



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

PERMITTEE:

City of Tallahassee
Arvah B. Hopkins Generating Station
1125 Geddie Road (C.R. 1585)
Tallahassee, Florida 32304

ARMS Permit No. 0730003-004-AC

Facility ID No. 0730003

SIC No. 4911

Expires: April 30, 2005

Authorized Representative:

Robert E. McGarrah
Manager of Power Production

PROJECT AND LOCATION

The proposed project authorizes the temporary installation of 23 portable turbine-generator sets rated at approximately 5.5 MW (each) of output.

The project will be located at the existing Arvah B. Hopkins Generating Station, approximately 7 miles west of Tallahassee in Leon County. The UTM coordinates are Zone 16, 749.53 km E, 3371.7 km N.

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.). 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.

APPENDICES

The following Appendices are attached as part of this permit.

Appendix GC-1 Construction Permit General Conditions

Michael G. Cooke, Director
Division of Air Resources Management

FACILITY DESCRIPTION

This facility consists of two fossil fuel-fired steam generators and two fossil fuel-fired combustion turbines. The two steam generators are Phase II Acid Rain Units. Boiler Number 2 is regulated under the Florida Electrical Power Plant Siting Act. The total (nominal) combined electrical generating capacity from the facility is 356.27 megawatts electric (MW), of which, 313 MW are provided by the steam generators and 43.27 MW are provided by the combustion turbines. The fuels used at this facility are natural gas, fuel oil and on-specification used oil.

Based on the Title V permit renewal application, this facility is a major source of hazardous air pollutants (HAPs). This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

The Project consists of the temporary construction and operation of twenty three nominal 5.5 MW Solar Turbine-Generator sets. The engines will use dry low NO_x burners and are designed for peaking service. The fuel for the engines will be natural gas exclusively, which currently exists at the site.

REGULATORY CLASSIFICATION

Title V Major Source: This facility is a Title V major source of air pollution.

PSD Major Source: For this project, emissions of no pollutant are significant or subject to BACT standards, provided that the Emission Units are operated as specified in this permit.

PERMIT SCHEDULE

- 04-16-04: Date of Receipt of Permit Application
- 04-16-04: Application deemed complete
- 04-19 -04: Intent issued
- 04-24-04: Notice published in the Tallahassee Democrat

RELEVANT DOCUMENTS

The documents listed form the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Company letter dated 2-27-04 regarding Purdom Unit 8
- Application received 4-16-04
- Technical Evaluation and Preliminary Determination dated 4-19-04

GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (DEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number 850/488-0114.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications should be submitted to the FDEP Northwest District Branch Office, 2815 Remington Green Circle, Tallahassee, Florida 32308. The phone number is 850/488-3704 and the fax number is 850/448-3620.
3. Terminology: The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code.
4. General Conditions: The owner and operator are subject to, and shall operate under, the attached General Conditions listed in *Appendix GC-1* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
5. 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, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. 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 facility owner or operator 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.]
6. 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.]
7. Modifications: 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.]
8. Expiration: This air construction permit shall expire on **April 30, 2005**. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4) 62-4.080, and 62-4.210, F.A.C.]
9. Title V Permit: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is not required for temporary operation of the permitted emissions unit as specified in Specific Condition 1. A PSD construction and Title V operation permit would be required for regular operation of the permitted emissions unit beyond the time frame of Specific Condition 1. In that event, the owner or operator shall apply for a Title V operation permit at least ninety days prior to expiration of this permit, but no later than 180 days after commencing regular operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's Bureau of Air

Regulation, and a copy sent to the Department's Northwest District office. [Rules 62-4.030, 62-4.050, 62-4.220, and 62-213.420, F.A.C.]

EMISSIONS UNITS

This project will add 23 identical emission units, on a temporary basis:

| Emissions Unit No. | Emissions unit Description |
|--------------------|---|
| 008 - 030 | Solar Taurus 60 turbine-generator (TG) sets |

The City of Tallahassee seeks to provide temporary power while repairs are underway to its Purdom Plant Unit 8. The City proposes to use only pipeline natural gas as fuel.

The following Specific Conditions apply to the turbine-generator sets:

PERFORMANCE RESTRICTIONS

1. Permittee is authorized to temporarily site, tune, and operate twenty three turbine-generator sets, each with nominal generating capacity of 5.5 megawatts, at the Arvah B. Hopkins Generation Station. The semi-trailer mounted generators are designed to produce a nominal 126.5 MW of electrical power. Operation of these emission units will cease after September 30, 2004. [Applicant Request]
2. The combined hours of operation for the turbine-generator sets shall not exceed 11,500 hours. This restriction is based on the permittee's request, which formed the basis of the PSD non-applicability determination and resulted in the emission standards specified in this permit. For any request to modify this emission unit (whether a physical or operational modification, including an increase in the allowable hours of operation or heat input), the permittee shall, if required under the Department's rules, submit a request for permit revision. [Rules 62-212.400(2)(g) and 62-212.400(6)(b), F.A.C.]
3. Allowable Fuel: The turbine-generator sets shall be fired only with natural gas. The permittee shall demonstrate compliance with the limitation on operating hours by keeping the records specified in this permit. [Applicant Request, Rule 62-210.200, F.A.C. (Definition - PTE)]

EMISSION STANDARDS

4. Nitrogen Oxides (NO_x): NO_x emissions from each turbine-generator set shall not exceed 25 ppmvd@15% O₂. [Rule 62-212.400, F.A.C. (PSD avoidance)]
5. General Visible Emissions Standard:

Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]

EXCESS EMISSIONS

6. 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.]

7. 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.]

OPERATIONAL LIMITATIONS

8. Permitted Capacity: The heat input to each turbine-generator set shall not exceed 63.07 MMBtu per hour on a lower heating value basis at ISO conditions. This information is being provided to identify the capacity of each unit for the purpose of confirming that emissions testing is conducted within 90 to 100 percent of each unit's rated capacity. Regular recordkeeping is not required for heat input. The owner or operator is expected to determine heat input when emissions testing is required, to demonstrate what percentage of the rated capacity that the unit was tested. [Rules 62-4.160(2), 62-210.200(PTE), and construction permit application]

9. Hours of Operation: The total operating hours for all twenty three turbine-generator sets shall not exceed 11,500 hours combined. [Rule 62-210.200, F.A.C. (Definitions - PTE)]

EMISSIONS PERFORMANCE TESTING

10. Performance Test Methods: Compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.
 - (a) EPA Method 20, 7 or 7E – Determination of Nitrogen Oxide Emissions from Stationary Sources (I);
 - (b) EPA Method 9 - Visual Determination of the Opacity of Emissions from Stationary Sources (I);

No other test methods may be used for compliance testing unless prior DEP approval is received, in writing, from the DEP Emissions Monitoring Section Administrator.

11. Test Notification: Due to the expedited nature of this project and the requirement to test the turbine-generator sets expeditiously, the permittee shall notify the Compliance Authority at least 7 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.]

12. Initial Tests Required: Initial performance tests to demonstrate compliance with the emission standards specified in this permit shall be conducted once operation of one of the turbine-generator sets exceeds 100 hours. Initial performance tests shall be conducted for NO_x and visible emissions on a sample of 4 (four) representative (but separate) turbine-generator sets. Each turbine-generator set tested will represent ¼ (approximately six) of the turbine-generator sets. [Rule 62-297.310(7)(a)1., and 62-297.310(7)(c), F.A.C.]

13. Turbine-Generator Set Testing Capacity: Performance tests for compliance with standards specified in this permit shall be conducted with the emission unit operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit. If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. However, subsequent operation of all represented turbine-generator sets is limited to 110 percent of the value reached during the test 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 purposes of additional compliance testing to regain the permitted

capacity. Emissions performance tests shall meet all applicable requirements of Chapters 62-204 and 62-297, F.A.C. [Rule 62-297.310(2), F.A.C.]

14. 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.]

15. Applicable Test Procedures

(a) Required Sampling Time.

1. 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. [Rule 62-297.310(4)(a)1., F.A.C.]
2. 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. [Rule 62-297.310(4)(a)2., F.A.C.]

(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. [Rule 62-297.310(4)(b), F.A.C.]

(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)(d), F.A.C.]

16. 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. [Rule 62-297.310(5)(a), F.A.C.]

(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)(b), 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 as it deems necessary in order to identify the nature and quantity of pollutant emissions from the emissions unit(s) and the owner or operator shall provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

RECORDKEEPING AND REPORTING REQUIREMENTS

18. 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.]

19. Emissions Performance Test Reports: A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]
20. The permittee shall record the total operating hours of the turbine-generator sets. The information shall be recorded in a written or electronic log and shall be available for inspection from the Compliance Authority. [Rule 62-4.160(15), F.A.C.]
21. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62.210.370(2), F.A.C.]
22. NSPS, Subpart GG: The permittee shall maintain the records of fuel nitrogen and sulfur content specified in 40 CFR 60, Subpart GG [62-204.800(8)(b)39., F.A.C.]

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.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.
- G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.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.
- G.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.
- G.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.
- G.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.
- G.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.
- G.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.

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

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.

- G.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 Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.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.
- G.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.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- a) Determination of Best Available Control Technology (X)
 - b) Determination of Prevention of Significant Deterioration (X); and
 - c) Compliance with New Source Performance Standards (X).
- G.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.
- G.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.