Memorandum

Florida Department of Environmental Protection

TO:

Trina Vielhauer

THRU:

J. K. Pennington

FROM:

M. P. Halpin

DATE:

April 19, 2004

SUBJECT:

City of Tallahassee – Arvah B. Hopkins Plant Air Construction Permit – Temporary power DEP File No. 0730003-AC-04 and PA 74-03

Attached is the public notice package for a temporary power supply at the Arvah B. Hopkins plant, located west of Tallahassee. As the result of a catastrophic failure to Purdom Unit 8 on February 14th, the City of Tallahassee has requested permission to install twenty-three Solar 60 turbine-generator sets on a temporary basis at the Hopkins facility. The request entails an installation of up to 4 months, after which the subject emissions units will be removed.

Based upon the attached analysis, a PSD review and corresponding BACT Determination can be avoided by limiting the hours of operation of the temporary units to 500 each and by combusting natural gas exclusively. This simplifies and expedites the process, eliminating the need for extensive modeling to be done.

The City is anxious to receive the subject permit, in order to move forward with the Public Notice process and minimize the risk of system outages. In this regard, I have committed to do my best to provide them with a draft permit by Thursday, April 22nd.

I recommend your approval.

JKP/mph

Attachments

P.E. Certification Statement

City of Tallahassee Arvah B. Hopkins Generating Station Leon County

DEP File No.: PA 74-03 (0730003-04-AC)

Facility ID No.: 0730003

Project: Air Construction Permit – Use of temporary power due to Purdom 8 failure

I HEREBY CERTIFY that the engineering features described in the above referenced application and related additional information submittals, if any, 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, and geological features).

(Šeal)

Michael P. Halpin, P.E.

Registration Number: 31970

Date

Permitting Authority:

Florida Department of Environmental Protection Division of Air Resources Management Bureau of Air Regulation New Source Review Section Mail Station #5505 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Telephone: 850/488-0114

Fax: 850/922-6979



Department of Environmental Protection

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

Colleen M. Castille Secretary

April 19, 2004

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Robert E. McGarrah Manager – Power Production, City of Tallahassee 2602 Jackson Bluff Road Tallahassee, Florida 32304

Re: DEP File No. 0730003-004-AC; (PA 74-03)
Arvah B. Hopkins Generating Station / Leon County

Dear Mr. McGarrah:

Enclosed is one copy of the Draft Air Construction Permit relative to the City of Tallahassee's request for the use of temporary generation. The above facility is located west of Tallahassee in Leon County.

The <u>Public Notice of Intent to Issue Air Construction Permit</u> must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to J. K. Pennington, P.E., Administrator, North Permitting Section at the above letterhead address. If you have any other questions, please contact Michael P. Halpin, P.E. at 850/921-9519.

Sincerely,

Trina Vielhauer, Chief, Bureau of Air Regulation

TV/mph

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

In the Matter of an Application for Permit by:

Robert E. McGarrah, Manager – Power Production City of Tallahassee 2602 Jackson Bluff Road Tallahassee, Florida 32304 DEP File No. 0730003-004-AC (PA 74-03)

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit (copy of Draft permit attached) for the proposed project, detailed in the application specified above and for the reasons stated below.

The applicant, Robert E. McGarrah, Manager – Power Production, City of Tallahassee, applied on April 16, 2004, to the Department for an Air Construction Permit at its Arvah B. Hopkins Generating Station, located west of Tallahassee, Leon County. The request is for an air construction permit which allows the temporary installation of twenty-three Solar 60 Turbine-Generator sets firing natural gas only.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-212 and 40 CFR 52.21. The above actions are not exempt from permitting procedures. The Department has determined that an Air Construction Permit is required relative to temporary power installations.

The Department intends to issue this Air Construction Permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. and 40 CFR 52.21.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting 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 Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of <u>Public Notice of Intent to Issue Air Construction Permit</u>. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain

DEP File No. 0730003-004-AC (PA 74-03) Arvah B. Hopkins Generating Station Page 2 of 3

the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen 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 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department'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'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 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 indicate; (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 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 Department'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

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

Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section

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120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

Trina Vielhauer, Chief Bureau of Air Regulation

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CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this <u>Intent to Issue Air Construction Permit</u> (including the <u>Public Notice of Intent to Issue Air Construction Permit</u> and the Draft Air Gonstruction Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on to the person(s) listed:

Robert E. McGarrah, City of Tallahassee *
Jennette Curtis, C.P.M., City of Tallahassee
Gregg Worley, EPA
John Bunyak, NPS
Sandra Veazey, NWD
Gerry Neubauer, NWD
Ken Kosky, Golder
Hamilton S. Oven, DEP-Siting

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

(Clerk)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0730003-004-AC (PA 74-03)

City of Tallahassee
Arvah B. Hopkins Generating Station
Leon County

The Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit for Arvah B. Hopkins Generating Station, located west of Tallahassee, Leon County. The permit allows for the temporary installation of twenty-three Solar 60 Turbine-Generator sets, combusting exclusively natural gas. This is an existing facility, which currently combusts natural gas, distillate oil and residual fuel oil. A Determination of Best Available Control Technology (BACT) was not required. The applicant's mailing address is: 2602 Jackson Bluff Road, Tallahassee FL 32301.

The applicant has indicated that due to a failure of Purdom Unit 8, the City of Tallahassee may experience a shortage of generating capacity until that unit is returned to service. In order to alleviate that possibility, approval for the temporary installation of twenty-three turbine-generator sets (rated at approximately 5.5 megawatts each) is sought. Based upon the Department's review, reasonable assurance exists that no significant increases of regulated pollutants will occur by limiting the hours of operation of each turbine-generator set to 500 (i.e. 11,500 total operating hours between the 23 sets). A summary of the emission totals is included below:

Pollutant	PSD Threshold (TPY)	Emission Rate (lb/hr)	Hourly Emissions for 23 TG's (lbs)	Tons per hour for 23 TG's	TPY at 500 operating hours	PSD review Required?
NO _X	40	5.84	134.32	0.0672	33.6	NO
CO	100	7.11	163.53	0.0818	40.9	NO
SO ₂	40	0.309	7.11	0.0035	1.75	NO
PM ₁₀	15	0.042	0.97	0.0005	0.25	NO
VOC	40	0.147	3.38	0.0017	0.85	NO

An air quality impact analysis was not required. The Department will issue the Final Permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of

receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen 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 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department'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 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 indicate; (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 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 Department'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

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

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Florida Department of Environmental Protection Bureau of Air Regulation 111 S. Magnolia Drive, Suite 4 Tallahassee, Florida, 32301 Telephone: (850) 488-1344

Fax: (850) 922-6979

Florida Department of Environmental Protection Northwest District 160 Governmental Center Pensacola, Florida 32501 Telephone: (850) 595-8300

The complete project file includes the application, Draft permit, and the information submitted by the Responsible Official, exclusive of confidential records under Section 403.111, F.S. Interested persons may review specific details of this project by contacting the Administrator, North Permitting Section, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.



PERMITTEE:

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

Authorized Representative: Robert E. McGarrah Manager of Power Production ARMS Permit No. 0730003-004-AC

Facility ID No. 0730003 SIC No. 4911

Expires: April 30, 2005

PROJECT AND LOCATION

The proposed project authorizes the 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

SECTION II. ADMINISTRATIVE REQUIREMENTS

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 onspecification 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

<u>Title V Major Source</u>: This facility is a Title V major source of air pollution.

<u>PSD Major Source</u>: 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
- xx-xx-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. <u>Compliance Authority</u>: 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. <u>Terminology</u>: The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code.
- 4. <u>General Conditions</u>: 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. <u>Modifications</u>: 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. <u>Title V Permit</u>: 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

SECTION II. ADMINISTRATIVE REQUIREMENTS

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 if 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. <u>Hours of Operation</u>: 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. <u>Performance Test Methods</u>: 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. <u>Test Notification</u>: 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. <u>Initial Tests Required</u>: 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. <u>Turbine-Generator Set Testing Capacity</u>: 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

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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. <u>Calculation of Emission Rate</u>: 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.]

City of Tallahassee Arvah B. Hopkins Generating Station Leon County

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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.]

- 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.

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.

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

City of Tallahassee Arvah B. Hopkins Station

Use of Temporary Generators Related to Purdom 8 Failure

Leon County

0730003-004-AC



Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
North Permitting Section

April 19, 2004

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. GENERAL INFORMATION

1.1 APPLICANT NAME AND ADDRESS

City Of Tallahassee Arvah B. Hopkins Generating Station 1125 Geddie Road Tallahassee, Florida 32310

Authorized Representative: Robert E. McGarrah, Manager - Power Production, City of Tallahassee

1.2 REVIEWING AND PROCESS SCHEDULE

April 16, 2004

Received permit application

April 16, 2004

Application complete

2. FACILITY INFORMATION

2.1 FACILITY LOCATION

The City of Tallahassee Arvah B. Hopkins Station is located approximately 7 miles west of downtown Tallahassee and 25 miles north of the St. Marks NWR, a Class I Area. UTM coordinates for this facility are Zone 16; 749.53 km E; 3371.7 km N.





2.2 STANDARD INDUSTRIAL CLASSIFICATION CODES (SIC)

Industry Group No.	49	Electric, Gas and Sanitary Services
Industry No.	4911	Electric Services

2.3 FACILITY CATEGORY

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).

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD).

3. PROJECT DESCRIPTION

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

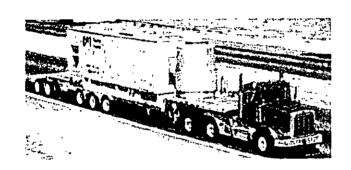
The City of Tallahassee seeks to provide temporary power while repairs are underway to its Purdom Plant Unit 8. The City proposes to use only pipeline natural gas as fuel. A review and P.T.E. analysis follows.

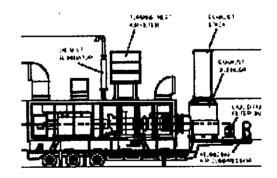
4. PROJECT DETAILS

Twenty-three trailer-mounted turbine-generator sets will be installed on a temporary basis at the Hopkins plant. Each unit is expected to have an approximate maximum heat input of 65 MMBtu/hr based upon LHV natural gas. The below images represent the approximate appearance of such units, and the table below shows emission values.



POLLUTANT	EMISSION RATE		
NO _x	25 ppmvd @ 15% O ₂	5.84 lb/hr	
СО	50 ppmvd @ 15% O ₂	7.11 lb/hr	





4.1 MAXIMUM POTENTIAL TO EMIT

The following table summarizes the maximum potential to emit (PTE) for the subject TG units:

Pollutant	PSD Threshold (TPY)	Emission Rate (lb/hr)	Hourly Emissions for 23 TG's (lbs)	Tons per hour for 23 TG's	Hours where PSD Review triggered
NO _x	40	5.84	134.32	0.0672	595.2
CO	100	7.11	163.53	0.0818	1222.5
SO ₂	40	0.309	7.11	0.0035	> 8760
PM ₁₀	15	0.042	0.97	0.0005	> 8760
VOC	40	0.147	3.38	0.0017	> 8760

In summary, the emissions of NO_X are the limiting factor for the hours by which approval may be granted without a PSD and BACT Review. Excluding other factors, up to 595 hours of operation may be granted for each of the 23 TG sets. However, in order to accommodate such things as start-ups and shutdowns, the Department will only authorize 500 hours per TG set, which provides an allowance for such emissions.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Regarding formaldehyde emissions, the subject units were constructed prior to January 14, 2003 and thus the recently promulgated MACT Standards do not apply. In any case, total emissions are estimated to be <0.5 TPY based on 500 hours of operation per TG set.

5. RULE APPLICABILITY

This facility is located in an area designated, in accordance with Rule 62-204.340, F.A.C., as attainment for all pollutants.

Rule 62-4.030, F.A.C., prohibits modification of any existing emissions unit without first receiving a permit. It further specifies that a permitted installation may only be modified in a manner that is consistent with the terms of such a permit. Rule 62-210.200, F.A.C., defines "modification" to mean generally a change that results in an increase in actual emissions of regulated air pollutants. Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C., also reiterate the requirement for construction permits. Additionally, Rule 62-210.300 requires an Air Construction permit for all new sources of air pollution unless specifically exempt. The emission unit affected by this permit shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein).

6. DEPARTMENT DETERMINATION

The Department has determined that by limiting the operation to an equivalent of 500 hours for each TG set, all PSD emission levels remain below established thresholds eliminating the need for further review. This restriction is subject to Rule 62-212.400 (2)(g), F.A.C. "Relaxations of Restrictions on Pollutant Emitting Capacity".

7. CONCLUSION

Based on the foregoing technical evaluation of the application, additional information submitted by the applicant and other available information, the Department has made a preliminary determination that the proposed project as outlined will comply with all applicable state and federal air pollution regulations.

Michael P. Halpin, P.E. Review Engineer Department of Environmental Protection, Bureau of Air Regulation 2600 Blair Stone Road Tallahassee, Florida 32399-2400

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

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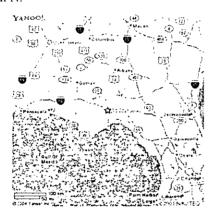
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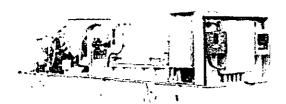
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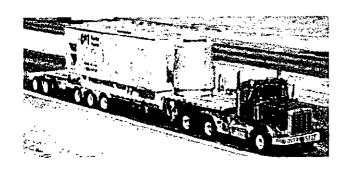
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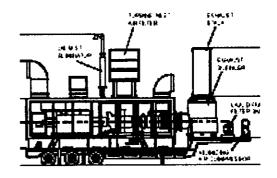
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Michael P. Halpin, P.E. Review Engineer Department of Environmental Protection, Bureau of Air Regulation 2600 Blair Stone Road Tallahassee, Florida 32399-2400

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
■ Complete Items 1, 2, and 3. Also complete Item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mallplece, or on the front if space permits.	A signature Agent Addressee B received by (Printed Name) D Date of Delivery B is delivery address different from Atom
1. Article Addressed to: (Mr. *Robert E. *McGarrah (Manager? = Power Production, City) of (Tallahassee 2602 Clackson Bluff Road	# If YES, enter delivery address belows □ No
Tallarassee Florida 32304	3. Service Type EX Certified Mall
2. Article Number (Transfer from service label)	281110110001110284991
PS Form 3811, August 2001 Domestic Ret	um Receipt 102595-02-M-1540

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