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Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

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MAY 23 2003

BUREAU OF AIR REGULATION

Thursday, May 22, 2003
Jeff Koerner
Bureau of Air Regulation
Division of Air Resources Management Department of
Environmental Protection
2600 Blair Stone Road, MS#5505
Tallahassee, FL 32399-2400

Dear Mr. Koerner,

In preparation for the Martin Plant expansion it was determined that the existing simple cycle CTG Stacks for Units 8A and 8B would need to be extended to provide additional personal protection during the construction of the Heat Recovery Steam Generator (HRSG) for these units. The height of each stack will be extended by 40 ft to provide an emission point above the height of the HRSG's being constructed. No changes are being made to the stack diameter, the location of the Continuous Emission Monitoring System (CEMS) sample locations, or the stack test sampling locations.

As a result of these changes to Units 8A and 8B , the attached administrative corrections are being provided for the facility's Title V Operating Permit to be made in the facility's Title V Operating Permit Emission Unit Description. It has been determined that these changes will have no effect on the certification of the CEMS system, do not change the operating modes, and do not cause an increase in emissions from the facility. FPL understands that no changes are required for either the Air Construction Permit or the emission limits of the Title V Operating Permit as a result of the extension of the stack heights on Units 8A & 8B.

Should you have any questions, or need any additional information, please contact me at your earliest convenience.

Sincerely,

John C. Hampp
Sr. Regulatory Specialist

Florida Power & Light Company
JES-JB
700 Universe Blvd.
Juno Beach, FL 33408
Email: jhampp@email.fpl.com

cc: Mr. Tom Cascio, FDEP

Original permit language:

Subsection F.

E.U. ID No.	Brief Description
-011	Simple Cycle Combustion Turbine (8A)
-012	Simple Cycle Combustion Turbine (8B)

Each unit consists of a General Electric Model PG7241 (FA) combustion turbine, an electrical generator set (each designed to produce a nominal 170 MW of electrical power), an automated gas turbine control system, an inlet air filtration system, an evaporative inlet air cooling system, an exhaust stack that is 80 feet in height and 20.5 feet in diameter, and associated support equipment. Natural Gas is the primary fuel , with very low sulfur distillate oil as a limited backup fuel. Emissions of CO, PM/PM10 , SO2, and VOC are minimized by the efficient combustion of these clean fuels at high temperatures. NOx emissions are reduced by dry low-NOx (DLN) combustion technology during gas firing and by water injection during distillate oil firing. The units have the following CEMs installed: (a) Thermo Environmental Instruments (Model 42CHL) for NOx, and Servomex (Model 1420C) for O2.

Proposed permit language :

Subsection F.

E.U. ID No.	Brief Description
-011	Simple Cycle Combustion Turbine (8A)
-012	Simple Cycle Combustion Turbine (8B)

Each unit consists of a General Electric Model PG7241 (FA) combustion turbine, an electrical generator set (each designed to produce a nominal 170 MW of electrical power), an automated gas turbine control system, an inlet air filtration system, an evaporative inlet air cooling system, an exhaust stack that is 120 feet in height and 20.5 feet in diameter, and associated support equipment. Natural Gas is the primary fuel, with very low sulfur distillate oil as a limited backup fuel. Emissions of CO, PM/PM10 , SO2, and VOC are minimized by the efficient combustion of these clean fuels at high temperatures. NOx emissions are reduced by dry low-NOx (DLN) combustion technology during gas firing and by water injection during distillate oil firing. The units have the following CEMs installed: (a) Thermo Environmental Instruments (Model 42CHL) for NOx, and Servomex (Model 1420C) for O2.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

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BUREAU OF AIR REGULATION

Ms. Trina Vielhauer
Chief
Bureau of Air Regulation
Division of Air Resources Management
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 23399

Dear Ms. Vielhauer:

We have received a December 5, 2002, letter from Florida Power & Light Company requesting a determination concerning the applicability of New Source Performance Standards (NSPS) Subpart Dc - "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units." The request relates to the applicability of the standard to fuel heaters for Unit No. 8 at the Martin Power Plant and Unit No. 3 at the Manatee Power Plant. Based on our review of Subpart Dc and the information submitted to us, we have determined that the fuel heaters are not subject to Subpart Dc.

As indicated in §60.40c(a), the affected facility to which Subpart Dc applies is a steam generating unit. A "steam generating unit" is defined in §60.41c as a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. The definition also indicates that the term does not include process heaters. A "process heater" is defined in the standard as a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst. A "heat transfer medium" is defined in the standard as any material that is used to transfer heat from one point to another point.

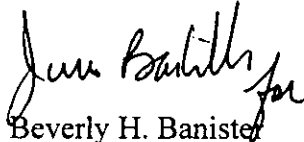
The fuel heaters which are proposed by Florida Power & Light have a heat input rate of approximately 24 million British thermal units (Btu) per hour and combust natural gas as a fuel. The heat from the combustion is used to raise the temperature of natural gas flowing through tubes. After being heated, the natural gas is routed to combustion turbines for use as fuel. Florida Power & Light has indicated that natural gas will be heated prior to being combusted in the turbines to ensure that the dry low-Nitrogen Oxides (NO_x) combustion system used in the turbines operates properly.

As indicated in the definitions provided in Subpart Dc, a heat transfer medium must transfer heat from one point to another point in order for a combustion unit to be considered a steam generating unit affected facility. The only material which could be considered a heat

transfer medium in the fuel heaters described by Florida Power & Light would be the natural gas which is being heated. However, the natural gas is not being heated for the purpose of transferring heat from one point to another. Since the natural gas is being heated prior to its use as a fuel, it is considered to be a reactant in a chemical reaction (i.e., combustion). As such, the fuel heaters would be considered process heaters. Since process heaters are exempt from regulation under Subpart Dc, the fuel heaters proposed by Florida Power & Light are not affected facilities.

This determination has been provided with assistance from the United States Environmental Protection Agency's Office of Enforcement and Compliance Assurance (OECA). If there are any questions regarding this letter, please contact Keith Goff of the EPA Region 4 staff at (404) 562-9137.

Sincerely,



Beverly H. Banister
Director
Air, Pesticides, and Toxics
Management Division

cc: Greg Fried, OECA



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DEC 11 2002

December 5, 2002

BUREAU OF AIR REGULATION

Trina Vielhauer, Chief
Bureau of Air Regulation
Division of Air Resources Management
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 23399

RE: Martin and Manatee Power Plants
PSD Permit Nos. PSD-FL-327 and PSD-FL-328
NSPS Applicability to Gas Heaters

Dear Ms. Vielhauer:

We respectfully request a formal determination as to whether Subpart Dc of the New Source Performance Standards under 40 CFR 60 applies to the direct-fired fuel heaters proposed for Unit No. 8 at the Martin Power Plant and Unit No. 3 at the Manatee Power Plant. In connection with the draft PSD permits referenced above, the Department has suggested that Subpart Dc would apply to the installation of such heaters. We do not believe that Subpart Dc is applicable to these units for the reasons outlined below. We understand that the Department may wish to forward this request to the U.S. Environmental Protection Agency's Region IV office.

Subpart Dc applies to each "steam generating unit" with a heat input rate of less than 100 million British thermal units (mmBtu) per hour, but more than 10 mmBtu per hour. 40 CFR 60.40c. The term "steam generating unit" is in turn defined as "a device that combusts any fuel and produces steam or heats water or any other heat transfer medium." 40 CFR 60.41c

The fuel heaters proposed for installation at our plants have a heat input rate of approximately 24 mmBtu per hour and combust natural gas as a fuel, and thus meet the first part of the test. The flames and heat from the combustion fire are used to raise the temperature of natural gas flowing through tubes to the combustion turbines. Because these direct-fired heaters do not produce steam, heat water, or heat any other "heat transfer medium," the units do not meet the second part of the applicability test.

The term "heat transfer medium" is defined as "any material used for transferring heat from one point to another point." 40 CFR 60.41c. The proposed fuel heaters combust fuel to raise the temperature of natural gas that is passed through tubing. The natural gas is not then used as a medium for transferring heat. The tubing through which the gas flows merely constitutes a physical barrier, and is not considered a "heat transfer medium." Examples of "heat transfer mediums" include air, water, Dowtherm, glycol, or other fluids or liquids that are used to transfer heat from the combustion location to another location. The obvious example is a boiler in which water/steam constitutes the "heat transfer medium;" the steam tubing itself would not be considered to be a "heat transfer medium."

In preamble statements, the U.S. Environmental Protection Agency (EPA) further clarified that the term "steam generating unit" was intended to include devices that combusted fuel to "produce steam, heat water, or heat other fluids which are used as heat transfer media." 55 Fed. Reg. 37674, 37676 (Sept. 12, 1990) (emphasis added). Further, in a subsequent applicability determination, EPA confirmed that devices which "combust fuel but do not transfer heat from the combustion gases to a heat transfer medium" are not considered steam generating units under Subpart Dc. Memorandum from EPA Office of Air Quality Planning and Standards to

December 5, 2002

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EPA Regions, dated November 17, 1992. Direct-fired fuel heaters, such as the ones we propose, transfer heat directly to the natural gas and do not use a heat transfer medium to do so. Therefore, they are not "steam generating units" as defined in Subpart Dc.

Moreover, the definition of "steam generating unit" specifically excludes "process heaters," and the direct-fired fuel heaters qualify under that definition: "a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst." 40 CFR 60.41c. As stated above, the fuel heaters are used to heat natural gas, and that heated natural gas is then combusted in a combustion turbine. Combustion is a chemical reaction process where the components of natural gas (e.g., carbon and hydrogen) react with the compressed inlet air. The heating of the natural gas promotes the proper chemical reaction of natural gas in the combustion turbine's General Electric DLN (dry low nitrogen oxides) system. The heated natural gas is needed for the DLN system to operate properly (i.e., proper chemical reaction) and is therefore considered to be a reactant. Thus, the direct-fired fuel heaters should be considered as process heaters for this application.

The direct-fired fuel heaters proposed at Martin and Manatee are direct-fired heaters and do not meet the definition of a "steam generating unit." We therefore respectfully request a formal determination that NSPS Subpart Dc does not apply to these heaters.

Thank you for consideration of our request. If you have any questions, please do not hesitate to contact me at (561) 691-2216.

Sincerely,



Ken Simmons
Manager of New Capacity Projects

cc: Doug Neeley, EPA Region IV
David McNeal, EPA Region IV
Keith Goff, EPA Region IV
Al Linero, DEP
Jeff Koerner, DEP
Teresa Heron, DEP