



W. Jeffrey Pardue, C.E.P.
Director
Environmental Services Department

February 18, 1997

XC: CLAIR
AL 2/21

R. Douglas Neeley, Chief
Air and Radiation Technology Branch
Air, Pesticides, and Toxics Management Division
U.S. Environmental Protection Agency
Atlanta Federal Center
100 Alabama Street, SW
Atlanta, GA 30303-3104

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FEB 18 1997
DIVISION OF AIR
RESOURCES MANAGEMENT

RE: Review of Information Related to FPC's Request to Co-fire Petroleum Coke with Coal in Crystal River Units #1 and #2

Dear Mr. Neeley:

The last page of EPA Region IV's February 14, 1997 letter to the State of Florida Department of Environmental Protection (DEP) concerning PSD applicability in the referenced project contains the following mistakes that require immediate correction:

1. "Although the applicant asserts that the handling of petcoke is indistinguishable from coal, the petcoke is certainly going to have different chemical constituents as well as burning characteristics."

Florida Power Corporation has proposed co-firing petcoke with coal at a blend rate of 5% to 7% and contemplates a federally enforceable permit limitation to that effect. At that blend rate, there are no differences between the chemical constituents of petcoke and coal that require any changes to the plant's fuel handling equipment or boilers. The following data demonstrate that a petcoke/coal blend will not materially affect the plant's operations:

	Typical Petcoke	Units 1&2 Typical Coal 1995	Coke/Coal 7%/93% Blend	FPC Coal Specification
Total Moisture, %	8.69	6.84	6.97	9.8 Max
Grindability	82	43	45.73	41 Min
Volatile Matter, %	11.32	34.69	33.05	32 Min
Heating Value, Btu/lb	14,164	12,252	12,386	11,700 Min

Nor will co-firing a 5 - 7% blend of petcoke and coal require any changes to existing emission limitations for Units 1 and 2. Therefore, the alleged "different chemical characteristics" referred to in EPA's letter are immaterial and of no consequence in considering whether the PSD

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exemption applies. Perhaps it is precisely because petcoke is so similar to coal that EPA within the past ten years has promulgated two NSPS air emission regulations which expressly include "petroleum coke" within the definition of "coal." It also is quite relevant that petcoke has characteristics that fit within the numerical values for "coal" under ASTM criteria. (ASTM Document No. D388-95.) Accordingly, please provide us with the information that supports EPA's statement and its relevance in determining applicability of the PSD exemption, or inform DEP that that statement is retracted.

2. "There has been no information submitted to date that indicates that petcoke was contemplated as a fuel in the original design or the coal conversion."

Prior EPA guidance statements indicate that one way to demonstrate that Units 1 and 2 were "capable of accommodating" petcoke prior to January 6, 1975 would be to produce original construction specifications documenting that FPC intended to use petcoke at the Crystal River Plant. However, DEP apparently has misconstrued the above quote (as well as the language from previous guidance documents) as indicating that such a demonstration is the only way to qualify for the "capable of accommodating" exemption. Please correct that misinterpretation.

The operative factor in applying the capable of accommodating PSD exemption is whether use of the alternative fuel (a 5 - 7% blend of petroleum coke with coal) "could be accomplished" under the pre-January 6, 1975 construction specifications at Crystal River Units 1 and 2. A 1977 amendment to the federal Clean Air Act, as set forth in 42 USC § 7479(2)(C), effectively mandated that 40 CFR § 60.14(e)(4) shall serve as the legal basis for EPA's PSD capable of accommodating exemption. EPA explicitly acknowledged this interpretive connection in codifying the capable of accommodating PSD exemption as an element for state programs in 40 CFR § 51.166(b)(2)(iii)(e)(1) and § 52.21(b)(2)(iii)(e)(1) (43 Fed. Reg. 26396, June 19, 1978). And DEP adhered to this federal model in promulgating the capable of accommodating exemption, which currently is codified at Rule 62-212.400(2)(c)4., Fla. Admin. Code.

40 CFR § 60.14(e)(4) affirms EPA's clear regulatory intention to apply the exemption based on what "could be accomplished": "A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change." (Emphasis added.) EPA at one point considered requiring that the alternative fuel actually be "included in the final construction specifications," but ultimately rejected that approach. See 39 Fed. Reg. 36949 (October 15, 1974); 40 Fed. Reg., 58419, 58420 (December 16, 1975). Accordingly, the fundamental question in this case is whether use of a 5 - 7% petroleum coke blend with coal could have been accomplished prior to January 6, 1975. Because the Crystal River plant originally (and continuously thereafter) was designed and constructed to burn coal, and because

coal with a 5 - 7% blend of petcoke is equivalent to coal (discussed above), combusting the blend easily could have been accomplished.

3. "The units as designed clearly could not burn petcoke as the sole fuel."

As stated, FPC has proposed to combust a blended fuel consisting primarily of coal with a 5 - 7% blend of petcoke. Therefore, it is not relevant whether Units 1 and 2 could burn petcoke as the sole fuel. Where an applicant proposes to utilize a very limited blend of an alternative fuel, there is no rational basis for extrapolating to 100% alternative fuel firing and then relying on that hypothetical circumstance as a basis for denying the capable of accommodating exemption. Such a precedent would have national implications in constricting the availability of the "capable of accommodating" exemption. For example, under that policy one would not be "capable of accommodating" a small blend of used oil absent a demonstration that the plant could fire 100% used oil. (Unless issue no. 2 (above) is corrected, such a company also would need to produce construction or design specifications documenting that it specifically intended to burn used oil prior to January 6, 1975.)

4. "Further, it is not clear that blending capability to co-fire coal with petcoke was present prior to 1975."

Such blending was easily attainable with equipment continuously on-site since before January 6, 1975. Coal is not a homogenous fuel; like most coal-fired plants, the Crystal River Plant historically has required the capability to blend different fuels associated with different coal shipments. This equipment has been, and still is, readily available to blend petcoke with coal.

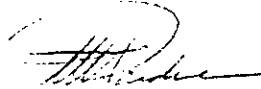
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In sum, statement nos. 1 and 4 reflect a misunderstanding of the basic facts of this case that require correction. Statement no. 2 needs to be qualified so as not to promote DEP's ongoing misinterpretation of law, and statement no. 3 (focusing on petcoke as the "sole fuel") apparently overlooks the fact that FPC has proposed a 5 - 7% blend. Because the state administrative hearing is scheduled to commence on March 6, 1997, it is essential that EPA retract and correct the last paragraph of the referenced letter immediately. Please inform me of EPA's anticipated time frame for addressing the anomalies in the letter to DEP by February 21, 1997.

R. Douglas Neeley, Chief
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As previously suggested to your staff, we would appreciate the opportunity to discuss this issue in a meaningful manner.

Very truly yours,

A handwritten signature in dark ink, appearing to read "W. Jeffrey Pardue", is written over a horizontal line.

W. Jeffrey Pardue
Director of Environmental Services

cc: Brian Beals
Howard Rhodes



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
100 ALABAMA STREET, S.W.
ATLANTA, GEORGIA 30303-3104

FEB 14 1997

4APT-ARB

Mr. Clair H. Fancy, P.E.
Chief
Bureau of Air Regulation
Florida Department of Environmental
Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

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FEB 20 1997

BUREAU OF
AIR REGULATION

SUBJ: Review of Information Related to FPC's Request to Co-
fire Petroleum Coke with Coal in Crystal River Units #1
and #2

Dear Mr. Fancy:

By letter dated December 24, 1996, your office requested assistance with an applicability determination for the above referenced facility. By letter dated January 21, 1997, outside counsel for the applicant submitted additional information related to orders for fuel conversion issued to the facility by the Federal Energy Administration (FEA) during the mid- 1970's. The basic question is whether the addition of petcoke as a fuel would constitute a physical change or change in the method of operation and thus a "modification" for the purposes of the PSD regulations. The applicant has asserted that the units have continuously been capable of accommodating coal and, by association, petcoke. The basis for the assertion has been 1) that the units were originally designed and constructed to burn coal and had actually burned coal for several years prior to converting to oil firing; and , 2) the proposed findings by the FEA which preceeded a prohibition order from burning natural gas or petroleum products as the primary energy source for the powerplant.

The Energy Supply and Environmental Coordination Act of 1974 (ESECA) required that the FEA make certain findings prior to issuing a prohibition order. Specifically, the following findings were required:

(A) that the burning of coal by such plant or installation, in lieu of petroleum products or natural gas, is practicable and consistent with the purposes of this Act, (B) that coal and coal transportation facilities will be available during the period the order is in effect, and (C) in the case of a powerplant, that the prohibition under subsection (a) will not impair the reliability of service in the area served by such plant.

The FEA determined that sufficient coal supply and transportation was available both nationally and regionally to serve each of the powerplants listed in the finding. Further, a determination was made that reliability of service would not be impaired. Finally, a determination that the burning of coal at the Crystal River units was practicable was based on a finding that the plant had the capability and necessary plant equipment to burn coal. Such finding, in turn, was based on the original design of the units, a listing of significant equipment or facilities needed to modify the units to burn coal, and the financial capability of the source to make the necessary modifications (roughly \$15 million to burn the coal, another \$16 million for air pollution control).

It is not readily apparent that the FEA ever made a determination of "capable of accommodating" consistent with either the NSPS or PSD regulations. The FEA determination appears to be based in part on the financial ability of the source to convert the units to coal firing rather than solely on the physical ability of the units to burn coal. This is supported by FPC's assertion that the boilers were not capable of burning coal.

The conversion of the units from oil firing to coal firing was clearly excluded from PSD review by 40 CFR 52.21 (b)(2)(iii):

(iii) A physical change or change in the method of operation shall not include:

*** (b) Use of an alternative fuel or raw material by reason of an order under sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superceding legislation) or by reason of a natural gas curtailment plant pursuant to the Federal Power Act;

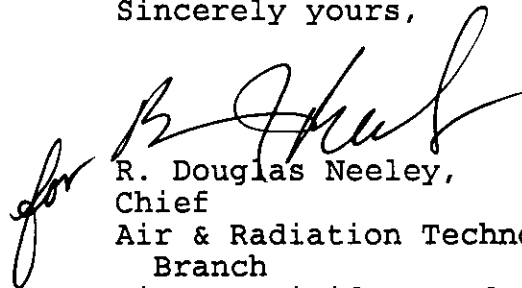
However, the exclusion from increment consumption was only envisioned to last during the time of the order. Thus, when Units #4 and #5 were permitted, it was necessary to reduce the SO₂ emission rates of Units #1 and #2 in order to protect the increments.

A number of past EPA guidance documents concerning fuel conversions were attached to the information submitted. These documents are consistent in the determination that "capable of accommodating" a fuel for the purposes of PSD consists of determining whether the facility as a whole is capable of receiving and handling the fuel (e.g., design and installation of equipment); and, whether the unit itself was designed to be able to combust the fuel. Although there remains a question as to whether the units were "continuously" capable of combusting coal prior to January 6, 1975, and to what degree the coal handling equipment was maintained, it appears from the information submitted that the facility generally meets the test of having been "capable of accommodating" coal.

A determination that the units have been capable of accommodating coal does not mean that the units were capable of accommodating petcoke. Although the applicant asserts that the handling of petcoke is indistinguishable from coal, the petcoke is certainly going to have different chemical constituents as well as burning characteristics. There has been no information submitted to date that indicates that petcoke was contemplated as a fuel in the original design or in the coal conversion. The units as designed clearly could not burn petcoke as the sole fuel. Further, it is not clear that blending capability to co-fire coal and petcoke was present prior to 1975. Based on the information submitted, it would appear that the facility was not capable of accommodating petcoke prior to January 6, 1975; thus, the alternative fuels exemption would not apply.

If you have any questions on this analysis, please contact Mr. Gregg Worley of my staff at (404) 562-9141.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "R. Douglas Neeley". To the left of the signature is a small, stylized word, possibly "for".

R. Douglas Neeley,
Chief
Air & Radiation Technology
Branch
Air, Pesticides, and Toxics
Management Division

To: AL Linero
Fax #: 904 922-6979
Re:
Date: February 19, 1997
Pages 6, including this cover sheet.

FACSIMIL

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From the desk of...

Brian Beale
Chief, Preconstruction/Hazardous Air Pollution
Section
US Environmental Protection Agency
100 Alabama Street
Atlanta, Georgia 30303

(404) 562-9093
Fax: (404) 562-9098

02/18/97 15:45 HOPPING GREEN SAMS SMITH PA + 4045629095

NO.843 P001

HOPPING GREEN SAMS & SMITH
PROFESSIONAL ASSOCIATION
ATTORNEYS AND COUNSELORS

123 SOUTH CALHOUN STREET

POST OFFICE BOX 6526

TALLAHASSEE, FLORIDA 32314

(904) 222-7600

FAX (904) 224-8551

FAX (904) 425-3415

JAMES S. ALVES
 BRIAN H. BINEAU
 KATHLEEN BUZZARD
 ELIZABETH C. BOWMAN
 RICHARD S. BRIGHTMAN
 PETER C. CUNNINGHAM
 RALPH A. DYMEC
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GARY K. HUNTER, JR.
 JONATHAN T. JOHNSON
 ROBERT A. MANNING
 ANGELA R. MORRISON
 GARY V. PENKO
 KAREN M. PETERSON
 R. SCOTT RUTH
 W. STEVE SYKES
 T. KENT WETHERELL, II

OF COUNSEL
 W. ROBERT FOXES

FAX COVER SHEET

Please Deliver the Following Pages to:

NAME:	R. Douglas Neeley
FIRM:	Air and Radiation Technology Branch Air, Pesticides, and Toxics Division U.S. Environmental Protection Agency
FAX NO:	404/562-8579
VERIFY:	404/562-9105

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AIR AND RADIATION TECHNOLOGY BRANCH
 EPA-REGION 4
 ATLANTA, GA

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FROM:	James S. Alves	CLIENT NO.	FPC/128 (3877)
5	page(s) transmitted (including this cover sheet). If you do not receive all of the pages, please call Debbie Reece Smith, Ext. 340.	DATE:	February 18, 1997

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