft Air Construction Permit was changed. The comments were not considered significant enough to reissue the draft Air Construction Permit and require another Public Notice. Comments were received from one respondent, Mr. J. Michael Kennedy of Florida Power Corporation, during the 14 (fourteen) day public comment period. Listed below is each comment and the response.

Condition 3. Sulfur Limitation.

Comment: Could we add the word "shipments" after the word "mixture" to ensure that it's clear that we're talking about the shipments we receive (as opposed to the separate regular coal shipments)? It is written that way in the Technical Evaluation, so reflecting it in the permit would be consistent.

Response: The Department agrees with the comment and will add the word "shipments" after the word "mixture".

Comment: In the table, Emissions Unit No. 3 is actually FFSG, Unit.5. Unit 3 is the nuclear unit.

Response: The Department agrees with the comment and Emissions Unit 003 will identified as FFSG Unit 5.

Comment: The question the folks in fuel supply have asked is if we could write the sulfur limit in terms of lb/mmBtu for the coal/briquette shipments rather than %sulfur. They said that some of the coal we get is high in Btu content, and the lb/mmBtu approach would provide some flexibility without increasing the emission rate. What do you think?

Response: After Florida Power Corporation provides equivalency information, the Department will express the limits in terms of pounds per million Btu, heat input.

The final action of the Department will be to issue the permit covered by the public notice as proposed except for the changes noted above.

APPLICATION INFORMATION

Purpose of Application

This application for air permit is submitted to obtain: (Check one)

Air Construction Permit
☒ Air construction permit.

Air Operation Permit
☐ Initial Title V air operation permit.
☐ Title V air operation permit revision.
☐ Title V air operation permit renewal.
☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)
☐ Air construction permit and Title V permit revision, incorporating the proposed project.
☐ Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

☐ I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

Progress Energy is proposing to conduct a trial burn of a bituminous and subbituminous blend. Specifically, a trial burn will be conducted for a blend of as much as 30% powder river basin (PRB) coal with the existing bituminous coal supply. See Part II for details of the proposed trial burn.

The trial burn is proposed to begin on around May 1, 2006 and is expected to last about 60 days. The blend will be fired in Units 4 and/or 5, depending on circumstances at the time of the test burn. It's proposed to burn approximately 64,000 short tons (approximately 4 barges) of the blended fuel. This translates into roughly 226 total full load operating hours of burn time for one unit, or about 113 hours total (approximately 5 days), if both units are operating concurrently.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
004	FFSG, Unit 4		NA
003	FFSG, Unit 5		NA

Application Processing Fee

Check one: ☐ Attached - Amount: $_____ ☒ Not Applicable

DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF FINAL PERMIT

Docket No. 060658
Progress Energy Florida
Exhibit No. ___ (JMK-8)
Page 1 of 15

In the Matter of an
Application for Permit by:

Progress Energy Florida, Inc.
Crystal River Power Plant
100 Central Avenue, CN77
St. Petersburg, FL 33701

Air Permit No. 0170004-012-AC
Crystal River Power Plant
Existing Units 4 and 5
PRB Coal Blend Trial Burn
Citrus County, Florida

Authorized Representative:
Mr. Bernie Cumbie, Plant Manager

Enclosed is Final Air Permit No. 0170004-012-AC, which authorizes the temporary trial burn of a blend of Power River Basin (PRB) coal with bituminous coal in existing Units 4 and 5. These units are located at the existing Crystal River Plant, which is located north of Crystal River and west of U.S. Highway 19 in 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.

Jeffery J. Koerner

For 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 4/26/06 to the persons listed:

Mr. Bernie Cumbie, Progress Energy*
Mr. Dave Meyer, Progress Energy
Mr. Scott Osborne, Golder Associates Inc.
Ms. Mara Nasca, SWD Office
Mr. Jim Little, EPA Region 4 Office

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) 4/26/06 (Date)

FINAL DETERMINATION

PERMITTEE

Progress Energy Florida, Inc.
Crystal River Power Plant
100 Central Avenue, CN77
St. Petersburg, FL 33701

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation, Air Permitting South Program
2600 Blair Stone Road, MS #5505
Tallahassee, Florida, 32399-2400

PROJECT

Air Permit No. 0170004-012-AC
Crystal River Power Plant

Progress Energy Florida, Inc. operates the existing Crystal River Plant, which is located north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida. The Crystal River Plant is an existing coal-fired power plant (SIC No. 4922). This permit authorizes the temporary trial burn of a blend of Power River Basin (PRB) coal with bituminous coal in existing Units 4 and 5.

NOTICE AND PUBLICATION

The Department distributed an "Intent to Issue Permit" package on April 6, 2006. The applicant published the "Public Notice of Intent to Issue" in the Citrus County Chronicle on April 10, 2006. The Department received the proof of publication on April 14, 2006. No petitions for administrative hearings or extensions of time to petition for an administrative hearing were filed.

COMMENTS

No comments on the Draft Permit were received from the public, the Department's Southwest District Office, or the EPA Region 4 Office. On April 21, 2006, the applicant provided the following comments by email.

Section 3, Condition8: The applicant indicates that only one of the boilers may be used to test the PRB blend. Therefore, the applicant requests a revision of this condition to clarify that only a boiler that will be firing the PRB blend needs to have a baseline CO emissions test. *Response*: The Department agreed and revised Condition 8 as follows:

> Emissions Testing - Baseline: Each boiler that will be firing the PRB blend shall have representative baseline emission levels for carbon monoxide (CO) based on actual test data collected when firing only the bituminous coal currently in use. Such tests shall consist of at least three runs conducted at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum heat input rate allowed by the permit. Test results shall be reported in units of ppmvd @ 7% oxygen, lb/MMBtu, and lb/hour. If such representative CO emissions data does not exist at the time of the trial burn, each boiler that will be firing the PRB blend shall be tested to determine the CO emissions. Sufficient testing shall be conducted to establish baseline emissions.

CONCLUSION

The final action of the Department is to issue the permit with the minor changes described above.

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, Inc.
Crystal River Power Plant
100 Central Avenue, CN77
St. Petersburg, FL 33701

Authorized Representative:
Mr. Bernie Cumbie, Plant Manager

Air Permit No. 0170004-012-AC
Crystal River Power Plant
Existing Units 4 and 5
PRB Coal Blend Trial Burn
Citrus County, Florida
Permit Expires: May 1, 2007

PROJECT AND LOCATION

Progress Energy Florida, Inc. operates the existing Crystal River Plant (Facility ID No. 0170004), which is located north of Crystal River and west of U.S. Highway 19 in Citrus County, Florida. The Crystal River Plant is an existing coal-fired power plant (SIC No. 4922). This permit authorizes the temporary trial burn of a blend of Power River Basin (PRB) coal with bituminous coal in existing Units 4 and 5.

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 perform the proposed work 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.

CONTENTS

Michael G. Cooke, Director
Division of Air Resource Management

4-26-06
(Effective Date)

FACILITY AND PROJECT DESCRIPTION

The Crystal River Plant is an existing coal-fired power plant consisting of: four coal-fired fossil fuel steam generating units 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); ash-handling facilities, and re-locatable diesel-fired generators.

This permit authorizes the temporary trial burn of a blend of Power River Basin (PRB) subbituminous coal with bituminous coal in existing Units 4 and 5. Although the permit restricts the blend to no more than 30% PRB coal, a variety of other PRB coal blends will be tested. The two coals will be blended off-site and shipped to the plant as a premixed blend. The trial burn is limited to no more than 150,000 tons of PRB coal blend and must be completed within 90 days after first firing the PRB coal blend. Emissions and operational testing will be conducted during the trial burn. The project will primarily affect existing coal-fired Unit 4 (EU-004) and Unit 5 (EU-003) as well as the coal/ash handling and storage. No new equipment is necessary to conduct the trial burn.

REGULATORY CLASSIFICATION

Title III: The existing facility is a major source of hazardous air pollutants (HAP).

Title IV: The existing facility operates units subject to the acid rain provisions of the Clean Air Act.

Title V: The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The existing facility is a PSD-major facility in accordance with Rule 62-212.400, F.A.C.

NSPS: The existing facility operates units subject to the New Source Performance Standards of 40 CFR 60.

RELEVANT DOCUMENTS

The following relevant documents are not a part of this permit, but helped form the basis for this permitting action: the permit application and additional information received to make it complete; the draft permit package including the Department's Technical Evaluation and Preliminary Determination; publication and comments; and the Department's Final Determination. The plant currently operates under the terms and conditions of Title V air operation Permit No. 0170004-009-AV.

1. Permitting Authority: All documents related to applications for permits to construct, modify, or operate emissions units shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. Copies of all such documents shall be submitted to the Compliance Authority.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Air Resource Section of the Department's Southwest District Office at 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926.

3. Appendices: The following Appendices are attached as part of this permit: Appendix A (Citation Formats), Appendix B (General Conditions), and Appendix C (Common Conditions).

4. 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 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); and Title 40, Part 60 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, F.A.C. The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. 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 permittee 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.]

5. 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.]

6. 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.]

7. Title V Permit: This project authorizes limited temporary use of a fuel not currently authorized to allow for the gathering of emissions and operational data. The facility shall remain in compliance with the terms and conditions of the current Title V air operation permit. As this is a temporary authorization, an application to revise the Title V air operation permit is not required. [Rules 62-4.030, 62-4.050, 62-4.070, 62-4.220, and Chapter 62-213, F.A.C.]

A. Units 4 and 5

This section addresses the following emissions units as described in the Title V air operation permit.

ID No.	Brief Description
003 and 004	Fossil fuel steam generator Unit 4 (EU-004) and Unit 5 (EU-003) are identical dry bottom wall-fired boilers rated at 760 MW (6665 MMBtu/hr). Each unit is currently authorized to fire bituminous coal, a bituminous coal and bituminous coal briquette mixture, and used oil, with No. 2 fuel oil as a startup fuel, and natural gas as a startup and low-load flame stabilization fuel. Emissions from each boiler exhaust through individual stacks that are 600 feet tall. Emissions from each boiler are controlled with a high-efficiency electrostatic precipitator.

TEMPORARY AUTHORIZATION AND RESTRICTIONS

1. PRB Coal Blend: The permittee is temporarily authorized to fire a blend of Powder River Basin (PRB) coal with bituminous coal. A variety of PRB coal blends may be tested, but the blends shall not exceed 30% PRB coal by weight. PRB coal blends shall be blended off site and delivered by ship to the plant as a premixed blend. This permit does not authorize the permanent firing of PRB coal blends. [Application No. 0170004-012-AC; Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

2. Trial Test Burn Duration: PRB coal blends shall only be fired in existing Units 4 and 5. PRB coal blends shall be fired in a similar manner to the bituminous coal currently in use at the plant. The permittee shall provide at least a one-day advance notice (by phone, fax, or email) to the Compliance Authority prior to the initial firing of PRB coal. Once any PRB coal blend is fired, the permittee shall complete the trial burn within 90 calendar days. No more than 150,000 tons of PRB coal blend shall be burned during the trial burn. In addition, the trial burn shall be completed prior to the expiration date of this permit. The permittee shall not fire PRB coal blends either before or after the authorized trial burn period. Within five calendar days of completing the trial burn, the permittee shall notify the Compliance Authority (by phone, fax, or email) that the trial burn has been completed. *{Permitting Note: The purpose of this temporary authorization is to gather operational and emissions data related to firing PRB coal blends for the evaluation of overall impacts.}* [Application No. 0170004-012-AC; Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

EMISSIONS LIMITING AND PERFORMANCE STANDARDS

3. Performance Requirements: The permittee shall provide the Compliance Authority with a preliminary schedule for conducting the trial burn and performance tests and shall update this schedule as necessary. During the trial burn, the permittee shall comply with all current terms and conditions in Title V air operation Permit No. 0170004-009-AV. If the trial burn results in operation that is not in accordance with the conditions of the Title V permit or the test protocol, the performance testing will cease as soon as possible. The permittee shall immediately notify the Compliance Authority (by phone, fax, or email) of any non-compliance issue. The trial burn shall not resume until appropriate actions have been taken to correct the problem. [Application No. 0170004-012-AC; Rule 62-4.070(3), F.A.C.]

4. Fugitive Dust: The permittee shall take reasonable precautions to prevent fugitive dust emissions from the unloading, storage, and handling of PRB coal blends. These shall be the same reasonable precautions specified in the current Title V air operation Permit No. 0170004-009-AV to prevent fugitive dust emissions from the unloading, storage, and handling of bituminous coal currently in use at the plant. [Application No. 0170004-012-AC; Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

MONITORING AND TESTING

5. Monitoring of Operations: When firing PRB coal blends, the permittee shall conduct the following monitoring.

   a. The permittee shall record the amount and blend ratio of each PRB coal blend delivered to the plant.

A "certificate of analysis" (including the proximate and ultimate analysis) shall be retained for each delivery of PRB coal blend.

b. On at least three separate days, the permittee shall take samples of the PRB coal blend being fired. A proximate and ultimate analysis shall be provided for each sample taken. Samples taken on different emissions testing days may satisfy this requirement.

c. The permittee shall maintain daily records of the boiler operations including: the PRB blend ratio fired; the fuel mass firing rate; the heat input rate; steam production, temperature and pressure; and the MW generated.

d. The permittee shall test the ESP fly ash for resistivity. At least two samples shall be taken on separate operating days. The samples shall be taken during the tests for particulate matter and after the boiler has fired a sufficient amount of PRB coal blend to ensure that the collected sample is representative of firing PRB coal blend. Each sample shall be analyzed for resistivity. If resistivity data is not available for baseline coal firing, at least two samples shall be taken and analyzed for resistivity when firing baseline coal for purposes of comparison.

e. The permittee shall monitor and record the electrostatic precipitator (ESP) secondary voltage and secondary current and calculate and record the total ESP secondary power input.

f. The permittee shall continuously monitor and record opacity, nitrogen oxides (NOx) emissions and sulfur dioxide (SO_2) emissions with existing monitoring systems.

For comparison purposes, the permittee shall identify the current corresponding baseline monitoring values (for bituminous coal firing) or collect baseline data during the trial burn period. [Rule 62-4.070(3), F.A.C.]

6. Notifications: The permittee shall provide the Compliance Authority with a written preliminary schedule for conducting any emissions tests (by letter, fax, or email). The preliminary schedule shall be updated as necessary. The permittee shall provide the Compliance Authority with at least 5 days advance notice (by phone, fax, or email) prior to conducting any emissions tests. [Rule 62-4.070(3), F.A.C.]

7. Test Methods: Any required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1 - 4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5 or 17	Determination of Particulate Matter (PM) Emissions
6	Determination of Sulfur Dioxide (SO_2) Emissions
7E	Determination of Nitrogen Oxide (NOx) Emissions
9	Visual Determination of the Opacity
10	Determination of Carbon Monoxide (CO) Emissions
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)

Tests shall also be conducted in accordance with the requirements specified in Appendix C of this permit. The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

8. Emissions Testing - Baseline: Each boiler that will be firing the PRB blend shall have representative baseline emission levels for carbon monoxide (CO) based on actual test data collected when firing only the

bituminous coal currently in use. Such tests shall consist of at least three runs conducted at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum heat input rate allowed by the permit. Test results shall be reported in units of ppmvd @ 7% oxygen, lb/MMBtu, and lb/hour. If such representative CO emissions data does not exist at the time of the trial burn, each boiler that will be firing the PRB blend shall be tested to determine the CO emissions. Sufficient testing shall be conducted to establish baseline emissions. *{Permitting Note: Baseline emissions data is already available for opacity, nitrogen oxides (NOx) emissions and sulfur dioxide (SO_2) based on continuous monitoring data and for particulate matter based on annual tests.}* [Rule 62-4.070(3), F.A.C.]

9. Emissions Testing - PRB Coal Blend: Each boiler shall be tested to determine emission levels of carbon monoxide (CO) and particulate matter (PM) when firing the PRB coal blend with the highest PRB coal content fired during the trial burn. Each test shall consist of three runs conducted at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum heat input rate allowed by the permit. Particulate matter (PM) tests shall include three test runs under normal test conditions including soot blowing. Test results shall be reported in units of ppmvd @ 7% oxygen (gases), lb/MMBtu, and lb/hour. During the day of each required emissions testing, the permittee shall obtain a sample of the PRB coal blend as fired. A proximate and ultimate analysis shall be provided for each sample taken. If only one boiler fires the PRB coal blend during the trial burn, that unit shall conduct two series of tests to determine emission levels of carbon monoxide (CO) and particulate matter (PM) when firing the PRB coal blend. *{Permitting Note: Emissions levels for opacity, nitrogen oxides (NOx) emissions and sulfur dioxide (SO_2) will be determined by the continuous monitoring data collected during the trial burn.}* [Rule 62-4.070(3), F.A.C.]

RECORDS AND REPORTS

10. Emissions Tests Reports: The permittee shall prepare and submit reports for all emissions tests in accordance with the requirements specified in Appendix C of this permit. For each test run, the report shall also indicate the following: the PRB blend ratio, the fuel firing rate, the heat input rate, the average ESP secondary power input, the opacity, the NOx emission rate, and the SO_2 emission rate. [Rule 62-297.310(8), F.A.C.]

11. Trial Burn Report: Within 60 days of completing the trial burn, the permittee shall submit a final report summarizing the trial burn to the Bureau of Air Regulation and the Compliance Authority. The trial burn report shall include, but not be limited to, the following information:

- Actual schedule and overall description of the trial burn;
- Summary of PRB blends evaluated (amounts delivered; blend ratio; and proximate/ultimate analyses);
- Discussion of operational issues of PRB coal including: coal unloading, handling, storage and firing; fugitive dust; soot blowing; ESP performance and adjustments; and ash handling and storage;
- Comparison of baseline operations versus operation with PRB coal blend;
- Evaluation of current equipment compatibility with PRB coal blend;
- Summary of continuous emissions monitoring data;
- Summary of boiler operating data;
- Summary of emissions test results, actual test schedule, and procedures used;
- Comparison of baseline emissions with emissions from firing PRB coal blend (short-term and long-term); and,
- Discussion of emissions changes as described in Appendix C of 40 CFR 60.

Rules 62-4.070(3), 62-210.200(PTE) and 62-212.400, F.A.C.

The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.

REFERENCES TO PREVIOUS PERMITTING ACTIONS

Old Permit Numbers

Example: Permit No. AC50-123456 or Air Permit No. AO50-123456

Where: "AC" identifies the permit as an Air Construction Permit
"AO" identifies the permit as an Air Operation Permit
"123456" identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: "099" represents the specific county ID number in which the project is located
"2222" represents the specific facility ID number
"001"identifies the specific permit project
"AC" identifies the permit as an air construction permit
"AF" identifies the permit as a minor federally enforceable state operation permit
"AO" identifies the permit as a minor source air operation permit
"AV" identifies the permit as a Title V Major Source Air Operation Permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: "PSD" means issued pursuant to the Prevention of Significant Deterioration of Air Quality
"FL" means that the permit was issued by the State of Florida
"317" identifies the specific permit project

RULE CITATION FORMATS

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CRF 60.7]

Means: Title 40, Part 60, Section 7

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

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.

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, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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

13. This permit also constitutes:

    a. Determination of Best Available Control Technology (not applicable);
    b. Determination of Prevention of Significant Deterioration (not applicable); and
    c. Compliance with New Source Performance Standards (not applicable).

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.

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.

SECTION 4. APPENDIX C
COMMON CONDITIONS

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.

EMISSIONS AND CONTROLS

1. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]

2. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]

3. General Visible Emissions: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

4. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

TESTING REQUIREMENTS

5. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

6. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]

7. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

8. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.

   a. *Required Sampling Time.* Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.

   b. *Minimum Sample Volume.* Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.

c. *Calibration of Sampling Equipment.* Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.

[Rule 62-297.310(4), F.A.C.]

9. Determination of Process Variables

a. *Required Equipment.* The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

b. *Accuracy of Equipment.* Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

10. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.

11. Test Notification: The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]

12. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

13. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.

10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

RECORDS AND REPORTS

14. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]