

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

IN RE: SITE CERTIFICATION, LAUDERDALE REPOWERING PROJECT, FLORIDA POWER & LIGHT COMPANY	))))))	OGC NO. 91-0207 CERTIFICATION NO. PA 89-26B
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**FINAL ORDER MODIFYING
CONDITIONS OF CERTIFICATION**

On January 10, 1991, the Governor and Cabinet, acting as the Siting Board, issued a final order approving certification of Florida Power & Light Company's (FPL) Lauderdale Repowering Project. That certification order approved the construction and operation of a natural gas/oil fired combined cycle facility and associated facilities to be located in Broward County, Florida. Subsequently, on November 11, 1992, the Department issued a final order modifying the certification to authorize certain changes to the facilities and buildings on the Lauderdale site.

On March 12, 1993, FPL filed a request to modify the conditions of certification pursuant to section 403.516(1)(b), F.S. FPL requested that the conditions be modified to approve several recently identified changes to the project design and operation. These proposed changes include changing SO₂ emission rates to correspond with sulfur concentrations in the natural gas and changing heat input limits to reflect the decision not to install duct burners in the combined cycle units at this time. FPL also proposed the

certification be modified to reflect the more stringent limits on oil firing of the units contained in the separate Prevention of Significant Deterioration permit for the project. FPL submitted changes to several conditions of certification to address the proposed changes.

Copies of FPL's request were distributed to all parties to the certification proceeding and made available for public review. On March 19, 1993, the Department published a Notice of Intent to Issue the Proposed Modification in the Florida Administrative Weekly. As of April 23, 1993, all of the parties to the original proceeding had received copies of the intent to modify. The notices specified that a hearing would be held if a party to the original certification hearing objects in writing within 45 days from receipt of the proposed modification or if a person whose substantial interests will be affected by the proposed modification objects in writing within 30 days after issuance of the public notice. Written objections to the Department's proposed modifications were not received.

Accordingly, in the absence of any dispute,

IT IS ORDERED THAT:

The proposed changes to the Lauderdale Repowering Project requested by FPL on March 12, 1993, are hereby approved based on the absence of any written objections. Pursuant to section 403.516(1)(b), F.S., the Department

hereby modifies the conditions of certification for the
Lauderdale Repowering Project as follows:

II.A. Emission Limitations for LRP

1. When the duct burners are installed, the maximum heat input to each combustion turbine (CT) shall neither exceed 1,685.0 MMBtu/hr while firing natural gas, nor 1,646.9 MMBtu/hr while firing fuel oil (@75°F). Each CT's fuel consumption shall be continuously measured and recorded. The maximum heat input to each duct burner shall not exceed 90.62 MMBtu/hr. Each duct burner's fuel consumption shall be continuously measured and recorded.

Until the duct burners are installed, the maximum heat input to each CT shall neither exceed 1,775.62 MMBtu/hr while firing natural gas nor 1,646.9 MMBtu/hr while firing fuel oil (@75°F). Each CT's fuel consumption shall be continuously measured and recorded.

2. Each of the four CT's may operate continuously, i.e., 8,760 hrs/year provided that the total (four turbines) annual heat input attributed to light distillate fuel oil firing does not exceed 14,426,844 ~~23,082,950~~ MMBtu (@75°F) and the total heat input for all four turbines and the duct burners does not exceed 54,129,421 MMBtu.

* * *

5. The maximum allowable sulfur (total) content of natural gas burned at this facility shall not exceed 10 grains per 1,000 cubic feet (gr/1,000 CF). The permittee shall monitor the sulfur content of the natural gas by the customized fuel monitoring schedule approved by EPA. The sulfur content of the fuel oil shall not exceed a maximum of 0.3 percent and shall not exceed an average of 0.2 percent during any 12-month period.

In accordance with the BACT determination, the maximum allowable emissions from each CT and duct burner shall not exceed any of the following emission limitations. The maximum-allowable-emissions-from-each-CT-in-accordance-with-the-BACT-determination-shall-not-exceed-the following-emission-limitations-at-75°F:

MAXIMUM ALLOWABLE EMISSIONS PRIOR TO THE INSTALLATION
OF THE DUCT BURNERS*

Pollutant	Basis	Fuel	Emission Limitations	
			lb/hr/CT	<u>4 CT**</u> (TPY)
NO _x ***	<u>42 ppmvd</u>	<u>Gas</u>	<u>264</u>	<u>4,868</u>
	<u>65 ppmvd</u>	<u>Oil</u>	<u>422</u>	
VOC	<u>1 ppmvd</u>	<u>Gas</u>	<u>1.3</u>	<u>50</u>
	<u>6 ppmvd</u>	<u>Oil</u>	<u>7.8</u>	
CO	<u>30 ppmvd</u>	<u>Gas</u>	<u>89</u>	<u>1,489</u>
	<u>33 ppmvd</u>	<u>Oil</u>	<u>100</u>	
PM/PM ₁₀		<u>Gas</u>	<u>14.7</u>	<u>424.7</u>
		<u>Oil</u>	<u>58.0</u>	
SO ₂		<u>Gas</u>	<u>4.9</u>	<u>1,582.8</u>
		<u>Oil</u>	<u>538</u>	

CT - Combustion Turbine

DB - Duct Burners

- NOTES: *
- This table lists the maximum allowable annual emissions of four CTs without four duct burners for as long as the permittee does not install any duct burners.
- **
- This column lists the maximum allowable facility emissions (four CTs) with capacity factor limitations of 25 percent on oil.
- ***
- The ppm of NO_x (dry) has been corrected to ISO standard ambient air conditions and 15 percent oxygen.

MAXIMUM ALLOWABLE EMISSIONS WITH
THE DUCT BURNERS INSTALLED

Pollu- tant	Basis	Fuel	Emission Limitations			
			lb/hr/CT	lb/hr/DB	4 CT* (TPY)	4DB+ (TPY)
NO _x **	42 ppmvd	Gas	264	10.0		152
	65 ppmvd	Oil	422		<u>4,716</u> <u>5,131</u>	
VOC	1 ppmvd	Gas	1.3	2.0		30.5
	6 ppmvd	Oil	7.8		<u>48.3</u> <u>65.2</u>	
CO	30 ppmvd	Gas	89	17.6		268
	33 ppmvd	Oil	100		<u>1,405</u> <u>1,434</u>	
PM/PM ₁₀		Gas	14.7	0.7		10.7
		Oil	58.0		<u>414</u> <u>528</u>	
SO ₂		Gas	<u>4.9</u>	<u>0.25</u>		<u>4.0</u>
			<u>0.97</u>	<u>0.05</u>		<u>0.8</u>
		Oil	538		<u>1,578.2</u> <u>2,413</u>	

CT - Combustion Turbine
DB - Duct Burners

NOTES: * This table lists Refers-to the maximum allowable facility emissions (four CTs)- wWith capacity factor limitations of 25 percent on oil and four duct burners)-87-percent-for-the-facility.

** The ppm of NO_x (dry) has been corrected to ISO standard ambient air conditions at 15 percent oxygen.

+--Refers-to-maximum-duct-burner-emissions-at-87 percent-capacity-factor-

NO_x emissions from duct burners are based on an as-fired emission limitation of 0.11 lbs/MMBtu.

The permittee shall calculate an appropriate lbs/MMBtu emission factor for each pollutant based on the compliance tests heat input rates/steam injection rate/emission measurements. After submittal to and approval by the Department, the permittee shall program the on site computer system to calculate and record the emissions of each pollutant for each CT. Results shall be reported as lbs/hr and TPY.

Sulfur-dioxide-emissions-assume-a-maximum-of-0.3-percent-sulfur in-fuel-oil-for-hourly-emissions-and-an-average-sulfur-content of-0.2-percent-for-annual-emissions-

Any party to this Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the clerk of the Department of Environmental Protection in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal, accompanied by the applicable filing fees, with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date that the Final Order is filed with the Department of Environmental Protection.

DONE AND ENTERED this 2nd day of August, 1993 in Tallahassee, Florida.

FILING AND ACKNOWLEDGEMENT

FILED, on this date, pursuant to S120.52 Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Chris D. Sullivan 8/02/93
Clerk Date

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Virginia B. Wetherell
VIRGINIA B. WETHERELL
Secretary

Marjory Stoneman Douglas Bldg.
3900 Commonwealth Boulevard
Tallahassee, FL 32399-3000
Telephone: (904) 488-4805

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing was mailed or hand-delivered to the following this second day of August, 1993.

Douglas S. Roberts
Hopping Boyd Green & Sams
P.O. Box 6526
Tallahassee, FL 32314

David Jordan, Senior Attorney
Department of Community Affairs
2740 Centerview Drive
Tallahassee, FL 32399-2100

Sara Nall
South Florida Water Management
District
P.O. Box 24680
3301 Gun Club Road
West Palm Beach, FL 33416-4680

M. B. Adelson
Assistant General Counsel
Department of Environmental
Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Noel M. Pfeffer
Deputy County Attorney
Broward County
115 South Andrews Avenue
Suite 423
Fort Lauderdale, FL 33301

Thomas R. Henderson
Broward County Resource
Recovery Facility
114 South Andrews Avenue
Fort Lauderdale, FL 33301

Michael Palecki
Division of Legal Services
Florida Public Service
Commission
101 East Gaines Street
Fletcher Building, Room 212
Tallahassee, FL 32399-0850

Susan M. Coughanour
South Florida Water Management
District
P.O. Box 24680
3301 Gun Club Road
West Palm Beach, FL 33416-4680

James Antista
General Counsel
Florida Game and Fresh Water Fish
Commission
Bryant Bldg.
620 S. Meridian Street
Tallahassee, FL 32399-1600

William Roberts
Assistant General Counsel
Department of Transportation
Haydon Burns Building
605 Suwannee Street, M.S. #58
Tallahassee, FL 32399

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION


GARY C. SMALLRIDGE
Assistant General Counsel