



# Florida Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

March 10, 1994

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Robert R. Padron, General Manager  
Utility Board of the City of Key West  
Post Office Drawer 6100  
Key West, Florida 33041-6100

Re: Key West, City Electric System  
Proposed relocation of 23-MW combustion turbine  
Permit File No. AC44-245399, PSD-FL-210

Dear Mr. Padron:

The Department has received the application for relocation of an existing permitted 23 megawatt simple cycle combustion turbine from the Key West Power Plant to the Stock Island Power Plant. Based on our initial review of the proposed project, we have determined that additional information is needed in order to continue processing this application package. Please submit the information requested below to the Department's Bureau of Air Regulation.

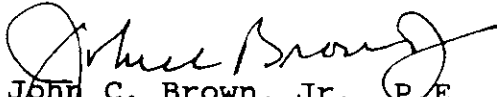
1. Submit another complete permit application form with the Florida registered Professional Engineer's (P.E.) seal on the permit application form. The application that was submitted did not have the P.E. seal.
2. Provide a copy of the construction permit, if one exists for the source.
3. Provide annual stack test actual emissions (ppm, lb/hr and TPY) data for the recent five years for the PSD pollutants mentioned in the application. Also, provide the data on the operating rate, fuel usage and load factor during those stack tests.
4. Provide manufacturer's verification that the dry low-NO<sub>x</sub> burners are not available for the proposed gas turbine.
5. Provide capital and annualized costs associated with NO<sub>x</sub> control by water injection to 25 and 42 ppmvd @ 15% O<sub>2</sub> and compare it with a baseline NO<sub>x</sub> emissions of 75 ppmvd @ 15% O<sub>2</sub>.

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6. Provide fuel oil suppliers name and addresses that were contacted to determine the availability and cost of lower sulfur fuel oils.
7. Submit the manufacturer's design specification for the proposed General Electric Frame 5 model PG5341 combustion turbine.
8. Provide the names and addresses of all the manufacturers and suppliers that were contacted for budgetary quotations and engineering estimates in developing capital and annualized cost estimates for the project.
9. Propose the fuel oil analysis including a maximum value for fuel oil bound nitrogen (FBN) for the fuel oil. Also, calculate the maximum NO<sub>x</sub> emissions based upon the proposed maximum value for FBN for the turbine.
10. Provide manufacturer's verification of the data used for Item 4, Utilities section in Table 4-6.
11. The Department has attempted to verify your modeling results by using ISC2 which is the current guideline model, but has been unable to do so. Please redo your modeling analysis using the current guideline model ISC2 and compare your results with all applicable standards, PSD Class II increments, significant impact levels, and de minimus levels. In addition, please use downwash parameters in your screening analysis to determine the worst-case operating load conditions.

We will resume processing this application after we receive the requested information. Should you have any questions, please contact Syed Arif (engineering) or Cleve Holladay (modeling) at 904-488-1344.

Sincerely,

  
John C. Brown, Jr., P.E.  
Administrator  
Air Permitting and Standards

JB/SA/bjb

cc: D. Knowles, SD  
J. Harper, EPA  
J. Bunyak, NPS