



Florida Department of Environmental Regulation

South District

2269 Bay Street

Fort Myers, Florida 33901-2896

Lawton Chiles, Governor

Carol M. Browner, Secretary

RECEIVED

OCT 14 1991

Environmental Svcs
Department

PERMITTEE:

W. Jeffrey Pardue, Manager
Environmental Programs
Florida Power Corporation
Post Office Box 14042
St. Petersburg, Florida 33733

I.D.No: 52/28/0003/03-04

Permit/Certification

Number: AO28-202500

Date of Issue: October 10, 1991

Expiration Date: October 10, 1996

County: Highlands

Latitude: 27° 34' 42" N

Longitude: 81° 29' 34" W

Section/Town/Range: 26/33S/28E

Project: Florida Power Corp.

Avon Park Peaking Unit 1
and Unit 2

This permit is issued under the provisions of Chapter 403.087, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Operate 2 gas turbine electric generation units each with a rated capacity of 33.8 MW, fueled by jet or #2 fuel oil, or natural gas that has a maximum heat input of 562.6 million Btu per hour.

Plant is located at 1415 South Highlands Avenue, Avon Park, Florida.

PERMITTEE:
Florida Power Corporation

I.D. No.: 52/28/0003/03-04
Permit/Cert. No.: A028-202500
Date of Issue: October 10, 1991
Expiration Date: October 10, 1996

SPECIFIC CONDITIONS:

1. Visible emission tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method 9 as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted once per year commencing prior to October, 1992. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing.

base date

2. Sulfur content in fuel shall not exceed 1%.

*P.U. #1
#2 ARMS indicates last test
was performed on
March 17, 1992*

3. Visible emissions shall not exceed 20% opacity under normal operation except for up to 2 minutes in any one hour at not more than 40% opacity.

20%

4. All fugitive dust generated at this site shall be adequately controlled.

TV1 ←

5. An annual operation report (DER Form 17-1.202(6) attached) shall be submitted by March 1st each year. The attached form shall be reproduced by the permittee and used for future annual submittals.

TV1 ←

6. There shall be no discharges of liquid effluents or contaminated runoff from the plant site.

?

7. In the event the turbine does not operate more than 400 hours during the year the owner or operator is not required to conduct a visible emission compliance test for that year.

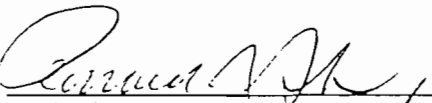
?

NOTE: In the event of an emergency the permittee shall contact the Department by calling (904) 488-1320. During normal business hours, the permittee shall call (813) 332-6975.

?

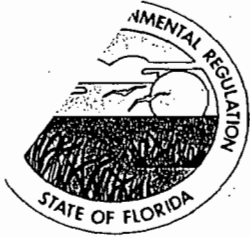
Issued this 10th day of October, 1991.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION


Philip R. Edwards
Director of
District Management

PRE/AEL/jw

8 Pages Attached



Florida Department of Environmental Regulation

South District • 2295 Victoria Avenue, Suite 364 • Fort Myers, Florida 33901

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:

W. Jeffrey Pardue, Manager
 Environmental Programs-Regulatory
 Florida Power Corporation
 Post Office Box 14042
 St. Petersburg, Florida 33733

I.D. No: 52FTM28000302
 Permit/Certification
 Number: A028-211596
 Date of Issue: May 11, 1992
 Expiration Date: May 11, 1997
 County: Highlands
 Latitude: 27° 34' 45" N
 Longitude: 81° 29' 27" W
 Section/Town/Range: 26/33S/28E
 Project: Florida Power Corp.
 Steam Electric
 Generator
 Avon Park Unit No. 2

This permit is issued under the provisions of Chapter 403.087, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Operate a 679 MWH/day fossil fuel generator unit fired with No. 6 fuel oil (487.5 MMBtu/hour) and/or natural gas (502 MMBtu/hour). Sulfur dioxide emissions are controlled by limiting the fuel sulfur content.

The facility is located at 1415 South highlands Avenue, Avon Park, Florida.

PERMITTEE:
Florida Power Corporation

I.D. No.: 52FTM28000302
Permit/Cert. No.: AO28-211596
Date of Issue: May 11, 1992
Expiration Date: May 11, 1997

SPECIFIC CONDITIONS:

1. Visible emission tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method Nine as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted once per year commencing within 30 days of restarting the unit. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing.

2. Particulate emission tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method Five as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted once per year commencing within 30 days of restarting unit. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing.

3. Sulfur dioxide tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method Six as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted once per year commencing within 30 days of restarting the unit. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing.

4. Visible emissions shall not exceed 20% opacity under normal operation except for up to 2 minutes in any one hour at not more than 40% opacity. [Reference Rule 17-2.600(1)(a)1., F.A.C. and 40 CFR-60 Subpart Dc Section 60.43C(c)] ?

296,401 (b) (4) ?

Appears to be improper citation

oil only ?

5. Particulate emissions shall not exceed 0.1 pounds per million BTU heat input. [] ?

6. Sulfur dioxide emissions shall not exceed 2.75 pounds per million BTU heat input. [] Rule ?

296,405, ?
F.A.C.

PERMITTEE:
Florida Power Corporation

I.D. No.: 52FTM28000302
Permit/Cert. No.: AO28-211596
Date of Issue: May 11, 1992
Expiration Date: May 11, 1997

SPECIFIC CONDITIONS:

7. All fugitive dust generated at this site shall be adequately controlled. [Reference Rule 17-2.610(3), F.A.C.]

8. An annual operation report (DER Form 17-1.202(6) attached) shall be submitted by March 1st each year. The attached form shall be reproduced by the permittee and used for future annual submittals.

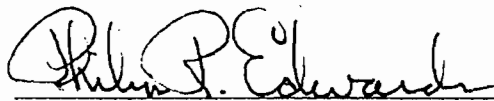
9. Stack sampling facilities provided by the owner shall be in accordance with the requirements of Chapter 17-2.700(4), Florida Administrative Code.

10. The Department shall not require emission compliance testing results in the event the facility did not operate or burn fuel for a total of more than 400 hours during the year.

NOTE: In the event of an emergency the permittee shall contact the Department by calling (904)488-1320. During normal business hours, the permittee shall call (813)332-6975.

Issued this 11th day of May, 1992.

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION



Philip R. Edwards
Director of
District Management

PRE/AEL/jw

10 Pages Attached

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTH FLORIDA DISTRICT

2269 BAY STREET
FORT MYERS, FLORIDA 33901-2896
(813)332-2667



BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

PHILIP R. EDWARDS
DISTRICT MANAGER

PERMITTEE: J. A. Hancock, V.P.,
Fossil Operations
Florida Power Corp.
P. O. Box 14042
St. Petersburg, FL 33733

I.D.No: 52/28/0003/02
Permit/Certification
Number: AO28-135641
Date of Issue: 6-18-87
Expiration Date: 6-18-92
County: Highlands
Latitude: 27° 34' 45" N
Longitude: 81° 29' 27" W
Section/Town/Range: 26/33S/28E
Project: Florida Power Corp.
Steam Electric
Generator
Avon Park Unit #2

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with department and made a part hereof and specifically described as follows:

Operate a steam boiler rated at 450,000 LBS/HR of steam, fired with #6 fuel oil and natural gas with a combined maximum heat input of 989.5 million Btu per hour. The steam is used to drive the turbine and generator for the production of electricity.

Plant is located at 1415 South Highlands Avenue, Avon Park, Florida.

DER FORM 17-1.201(5)
Effective November 30, 1982

Page 1 of 6

PERMITTEE: Florida Power
Corporation

I.D. Number: 52/28/0003/02
Permit/Certification No. A028-135641
Date of Issue: 6-18-87
Expiration Date: 6-18-92

SPECIFIC CONDITIONS:

1. Visible emission tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method 9 as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted once per year. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing.
2. Particulate emission tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method 5 as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted once per year. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing.
3. Sulfur dioxide tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method 6 as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted twice per year. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing.
4. Visible emissions shall not exceed 20% opacity under normal operation except for up to 2 minutes in any one hour at not more than 40% opacity.
5. Particulate emissions shall not exceed 0.1 pounds per million BTU heat input.
6. Sulfur dioxide emissions shall not exceed 2.75 pounds per million BTU heat input.
7. All fugitive dust generated at this site shall be adequately controlled.

PERMITTEE: Florida Power
Corporation

I.D. Number: 52/28/0003/02
Permit/Certification No. AO28-135641
Date of Issue: 6-18-87
Expiration Date: 6-18-92

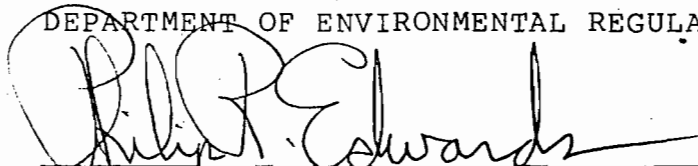
8. An annual operation report (DER Form 17-1.202(6) attached) shall be submitted by March 1st each year. The attached form shall be reproduced by the permittee and used for future annual submittals.

9. Stack sampling facilities provided by the owner shall be in accordance with the requirements of Chapter 17-2.700(4), Florida Administrative Code.

10. The Department shall not require submission of emission compliance test results in the event the facility did not operate or burn fuel for a total of more than 400 hours during the year.

Issued this 18th day of June, 1987.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION



Philip R. Edwards
Chief of District Management-DER

PRE/00/1s

____ Pages Attached



Florida Department of Environmental Regulation

South District

2269 Bay Street

Fort Myers, Florida 33901-2896

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:

W. Jeffrey Pardue, Manager
Environmental Programs
Florida Power Corporation
Post Office Box 14042
St. Petersburg, Florida 33733

I.D.No: 52/28/0003/03-04
Permit/Certification
Number: A028-202500
Date of Issue: October 10, 1991
Expiration Date: October 10, 1996
County: Highlands
Latitude: 27° 34' 42" N
Longitude: 81° 29' 34" W
Section/Town/Range: 26/33S/28E
Project: Florida Power Corp.
Avon Park Peaking Unit 1
and Unit 2

This permit is issued under the provisions of Chapter 403.087, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Operate 2 gas turbine electric generation units each with a rated capacity of 33.8 MW, fueled by jet or #2 fuel oil, or natural gas that has a maximum heat input of 562.6 million Btu per hour.

Plant is located at 1415 South Highlands Avenue, Avon Park, Florida.

PERMITTEE:
Florida Power Corporation

I.D. No.: 503/0003/03-04
Permit/Cert. No.: A028-202500
Date of Issue: October 10, 1991
Expiration Date: October 10, 1996

SPECIFIC CONDITIONS:

1. Visible emission tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the unit is capable of compliance at the permitted maximum operating rate. Test shall be conducted in accordance with EPA Method 9 as published in 40 CFR-60, Appendix A, or State approved equivalent method. Such tests shall be conducted once per year commencing prior to October, 1992. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing.

2. Sulfur content in fuel shall not exceed 1%.

or 5.02×10^{-4} Ton SO_2
MMBTU

3. Visible emissions shall not exceed 20% opacity under normal operation except for up to 2 minutes in any one hour at not more than 40% opacity.

4. All fugitive dust generated at this site shall be adequately controlled.

5. An annual operation report (DER Form 17-1.202(6) attached) shall be submitted by March 1st each year. The attached form shall be reproduced by the permittee and used for future annual submittals.

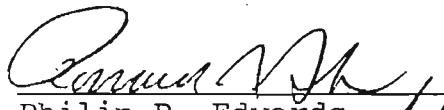
6. There shall be no discharges of liquid effluents or contaminated runoff from the plant site.

7. In the event the turbine does not operate more than 400 hours during the year the owner or operator is not required to conduct a visible emission compliance test for that year.

NOTE: In the event of an emergency the permittee shall contact the Department by calling (904) 488-1320. During normal business hours, the permittee shall call (813) 332-6975.

Issued this 10th day of October, 1991.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION


Philip R. Edwards
Director of
District Management

PRE/AEL/jw

8 Pages Attached

Revised 01/02/16

62-296.405 Fossil Fuel Steam Generators with more than 250 million Btu per Hour Heat Input.

(1) Existing Emissions Units.

VE

(a) Visible emissions - 20 percent opacity except for either one six-minute period per hour during which opacity shall not exceed 27 percent, or one two-minute period per hour during which opacity shall not exceed 40 percent. The option selected shall be specified in the emissions unit's construction and operation permits. Emissions units governed by this visible emission limit shall test for particulate emission compliance annually and as otherwise required by Rule 62-297, F.A.C.

Emissions units electing to test for particulate matter emission compliance quarterly shall be allowed visible emissions of 40 percent opacity. The results of such tests shall be submitted to the Department. Upon demonstration that the particulate standard has been regularly complied with, the Secretary, upon petition by the applicant, shall reduce the frequency of particulate testing to no less than once annually.

Pm

(b) Particulate Matter - 0.1 pound per million Btu heat input, as measured by applicable compliance methods.

all fuels

(c) Sulfur Dioxide, as measured by applicable compliance methods.

fuel specific

1. Emissions units burning liquid fuel.

a. Emissions units in Duval County with a nameplate generating capacity of greater than 250 MW which commenced operation prior to August 1, 1977 - 1.98 pounds per million Btu heat input.

b. Emissions units in Duval County with a nameplate generating capacity of less than 160 MW which commenced operation prior to October 1, 1964 - 1.10 pounds per million Btu heat input.

c. All other emissions units in Duval County - 1.65 pounds per million Btu heat input.

d. Hillsborough County, emissions units south of State Highway 60 with a nameplate generating capacity of less than 100 MW which commenced operation prior to June 1, 1955 - 1.1 pound per million Btu heat input.

e. Escambia County, emissions units north of Interstate 10 with a nameplate generating capacity of less than 50 MW which commenced operation prior to October 1, 1952 - 1.98 pounds per million Btu heat input.

f. Escambia County, no emissions unit north of Interstate 10 with a rated heat input of 515 million Btu per hour or less for which a valid Department operating permit was issued prior to September 30, 1972 shall emit in the aggregate more than 57.5 tons per any 24 hour period.

g. Manatee County, emissions units with a nameplate generating capacity of greater than 700 MW for which a valid Department operating permit was issued prior to January 1, 1979 - 1.1 pounds per million Btu heat input.

h. Leon and Wakulla Counties, emissions units with a nameplate generating capacity of less than 260 MW for which a valid Department operating permit was issued prior to November 1, 1977 - 1.87 pounds per million Btu heat input.

i. Dade, Broward, and Palm Beach Counties, emissions units with a nameplate generating capacity of less than 170 MW which commenced operation prior to May 1, 1958 - 1.1 pounds per million Btu heat input, except in the event of a fuel or energy crisis declared by the Governor of Florida or the President of the United States - 2.75 pounds per million Btu heat input. Notification concerning the quantity and estimated duration of the increase in emissions shall be given to the Department prior to burning the higher sulfur fuel.

SO2

j. All other areas of the State - 2.75 pounds per million Btu heat input.

2. Emissions units burning solid fuel.

a. Hillsborough County, no emissions unit with a nameplate generating capacity of greater than 120 MW which commenced operation prior to November 1, 1967, shall emit more than 2.4 pounds of sulfur dioxide per million Btu heat input on a weekly average nor shall

FOR Jenacke

DATE 7/10 TIME 2:02 A.M. P.M.

FROM Jennifer Zellmer

FIRM _____

PHONE 813/866-5022

FAX AREA CODE NUMBER EXTENSION

MOBILE AREA CODE NUMBER TIME TO CALL

TELEPHONED	<input checked="" type="checkbox"/>	PLEASE CALL	<input type="checkbox"/>
RETURNED YOUR CALL	<input checked="" type="checkbox"/>	WILL CALL AGAIN	<input type="checkbox"/>
CAME TO SEE YOU	<input type="checkbox"/>	RUSH	<input type="checkbox"/>
WANTS TO SEE YOU	<input type="checkbox"/>	SPECIAL ATTENTION	<input type="checkbox"/>
WAITING TO SEE YOU	<input type="checkbox"/>	HOLDING LINE	<input type="checkbox"/>

MESSAGE 296.405 (1)

(b) 0.1 mmHg/hv PM

296.405

applies on nat'l gas?

(c) 2.75 mmHg/hv SO₂

SIGNED [Signature] Tops FORM 4007 MADE IN U.S.A.

MESSAGE over →

a group of such emissions units located on one or more contiguous or adjacent properties and which are under common control emit more than 10.6 tons per hour of sulfur dioxide on a weekly average. A plan for assuring compliance with Florida Ambient Air Quality Standards will be incorporated into the revised operating permit for such emissions units.

b. Hillsborough County, no emissions unit with a nameplate generating capacity of greater than 400 MW which commenced operation after November 1, 1967, and prior to June 1, 1976, shall emit in total more than 6.5 pounds of sulfur dioxide per million Btu heat input on a two hour average nor shall a group of such emissions units located on one or more contiguous or adjacent properties and which are under common control emit more than 31.5 tons per hour of sulfur dioxide on a three hour average and 25 tons per hour of sulfur dioxide on a 24 hour average.

c. Escambia County, emissions units north of Interstate 10 with a nameplate generating capacity of more than 50 MW which commenced operation prior to September 1, 1973 - 5.90 pounds per million Btu heat input.

d. All other areas of the State - 6.17 pounds per million Btu heat input.

3. Owners of fossil fuel steam generators shall monitor their emissions and the effects of the emissions on ambient concentrations of sulfur dioxide, in a manner, frequency, and locations approved, and deemed reasonably necessary and ordered by the Department.

(d) Nitrogen Oxides (expressed as NO₂) - as measured by applicable compliance methods.

1. Duval County, emissions units with a nameplate generating capacity of greater than 450 MW which commenced operation prior to August 1, 1977 - 0.30 pounds per million Btu heat input.

2. Manatee County, emissions units with a nameplate generating capacity of greater than 700 MW for which a valid Department operating permit was issued prior to January 1, 1979 - 0.30 pounds per million Btu heat input.

3. Leon County, emissions units with a nameplate generating capacity of greater than 200 MW for which a valid Department operating permit was issued prior to November 1, 1977 - 0.30 pounds per million Btu heat input.

4. Hillsborough County, emissions units with a nameplate generating capacity of greater than 400 MW which commenced operation after January 1, 1976 and prior to January 1, 1985 - 0.70 pounds per million Btu heat input.

(e) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.

1. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C.

2. The test methods for particulate emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature at no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen base F-factor computed according to EPA Method 19 is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17.

3. The test methods for sulfur dioxide emissions shall be DEP Methods 6, 6A, 6B or 6C, incorporated and adopted by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated in the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that

exceedances of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards.

4. For emission units not subject to nitrogen oxides continuous monitoring requirements, the test methods for nitrogen oxides emissions shall be EPA Methods 7, 7A, or 7E, incorporated and adopted by reference in Chapter 62-297, F.A.C. Four grab samples at 15 minute intervals (± 2 min.) per run shall be required for EPA Methods 7 and 7A. For emission units that are subject to continuous monitoring requirements under 42 U.S.C. sections 7661-7661f or 40 CFR Part 75, compliance with nitrogen oxides emission limits shall be demonstrated based on a 30-day rolling average, except as specifically provided by 40 CFR Parts 60 or 76.

5. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

(f) Continuous Emissions Monitoring Requirements. Each owner or operator of an emissions unit subject to Rule 62-296.405(1), F.A.C., shall install, calibrate, operate and maintain a continuous monitoring system for continuously monitoring the pollutants specified in this subsection. Performance specifications, location of monitor, data requirements, data reduction and reporting requirements shall conform with the requirements of 40 CFR Part 51, Appendix P, revised as of July 1, 1993 and hereby adopted and incorporated by reference and 40 CFR Part 60, Appendix B, adopted by reference in Rule 62-296.800, F.A.C., for existing and new emissions units provided, however, any alternative procedures (as specified in s. 3.9, 40 CFR Part 51, Appendix P) or special considerations (as specified in s. 6.0, 40 CFR Part 51, Appendix P) shall be incorporated in the Department's air permit for the emissions unit and submitted to the U.S. Environmental Protection Agency as a proposed revision to the State Implementation Plan.

1. Existing fossil fuel steam generators with more than 250 million BTU per hour heat input and with a capacity factor of greater than 30 percent for the latest year of record or as otherwise documented to the Department by the owner or operator, shall install continuous monitoring systems as set forth in this subparagraph. Any reactivated or previously exempted unit whose operated capacity factor for the previous six months is greater than 30 percent must install continuous monitoring systems as set forth in this subparagraph no later than twelve months following the previous six month period of achieving a capacity factor greater than 30 percent.

a. Opacity. All emissions units as set forth in Rule 62-296.405(1)(f)1., F.A.C., shall install continuous monitoring systems for monitoring opacity. Exempted are:

(i) Emissions units burning only gas, oil, or gas and oil which comply with the applicable state visible emission limiting standard without the use of emission control equipment.

(ii) Any emissions unit using a wet scrubber.

b. Sulfur dioxide. All emissions units as set forth in Rule 62-296.405(1)(f)1., F.A.C., shall install sulfur dioxide continuous monitoring equipment on units which have installed sulfur dioxide control equipment. Those emissions units not having an operating flue gas desulfurization device may monitor sulfur dioxide emissions by fuel sampling and analysis according to methods approved by EPA.

2. The exemption from opacity monitoring under Rule 62-296.405(1)(f)1.a.(i), F.A.C., shall not apply to any emissions unit which has been found to be in violation of the visible emission limiting standard pursuant to administrative proceedings conducted under Chapter 120, Florida Statutes, or judicial proceedings after January 1, 1978. No later than ninety days following the date an order establishing such violation becomes final, the owner or operator of such emissions unit shall submit to the Department a proposed compliance schedule for installing a continuous opacity monitoring system. Following incorporation of a compliance schedule into the emission unit's air permit, the owner or operator shall install the continuous monitoring system in accordance with the schedule.

c. Nitrogen Oxides. All new emissions units as set forth in Rule 62-296.405(1)(f)1., F.A.C., with more than 1000 million BTU per hour heat input shall, during construction, install continuous monitoring systems for monitoring nitrogen oxides.

d. Oxygen or Carbon Dioxide. A continuous monitoring system shall be installed at each emissions unit, as set forth in Rule 62-296.405(1)(f)1., F.A.C., where measurements of oxygen or carbon dioxide in the flue gas are utilized to convert either sulfur dioxide or nitrogen oxides continuous emission monitoring data to units of the emission limiting standards for proof of compliance as set forth in Rule 62-296.405(1), F.A.C.

(g) Quarterly Reporting Requirements. The owners or operators of facilities for which monitoring is required shall submit to the Department a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excessive emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of two years.

(2) Emissions Units.

(a) Visible Emissions - (See Rule 62-296.800, F.A.C., and 40 CFR 60.42 and 60.42a).

(b) Particulate Matter - (See Rule 62-296.800, F.A.C., and 40 CFR 60.42 and 60.42a).

(c) Sulfur Dioxide - (See Rule 62-296.800, F.A.C., and 40 CFR 60.43 and 60.43a).

(d) Nitrogen Oxides - (See Rule 62-296.800, F.A.C., and 40 CFR 60.44 and 60.44a).

(3) For the purposes of this rule, nameplate generating capacity means the manufacturer's capacity rating of electrical generating output (expressed in MWe) as designed.

Specific Authority: 403.061, F.S.

Law Implemented: 403.021, 403.031, 403.061, 403.087, F.S.

History: Formerly 17-2.600(5); Amended 6-29-93; Formerly 17-296.405; Amended 11-23-94, 1-2-96.

New

Table 1.3-10 (Metric And English Units). NEW SOURCE PERFORMANCE STANDARDS FOR FOSSIL FUEL FIRED BOILERS

Standard/ Boiler Types/ Applicability Criteria	Boiler Size MW (Million Btu/hr)	Fuel Or Boiler Type	PM ng/J (lb/MMBtu) [% reduction]	SO ₂ ng/J (lb/MMBtu) [% reduction]	NO _x ng/J (lb/MMBtu) [% reduction]
Subpart D Industrial-Utility Commence construction after 8/17/71	> 73 (> 250)	Gas	43 (0.10)	NA ^d	86 (0.20)
		Oil	43 (0.10)	340 (0.80)	129 (0.30)
		Bit./Subbit. Coal	43 (0.10)	520 (1.20)	300 (0.70)
Subpart Da Utility Commence construction after 9/18/78	> 73 (> 250)	Gas	13 (0.03) [NA]	340 (0.80) [90] ^a	86 (0.20) [25]
		Oil	13 (0.03) [70]	340 (0.80) [90] ^a	130 (0.30) [30]
		Bit./Subbit. Coal	13 (0.03) [99]	520 (1.20) [90] ^a	260/210 ^c (0.60/0.50) [65/65]
Subpart Db Industrial-Commercial Institution Commence construction after 6/19/84 ^m	> 29 (> 100)	Gas	NA ^d	NA ^d	43 ^f (0.10)
		Distillate Oil	43 (0.10)	340 ⁿ (0.80) [90]	43 ^f (0.10)
		Residual Oil	(Same as for distillate oil)	(Same as for distillate oil)	130 ^g (0.30)
		Pulverized Bit./Subbit. Coal	22 ^e (0.05)	520 ^e (1.20) [90]	300 (0.70)
		Spreader Stoker & FBC	22 ^e (0.05)	520 ^e (1.20) [90]	260 (0.60)
Mass-Feed Stoker	22 ^e (0.05)	520 ^e (1.20) [90]	210 (0.50)		

Table 1.1-10 (cont.).

Standard/ Boiler Types/ Applicability Criteria	Boiler Size MW (Million Btu/hr)	Fuel Or Boiler Type	PM ng/J (lb/MMBtu) [% reduction]	SO ₂ ng/J (lb/MMBtu) [% reduction]	NO _x ng/J (lb/MMBtu) [% reduction]
Subpart Dc	2.9 - 29 (10 - 100)	Gas	— ^h	—	—
Small Industrial Commercial- Institutional		Oil	— ^{h,j}	215 (0.50)	—
Commence construction after 6/9/89		Bit./Subbit. Coal	22 ^{j,k} (0.05)	520 ^k (1.20) [90]	—

^a Zero percent reduction when emissions are less than 86 ng/J (0.20 lb/MMBtu). FBC = fluidized bed combustion. NA = not applicable.

^b 70 percent reduction when emissions are less than 260 ng/J (0.60 lb/MMBtu).

^c The first number applies to bituminous coal and the second to subbituminous coal.

^d Standard applies when gas is fired in combination with coal; see 40 CFR 60, Subpart Db.

^e Standard is adjusted for fuel combinations and capacity factor limits; see 40 CFR 60, Subpart Db.

^f For furnace heat release rates greater than 730,000 J/s-m³ (70,000 Btu/hr-ft³), the standard is 86 ng/J (0.20 lb/MMBtu).

^g For furnace heat release rates greater than 730,000 J/s-m³ (70,000 Btu/hr-ft³), the standard is 170 ng/J (0.40 lb/MMBtu).

^h Standard applies when gas or oil is fired in combination with coal; see 40 CFR 60, Subpart Dc.

^j 20 percent capacity limit applies for heat input capacities of 8.7 Mwt (30 MMBtu/hr) or greater.

^k Standard is adjusted for fuel combinations and capacity factor limits; see 40 CFR 60, Subpart Dc.

^m Additional requirements apply to facilities which commenced construction, modification, or reconstruction after 6/19/84 but on or before 6/19/86 (see 40 Code of Federal Regulations Part 60, Subpart Db).

ⁿ 215 ng/J (0.50 lb/million Btu) limit (but no percent reduction requirement) applies if facilities combust only very low sulfur oil (<0.5 wt. % sulfur).

usually have a higher ratio of heat transfer surface area to flame volume leading to reduced flame temperature and combustion intensity and, therefore, lower combustion efficiency than larger combustors.

The presence of CO in the exhaust gases of combustion systems results principally from incomplete fuel combustion. Several conditions can lead to incomplete combustion, including:

- insufficient oxygen (O₂) availability;
- poor fuel/air mixing;
- cold wall flame quenching;
- reduced combustion temperature;