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1 Article Addressed to:  
  
 Mr. Kris G. Edmondson  
 Plant Manager  
 University of Florida Cogen Plant  
 Mowry Road, Bldg. 82, UF  
 Gainesville, FL 32611-2295

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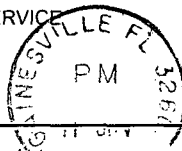
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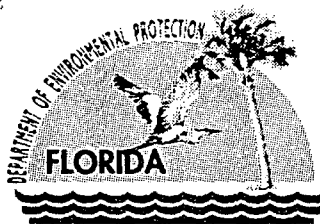
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Dept. of Environmental Protection  
Division of Air Resources Mgt.  
Bureau of Air Regulation, NSR  
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Tallahassee, FL 32399-2400

BUREAU OF AIR REGULATION

JUN 12 2002

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# Department of Environmental Protection

Jeb Bush  
Governor

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

David B. Struhs  
Secretary

June 6, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Kris G. Edmondson, Plant Manager  
University of Florida Cogen Plant  
Mowry Road, Bldg. 82, UF  
Gainesville, FL 32611-2295

Re: DEP File No. 0010001-004-AC (Request for Increase in CT/Duct Burner Permitted Heat Input)

Dear Mr. Edmondson:

This is in reply to Florida Power's request received on May 7, 2002 for an increase in the permitted heat input to the combustion turbine (CT) from the current 392 mmBTU/hr to 408 mmBTU/hr. The request reflects an increase of about 3 MW in the CT's output rating from the current 48 MW. Florida Power further asks that restrictions on annual operating hours and fuel consumption be removed while retaining the annual NO<sub>x</sub> emissions cap of 194.3 TPY. A baseline would be established for the annual turbine/duct burner fuel usage that could be exceeded as long as the facility-wide NO<sub>x</sub> emissions cap is maintained. Another request is for a permitting note from the facility's Title V permit to be incorporated into the construction permit clarifying that the heat input limit is not a maximum value restricting operation.

According to Department rules, the requested turbine capacity increase would constitute a modification by way of a change in the method of operation, as there would be an increase in the potential and actual emissions from the turbine/duct burner due to the additional fuel fired [Rule 62-210.200(188), F.A.C.]. Under the 'source obligation' rules that are invoked from the original PSD permit, the requested relaxation in the restrictions for the turbine/duct burner would force PSD applicability per Rule 62-212.400(2)(g), F.A.C. The netting analysis for the original cogen project in 1992 (PSD-FL-181) allowed Florida Power to escape PSD review for NO<sub>x</sub> based on a net increase of 39.7 TPY from the turbine/duct burner (the original BACT applied only to the pollutant CO).

When the original turbine was replaced with a higher capacity machine in 2001, the original operating hours were reduced from 8147 to 7211, thus avoiding PSD review for NO<sub>x</sub>. As then, PSD review could be avoided once again by cutting back the operating hours at the new capacity to prevent triggering PSD by 'source obligation'. A reduction from the current 7,211 hours per year at maximum rates to a level that would generate an increase of less than 40 TPY would avoid a NO<sub>x</sub> BACT for this current modification.

Reported actual NO<sub>x</sub> emissions from the turbine/duct burner averaged 114.5 TPY for 2000-2001 vs. 172.9 TPY allowable. [The 172.9 TPY resulted from the 2001 turbine replacement's allowable NO<sub>x</sub> emissions being reduced from the former 142.7 to 141 TPY, resulting in a 1.7 TPY decrease in the 174.6 TPY turbine/duct burner annual cap]. Considering that projected actuals could increase up to the current allowables, it is obvious that the PSD-significant threshold of 40 TPY could be exceeded unless operating hours at maximum firing rates are reduced by an appropriate amount.

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Prior to issuing the 2001 permit to replace the original CT, we discussed with Florida Power the option of seeking a PSD permit for NOx to utilize the full-load potential of the replacement turbine for the maximum number of hours rather than being limited to a lesser number of hours to avoid PSD. It appears that option might be more appropriate now that the extra turbine capacity is available and needed. Florida Power would have to submit a PSD application and proposed BACT analysis for NOx and CO. We would anticipate that the new BACT could possibly result in somewhat tighter yet achievable emission limits for the turbine and duct burner. We would not anticipate that add-on controls would be required.

In regard to the Title V permitting note, 40 CFR 60.334(a) requires continuous monitoring of fuel and water consumption for gas turbines using water injection to control NOx emissions. However, since compliance is being demonstrated by CEMS, the Department's Title V permit did not require compliance to be demonstrated as specified in 40 CFR 60.334. The Title V permitting note that "regular record keeping is not required for heat input" essentially means that a continuous heating value calculation is not required. It does not mean that fuel usage does not have to be continuously monitored and recorded as specified in PSD-FL-181 (Condition 6) and Permit 0010001-003-AC (Section III - Condition 18). The Title V permitting note should not be interpreted to mean that the turbine's maximum heat input is a value that can be exceeded. Maximum heat input is limited by the permit just as the emissions are.

Concerning the request to remove restrictions on operating hours and fuel consumption, both state and federal air rules require that permits restrict a source's potential to emit. Removing such restrictions would amount to relaxing federally enforceable conditions thus triggering the aforementioned 'source obligation' provision and requiring PSD review. Therefore, FPC should advise the Department of the new proposed lower operating hours that would once again allow FPC to avoid PSD, or submit a PSD application that would provide for the requested unrestricted operating schedule.

If there are any questions regarding the above, please call John Reynolds at 850/921-9530.

Sincerely,



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

AAL/JR

cc: Scott Sheplak, BAR  
Len Koslov, CD  
Mike Kennedy, FPC  
Scott Osbourn, ENSR