STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

FLORIDA POWER CORPORATION, Petitioner, vs. DEPARTMENT OF ENVIRONMENTAL PROTECTION, Respondent, and LEGAL ENVIRONMENTAL ASSISTANCE FOUNDATION, INC., and SIERRA CLUB, INC., Intervenors.	)	Case No. 96-5344

RECOMMENDED ORDER

Pursuant to notice, a formal hearing was held in this case on June 2 and 3, 1997, in Tallahassee, Florida, before Donald R. Alexander, the assigned Administrative Law Judge of the Division of Administrative Hearings.

APPEARANCES

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STATEMENT OF THE ISSUE

The issue in this case is whether Petitioner should be issued an air construction permit authorizing its Crystal River steam generating plant Units 1 and 2 to co-fire a five to seven percent blend of petroleum coke with coal.

PRELIMINARY STATEMENT

This matter began on June 25, 1996, when Respondent, Department of Environmental Protection, issued its Intent to Deny "a permit for the proposed project to burn a blend of petroleum coke and coal in the existing coal-fired Units 1 and 2 at the Crystal River Power Plant." On October 4, 1996, Petitioner, Florida Power Corporation, filed a Petition for Formal Administrative Hearing with Respondent for the purpose of contesting the proposed agency action.

The case was then referred by Respondent to the Division of Administrative Hearings on November 13, 1996, with a request that an Administrative Law Judge conduct a formal hearing. By notice of hearing dated December 2, 1996, a hearing was scheduled on February 3 and 4, 1997, in Tallahassee, Florida. At Petitioner's request, the hearing was continued to March 6 and 7, 1997. By

agreement of the parties, the hearing was continued to June 3 and 4, 1997.

On May 27, 1997, Petitions to Intervene were filed by Legal Environmental Assistance Foundation, Inc. and Sierra Club, Inc. After an objection was lodged by Petitioner, the undersigned conditionally allowed the prospective intervenors to participate in this proceeding subject to proof of standing at final hearing.

At final hearing, Petitioner presented the testimony of J. Michael Kennedy, manager of air programs in the Environmental Services Department and accepted as an expert in air quality permitting and compliance; Danny Douglas, plant manager for Crystal River Units 1 and 2 and accepted as an expert in power plant operations and management; Robert Kunkel, manager of systems performance engineering with ABB Combustion Engineering and accepted as an expert in power plant boiler design and engineering; and Kennard F. Kosdy, a principal in the environmental consulting firm Golder Associates, Inc. and accepted as an expert in air quality engineering and administration of air quality control requirements. Also, it offered petitioner's exhibits 1-47 and 49-67. All exhibits were received in evidence. Respondent presented the testimony of Al Linaro, administrator/technical supervisor of the new source review program and accepted as an expert in air quality engineering with an emphasis on the Prevention of Significant Deterioration program. Also, it offered respondent's exhibits 1-

24. All exhibits were received in evidence except exhibit 1. Legal Environmental Assistance Foundation, Inc. offered intervenor's exhibits 1 and 2, which were received in evidence.

The transcript of hearing (three volumes) was filed on July 1, 1997. Proposed findings of fact and conclusions of law were originally due on August 1, 1997, but this time was extended to August 15, 1997. Responses to each party's proposed order were authorized to be filed by August 25, 1997. All were timely filed by the parties, and they have been considered by the undersigned in the preparation of this Recommended Order. Finally, on September 5, 1997, Respondent filed a Motion to Strike certain attachments to Petitioner's Response to Proposed Recommended Order. The motion is dealt with in the Conclusions of Law portion of this order.

FINDINGS OF FACT

Based upon all of the evidence, the following findings of fact are determined:

A. Background

1. Petitioner, Florida Power Corporation (FPC), is an investor-owned public utility engaged in the sale of electricity to approximately 1.2 million customers. Among others, it operates the Crystal River Power Plant consisting of five electric-generating units in Citrus County, Florida. Units 1, 2, 4, and 5 are coal-fired, while Unit 3 is a nuclear unit.

2. Respondent, Department of Environmental Regulation

(DEP), is a state agency charged with the statutory responsibility of regulating the construction and operation of business enterprises in a manner to prevent air pollution in excess of specified limits. Among other things, DEP issues air construction permits for a limited period of time to undertake and evaluate initial operations of a business enterprise; long-term approval subsequently is available under an air operation permit. As a part of this process, and pursuant to federal law, DEP engages in a Prevention of Significant Deterioration (PSD) review to determine if non-exempt alterations to major facilities result in net emission increases greater than specified amounts. Under certain conditions, however, the use of alternative fuels or raw materials are exempted from PSD review.

3. Intervenor, Legal Environmental Assistance Foundation, Inc. (LEAF), is a non-profit Alabama corporation licensed to do business in the State of Florida. It is a public interest advocacy organization whose corporate purposes include securing environmental and health benefits from clean air and water. Intervenor, Sierra Club, Inc. (Sierra Club), is a public interest advocacy organization incorporated in California and doing business in Florida. Its corporate purposes include securing the environmental and health benefits of clean air and water.

4. On December 26, 1995, FPC filed an application with DEP for an air construction permit authorizing it to burn a blend of petroleum coke and coal in its existing coal-fired Units 1 and 2

at the Crystal River Power Plant in Citrus County, Florida. In the application, FPC did not address PSD review since it believed it qualified for an exemption from PSD permitting under Rule 62-212.400(2)(c)4., Florida Administrative Code. That rule exempts from PSD review the

> [u]se of an alternative fuel or raw material which the facility was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975.

5. After reviewing the application, DEP issued an Intent to Deny on June 25, 1996. In that document, DEP stated that

> [a]ccording to information in Department files, both Units 1 and 2 operated on liquid fuel prior to January 6, 1975. Very substantial modifications of the boilers and pollution control equipment were implemented thereafter by [FPC] to convert the units to coal-firing mode. Therefore the project does not qualify for the exemption from PSD review claimed by the company.

6. Contending that it was entitled to an exemption from PSD review and therefore a permit, FPC filed a Petition for Administrative Hearing on October 4, 1996. In its Petition, FPC generally alleged that petroleum coke is a product with characteristics very similar to coal; Units 1 and 2 were capable of accommodating coal and petroleum coke as of January 6, 1975; and contrary to the statements in the Intent to Deny, any boiler modifications and pollution control improvements to those units were minor and not substantial.

B. The Permitting Program

7. The PSD program is based on similar PSD requirements found in the federal Clean Air Act of 1970, as amended (the Act). The permitting program is a federally required element of DEP's State Implementation Plan (SIP) under Section 110 of the Act. DEP has fulfilled the requirement of administering the federal PSD program by obtaining approval from the Environmental Protection Agency (EPA) of state PSD regulations that meet the requirements of federal law. The requirements of the SIP are found in Chapters 62-204, 62-210, 62-212, 62-296, and 62-297, Florida Administrative Code.

8. Chapter 62-212 contains the preconstruction review requirements for proposed new facilities and modifications to existing facilities. Rule 62-212.400, Florida Administrative Code, establishes the general preconstruction review requirements and specific requirements for emission units subject to PSD review. The provisions of the rule generally apply to the construction or modification of a major stationary source located in an area in which the state ambient air quality standards are being met.

9. Paragraph (2)(c) of the rule identifies certain exemptions from those requirements. More specifically, subparagraph (2)(c)4. provides that a modification that occurs for the following reason shall not be subject to the requirements of the rule:

> 4. Use of an alternative fuel or raw material which the facility was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975.

The rule essentially tracks verbatim the EPA regulation found at 40 CFR 52.21(b)(2)(iii)(e)1.

10. Therefore, in order to qualify for an exemption from PSD review, FPC must use "an alternative fuel . . . which [Units 1 and 2 were] capable of accommodating before January 6, 1975." In addition, FPC must show that "such change would [not] be prohibited under any federally enforceable permit condition which was established after January 6, 1975." Contrary to assertions by Respondent and Intervenors, in making this showing, there is no implied or explicit requirement in the rule that FPC demonstrate that it had a subjective intent to utilize petroleum coke prior to January 6, 1975.

C. The Application and DEP's Response

11. In its application, FPC proposes to co-fire a five percent (plus or minus two percent) blend of petroleum coke with coal, by weight. It does not propose to make any physical changes to Units 1 and 2 to utilize petroleum coke. Also, it does not request an increase in any permitted air emission rates for the units because it can meet its current limits while burning the proposed blend rate of petroleum coke with coal.

12. The application included extensive fuel analysis and

air emissions data obtained from a DEP-authorized petroleum coke trial burn conducted from March 8 until April 4, 1995.

13. Although it is not proposing to make physical changes to the plant, FPC applied for the air construction permit in deference to DEP's interpretation that such a permit is required when a permittee utilizes an alternative fuel.

14. After completing his initial review, the DEP supervisor of the New Source Review program acknowledged in a memorandum to his supervisor that FPC was "entitled to a permit" but suggested that FPC be asked to "change their minds."

15. Before the permit was issued, however, DEP changed its mind and issued an Intent to Deny on the ground that prior to January 6, 1975, Units 1 and 2 were not capable of accommodating coal or a blend of petroleum coke with coal.

D. The Units

16. Unit 1 has a generating capacity of 400 MW and commenced operation as a coal-fired plant in October 1966. It fired coal until March 1970, fuel oil until October 1978, and then again fired coal from June 1979 to the present.

17. Unit 2 has a generating capacity of 500 MW and commenced operations as a coal-fired plant in November 1969. It fired coal until September 1971, fired fuel oil from December 1971 until October 1976, and then again fired coal from December 1976 to the present.

18. Original equipment installed during the initial

construction of Units 1 and 2 included the following: the barge unloader, which removes coal from barges that deliver coal from New Orleans; the stacker/reclaimer, which stacks the coal into piles and then reclaims the coal by directing it from the coal piles to conveyors that deliver it to the units; the crusher house, which has two crushers that crush the coal on the way to units down to nuggets no larger than three-quarters of an inch in diameter; the silos, which store the crushed coal; the feeders, located below the silos, which regulate the flow of coal from the silos to the pulverizers; the pulverizers, which grind the coal in preparation for combustion and then direct the pulverized coal to the burners, which are located on the corners of each unit's boiler; and the boilers, where the fuel is combusted, imparting heat to water contained in the waterwalls and thereby producing steam for electrical generation.

19. The foregoing equipment was reflected in the plant's construction specifications and remains in operation, on site, at the plant. Components and parts of this equipment have been maintained, replaced, and repaired periodically. The original operations manual for the barge unloader, stacker/reclaimer, crushers, and conveyor systems are still kept and utilized on site.

20. The primary fuel utilized in Units 1 and 2 is coal, although these units also co-fire from one to five percent number 2 fuel oil and used oil.

21. The combustion of fuel in Units 1 and 2 results in air emissions. As a result of changing regulatory requirements, there have been substantial improvements to the units' air pollution control capabilities since original construction.

E. Existing Air Permits

22. Unit 1 currently operates under Air Operation Permit Number A009-169341. Unit 2 operates under Air Operation Permit Number A-009-191820. Both permits were amended by DEP on October 8, 1996. Although each air operation permit contains an expiration date that has been surpassed, the permits remain in effect under DEP's regulations during the pendency of the agency's review of FPC's applications for air operation permits under the new Title V program found in Chapter 62-213, Florida Administrative Code.

23. The air operation permits governing Units 1 and 2 contain mass emission rate limitations of 0.1 pounds/million (mm) British thermal units (Btu) or particulate matter (PM), and 2.1 pounds/mmBtu for sulfur dioxide. These mass emission rate limitations restrict the amount of each pollutant (measured in pounds) that is to be released into the atmosphere per million Btu of heat energy by burning fuel. The PM limitation is applicable to Units 1 and 2 under state regulations originally promulgated in 1972.

24. The sulfur dioxide limitation was established in 1978 as a result of a PSD air quality analysis performed in

conjunction with the permitting of Units 4 and 5. Prior to 1978, sulfur dioxide limits promulgated early in 1975 imposed a limit of 6.17 pounds/mmBtu on coal-fired operations at Units 1 and 2.

25. Because Units 1 and 2 were subjected to a PSD air quality impact analysis along with Units 4 and 5, the units' sulfur dioxide emission limits were reduced from 6.17 to 2.1 pounds/mmBtu. The 2.1 pounds/mmBtu sulfur dioxide emission limitation applicable to Units 1 and 2 was set with the intention of assuring no adverse air quality impacts.

26. The sulfur dioxide impacts associated with Units 1, 2, 4, and 5, after collectively being subjected to PSD air quality review, were much lower than the sulfur dioxide impacts previously associated with only Units 1 and 2.

F. Is Petroleum Coke an Alternative Fuel?

27. Petroleum coke is a by-product of the oil refining process and is produced by many major oil companies. The oil refineries refine the light ends and liquid products of oil to produce gasoline and kerosene, resulting in a solid material that resembles and has the fuel characteristics of coal.

28. Both historically and presently, it has been common-place for electric utilities to rely on petroleum coke as fuel. For example, during the period 1969 through 1974, regular shipments of petroleum coke were sent to various electric utility companies throughout the United States to be co-fired with coal.

In addition, DEP has issued permits for Tampa Electric Company to co-fire petroleum coke with coal.

29. In 1987 and again in 1990, the EPA promulgated air-emission regulations which specifically define "coal" as including "petroleum coke." DEP has incorporated these regulations by reference at Rule 62-204.800(7)(b) 3. and 4., Florida Administrative Code.

30. Given these considerations, it is found that petroleum coke constitutes an alternative fuel within the meaning of Rule 62-212.400(4)(c)4., Florida Administrative Code.

G. Were the Units Capable of Accommodating the Fuel?

31. Petroleum coke and coal are operationally equivalent. Petroleum coke can be handled, stored, and burned with the existing coal handling equipment at Units 1 and 2. The barge unloader, stacker/reclaimer, storage areas, conveyors, silos,

crusher house, pulverizers, and burners, all installed prior to 1975, can handle petroleum coke.

32. The equipment comprising Units 1 and 2 does not require any modification in order to burn a blend of petroleum coke with coal. Also, there will be no net impact on steam generator design or operation, and there will be no decline in performance or adverse impacts to the boilers.

33. FPC could have co-fired petroleum coke with coal historically without making physical alterations or derating the units. Similarly, petroleum coke can be fired in Units 1 and 2 now without alterations or derating. These findings are further supported by Petitioner's Exhibits 35 and 36, which are reference books published in 1948 and 1967 by the manufacturer of the equipment installed at Units 1 and 2. They confirm that prior to 1975, petroleum coke was suitable for the manufacturer's boilers and pulverizers.

34. Unrebutted testimony demonstrated that Units 1 and 2 could have co-fired petroleum coke with oil during the oil-firing period. Even when Units 1 and 2 fired oil instead of coal for a period of time in the 1970s, the coal-handling equipment remained in existence on-site and available for use, and both units remained readily convertible to their original, coal-firing modes. Because the plant remained capable of accommodating coal, it also remained capable of accommodating petroleum coke.

35. In light of the foregoing, it is found that co-firing petroleum coke with coal at Units 1 and 2 could have been accomplished prior to January 6, 1975.

H. Are there Post-January 6, 1975, Prohibitions?

36. There is no evidence to support a finding that a federally enforceable permit condition was establshed after January 6, 1975, that prohibits co-firing petroleum coke with coal.

I. Miscellaneous

37. By letters dated February 14 and June 2, 1997, the EPA Region IV office replied to inquiries from DEP regarding the instant application. The conclusions reached in those letters, however, were based on a misapprehension of the facts in this case. Therefore, the undersigned has not credited these letters.

38. To prove up its standing, LEAF introduced into evidence a copy of its articles of incorporation and a brochure describing the organization. In addition, it asserted that the air quality for its members would be "at risk" if Units 1 and 2 did not meet PSD standards and air emissions were "increased."

39. Intervenor Sierra Club proffered that a substantial number of members "live, work, or recreate in the vicinity of the Crystal River Units 1 and 2, and in the area subject to the air emissions by those units," and that those members "would be substantially affected by the proposed exemption."

CONCLUSIONS OF LAW

40. The Division of Administrative Hearings has jurisdiction over the subject matter and the parties hereto pursuant to Section 120.569, Florida Statutes (Supp. 1996).

41. As the permit applicant, FPC has the ultimate burden of persuasion of entitlement to an air construction permit. See, e.g., Cordes v. State, Dep't of Environmental Regulation, 582 So. 2d 652, 654 (Fla. 1st DCA 1991).

42. The contested issue in this case is whether FPC's proposal to co-fire petroleum coke with coal is exempt from the requirement to obtain a PSD permit under Rule 62-212.400(2)(c)4., Florida Administrative Code. That rule exempts from PSD review:

> [u]se of an alternative fuel or raw material which the facility was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975.

If the exemption applies, FPC is entitled to an air construction permit. If the exemption does not apply, the permit should be denied.

43. By a preponderance of the evidence, FPC has demonstrated that petroleum coke is an alternative fuel within the meaning of the PSD exemption. This conclusion is supported by the established facts that petroleum coke is similar to coal with respect to handling and combustion, has the characteristics of fuel, and is commonly sold and utilized as fuel. Moreover,

both the EPA and DEP historically have referred to it as an alternative fuel.

44. FPC has also demonstrated that no federally enforceable permit condition established since January 6, 1975, prohibits utilization of a petroleum coke blend with coal at Units 1 and 2.

45. Finally, by a preponderance of the evidence FPC has established that co-firing petroleum coke in Units 1 and 2 could have been accomplished prior to January 6, 1975. On this issue, it was shown that the units could and did burn coal prior to 1975 and that petroleum coke is operationally equivalent to coal. This being so, FPC is entitled to an exemption from PSD review, and it should be issued an air construction permit.

46. Intervenors have demonstrated, at least minimally, that they are substantially affected by these proceedings and should be accorded intervenor status. A showing of "special injury" is not required. Friends of the Everglades v. Bd. of Trustees, 595 So. 2d 186 (Fla. 1st DCA 1992).

47. Respondent's Motion to Strike the attachments to Petitioner's Response to Proposed Order is denied.

RECOMMENDATION

Based on the foregoing findings of fact and conclusions of law, it is

RECOMMENDED that the Department of Environmental Protection enter a final order granting the application of Florida Power Corporation and issuing the requested air construction permit.

DONE AND ORDERED this 23rd day of September, 1997, in Tallahassee, Leon County, Florida.

DONALD R. ALEXANDER
Administrative Law Judge
Division of Administrative Hearings
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Filed with the Clerk of the
Division of Administrative Hearings
this 23rd day of September, 1997.

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NOTICE OF RIGHT TO SUBMIT EXCEPTIONS

All parties have the right to submit written exceptions within 15 days from the date of this Recommended Order. Any exceptions to this Recommended Order should be filed with the Department of Environmental Protection.