Florida Department of Environmental Protection

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September 7, 2007

Electronically Sent – Received Receipt Requested

boldissarb@hillsboroughcounty.org
Mr. Barry M. Boldissar, Director
Hillsborough County Department of Solid Waste Management
601 East Kennedy Boulevard
Tampa, Florida 33602

Re: Hillsborough County Resource Recovery Facility
DEP File No. 0570261-009-AC (PSD-FL-369A)
Installation of the Covanta Low NO_X Process in Unit No. 4

Dear Mr. Boldissar:

The Department is in receipt of your modification request submitted by Covanta Inc to modify the previously issued air construction permit to construct Unit No. 4. The request is to allow installation of the Covanta Low NO_X Process. The request is acceptable to the Department and the permit is hereby modified. The changes to the existing sections of the original construction permit are shown in strikethrough (~~strikethrough~~) and double-underlined format as follows:

PROJECT

The permittee, Hillsborough County, proposes to construct a new 600 ton per day (TPD) municipal waste combustor referred to as Unit 4 at the existing facility. The nominal design rate capacity is 600 tons municipal solid waste (MSW) per day, with a nominal heat input of 288 million Btu (mmBtu) per hour and nominal steam production of ~~163,780~~ 170,790 pounds per hour (maximum ~~190,000~~ 200,000 lb/hr). The new unit will be equipped with two natural gas-fired auxiliary burners, each with a nominal heat input of 50 mmBtu per hour. The new unit will be installed at the existing site. The flue for the new boiler is already encased in the existing stack. With the addition of the fourth unit, the existing 220 feet tall stack will contain four active flue streams. With the addition of this unit, the site capacity will increase from approximately 1,200 TPD to 1,800 TPD. The site's steam electric generating capacity will be increased from 39 megawatts (MW) to 47 MW (nominal).

The existing ash building and handling system will be expanded. Two new lime storage silos and a new activated carbon storage silo will be constructed for Unit 4.

Unit 4 will be a mass burn unit incorporating much of the same technology as the existing units including: combustion controls; combustion on a reverse-reciprocating grate system; ash discharge system; energy recovery through the furnace waterwall, superheater and economizers; electrical power production; and a pollution control system consisting of a spray dryer, fabric filter, activated carbon injection system and a selective non-catalytic reduction (SNCR). In addition, the new unit will incorporate the Covanta LN system for strategic combustion air management or flue gas recirculation for energy efficiency and pollution reduction.

SECTION III. EMISSION UNIT SPECIFIC CONDITIONS

B. Municipal Waste Combustor & Auxiliary Burners - Unit 4

Emissions Unit 107

Description: Emissions unit 107 consists of a nominal 600 TPD mass-burn municipal waste combustor with two nominal 50 mmBtu/hr natural gas-fired auxiliary burners. The project will also include: a new nominal 17 MW steam turbine-electrical generator; expansion of the ash handling and refuse building; a new transformer yard; a new lime silo; an ammonia or urea reagent storage tank; and a new settling basin. Exhaust from the new unit will be directed to a separate flue already constructed within the existing 220 foot stack.

Steam Capacity: The nominal steam production rate is 163,780 pounds of steam per hour. The maximum steam production limit is ~~190,000~~ 200,000 lb steam/hr (4-hour block average). The nominal heat input is approximately 288 mmBtu/hour.

Controls: Controls consist of: efficient combustion on the grate and furnace; strategic management of combustion air (Covanta LN system) or flue gas recirculation (FGR); a spray dryer/absorber in conjunction with a fabric filter (SD/FF) for control of acid gases, particulate matter, and most metals; activated carbon injection (ACI) to enhance mercury (Hg) removal; and selective non-catalytic reduction (SNCR) by ammonia or urea injection for nitrogen oxides (NO_X) control.

Stack Parameters: The Department may require the permittee to perform additional air dispersion modeling should the actual specified stack dimensions change. The following summarizes the exhaust characteristics:

Fuel	Heat Input Rate	Exhaust Temp., °F	Flow Rate ACFM
MSW	~288 mmBtu/hour	270° F	~125,000

Continuous Monitors: The unit is equipped with continuous emissions monitoring systems (CEMS) to measure and record NO_X, carbon monoxide (CO), sulfur dioxide (SO_2), and mercury (Hg) as well as instrumentation to monitor steam flow, flue gas flow rate, oxygen, temperature, and opacity.

Specific Condition No. 4

Control Equipment: The owner or operator shall install, operate and maintain the following air pollution control equipment consistent with the manufacturers' specifications.

NO_X Controls: A combustion air management system (Covanta LN system) or flue gas recirculation system (FGR) will be used to limit NO_X formation. An ammonia or urea-based selective non-catalytic reduction (SNCR) system will be employed for the destruction of NO_X.

MWC Acid Gas Control: A spray dryer (SD) with lime injection will be installed to absorb MWC acid gases.

MWC Organics and Mercury (Hg): An activated carbon injection (ACI) system will be installed to adsorb MWC organics and mercury (Hg).

Particulate Matter (PM/PM_{10}): A fabric filter (FF) baghouse, including absorption/adsorption reagent, will be installed to remove particulate matter.

[BACT Determination; and Rules 62-4.070(1), and (3), F.A.C.]

Specific Condition No.7

Permitted Capacity. The maximum steam production rate shall not exceed ~~190,000~~ 200,000 pounds steam per hour (on a 4-hour block arithmetic average).

{Permitting Note: The nominal capacity of Unit 4 is 600 tons per day and has been determined to be greater than 250 tons per day, thus classifying the unit as a "large MWC unit" under NSPS - 40 CFR 60, Subpart Eb.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; 40 CFR 60, Subpart Eb; and Design]

A copy of this permit modification shall be filed with the referenced permit and shall become part of the permit.

Any party to this permitting modification (order) has the right to seek judicial review of it under section 120.68 of the Florida Statutes, 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.

Joseph Kahn, Director
Division of Air Resources
Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Permit Modification and all copies were sent electronically (with Received Receipt) before the close of business on **September 7, 2007** to the persons listed below:

Barry M. Boldissar, Hillsborough County DSWM: boldissarb@hillsboroughcounty.org
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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.

Barbara J. Friday 9/7/07
(Clerk) (Date)