

State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
**INTEROFFICE MEMORANDUM**

For Routing To District Offices And/Or To Other Than The Addressee		
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
From: _____	Date: _____	
Reply Optional [ ]	Reply Required [ ]	Info. Only [ ]
Date Due: _____	Date Due: _____	

TO: Jacob D. Varn  
FROM: Steve Smallwood  
DATE: November 18, 1980  
SUBJ: Approval and Signature of Attached Air Construction Permit Modification described below.

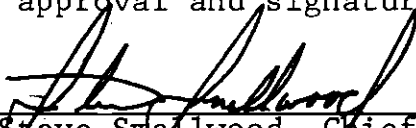
RECEIVED  
NOV 18 1980

Office of the Secretary

Attached please find the proposed Modification to 1 Air Construction Permit (AC 64-25610) for which the applicant is Florida Power and Light Company. The proposed modification is to the Air Construction permit for the Sanford Coal Pulverizer (COM test project) located at Sanford, Volusia County, Florida.

The Modification would extend the Air Construction Permit expiration date from November 30, 1980 to December 30, 1980.

The Bureau recommends your approval and signature.

  
\_\_\_\_\_  
Steve Smallwood, Chief  
Bureau of Air Quality Management

SS: caa

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM  
GOVERNOR  
JACOB D. VARN  
SECRETARY

STATE OF FLORIDA  
**DEPARTMENT OF ENVIRONMENTAL REGULATION**

November 5, 1980

W. J. Barrow  
Florida Power and Light Company  
P. O. Box 529100  
Miami, Florida 33152

Dear Mr. Barrow:

Modification of Conditions  
Permit No. AC 64-25610

We are in receipt of your request for a modification of the permit conditions. The conditions are changed as follows:

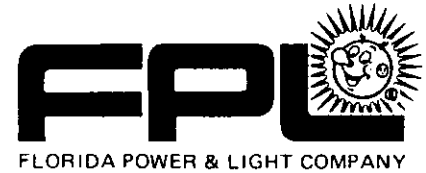
<u>Condition</u>	<u>From</u>	<u>To</u>
Expiration date	November 30, 1980	December 30, 1980

This letter must be attached to your permit and becomes a part of that permit.

Sincerely,

*Jacob D. Varn*  
Jacob D. Varn  
Secretary

JDV:caa



October 31, 1980

Mr. Steve Smallwood, Chief  
 Bureau of Air Quality Management  
 Department of Environmental Regulation  
 Twin Towers Office Building  
 2600 Blair Stone Road  
 Tallahassee, Florida 32201



RE: Construction Permit No. AC-64-25610  
FPL Sanford Coal Pulverizer (COM Test Project)

Dear Mr. Smallwood:

We are applying for a 30-day extension of the above permit, which expires November 30, 1980. Our request is being made to allow us to continue to operate the facility while in the process of obtaining the operating permit. Our past experience indicates that our compliance testing and application submittal, coupled with the process of DER review and permit issuance, cannot be accomplished in the remaining time period left in the construction permit.

On October 2 and 3, 1980, particulate emission testing was done by EAD (Environmental Analysis & Design) on pulverizer baghouse systems "A" and "B." Emissions from system "A" met compliance as required in the permit, but emissions from system "B" did not. A copy of the compliance tests performed by EAD is enclosed for your information.

On subsequent inspection of the system "B" baghouse, it was discovered that 63 of the 255 bags had "failures" in similar areas. The manufacturer and Bechtel personnel have hypothesized that a known lightning strike at the facility could have heated coal particles and caused the holes in the bags.

New bags are now being installed, and we have scheduled a new particulate compliance test for system "B" with the Orlando DER office on November 18, 1980. This is the earliest possible date for re-testing system "B."

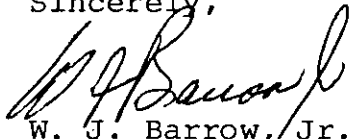
In light of the fact that the facility will meet particulate compliance limitations when the bags are good, as evidenced by the system "A" test results, we are requesting that you extend the construction permit allowing us to operate the facility until we can obtain the operating permit.

October 31, 1980

We have already lost valuable time in terms of the calendar year limitation in the DER variance as a result of Sanford Unit #4 down-time due to turbine inspection and generator overhaul. We need to prevent further inactivity in the COM Test Project. Expiration of the construction permit on November 30, 1980 will cause us to lose additional testing time, which we feel is necessary to obtain full evaluation of the project.

We have contacted you due to the fact that the construction permit was issued from your office. Your early attention to this matter would be appreciated. Please call me at (305)552-3561 if you have any questions.

Sincerely,



W. J. Barrow, Jr.  
Assistant Manager  
Environmental Permitting & Programs

WJBjr/RTKjr/kb

Enclosure

cc: w/o enclosure  
Mr. Charles Collins - DER, Orlando  
Mr. Roger Caldwell - DER, Orlando

Meeting 8-1-80

Variance for FPL

1 Aug 28 - sets emission rate - percent - 14  
set at 750 + percent limit

+ alternate Particulate limit

- by UNIT - low 3 or 4

+ limit will change - will instead low  
excess air burn

limit will be 3 in the LEAB

4 that do not have LEAB

\* Asphalt Center - does them = 9%

then it is 2% for LEAB

3% if do not have

had

if they are having 1% suffer in Turkey Pt and Port  
Brockdale do not have to submit the fuel quality  
a state test

45 days  
app  
Q

## INTEROFFICE MEMORANDUM

*Bill Blommel*  
 And/or To District Offices  
 Other Than The Addressee

To: _____	Loctn.: _____
To: _____	Loctn.: _____
To: _____	Loctn.: _____
From: _____	Date: _____

TO: Steve Smallwood

THROUGH: Bill Blommel

FROM: Rick Vail

DATE: July 25, 1980

SUBJECT: Electric Generating Facilities under Variance  
 Stack Test Status

According to all records that the Bureau has on electric generating facilities under a variance, the following is a summary of the data you requested.

- 1) No data on the John R. Kelly and Deerhaven plants, VE tests were scheduled for 3-1-80.
- 2) Manatee units 1 and 2 show no test data for the second quarter (April-June). Tests were scheduled for June 9.
- 3) Cape Canaveral units 1 and 2 show no test data for the second quarter (April-June). Tests were scheduled for May 12 (Unit 1) and June 16 (Unit 2).
- 4) Port Everglades unit 4 shows no test data for the first quarter (Jan-March).
- 5) Riveria unit 3 shows no test data on first quarter (Jan-March).
- 6) Sanford units 3, 4 and five show no test data for the second quarter (April-June). Unit 3 was scheduled to be tested July 14.
- 7) Turkey Point unit 1 shows no test data for the second quarter (April-June). Turkey Point unit 2 shows no test data for the first quarter (Jan-March).
- 8) No data on Lauderdale units 4 and 5. Tests were scheduled for March 14 and March 24, 1980.
- 9) No data on the TECO plant in Tampa.
- 10) No data on the City of Key West's plant.

Quarterly PeriodsFirst Quarter/Second Quarter

Plant	Unit	Quarterly Periods		First Quarter/Second Quarter			
		Jan.-March Tested	April-June Tested	Emission lbs./10 <sup>6</sup>	Avg. BTU	% Sulfur	% Asphaltenes
Ft. Myers	1	Jan. 29-30	April 8	.17/.142		2.35/2.21%	2.73/4.0
Ft. Myers	2	Missing	April 9-10	Msg./ .1011		*/2.2%	*/4.0
Manatee	1	March 11-14	Missing	.105/Msg.		*	*
Manatee	2	March 11-14	Missing	.09/Msg.		*	*
Cape Canaveral	1	Jan. 16-17	Missing	.184/Msg.		*/2.37	3.1
Cape Canaveral	2	March 25-26	Missing	.106/Msg.		2.17%	4.5
Port Everglades	1	Jan. 21-22	May 8-9-12	.08/.12		*	*
Port Everglades	2	March 3-4	May 5-7	.056/.09		*	*
Port Everglades	3	Jan. 23-24	April 16-17	.078/.073		*	*
Port Everglades	4	Missing	April 15-16	Msg./ .04		*	*
Riveria	3	Missing	Week of April 21	.04/.06		.86/.90%	1.9%/1.9%
Riveria	4	Feb. 13	Week of April 21	.02/.045		.86/.88%	1.9/1.8%
Sanford	3	Feb. 20-21	Missing	.154		1.76%	4.5%
Sanford	4	Feb. 7	Missing	.072/Msg.		1.63%/*	4.3%/*
Sanford	5	Feb. 5-6	Missing	.104/Msg.		1.64%	4.3%
Turkey Pt.	1	Jan. 15-17	Missing	.10/Msg.		*	*
Turkey Pt.	2	Missing	April 8-9	Msg./ .10		Msg./1.24	Msg./4.6

\*Indicate oil was analyzed as received and there is no indication of when or what units it was utilized in.

DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices Or To Other Than The Addressee	
To: <u>file</u>	Loctn.: _____
To: _____	Loctn.: _____
To: _____	Loctn.: _____
From: _____	Date: _____

TO: Chuck Collins  
 FROM: Bill Thomas <sup>BT</sup>  
 DATE: August 4, 1980

SUBJ: Florida Power and Light Request for Modification to  
 Operating Hour Limitation a Sanford Coal Pulverizer  
 (AC 64-25610)

The attached letter from Florida Power and Light to DER (July 21, 1980) requesting change in operating hour limitations presents the background for the request. The recirculation operation creates a disparity between preparation capacity and boiler demand that makes the change necessary in order to meet the objectives of the facility.

The specific wording requested is, however, unacceptable in view of the bases of the original determinations.

Fundamental to the determination was the annual particulate emissions of less than 15 tons. Recirculation at a lower coal input rate would have no effect on emissions, only on operating hours and therefore limitations were placed on an improper parameter.

In order to restate the conditions to eliminate unintended restrictions while preserving the intent, I recommend that the operating hour limitation (#3, Specific Conditions) be deleted and replaced with a cap on coal input of 96,000 lb./hr. and 150,000 tons/year to maintain the facility within the range considered to be de minimus.

Additionally, to maintain the tie between this facility and the test burn at Sanford Unit #4 a proviso should be added to provide for early expiration of the operating permit upon completion of that test burn.

Since this constitutes a restatement of conditions rather than a change in limits and application for an operating permit is imminent I suggest, with your concurrence, that inclusion in the operating permit upon issuance might be more appropriate than an amendment to the construction permit.

Attachment

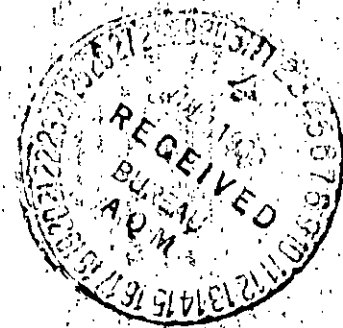
cc: Tom Kirk  
 Florida Power and Light file AC 64-25610





June 25, 1980

Mr. Tommie Gibbs  
Chief, Air Facilities Branch  
Air & Hazardous Materials Division  
U.S. Environmental Protection Agency  
Region IV  
345 Courtland Street  
Atlanta, GA 30308



RE: PSD-FL-047, FPL Sanford COM  
(Coal/Oil Mixture) Test Project

Dear Mr. Gibbs:

Enclosed is a summary of particulate test data obtained from burning 30% COM (30% coal/70% oil) at Sanford Plant Unit #4. Visual opacity readings have been added to the data summary. The data for pounds per hour and pounds per million BTU's have been graphed on additional enclosures. Using the 30% COM data, we have projected 50% COM particulate emissions. The graphs indicate we would be well below the established limits at 50% COM.

Our estimated date for burning 40% COM (40% coal/60% oil) at the present time is July 7, 1980. Particulate test data from this run will be used for a projection to assure that the next COM increment will not violate the established limits.

Complete compliance test results for 30% COM will be forwarded shortly.

Sincerely,

*R. Thomas Kirk, Jr.*

fr: W.J. Barrow, Jr.  
Assistant Manager  
Environmental Affairs

WJB:RTK:jrh

Enclosures

cc: Mr. Roger Pfaff, EPA, Atlanta  
Mr. J.T. Wilburn, EPA, Atlanta  
✓ Mr. Steve Smallwood, DER, Tallahassee

DATA SUMMARY

COM PROJECT - UNIT # 4

TRK  
6/25/80

ITEM	400 MW			300 MW			200 MW			100 MW		
	Test 1	Test 2	Test 3	Test 1	Test 2	Test 3	Test 1	Test 2	Test 3	Test 1	Test 2	Test 3
<b>30% COM</b>												
Date	5/28	5/28		5/29	5/29		5/30					
Opacity (Monitors)	38%	32%		30%	30%		39%					
Opacity (Visual)	36%	42%		—	28%		32%					
lbs./hour	1,101	1,043		630	726		385					
lbs./m BTU	.327			.263			.243					
Date												
Opacity (Monitors)												
Opacity (Visual)												
lbs./hour												
lbs./m BTU												
Date												
Opacity (Monitors)												
Opacity (Visual)												
lbs./hour												
lbs./m BTU												

# FPL SANFORD COM PROJECT

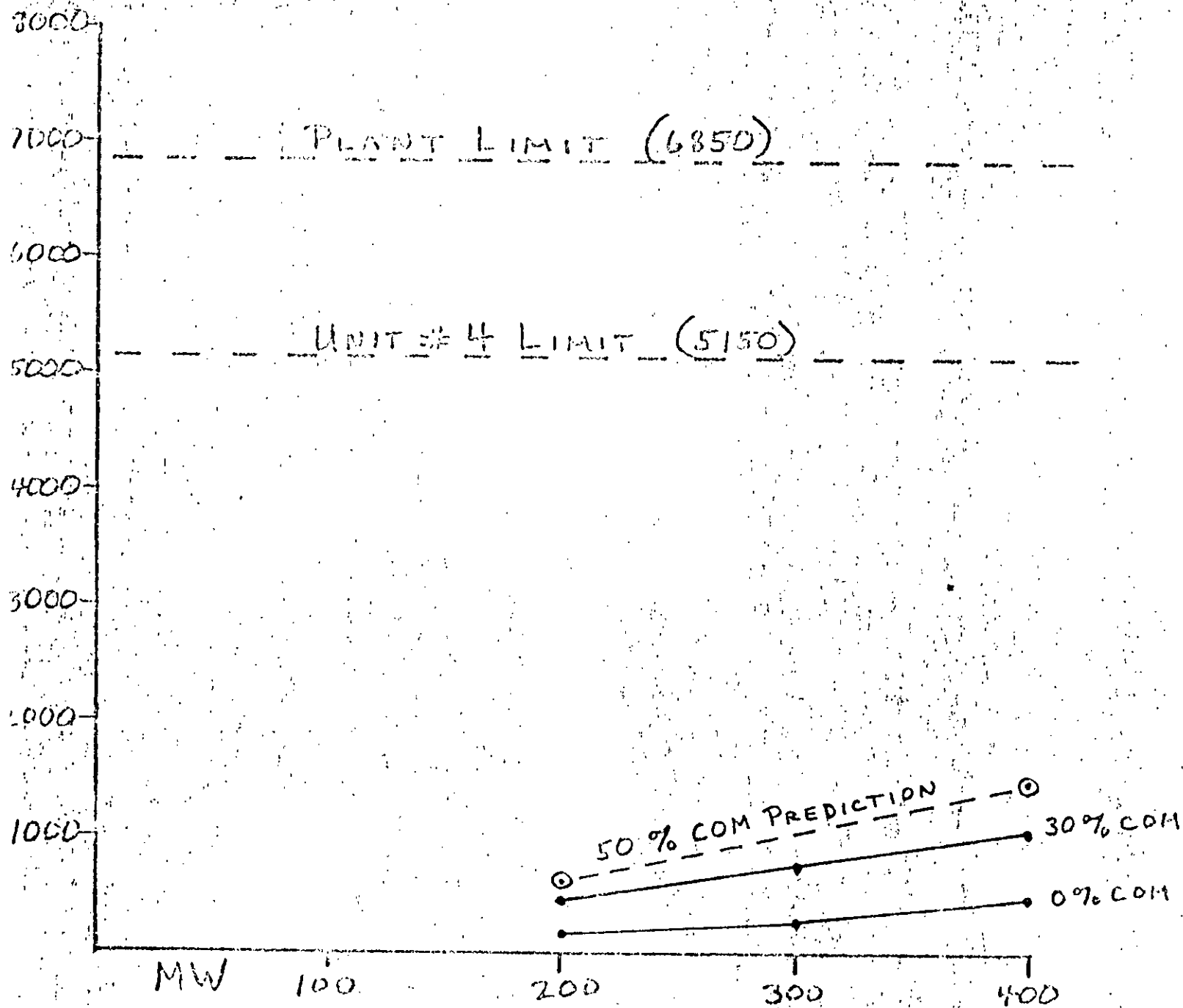
RVA

GRAPH #1 - LBS./HR. PROJECTIONS

6-25-80

(Based on latest 30% COM data)

lbs./hr.



# FPL SANFORD COM PROJECT

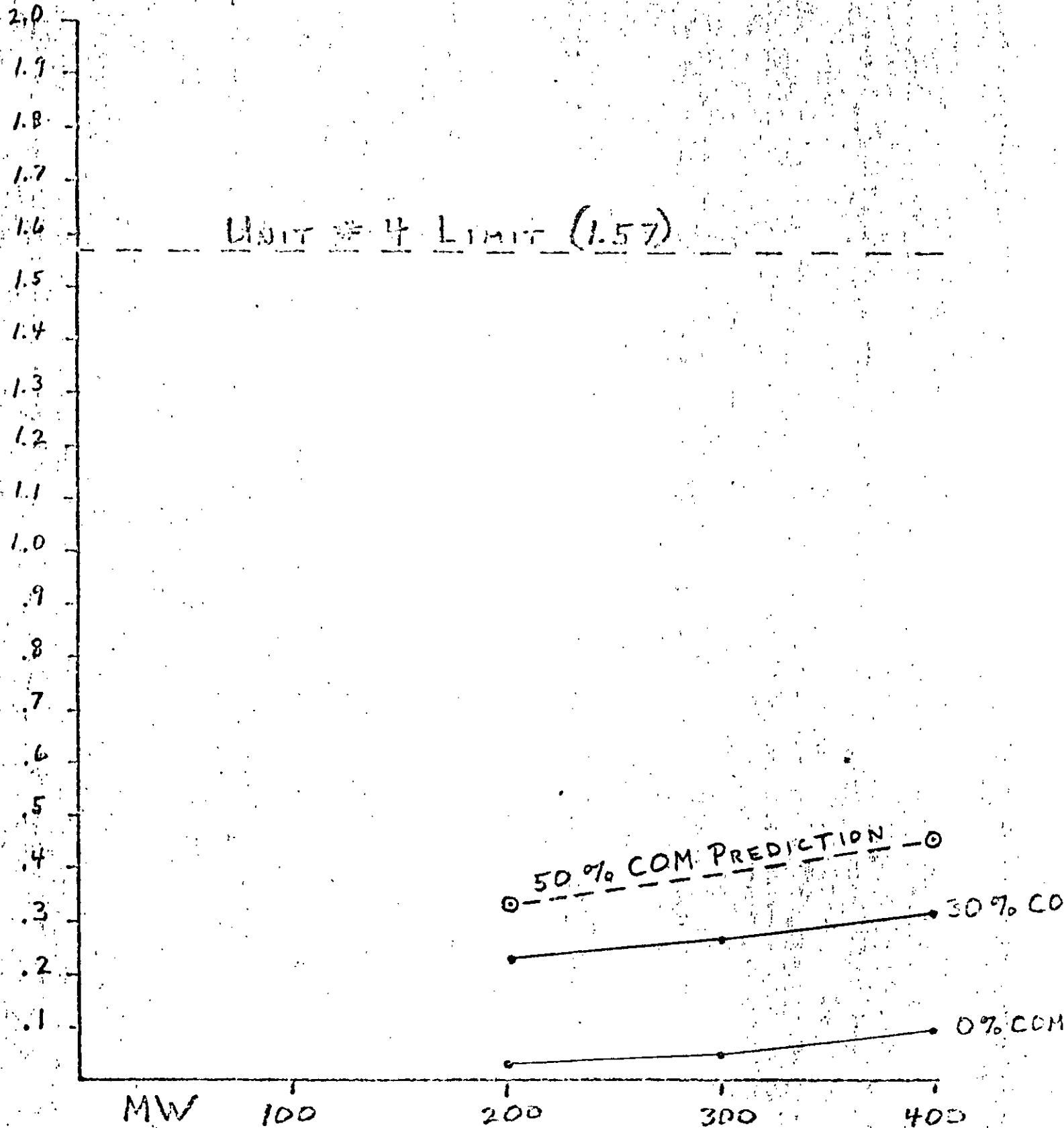
RTK

6/25/86

## GRAPH # 2 - LBS./MBTU PROJECTIONS

(Based on latest 30% COM data)

lbs./MBTU

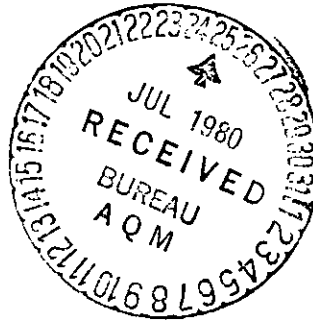


COM DATA. Particulate Outputs

Case #	Florida Power Light, Unit # 4 FFFSG						New Brunswick Electric Power ① Chatham, FFSG			Ontario Research ② Boiler Burners				
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Fuel COAL/OIL	0/100			20/80			30/70			0/100	12/88		35/65	35/65
Load, Megawatts	200	300	400	300	400	200	300	400	10	10	10	2	2	
Emissions Pounds/Million BTU	.091	.092	.13	.19	.23	.19	.20	.28	.24	1.0	.99	.94	1.4	
Allowable Pounds/Million BTU	0.10			0.14			0.16			-	-	-	-	
Capacity							39	30	35	5-20	20-30	25-35		

① A small power boiler, Foster Wheeler Type SA, 30.8 lbs. steam, dual-fired, (coal, oil) with separate burners. Fuel beneficiation (agglomeration process) SEC for 70% ash reduction, 50% sulfur.  
# cyclone dust collector control device.

② Two types of boiler burners fired into a flame tube. Beneficiation - dry grinding, flotation, agglomeration.



July 21, 1980

Mr. Steve Smallwood, Chief  
Bureau of Air Quality Management  
Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32201

RE: Construction Permit No. AC-64-25610  
FPL Sanford Coal Pulverizer (COM Test Project)

Dear Mr. Smallwood:

We are applying for an amendment to the total hours of operation for the above-referenced permit for the coal pulverizer.

The construction permit limits operation of the coal pulverizer to 2,880 hours (Page 3 of 4, Specific Condition No. 3). The pulverizer facility is used to crush and mix all fuel (coal and oil) for boiler unit #4. As of July 19, 1980 we have used approximately 8% of the megawatt hour limitation allowed on the boiler. However, we have used approximately 23% (668 hours as of July 21, 1980) of the 2,880 hours specified in the coal pulverizer facility construction permit.

The coal pulverizers can operate in the range of two tons up to twelve tons per hour (per pulverizer). When mixing higher levels of the coal/oil mixture, a good amount of recirculation through the lines and operation of the pulverizer(s) at low ranges are the norm. Although the facility is not operating at the maximum range, each operating hour (for one or more pulverizers) counts against the 2,880 total. At the present rate, we will reach the pulverizer facility operating hours limit before we fully utilize the time permitted to us to test the fuel in the boiler.

We are requesting that Specific Condition number 3 be amended to read:

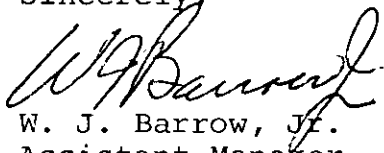
"The maximum hours of operation shall be 24 hours/day, for a total number of hours not to exceed what is necessary to provide coal/oil mixture fuel to Sanford Unit #4 to complete 120 full-power burn test days (or 1,152,000 megawatt hours)."

July 21, 1980

We are not seeking to amend any other conditions and still intend to comply with the maximum allowable emissions as stated in Specific Condition Nos. 1 and 2 of the permit. This should not increase the total emissions for the period of the test from that originally permitted. The facility baghouse operates at its normal efficiency regardless of the tons of coal processed.

This amendment was discussed with Mr. Bill Thomas of your office by phone today, and we are applying for this amendment by this letter at his suggestion. If any additional information is required, please contact Tom Kirk at (305)552-3559.

Sincerely



W. J. Barrow, Jr.  
Assistant Manager  
Environmental Affairs

WJBjr/RTKjr/kb