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Elm of Tiger Bay TV app.

November 25, 1997

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AIR REGULATION

Mr. Steven L. Palmer, P.E.  
Siting Coordination Office  
Florida Department of Environmental Protection  
2720 Blair Stone Rd.  
Tallahassee, FL 32399

RE: Florida Power Corporation  
Tiger Bay Facility Power Plant Site Certification Application  
Response to Sufficiency Questions/Comments

Dear Mr. Palmer:

Florida Power Corporation (FPC) has received the sufficiency questions from Mr. Al Linero of the DEP's New Source Review Section regarding the application referenced above. In response the following comments are provided.

Questions 1 through 5.

All five comments/questions center on the issue of the proposed increase in permitted steam capacity. For purposes of the original construction permit and the Title V permit application, then-owner Destec imposed an operational limitation of 74 megawatts (MW) of steam capacity. Therefore, Destec represented 74 MW as the capacity of the steam generator. By accepting this limit, Destec avoided the site certification process.

As given in FPC's site certification application, the actual capacity of the steam generator is approximately 12 MW higher, or a nominal 85.5 MW (under certain conditions, the capacity of the unit is as high as 87.4 MW, as shown later in this letter). Since FPC proposes to operate the unit at that level, a site certification is required because the turbine will be operated at greater than the threshold level of 75 MW. As a result, the total capacity of the 184 MW combustion turbine and the 85.5 MW steam generator is actually a nominal 269.5 MW, or more conveniently, 270 MW. Mr. Linero is correct in that the PSD permit and Title V permit application should be revised to reflect this change. FPC will submit a request to make these changes in the near future.

TV

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Questions 6 and 7.

These questions regard the current fate of the excess steam and whether use of the excess steam in the future will result in greater air pollutant emissions. In order to maintain steam turbine operation below 75 MW, excess steam is currently sent to a steam host, which is U.S. Agri-Chemicals, or in the absence of need it is vented to the ambient air. The combustion turbine normally operates at its full load capacity, but not all of the steam produced by the heat recovery system is routed through the steam turbine.

Since the excess steam is already being generated, use of the steam to produce an additional 10 to 12 MW of electricity will not result in additional fuel consumption or air pollutant emissions. In fact, FPC's customers will receive the benefit of additional electricity at no additional cost and with no incremental impact to the environment.

Question 8.

Mr. Dario Zuloaga, P.E., of FPC's Performance Services department has completed a review of the design specifications for the Tiger Bay steam turbine. I have attached Mr. Zuloaga's conclusions regarding the capacity of this turbine. Mr. Zuloaga's evaluation resulted in an anticipated maximum capacity of 37.4 MW, which is approximately 12.5 MW higher than the current limitation. This is consistent with FPC's application for a nominal 10 to 12 MW of additional steam capacity.

Please contact Mr. Mike Kennedy at (813) 866-4344 or Ms. Jennifer Tillman at (813) 866-5022 if you have any further questions regarding the application.

Sincerely,

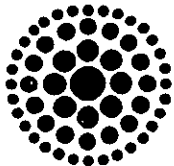


W. Jeffrey Pardue, C.E.P.  
Director

Enclosure

cc: Mr. Al Linero, DEP

CC: T. Heron  
S. Sheplak  
B. Mitchell



**Florida  
Power**  
CORPORATION

## INTEROFFICE CORRESPONDENCE

Performance Services  
OFFICE

MAC  
MAC

231-5292  
TELEPHONE

SUBJECT: **Tiger Bay Steam Turbine Capabilities**

TO: **Michael J. Kennedy**

DATE: **November 20, 1997**

Performance Services has reviewed the design specifications for the steam turbine at Tiger Bay and concluded that the steam turbine is capable of operating continuously at 105 percent of initial pressure (1537.5 psia) with control valves wide open. We expect to generate 87.4 gross megawatts at the following steam inlet conditions:

- steam flow of 549,675 lbs/hr
- Throttle steam pressure of 1537.5 psia
- Throttle steam temperature of 1000 deg F
- Exhausting to 1.62 psia

If you have any further questions concerning Tiger Bay, please call me at Ext. 231-5292.

*Dario Zuloaga*

Dario B. Zuloaga, P.E.  
License # 0032729 (FL)  
Lead Principal Engineer  
Performance Services

cc: Bob Anderson