Month Day, 2006

CERTIFIED MAIL – Return Receipt Requested

Mr. James M. Chansler, P.E., D.P.A., R.O.
V.P., Operations and Maintenance
JEA
21 West Church Street
Jacksonville, Florida 32202

Re: Draft Air Construction (AC) Permit Project Nos.: 0310485-017-AC/PSD-FL-310(F)
Affected AC Permits Nos.: 0310485-006-AC/PSD-FL-310(A) and 0310485-007-AC/PSD-FL-310(B)
Affected Siting Permit No.: PA 00-43
JEA: Brandy Branch Generating Station
Emission Units -002 and -003

Dear Mr. Chansler:

The subject of this permit (letter) is to authorize an increase in the heat input rate to the heat recovery steam generator's (HRSG's) supplementary-fired (natural gas) duct burner from 170 to 200 MMBtu/hr for each combined-cycle combustion turbine-electrical generator, EU-002 and EU-003. No physical change is required to achieve this heat input rate increase. The change reflects the installed capacity of the HRSGs's duct burners. In addition, each HRSG's duct burner will have a restriction on the hours of operation of 4,500 hours per consecutive 12-months to avoid PSD new source review; and, due to the restrictions on the hours of operation for the duct burners, the additional recordkeeping requirements shall be imposed and added to specific condition B.43. in the Title V Permit. Besides changing the heat input from 170 to 200 MMBtu/hr, the "Permitting note" is being removed because the heat input value is a permit limitation; also, the rule adoption reference will be updated. The Department approves the request. Additions are double-underlined and deletions are single strike-through. The permit is revised as follows:

FROM:

4. ARMS Emissions Units 002 and 003. Direct Power Generation, each consisting of a nominal 170-megawatt combustion turbine-electrical generator, shall comply with all applicable provisions of 40CFR60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not used for compliance determinations with the BACT standard(s). Additionally, each Emissions Unit consists of a supplementally-fired heat recovery steam generator equipped with a natural gas fired 170 MMBTU/hr duct burner (HHV) and combined with one 200 MW steam electrical generator. The duct burners shall comply with all applicable provisions of 40CFR60, Subpart Dc, Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, adopted by reference in Rule 62-204.800(7), F.A.C.
[0310485-006-AC/PSD-FL-310(A)]

9. Heat Recovery Steam Generators equipped with Duct Burners: The maximum heat input rate of each natural gas fired duct burner shall not exceed 170 MMBtu/hr (HHV).

{Permitting note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emission unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested.}

[Applicant Request; Rule 62-210.200(Definitions-Potential Emissions), F.A.C.; and, 0310485-006-AC/PSD-FL-310(A)]

TO:

4. ARMS Emissions Units 002 and 003. Direct Power Generation, each consisting of a nominal 170-megawatt combustion turbine-electrical generator, shall comply with all applicable provisions of 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(~~7~~8)(b), F.A.C. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not used for compliance determinations with the BACT standard(s). Additionally, each Emissions Unit consists of a supplementally-fired heat recovery steam generator equipped with a natural gas fired ~~170~~200 MMBTU/hr duct burner (HHV) and combined with one 200 MW steam electrical generator. The duct burners shall comply with all applicable provisions of 40 CFR 60, Subpart Dc, Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, adopted by reference in Rule 62-204.800(7), F.A.C.
[0310485-006-AC/PSD-FL-310(A); and, 0310485-017-AC/PSD-FL-310(F)]

9. Heat Recovery Steam Generators equipped with Duct Burners: The maximum heat input rate of each natural gas fired duct burner shall not exceed ~~170~~200 MMBtu/hr (HHV).

~~{Permitting note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emission unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested.}~~

[Rule 62-210.200(Definitions-Potential Emissions), F.A.C.; ~~and,~~ 0310485-006-AC/PSD-FL-310(A); and, 0310485-017-AC/PSD-FL-310(F)]

FROM:

14.B. Hours of Operation. All units (combined and simple cycle) are authorized to operate 8760 hours per year while firing natural gas (2.0 grains sulfur/100 scf). The combined cycle units are authorized to operate up to a combined maximum of 576 actual plus "equivalent hours" per consecutive 12-month period while firing 0.05% sulfur content, by weight, fuel oil OR a combined maximum of 1478 actual plus "equivalent hours" while firing 0.0065% sulfur content, by weight, fuel oil per consecutive 12-month period, whichever occurs first. The simple cycle unit is authorized to operate up to a maximum of 750 actual plus "equivalent hours" per consecutive 12-month period, while firing either 0.05% or 0.0065% sulfur content, by weight, fuel oil, whichever occurs first. Tracking of "equivalent hours" shall conform with and be recorded as defined within this permit. Additionally, the following requirements shall apply:

(1) In the event that any of the 3 emission units (simple or combined cycle) fires No. 2 distillate fuel oil (0.05% sulfur content, by weight) during a calendar day, that unit shall be limited to 16 hours of daily operation on any fuel. Additionally, the other 2 units shall not be fired on any of the allowable fuels for that calendar day.

(2) In the event that the simple cycle unit fires lower sulfur oil (0.0065% sulfur content, by weight) during any calendar day, but for 8 hours or less, the combined cycle units may fire any combination of lower sulfur oil (0.0065% sulfur content, by weight) or natural gas (2 grains/100 scf) during that calendar day.

(3) In the event that the simple cycle unit fires lower sulfur fuel oil (0.0065% sulfur content, by weight) for more than 8 hours during a calendar day, it shall be allowed 24 hours of daily operation while the combined cycle units shall not be fired on any fuel for the calendar day.

[Rule 62-210.200(Definitions-Potential Emissions), F.A.C.; and, 0310485-007-AC/PSD-FL-310B]

TO:

14.B. Hours of Operation. ~~All units (combined and simple cycle)~~Except for the HRSG duct burners, the emission units are authorized to operate 8760 hours per year while firing natural gas (2.0 grains sulfur/100 scf). The combined cycle units are authorized to operate up to a combined maximum of 576 actual plus "equivalent hours" per consecutive 12-month period while firing 0.05% sulfur content, by weight, fuel oil OR a combined maximum of 1478 actual plus "equivalent hours" while firing 0.0065% sulfur content, by weight, fuel oil per consecutive 12-month period, whichever occurs first. The simple cycle unit is authorized to operate up to a maximum of 750 actual plus "equivalent hours" per consecutive 12-month

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period, while firing either 0.05% or 0.0065% sulfur content, by weight, fuel oil, whichever occurs first. Tracking of "equivalent hours" shall conform with and be recorded as defined within this permit. Additionally, the following requirements shall apply:

(1) thru (3): No change was made.

(4) HRSG Duct Burners. Each HRSG duct burner operation shall not exceed 4500 hours per consecutive 12-months.

[Rules 62-210.200(Definitions-Potential Emissions) and 62-212.400(12), F.A.C.; ~~and,~~ 0310485-007-AC/PSD-FL-310(B); and, 0310485-017-AC/PSD-FL-310(F)]

"New". Special Recordkeeping Requirements. The owner or operator shall obtain, make, and keep the following records: Hours of operation for each HRSG duct burner shall be kept for each consecutive 12-month period while firing natural gas.
[0310485-017-AC/PSD-FL-310(F)]

This permit (letter) is issued pursuant to Chapter 403, Florida Statutes (F.S.). Any party to this order 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.

Sincerely,

Joseph Kahn, P.E.
Acting Director
Division of Air Resource Management

JK/jfk/bm

cc: Mr. Bert Gianazza, P.E., JEA, Application Contact
Mr. Richard Robinson, ERMD-EQD
Mr. Hamilton Oven, DEP-SCO
Mr. Gregg Worley, U.S. EPA, Region 4

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