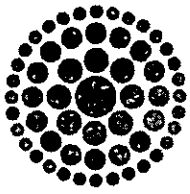


Florida Power
CORPORATION

June 4, 1991

Mr. Preston Lewis
Central Air Permitting Section
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RECEIVED
JUN 0 6 1991
Division of Air Resources Management

Dear Mr. Lewis:

Re: DeBary Construction Air Permit
AC 64-191015, PSD-FL-167

This letter regards our meeting on Wednesday, May 8, 1991, on the above mentioned permit. The items discussed at this meeting included the annual hours of operation limit, equating the annual hours of operation to fuel consumption, and the allowable sulfur content.

The annual hours of operation limit was the first topic of discussion. FDER agreed to compensating FPC for their lower emissions by increasing the annual hours of operation limit. The limit agreed upon was 3400 hours per year. This was based on a SO_2 emissions ratio (NESCAUM standard/FPC amount) and using 25 percent of the capacity factor in Region 4.

$$0.25 * 8760 \text{ hr/yr} * (65 \text{ ppmvd}/42 \text{ ppmvd}) = 3390 \text{ hr/yr}$$

The second topic of discussion considered equating the annual hours of operation to fuel consumption. It was agreed that this could be calculated by using the peak generation fuel usage at isothermal conditions with the 3400 hour per year per unit operation. The units will be allowed to operate against the total fuel consumption allowed for the number of units constructed. FDER was to provide FPC a draft for comment of any clause pertaining to partial load operation prior to issuing the permit.

The final consideration discussed was the allowable sulfur content. KBN proposed keeping the average sulfur content of 0.3 percent. However, the average would be based on the 3400 hours of operation limit, as opposed to an annual average. This would mitigate the concern of the unpredictable annual operation of these units and provide a fixed quantity of fuel over which to average the sulfur content. The following statement is a draft for your review of the recommended verbiage for the permit, as requested:

a. The average aggregate sulfur content for every 174,800,000 gallons (61,690 lb/hr/unit x gal/7.2 lb x 6 units x 3400 hr) burned at the facility shall not exceed 0.3 percent sulfur.

b. Sulfur content shall be verified by submittal of monthly composite fuel analysis reports on a quarterly basis (within 30 days after the end of each calendar quarter) to the Air Section of the Florida Department of Environmental Regulation.

The economic justification for this request is discussed in Section 4.3.3.3 Impact Analysis of the original Construction Air Permit application submitted.

The projected timeframe for completing the permit review was mid-July. If there are any changes in this timeframe or there are any questions, please contact me at (813) 866-4511.

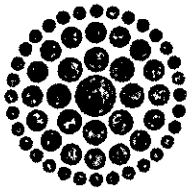
Sincerely,

for

W. W. Vierday, Manager
Environmental Programs - Licensing

cc: Barry Andrews (FDER)
Ken Kosky (KBN)

pag/TJC1.Lewis2.Let



Florida Power
CORPORATION

RECEIVED
APR 18 1991
DER - BAQM

April 16, 1991

Mr. Preston Lewis
Central Air Permitting Section
Florida Department of Environmental
Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Mr. Lewis:

Re: DeBary Construction Air Permit
AC 64-191015, PSD - FL - 167

In regards to our meeting on Monday, March 4, 1991, on the DeBary Construction Air Permit, Florida Power Corporation (FPC) would like three items to be considered in the permit review. These items include the limit on hours of operation, equating operating hours to fuel consumption, and the allowable sulfur content.

In the meeting, the type of BACT expected by DER was discussed. DER informed FPC that currently they are adhering to the NESCAUM Guidelines. In reviewing these guidelines, two significant factors make the DeBary Site different from the units discussed in these guidelines. These include the location of the site and the NO_x emissions ratings.

The units discussed in the NESCAUM Guidelines are located in the Northeast, where as the FPC units are located in the Southeast. Due to the climates of both areas, the Florida units require more peaking hours in the summer and winter seasons. The next significant difference is the NO_x emissions ratings. The combustion turbines referenced in these guidelines have a NO_x emissions rating of 62 PPMVD. The combustion turbines proposed for the DeBary site have a NO_x emissions rating of 42 PPMVD.

The NESCAUM Guidelines limit the hours of operation to 2500 for simple cycle combustion turbines. However, because of Florida's longer peaking period requirements and lower NO_x emissions ratings than the units discussed in these guidelines, Florida Power requests a minimum operating hour limit of 3500 hours. This is 40 percent of the original operating hour request.

Florida Power also requests equating the hours of operation to fuel consumption. Emissions are based on fuel use. Since FPC currently monitors fuel use as a means of operation, this would allow easier operations administration.

As provided in the PSD application, the average sulfur content of No. 2 distillate fuel received at the DeBary Plant was 0.305 over the last five years. This is consistent with that found by other utilities in the state. Several recent projects have accepted an average sulfur limit of 0.3 percent since it is presumed that the proper fuel management specifications for a lower sulfur content would not be necessary. Specifying a lower sulfur content distillate fuel than the standard grade (which has a 0.5 percent sulfur maximum) would result in higher fuel costs as noted in the application. By not specificating a lower sulfur content, the costs for fuel would be reduced and the savings could be passed on to customers. Unlike these projects, the DeBary Project is for peaking purpose. Therefore, it is unknown how the units would operate over time. This uncertainty would directly result in an inability to effectively manage fuel sulfur content. This occurs since it is unknown whether the units would operate on a lower sulfur fuel, i.e., less than 0.3 percent in the latter months of a year when in the early months the sulfur content was higher that 0.3 percent. We believe the net effect to the environment can be achieved by requiring the use of the No. 2 distillate fuel oil with a maximum sulfur content of 0.5 percent. This would also result in direct savings to our customers.

DER stated in the meeting that the department has a large backlog of permits to review. With this current backlog, a preliminary decision could be expected within 75 to 90 days of obtaining a complete application. Your telephone conversation with Teresa Compton confirmed the application was considered complete on February 18, 1991. Since EPA will review your final decision, coordination with them in the permit review process would be appreciated so as not to delay the project.

Florida Power would like to schedule a meeting to discuss these considerations before the end of April. We will contact you later this week to determine a convenient date and time. If there are any questions or additional information is required, please contact me at (813) 866-4511. Thank you for your time.

Sincerely,

W. W. Vierday, Manager
Environmental Programs - Licensing

cc: Barry Andrews

pag/TJC1.Lewis.Let

KBN

FACSIMILE COVER SHEET

RECEIVED
MAR 20 1991
DER-BAQM

DATE: 3-20-91

TO: Mr. Chuck Holladay

ORGANIZATION: FL Dept of Environmental Regulation

FAX NUMBER: 904-922-6979 TELEPHONE NUMBER: _____

FROM: Rob McCann

TOTAL NUMBER OF PAGES: 3 (including cover page)

MESSAGE/INSTRUCTIONS:

PROJECT NUMBER: 1005 FAX OPERATOR: Denise

( ) This is the ONLY form of delivery of the transmitted document.

( ) The original of the transmitted document will be sent by:

( ) US Mail
( ) Overnight delivery
( ) Other: _____

Return original to _____

cc: Project File _____ yes _____ no

KBN Engineering and Applied Sciences, Inc.
1034 NW 57th Street, Gainesville, FL 32605
Phone (904) 331-9000 FAX (904) 332-4189

Table 2-2. Stack, Operating, and Emission Data for Existing Sources at FPC's Debary Facility

Parameter	Units	Boilers	Gas Turbines
Relative x,y location[a]			
Unit 1	ft	146; 892	154; 1,015
	m	44.5; 272	46.9; 309.5
Unit 2	ft	146; 892	154; 1,146
	m	44.5; 272	46.9; 349.3
Unit 3	ft	–	154; 1,266
	m	–	46.9; 385.9
Unit 4	ft	–	-138; 1,015
	m	–	-42.2; 309.5
Unit 5	ft	–	-138; 1,146
	m	–	-42.2; 349.3
Unit 6	ft	–	-138; 1,266
	m	–	-42.2; 385.5
Stack Data			
Height	ft	30	30
	m	9.15	9.15
Diameter	ft	2.5	9.67[b]
	m	0.76	2.95
Operating Data			
Temperature	°F	320	950
	K	433	783
Velocity	ft/sec	20	101.6
	m/sec	6.1	31.0
Total Emission Data			
PM	lb/hr	1.1	122.0
	g/sec	0.14	15.3
SO_2	lb/hr	39.0	2,384
	g/sec	4.9	300
NO_2	lb/hr	17.9	550
	g/sec	2.3	69.3
CO	lb/hr	1.5	125
	g/sec	0.18	8.90
VOC	lb/hr	0.52	141.1
	g/sec	0.066	17.78

[a]Relative location to the centroid of the proposed CT units.
[b]Effective diameter based on a 73.5-ft² area of rectangular vent.