Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Fort Pierce Utilities Authority, H.D. King Station (PSD-FL-159)

Dear Mr. Fancy:

This is to acknowledge receipt of your preliminary determination and
draft permit for the proposed modification to the above referenced
facility, transmitted by your letter dated April 15, 1991. As
discussed between Mr. Barry Andrews of your staff and Mr. Gregg
Worley of my staff, we have reviewed the package as requested and
have the following comments.

Background: The H.D. King Generating Facility of the Fort Pierce
Utilities Authority applied for a PSD permit for their previously
constructed unit No. 9 (a combined cycle turbine). This unit had
previously escaped PSD review in 1987 when the facility accepted
federally enforceable limits on three of their existing units to
allow Unit 9 to "net out" of PSD review. These limits were in the
form of hours of operation limits on the existing units. Since that
time, however, the Authority's need for power has increased. The
Authority wishes to remove the hours of operation limit on the three
existing units; however, this would entail Unit 9 going through PSD
review. Consequently, the Authority applied for a PSD permit for
Unit 9.

Regulatory Requirements: The language in the PSD regulations is
clear concerning these situations. The specific reference is found
at 40 CFR §52.21(r)(4) as follows:

At such time that a particular source or modification becomes a
major stationary source or major modification solely by virtue of
a relaxation in any enforceable limitation which was established
after August 7, 1980, on the capacity of the source or
modification otherwise to emit a pollutant, such as a restriction
on the hours of operation, then the requirements of paragraphs
(j) through (s) of this section shall apply to the source or
modification as though construction had not yet commenced on the
source or modification.

It is clear that the PSD review for Unit 9 must be conducted as if
the unit had not been constructed; therefore, items such as retrofit
costs can not be considered in making a BACT determination.
BACT Determination

Unit 9 is a combined cycle natural gas-fired turbine nominally rated at 31.6 MW. The equipment consists of a CE Frame 5 turbine along with its associated heat recovery steam generator (HRSG). The BACT determination for NOx which was requested by the applicant was the utilization of water injection to a level of 42 ppm @ 15% O2. The applicant did not evaluate the use of low-NOx combustors since their unit was already constructed. The applicant's primary reason for dismissing more stringent levels of control than what they proposed (e.g., SCR to a level of 9 ppm) was economics.

FDER, in their analysis, correctly determined that the inclusion of HRSG modification costs and higher erection costs due to retrofitting did not comply with the language or the intent of the PSD regulations. Upon further investigation of the economic analysis submitted by the applicant, and after comparison with similarly sized combined cycle projects, FDER concluded that the installation of SCR at an annual cost of approximately $3,835 per ton of NOx removed was economically reasonable. Furthermore, the use of SCR on gas fired turbines has been established as being technically feasible; therefore, in the Preliminary Determination for this PSD permit, FDER concluded that the utilization of SCR to achieve a NOx emission rate of 9 ppm @ 15% O2 would be BACT for NOx.

We concur with your determination concerning BACT for this facility. In addition, we feel that you made the legally correct decision in not allowing retrofit costs to be considered in the BACT analysis. If you have any questions on these comments, please contact Mr. Gregg Worley of my staff at (404) 347-5014.

Sincerely yours,

[Signature]

Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division