

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit

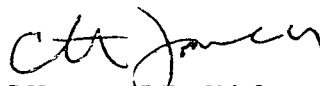
Mr. Larry Thompson
Utility Board of the City of Key West
1001 James Street
Key West, Florida 33041-6100

DEP File No. 0870003-003-AC
Monroe County

Enclosed is the FINAL Permit Number 0870003-003-AC for the construction of two refurbished 19.77 megawatt Combustion Turbine Units 2 and 3 at the Stock Island Power Plant, 6900 Front Street, Stock Island, Monroe County. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.



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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 1-8-98 to the person(s) listed:

Mr. Larry Thompson, Utility Board of Key West *
Mr. Ivan Clark, R.W. Beck
Mr. David Knowles, DEP

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Keri Baker
(Clerk)

1-8-98
(Date)

FINAL DETERMINATION

Utility Board of Key West

Permit No. 0870003-003-AC

Stock Island Power Plant

An Intent to Issue an air construction permit for two refurbished Combustion Turbines Units 2 and 3 at Utility Board of Key West, Stock Island Power Plant, Monroe County, was distributed on December 10, 1997. The Notice of Intent was published in the Key West Citizen on December 15, 1997. Copies of the draft construction permit were available for public inspection at the Department offices in Ft. Myers and Tallahassee.

No comments were submitted by the National Park Service, the U.S. Environmental Protection Agency or the public. No comments were received from the applicant other than inquiries regarding the earliest possible issue date of the final permit.

The final action of the Department is to issue the permit as proposed.



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

PERMITTEE:

Utility Board of the City of Key West
1001 James Street
Key West, Florida 33041-6100

Authorized Representative:
Mr. Larry Thompson
General Manager

F.I.D. No.	0870003
SIC No.	4911
Project:	Combustion Turbines 2 and 3
Permit No.	0870003-003-AC
Expires:	September 30, 1999

PROJECT AND LOCATION:

Permit for the construction of two refurbished 19.77 megawatt combustion turbine generating units at the Stock Island Power Plant, 6900 Front Street, Stock Island, Monroe County. UTM coordinates are Zone 17, 425.65 km E; 2716.67 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to modify the facility 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 of Environmental Protection (Department).

Attached appendices are made a part of this permit:

Appendix GC Construction Permit General Conditions
Appendix CSC Emission Unit(s) Common Specific Conditions

Howard L. Rhodes, Director
Division of Air Resources
Management

AIR CONSTRUCTION PERMIT 0870003-003-AC

SECTION II. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION A. FACILITY DESCRIPTION

The Utility Board of the City of Key West (Utility Board) Stock Island Power Plant presently consists of one 37.0 MW steam electric generating unit (Emission I.D. No. 001), two 8.8 MW medium speed diesel units (Emission I.D. Nos. 005 and 006), three 2.0 MW high speed diesel units (Emission I.D. Nos. 002, 003 and 004), and one 23.5 MW simple-cycle combustion turbine unit (Emission I.D. No. 007). This permit is to construct two refurbished 19.77 MW combustion turbine units (Emission I.D. Nos. 008 and 009). As part of this permitting action the Utility Board is also committing to the retirement of the 37 MW steam unit (Emission I.D. No. 001) and to the modification (stack height increase) of the high speed diesel units' stacks.

EMISSIONS UNIT NO.	SYSTEM	EMISSIONS UNITS DESCRIPTION
001#	Power	37.0 MW Steam Boiler (to be retired)
002#	Power	2.0 MW Diesel Electric Generator
003#	Power	2.0 MW Diesel Electric Generator
004#	Power	2.0 MW Diesel Electric Generator
008*	Power	19.77 MW Simple Cycle Combustion Turbine
009*	Power	19.77 MW Simple Cycle Combustion Turbine

- # Existing Emission units
- * New Emission units

SUBSECTION B. REGULATORY CLASSIFICATION

The Stock Island Power Plant is classified as a Major Source of Air Pollution or Title V Source because it emits or has the potential to emit at least 100 tons per year of sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO) and particulates (PM). It is also a Major Facility with respect to preconstruction review because it emits or has the potential to emit at least 250 tons per year of SO₂, NO_x, CO and PM.

SUBSECTION C. PERMIT SCHEDULE:

- 09/11/97: Date of Receipt of Application
- 10/10/97: Department's Preliminary Incompleteness Letter
- 11/07/97: Company's Response to Department's Letter
- 11/10/97: Application Deemed Complete
- 12/10/97: Distributed Intent to Issue
- 12/15/97: Notice Published in Key West Citizen

SUBSECTION D. 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.

- Application received 09/11/97.
- Department's letter dated 10/10/97.
- Company letter and addendum 1 dated 09/30/97.
- Company letter and addendum 2 dated 11/07/97.

AIR CONSTRUCTION PERMIT 0870003-003-AC

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

SUBSECTION A. ADMINISTRATIVE

- A.1 Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Department of Environmental Protection, South District Office located at 2295 Victoria Avenue, Suite 364, Ft. Myers, Florida 33901, and phone number (941) 332-6975. All applications for permits to construct or modify an emission unit(s) subject to the Prevention of Significant Deterioration (PSD) should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP) located at 2600 Blairstone Road, Tallahassee, Florida 32399-2400 and phone number (850)488-1344.
- A.2 General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
- A.3 Emission Unit(s) Common Specific Conditions: The owner and operator is subject to and shall operate under the attached Emission Unit(s) Common Specific Conditions listed in Appendix CSC of this permit. The Emission Unit(s) Common Specific Conditions are binding and enforceable pursuant to Chapters 62-204 through 62-297 of the Florida Administrative Code.
- A.4 Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
- A.5 Forms and Application Procedures: 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. [Rule 62-210.900, F.A.C.]
- A.6 Expiration: This air construction permit shall expire on **September 30, 1999**. [Rule 62-210.300(1), F.A.C.]. The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. However, the permittee shall promptly notify the permitting authority office of any delays in completion of the project which would affect the startup day by more than 90 days. [Rule 62-4.090, F.A.C.]
- A.7 Applicable Regulations: The facility is subject to the following regulations: Florida Administrative Code Chapters 62-4; 62-103; 62-204; 62-210; 62-212, 62-213; 62-220; 62-296, and 62-297. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]

AIR CONSTRUCTION PERMIT 0870003-003-AC

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION A. SPECIFIC CONDITIONS

The following Specific Conditions apply to the following emission units:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
008	Power	19.77 MW Simple Cycle Combustion Turbine
009	Power	19.77 MW Simple Cycle Combustion Turbine

EMISSION LIMITATIONS

Note: The emission limits of lb/hr apply to each unit, while the TPY limit apply to each unit individually and both units collectively.

A.1 Oxides of Nitrogen. NO_x emissions shall not exceed any of the following limits:

a. Nitrogen oxides emissions, expressed as NO_x, shall not exceed:

$$STD = 0.0075(14.4)/Y + F$$

where:

STD = allowable NO_x emissions (percent by volume at 15 percent oxygen and on a dry basis).

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

F = NO_x emission allowance for fuel-bound nitrogen as defined in 40 CFR 60.332(a)(3). F shall be zero (0) for this facility as indicated by the applicant.

b. 75 ppmvd, based on a 1-hour average at 15% O₂ and ISO standard ambient conditions;

c. 93.8 lbs/hour, based on a 1-hour average at 15% O₂ and an ambient temperature of 40°F.

d. 172 TPY, based on an average hourly concentration of 86 lbs/hour at 85°F ambient temperature and 4,000 hours per year of operation. [Rule 62-212.300, F.A.C., 40 CFR 60.332]

A.2 Sulfur Dioxide, SO₂ emissions shall be controlled by limiting the sulfur content of the fuel to a maximum of 0.05 percent by weight. [Rule 62-210.2000, F.A.C., 40 CFR 60.333]

A.3 Particulate Matter/PM₁₀. PM/PM₁₀ emissions shall be limited to 16.6 lbs/hour, based on a 1-hour average; PM shall be limited to 55 TPY. PM₁₀ shall be limited to 45 TPY. [Rule 62-212.300, F.A.C.]

A.4 Carbon monoxide. CO shall be limited to 25.2 lbs/hour, based on a 1-hour average; 101 TPY. [Rule 62-212.300, F.A.C.]

A.5 Visible Emissions. Visible emissions shall be limited to 20 percent opacity. [Rule 62-296.310, F.A.C.]

A.6 In order to minimize excess emissions during startup/shutdown/malfunction this emission unit shall adhere to best operational practices. [Rule 62-210.700, F.A.C.]

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

OPERATIONAL LIMITATIONS

- A.7 Each emission unit is allowed to operate 4,000 hours per year. The combined operation of both units shall also be limited to 4,000 hours per year. [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit].
- A.8 Only No. 2 fuel oil can be fired in the combustion turbines. The maximum sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent, by weight. [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit].
- A.9 The maximum heat input rate to Emission Unit Nos. 008 and Emission Unit No. 009 shall not exceed 305 million Btu per hour (MMBtu/hr) [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit].
- A.10 The maximum No. 2 fuel oil consumption allowed to be burned in either Emission Unit No. 008 or Emission Unit No. 009 is 8,840,000 gallons per year, which is equivalent to 4000 hours per year of operation at full load. The combined fuel oil consumption for both units shall be limited to 8,840,000 gallons per year. [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit]

MONITORING OF OPERATIONS

- A.11 The permittee shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within ± 5.0 percent and shall be approved by the Department. [40 CFR 60.334(a)]
- A.12 The permittee shall monitor sulfur content, nitrogen content, and the lower heating value of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:
- a. If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.
 - b. If the turbine is supplied its fuel without intermediate bulk storage, the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Department before they can be used to comply with 40 CFR 60.334(b). [40 CFR 60.334(b)(1) and (b)(2); 40 CFR 60.335]
- A.13 The permittee shall maintain daily records of fuel oil consumption for the emission unit. [Rule 62-210.200, F.A.C.]
- A.14 The permittee shall submit a quarterly excess emissions and monitoring systems performance report of the continuous monitoring system for any one-hour period during which the average water-to-fuel ratio falls below the water-to-fuel ratio determined to demonstrate compliance with Condition A.1. [40 CFR 60.7(c); 40 CFR 60.334(c)(1)]

TEST METHODS AND PROCEDURES

- A.15 Compliance with the allowable emission limiting standards for NO_x in A.1 shall be determined by using EPA Reference Method 20 as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. The NO_x emissions shall be determined at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

minimum point in the range and peak load.. An annual compliance test shall be performed on the unit if operated for more than 400 hours in the preceding 12-month period. [Rule 62-297.310, F.A.C. and 40 CFR 60.335(3)]

A.16 The NO_x emission rate shall be computed for each run using the following equation:

$$NO_{x,iso} = (NO_{xo})(P_r/P_o)^{0.5} e^{19(H_o-0.00633)} (288^{\circ}K/T_a)^{1.53}$$

where:

NO_{x,iso} = emission rate of NO_x at 15 percent O₂ and ISO standard ambient conditions, volume percent.

NO_{xo} = observed NO_x concentration, ppm by volume.

P_r = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

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

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

e = transcendental constant, 2.718.

T_a = ambient temperature, °K.

[40 CFR 60.335(c)(1)]

A.17 The continuous monitoring system shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with Condition A.1 at 30, 50, 75 and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the equation provided in Condition A.16. [40 CFR 60.335(2)]

A.18 An initial compliance test shall be conducted for CO emissions using EPA Reference Method 10 as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. [Rule 62-297.310, F.A.C.] An annual compliance test for CO shall be performed on the units if operated for more than 400 hours in the preceding 12-month period. [Rule 62-297-310, F.A.C.]

A.19 Compliance with the visible emission standard shall be demonstrated with EPA Reference Method 9 as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. [Rule 62-297.401, F.A.C.]

RECORDKEEPING AND REPORTING REQUIREMENTS

A.20 All measurements, records, and other data required to be maintained by this facility shall be retained for at least five (5) years following the data on which such measurements, records, or data are recorded. These data shall be made available to the Department upon request. [Rule 62-4.070(3), F.A.C.]

A.21 Two copies of the results of the emission tests for the pollutant listed in Condition A.1 for both Emission Unit Nos. 008 and 009 shall be submitted within forty-five days of the last sampling run to the South District office in Ft. Myers. All reports shall be in a format consistent with and shall include the information in accordance with Rule 62-297.310 (8), F.A.C. [Rule 62-297.310(8), F.A.C.]

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION B. SPECIFIC CONDITIONS

The following Specific Conditions apply to the following emission units:

EMISSIONS UNIT NO.	SYSTEM	EMISSIONS UNITS DESCRIPTION
001	Power	37.0 MW Steam Boiler (to be retired)
002	Power	2.0 MW Diesel Electric Generator
003	Power	2.0 MW Diesel Electric Generator
004	Power	2.0 MW Diesel Electric Generator

OPERATIONAL LIMITATIONS

- B.1 Prior to issuance of this construction permit, the permittee shall supply to the Department an official certification of the retirement of the 37 MW steam boiler at Stock Island (Emission Unit Emission I.D. 001).
- B.2 The permittee shall install new or modified stacks for the three high-speed diesel units (Emission Unit I.D Nos. 002, 003, and 004) with an elevation of 40 feet above plant site grade. Completion of construction of these stacks shall be no later than June 1, 1998.

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EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

SUBSECTION 1.0 CONSTRUCTION REQUIREMENTS

- 1.1 Applicable Regulations: Unless otherwise indicated in this permit, the construction and operation of the subject emission unit(s) 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, 62-103, 62-204, 62-210, 62-212, 62-213, 62-296, 62-297; and the applicable requirements of the Code of Federal Regulations Section 40, Part 60, adopted by reference in the Florida Administrative Code regulation [**Rule 62-204.800, 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 requirements or regulations. [**Rule 62-210.300, F.A.C.**]

SUBSECTION 2.0 EMISSION LIMITING STANDARDS

- 2.1 General Particulate Emission Limiting Standards. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). [**Rule 62-296-320(4)(b)1, F.A.C.**]
- 2.2 Unconfined Emissions of Particulate Matter [**Rule 62-296.320(4)(c), F.A.C.**]
- (a) The owner or operators shall not cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any source whatsoever, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling, without taking reasonable precautions to prevent such emission.
 - (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
 - (c) Reasonable precautions include the following:
 - Paving and maintenance of roads, parking areas and yards.
 - Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
 - Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
 - Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
 - Landscaping or planting of vegetation.
 - Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.

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EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

- Confining abrasive blasting where possible.
- Enclosure or covering of conveyor systems.

NOTE: Facilities that cause frequent, valid complaints may be required by the Permitting Authority to take these or other reasonable precautions. In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

2.3 General Pollutant Emission Limiting Standards: [Rule 62-296.320, F.A.C.]

- (a) The owner or operator shall not store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems.
- (b) No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

NOTE: An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [F.A.C. 62-210.200(198)]

SUBSECTION 3.0 OPERATION AND MAINTENANCE

- 3.1 Changes/Modifications: The owner or operator shall submit to the Permitting Authority(s), for review any changes in, or modifications to: the method of operation; process or pollution control equipment; increase in hours of operation; equipment capacities; or any change which would result in an increase in potential/actual emissions. Depending on the size and scope of the modification, it may be necessary to submit an application for, and obtain, an air construction permit prior to making the desired change. *Routine maintenance of equipment will not constitute a modification of this permit.* [Rule 62-4.030, 62-210.300 and 62-4.070(3), F.A.C.]
- 3.2 Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the Permitting Authority as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]

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EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

- 3.3 Circumvention: The owner or operator shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rules 62-210.650, F.A.C.]
- 3.4 Excess Emissions Requirements [Rule 62-210.700, F.A.C.]
- (a) Excess emissions resulting from start-up, shutdown or malfunction of these emissions units 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 Permitting Authority office for longer duration. [Rule 62-210.700(1), F.A.C.]
 - (b) Excess emissions that are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during start-up, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
 - (c) In case of excess emissions resulting from malfunctions, the owner or operator shall notify Permitting Authority within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the problem; and the corrective actions being taken to prevent recurrence. [Rule 62-210.700(6), F.A.C.]
- 3.5 Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]

SUBSECTION 4.0 MONITORING OF OPERATIONS

- 4.1 Determination of Process Variables
- (a) The permittee shall operate and maintain equipment and/or instruments necessary to determine process variables, such as process weight input or heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
 - (b) Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weigh hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

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EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

SUBSECTION 5.0 TEST REQUIREMENTS

- 5.1 **Test Performance** Within 60 days after achieving the maximum production rate at which these emission units will be operated, but not later than 180 days after initial startup and annually thereafter, the owner or operator of this facility shall conduct performance test(s) pursuant to 40 CFR 60.8, Subpart A, General Provisions and 40 CFR 60, Appendix A. No other test method shall be used unless approval from the Department has been received in writing. Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emission unit(s) operating at permitted capacity pursuant to Rule 62-297.310(2), F.A.C. [Rules 62-204.800, 62-297.310, 62-297.400, 62-297.401, F.A.C.]
- 5.2 **Test Procedures** shall meet all applicable requirements of the Florida Administrative Code Chapter 62-297. [Rule 62-297.310, F.A.C.]
- 5.3 **Test Notification:** The owner or operator shall notify the Permitting Authority in writing at least (30) days (initial) and 15 days (annual) prior to each scheduled compliance test to allow witnessing. The notification shall include the compliance test date, place of such test, the expected test time, the facility contact person for the test, and the person or company conducting the test. The (30) or (15) day notification requirement may be waived at the discretion of the Department. Likewise, if circumstances prevent testing during the test window specified for the emission unit, the owner or operator may request an alternate test date before the expiration of this window. [Rule 62-297.310 and 40 CFR 60.8, F.A.C.]
- 5.4 **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 Rule 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Permitting Authority. [Rule 62-297.310(7)(b), F.A.C.]
- 5.5 **Stack Testing Facilities:** The owner or operator shall install stack testing facilities in accordance with Rule 62-297.310(6), F.A.C..
- 5.6 **Exceptions and Approval of Alternate Procedures and Requirements:** An Alternate Sampling Procedure (ASP) may be requested from the Bureau of Air Monitoring and Mobile Sources of the Florida Department of Environmental Protection in accordance with the procedures specified in Rule 62-297.620, F.A.C.
- 5.7 **Operating Rate During Testing:** Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an

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EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2) and (3), F.A.C.]

SUBSECTION 6.0 REPORTS AND RECORDS

- 6.1 Duration: All reports and records required by this permit shall be kept for at least (5) years from the date the information was recorded. [Rule 62-4.160(14)(b), F.A.C.]
- 6.2 Emission Compliance Stack Test Reports:
- (a) A *test report* indicating the results of the required compliance tests shall be filed with the Permitting Authority as soon as practical, but no later than 45 days after the last sampling run is completed. [Rule 62-297.310(8), F.A.C.]
 - b) 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), F.A.C.**
- 6.3 Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Permitting Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. [Rules 62-4.130 and 62-210.700(6), F.A.C.]
- 6.4 Annual Operating Report for Air Pollutant Emitting Facility: Before March 1st of each year, the owner or operator shall submit to the Permitting Authority this required report [DEP Form No. 62-210.900(5)], which summarizes operations for the previous calendar year. [Rule 62-210.370(3), F.A.C.]

SUBSECTION 7.0 OTHER REQUIREMENTS

- 7.1 Waste Disposal: The owner or operator shall treat, store, and dispose of all liquid, solid, and hazardous wastes in accordance with all applicable Federal, State, and Local regulations. This air pollution permit does not preclude the permittee from securing any other types of required permits, licenses, or certifications.

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

- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- (a) Have access to and copy and records that must be kept under the conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- Reasonable time may depend on the nature of the concern being investigated.
- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of non-compliance; and
 - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

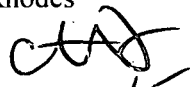
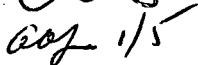
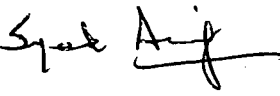
APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

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

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology ()
 - (b) Determination of Prevention of Significant Deterioration (); 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.

Florida Department of
Environmental Protection

Memorandum

TO: Howard L. Rhodes
THRU: Clair Fancy 
Al Linero 
FROM: Syed Arif 
DATE: January 5, 1997

SUBJECT: Utility Board of Key West, 0870003-003-AC

Attached for approval and signature is a construction permit number 0870003-003-AC for Utility Board of Key West, Stock Island Power Plant's two refurbished 19.77 MW combustion turbine generating units to be located in Stock Island, Monroe County. A Technical Evaluation and Preliminary Determination was issued, and the facility was required to do a public notice.

These units will serve primarily as peaking units during periods of high demand or as emergency units during and after hurricanes. The combustion turbines will be fired with No. 2 fuel oil with a sulfur content of 0.05 percent or less, by weight. Controls for NO_x emissions consist of water injection. As part of the proposed construction of the combustion turbine units, the facility will retire the existing 37 MW steam electric generating unit which was permitted to burn fuel oil with a sulfur content of 2.5 percent or less, by weight. The facility netted out of PSD review because of contemporaneous emissions decreases for the steam unit.

Various enforceable conditions have been included for their existing as well as new Units to insure that the allowable increment is not consumed.

I recommend your approval and signature.

SA

Attachments

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
 ■ Complete items 1 and/or 2 for additional services.
 ■ Complete items 3, 4a, and 4b.
 ■ 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. Addressee's Address
 2. Restricted Delivery
 Consult postmaster for fee.

3. Article Addressed to:
 Mr. Larry Thompson
 Utility Board of the
 City of Key West
~~1001 James St~~ X6100
 Key West, Fl 33041-6100

4a. Article Number
 P 265 659 277

4b. Service Type
 Registered Certified
 Express Mail Insured
 Return Receipt for Merchandise COD

7. Date of Delivery
 1-8-98

5. Received By: (Print Name)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)
 * [Signature] 1/12/98

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

P 265 659 277

US Postal Service
Receipt for Certified Mail
 No Insurance Coverage Provided.
 Do not use for International Mail (See reverse)

Sent to Larry Thompson	
Street & Number City of Key West	
Post Office, State & ZIP Code Key West, Fl	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	1-8-98
007003-003-AC	

PS Form 3800, April 1995

LAW OFFICES
ROSE, SUNDBSTROM & BENTLEY, LLP

2548 BLAIRSTONE PINES DRIVE
TALLAHASSEE, FLORIDA 32301

(850) 877-6555

RECEIVED

JUN 26 1998

MAILING ADDRESS
POST OFFICE BOX 1567
TALLAHASSEE, FLORIDA 32302-1567

BUREAU OF
AIR REGULATION

TELECOPIER (850) 656-4029

June 26, 1998

CHRIS H. BENTLEY, P.A.
F. MARSHALL DETERDING
MARTIN S. FRIEDMAN, P.A.
JOHN R. JENKINS, P.A.
STEVEN T. MINDLIN, P.A.
DAREN L. SHIPPY
WILLIAM E. SUNDBSTROM, P.A.
DIANE D. TREMOR, P.A.
JOHN L. WHARTON

ROBERT M. C. ROSE
OF COUNSEL

VIA HAND DELIVERY

Mr. Syed Arif
Bureau of Air Regulation
Florida Department of Environmental Protection
111 South Magnolia Drive
Suite 23
Tallahassee, Florida 32301

Re: Utility Board of the City of Key West
Permit No. 0870003-003-AC

Dear Mr. Arif:

This will confirm our telephone conversation on June 25, 1998, wherein we requested a short-term exception to one permit requirement regarding the operation of our high-speed diesel units prior to the completion of stack modifications, and you expressed your concurrence with our request.

Our permit (Specific Condition B.2) concurrently requires that the stack modifications be completed no later than August 1, 1998. That condition further requires that in the event that testing and operation of the combustion turbine units begins before August 1, 1998, the high-speed diesel units may not be operated after initial testing and/or operation of the combustion units unless the stack modifications have been completed.

At present, the supports for the new stacks are in place, and it is anticipated that the stacks will be installed and completed on July 3rd, or at least during the following week. We anticipate performing air testing on the combustion turbine units on either July 2nd or 3rd, depending upon the availability of DEP personnel. Accordingly, there could be a very short period of time between the completion of the stack modifications and the testing and operation of the combustion turbine units.

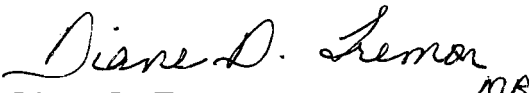
Mr. Syed Arif
June 26, 1998
Page 2

Due to the extremely high temperatures currently being experienced in the Keys and throughout Florida, it is essential that we utilize the high speed diesels to generate sufficient electricity. While it is possible that there will be no overlap in time between the completion of the stack modifications and the testing and/or operation of the combustion turbine units, this request for a short-term exception to our permit is made in an abundance of caution.

It is my understanding that you have preliminarily approved our request for this exception regarding operation of the high-speed diesel units pending stack completion, and will notify me should you need any additional information.

Your assistance and cooperation in this matter is greatly appreciated.

Very sincerely yours,


Diane D. Tremor
For the Firm

DDT/mb

cc: Mr. David Knowles
Mr. Carl Jansen

cc:
EPA
NPS
C. Nelladay

LAW OFFICES

ROSE, SUNDSTROM & BENTLEY, LLP

2548 BLAIRSTONE PINES DRIVE
TALLAHASSEE, FLORIDA 32301

HAND DELIVERY

Mr. Syed Arif
Bureau of Air Regulation
Florida Department of Environmental Protection
111 South Magnolia Drive
Suite 23
Tallahassee, Florida 32301

May 6, 1998

RECEIVED

MAY 11 1998

BUREAU OF
AIR REGULATION



via Federal Express

Mr. David Knowles, P.E.
Florida Department of Environmental Protection
South District
2295 Victoria Avenue, Suite 364
Fort Myers, FL 33901-3881

Subject: **Initial Air Emission Source Compliance Test**
Utility Board of Key West - Combustion Turbine Units 2 and 3
Stock Island Power Plant
Permit No. 0870003-003-AC

Dear Mr. Knowles:

On behalf of the Utility Board of Key West this letter provides notification concerning the initial air emission compliance test planned for the subject combustion turbines units which are nearing completion of construction.

The compliance test is currently planned for the week of June 8-15, 1998. Steward & Stevinson, the construction contractor, will be conducting the test utilizing a testing subcontractor. The exact day and time for initiating the test is not known at this time. However, as soon as the timing is known, a fax will be forwarded to you.

If you have any questions concerning this notice, please feel free to call me (303-299-5247) or Joe Stone at the Utility Board of Key West (305-295-1148). Joe Stone will be the contact person at the site concerning the test.

Sincerely,

R. W. BECK, INC.

A handwritten signature in cursive script, appearing to read 'Ivan L. Clark', written in black ink.

Ivan L. Clark
Senior Director
Environmental Services

ILC/smm

c: S. Arif, FDEP, Tallahassee
C. Jansen, Utility Board of Key West
J. Stone, Utility Board of Key West
R. Williams, RMPA
W. Reynolds, R. W. Beck

02-00577-01000-3000/082261 | H:\005801\02-00577\SMM0181C.DOC





Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

April 8, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Larry Thompson
General Manager
Utility Board of the City of Key West
1001 James Street
Key West, Florida 33041-6100

Re: Permit Amendment [0870003-003-AC]
Stock Island Power Plant

Dear Mr. Thompson:

The Department has reviewed your March 20, 1998 letter requesting an amendment to extend the deadline of June 1, 1998 for the completion of stack modifications for the existing three high-speed diesel units (Emission Unit I.D. Nos. 002, 003, and 004) at the above referenced site. The extension is necessitated due to the delay in awarding the contract for stack fabrication and installation.

This request is acceptable. Additionally, the Department will make a minor change to a rule citation in Specific Condition A.17. of the permit. Construction permit No. 0870003-003-AC is hereby amended as follows:

Specific Condition A.17.

The continuous monitoring system shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with Condition A.1 at 30, 50, 75 and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the equation provided in Condition A.16. [40 CFR 60.335 (c)(2)]

Specific Condition B.2.

The permittee shall install new or modified stacks for the three (3) high-speed diesel units (Emission Unit I.D. Nos. 002, 003, and 004) with an elevation of 40 feet above plant site grade. Completion of construction of these stacks shall be no later than ~~June~~ August 1, 1998. In the event that testing and operation of the combustion turbine units (Emission Unit I.D. Nos. 008 and 009) begins before August 1, 1998, the permittee shall not operate the high-speed diesel units unless the stack modifications for the diesel units have been completed.

A person whose substantial interests are affected by this permit amendment may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 850/488-9730, fax: 850/487-4938. Petitions must be filed within fourteen days of receipt of this

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

permit amendment. A petitioner must 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 28-5.207 of the Florida Administrative Code. Mediation is not available for this action.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the 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 the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the action or proposed action.

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 permit amendment. 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.

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 permit amendment.

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 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.

This permit amendment is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 62-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit amendment will not be effective until further order of the Department.

When the Order (Permit Amendment) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit.

Sincerely,



Howard L. Rhodes, Director
Division of Air Resources
Management

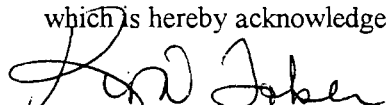
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT AMENDMENT was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 4-13-98 to the person(s) listed:

Mr. Larry Thompson, Utility Board of the City of Key West *
Mr. David Knowles, DEP
Mr. Ivan Clark, R.W. Beck

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.

 4-13-98
(Clerk) (Date)

Florida Department of
Environmental Protection

Memorandum

TO: Howard L. Rhodes

THRU: Clair Fancy *CTF*
Al Linero *AL +16*

FROM: Syed Arif *Syed Arif*

DATE: April 6, 1998

SUBJECT: Utility Board of Key West, 0870003-003-AC

BAR

Attached for approval and signature is an amendment to construction permit number 0870003-003-AC for Utility Board of Key West. Stock Island Power Plant's two refurbished 19.77 MW combustion turbine generating units to be located in Stock Island, Monroe County.

The amendment will give the facility ^{an} extension of time for completion of stack modifications for the existing three high-speed diesel units. Additionally, a minor change to a rule citing is also being included in this amendment.

I recommend your approval and signature.

SA

Attachments

BEST AVAILABLE COPY

to receive the services (for an extra fee):

1. Addressee's Address

2. Restricted Delivery

Consult postmaster for fee.

reverse of this form so that we can return this permit.

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.

3. Article Addressed to:
 Mr. Harry Thompson
 Utility Board of the City
 of Key West
 1001 Gannett St.
 Key West, FL 33041-6100

4a. Article Number
 P 265 659 332

4b. Service Type
 Registered Certified
 Express Mail Insured
 Return Receipt for Merchandise COD

7. Date of Delivery
 4/16/98

5. Received By: (Print Name)
 ANDRA HORTON

6. Signature: (Addressee or Agent)
 X *[Signature]*

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994

Thank you for using Return Receipt Service.

Domestic Return Receipt

P 265 659 332

US Postal Service
Receipt for Certified Mail

No Insurance Coverage Provided.
Do not use for International Mail (See reverse)

Sent to *Harry Thompson*

Street Number *Utility Board of*

Post Office, State, & ZIP Code *The City of Key West*

Postage \$

Certified Fee

Special Delivery Fee

Restricted Delivery Fee

Return Receipt Showing to Whom & Date Delivered

Return Receipt Showing to Whom, Date, & Addressee's Address

TOTAL Postage & Fees \$

Postmark or Date
 0870003-003-AC 4-13-98
 SIPP

PS Form 3800, April 1995

April 6, 1998

via facsimile: 1 page

~~904~~-922-6979
850

Mr. Syed Arif
Permitting and Standards Section
Bureau of Air Regulation
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400



RECEIVED
APR 09 1998
BUREAU OF
AIR REGULATION

**Subject: Minor Modification of the Air Emission Construction Permit
for Utility Board of Key West Combustion Turbines
Permit No. 0870003-003-AC**

Dear Mr. Arif:

On March 20, 1998, the Utility Board of Key West submitted a request to the Florida Department of Environmental Protection to modify specific condition B.2 of the subject permit. This letter provides a recommendation for final adjustment of the proposed modification.

Currently, the schedule for completing construction of the stack modifications for the Utility Board of Key West's high-speed diesel units is anticipated to be by July 1, 1998, as stated in the March 20, 1998 letter. However, in order to avoid having to revise this completion date again in the future, on behalf of the Utility Board, we recommend including a date of August 1, 1998 in the proposed modification.

If you have any questions please contact me.

Sincerely,

R. W. BECK, INC.

A handwritten signature in cursive script, appearing to read 'Ivan L. Clark'.

Ivan L. Clark, P.E.
Senior Director
Environmental Services

ILC/smm

c: R. Williams
C. Jansen
J. Stone
D. Tremore
W. Reynolds
A. Phillis

005816| h:\005186\smm007ic.doc



Utility Board of the City of Key West, Florida

1001 James St.
P.O. Drawer 6100
Key West, Florida 33041-6100



General Manager: (305) 295-1001
Main Telephone: (305) 295-1000
Fax: (305) 295-1005

Via Federal Express

March 20, 1998

Mr. A. A. Linero, P.E. Administrator
New Source Review Section
Florida Department of Environmental Protection
Twin Towers Building
2600 Blair Stone Road
Tallahassee, FL 32399-02400

Subject: Air Emission Source Construction Permit for
Two 19.77-MW Combustion Turbine Units
Permit No.0870003-003-AC

RECEIVED

MAR 23 1998

**BUREAU OF
AIR REGULATION**

Check \$200
Rec'd
3/26/98

Dear Mr. Linero:

0870003-004-AC

The subject permit, issued on January 8, 1998, includes a deadline of June 1, 1998, for the completion of stack modifications for the existing three high-speed diesel units at the Stock Island Power Plant site. The Utility Board of the City of Key West (City Electric System) anticipated that such schedule would be achievable at the time of finalizing the subject permit. However, it now appears that actual completion may be several weeks beyond the June 1, 1998, deadline.

To date, City Electric System has completed engineering design of the stack modifications; pilings for foundations have been installed, and bids have been received for the stacks' fabrication and installation. Award of the contract for the stacks' fabrication/installation is scheduled for City Electric System's March 30, 1998, board meeting. Once that contract is awarded, a ten-week construction schedule is proposed by the contractor. Such a schedule will result in completion by mid-June 1998.

At this time it is anticipated that the contractor that is supplying and installing the combustion turbines will be ready to begin testing the combustion turbines on June 1, 1998. In order to avoid a conflict with the combustion turbine contractor's planned testing, by this letter City Electric System is requesting minor modifications to the conditions in the subject permit.

It is requested that Specific Condition B.2 be modified follows:

UTILITY BOARD MEMBERS:

Robert R. Padron, Chairman • Dr. Otha P. Cox, Vice-Chairman
Lou Hernandez, Member • Leonard H. Knowles, Member • Gayle Swofford, Member

"The permittee shall install new or modified stacks for the three (3) high-speed diesel units (Emission Unit I.D. Nos. 002, 003, and 004) with an elevation of 40-feet above plant site grade. Completion of construction of these stacks shall be no later than July 1, 1998. In the event that testing and operation of the combustion turbine units begins before July 1, 1998, the permittee shall not operate the high-speed diesel units after initiating testing and/or operation of the combustion turbine units (Emission Unit I.D. Nos. 008 and 009) unless the stack modifications have been completed."

We have enclosed a check for \$50 to cover the fees associated with these modifications. If you have any comments or questions concerning this request, please contact Ivan Clark at R. W. Beck, Inc., (303) 299-5247 or Joe Stone at City Electric System, (305) 295-1148.

Sincerely,

UTILITY BOARD - CITY OF KEY WEST
"CITY ELECTRIC SYSTEM"



Larry Thompson
General Manager

LJT/sh

cc:

R. Rodriguez, Assistant General Manager
C. Jansen, TD&G Manager
D. Finigan, Director of Engineering/Control Section
J. Stone, Environmental Services Supervisor
R. Williams, FMPA
D. Tremor, Rose, Sundstrom & Bentley
N. Guarriello, R.W. Beck
W. Reynolds, R.W. Beck
File:PLI-258

Enclosure



CITY ELECTRIC SYSTEM
 P.O. BOX 6100
 KEY WEST, FL 33041

DATE 3/25/98

VOUCHER CHECK

NO.042363

FIRST STATE BANK
 of the Florida Keys

PAY TO THE ORDER OF THE PAYEE AS INDICATED BELOW

\$ 200.00

Two Hundred Dollars and No Cents ***** DOLLARS

PAYEE
 and
 ADDRESS

FL DEPT OF ENVIRONMENTAL PROTECTION

CITY OF KEY WEST ELECTRIC SYSTEM
 OPERATIONS AND MAINTENANCE SUB ACCOUNT

Robert R. Pedroni MP
 UTILITY BOARD CITY OF KEY WEST, FL
[Signature] MP
 AUTHORIZED SIGNATURE



PLEASE DETACH BEFORE PRESENTING FOR PAYMENT

Voucher Check ^{Issued} by **Utility Board of the City of Key West, Florida**

DATE	NUMBER	DESCRIPTION	AMOUNT	DEDUCTIONS	NET AMOUNT
3/25/98	27450	FEE FOR PERMIT #0870003-003-AC	200.00	0	\$200.00

RECEIVED
 MAR 26 1998
 BUREAU OF
 AIR REGULATION



CITY ELECTRIC SYSTEM
 P.O. BOX 6100
 KEY WEST, FL 33041

DATE 3/19/98

VOUCHER
CHECK

NO.042184

FIRST STATE BANK
of the Florida Keys

PAY TO THE ORDER OF THE PAYEE AS INDICATED BELOW

\$ 50.00

Fifty Dollars and No Cents ***** DOLLARS

PAYEE
and
ADDRESS

FL. Dept. of Environmental Protection

CITY OF KEY WEST ELECTRIC SYSTEM
OPERATIONS AND MAINTENANCE SUB ACCOUNT

[Signature] MP
 UTILITY BOARD CITY OF KEY WEST, FL.
[Signature] MP
 AUTHORIZED SIGNATURE



PLEASE DETACH BEFORE PRESENTING FOR PAYMENT

Voucher Check issued by **Utility Board of the City of Key West, Florida**

DATE	NUMBER	DESCRIPTION	AMOUNT	DEDUCTIONS	NET AMOUNT
3/19/98	27450	Permit #0870003-003-AC	50.00	0	\$50.00

UTILITY BOARD  OF THE CITY OF
KEY WEST, FLORIDA
33041-6100

Enclosed is a \$200.00 check to complete the Fee
(Total \$250.00) For modification of Per. No. 0870003-003-AC
For our two Combustion Turbines. The previously
submitted \$50.00 applied to cited permitt relating to
increased stack height on 3 High Speed Diesels.
Joe Stone (CES)

UTILITY BOARD OF THE CITY OF KEY WEST

POST OFFICE DRAWER 6100
KEY WEST, FLORIDA 33041-6100



TELEPHONE: (305) 295-1000
www.kwcityelectric.com

January 5, 1998

Mr. A. A. Linero
Administrator
New Source Review Section
Division of Air Resources Management
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Official Retirement of the Ralph Garcia Steam Plant

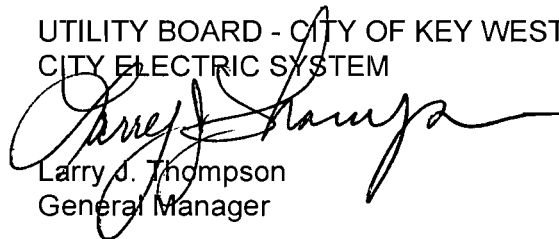
Dear Mr. Linero:

As a condition of the draft construction permit (No. 0870003-003-AC) for two 19.77 MW simple cycle combustion turbines, we are officially retiring the Ralph Garcia Steam Plant as a steam generation plant. It is our understanding that a final construction permit will be issued upon the retirement of this unit. I have enclosed DEP Form No. 62-210.900(1)(a)3.

If you have any questions or comments, please do not hesitate to contact Joe Stone at (305) 295-1148.

Sincerely,

UTILITY BOARD - CITY OF KEY WEST
CITY ELECTRIC SYSTEM



Larry J. Thompson
General Manager

LJT/me

cc:
R. Rodriguez, Assistant General Manager
J. Stone, Environmental Services Supervisor
R. Williams, FMPA
I. Clark, R.W. Beck & Associates
File:SOF-110

cc: C. Phillips, BAR
S. Ariz, BAR

retirergsp.DOC

RECEIVED

JAN 06 1998

**BUREAU OF
AIR REGULATION**

UTILITY BOARD MEMBERS:

Robert R. Padron, Chairman • Dr. Otha P. Cox, Vice-Chairman
Leonard H. Knowles, Member • Gayle Swofford, Member • Lou Hernandez, Member

Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8

This submission is: New Revised

STEP 1

Identify the unit that is or will be retired by plant name, State, and ORIS Code and boiler ID# from NADB.

Plant Name RALPH GARCIA STEAM PLANT	State FL	ORIS Code 6584	Boiler ID# #1
----------------------------------------	-------------	-------------------	------------------

STEP 2

Check one box to indicate the deadline for this application.

- This petition is being submitted on or before the deadline for submitting an Acid Rain part application for Phase II.
- The unit has a Phase II Acid Rain part. This petition is being submitted on or before the deadline for reapplying for the Acid Rain part.

STEP 3

Read the certification and enter the actual or expected date of retirement of the unit.

I certify that this unit is or will be permanently retired on the date specified in this petition and will not emit any sulfur dioxide or nitrogen oxides after such date. The date for the permanent retirement of this unit is or will be:

01/01/98 mm/dd/yy

STEP 4

Indicate that the required information is attached.

- A description of any actions that have been or will be taken and that provide the basis for the certification in Step 3.

Turbine Removed, All Piping Removed, Controls removed AND circulating water pumps removed.

STEP 5

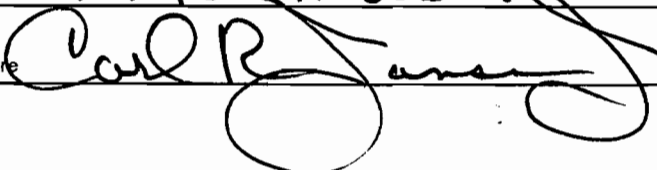
Read the special provisions and the certifications, and sign and date.

Special Provisions

- (1) A unit exempted under 40 CFR 72.8 and Rule 62-214.340(2), F.A.C., shall not emit any sulfur dioxide and nitrogen oxides starting on the date it is exempted.
- (2) The owners and operators of a unit exempted under 40 CFR 72.8 and Rule 62-214.340(2), F.A.C., shall comply with monitoring requirements in accordance with part 75 and will be allocated allowances in accordance with 40 CFR part 73.
- (3) A unit exempted under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits an Acid Rain part application for the unit not less than 24 months prior to the later of January 1, 2000, or the date the unit is to resume operation. On the earlier of the date the written exemption expires or the date an Acid Rain part application is submitted or is required to be submitted under this paragraph (3), the unit shall no longer be exempted and shall be subject to all requirements of 40 CFR part 72.

Certification

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	CARL R JAUSED JR	
Signature		Date 01/05/98



November 7, 1997

via Federal Express

Mr. A. A. Linero, P.E. Administrator
New Source Review Section
Florida Department of Environmental Protection
Twin Towers Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RECEIVED

NOV 10 1997

BUREAU OF
AIR REGULATION

**Subject: Air Emission Source Construction Permit Application for the
FMPA/Key West Two Used 19.77 MW Combustion Turbine Units
File No. 0870003-003-AC**

Dear Mr. Linero:

In response to your letter dated October 10, 1997, this letter and the enclosed Addendum provides additional information concerning the air quality impacts associated with the proposed units and the existing units on the Stock Island Plant site.

You expressed concerns for the predicted air quality impacts for PM, PM₁₀ and NO_x at receptors located 150 meters and 200 meters off of the property. To resolve these concerns, the Utility Board of Key West has committed to modification of the high speed diesel units stacks from their existing elevation of 16 feet to an elevation of 40 feet. This increase in stack height mitigates the predicted downwash condition that was influencing the dispersion of emissions from the HSD units. The attached Addendum 2 revises our earlier submittals for this permit application by incorporating this increase in stack height in the construction schedule for the proposed used combustion turbine units.

In addition to stack height changes, minor adjustment have been made to the coordinates for the proposed used combustion turbine unit's stacks. These adjustments are very minor (adjustment of the foot print for the CT's), and do not impact air quality evaluations. However, these adjustment have been incorporated into the latest air dispersion modeling runs and ELSA forms have been revised accordingly.

The following is a summary of the information included in this Addendum 2:





Revised ELSA Forms (Tab 1)

Section	Modification
III Part 7a-1	Item 13. Emission Point Coordinates have been revised for both CTs
III Part 7a-1	Item 6. Increase in stack height has been added for the three high speed diesel units.
Figures SK-1	Site Plan has been revised reflecting new foot print for CTs

Tab 1 includes a complete set of ELSA pages for these changes.

Attachment A Revisions (Tab 2)

Revisions to Attachment A include:

- Revision of text in Section 3-1 reflecting the commitment to increase the stack height for the high speed diesel units.
- Revision of anticipated construction schedule.
- Complete revision of Section 3-4 Air Quality Impact Assessment reflecting the increase in the stack height for the high speed diesel units.

Tab 2 includes a complete revised Attachment A with the above revisions included.

Air Dispersion Modeling Revisions (Tab 3)

Revised air dispersion modeling runs are included in Tab 3. A total of six runs are included, the results of which are summarized in Tables 3-4-5 and 3-4-6 in Section 3-4 of Tab 3.

Based on the above information we believe all the issues and concerns have been addressed and the subject permit application should be considered complete. If you have any questions concerning this information, please contact me.



Sincerely,

R. W. BECK, INC.

A handwritten signature in black ink, appearing to read 'Ivan L. Clark'.

Ivan L. Clark
Senior Director
Environmental Services

ILC/smm

Enclosures

- c: R. Williams, FMPA
L. Thompson, Utility Board of Key West
C. Jansen, Utility Board of Key West
D. Finigan, Utility Board of Key West
D. Tremore, Rose, Sundstrom and Bentley
N. Guarriello, R. W. Beck
W. Reynolds, R. W. Beck

cc: SFD
Maurice Branch
S. Aiy, BAR
C. Holladay, BAR

RECEIVED

DEC 31 1997

BUREAU OF
AIR REGULATION

KEY WEST
THE CITIZEN

Published Daily
Key West, Monroe County, Florida 33040

STATE OF FLORIDA
COUNTY OF MONROE:

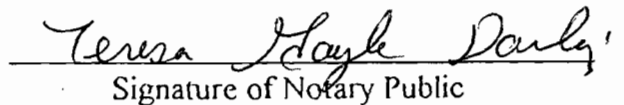
Before the undersigned authority personally appeared Randy G. Erickson, who on oath says that he is Advertising Manager of the Key West Citizen, a daily newspaper published at Key West in Monroe County, Florida; that the attached copy of the advertisement, being a legal notice in the matter of Public Notice of Intent to Issue Permit
Air Construction Permit to Utility Board
in the n/a Court, was published in said newspaper in the issues of December 15, 1997

Affiant further says that the said The Key West Citizen is a newspaper published at Key West, in said Monroe County, Florida, and that the said newspaper has heretofore been continuously published in said Monroe County, Florida, each day (except Saturdays and specified holidays) and has been entered as second-class mail matter at the post office in Key West, in said Monroe County, Florida, for a period of 1 year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.



Signature of Affiant

Sworn and subscribed before me this 30 day of December 1997



Signature of Notary Public

Notary Seal

Expires 9-17-2000
Personally Known Produced Identification
Type of Identification Produced _____

cc: S. Arif, BAR
D. Knowles, SD
EPA
NPS



Teresa Gayle Darling
MY COMMISSION # CC58594 EXPIRES
September 17, 2000
BONDED THRU TROY FAIR INSURANCE, INC.

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT
STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DRAFT Permit No. 0870003-003-AC
Stock Island Power Plant
Monroe County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Utility Board of Key West for two refurbished combustion turbine units to be located at Stock Island Power Plant, 6900 Front Street, Stock Island, Monroe County. This permit is for installation of two refurbished 19.77 megawatt electric generators designated as Combustion Turbine Units 2 and 3 (Emission I.D. No. 008 and 009). The units will burn No. 2 fuel oil with a sulfur content of 0.05 percent or less, by weight. Controls for NO emissions consist of water injection. Each combustion turbine unit will be allowed to operate continuously for up to 4,000 hours per year with the combined operation of both units being limited to 4,000 hours per year. These operating hour limitations equate to a full use limit of 8.8 million gallons of fuel

per year. As a part of the proposed construction of the combustion turbine units the Utility Board of Key West will retire the existing 37 MW steam electric generating unit at the Stock Island Power Plant. Also, the Utility Board will install taller stacks for the three-existing high speed diesel units located at the Stock Island Power Plant. These stack modifications are being implemented to assure compliance with ambient air quality standards.

An air quality impact analysis was conducted. Consistent with the planned installations and modification, emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards.

The Department will issue the FINAL Permit, in accordance with the conditions of the DRAFT Permit 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 DRAFT Permit issuance action for a period of 14 (fourteen) days from the date of publication of this Notice. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT PERMIT, the Department shall issue a Revised DRAFT Permit and require if applicable, another Public Notice. The Department will issue FINAL Permit with the conditions of the DRAFT Permit unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S. The procedures for petitioning for a hearing are set forth below. Mediation is not available for this action.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000. Petitions 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. A petitioner must 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 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the 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 interest 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 the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the Department's action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate 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 of intent. 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 am to 5:00 pm., Monday through Friday, except legal holidays, at:

Dept. of Environmental Protection, Bureau of Air Regulation, 111 S. Magnolia Drive, Suite 4, Tallahassee, Florida 32301, Telephone: 850/488-1344, Fax: 850/922-6979; Department of Environmental Protection, South District Office, 2295 Victoria Avenue, Suite 364, Fort Myers, Florida 33901, Telephone: 941/332-6975; Department of Environmental Protection, Marathon Branch Office, 14000 Overseas Highway, Suite 123, Marathon, Florida 33050, Telephone: 305/289-2310.

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-1344, for additional information.

December 15th, 1997

Key West
public notice

12/31/97

(SA)



Department of Environmental Protection

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

December 9, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Larry Thompson
General Manager
Utility Board of the City of Key West
1001 James Street
Key West, Florida 33040

Re: DRAFT Permit No. 0870003-003-AC
Two 19.77 MW Combustion Turbine at Stock Island Power Plant

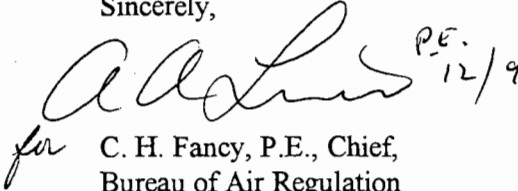
Dear Mr. Thompson:

Enclosed is one copy of the Draft Air Construction Permit for the installation of two refurbished combustion turbines at the Stock Island Power Plant in Key West, Monroe County. The Technical Evaluation and Preliminary Determination, the Department's Intent to Issue Air Construction Permit and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" must be published within 30 (thirty) days of receipt of this letter. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (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.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please contact Syed Arif or Mr. Linero at 850/488-1344.

Sincerely,


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

CHF/sa

Enclosures

In the Matter of an
Application for Permit by:

Utility Board of the City of Key West
1001 James Street
Key West, Florida 33040

DRAFT Permit No. 0870003-003-AC
Stock Island Power Plant
Combustion Turbine Units 2 and 3
Monroe County

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 the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, the Utility Board of Key West, applied on September 11, 1997 to the Department for an air construction permit to install two refurbished 19.77 megawatt combustion turbine units for limited use at its Stock Island Power Plant located at 6900 Front Street Stock Island, Monroe County.

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, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required to construct the two combustion turbines.

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.

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 "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT". The notice shall be published one time only within 30 (thirty) days in the legal advertisement section of a newspaper of general circulation in the area affected. 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. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. 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: 850/488-1344; Fax 850/ 922-6979) within 7 (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 pursuant to Rule 62-103.150 (6), F.A.C.

The Department will issue the FINAL Permit, in accordance with the conditions of the enclosed DRAFT Permit 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 DRAFT Permit issuance action for a period of 14 (fourteen) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT." Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result

in a significant change in this DRAFT Permit, the Department shall issue a Revised DRAFT 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. The procedures for petitioning for a hearing are set forth below. Mediation is not available for this action.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 850/488-9730, fax: 850/487-4938. Petitions 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. A petitioner must 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 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the 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 the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the action or proposed action addressed in this notice of intent.

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 of intent. 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.

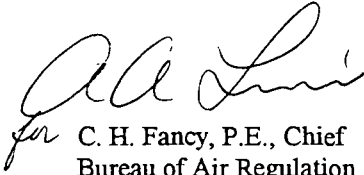
In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal 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 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.


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

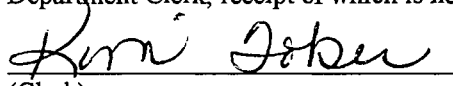
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, and the DRAFT permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 12-10-97 to the person(s) listed:

Mr. Larry Thompson, Utility Board of Key West *
Mr. Brian Beals , EPA
Mr. John Bunyak, NPS
Mr. David Knowles, DEP

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


(Clerk) 12-10-97 (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DRAFT Permit No. 0870003-003-AC
Stock Island Power Plant
Monroe County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Utility Board of Key West for two refurbished combustion turbine units to be located at Stock Island Power Plant, 6900 Front Street, Stock Island, Monroe County.

This permit is for installation of two refurbished 19.77 megawatt electric generators designated as Combustion Turbine Units 2 and 3 (Emission I.D. No. 008 and 009). The units will burn No. 2 fuel oil with a sulfur content of 0.05 percent or less, by weight. Controls for NO_x emissions consist of water injection. Each combustion turbine unit will be allowed to operate continuously for up to 4,000 hours per year with the combined operation of both units being limited to 4,000 hours per year. These operating hour limitations equate to a full use limit of 8.8 million gallons of fuel per year. As part of the proposed construction of the combustion turbine units the Utility Board of Key West will retire the existing 37 MW steam electric generating unit at the Stock Island Power Plant. Also, the Utility Board will install taller stacks for the three existing high-speed diesel units located at the Stock Island Power Plant. These stack modifications are being implemented to assure compliance with ambient air quality standards.

An air quality impact analysis was conducted. Consistent with the planned installations and modifications, emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards.

The Department will issue the FINAL Permit, in accordance with the conditions of the DRAFT Permit 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 DRAFT Permit issuance action for a period of 14 (fourteen) days from the date of publication of this Notice. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the Department shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

The Department will issue FINAL Permit with the conditions of the DRAFT Permit unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S. The procedures for petitioning for a hearing are set forth below. Mediation is not available for this action.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth below and must be filed (received) in the Office of

**NOTICE TO BE PUBLISHED
IN THE NEWSPAPER**

of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must 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 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the 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 the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the Department's action or proposed action addressed in this notice of intent.

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 of intent. 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:

Dept. of Environmental Protection Bureau of Air Regulation 111 S. Magnolia Drive, Suite 4 Tallahassee, Florida 32301 Telephone: 850/488-1344 Fax: 850/922-6979	Dept. of Environmental Protection South District Office 2295 Victoria Avenue, Suite 364 Fort Myers, Florida 33901 Telephone: 941/332-6975 Fax: 941/332-6969	Dept. of Environmental Protection Marathon Branch Office 11400 Overseas Hwy, Suite 123 Marathon, Florida 33050 Telephone: 305/289-2310
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The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-1344, for additional information.

**Technical Evaluation
and
Preliminary Determination**

**Key West City Electric System
Monroe County, Florida**

**TWO COMBUSTION TURBINES
(19.77 megawatts each)**

Construction Permit No. 0870003-003-AC

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

December 8, 1997

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

I. GENERAL INFORMATION

A. Name and address of applicant

Utility Board of the City of Key West
1001 James Street
Key West, Florida 33040

B. Reviewing and Process Schedule

Date of Receipt of Application: September 11, 1997
Request for additional information: September 23, 1997 and October 10, 1997
Application Completeness Date: November 10, 1997

C. Facility Location

This facility is located at Stock Island Power Plant, 6900 Front Street, Stock Island, Monroe County, Florida. The UTM coordinates are Zone 17, 425.65 km east and 2716.67 km north.

Facility Identification Code (SIC)

Major Group No. 49 - Electric, Gas and Sanitary Services.

Industry Group No. 491 - Combination Electric, Gas and Other Utility Services.

Industry Group No. 4911 - Electric and Other Services Combined.

D. Project Description

The Utility Board of Key West is proposing to install two refurbished combustion turbine electric generating units, upon the approval of the retirement of the existing 37 megawatt (MW) steam electric generator (Ralph Garcia Steam Plant). The two combustion turbine units which will be noted as Combustion Turbine Units 2 and 3 (Emission I.D. No. 008 and 009) have nominal peak load ratings of 19.77 MW each, at 29.4°C and 760 mm Hg. Units 2 and 3 will be fired on No. 2 low sulfur fuel oil (0.05%, by weight, sulfur). Operation shall be limited to 4000 hours per year for each unit or for the combined operation of both units (which corresponds to approximately 8.84 million gallons per year of fuel oil combusted).

The Stock Island Power Plant currently consists of seven (7) power generating units: five (5) diesel engine generators, one (1) steam electric generator and one (1) combustion turbine generator. Diesel Engine Generators Units 2, 3 and 4 (Emission I.D. No. 002, 003 and 004) are used for peaking power, are each rated at 2 MW and burn 0.05 percent or less, by weight, No. 2 low sulfur fuel oil. The other diesel engine generators, Units 5 and 6 (Emission I.D. No. 005 and 006), are medium speed diesel units and have a rated capacity of 8.8 MW each. These units utilize No. 2 fuel oil with a sulfur content of 0.05% or less, by weight. The existing Combustion Turbine Unit 1 (Emission I.D. No. 007), is rated at 23.5 MW and also uses 0.05% or less, by weight, No. 2 low sulfur fuel oil. The 37 MW steam electric generator (Emission I.D. No. 001) that is proposed for retirement burns both No. 2 and No. 6 fuel oil with a sulfur content of 2.5% or less, by weight. With the retirement of the steam electric generator and the addition of the two refurbished combustion turbine generating units, total capacity of the facility with eight (8) units will be 87.14 MW.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

E. Project Emissions

With the retirement of the 37 MW steam electric generator and the addition of the two refurbished 19.77 MW combustion turbine (CT's) generators, the maximum emissions from the two CT's will be 172 tons per year (TPY) of nitrogen oxides (NO_x); 100.96 TPY of carbon monoxide (CO); 55.0/45.00 TPY of particulate matter (PM/PM₁₀) respectively; and 63.68 TPY of sulfur dioxide (SO₂). These emissions assume an operating limitation of 4000 hours per year total for the two CT units while operating at 85°F ambient temperature.

II. RULE APPLICABILITY

The proposed project, consisting of retirement of the 37 MW steam electric generator and the installation the two refurbished 19.77 MW combustion turbines, in Monroe County, is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, Chapter 62-4 and Rules 62-212.300 and 62-212.500(5), Florida Administrative Code (F.A.C.), and 40 CFR 60 (July 1, 1996 version).

This facility is located in an area designated attainment for all criteria pollutants in accordance with F.A.C. Rule 62-275.400.

The emission units affected by this permit shall comply with all applicable provisions of the Florida Administrative Code and, specifically, the following Chapters and Rules:

Chapter 62-4	Permits
Rule 62-103.150	Public Notice of Application and Proposed Agency Action
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.800	Federal Regulations Adopted By Reference
Rule 62-210.200	Definitions
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention
Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-212.400(2)(e)3	Contemporaneous Emissions Changes
Rule 62-213	Operation Permits for Major Sources of Air Pollution
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-297.310	General Test Requirements
Rule 62-297.401	Compliance Test Methods
Rule 62-297.620	Exceptions and Approval of Alternative Procedures and Requirements

III. TECHNICAL EVALUATION

In order to provide adequate electric generating capacity for the Key West, Florida electric system during peak load conditions and during emergency conditions, the applicant proposes to install two refurbished combustion turbine electric generators, each with a rated capacity of 19.77 MW, at their Stock Island facility. Part of the need for the proposed CT's is to replace the

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

generating capacity of the existing 37 MW steam electric generating unit at the Stock Island plant site which is being retired by the applicant. As part of the permitting action, the applicant will officially retire the steam unit from the State of Florida's emission inventory.

The proposed refurbished combustion turbine electric generators are General Electric model MS5001R with a nominal peak load rating of 19.77 MW each, at 29.4°C and 760 mm Hg. The primary fuel for the combustion turbine electric generators will be No. 2 fuel oil, with a maximum sulfur content of 0.05% by weight. NO_x emissions from the CT's will be controlled by water injection. The existing units at Stock Island Power Plant consist of three nominal 2 MW high speed diesel units, two nominal 8.8 MW medium speed diesel units, one nominal 23.5 MW combustion turbine electric generating unit and one nominal 37 MW steam electric generating unit, as well as fuel storage tanks and handling facilities, and other electrical generating support equipment.

With the retirement of the 37 MW steam generating unit, it is appropriate to consider emission off-sets in permitting the two CT's, since they will in part replace the capacity of the steam unit. As stated in Rule 62-212.400(2)(e), FAC, emissions over the past five years from contemporaneous sources on-site must be analyzed to determine off-sets. The two existing on-site units to which contemporaneous applies are: 1) the 23.5 MW combustion turbine electric generating unit; and 2) the 37 MW steam generating unit, which is proposed for retirement.

The existing 23.5 MW combustion turbine electric generating unit was permitted in September 1995 and relocated to the Stock Island Plant site in 1996 from the Key West Power Plant site, which is no longer in use. Since contemporaneous applies to only non-PSD pollutants, the only contemporaneous emissions are emissions of SO₂, PM, PM₁₀ and CO from the relocated gas turbine during 1996 and the first seven months of 1997.

In the past five years, the 37 MW steam generating unit has only conducted normal operations in 1993 and 1994. FDEP has determined that the years 1993 and 1994 are representative of normal operation for the steam unit, and as such the average annual actual emissions for NO_x, SO₂, PM, PM₁₀ and CO will be considered contemporaneous emissions for the steam unit.

Taking into account the contemporaneous emission increases of the relocated gas turbine and the contemporaneous emission decreases of the steam unit and the desire by the applicant to permit the proposed two combustion turbines as non-PSD sources, the emissions from the combustion turbines must be less than the following annual emission levels:

Pollutant	Allowable Emission Off-Set (tons/year)	Emission Threshold for PSD Applicability (tons/year)	Total Allowable Emissions (tons/year)
NO _x	134.5	40	<174.5
SO ₂	728.9	40	<768.9
PM	30.4	25	<55.4
PM ₁₀	30.4	15	<45.4
CO	9.7	100	<109.7

In order to assure compliance with the above allowable emission limits, the following limitations are proposed by the applicant for each unit and the combined units at 40°F ambient temperature and the maximum heat input of 305 MMBtu/hr (HHV):

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Pollutant	Short-Term Limits (lbs/hr) For Each Unit	Annual Limits (tons/year) For Each Unit ^[1]	Combined Annual Limits (tons/year) For Both Units ^[3]
NO _x	93.8	172.0	172.0
SO ₂	15.9	31.8	63.6
PM	16.6	33.2	55.0
PM ₁₀	16.6	33.2	45.0
CO ^[2]	25.2	50.4	101.0

[1] Based on a proposed annual operating hour limitation of 4,000 hours per year total for both units at 85°F ambient temperature and 86 lbs/hr NO_x emission rate. The 86 lbs/hr is based on a heat input of 303 MMBtu/hr and a combustion turbine output of 19.77 MW.

[2] Based on 50% load operating conditions.

[3] Combined annual emission limits are dependent on the lesser of the total allowable emissions or the single unit annual emission limit multiplied by two.

The most restrictive annual operating limit for all pollutants for the combined emissions from both units is NO_x (172 tons per year). The applicant proposes limiting each unit to 4,000 hours per year of operation and the combined operation of both units to 4,000 hours per year. This operating limitation is based on actual operations at an ambient temperature of 85°F and a fuel heat input of 303 MMBtu/hr.

IV. AIR QUALITY IMPACT ANALYSIS

A. Introduction

The applicant is limiting new emissions to less than the threshold for PSD applicability; therefore, the air quality impact analysis required by the PSD regulations is not applicable. However, since the facility has several existing sources with very short stacks, the department required an ambient air quality standards (AAQS) analysis for PM₁₀ and NO_x emissions to give reasonable assurance that no violations of the AAQS would be predicted to occur. The basis for this analysis is air quality dispersion modeling carried out in accordance with EPA guidelines.

B. Models and Meteorological Data Used in Ambient Air Quality Analysis

The EPA-approved Industrial Source Complex Short-Term (ISCST3) dispersion model was used to evaluate the pollutant emissions from the proposed project and other existing major facilities. The model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area, and volume sources. The model incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. The ISCST3 model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options in each modeling scenario. Direction-specific downwash parameters were used for all sources for which downwash was considered. Because the initial downwash analysis indicated potential high ambient air quality impacts for emissions of NO_x and PM₁₀ from the existing three high-speed diesel (HSD) units, the applicant has committed to the installation of taller stacks for these HSD units. The existing stacks for the HSD units are

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

currently 16 feet in elevation above grade. The new stacks (3 stacks) will be 40 feet above grade.

Meteorological data used in the ISCST3 model consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) stations at Key West, Florida (surface data) and West Palm Beach, Florida (upper air data). The 5-year period of meteorological data was from 1987 through 1991. These NWS stations were selected for use in the study because they are the closest primary weather stations to the study area and are most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

Since five years of data were used in ISCST3, the highest-second-high (HSH) short-term predicted concentrations were compared with the appropriate AAQS. For the annual averages, the highest predicted yearly average was compared with the standards.

C. Preliminary Ambient Air Quality Analysis

The receptor grid for the air quality analysis consisted of a polar coordinate system centered at 425.65 km East and 2716.67 km North, near the center of the Stock Island plant site. The grid consisted of 36 directional radials separated by 10 degree increments. Receptors were placed at ground level at 150, 200, 250, 300, 400, 500, 750 and 1000 meter intervals, and along the plant's property boundary.

This analysis required an inventory of all major structures and inclusion of building height and dimensions in the modeling. The preliminary analysis showed that the emissions from the three existing high speed diesel units were being influenced by the building wake of the medium speed diesel unit building. This influence resulted in predicted violations of the PM₁₀ and NO_x AAQS off of the property to the northeast of the plant site over South Bay.

D. Refined Ambient Air Quality Analysis

As a result of the preliminary analysis, the applicant did further AAQS modeling to determine measures which would result in maximum predicted impacts less than the AAQS. Based on this refined modeling, the applicant committed to the installation of taller stacks (40 feet above grade) for the three HSD units. The construction of taller stacks for the HSD units will result in maximum predicted impacts which are less than the AAQS as shown in the table below.

Ambient Air Quality Impacts

Pollutant	Averaging Time	Maximum Predicted Impact	Impact Greater Than AAQS	AAQS (ug/m ³)
PM ₁₀	Annual	3	NO	50
	24-hour	123	NO	150
NO ₂	Annual	32	NO	100

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

V. CONCLUSION

Based on the foregoing technical evaluation of the application and additional information submitted by the applicant, the Department has made a preliminary determination that the proposed project consisting of: installation of two refurbished combustion turbine units; retirement of the existing 37 MW steam unit; and modification of the three high speed diesel units stacks to a new elevation of 40 feet will comply with all applicable state air pollution regulations provided certain conditions are met. The General and Specific Conditions are listed in the attached draft conditions of approval.

Permit Engineer: Syed Arif
Meteorologist: Cleve Holladay

Reviewed and Approved by A. A. Linero, P. E.
Administrator New Source Review Section

DRAFT

PERMITTEE:

Utility Board of the City of Key West
1001 James Street
Key West, Florida 33041-6100

Authorized Representative:
Mr. Larry Thompson
General Manager

F.I.D. No.	0870003
SIC No.	4911
Project:	Combustion Turbines 2 and 3
Permit No.	0870003-003-AC
Expires:	September 30, 1999

PROJECT AND LOCATION:

Permit for the construction of two refurbished 19.77 megawatt combustion turbine generating units at the Stock Island Power Plant, 6900 Front Street, Stock Island, Monroe County. UTM coordinates are Zone 17, 425.65 km E; 2716.67 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to modify the facility 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 of Environmental Protection (Department).

Attached appendices are made a part of this permit:

Appendix GC Construction Permit General Conditions_
Appendix CSC Emission Unit(s) Common Specific Conditions

Howard L. Rhodes, Director
Division of Air Resources
Management

SECTION II. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION A. FACILITY DESCRIPTION

The Utility Board of the City of Key West (Utility Board) Stock Island Power Plant presently consists of one 37 MW steam electric generating unit (Emission I.D. No. 001), two 8.8 MW medium speed diesel units (Emission I.D. Nos. 005 and 006), three 2.0 MW high speed diesel units (Emission I.D. Nos. 002, 003 and 004), and one 23.5 MW simple-cycle combustion turbine unit (Emission I.D. No. 007). This permit is to construct two refurbished 19.77 MW combustion turbine units (Emission I.D. Nos. 008 and 009). As part of this permitting action the Utility Board is also committing to the retirement of the 37 MW steam unit (Emission I.D. No. 001) and to the modification (stack height increase) of the high speed diesel units' stacks.

SUBSECTION B. REGULATORY CLASSIFICATION

The Stock Island Power Plant is classified as a Major Source of Air Pollution or Title V Source because it emits or has the potential to emit at least 100 tons per year of sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO) and particulates (PM). It is also a Major Facility with respect to preconstruction review because it emits or has the potential to emit at least 250 tons per year of SO₂, NO_x, CO and PM.

SUBSECTION C. PERMIT SCHEDULE:

- 09/11/97: Date of Receipt of Application
- 10/10/97: Department's Preliminary Incompleteness Letter
- 11/07/97: Company's Response to Department's Letter
- 11/10/97: Application Deemed Complete

SUBSECTION D. 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.

- Application received 09/11/97.
- Department's letter dated 10/10/97.
- Company letter and addendum 1 dated 09/30/97.
- Company letter and addendum 2 dated 11/07/97.

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

SUBSECTION A. ADMINISTRATIVE

- A.1 Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Department of Environmental Protection, South District Office located at 2295 Victoria Avenue, Suite 364, Ft. Myers, Florida 33901, and phone number (941) 332-6975. All applications for permits to construct or modify an emission unit(s) subject to the Prevention of Significant Deterioration (PSD) should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP) located at 2600 Blairstone Road, Tallahassee, Florida 32399-2400 and phone number (850)488-1344.
- A.2 General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
- A.3 Emission Unit(s) Common Specific Conditions: The owner and operator is subject to and shall operate under the attached Emission Unit(s) Common Specific Conditions listed in Appendix CSC of this permit. The Emission Unit(s) Common Specific Conditions are binding and enforceable pursuant to Chapters 62-204 through 62-297 of the Florida Administrative Code.
- A.4 Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
- A.5 Forms and Application Procedures: 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. [Rule 62-210.900, F.A.C.]
- A.6 Expiration: This air construction permit shall expire on **September 30, 1999**. [Rule 62-210.300(1), F.A.C.]. The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. However, the permittee shall promptly notify the permitting authority office of any delays in completion of the project which would affect the startup day by more than 90 days. [Rule 62-4.090, F.A.C.]
- A.7 Applicable Regulations: The facility is subject to the following regulations: Florida Administrative Code Chapters 62-4; 62-103; 62-204; 62-210; 62-212, 62-213; 62-220; 62-296, and 62-297. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION A. COMMON CONDITIONS: 40 CFR 60 SUBPART A, GENERAL PROVISIONS

EMISSION UNITS

This permit addresses the following emission units.

EMISSIONS UNIT NO.	SYSTEM	EMISSIONS UNITS DESCRIPTION
001#	Power	37.0 MW Steam Boiler (to be retired)
002#	Power	2.0 MW Diesel Electric Generator
003#	Power	2.0 MW Diesel Electric Generator
004#	Power	2.0 MW Diesel Electric Generator
008*	Power	19.77 MW Simple Cycle Combustion Turbine
009*	Power	19.77 MW Simple Cycle Combustion Turbine

Existing Emission units

* New Emission units

SUBSECTION B. SPECIFIC CONDITIONS

The following Specific Conditions apply to the following emission units:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
008	Power	19.77 MW Simple Cycle Combustion Turbine
009	Power	19.77 MW Simple Cycle Combustion Turbine

EMISSION LIMITATIONS

Note: The emission limits of lb/hr apply to each unit, while the TPY limit apply to each unit individually and both units collectively.

B.1 Oxides of Nitrogen. NO_x emissions shall not exceed any of the following limits:

a. Nitrogen oxides emissions, expressed as NO_x, shall not exceed:

$$STD = 0.0075(14.4)/Y + F$$

where:

STD = allowable NO_x emissions (percent by volume at 15 percent oxygen and on a dry basis).

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

F = NO_x emission allowance for fuel-bound nitrogen as defined in 40 CFR 60.332(a)(3). F shall be zero (0) for this facility as indicated by the applicant.

b. 75 ppmvd, based on a 1-hour average at 15% O₂ and ISO standard ambient conditions;

c. 93.84 lbs/hour, based on a 1-hour average at 15% O₂ and an ambient temperature of 40°F.

d. 172 TPY, based on an average hourly concentration of 86 lbs/hour at 85°F ambient temperature and 4,000 hours per year of operation. [Rule 62-212.300, F.A.C., 40 CFR 60.332]

B.2 Sulfur Dioxide, SO₂ emissions shall be controlled by limiting the sulfur content of the fuel to a maximum of 0.05 percent by weight. [Rule 62-210.2000, F.A.C., 40 CFR 60.333]

B.3 Particulate Matter/PM₁₀. PM/PM₁₀ emissions shall be limited to 16.62 lbs/hour, based on a 1-hour average; PM shall be limited to 55 TPY. PM₁₀ shall be limited to 45 TPY. [Rule 62-212.300, F.A.C.]

B.4 Carbon Monoxide. CO shall be limited to 25.24 lbs/hour, based on a 1-hour average; 101 TPY. [Rule 62-212.300, F.A.C.]

B.5 Visible Emissions. Visible emissions shall be limited to 20 percent opacity. [Rule 62-296.310, F.A.C.]

B.6 In order to minimize excess emissions during startup/shutdown/malfunction this emission unit shall adhere to best operational practices. [Rule 62-210.700, F.A.C.]

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

OPERATIONAL LIMITATIONS

- B.7 Each emission unit is allowed to operate 4,000 hours per year. The combined operation of both units shall also be limited to 4,000 hours per year. [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit].
- B.8 Only No. 2 fuel oil can be fired in the combustion turbines. The maximum sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent, by weight. [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit].
- B.9 The maximum heat input rate to Emission Unit Nos. 008 and Emission Unit No. 009 shall not exceed 305 million Btu per hour (MMBtu/hr) [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit].
- B.10 The maximum No. 2 fuel oil consumption allowed to be burned in either Emission Unit No. 008 or Emission Unit No. 009 is 8,840,000 gallons per year, which is equivalent to 4000 hours per year of operation at full load. The combined fuel oil consumption for both units shall be limited to 8,840,000 gallons per year. [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit]

MONITORING OF OPERATIONS

- B.11 The permittee shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within ± 5.0 percent and shall be approved by the Department. [40 CFR 60.334(a)]
- B.12 The permittee shall monitor sulfur content, nitrogen content, and the lower heating value of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:
- If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.
 - If the turbine is supplied its fuel without intermediate bulk storage, the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Department before they can be used to comply with 40 CFR 60.334(b). [40 CFR 60.334(b)(1) and (b)(2); 40 CFR 60.335]
- B.13 The permittee shall maintain daily records of fuel oil consumption for the emission unit. [Rule 62-210.200, F.A.C.]
- B.14 The permittee shall submit a quarterly excess emissions and monitoring systems performance report of the continuous monitoring system for any one-hour period during which the average water-to-fuel ratio falls below the water-to-fuel ratio determined to demonstrate compliance with Condition B.1. [40 CFR 60.7(c); 40 CFR 60.334(c)(1)]

TEST METHODS AND PROCEDURES

- B.15 Compliance with the allowable emission limiting standards for NO_x in B.1 shall be determined by using EPA Reference Method 20 as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. The NO_x emissions shall be determined at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

minimum point in the range and peak load.. An annual compliance test shall be performed on the unit if operated for more than 400 hours in the preceding 12-month period. [Rule 62-297.310, F.A.C. and 40 CFR 60.335(3)]

B.16 The NO_x emission rate shall be computed for each run using the following equation:

$$NO_{x,iso} = (NO_{x,o})(P_r/P^0)^{0.5} e^{19(H_o-0.00633)} (288^{\circ}K/T_a)^{1.53}$$

where:

NO_{x,iso} = emission rate of NO_x at 15 percent O₂ and ISO standard ambient conditions, volume percent.

NO_{x,o} = observed NO_x concentration, ppm by volume.

P_r = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

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

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

e = transcendental constant, 2.718.

T_a = ambient temperature, °K.

[40 CFR 60.335(c)(1)]

B.17 The continuous monitoring system shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with Condition B.1 at 30, 50, 75 and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the equation provided in Condition B.16. [40 CFR 60.335(2)]

B.18 An initial compliance test shall be conducted for CO emissions using EPA Reference Method 10 as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. [Rule 62-297.310, F.A.C.] An annual compliance test for CO shall be performed on the units if operated for more than 400 hours in the preceding 12-month period. [Rule 62-297-310, F.A.C.]

B.19 Compliance with the visible emission standard shall be demonstrated with EPA Reference Method 9 as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. [Rule 62-297.401, F.A.C.]

RECORDKEEPING AND REPORTING REQUIREMENTS

B.20 All measurements, records, and other data required to be maintained by this facility shall be retained for at least five (5) years following the data on which such measurements, records, or data are recorded. These data shall be made available to the Department upon request. [Rule 62-4.070(3), F.A.C.]

B.21 Two copies of the results of the emission tests for the pollutant listed in Condition B.1 for both Emission Unit Nos. 008 and 009 shall be submitted within forty-five days of the last sampling run to the South District office in Ft. Myers. All reports shall be in a format consistent with and shall include the information in accordance with Rule 62-297.310 (8), F.A.C. [Rule 62-297.310(8), F.A.C.]

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION C. SPECIFIC CONDITIONS

The following Specific Conditions apply to the following emission units:

EMISSIONS UNIT NO.	SYSTEM	EMISSIONS UNITS DESCRIPTION
001	Power	37.0 MW Steam Boiler (to be retired)
002	Power	2.0 MW Diesel Electric Generator
003	Power	2.0 MW Diesel Electric Generator
004	Power	2.0 MW Diesel Electric Generator

OPERATIONAL LIMITATIONS

- C1. Prior to issuance of this construction permit, the permittee shall supply to the Department an official certification of the retirement of the 37 MW steam boiler at Stock Island (Emission Unit Emission I.D. 001).]
- C2. The permittee shall install new or modified stacks for the three high-speed diesel units (Emission Unit I.D Nos. 002, 003, and 004) with an elevation of 40 feet above plant site grade. Completion of construction of these stacks shall be no later than June 1, 1998.

APPENDIX CSC

EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

SUBSECTION 1.0 CONSTRUCTION REQUIREMENTS

- 1.1 Applicable Regulations: Unless otherwise indicated in this permit, the construction and operation of the subject emission unit(s) 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, 62-103, 62-204, 62-210, 62-212, 62-213, 62-296, 62-297; and the applicable requirements of the Code of Federal Regulations Section 40, Part 60, adopted by reference in the Florida Administrative Code regulation [**Rule 62-204.800 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 requirements or regulations. [**Rule 62-210.300, F.A.C.**]

SUBSECTION 2.0 EMISSION LIMITING STANDARDS

- 2.1 General Particulate Emission Limiting Standards. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). [**Rule 62-296-320(4)(b)1, F.A.C.**]
- 2.2 Unconfined Emissions of Particulate Matter [**Rule 62-296.320(4)(c), F.A.C.**]
- (a) The owner or operators shall not cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any source whatsoever, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling, without taking reasonable precautions to prevent such emission.
- (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
- (c) Reasonable precautions include the following:
- Paving and maintenance of roads, parking areas and yards.
 - Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
 - Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
 - Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.

APPENDIX CSC

EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

- Landscaping or planting of vegetation.
- Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
- Confining abrasive blasting where possible.
- Enclosure or covering of conveyor systems.

NOTE: Facilities that cause frequent, valid complaints may be required by the Permitting Authority to take these or other reasonable precautions. In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

2.3 General Pollutant Emission Limiting Standards: [Rule 62-296.320, F.A.C.]

- (a) The owner or operator shall not store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems.
- (b) No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

NOTE: An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [F.A.C. 62-210.200(198)]

SUBSECTION 3.0 OPERATION AND MAINTENANCE

- 3.1 Changes/Modifications: The owner or operator shall submit to the Permitting Authority(s), for review any changes in, or modifications to: the method of operation; process or pollution control equipment; increase in hours of operation; equipment capacities; or any change which would result in an increase in potential/actual emissions. Depending on the size and scope of the modification, it may be necessary to submit an application for, and obtain, an air construction permit prior to making the desired change. *Routine maintenance of equipment will not constitute a modification of this permit. [Rule 62-4.030, 62-210.300 and 62-4.070(3), F.A.C.]*
- 3.2 Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the Permitting Authority as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any

APPENDIX CSC

EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]

- 3.3 Circumvention: The owner or operator shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rules 62-210.650, F.A.C.]
- 3.4 Excess Emissions Requirements [Rule 62-210.700, F.A.C.]
- (a) Excess emissions resulting from start-up, shutdown or malfunction of these emissions units 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 Permitting Authority office for longer duration. [Rule 62-210.700(1), F.A.C.]
 - (b) Excess emissions that are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during start-up, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
 - (c) In case of excess emissions resulting from malfunctions, the owner or operator shall notify Permitting Authority within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the problem; and the corrective actions being taken to prevent recurrence. [Rule 62-210.700(6), F.A.C.]
- 3.5 Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]

SUBSECTION 4.0 MONITORING OF OPERATIONS

4.1 Determination of Process Variables

- (a) The permittee shall operate and maintain equipment and/or instruments necessary to determine process variables, such as process weight input or heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weigh hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

APPENDIX CSC

EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

SUBSECTION 5.0 TEST REQUIREMENTS

- 5.1 Test Performance Within 60 days after achieving the maximum production rate at which these emission units will be operated, but not later than 180 days after initial startup and annually thereafter, the owner or operator of this facility shall conduct performance test(s) pursuant to 40 CFR 60.8, Subpart A, General Provisions and 40 CFR 60, Appendix A. No other test method shall be used unless approval from the Department has been received in writing. Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emission unit(s) operating at permitted capacity pursuant to Rule 62-297.310(2), F.A.C. [Rules 62-204.800, 62-297.310, 62-297.400, 62-297.401, F.A.C.]
- 5.2 Test Procedures shall meet all applicable requirements of the Florida Administrative Code Chapter 62-297. [Rule 62-297.310, F.A.C.]
- 5.3 Test Notification: The owner or operator shall notify the Permitting Authority in writing at least *(30) days* (initial) and *15 days* (annual) prior to each scheduled compliance test to allow witnessing. The notification shall include the compliance test date, place of such test, the expected test time, the facility contact person for the test, and the person or company conducting the test. The (30) or (15) day notification requirement may be waived at the discretion of the Department. Likewise, if circumstances prevent testing during the test window specified for the emission unit, the owner or operator may request an alternate test date before the expiration of this window. [Rule 62-297.310 and 40 CFR 60.8, F.A.C.]
- 5.4 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 Rule 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Permitting Authority. [Rule 62-297.310(7)(b), F.A.C.]
- 5.5 Stack Testing Facilities: The owner or operator shall install stack testing facilities in accordance with Rule 62-297.310(6), F.A.C..
- 5.6 Exceptions and Approval of Alternate Procedures and Requirements: An Alternate Sampling Procedure (ASP) may be requested from the Bureau of Air Monitoring and Mobile Sources of the Florida Department of Environmental Protection in accordance with the procedures specified in Rule 62-297.620, F.A.C.
- 5.7 Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new

APPENDIX CSC
EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2) and (3), F.A.C.]

SUBSECTION 6.0 REPORTS AND RECORDS

- 6.1 Duration: All reports and records required by this permit shall be kept for at least (5) years from the date the information was recorded. [Rule 62-4.160(14)(b), F.A.C.]
- 6.2 Emission Compliance Stack Test Reports:
- (a) A *test report* indicating the results of the required compliance tests shall be filed with the Permitting Authority as soon as practical, but no later than 45 days after the last sampling run is completed. [Rule 62-297.310(8), F.A.C.]
 - b) 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), F.A.C.**
- 6.3 Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Permitting Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. [Rules 62-4.130 and 62-210.700(6), F.A.C.]
- 6.4 Annual Operating Report for Air Pollutant Emitting Facility: Before March 1st of each year, the owner or operator shall submit to the Permitting Authority this required report [DEP Form No. 62-210.900(5)], which summarizes operations for the previous calendar year. [Rule 62-210.370(3), F.A.C.]

SUBSECTION 7.0 OTHER REQUIREMENTS

- 7.1 Waste Disposal: The owner or operator shall treat, store, and dispose of all liquid, solid, and hazardous wastes in accordance with all applicable Federal, State, and Local regulations. This air pollution permit does not preclude the permittee from securing any other types of required permits, licenses, or certifications.

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

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

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

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

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

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

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology ()
 - (b) Determination of Prevention of Significant Deterioration (); 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.
-

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- 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. Addressee's Address
2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
 Mr. Larry Thompson GM
 Utility Board - City of Key West
 1001 James Street
 Key West, FL

4a. Article Number
 P 339 251 198

4b. Service Type

<input type="checkbox"/> Registered	<input checked="" type="checkbox"/> Certified
<input type="checkbox"/> Express Mail	<input type="checkbox"/> Insured
<input type="checkbox"/> Return Receipt for Merchandise	<input type="checkbox"/> COD

7. Date of Delivery
 12-12-97

5. Received By: (Print Name)
 33040

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)
 [Signature] 12/12/97

PS Form 3811, December 1994

Thank you for using Return Receipt Service.

Domestic Return Receipt

P 339 251 198

US Postal Service
Receipt for Certified Mail
 No Insurance Coverage Provided.
 Do not use for International Mail (See reverse)

Sent to <i>Larry Thompson</i>	
Street & Number <i>Utility Board of</i>	
Post Office, State, & ZIP Code <i>The City of</i>	
Postage <i>Key West</i>	
Certified Fee <i>FI</i>	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date <i>12-10-97</i>	
<i>0870003-003-AR</i>	

PS Form 3800, April 1995



July 31, 1997

Mr. Syed Arif
Permitting and Standards Section
Bureau of Air Regulations
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: **Permitting Key West Combustion Turbine Peaking Unit(s)**

Dear Mr. Syed:

Attached are the minutes of our meeting on July 23, 1997 concerning the subject project. Please let me know if you have any questions or changes.

Sincerely,

R. W. BECK, INC.

Ivan L. Clark
Senior Director
Environmental Services

ILC/smm

Attachment

- c: N. Guariello
- C. Jansen
- C. Holladay
- A. Linero
- C. Phillips
- K. Plante
- W. Reynolds
- R. Williams

*cc: S. Arif
S.D. Branch
S.D.
EPA
NPS*

RECEIVED

AUG 04 1997

**BUREAU OF
AIR REGULATION**



MEETING MINUTES

- Date:** July 23, 1997
- Place:** FDEP Offices - Tallahassee, Florida
- In Attendance:** Syed Arif, FDEP
Ivan Clark, R. W. Beck
Cleve Holladay, FDEP
Carl Jansen, Utility Board of Key West
Al Linero, FDEP
Cindy Phillips, FDEP
Kelly Brewton Plante, Gray, Harris & Robinson
Robert Williams, FMPA
- Purpose:** Pre-Application Meeting for Permitting Key West Combustion Turbine Peaking Unit(s)
- Reference:** July 17, 1997 letter from Ivan Clark, R. W. Beck to Syed Arif, FDEP (copy attached)

Discussion:

The subject meeting was held to initiate discussions with FDEP concerning air emission permitting requirements for the combustion turbine peaking capacity to be installed at the Stock Island Plant site. The following items were discussed:

- In order to appropriately take credit for emissions from the Stock Island Steam Unit, the unit must be officially retired at FDEP. A one-page form must be completed (copy provided to C. Jansen) and submitted to FDEP. U. S. EPA will have to approve retirement since this unit is a Title IV Acid Rain unit.
- FDEP is in the process of preparing the draft Title V permits for generating plants statewide. They hope to have all draft permits completed by September 30, 1997. For those plants that include Title IV Acid Rain units, it is FDEP's goal to have final permits in-place by December 31, 1997.
- Cindy Phillips checked with Clair Fancy at FDEP concerning approach that the Utility Board should pursue concerning retirement of the steam unit, addition of new CT capacity and issuance of the draft Title V permit. Clair indicated that the Utility Board should request an extension of time with respect to finalizing the draft permit. This would avoid unneeded review work by both FDEP and the Utility Board.
- The attached table of actual emissions for the Stock Island Steam Unit was reviewed and discussed. FDEP has a regulatory policy with respect to emission off-sets for

retirement or reconstruction of older units. This is covered in Chapter 62-210.200(12) FAC. In general, this policy allows for selecting two representative years of operating data and using those years to establish emission off-sets. A request should be submitted by the Utility Board to FDEP requesting a determination with respect to the off-sets.

- With respect to NO_x emission controls, the CT(s) will not be subject to BACT, assuming they can be permitted as non-PSD. However, we need to check applicability of NSPS and associated requirements; again, a determination should be requested from FDEP.
- Assuming the CT(s) can be permitted as non-PSD, only an air quality compliance review will be necessary to assure compliance with NAAQS. We generally agreed that probably the easiest way to complete this review would be to go ahead and do a refined modeling analysis using data files available from previous work done for the relocation of the Key West combustion turbine. Downwash evaluations should be included.
- Submission of a permit application should be done on the new Title V application forms. FDEP would like the application submitted in electronic form.
- When requesting a determination with respect to the key permitting issues, reference the applicable regulatory citation. This will expedite FDEP's review.
- It was suggested that we should review EPA's Technology Transfer Network and review "reconstruction" requirements.
- With respect to FMPA's ownership and financing of the CT(s) and the Utility Board's operation and maintenance, it was generally agreed that since the Utility Board will have "common control" of the CT(s) with the other operations at the Stock Island Plant site, the CT(s) probably should be included as part of the Utility Board's Title V permit for the Stock Island Plant site.
- In submitting application information to FDEP for proposed units, it may be helpful to show "anticipated" emissions along with potential emissions since there may be a significant difference for these peaking units (i.e. 3,000 hours potential limit versus <1,500 hours for normal peaking operation).
- With respect to permitting schedule, the following was discussed:

October 1, 1997	Submit application
November 1, 1997	Application is determined complete
December 1, 1997	Public notice draft permit
January 5, 1998	Issue final permit



July 17, 1997

via Facsimile: 2 pages
(904) 922-6979

Mr. Syed Arif
Florida Department of Environmental Protection
2600 Blairstone Road
Mill Station 5505
Tallahassee, FL 32399-2400

Subject: **Pre-Application Meeting for
Key West/Stock Island Peaking Combustion Turbine**

Dear Mr. Arif:

In accordance with our recent telephone conversation, this letter confirms the subject proposed meeting time and date for July 23, 1997, 10:30 a.m. The purpose of the meeting will be to discuss the proposed project and plans for permitting new combustion turbine ("CT") capacity in Key West. The following is a brief summary of the proposed project.

In order to maintain adequate electric generating reserve capacity, the Utility Board of Key West is planning the addition of peaking combustion turbine capacity at its Stock Island Plant site. Through a recently approved power supply agreement with the Florida Municipal Power Agency ("FMPA"), FMPA will own and finance this new capacity and the Utility Board will operate and maintain the unit(s). The output from the CT(s) will provide reserve generating capacity to the Key West electric system.

A major reason that this new capacity is now needed is the fact that the Utility Board officially retired their 36 MW Stock Island steam unit in late 1996. This unit was retired for a number of reasons, including high operating costs, environmental compliance problems and lack of operating flexibility as a peaking unit.

The proposed combustion turbine (CT) unit(s) is anticipated to be a used refurbished unit(s), either a General Electric Frame 5N unit with a rating of 23.98 MW or two General Electric MS 5001R units rated at 17.9 MW each. Selection of the vendor and award of contract is anticipated in approximately six weeks.

Key permitting issues that we would like to review and discuss with FDEP include:

1. Utilization of emission off-sets for the retired Stock Island steam unit for permitting the CT(s).
2. Limiting annual emissions to avoid the rigors of the PSD permitting process.
3. NO_x emission limitations and control for the CT(s).
4. Permit application requirements and anticipated schedule.

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Mr. Syed Arif
July 17, 1997
Page 2



If you have any questions concerning these issues prior to the meeting, please feel free to contact me or Mike Henderson at 303-299-5200.

Sincerely,

R. W. BECK, INC.

A handwritten signature in black ink, appearing to read "Ivan L. Clark", written over the printed name.

Ivan L. Clark
Senior Director
Environmental Services

ILC/smm

- c: C. Jansen, Utility Board of Key West
- K. Plant, Gray, Harris & Robinson
- R. Williams, FMPA
- N. Guarriello, RWBeck
- M. Henderson, RWBeck

TABLE 2

STOCK ISLAND STEAM UNIT
Annual Operations
1987 - 1996

Year	Steam Unit ^[1] Annual Gross Generation	Steam Unit ^[1] Annual Fuel Consumed	Steam Unit ^[1] Annual Fuel Consumed	Steam Unit ^[2] Annual Fuel Heat Value	Steam Unit Air Emissions (tons/yr)		
	(KWH)	(gallons)	(pounds)	(Btu/gal.)	No _x ^[3]	SO ₂ ^[4]	Particulates ^[5]
1987	61,456,000	5,580,306	45,840,107	151,315	187	1008	42.2
1988	68,766,000	5,918,157	49,065,295	151,315	198	1079	44.8
1989	128,378,000	10,969,883	89,578,431	151,315	367	1971	83.0
1990	90,897,000	7,911,166	65,235,472	151,315	265	1435	59.9
1991	113,731,000	9,865,331	81,181,809	151,315	330	1786	74.6
1992	65,897,000	5,883,816	48,353,200	151,178	197	1064	44.5
1993	40,961,000	3,805,456	31,315,097	151,315	127	689	28.8
1994	44,567,000	4,239,081	34,934,270	151,470	142	769	32.1
1995	0	0	0	0	0	0	0.0
1996	0	0	0	0	0	0	0.0
Ten Year Average					181	980	41.0

^[1] Data based on calendar year end production report for Stock Island Steam Unit.

^[2] Average #6 fuel heat value has been assumed at 151,315 Btu/gal based on typical fuel delivery values, except for years 1992, 1993 and 1994 which are based on actual fuel heating value measurements.

^[3] Based on an emission rate of 67 lbs. NO_x per 1000 gallons of fuel burned.

^[4] Based on a fuel sulfur content of 2.2 percent.

^[5] Based on an emission rate of 0.1 lbs. per MM Btu.

July 31, 1997



via Facsimile: 7 pages

~~805-922-6979~~
850

Mr. Syed Arif
Permitting and Standards Section
Bureau of Air Regulations
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: **Air Emission Permitting for Proposed Combustion Turbine
Capacity at Utility Board of Key West - Stock Island Power Plant**

Dear Mr. Arif:

This letter is follow-up to our meeting on July 23, 1997 concerning the plans of the Utility Board of Key West ("Utility Board") and Florida Municipal Power Agency ("FMPA") to install combustion turbine peaking capacity at the Utility Board's Stock Island Power Plant. By this letter we are requesting a determination with respect to several permitting issues.

PROPOSED PROJECT

In order to maintain adequate electric generating reserve capacity in Key West, the Utility Board and FMPA are planning the installation of used/refurbished combustion turbine generating capacity at the Utility Board's Stock Island Plant site. Through a recently approved power supply agreement between FMPA and the Utility Board, FMPA will own and finance this proposed new capacity and the Utility Board will operate and maintain the generating unit(s). Associated with this planned installation, the Utility Board will retire the existing steam generating unit (Unit 6) at Stock Island and remove the Unit 6 air emissions from the FDEP emission inventory. The major reasons Unit 6 is being retired are high operating costs, environmental compliance problems (water discharge), and lack of operating flexibility as a peaking unit.

The used CT capacity currently being considered for installation is: 1) one General Electric ("GE") Frame 5N unit rated at 23.30 MW (@ 85°F), or 2) two MS5001L units to be supplied by Stewart and Stevinson, each rated at 19.49 MW (@ 85°F). These ratings are preliminary based on proposals received from G.E. and Stewart and Stevinson. Emissions from the units will be controlled using the following:

- NO_x emissions will be controlled to approximately 75 ppm using water injection.
- SO₂ emissions will be controlled by utilizing a No. 2 fuel with a sulfur content of 0.05%.
- Particulate and carbon monoxide emissions will be controlled through the use of good combustion practices for the CT.

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The approximate location for the combustion turbine unit(s) will be adjacent to the recently permitted and relocated combustion turbine now at the Stock Island plant site.

In order to proceed with final negotiation for purchase and installation of the combustion turbine capacity, it is requested that FDEP provide to the Utility Board/FMPA a determination with respect to the following key permitting issues.

UTILIZATION OF EMISSION OFF-SETS FROM UNIT 6 STEAM UNIT

The existing 36 MW Stock Island steam unit (Unit 6) (FDEP Air Emission Permit No. 52 FTM 44000301) will be retired from the Stock Island Plant site emission inventory as part of the proposed installation of the CT capacity. Unit 6's existing air emission permit limits and potential emissions are shown in Table 1. Actual emissions of NO_x, SO₂ and total particulates from Unit 6, over the last 10 years are shown in Table 2.

Since one of the reasons for installing the CT capacity is to replace the capacity of the retiring steam unit, it is appropriate to off-set the emissions from the CT(s) with the steam unit's emissions. In our meeting on July 23 it was noted that FDEP would likely use the definition of "actual emissions", as stated in Chapter 62-210.200(12) FAC, to establish off-sets. We understand FDEP has some flexibility in defining the amount of off-sets.

The most recent representative operating period of time for the Key West electric system is the period 1991 through 1994. During this period the Utility Board's electric generating capability and annual peak electric loads were as follows:

Year	Annual Peak Load (MW)	Generating Capability	
		MW ^[1]	% of Peak
1991	90.0	86.4	93
1992	93.4	86.4	93
1993	101.0	86.4	86
1994	101.0	86.4	86

[1] Included Stock Island (SI) steam unit (36 MW), SI medium speed diesel units (17.4 MW), SI high speed diesel units (6 MW), Big Pine diesel unit (2.5 MW), Cudjoe diesel units (4.5 MW) and Key West combustion turbine (20 MW).

During this time period it was the Utility Board's policy to maintain a generating capability of 75% of the system peak load. The purpose of this criteria was to protect the general public health and welfare during periods that the transmission line interconnection between Key West and the Florida mainland was out of service.

During 1996 the Utility Board decided to reduce its generating capability criteria to 60% of peak load. At the same time the Utility Board decided to retire the Stock Island steam unit.



With the retirement, the system generating capability is significantly below the 60% criteria. For the year 1996, the peak load was 109.0 MW and the generating capability was 50.4 MW (46%), excluding the steam unit. This is the reason the new combustion turbine capacity is needed. Based on this discussion, it is requested that FDEP consider the average fuel consumption and emissions during the four year period 1991 through 1994 as representative for allocation of emission off-sets. The average value for this period, based on the values in Table 2, are:

AVERAGE FUEL CONSUMPTION AND EMISSIONS FOR STOCK ISLAND STEAM UNIT 1991 - 1994	
Average Annual Fuel Consumed (gallons)	5,948,421
Average Annual Fuel Consumed (pounds)	48,946,094
Average Fuel Heat Value (Btu/gallon)	151,320
Average Annual NO _x Emissions (tons/yr)	199
Average Annual SO ₂ Emissions (tons/yr)	1,077
Average Annual Particulate Emissions (tons/yr)	45

It is requested that FDEP review this recommendation and provide a determination of the appropriate amount of emission off-sets that are available from the Stock Island steam unit.

Operation of the proposed combustion turbine unit(s) and associated emissions are expected to provide significant improvements in No_x emissions and will virtually eliminate emissions of SO₂, as compared to the emissions from the steam unit. Quantification of these benefits will depend on the combustion turbine unit(s) selected and specifications. We are awaiting information from the vendors and will then quantify the expected emissions. If you need further information on the comparative emissions, please let us know and we will provide that information when it is available.

NO_x AND SO₂ EMISSION CONTROL

It is anticipated that the proposed CT(s) will be permitted as non-PSD sources assuming the use of emission off-sets and assuming that any emission increase for any of the criteria pollutants will be less than 40 tons per year (40 CFR 52.21). If this is the case, application of "Best Available Control Technology" ("BACT") will not apply. However, New Source Performance Standards ("NSPS") may apply, considering both "modification" and "reconstruction" definitions. For the purposes of the NSPS, a modification is a physical or operational change to an existing facility that causes an increase in the emission rate (in mass per unit time) of any pollutant to which a standard applies. Reconstruction means



the replacement of components of an existing facility whose fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable, entirely new facility. A reconstructed facility becomes an affected facility irrespective of any changes in emission rates.

The NSPS for combustion turbines is stated in 40 CFR 60.330 - 60.335, Subpart GG, which includes standards for NO_x and SO₂ emissions.

The NO_x standard for combustion turbines with a heat input at peak load greater than 100 MM Btu/hr (LHV) is a minimum emission level of 0.0075% by volume on a dry basis corrected to 15% O₂ at ISO conditions, plus an allowance for fuel bound nitrogen, or:

$$\text{NO}_x \text{ STD} = 0.0075 (14.4/Y) + F$$

where:

Y = manufacturer's rated heat input, kilojoules per watt-hour; and

F = allowance for fuel bound nitrogen.

The minimum 0.0075% is increased depending on the particular turbine's heat input rating, in inverse proportion to the heat rate (Y) up to a 14.4 kilojoules per watt-hour (13,658 Btu/kWh) at ISO (59°F and 60% relative humidity).

In the case of the proposed used combustion turbines to be installed, the maximum heat rates are expected to be in excess of the maximum value above of 13,658 Btu/kWh. Therefore, the NSPS standard would be 0.0075%, or 75 ppmvd. It should be noted that no correction is assumed for fuel bound nitrogen, since No. 2 fuel typically has a very low nitrogen content which results in an F value of zero.

Based on information from the potential vendors for the CT(s) being considered for installation, an NO_x emission limit of 75 ppm is achievable utilizing water injection.

For SO₂ the NSPS standard (40 CFR 60.333), limits SO₂ emissions from combustion turbines to a maximum of 0.015% by dry volume, or 150 ppmvd @ 15% O₂. With the proposed fuel sulfur content of 0.05%, the SO₂ emissions will be well within this NSPS limit.

It is requested that FDEP review the proposed emissions and the applicable regulatory requirements and determine if the 75 ppm NO_x limit is acceptable.

AIR QUALITY COMPLIANCE REVIEW AND DISPERSION MODELING

Again, assuming that the proposed CT(s) can be permitted as non-PSD sources, it is expected that FDEP will only require a demonstration that operation of the proposed CT's combined with the other emission sources at the Stock Island Plant site will assure compliance with National Ambient Air Quality Standards ("NAAQS"). Air dispersion modeling data files are available from previous permitting of the relocation of the Utility Board's existing combustion turbine from the Key West Plant site to the Stock Island Plant

Mr. Syed Arif
July 31, 1997
Page 5



site. Using these files, an NAAQS compliance analysis for the proposed new CT(s) should be straightforward.

It is proposed that five years of meteorological data (1987 - 1991) would be used. Air dispersion modeling would include downwash analysis. Compliance will be evaluated for NO_x, SO₂, TSP, CO and VOC's for all applicable time periods.

It is requested that FDEP provide a preliminary concurrence that this proposed air quality completion review approach is acceptable.

We appreciate FDEP's cooperation in discussing these issues and providing the determinations listed above. Since FMPA's plans are to award the contract for the purchase and installation of the subject CT(s) in late August we would appreciate FDEP's expedited response to this letter. If there are any questions, please contact me at (303) 299-5247 or Mike Henderson at (303) 299-5234.

Sincerely,

R. W. BECK, INC.

A handwritten signature in black ink, appearing to read 'Ivan L. Clark', written in a cursive style.

Ivan L. Clark
Senior Director
Environmental Services

ILC/smm

c: N. Guarriello
M. Henderson
C. Holladay
C. Jansen
A. Linero
W. Reynolds
R. Williams

**TABLE 1
STOCK ISLAND STEAM UNIT 6
PERMIT LIMITS AND EMISSIONS**

	Permit Limits (lbs/MM Btu) ^[1]	Potential Emissions (tpy)
NO _x	-	999 ^[4]
SO ₂	2.75 ^[2]	6,203 ^[5]
TSP	0.10 ^[3]	225 ^[5]
VOC	-	11 ^[6]
CO	-	74 ^[7]

[1] Boiler heat input rate is limited to 515 MM Btu/hr.

[2] Fuel sulfur content is limited to 2.5%.

[3] Particulate matter emissions are allowed to exceed 0.1 lbs/MM Btu for up to 3 hours in 24 hours during periods of sootblowing and load changing.

[4] NO_x emissions based on an emission rate of 0.44 lbs. NO_x/MM Btu (67 # NO_x/1000 gallons of fuel burned with a fuel heat value of 151,315 Btu/gal.), the boiler maximum heat input of 515 MM Btu/hr and operation 8760 hours/year.

[5] Potential emissions based on permit limit and maximum boiler heat input of 515 MM Btu/hr.

[6] VOC emissions based on an emission rate of 0.0005 lbs. VOC/MM Btu (0.76 lb. VOC/1,000 gallons of fuel burned with a fuel heat value of 151,315 Btu/gal.), boiler maximum heat input of 515 MM Btu/hr. and operation 8,760 hours/year.

[7] CO emissions based on an emission rate of 0.033 lbs. CO/MM Btu (5 lb. CO/1,000 gallons of fuel burned with a fuel heat value of 151,315 Btu/gal.), boiler maximum heat input of 515 MM Btu/hr. and operation 8,760 hours/year.

TABLE 2

**STOCK ISLAND STEAM UNIT
Annual Operations
1987 - 1996**

Year	Steam Unit ^[1] Annual Gross Generation	Steam Unit ^[1] Annual Fuel Consumed	Steam Unit ^[1] Annual Fuel Consumed	Steam Unit ^[2] Annual Fuel Heat Value	Steam Unit Air Emissions (tons/yr)		
	(KWH)	(gallons)	(pounds)	(Btu/gal.)	No _x ^[3]	SO ₂ ^[4]	Particulates ^[5]
1987	61,456,000	5,580,306	45,840,107	151,315	187	1008	42.2
1988	68,766,000	5,918,157	49,065,295	151,315	198	1079	44.8
1989	128,378,000	10,969,883	89,578,431	151,315	367	1971	83.0
1990	90,897,000	7,911,166	65,235,472	151,315	265	1435	59.9
1991	113,731,000	9,865,331	81,181,809	151,315	330	1786	74.6
1992	65,897,000	5,883,816	48,353,200	151,178	197	1064	44.5
1993	40,961,000	3,805,456	31,315,097	151,315	127	689	28.8
1994	44,567,000	4,239,081	34,934,270	151,470	142	769	32.1
1995	0	0	0	0	0	0	0.0
1996	0	0	0	0	0	0	0.0
Ten Year Average					181	980	41.0

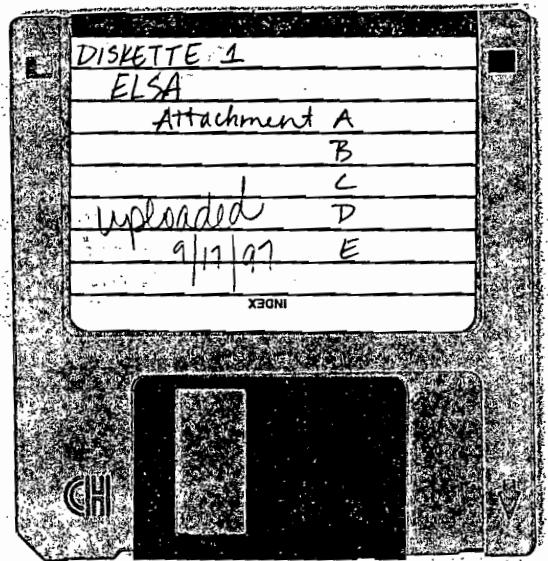
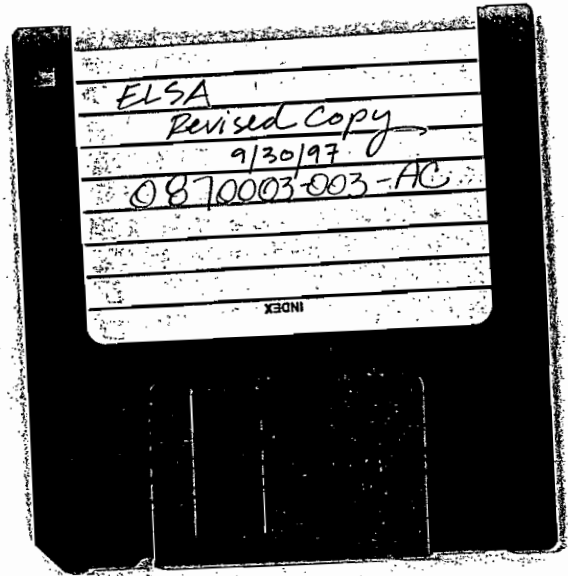
^[1] Data based on calendar year end production report for Stock Island Steam Unit.

^[2] Average #6 fuel heat value has been assumed at 151,315 Btu/gal based on typical fuel delivery values, except for years 1992, 1993 and 1994 which are based on actual fuel heating value measurements.

^[3] Based on an emission rate of 67 lbs. NO_x per 1000 gallons of fuel burned.

^[4] Based on a fuel sulfur content of 2.2 percent.

^[5] Based on an emission rate of 0.1 lbs. per MM Btu.





September 11, 1997

via Federal Express

Mr. Syed Arif
Permitting and Standards Section
Bureau of Air Regulation
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

**Subject: Air Emission Construction Permit Application
for Utility Board of Key West Combustion Turbines**

Dear Mr. Arif:

Enclosed is a signed and sealed Professional Engineer Certification for the subject permit application.

If you have any questions please contact me or Amy Phillis in my office.

Sincerely,

R. W. BECK, INC.

Ivan L. Clark, P.E.
Senior Director
Environmental Services

ILC/smm

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SEP 12 1997

**BUREAU OF
AIR REGULATION**



4. Professional Engineer Statement :

I, the undersigned, hereby certified, except as particularly noted herein, that :*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

John W. Clark
Signature

September 10, 1997
Date

Attach any exception to certification statement.

I. Part 6 - 1



Florida Department of Environmental Protection

Memorandum

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- 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. Addressee's Address
2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to: Ivan L Clark, Sr. Dir. Env. Services RW Beck 1125 17th St. Suite 1900 Denver, CO 80202-2615	4a. Article Number P 265 659 442
5. Received By: (Print Name) [Signature]	4b. Service Type <input type="checkbox"/> Registered <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Insured <input type="checkbox"/> COD
6. Signature: (Addressee or Agent) X	7. Date of Delivery AUG 27 1992
8. Addressee's Address (Only if requested and fee is paid)	

Thank you for using Return Receipt Service.

PS Form 3811, December 1994 Domestic Return Receipt

P 265 659 442

US Postal Service
Receipt for Certified Mail
 No Insurance Coverage Provided.
 Do not use for International Mail (See reverse)

Sent to	Ivan Clark
Street & Number	RW Beck
Post Office, State, & ZIP Code	Key West - Stock
Postage	Island \$ Power P/H
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	8-22-97
	Stock Island power plant

PS Form 3800 April 1995



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
August 22, 1997

Virginia B. Wetherell
Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Ivan L. Clark, Senior Director
Environmental Services
R.W. Beck
1125 Seventeenth Street, Suite 1900
Denver, Colorado 80202-2615

RE: Air Emission Permitting for Proposed Combustion Turbine
Capacity at Utility Board of Key West - Stock Island Power Plant

Dear Mr. Clark:

The Department has reviewed your letter for a determination of several key permitting issues as it relates to the installation of used/refurbished combustion turbine peaking generating capacity at the Utility Board's Stock Island Plant site. The issues involved along with the Department's standing on each issue are as follows:

1. Utilization of Emission Off-Sets from Unit 6 Steam Unit

Based on the telephone conversation with Syed Arif of my staff, it was indicated to you that the Department's rule {62-212.400(2)(e)3} requires an analysis of contemporaneous emissions changes, i.e., any other increases and decreases in actual emissions at the source that are contemporaneous (five years prior to submission of a complete application) with the particular change. The other sources that exist at the facility are the two medium speed diesel units, three high speed diesel units and the relocated combustion turbine. If any of these sources were permitted prior to the cut-off date of October 1, 1992 (based on the anticipated application submittal date of October 1, 1997), they need not be included in the analyses of contemporaneous emissions changes. If the sources were permitted after the cut-off date, then all pollutants that were non-PSD should be included in the analyses of contemporaneous emissions changes. Please refer to Table 212.400-2 for significant emission rates of different pollutants when determining PSD applicability based on the contemporaneous emissions change analysis.

The Department has determined based on the data submitted and the definition of actual emissions in 62-210.200(12)(a) that the years of 1993 and 1994 are representative of normal operation for the 36 MW Steam Unit 6, and as such the average annual actual emissions for the different pollutants that should be utilized for off-sets are listed below:

- Average Annual NO_x Emissions (tons/yr).....134.5
- Average Annual SO₂ Emissions (tons/yr).....729
- Average Annual Particulate Emissions (tons/yr).....30.5

Mr. Ivan L. Clark
Page Two
August 22, 1997

2. NO_x and SO₂ Emission Control

The Department agrees with your proposal for NO_x and SO₂ emission control if the proposed combustion turbine(s) are permitted as non-PSD sources. The NO_x standard of 75 ppmvd as stated in 40 CFR 60 Subpart GG and proposed by you will be acceptable to the Department.

3. Air Quality Compliance Review and Dispersion Modeling

The Department concurs with the proposed air quality completion review approach if the proposed combustion turbine(s) are permitted as non-PSD sources.

The Department will resume processing this request after receipt of the requested information.. If you have any questions on this matter, please call Syed Arif at 904/488-1344.

Sincerely,



A. A. Linero, P.E.
Administrator
New Source Review Section

AAL/sa

cc: Mr. David Knowles, SD
Mr. R. J. Hebling, SD Branch



September 10, 1997

Hand Delivered

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AIR REGULATION

Mr. A. A. Linero, P.E.
Administrator
New Source Review Section
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

0870003-003-AC

Subject: **Air Emission Construction Permit Application
for Two 19.77 MW Combustion Turbine Units
at Stock Island Power Plant, Key West, Florida**

Dear Mr. Linero:

On behalf of Florida Municipal Power Agency (FMPA) and the Utility Board of Key West (Utility Board), enclosed is the subject permit application.

Attached to this letter are official signature forms for the application and a check for \$2,000 for the fee. The signature forms include: 1) an authorization letter from FMPA, authorizing the application signature by Mr. Larry Thompson of the Utility Board; 2) application signature form; and 3) professional engineer signature form. FMPA will finance and own the subject units and the Utility Board will operate and maintain the units under contract to FMPA. Since the units will be located at the Stock Island Plant site, for which the Utility Board has submitted application for a Title V air operating permit, we have assumed these two units will ultimately be included in the overall Title V operating permit for the Stock Island Power Plant site.

Four hard copies of the application are enclosed. Also, diskettes are enclosed for the electronic Title V forms. The complete submittal includes the following:

- Application for Air Permit - Long Form
- Attachment A - Construction Permit Application Supplemental Information (which includes supporting Figures and Tables)
- Air Dispersion Modeling Run Results
- Diskette 1 with ELSA Electronic Forms, including attachments

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Mr. A. A. Linero, P.E.
September 10, 1997
Page 2



- Diskette 2 with air dispersion modeling runs and five years of meteorological data (1987-1991)

This application has been prepared taking into account FDEP's determinations stated in your letter dated August 22, 1997. In accordance with the discussion in that letter a contemporaneous emission analysis has been prepared and included in Attachment A. This analysis is the basis for the recommended operating permit limitations stated in the application.

If you have any questions concerning this application please contact me.

Sincerely,

R. W. BECK, INC.

A handwritten signature in cursive script that reads "Ivan L. Clark".

Ivan L. Clark, P.E.
Senior Director
Environmental Services

ILC/smm

c: R. Williams, FMFA
L. Thompson, Utility Board
N. Guarriello, R. W. Beck
K. Plante, Gray, Harris & Robinson

cc: D. Knowles, SD
C. Holladay, BAR
S. Arif, BAR



7201 Lake Ellenor Drive
Orlando, Florida 32809-5769
(407) 859-7310 Fax (407) 856-6553
1 800 859-0744

VIA FAX
September 8, 1997

Mr. Al Linero
Florida Department of Environmental Protection
New Source Review Section
Division of Air Resources Management
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Road, MS #5505
Tallahassee, fl 32399-2400

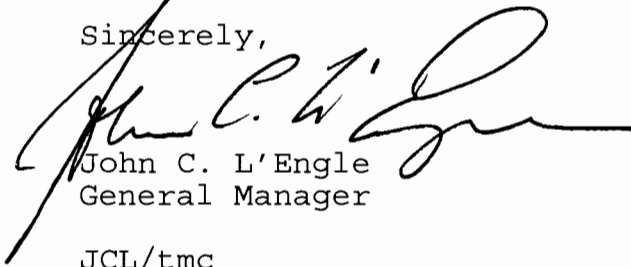
Dear Mr. Linero:

Subject: Proposed Installation of Combustion Turbines at Stock
Island Power Plant, Utility Board of Key West

Florida Municipal Power Agency (FMPA) is proposing to purchase and install two used combustion turbines (CT's) at the Utility Board of Key West's (Utility Board) Stock Island Power Plant site. These CT's will be used for peaking electric generating capacity to support the electric system of the Utility Board. FMPA will own these units and the Utility Board's staff will operate and maintain the units under contract to FMPA.

Since these units will be located at the existing Stock Island Power Plant site and operated/maintained by the Utility Board's staff, FMPA hereby authorizes the Utility Board as its authorized representative for permit application approval and permit correspondence. Mr. Larry Thompson, General Manager of the Utility Board, will be the signatory as the authorized responsible official on the permit application.

Sincerely,



John C. L'Engle
General Manager

JCL/tmc

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official :

Name : Larry Thompson
Title : General Manager

2. Owner or Authorized Representative or Responsible Official Mailing Address :

Organization/Firm : Utility Board of the City of Key West
Street Address : 1001 James Street
City : Key West
State : FL Zip Code : 33040-____

3. Owner/Authorized Representative or Responsible Official Telephone Numbers :

Telephone : (305)295-1140 Fax : (305)295-1145

4. Owner/Authorized Representative or Responsible Official Statement :

I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions units.*


Signature

9-8-97
Date

* Attach letter of authorization if not currently on file.

I. Part 2 - 1

RECEIVED

SEP 10 1957

R. W. BECK

4. Professional Engineer Statement :

I, the undersigned, hereby certified, except as particularly noted herein, that :*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

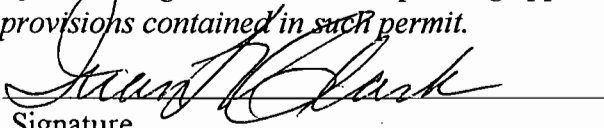
(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature



Date



* Attach any exception to certification statement.

I. Part 6 - 1

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

224395

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Florida Municipal Power Agency Date Sept. 11, 1997

Address 1201 Lake Ellenor Drive, Orlando FL 32817-5769 Dollars \$ 2,000

Applicant Name & Address Utility Board of Key West, Stock Island Power Plant

Source of Revenue Ch. #10296

Revenue Code 002222 Application Number _____

By Patricia G. Adams

FLORIDA MUNICIPAL POWER AGENCY

10296

OUR REF. NUMBER	YOUR INVOICE NUMBER	INVOICE DATE	INVOICE AMOUNT	AMOUNT PAID	DISCOUNT TAKEN	NET CHECK AMOUNT
Application Fee for Environmental Permit to install CT's at Key West						

FOR SECURITY PURPOSES, THE BORDER OF THIS DOCUMENT CONTAINS MICROPRINTING

FLORIDA MUNICIPAL POWER AGENCY

7201 LAKE ELLENOR DRIVE
ORLANDO, FLORIDA 32809-5769
TELEPHONE: (407) 859-7310



ORLANDO, FLORIDA

10296

CHECK DATE	CONTROL NUMBER	AMOUNT
9/8/97	10296	\$2,000.00

PAY TO Florida Dept. Of Environmental Protection

TO THE ORDER OF

[Handwritten Signature]

THE REVERSE SIDE OF THIS DOCUMENT INCLUDES AN ARTIFICIAL WATERMARK - HOLD AT AN ANGLE TO VIEW

RECEIVED
 SEP 11 1997
 BUREAU OF
 AIR REGULATION



October 20, 1997

Mr. Clev Holiday
New Source Review Section
Bureau of Air Quality
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road

RECEIVED
OCT 24 1997
BUREAU OF
AIR REGULATION

Subject: **Air Emission Construction Permit Application
for Two 19.77 MW Combustion Turbine Units
at Stock Island Power Plant, Key West, Florida**

Dear Mr. Holiday:

In response to your concerns for air quality impacts at the east property boundary at the subject plant, we have discussed the need to limit access of the public to this area with the Utility Board of Key West. The Utility Board has directed us to include in the subject application a commitment to install a locking gate on the northeast entrance road to the property as shown in the attached Figure. Since this road is the only road access to the property, this will eliminate any concerns for public access. This gate and associated fencing will be installed during the construction of the combustion turbines.

If you have any questions concerning this information, please contact us.

Sincerely,

R. W. BECK, INC.

Ivan L. Clark
Senior Director
Environmental Services

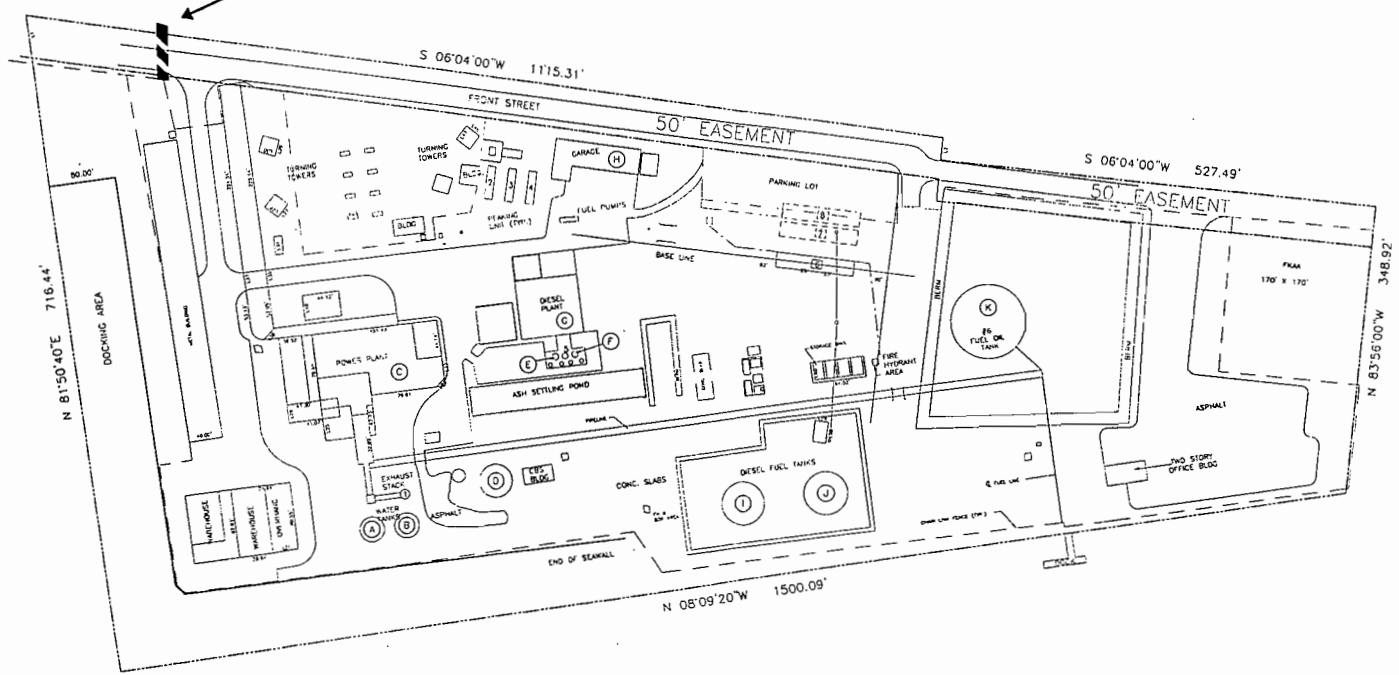
ILC/smm
Enclosure

c: R. Williams, RMPA
C. Jansen, CES
J. Stone, CES
W. Reynolds, RWBeck
A. Phillis, RWBeck

05-00209-10101-0106/030314 | h:\005801\02-00577\smm011ic.doc

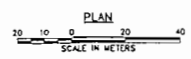
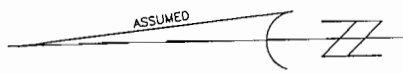


New gate and fence to be installed from existing fence to edge of water.



- BUILDINGS**
- A. DEMINERALIZATION TANK No. 1
 - B. DEMINERALIZATION TANK No. 2
 - C. WATER ELECTRIC GENERATOR BUILDING (RALF GARCIA STEAM PLANT)
 - D. WATER TANK
 - E. MEDIUM SPEED DIESEL MUFFLER No. 1
 - F. MEDIUM SPEED DIESEL MUFFLER No. 2
 - G. DEDUM SPEED DIESEL PLANT BUILDING
 - H. GARAGE
 - I. DIESEL FUEL TANK No. 1
 - J. DIESEL FUEL TANK No. 2
 - K. No. 5 FUEL OIL TANK

- STACKS**
- 1. STEAM ELECTRIC GENERATOR
 - 2. HIGH SPEED DIESEL No. 1
 - 3. HIGH SPEED DIESEL No. 2
 - 4. HIGH SPEED DIESEL No. 3
 - 5. MEDIUM SPEED DIESEL
 - 6. EXISTING COMBUSTION TURBINE
 - 7. PROPOSED COMBUSTION TURBINE No. 1
 - 8. PROPOSED COMBUSTION TURBINE No. 2

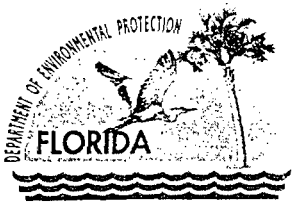


DATE: 11/03/97 BY: JMS/STW 11-17-97 11-17-97

COPYRIGHT 1997 R. W. BECK ALL RIGHTS RESERVED				DESIGN: DES, DATE: 11/03/97, BY: JMS/STW				DRAWING: DWG NO: SK-6, DATE: 11/03/97, BY: JMS/STW				FILE NO: 005186			
REV. NO. DATE DES. CHKD. APPROVALS				REV. NO. DATE DES. CHKD. APPROVALS				REV. NO. DATE DES. CHKD. APPROVALS				REV. NO. DATE DES. CHKD. APPROVALS			
REVISION DESCRIPTION				REVISION DESCRIPTION				REVISION DESCRIPTION				REVISION DESCRIPTION			



FLORIDA MUNICIPAL POWER AGENCY
 KEY WEST SYSTEM STEAM PLANT
 FIGURE 3-1-2
 BOUNDARY AND LIMITED TOPTOGRAPHICAL SURVEY



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

October 10, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Larry Thompson
General Manager
Utility Board of the City of Key West
1001 James Street
Key West, Florida 33040

Re: Proposed Construction of Two Used 19.77 MW Combustion Turbine Units
File No. 0870003-003-AC

Dear Mr. Thompson:

We have reviewed your application which was received on September 11, 1997. Based on our review, we have determined that additional information is needed in order to continue processing this request. Please submit the information requested below to the Department's Bureau of Air Regulation:

The air dispersion modeling analysis shows that impacts greater than the PM_{10} and NO_x national and state ambient air quality standards (AAQS) are predicted at off-property receptors located 150 m and 200 m from the center of the property. Measures limiting air quality impacts must be taken to ensure that predicted exceedances of AAQS will not result from this project. Please provide the Department assurance that there will be no predicted exceedances of the PM_{10} or NO_x AAQS at any receptors located off-property.

If you have any questions regarding this matter, please contact Mr. Cleve Holladay at 850/488-1344.

Sincerely,

A. A. Lincro, P.E. Administrator
New Source Review Section

AAI/ch/h

cc: Mr. Ivan Clark, R.W. Beck
Mr. David Knowles, SD
Mr. R. J. Hebling, SD Branch

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

Printed on recycled paper.

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. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
 Mr. Larry Thompson
 General Manager
 Utility Board of the City
 of Key West
 1001 James St.
 Key West, FL 33040

4a. Article Number
 P 265 657 310

4b. Service Type
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery
 10-16-97

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)
[Handwritten Signature]

PS Form 3811, December 1991 *U.S. GPO: 1993-352-714

DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

P 265 657 310

US Postal Service
Receipt for Certified Mail
 No Insurance Coverage Provided.
 Do not use for International Mail (See reverse)

Sent to Mr. Larry Thompson	
Street & Number 1001 James Street	
Post Office, State, & ZIP Code Key West, FL 33040	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date Mailed: 10-10-97 File No. 0870003-003-AC	

PS Form 3800, April 1995



September 30, 1997

via Federal Express

Mr. Syed Arif
Permitting and Standards Section
Bureau of Air Regulation
Florida Department of Environmental Protection
Twin Towers Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RECEIVED

OCT 01 1997

BUREAU OF
AIR REGULATION

**Subject: Air Emission Source Construction Permit Application for the
FMPA/Key West Combustion Turbines**

Dear Mr. Arif:

In response to your questions that you provided in our telephone discussion on September 23, 1997, this letter and the enclosed addendum provides additional information and corrected information concerning the emissions from the proposed combustion turbines.

You expressed concerns for the magnitude of new emissions (PM, PM₁₀ and CO) from the proposed units, taking into account the amount of emission offsets that would be available from the Stock Island steam unit which would be retired as part of the project. To clarify this we have added more detail to the contemporaneous emission analysis which was included in the subject application (Attachment A - Section 3-3). Also, we have clarified the requested emission limitations (both short term pounds per hour and annual tons per year). We believe these clarifications along with the emission corrections discussed below resolve the issues that were of concern.

As you know we expedited submission of the application and for that reason we used estimated emissions for the two used units. We have reviewed those emission estimates with Stewart and Stevinson, the supplier of the used combustion turbines, and they have recommended a number of corrections for the predicted emissions from the units. These corrections have reduced predicted emissions from the units for all pollutants, since the supplier's data indicates fuel heat input is lower (305 MM Btu versus 347 MM Btu @ 40°F), when operating at maximum rated load and 75 ppm NO_x emissions. Also, for CO emissions the maximum emission rate occurs at 50 percent load and at 40°F. At these conditions the supplier recommends lower emissions than those estimated in the initial application. We have gone through the application and corrected all information involving these new emission values.





The following is a summary of the information included in this Addendum:

Revised ELSA Forms (Tab 1)

Section	Modification
III Part 4-1	Manufacturer (GE) Model Number (MS5001R) Max Heat Input Rate (305 mmBtu/hr) @ 40°F ambient temperature
III Part 7a-1	Exit Temperature (982°F) Actual Volume Flow Rate (607,567 acfm)
III Part 8-1	Maximum Hourly Rate (2.21) Maximum Annual Rate (8,840)
III Part 9b-1 to 6	Emission Changes
III Part 9c-1 to 4	Emission Changes
Figures 3 & 4	(Flow Diagrams)

Revisions to potential emissions (Section III Part 9b - Short Term Maximum Emissions) reflect the emissions from each combustion turbine at an ambient temperature of 40°F and at maximum rated load with NO_x emission at 75 ppm. For CO emissions the maximum potential emissions occurs at 40°F and at 50 percent load.

Revisions to allowable emissions (Section III Part 9c - annual allowable emissions) are based on operation of each combustion turbine at 40°F and at maximum rated load with NO_x emissions at 75 ppm. The resulting allowable pounds per hour limit is then multiplied by 4000 hours per year to obtain the annual tonnage limitation. The 4000 hour limit is obtained from the NO_x emissions and the available offset emissions shown in Attachment A, Section 3-3.

A revised diskette is enclosed with the ELSA revisions. Tab 1 includes a complete set of ELSA pages for Section III - Complete Emissions Unit Information.

Attachment A Revisions (Tab 2)

Revisions to Attachment A include:

- Correction of heat input values at 40°F (page 3-1-2).
- Revision of Table 3-1-1 emission values at various ambient temperatures and loads.



- Revision of Section 3-3 Contemporaneous Emissions (pages 3-3-1 and 3-3-2), reflecting expanded discussion of the emission off-sets, including PM, PM₁₀ and CO.
- Revision and clarification of proposed emission limits taking into account the corrected emission values (page 3-3-3).
- Revision of Tables 3-3-1 and 3-3-2 with the addition of PM₁₀ and CO values.
- Revision of Tables 3-4-4 and 3-4-5, reflecting very slight changes for air quality impacts based on the revised emission values.

Tab 2 includes a complete revised Attachment A with the above revisions included.

Air Dispersion Modeling Revisions (Tab 3)

A revised air dispersion modeling run is attached reflecting the adjusted emissions. Results are very slightly changed, none of which impact the results or conclusions with respect to compliance with NAAQS.

Based on the above information we believe all the issues and concerns have been addressed and the subject permit application should be considered complete. If you have any questions concerning this information, please contact me.

Sincerely,

R. W. BECK, INC.

A handwritten signature in cursive script, appearing to read 'Ivan L. Clark'.

Ivan L. Clark
Senior Director
Environmental Services

ILC/smm

Enclosures

- c: R. Williams, FMPA
L. Thompson, Utility Board of Key West
C. Jansen, Utility Board of Key West
D. Finigan, Utility Board of Key West
K. Plante, Gray, Harris & Robinson
N. Guarriello, R. W. Beck
W. Reynolds, R. W. Beck

cc: SD
C. Holladay