

Memorandum

Florida Department of Environmental Protection

TO: Trina Vielhauer, Chief - Bureau of Air Regulation
THROUGH: Jeff Koerner, Air Permitting North Program
FROM: Bobby Bull, Air Permitting North Program
DATE: August 14, 2006
SUBJECT: Draft Air Permit No. 1050233-019-AC
Tampa Electric Company – Polk Power Station
100% Petroleum Coke Test Burn

Attached for your review are the following items:

- Intent to Issue Permit and Public Notice Package;
- Technical Evaluation and Preliminary Determination;
- Draft Permit; and
- PE Certification

The draft permit authorizes a test trial period to gasify up to 100% petroleum coke (with a flux) and fire the resulting syngas in the existing integrated gasification combined cycle Unit 001 at Polk Power Station. The facility is located at 9995 State Route 37 South in Polk County, Florida.

The Technical Evaluation and Preliminary Determination provides a detailed description of the project, rule applicability, and emissions standards. The P.E. certification briefly summarizes the proposed project. Day 90 is September 5, 2006. I recommend your approval of the attached Draft Permit for this project.

Attachments

P.E. CERTIFICATION STATEMENT

PERMITTEE

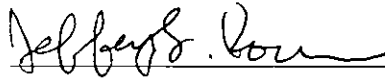
Tampa Electric Company
Polk Power Station
P.O. Box 111
Tampa, Florida 33601

Draft Air Permit No. 1050233-019-AC
Polk Power Station, IGCC Unit 1
Trial Burn of Up to 100% Petcoke
Polk County, Florida

PROJECT DESCRIPTION

The Polk Power Station operates an existing integrated gasification and combined cycle (IGCC) combustion turbine (Unit 1). The plant is authorized to gasify a petroleum coke/coal blend of up to 60%/40% and fire the resulting syngas in the combustion turbine. The applicant requests a trial period to gasify various petroleum coke/coal blends of up to 100% and fire the resulting syngas in the combustion turbine. At petroleum coke levels of about 80% and higher, a flux will be added to ensure that mineral matter present in the fuel will flow out of the gasifier for proper operation. The flux material will likely be coal fly ash generated on site. The maximum fuel sulfur content of the current permitted fuel blend is 3.5% sulfur by weight. All fuel blends for the proposed project will also comply with this fuel sulfur limit. The unit will continue to meet all existing permit conditions and emissions standards.

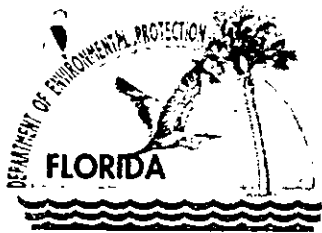
I HEREBY CERTIFY that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, mechanical, structural, hydrological, geological, and meteorological features).



Jeffery F. Koerner, P.E.
Registration Number: 49441

8-14-06

(Date)



Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

August 14, 2006

Mark J. Hornick, General Manager
Tampa Electric Company
Polk Power Station
P.O. Box 111
Tampa, FL 33601

Re: Air Construction Permit No. 1050233-019-AC
Tampa Electric Company – Polk Power Station
Test burn of 100% petroleum coke at Unit 1

Dear Mr. Hornick:

On February 28, 2006, you submitted an application requesting a trial period to gasify and fire up to 100% petroleum coke (with a flux) in the existing integrated combined cycle Unit #1 (EU 001). Polk Power Station is located at 9995 State Route 37 South in Polk County, Florida. Enclosed are the following documents: "Technical Evaluation and Preliminary Determination", "Draft Permit", "Written Notice of Intent to Issue Air Permit", and "Public Notice of Intent to Issue Air Permit".

The "Technical Evaluation and Preliminary Determination" summarizes the Permitting Authority's technical review of the application and provides the rationale for making the preliminary determination to issue a Draft Permit. The proposed "Draft Permit" includes the specific conditions that regulate the emissions units covered by the proposed project. The "Written Notice of Intent to Issue Air Permit" provides important information regarding: the Permitting Authority's intent to issue an air permit for the proposed project; the requirements for publishing a Public Notice of the Permitting Authority's intent to issue an air permit; the procedures for submitting comments on the Draft Permit; the process for filing a petition for an administrative hearing; and the availability of mediation. The "Public Notice of Intent to Issue Air Permit" is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project.

If you have any questions, please contact the Project Engineer, Bobby Bull, at 850/921-9585.

Sincerely,

Trina Vielhauer, Chief
Bureau of Air Regulation

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7000 1670 0013 3110 1281

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Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage:	Mr. Mark J. Hornick	
Sent To:	General Manager	
Street, Apt	Polk Power Station	
City, State	Tampa Electric Company	
	P.O. Box 111	
	Tampa, Florida 33601-0111	

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

*In the Matter of an
Application for Air Permit by:*

Tampa Electric Company
P.O. Box 111
Tampa, FL 33601

Authorized Representative:
Mark J. Hornick, General Manager

Air Permit No. 1050233-019-AC
Facility ID No. 1050233
Polk Power Station
Test burn of 100% petroleum coke
Polk County, Florida

Facility Location: Tampa Electric Company operates Polk Power Station, which is located at 9995 State Route 37 South in Polk County, Florida.

Project: The applicant proposes a trial period to gasify up to 100% petroleum coke (with a flux) and fire the resulting syngas in the existing integrated gasification combined cycle Unit #1 (EU 001). Details of the project are provided in the application and the enclosed "Technical Evaluation and Preliminary Determination".

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above. A copy of the complete project file is also available at the Air Resources Section of the Department's Southwest District Office. The telephone number is 813/632-7600.

Notice of Intent to Issue Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed "Public Notice of Intent to Issue Air Permit" (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at above address or phone number. Pursuant to Rule 62-110.106(5), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within seven (7) days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of fourteen (14) days from the date of publication of the Public Notice. Written comments must be provided to the Permitting Authority at the above address. Any written comments filed will be made available for public inspection. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice.

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

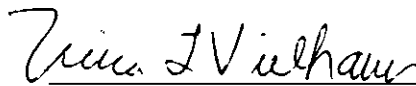
Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of the attached Public Notice or within fourteen (14) days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when each petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief
Bureau of Air Regulation

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection
Draft Air Permit No. 1050233-019-AC
Tampa Electric Company – Polk Power Station
Polk County, Florida

Applicant: The applicant for this project is the Tampa Electric Company. The applicant's authorized representative and mailing address is Mark Hornick, P.O. Box 111, Tampa, FL 33601.

Facility Location: Tampa Electric Company operates Polk Power Station, which is located 9995 State Route 37 South, in Polk County Florida.

Project: The Polk Power Station operates an existing integrated gasification and combined cycle (IGCC) combustion turbine (Unit 1). The plant is authorized to gasify a petroleum coke/coal blend of up to 60%/40% and fire the resulting syngas in the combustion turbine. The applicant requests a trial period to gasify various petroleum coke/coal blends of up to 100% and fire the resulting syngas in the combustion turbine. The maximum fuel sulfur content of the current permitted fuel is 3.5% sulfur by weight. For test blends greater than 80%, a flux (coal ash) will be injected to help gasify the petroleum coke. All fuel blends for the proposed project will also comply with this fuel sulfur limit other than the percent petroleum coke fired. The unit will continue to meet all existing permit conditions and emission standards.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above. A copy of the complete project file is also available at the Air Resources Section of the Department's Southwest District Office. The telephone number is 813/632/7600.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of fourteen (14) days from the date of publication of this Public Notice. Written comments must be provided to the Permitting Authority at the above address. Any written comments filed will be made available for public inspection. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen (14) days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the

(Public Notice to be Published in the Newspaper)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Permitting Authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial rights will be affected by the agency determination; (c) A statement of how and when the petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Public Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available for this proceeding.

**TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION**

PROJECT

Draft Air Construction Permit No. 1050233-019-AC
100% Petroleum Coke Test Burn

COUNTY

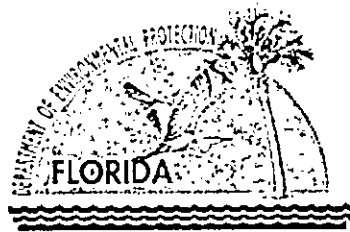
Polk

APPLICANT

Tampa Electric Company
Polk Power Station
ARMS Facility ID No. 1050233

**PERMITTING
AUTHORITY**

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Air Permitting North Program



August 14, 2006

{Filename: TEPD}

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. GENERAL PROJECT INFORMATION

Applicant Name and Address

Tampa Electric Company
P.O. Box 111
Tampa, FL 33601

Authorized Representative:

Mark J. Hornick, General Manager

Processing Schedule

3/2/06 Received the application for a minor source air pollution construction permit.
3/27/06 Department requested additional information.
7/7/06 Department received additional information; application complete.

Facility Description and Location

The regulated emissions units at the existing Polk Power Station include the following: a 260 MW integrated coal gasification and combined cycle gas turbine (Unit 1) capable of firing synthetic gas (syngas) or No. 2 fuel oil; an auxiliary boiler that fires No. 2 fuel oil; a sulfuric acid plant; a solid fuel handling system; and two nominal 165 MW simple cycle gas turbines (Units 2 and 3) capable of firing either natural gas or No. 2 fuel oil. The UTM coordinates are Zone 17, 402.45 km East, and 3067.35 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to a National Ambient Air Quality Standard (NAAQS).

Standard Industrial Classification Code (SIC)

SIC No. 4911 – Electrical Services

Regulatory Categories

Title III: The existing facility is identified as a potential major source of hazardous air pollutants (HAP).

Title IV: The existing facility has units subject to the acid rain provisions of the Clean Air Act.

Title V: The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The existing facility is a PSD-major facility of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The existing facility operates units subject to the New Source Performance Standards of 40 CFR 60.

Project Description

Polk Power Station is currently permitted to gasify up to 60% petroleum coke by weight and fire the resulting syngas in Unit #1. The facility is seeking authorization for a trial period to gasify up to 100% petroleum coke (with a flux)* by weight and fire the resulting syngas in Unit #1. The permittee proposes the following testing timeframes and coal/petroleum coke blend scenarios:

Test	% Petroleum coke in Coal/Petroleum Coke Blend
Baseline Test- 10 Days	55-60
Test 1- 28 Days	65-75
Test 2- 28 Days	75-85*
Test 3- 28 Days	85-95*
Test 4- 28 Days	95-100*

* For blends with 80% petroleum coke or higher, very little mineral matter from the petroleum coke remains during the gasification process. This mineral matter has a much higher melting point and does not completely melt during normal gasifier operating conditions. This additional mineral matter needs to flow out of the gasifier to operate normally. At this point, a flux is introduced to the gasification process. A flux assists in the gasification process of the petroleum coke and

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

insures the gasifier is operating properly. A flux is a material that will melt in the gasifier at its operating temperatures and conditions. The melted flux surrounds the petroleum coke's unmelted mineral matter to partially dissolve the mineral matter and entrain the rest of the matter. The entrained matter flows through the gasifier and is removed insuring normal gasifier operating conditions. Coal ash from conventional boilers is a common material used as a flux material, and will be used by the facility for the test burn scenarios.

2. APPLICABLE REGULATIONS

State Regulations

This project is subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The Florida Statutes authorize the Department of Environmental Protection to establish rules and regulations regarding air quality as part of the Florida Administrative Code (F.A.C.). This project is subject to the applicable rules and regulations defined in the following Chapters of the Florida Administrative Code: 62-4 (Permitting Requirements); 62-204 (Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference); 62-210 (Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms); 62-212 (Preconstruction Review, PSD Review and BACT, and Non-attainment Area Review and LAER); 62-213 (Title V Air Operation Permits for Major Sources of Air Pollution); 62-296 (Emission Limiting Standards); 62-297 (Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures).

General PSD Applicability

The Department regulates major air pollution sources in accordance with Florida's Prevention of Significant Deterioration (PSD) program, as approved by the EPA in Florida's State Implementation Plan and defined in Rule 62-212.400, F.A.C. A PSD review is required in areas currently in attainment with the state and federal Ambient Air Quality Standards (AAQS) or areas designated as "unclassifiable" for a given pollutant. A new facility is considered "major" with respect to PSD if it emits or has the potential to emit: 250 tons per year or more of any regulated air pollutant; or 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the 28 PSD Major Facility Categories defined in Rule 62-210.200, F.A.C.; or 5 tons per year of lead.

For new projects at existing PSD-major sources, each regulated pollutant is reviewed for PSD applicability based on emissions thresholds known as the Significant Emission Rates defined in Rule 62-210.200, F.A.C. Pollutant emissions from the project exceeding these rates are considered "significant" and the applicant must employ the Best Available Control Technology (BACT) to minimize emissions of each such pollutant and evaluate the air quality impacts. Although a facility may be "major" with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

PSD Applicability for Project

The Polk Power Station is an existing PSD-major facility located in Polk County, which is an area that is currently in attainment with, or designated as "unclassifiable" for, each pollutant with a state or federal Ambient Air Quality Standard (AAQS). The facility is seeking authorization for a trial period to gasify up to 100% petroleum coke (with a flux) by weight and fire the resulting syngas in Unit #1. Polk Power Station is currently permitted to gasify up to 60% petroleum coke by weight and fire the resulting syngas in Unit #1.

Based on the application, it is estimated that there will be no increases in emissions from NO_x, VOC, CO, PM, SO₂, Sulfuric Acid Mist (SAM) and lead from gasifying and firing a higher percentage of petroleum coke in the fuel blends up to 100% petroleum coke. NO_x emissions will be monitored with the emission unit's existing CEMS. VOC and CO emissions are not expected to increase, however the Department will require CO testing for each of the test scenarios to verify emissions. PM is not expected to increase since the coal/ petroleum coke blends will be converted to syngas. There will be no changes to the scrubbing and filtration of the syngas process. It is assumed that most all of the PM would be removed prior to being burned in the combustion turbine. This unit is not required to conduct PM testing for syngas, and will not be required for this temporary permit. However, the Department will require VE testing (10% opacity) for the test scenarios. It is anticipated SO₂ and SAM emissions will not increase with the higher sulfur content in the petroleum coke being burned for the test scenarios. The sulfur content must comply with the current permitted limit of 3.5% fuel sulfur content, and must comply with the existing limits of the Title V permit. The Department will require SO₂ and SAM testing for the test scenarios. SO₂ will be monitored by the CEMS in the combustion turbine and Method 6C will be used to measure emissions from the sulfuric acid plant. An approved test method (8, 8A, 8B, or 320) will be used to test H₂SO₄ from the combustion turbine and sulfuric acid plant. Therefore, the project is not subject to PSD preconstruction review.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

3. EMISSIONS STANDARDS

Brief Discussion of Emissions

The Polk Power station will test burn fuel blends using varying amounts of petroleum coke from approximately 60% petroleum coke by weight up to 100% petroleum coke (with a flux) by weight. At no point during the test burns will the facility be allowed to exceed any emission limits in its current Title V permit. Any exceedances will be a violation of the current Title V permit, and testing shall cease as soon as possible if any of the Title V emission limits are exceeded.

Draft Permit Requirements

Test Burn Authorization: The permit establishes a window of 12 months during which the permittee is authorized to begin and complete a test program to gasify a blend of coal with up to 100% petroleum coke (with a flux) and fire the syngas in the combustion turbine.

Solid Fuel Gasification Plant: During the test burn, the permittee is authorized to gasify a blend of coal and petroleum coke up to 100% petroleum coke (with a flux). [Application No. 1050233-019-AC]

Combustion Turbine: During the test burn, the permittee may fire syngas produced up to 100% petroleum coke syngas at Unit 1 (EU001). [Application No. 1050233-019-AC]

Permitted Capacity: The maximum input of solid fuels and heat input shall not exceed the permitted capacity authorized in the permittee's Title V permit. [Rule 62-210.200(PTE), F.A.C.]

Authorized Fuel: The permittee is authorized to gasify and burn combinations of petroleum coke in any combination up to 100% petroleum coke during the test scenarios in the gasification system up to 100% petroleum coke of the total solid fuel input. [Applicant Request; Rule 62-210.200(PTE), F.A.C.]

Sulfur Content: The maximum sulfur content of the coal/petroleum coke blend shall not exceed 3.5 percent by weight. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

Testing Timeframe: Upon the first fire of a coal/petroleum coke blend of more than 40%/60%, the permittee shall have 180 calendar days to complete all test burn scenarios. Testing must be completed prior to the expiration date of this permit. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

Emissions Standards: Emissions from the combustion turbine, sulfuric acid plant, and the gasification plant shall not exceed the permitted emissions limits in the permittee's Title V permit. Testing shall cease as soon as possible if any of the Title V emission limits are exceeded.

Baseline Testing: The permittee shall establish representative baseline emissions for NO_x, SO₂, H₂SO₄, and CO firing syngas from the gasification of up to 60% petroleum coke. CEMS will be used to determine the baseline emissions for NO_x and SO₂.

Test Burn Scenarios: The permittee shall conduct testing for each of the test scenarios:

Trial	% Sulfur Content of Petroleum Coke*	% Petroleum Coke in Coal/Petroleum Coke Blend
Baseline Test- 10 Days	3.0-3.5	55-60
Trial 1- 28 Days (maximum)	3.5-6.0	65-75
Trial 2- 28 Days (maximum)	4-6	75-85**
Trial 3- 28 Days (maximum)	4-6	85-95**
Trial 4- 28 Days (maximum)	4-6	95-100**

*Coal/Petroleum coke blends will not exceed the permitted sulfur content of 3.5% by weight.

** With a flux (coal ash)

[Application No. 1050233-019-AC]

Emissions Tests: For each trial, the permittee shall conduct the emissions tests for each unit as required by this permit.

- a. Combustion Turbine: The permittee shall conduct tests for NO_x, SO₂, H₂SO₄, CO and visible emissions.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

- b. Sulfuric Acid Plant: The permittee shall conduct tests for SO₂, H₂SO₄, and visible emissions.
- c. The permittee shall show compliance with the solid fuel sulfur content standard of 3.5% by weight based on sampling and analyses for each test scenario.

[Rule 62-297.310(7)(a)1, F.A.C.]

Trial Notification: The permittee shall notify the Compliance Authority in writing at least 15 days prior to Trial 1 and provide a notice before each testing trial. The notification shall include a schedule for the remaining trials. The schedule shall be updated as necessary. Thereafter, the permittee shall provide advance notice for each trial (email, fax, etc.). [Rule 62-297.310(7)(a)9, F.A.C.]

Test Methods: Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
6C	Determination of Sulfur Dioxide Emissions from Stationary Sources (Instrumental Analyzer Procedure)- Sulfuric Acid Plant only (EU004)
8, 8A, 8B, or 320	Any of the following methods listed may be used to determine H ₂ SO ₄ emissions from the combustion turbine or sulfuric acid plant: 8- Determination of Sulfuric Acid Mist and Sulfur Dioxide from Stationary Sources; Method 8A- Determination of Sulfuric Acid Vapor or Mist and Sulfur Dioxide emissions from Draft Recovery Furnaces; Method 8B- Determination of Sulfur Oxides including Sulfur Dioxide, Sulfur Trioxide, and Sulfuric Acid Vapor or Mist from Stationary Sources using a Controlled Condensation Sampling Apparatus or; Method 320- Measurement of Vapor Phase Organic and Inorganic Emissions by Extractive Fourier Transform Infrared (FTIR) Spectroscopy.
9	Visible Emissions
10	Determination of Carbon Monoxide Emissions from Stationary Sources- Combustion Turbine only (EU001) {Note: The method shall be based on a continuous sampling train.}
CEMS	NO _x and SO ₂ Emissions for the Combustion Turbine (EU 001) in lieu of stack testing

Tests shall also be conducted in accordance with the applicable requirements specified in Rule 62.297.310, F.A.C. The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

Final Summary Report: The permittee shall prepare and submit reports for all required tests within 60 days of completion of the final test burn scenario. The report shall contain but not be limited to the following:

- Tested and monitored emissions for each of the required pollutants;
- The weight by percent of petroleum coke gasified for each test scenario and corresponding emission rate for the required pollutants;
- The amount of all fuels being burned in the combustion turbine;
- Fuel sulfur analysis of all fuel blends gasified;
- Analysis of the flux (coal ash) injected during each applicable test scenario including proximate/ultimate analysis and mercury content;
- The injection rate of the flux (coal ash) during each applicable test scenario;
- Analysis of the syngas composition being burned in each test scenario including sulfur content;
- Representative samples of coal and petroleum coke blends shall be taken and analyzed for each test scenario;
- Evaluation of the increased petroleum coke usage on the fuel handling system and associated process equipment and effects;

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

- Representative emissions data as compared to the established baseline;
- Summary of operational adjustments to the gasification system and/or sulfuric acid plant to accommodate the higher levels of petroleum coke;
- Summary of the combustion turbine performance for syngas produced from higher levels of petroleum coke;
- Summary of test scenarios submitted to the Department for each of the permitted test burn scenario conducted;
- Summary of any startup, shutdown or malfunctions experienced during testing; and
- Summary of the operating rate during testing.

[Rule 62-4.070(3), F.A.C.]

Reports: All reports shall be submitted to the Compliance Authority and the Permitting Authority.

Operational Data: The permittee shall adequately monitor the NO_x and SO₂ emissions using the NO_x and SO₂ Continuous Emission Monitors (CEMS) to collect data for NO_x and SO₂ emissions during each of the test burns. Each CEMS will be quality assured pursuant to 40 CFR 75, Appendix B. [Rule 62-4.070(3), F.A.C.]

Stack Tests: The permittee shall prepare and submit stack test reports for all testing scenarios within 45 days of completion of each test burn scenario.

Fuel Firing: To determine compliance with the syngas and fuel oil firing heat input limitation, the permittee shall maintain daily records of syngas and fuel oil consumption for the turbine and also the heating value for each fuel. [Rule 62-4.070(3), F.A.C.]

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Bobby Bull is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.



Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

PERMITTEE:

Tampa Electric Company
P.O. Box 111
Tampa, FL 33601

Authorized Representative:
Mark J. Hornick, General Manager

Polk Power Station Air Permit No. 1050233-019-AC Facility ID No. 1050233 SIC No. 4911 Permit Expires: 1 year from final permit issuance
--

PROJECT AND LOCATION

This temporary permit authorizes a trial period to gasify up to 100% petroleum coke (with a flux) by weight and fire the resulting syngas in the existing IGCC Unit 001 at Polk Power Station, which is located at 9995 State Route 37 South in Polk County, Florida. The UTM coordinates are Zone 17, 402.45 km East, and 3067.35 km North.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.) and Title 40, Part 60 of the Code of Federal Regulations. The permittee is authorized to install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department.

CONTENTS

- Section 1. General Information
- Section 2. Administrative Requirements
- Section 3. Emissions Units Specific Conditions
- Section 4. Appendices

(DRAFT)

Joe Kahn, P.E., Acting Director
Division of Air Resource Management

(Date)

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SECTION 1. GENERAL REQUIREMENTS

FACILITY AND PROJECT DESCRIPTION

The regulated emissions units at the existing Polk Power Station include the following: a 260 MW integrated coal gasification and combined cycle gas turbine (Unit 1) capable of firing synthetic gas (syngas) or No. 2 fuel oil; an auxiliary boiler that fires No. 2 fuel oil; a sulfuric acid plant; a solid fuel handling system; and two nominal 165 MW simple cycle gas turbines (Units 2 and 3) capable of firing either natural gas or No. 2 fuel oil.

ID	Emission Unit Description
001	260 MW Combined-Cycle Combustion Turbine (Unit 1)
004	Sulfuric Acid Plant
006	Solid Fuel Gasification Plant

This temporary project will allow a period of time to produce syngas from a blend of coal and petroleum coke up to 100% petroleum coke (with a flux) for firing in Unit 1. The plant will conduct emissions testing and gather operational data to determine feasibility and operational restraints.

REGULATORY CLASSIFICATION

Title III: The existing facility is identified as a potential major source of hazardous air pollutants (HAP).

Title IV: The existing facility has units subject to the acid rain provisions of the Clean Air Act.

Title V: The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The existing facility is a PSD-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The existing facility operates units subject to the New Source Performance Standards of 40 CFR 60.

RELEVANT DOCUMENTS

The following relevant documents are not a part of this permit, but helped form the basis for this permitting action: the permit application and additional information received to make it complete; the draft permit package including the Department's Technical Evaluation and Preliminary Determination; publication and comments; and the Department's Final Determination.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, operate or modify emissions units regulated by this permit shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Southwest District Office at 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926.
3. Appendices: The following Appendices are attached as part of this permit: Appendix A (Citation Format); and Appendix B (General Conditions); and Appendix C (Common Conditions).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); and Title 40, Part 60 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, F.A.C. The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Title V Permit: This temporary project authorizes the permittee to conduct testing and gather information. The information may later be used to support an air construction permit and Title V air operation permit revision authorizing the project on a permanent basis. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Emissions Units EU001, EU004, and EU006

This section of the permit addresses the following emissions unit.

ID	Emission Unit Description
001	260 MW Combined-Cycle Combustion Turbine (Unit 1)
004	Sulfuric Acid Plant
006	Solid Fuel Gasification Plant

TEMPORARY TEST BURN

1. Test Burn Authorization: The permit establishes a window of 12 months during which the permittee is authorized to begin and complete a test program to gasify a blend of coal with up to 100% petroleum coke (with a flux) and fire the syngas in the combustion turbine.
2. Solid Fuel Gasification Plant: During the test burn, the permittee is authorized to gasify a blend of coal and petroleum coke up to 100% petroleum coke (with a flux). [Application No. 1050233-019-AC]
3. Combustion Turbine: During the test burn, the permittee may fire syngas produced up to 100% petroleum coke syngas at Unit 1 (EU001). [Application No. 1050233-019-AC]
4. Testing Timeframe: Upon the first fire of a coal/petroleum coke blend of more than 40%/60%, the permittee shall have 180 calendar days to complete all test burn scenarios. Testing must be completed prior to the expiration date of this permit. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

PERFORMANCE RESTRICTIONS

5. Permitted Capacity: The maximum input of solid fuels and heat input shall not exceed the permitted capacity authorized in the permittee's Title V permit. [Rule 62-210.200(PTE), F.A.C.]
6. Authorized Fuel: The permittee is authorized to gasify and burn combinations of petroleum coke in any combination up to 100% petroleum coke during the test scenarios in the gasification system up to 100% petroleum coke of the total solid fuel input. [Applicant Request; Rule 62-210.200(PTE), F.A.C.]
7. Sulfur Content: The maximum sulfur content of the coal/petroleum coke blend shall not exceed 3.5 percent by weight. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

EMISSIONS STANDARDS

8. Emissions Standards: Emissions from the combustion turbine, sulfuric acid plant, and the gasification plant shall not exceed the permitted emissions limits in the permittee's Title V permit. Testing shall cease as soon as possible if any of the Title V emission limits are exceeded.
9. Baseline Testing: The permittee shall establish representative baseline emissions for NO_x, SO₂, H₂SO₄, and CO firing syngas from the gasification of up to 60% petroleum coke. CEMS will be used to determine the baseline emissions for NO_x and SO₂.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Emissions Units EU001, EU004, and EU006

EMISSIONS PERFORMANCE TESTING

10. Test Burn Scenarios: The permittee shall conduct testing for each of the test scenarios:

Trial	% Sulfur Content of Petroleum Coke*	% Petroleum Coke in Coal/Petroleum Coke Blend
Baseline Test- 10 Days	3.0-3.5	55-60
Trial 1- 28 Days (maximum)	3.5-6.0	65-75
Trial 2- 28 Days (maximum)	4-6	75-85**
Trial 3- 28 Days (maximum)	4-6	85-95**
Trial 4- 28 Days (maximum)	4-6	95-100**

*Coal/Petroleum coke blends will not exceed the permitted sulfur content of 3.5% by weight.

** With a flux (coal ash)

[Application No. 1050233-019-AC]

11. Emissions Tests: For each trial, the permittee shall conduct the emissions tests for each unit as required by this permit.

- a. Combustion Turbine: The permittee shall conduct tests for NO_x, SO₂, H₂SO₄, CO, and visible emissions.
- b. Sulfuric Acid Plant: The permittee shall conduct tests for SO₂, H₂SO₄, and visible emissions.
- c. The permittee shall show compliance with the solid fuel sulfur content standard of 3.5% by weight based on sampling and fuel analyses for each test scenario.

[Rule 62-297.310(7)(a)1, F.A.C.]

12. Trial Notification: The permittee shall notify the Compliance Authority in writing at least 15 days prior to Trial 1 and provide a notice before each testing trial. The notification shall include a schedule for the remaining trials. The schedule shall be updated as necessary. Thereafter, the permittee shall provide advance notice for each trial (email, fax, etc.). [Rule 62-297.310(7)(a)9, F.A.C.]

13. Test Methods: Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
6C	Determination of Sulfur Dioxide Emissions from Stationary Sources (Instrumental Analyzer Procedure)- Sulfuric Acid Plant only (EU004)
8, 8A, 8B, or 320	Any of the following methods listed may be used to determine H ₂ SO ₄ emissions from the combustion turbine or sulfuric acid plant: 8- Determination of Sulfuric Acid Mist and Sulfur Dioxide from Stationary Sources; Method 8A- Determination of Sulfuric Acid Vapor or Mist and Sulfur Dioxide emissions from Draft Recovery Furnaces; Method 8B- Determination of Sulfur Oxides including Sulfur Dioxide, Sulfur Trioxide, and Sulfuric Acid Vapor or Mist from Stationary Sources using a Controlled Condensation Sampling Apparatus or; Method 320- Measurement of Vapor Phase Organic and Inorganic Emissions by Extractive Fourier Transform Infrared (FTIR) Spectroscopy.
9	Visible Emissions
10	Determination of Carbon Monoxide Emissions from Stationary Sources- Combustion Turbine only (EU001) {Note: The method shall be based on a continuous sampling train.}

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Emissions Units EU001, EU004, and EU006

Method	Description of Method and Comments
CEMS	NO _x and SO ₂ Emissions for the Combustion Turbine (EU 001) in lieu of stack testing

Tests shall also be conducted in accordance with applicable requirements specified in Section 4, Appendix C of this permit. The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C.

[Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

RECORDS AND REPORTS

14. Operational Data: The permittee shall adequately monitor the NO_x and SO₂ emissions using the NO_x and SO₂ Continuous Emission Monitors (CEMS) to collect data for NO_x and SO₂ emissions during each of the test burn scenarios. Each CEMS will be quality assured pursuant to 40 CFR 75, Appendix B, [Rule 62-4.070(3), F.A.C.]
15. Stack Tests: The permittee shall prepare and submit stack test reports for all testing scenarios within 45 days of completion of each test burn scenario.
16. Fuel Firing: To determine compliance with the syngas and fuel oil firing heat input limitation, the permittee shall maintain daily records of syngas and fuel oil consumption for the turbine and also the heating value for each fuel. [Rule 62-4.070(3), F.A.C.]
17. Reports: All reports shall be submitted to the Compliance Authority and the Permitting Authority.
18. Final Summary Report: The permittee shall prepare and submit reports for all required tests within 60 days of completion of the final test burn scenario. The report shall contain but not limited to the following:
 - Tested and monitored emissions for each of the required pollutants;
 - The weight by percent of petroleum coke gasified for each test scenario and corresponding emission rate for the required pollutants;
 - The amount of all fuels being burned in the combustion turbine;
 - Fuel sulfur analysis of all fuel blends gasified;
 - Analysis of the flux (coal ash) injected during each applicable test scenario including proximate/ultimate analysis and mercury content;
 - The injection rate of the flux (coal ash) during each applicable test scenario;
 - Analysis of the syngas composition being burned in each test scenario including sulfur content;
 - Representative samples of coal and petroleum coke blend shall be taken and analyzed for each test scenario;
 - Evaluation of the increased petroleum coke usage on the fuel handling system and associated process equipment and effects;
 - Representative emissions data as compared to the established baseline;
 - Summary of operational adjustments to the gasification system and/or sulfuric acid plant to accommodate the higher levels of petroleum coke;
 - Summary of the combustion turbine performance for syngas produced from higher levels of petroleum coke;
 - Summary of test scenarios submitted to the Department for each of the permitted test burn scenario conducted;
 - Summary of any startup, shutdown or malfunctions experienced during testing; and
 - Summary of the operating rate during testing.

[Rule 62-4.070(3), F.A.C.]

SECTION 4. APPENDICES
CONTENTS

- Appendix A. Citation Formats
- Appendix B. General Conditions
- Appendix C. Common Conditions

SECTION 4. APPENDIX A
CITATION FORMATS

The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.

REFERENCES TO PREVIOUS PERMITTING ACTIONS

Old Permit Numbers

Example: Permit No. AC50-123456 or Air Permit No. AO50-123456

Where: "AC" identifies the permit as an Air Construction Permit
"AO" identifies the permit as an Air Operation Permit
"123456" identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: "099" represents the specific county ID number in which the project is located
"2222" represents the specific facility ID number
"001" identifies the specific permit project
"AC" identifies the permit as an air construction permit
"AF" identifies the permit as a minor federally enforceable state operation permit
"AO" identifies the permit as a minor source air operation permit
"AV" identifies the permit as a Title V Major Source Air Operation Permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: "PSD" means issued pursuant to the Prevention of Significant Deterioration of Air Quality
"FL" means that the permit was issued by the State of Florida
"317" identifies the specific permit project

RULE CITATION FORMATS

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CRF 60.7]

Means: Title 40, Part 60, Section 7

SECTION 4. APPENDIX B
GENERAL CONDITIONS

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a. Have access to and copy and records that must be kept under the conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of non-compliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida

SECTION 4. APPENDIX B
GENERAL CONDITIONS

Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology (Not Applicable);
 - b. Determination of Prevention of Significant Deterioration (Not Applicable); and
 - c. Compliance with New Source Performance Standards (Not Applicable).
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - 1) The date, exact place, and time of sampling or measurements;
 - 2) The person responsible for performing the sampling or measurements;
 - 3) The dates analyses were performed;
 - 4) The person responsible for performing the analyses;
 - 5) The analytical techniques or methods used; and
 - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SECTION 4. APPENDIX C
COMMON CONDITIONS

{Permitting Note: Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.}

EMISSIONS AND CONTROLS

1. **Plant Operation - Problems:** If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
2. **Circumvention:** The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. **Excess Emissions Allowed:** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
4. **Excess Emissions Prohibited:** Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
5. **Excess Emissions - Notification:** In case of excess emissions resulting from malfunctions, the permittee shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]
6. **VOC or OS Emissions:** No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
7. **Objectionable Odor Prohibited:** No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(203), F.A.C.]
8. **General Visible Emissions:** No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]
9. **Unconfined Particulate Emissions:** During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

TESTING REQUIREMENTS

10. **Required Number of Test Runs:** For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

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11. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]
12. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
13. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.
- a. *Required Sampling Time*. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.
 - b. *Minimum Sample Volume*. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
 - c. *Calibration of Sampling Equipment*. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.
- [Rule 62-297.310(4), F.A.C.]
14. Determination of Process Variables
- a. *Required Equipment*. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
 - b. *Accuracy of Equipment*. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
- [Rule 62-297.310(5), F.A.C.]
15. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.
16. Test Notification: The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]
17. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]
18. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the

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test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

RECORDS AND REPORTS

19. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]
20. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]