



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

## FAX TRANSMITTAL LETTER

DATE: 6/13/91

TO:

NAME: STEPHANIE BROOKS  
AGENCY: DER - WEST PALM

TELEPHONE: ~~(904) 922-6929~~ (407) 433-2666

# OF PAGES (INCLUDE COVER SHEET): ~~(407) 433-2666~~ 6

FROM:

NAME: Pector Lemin

AGENCY: DER - Tallahassee

IF ANY PAGES ARE NOT CLEARLY RECEIVED, PLEASE CALL IMMEDIATELY. PHONE NO. (904) 488-1344

SENDER'S NAME: SPR

COMMENTS:

Please call me! Gary wants us to "solve" the problem.



State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION

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To _____	Location _____
To _____	Location _____
From _____	Date _____

# Interoffice Memorandum

TO: Clair Fancy *and Dept*

*5/26/91*

FROM: Barry Andrews

SUBJ: Ft. Pierce Utilities Authority Emergency Order for Burning Oil in Units 6, 7, and 8

REFERENCE AIR PERMITS: Unit 5 AO 56-113534  
 Unit 7 AO 56-112679  
 Unit 8 AO 56-112678  
 Unit 9 AO 56-175955

REFERENCE: Memo Fancy to Smallridge 2/15/91

This memo is in response to the Ft. Pierce May 2, 1991 request letter to Steve Smallwood to burn fuel oil under emergency conditions.

In the 2/15/91 Memo above we stated that modeling of the above Ft. Pierce sources (Unit 6, 7, and 8) did not exceed the NAAQS and increments for SO<sub>2</sub> and PM when burning No. 6 fuel oil.

We have reviewed information submitted with Ft. Pierce's 5/2/91 request for another emergency order to relax the Units 6, 7, and 8 SO<sub>2</sub> and particulate limitations found in the existing Unit 9 permit.

**FACTS:**

1. Unit 9 construction permit which eliminates the service hour restrictions for units 6, 7, and 8 was sent to Ft. Pierce on April 15, 1991. To date Ft. Pierce has elected not to publish this "Intent to Issue". However, they have indicated concern over the BACT which requires the modification of Unit 9's Heat Recovery Steam Generator (HRSG) to accommodate Selective Catalytic Reduction (SCR) and a desire to meet with the Department.
2. Ft. Pierce Units 6, 7, and 8 are only permitted to burn natural gas. The use fuel oil in emergencies cannot be permitted. Fuel oil can only be burned if Department approves a request for test purposes and reasonable assurance of compliance with permit restrictions is provided by the utility.
3. Ft. Pierce has provided documents stating that their natural gas supplier may curtail fuel to them during the summer. A survey of other electric utilities indicated power cannot be purchased from the power pool.

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4. The maximum use of fuel oil even in an emergency is restricted to 400 hours per year per source.

5. Ft. Pierce believes that they are now in an emergency situation. Natural gas is likely to be curtailed, purchased power is not likely to be available and they will be unable to provide customer electrical needs for lighting, refrigeration, air conditioning, or food preparation.

**DEPARTMENT ALTERNATIVES:**

1. Approve an emergency order similar to the 2/15/91 order to allow time to finalize the Unit 9 permit which removes restrictions on operating hours for Unit 6, 7, and 8.

2. Encourage Ft. Pierce to publish the "Intent to Issue" notice and finalize the permit on Unit 9.

**RECOMMENDATION:**

Alternative No. 2 is recommended. If Ft. Pierce is unable to generate power due to the lack of natural gas and unable to purchase power from the pool, Southeast District's Deputy Assistant Secretary, Scott Benyon or the Air Program Administrator, Isadore Goldman should be authorized by the Secretary to grant permission to use oil for short durations (not to exceed 400 hours per year per source).

Smallridge recommends the scheduling of a meeting with Schindehette, Day and others in the near future because he thinks it is important to keep this case moving.

CC: G. Smallridge  
P. Lewis



# BLACK & VEATCH

8400 Ward Parkway, P.O. Box No. 8405, Kansas City, Missouri 64114, (913) 339-2000

Fort Pierce Utility Authority  
Ongoing Services

B&V Project 16589  
B&V File 32.0203  
Letter No. FP-134  
June 10, 1991

FEDERAL EXPRESS

Bureau of Air Regulation  
Florida Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Subject: Renewal of Unit 6 Air Permit  
No. AO-56113534  
Additional Fuel Cost Information

Attention: Mr. C. H. Fancy, Chief

Gentlemen:

Mr. Preston Lewis recently requested additional fuel cost information from Mr. Steven M. Day (Black & Veatch) for the following fuels.

- o No. 6 fuel oil with a 2.6 percent sulfur content.
- o No. 6 fuel oil with a 0.76 percent sulfur content.
- o No. 2 fuel oil with a 0.5 percent sulfur content.

It is our understanding that this information will be used to support the BACT analysis that was submitted for Unit 6 in December 1990. That submittal was based on winter residual fuel oil prices and resulted in No. 6 fuel oil with 0.76 percent sulfur being proposed as the BACT fuel.

We have summarized the additional fuel cost information in the attached Table 1. These fuel costs are based on May 1991 quotes and therefore do not reflect winter demand or "spot market" prices. Also, note that Fort Pierce Utilities Authority has the current capability to handle and store large volumes of only two types of fuel oil. The current fuel use includes low sulfur residual fuel for Unit 8 and high sulfur residual fuel oil for Units 6 and 7.

Table 1 also identifies the incremental costs associated with the lower sulfur residual and distillate fuel oils. Based on the current fuel costs, using the lower residual fuel oil would result in an incremental cost of about \$700 per ton of SO<sub>2</sub> removed. In comparison, the

Bureau of Air Regulation  
Mr. C. H. Fancy, Chief

B&V Project 16589  
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incremental cost for No. 2 fuel oil is nearly \$8,400 per ton of SO<sub>2</sub> removed. This cost is considered excessive and does not include any costs for the handling and storage of a third fuel oil. Therefore, No. 6 fuel oil with 0.76 percent sulfur content is still considered as BACT for Unit 6.

If you need additional information or have other comments, please call Mr. Steven Day at (913) 339-2880, or Mr. Dan Nelson at (913) 339-2149.

Very truly yours,

BLACK & VEATCH

*Daniel W. Nelson*

For J. B. Miller, Jr.

dwn  
Enclosure

cc: Stephanie Brooks, FDER-Southeast  
Preston Lewis, FDER-Tallahassee  
Steven M. Day, Black & Veatch  
Harry Schindehette, FPUA  
Harry Lamb, FPUA

FORT PIERCE UTILITIES AUTHORITY  
 Renewal of Unit 6 Air Permit (#A0-56-113534)

TABLE 1. COST COMPARISON OF ALTERNATIVE FUEL OILS

Type of Fuel	Heat Content	Density	Sulfur Content	Potential SO2 Emissions	May 1991	
					Fuel Cost	Fuel Cost
					Btu/gal	lb/gal
No. 6	150,000	7.88	2.6	0.41	\$15.75 bbl	0.38
No. 6	150,000	7.88	0.76	0.12	\$19.96 bbl	0.48
No. 2	140,000	7.05	0.5	0.07	\$4,573 for 7425 gal	0.62

UNIT 6 OPERATION

Type of Fuel	Sulfur Content	Heat Input	Fuel Consumption	Fuel Cost	Differential Fuel Cost	Potential SO2 Emissions	Differential SO2 Emissions	Incremental Costs	Incremental Costs
	percent	MBtu/h	gal/h	\$/hour	\$/hour	lb/h	lb/h	\$/lb SO2	\$/lb SO2
No. 6	2.6	219	1460	\$548	Base	598	Base		
No. 6	0.76	219	1460	\$694	146	175	423	0.35	691
No. 2	0.5	219	1564	\$963	270	110	65	4.17	8347