



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

August 4, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Mike Siefert
Vero Beach Municipal Power Plant
P. O. Box 1389
Vero Beach, Florida 32961

Dear Mr. Siefert:

RE: Construction Permit Issuance/Amendment
AC 31-253502/PSD-FL-152B
City of Vero Beach Municipal Power Plant Unit 5

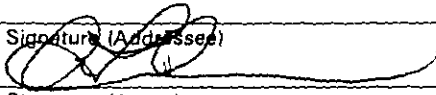
The Department has reviewed Mr. Peter C. Cunningham's letter with attachments requesting changes to previously issued state/federal construction permits, Nos. AC 31-184928/PSD-FL-152. The majority of the issues are related to the installation of "dry low-NO_x burners" to control NO_x emissions and many of these issues were addressed in a March 27, 1995 amendment letter (AC 31-184928A/PSD-FL-152A). However, since some of the changes are a modification to what was originally issued (i.e., emissions related and federally enforceable), issuance of a new state construction permit is deemed necessary, while amending the federal permit, and includes a public notice requirement. Based on the above, the following is the Department's response (R) to the issues contained in "Attachment A" and will be in the order that they are addressed (changes will be bolded). In addition, Specific Condition No. 1 will be revised since the duct modules for future potential SCR installation were installed during construction.

1. Specific Condition No. 1.: Since the ducts for future potential SCR installation were installed during construction, then the condition will be revised as follows:

From: During the first year of commercial operation of Unit 5, the maximum allowable emissions from Unit 5 shall not exceed the emission limitations listed in Table 1. In addition, when constructing the combined cycle generating unit, the permittee shall install duct modules suitable for later installation of a selective catalytic reduction (SCR) system.

To: The permittee shall maintain the construction required duct modules for the potential installation of a selective catalytic reduction (SCR) system.

Is your RETURN ADDRESS completed on the reverse side?

SENDER: • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece, or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to: Mike Siefert Vero Bch Municipal Power Plant PO Box 1389 Vero Beach, FL 32961		4a. Article Number 2 392 979 017	
5. Signature (Addressee) 		4b. Service Type <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express-Mail <input type="checkbox"/> Return Receipt for Merchandise	
6. Signature (Agent) 8-7-95-ue		7. Date of Delivery 8-7-95	
		8. Addressee's Address (Only if requested and fee is paid)	

Thank you for using Return Receipt Service.

2 392 979 017



Receipt for Certified Mail
 No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

PS Form 3800, March 1993

To Mike Siefert	
Street and No. Vero Bch Mun PP	
P.O., State and ZIP Code Vero Bch FL	
Postage	\$
Copying Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date AL 31-253502 8-4-95 PSD-FL-152B	

Mr. Mike Siefert
Construction Permit: AC 31-253502/PSD-FL-152B
Vero Beach Municipal Power Plant: Unit 5
August 4, 1995
Page 2 of 5

2. Specific Condition No. 2.: Request was to revise the condition to delete any references of SCR and reflect a new Table A to replace Table 5.

R: There will be no change made because the issue regarding SCR was construction related and addressed in the amendment letter of March 27, 1995; and, the table "ID" will not be changed since the ID was also established in the amendment letter.

3. Specific Condition No. 7.: Request was to revise the condition to increase the allowable fuel oil consumption to 3,482 gals/hr, to increase the annual consumption rate of fuel oil to 10.0 million gallons, to limit the maximum annual capacity factor while firing fuel oil to 33%, and increase the allowable heat input while on fuel oil to 455 MMBtu/hr.

R: Based on the installation of the "dry low-NO_x burners" and their operation, the resultant changes and requests are acceptable to the Department and the following changes will be made. In addition, the requested annual 10.0 million gallons of fuel oil usage was approved during the original permitting exercise with a stipulation that dry low-NO_x burners be installed.

From: The permitted materials and utilization rates for the combined cycle gas turbine shall not exceed the values as follows:

- Maximum No. 2 fuel oil consumption shall not exceed 3,390 gals/hr.
- Maximum No. 2 fuel oil consumption shall not exceed 7,500,000 gals/yr.
- Maximum annual firing using No. 2 fuel oil shall not exceed 25% of the annual capacity factor.
- Maximum annual simple cycle operation shall not exceed 25% of the annual capacity factor.
- Maximum sulfur (S) content in the fuel oil shall not exceed 0.25 percent, by weight.
- Maximum heat input shall not exceed 414 MMBtu/hr (gas) or 438 MMBtu/hr (oil), based on 101.3 kilopascals pressure, 288° Kelvin and 60% relative humidity (ISO standard day conditions), and lower heating value of the fuel fired.

Mr. Mike Siefert
Construction Permit: AC 31-253502/PSD-FL-152B
Vero Beach Municipal Power Plant: Unit 5
August 4, 1995
Page 3 of 5

To: The permitted materials and utilization rates for the combined cycle gas turbine shall not exceed the values as follows:

- Maximum No. 2 fuel oil consumption shall not exceed 3,482 gals/hr.
- Maximum annual No. 2 fuel oil consumption shall not exceed 10,000,000 gals/yr.
- Maximum annual firing using No. 2 fuel oil shall not exceed 25% of the annual capacity factor.
- Maximum annual simple cycle operation shall not exceed 25% of the annual capacity factor.
- Maximum sulfur (S) content in the fuel oil shall not exceed 0.25 percent, by weight.
- Maximum heat input shall not exceed 414 MMBtu/hr (gas) or 455 MMBtu/hr (oil), based on 101.3 kilopascals pressure, 288° Kelvin and 60% relative humidity (ISO standard day conditions), and lower heating value of the fuel fired.

4. Specific Condition No. 10.: Request was to make changes that were handled in the March 27, 1995 amendment letter.

R: No change is necessary.

5. Specific Condition No. 13.: Request was to make changes that were handled in the March 27, 1995 amendment letter.

R. No change is necessary.

6. Specific Condition No. 14.: Request was to make changes that were handled in the March 27, 1995 amendment letter and to point out the misspelling of "impracticable".

R. The Department will make the spelling change from "impractable" to "impracticable" in the text.

7. Specific Condition No. 16.: Request was to change the citing of "Chapter 17-2" to "Chapter 62-297" contained in No. 16.b. This rule renumbering was recognized in the March 27, 1995 amendment letter.

R.: No change is necessary.

Mr. Mike Siefert
Construction Permit: AC 31-253502/PSD-FL-152B
Vero Beach Municipal Power Plant: Unit 5
August 4, 1995
Page 4 of 5

8. Specific Condition No. 17.: Request was to delete the requirement to record the nitrogen content in the fuel oil.

R.: The request is denied as this is a specific requirement pursuant to 40 CFR 60.334.

9. Specific Condition No. 19.: Request was to make changes that were handled in the March 27, 1995 amendment letter.

R.: No change is necessary.

10. Specific Condition No. 22.: Request was to delete the requirement to report the nitrogen content in the fuel oil in the AOR.

R.: The request is denied as this parameter is a requirement to be measured daily pursuant to 40 CFR 60.334. Since nitrogen has to be measured daily, it is not impractical to ask that it be reported once a year.

11. The request is to revise Table 5 to reflect the fuel firing capacity factors (i.e., 67% for gas-firing and 33% for fuel oil-firing) and the SO₂ limitation of 178.2 TPY, which reflects the annual fuel oil consumption.

R. The requests are acceptable and the changes will be made. In addition, the impact of the requested SO₂ limitation was previously evaluated by modeling at the time of the original permitting activity and is acceptable.

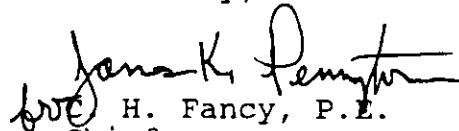
12. Attachments to be Incorporated:

- o Mr. Howard L. Rhodes's letter amendment dated March 27, 1995.
- o Mr. Peter C. Cunningham's letter with Attachments dated and received May 16, 1995.

Mr. Mike Siefert
Construction Permit: AC 31-253502/PSD-FL-152B
Vero Beach Municipal Power Plant: Unit 5
August 4, 1995
Page 5 of 5

The proposed new state construction permit/amended federal construction permit (Nos. AC 31-253502/PSD-FL-152B) and the Notice of Intent (Public Notice) are enclosed. If there are any questions, please call Bruce Mitchell at (904)488-1344 or write to me at the above address.

Sincerely,



H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/BM/m

Attachments

cc: C. Collins, CD
J. Harper, EPA
J. Bunyak, NPS
D. Beason, Esq., DEP
P. Cunningham, Esq., HGS&S

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CERTIFIED MAIL

In the Matter of an
Request for Permit by:

DEP File No. AC 31-253502
PSD-FL-152B

Vero Beach Municipal Power Plant
Post Office Box 1389
Vero Beach, FL 32961

Indian River County

INTENT TO ISSUE

The Department of Environmental Protection (Department) gives notice of its intent to issue a permit (copy enclosed) for the proposed project as detailed in the request specified above, for the reasons stated in the enclosed permit. A revision to the original Best Available Control Technology determination issued on June 28, 1991, is not required.

The applicant, Vero Beach Municipal Power Plant, applied on May 16, 1995, to the Department of Environmental Protection for a modification to the existing Unit 5, which is a 60 MW combined cycle gas turbine. The modification is associated with the installation of dry low-NO_x burners for NO_x emissions control and the resultant increases in fuel oil consumption, heat input while on fuel oil, and emissions of SO₂. For the SO₂ emissions impact, the proposed level was evaluated by modeling during the original permitting activity and is acceptable. The facility is located in the Vero Beach, Indian River County, Florida.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Chapters 62-212 and 62-4. The proposal is not exempt from permitting procedures. The Department has determined that a construction permit is required for the proposed work.

Pursuant to Section 403.815, F.S., and Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "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. Where there is more than one newspaper of general circulation in the county, the newspaper used must be the one with significant circulation in the area that may be affected by the permitting action. 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, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 (904-488-1344), within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of their receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

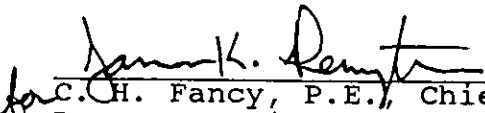
The Petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the request have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION


for C.H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399
904-488-1344

c: C. Collins, CD
J. Bunyak, NPS
P. Cunningham, Esq., HGS&S

J. Harper, EPA
D. Beason, Esq., DEP

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE and all copies were mailed by certified mail before the close of business on 8-4-95 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


Karin Joken Clerk 8-4-95 Date

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF INTENT TO ISSUE PERMIT

AC 31-253502
PSD-FL-152B

The Department of Environmental Protection (Department) gives notice of its intent to issue a permit to Vero Beach Municipal Power Plant, Post Office Box 1389, Vero Beach, FL 32961, for a modification to Unit 5, which is an existing 60 MW combined cycle gas turbine. The existing facility is located Indian River County, Florida. A determination of Best Available Control Technology was required in the original permitting activity, issued June 28, 1991, and will not be revised. The modification is associated with the installation of dry low-NO_x burners for NO_x emissions control and the resultant increases in fuel oil consumption, heat input while on fuel oil, and emissions of SO₂. Since the requested changes are a modification, (i.e., emission related and federally enforceable), issuance of a new state construction permit/amended federal construction permit is deemed necessary. For the SO₂ emissions impact, the proposed level was evaluated by modeling during the original permitting activity and is acceptable. The Department is issuing this Intent to Issue for the reasons stated above and in the transmittal letter.

Any person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;

- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, 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 decision of the Department with regard to the request have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The request 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:

Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Department of Environmental Protection
Central District
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767

Any person may send written comments on the proposed action to Mr. Bruce Mitchell at the Department's Tallahassee address. All comments received within 14 days of the publication of this notice will be considered in the Department's final determination.



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

PERMITTEE:
**Vero Beach Municipal Power
Plant**
Post Office Box 1389
Vero Beach, Florida 32961

APIS No: 300RL310005
Permit Number: AC31-253502/PSD-FL-152B
Expiration Date: March 1, 1996
County: Indian River
Latitude/Longitude: 27°37'59"N
80°22'41"W
Project: Modification of Power Plant
Unit 5: 60 MW Combined Cycle
Gas Turbine

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, 62-212, 62-275, 62-296, and 62-297, Florida Administrative Code (F.A.C.). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department of Environmental Protection (Department) and specifically described as follows:

For authorization to increase the allowable sulfur dioxide (SO₂) emissions from the existing 60 MW combined cycle gas turbine located at the Vero Beach Municipal Power Plant in Vero Beach, Indian River County, Florida. The increase is due to the installation of dry low-NO_x burners and an increase in the potential fuel oil consumption rate. The UTM coordinates are 561.385 km East and 3056.538 km North.

The Specific Conditions contained in air construction permits, Nos. AC 31-184928/PSD-FL-152, and an associated letter amendment to construction permits, Nos. AC 31-184928A/PSD-FL-152A, are superseded by this permit's Specific Conditions for only the changes that are bolded. The original BACT determination does not require revision.

Attachments are listed below:

1. Construction permits, Nos. AC 31-184928/PSD-FL-152, and revised BACT issued June 28, 1991.
2. Mr. Howard L. Rhodes's letter amendment dated March 27, 1995.
3. Mr. Peter C. Cunningham's letter with Attachments dated and received May 16, 1995.

PERMITTEE:
Vero Beach Municipal Power
Plant

Permit Number: AC31-253502/PSD-FL-152B
Expiration Date: March 1, 1996

GENERAL CONDITIONS:

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, F.S. 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), F.S., the issuance of this permit does not convey any 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 of 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 F.S. 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

PERMITTEE:
Vero Beach Municipal Power
Plant

Permit Number: AC31-253502/PSD-FL-152B
Expiration Date: March 1, 1996

GENERAL CONDITIONS:

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 any 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 F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. 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 F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by F.S. or Department rules.

PERMITTEE:
Vero Beach Municipal Power
Plant

Permit Number: AC31-253502/PSD-FL-152B
Expiration Date: March 1, 1996

GENERAL CONDITIONS:

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-30.300, 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:

- (X) Determination of Best Available Control Technology (BACT): AC 31-184928
- (X) Determination of Prevention of Significant Deterioration (PSD): PSD-FL-152
- (X) Compliance with New Source Performance Standards (NSPS): 40 CFR 60, Subpart GG

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 for 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:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the dates analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and,
 - the results of such analyses.

PERMITTEE:
Vero Beach Municipal Power
Plant

Permit Number: AC31-253502/PSD-FL-152B
Expiration Date: March 1, 1996

SPECIFIC CONDITIONS:

1. The permittee shall maintain the construction required duct modules for the potential installation of a selective catalytic reduction (SCR) system.
2. The Department acknowledges that the permittee installed dry low-NO_x combustors. Based on the compliance test results, the maximum allowable emissions from Unit 5 shall not exceed the emission limitations listed in the new Table 5, which replaces Tables 1 thru 4. In the event a SCR system is required to be installed, the emission limitations shall be established at the time of installation by stack test results and through a revised determination of BACT. If a SCR system is installed, it may be bypassed during simple cycle operation.
3. Unless the Department has determined other concentrations are required to protect public health and safety, predicted ambient reference concentrations (ARC) of the following pollutants shall not be exceeded:

Pollutant	Ambient Reference Concentrations		
	8 hrs	24 hrs	Annual
Beryllium	0.02	0.005	0.0004
Lead	1.5	0.36	0.09
Inorganic mercury compounds, all forms of vapor, as Hg	--	--	0.3

4. Visible emissions shall not exceed 10% opacity.
5. This source/emissions unit is allowed to operate continuously (8760 hours per year).
6. This source/emissions unit is allowed to use either natural gas or No. 2 fuel oil.
7. The permitted materials and utilization rates for the combined cycle gas turbine shall not exceed the values as follows:
 - Maximum No. 2 fuel oil consumption shall not exceed 3,482 gals/hr.
 - Maximum annual No. 2 fuel oil consumption shall not exceed 7,500,000 gals/yr.
 - Maximum annual firing using No. 2 fuel oil shall not exceed 25% of the annual capacity factor.
 - Maximum annual simple cycle operation shall not exceed 25% of the annual capacity factor.

PERMITTEE:
Vero Beach Municipal Power
Plant

Permit Number: AC31-253502/PSD-FL-152B
Expiration Date: March 1, 1996

SPECIFIC CONDITIONS:

- Maximum sulfur (S) content in the fuel oil shall not exceed 0.25 percent, by weight.
- Maximum heat input shall not exceed 414 MMBtu/hr (gas) or 455 MMBtu/hr (oil), based on 101.3 kilopascals pressure, 288° Kelvin and 60% relative humidity (ISO standard day conditions), and lower heating value of the fuel fired.

8. Any change in the method of operation, equipment or operating hours shall be submitted to the Department's Bureau of Air Regulation and Central District offices.

9. Any other operating parameters established during compliance testing and/or inspection that will ensure the proper operation of this facility shall be included in the operating permit.

10. Initial (I) compliance tests shall be performed on each CT using both fuels. In accordance with Specific Condition No. 14, annual (A) compliance tests shall be performed on each CT with the fuel(s) used for more than 400 hours in the preceding 12-month period. Tests shall be conducted using EPA referenced methods in accordance with the November 2, 1989 version of 40 CFR 60, Appendix A, and 40 CFR 61, Appendix B; and, the solid waste regulations SW 846:

- a. 5 or 17 for PM (I, A, for oil only)
- b. 10 for CO (I)
- c. 9 for VE (I, A)
- d. 20 for NO_x (I, A)
- e. Trace elements of Beryllium (Be) shall be tested (I, for oil only) using EMTIC Interim Test Method. As an alternative, Method 104 may be used; or Be may be determined from fuel sample analysis using either Method 7090 or 7091, and sample extraction using Method 3040 as described in the EPA solid waste regulations SW 846.
- f. Mercury (Hg) shall be tested using EPA Method 101 (40 CFR 61, Appendix B) (I, for oil only) or fuel sampling analysis using methods acceptable to the Department.
- g. 25A for VOC (I; no VOC stack test is required provided that the CO stack test demonstrates compliance with the allowable CO limit).

Note: Other DEP approved methods may be used for compliance testing after prior Departmental approval is received in writing.

PERMITTEE:
Vero Beach Municipal Power
Plant

Permit Number: AC31-253502/PSD-FL-152B
Expiration Date: March 1, 1996

SPECIFIC CONDITIONS:

11. Method 5 must be used to determine the initial compliance status of this unit. Thereafter, the opacity emissions test may be used unless 10% opacity is exceeded.

12. Compliance with the SO₂ emission limit can also be determined by calculations based on fuel analysis using ASTM D2880-71 for the sulfur content of liquid fuels and ASTM D1072-80, D3031-81, D4084-82 or D3246-81 for sulfur content of gaseous fuels.

13. During performance tests, to determine compliance with the NSPS NO_x standard, measured NO_x emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following equation:

$$NO_x = (NO_{xO}) \times (P_r/P_o)^{0.5} \times e^{19(H_o - 0.00633)} \times (288^\circ K/T_a)^{1.53}$$

where:

NO_x = emission rate of NO_x at 15 percent O₂ and ISO standard ambient conditions, volume percent.

NO_{xO} = observed/measured NO_x concentration at 15 percent O₂, ppmv.

P_r = reference combustor inlet absolute pressure at 101.3 kilopascals (1 atmosphere) ambient pressure, mm Hg.

P_o = observed/measured combustor inlet absolute pressure at test ambient pressure, mm Hg.

H_o = observed/specific humidity of ambient air, g H₂O/g air, at test.

e = transcendental constant, 2.718.

T_a = ambient temperature, °K, at test.

14. Test results will be the average of 3 valid runs. The Central District will be notified at least 15 days in writing in advance of any subsequent compliance test. Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 95-100 percent of the maximum heat input rate allowed by permit, corrected for the average ambient air temperature during the test, with 100 percent capacity represented by a curve depicting heat input v. ambient temperature. If it is **impracticable** to test at permitted capacity, the source/emissions unit may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the heat input v. ambient temperature curve downward by an increment equal to

PERMITTEE:
Vero Beach Municipal Power
Plant

Permit Number: AC31-253502/PSD-FL-152B
Expiration Date: March 1, 1996

SPECIFIC CONDITIONS:

the difference between the maximum permitted heat input (corrected for ambient temperature) and 105 percent of the value reached during the last compliance 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 purpose of conducting an additional compliance test to regain the permitted capacity. Compliance test results shall be submitted to the Department's Central District office no later than 45 days after completion.

15. After the installation of low NO_x combustors or SCR, the permittee shall determine compliance with the NO_x standards in accordance with Specific Conditions Nos. 10 and 13.

16. A continuous monitoring system shall be installed to monitor and record the fuel consumption. Continuous monitoring shall also be installed, operated, and maintained in accordance with 40 CFR 60, Appendix F, or 40 CFR 75, if adopted and applicable, for the combined cycle unit to monitor nitrogen oxides emissions.

- a. Each continuous emission monitoring system (CEMS) shall meet performance specifications of 40 CFR 60, Appendix B, or 40 CFR 75, if adopted and applicable.
- b. CEMS data shall be recorded and reported in accordance with Chapter 17-2 (now Chapter 62-297), F.A.C., and 40 CFR 60. The record shall include periods of startup, shutdown and malfunction.
- c. A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation or any other preventable upset conditions or preventable equipment breakdown shall not be considered malfunctions.
- d. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation and operation of all CEMS.
- e. For purposes of reports required under this permit, excess emissions are defined as any one (1) hour period during which the average emissions of all readings collected during a continuous 60-minute period exceed the applicable emission limits in Table 5 referenced in Specific Condition No. 2. Quarterly excess emissions reports, in accordance with the July 1, 1992 edition of 40 CFR 60.7 and 40 CFR 60.13, shall be submitted to the Department's Central District office. The continuous

PERMITTEE:
Vero Beach Municipal Power
Plant

Permit Number: AC31-253502/PSD-FL-152B
Expiration Date: March 1, 1996

SPECIFIC CONDITIONS:

emission monitor system (CEM) shall be in compliance with 40 CFR 60, Appendix F - Quality Assurance Procedure, and 40 CFR 60, Appendix B - Performance Specification 2 or the applicable provisions of 40 CFR 75, if adopted. EPA Method 7E or equivalent (requires Department approval in writing) shall be used for the Determination of Nitrogen Oxide Emissions.

17. Sulfur, nitrogen content and lower heating value of the fuel oil being fired in the gas turbine shall be recorded daily. The records of fuel oil usage will be kept by the company for a five-year period and available for any regulatory agency's inspection.

18. This source/emissions unit shall comply with all applicable provisions of Chapter 403, F.S., and Chapters 17-2 and 17-4 (now Chapters 62-210 thru 62-297 and 62-4, respectively), F.A.C.

19. This source/emissions unit shall comply with all requirements of 40 CFR 60, Subpart GG, and F.A.C. Rule 62-296.800, standards of performance for Stationary Gas Turbines. Excess emissions shall be reported as measured by the continuous emission monitoring system pursuant to 40 CFR 60.334(c).

20. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements and regulations (F.A.C. Rule 62-2.210(1)).

21. This source/emissions unit shall comply with F.A.C. Rule 62-2.700 (now Chapters 62-296 and 62-297), Stationary Point Source Emission Test Procedure.

22. Pursuant to Rule 62-210.370(3), F.A.C., Air Operating Report (AOR), the permittee is required to submit an AOR on the actual operating rate and emissions from the facility for the previous year's operation. The AOR shall include, but is not limited to, the following: sulfur and nitrogen contents, by weight, and lower heating value of the fuel oil being fired, annual fuel consumption (fuel oil and natural gas), hours of operation per fuel usage (singly fired and co-fired), actual air pollutant emissions, etc. The AOR shall be sent to the Department's Central District office by March 1 of each year and represents the previous calendar year's operation.

23. The Specific Conditions contained in air construction permits, Nos. AC 31-184928/PSD-FL-152, and associated letter amendment to construction permits, Nos. AC 31-184928A/PSD-FL-152A, are superceded by this permit's Specific Conditions for only the changes that are bolded.

PERMITTEE:
Vero Beach Municipal Power
Plant

Permit Number: AC31-253502/PSD-FL-152B
Expiration Date: March 1, 1996

SPECIFIC CONDITIONS:

24. 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. (Rule 62-4.090, F.A.C.)

25. If Florida is granted interim or full approval for the Title V operation permit program prior to December 1, 1995, this condition is negated. An application for an operation permit must be submitted to the Department's Central District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the permittee shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit. (Rules 62-4.055 and 62-4.220, F.A.C.)

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**

Howard L. Rhodes, Director
Division of Air Resources
Management

CITY OF VERO BEACH MUNICIPAL POWER PLANT UNIT 5 (AC31-253502/PSD-FL-152B)

Table 5 (New: replaces Tables 1 thru 4)
ALLOWABLE EMISSION LIMITS

Pollutant	Standards		Gas Turbine and HRSG Tons Per Year (a)(b)	Basis
	Gas Firing	No. 2 Fuel Oil Firing		
NO _x (c)	25 ppmvd at 15% oxygen on a dry basis	42 ppmvd at 15% oxygen on a dry basis	243.7	BACT
SO ₂	Natural gas as fuel	0.25% S by weight	178.2	BACT
PM	0.006 lbs/MMBtu	0.025 lbs/MMBtu	20.1	BACT
VOC	0.0112 lbs/MMBtu	0.0113 lbs/MMBtu	20.7	BACT
CO	0.0224 lbs/MMBtu	0.0226 lbs/MMBtu	41.3	BACT
Mercury (Hg)		3.0 x 10 ⁻⁶ lbs/MMBtu	0.0015	Est. by Appl.
Lead (Pb)		2.8 x 10 ⁻⁵ lbs/MMBtu	0.014	Est. by Appl.
Beryllium (Be)		2.5 x 10 ⁻⁶ lbs/MMBtu	0.0012	BACT
Sulfuric Acid Mist	Natural gas as fuel	8.1 x 10 ⁻³ lbs/MMBtu	3.9	BACT

(a) Tons per year figures based on 67 percent capacity factor for natural gas firing; 33 percent capacity factor for No. 2 fuel oil firing. Maximum sulfur content of the No. 2 fuel oil shall not exceed 0.25%, by weight.

(b) Based on following heat input rates while firing: Natural Gas - 414 MMBtu/hr; and, Fuel Oil - 455 MMBtu/hr.

(c) The following equation shall be used to determine the emission limit applicable during co-firing of natural gas and No. 2 fuel oil:

$$\text{Emission limit} = \frac{(A1 \times A2) + (B1 \times B2)}{A2 + B2}$$

Where:

A1 = Emission Stand for Natural Gas Firing

A2 = Heat Input of Natural Gas

B1 = Emission Standard for No. 2 Fuel Oil Firing

B2 = Heat Input of No. 2 Fuel Oil