

Memorandum

Florida Department of Environmental Protection

TO: Michael G. Cooke

THRU: Trina Vielhauer
Jeff Koerner

FROM: Michael P. Halpin

DATE: May 9, 2005

SUBJECT: Calpine – Osprey Energy Center
PSD Permit Modification – Low Load Testing
DEP File No. 1050334-006 (PSD-FL-287)

Attached is the final permit modification relative to the Osprey Energy Center PSD permit. It is a modification which allows operation below the “2 hours per 24 at 60% output or less” limit established within PSD-FL-287 for each of the two combined cycle units. For informational purposes, the 60% limit was established based upon the Department’s belief that the BACT limits could not be met below that point.

In support of its request, Calpine has provided data, for low load testing, which was performed under permit 1050334-005-AC, granted by the Department on January 7, 2005. This data supports Calpine’s assertion that each combustion turbine unit may be operated at loads above 30% output (approximately 50 megawatts gross) while meeting its existing BACT limits. Accordingly, no increases in emissions are expected as a result of this modification.

A public notice was made on April 23, 2005 in the Lakeland Ledger and no comments were received.

Accordingly, I recommend your approval.

Attachments

/mph



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

May 9, 2005

Mr. Benjamin M. H. Borsch, P.E.
Manager, Safety Health & Environment
Calpine Corporation
2701 N. Rocky Point, Suite 1200
Tampa, Florida 33607

Re: PSD-FL-287 Permit Modification, Low Load Operation
DEP File Number 1050334-006-AC and PA00-41
Osprey Energy Center / Polk County

The applicant, Calpine Corporation, applied on February 15, 2005, to the Department for authorization to operate for extended periods at loads lower than those originally authorized (60% output, under PSD-FL-287) at its Osprey Energy Center located in Polk County. In support of its request, Calpine has provided data for low load testing performed under permit 1050334-005-AC, granted by the Department on January 7, 2005. This data supports Calpine's assertion that each combustion turbine unit may be operated at loads above 30% output while meeting its BACT limits.

The Department has reviewed the modification request. The referenced PSD permit is hereby modified as follows:

III. Emissions Unit(s) Specific Conditions Applicable Standards And Regulations:

21. Carbon Monoxide (CO) Emissions: Emissions of CO in the stack exhaust gas (at ISO conditions) with the combustion turbine operating on gas shall exceed neither 10 ppmvd @15% O₂ on a 24-hr block average to be demonstrated by CEMS for those days when no valid hour includes the use of duct burner firing, power augmentation or ~~60-70%~~ operation below 30% excluding periods of start-up and shut-down (otherwise, the limit is 17 ppmvd @15% O₂ on a 24-hr block average to be demonstrated by CEMS); and neither 10 ppmvd @15% O₂ nor 45 lb/hr per unit at 100% output with the duct burner off and no power augmentation to be demonstrated by annual stack test using EPA Method 10 or through annual RATA testing. [BACT, Rule 62-212.400, F.A.C.]
25. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period except during both "cold start-up" to and shutdowns from combined cycle plant operation. During cold start-up to combined cycle operation, up to four hours of excess emissions are allowed. During shutdowns from combined cycle operation, up to three hours of excess emissions are allowed. Cold start-up is defined as a startup to combined cycle operation following a complete shutdown lasting at least 48 hours. Operation ~~below 60%~~ 30% output per turbine shall otherwise be limited to 2 hours in any 24-hour period. [Rule 62-210.700, F.A.C.].

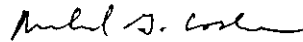
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All other terms and conditions of this permit remain unchanged. A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit modification) has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, 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 must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



Michael G. Cooke, Director
Division of Air Resource
Management

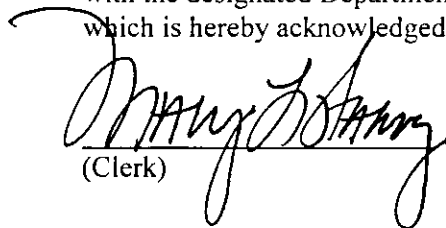
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this PSD Permit Modification was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 5/16/05 to the person(s) listed:

Benjamin M. H. Borsch, P.E. *
Gerry Kissel, FDEP SWD
Buck Oven, PPSO
Gregg Worley, EPA
John Bunyak, NPS

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.


(Clerk)

5/16/05
(Date)

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