



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

April 21, 2009

*Sent electronically with received receipt requested.*

Mr. Jairaj Gosine, Plant Manager  
Wheelabrator South Broward, Inc  
4400 South State Road 7  
Fort Lauderdale, FL 33314

Re: Project No. 0112119-012-AC  
Case-by-Case Exemption from the Requirement to Obtain an Air Construction Permit  
Wheelabrator South Broward, Inc.  
Water Wall Platen Project for Existing Three Waste-to-Energy Boilers

Dear Mr. Gosine:

On April 3, 2009, we received your letter requesting the Department's concurrence that the proposed platen project does not require an air construction permit. The existing facility is located in Broward County at 4400 South State Road 7 in Fort Lauderdale, Florida. Briefly, the proposed project is to install ten water wall platens in front of the superheater on each unit. The new water wall platens will reduce the furnace exit gas temperature by approximately 145° F; however, the exhaust gas temperature after the superheater will remain approximately the same. The new water wall platens will produce additional steam that will be used to preheat combustion air in the steam coiled air heaters. Since this steam is currently extracted from the steam turbine, the project will improve the power production efficiency. The project will not affect the amount of waste that can be charged, the associated maximum heat input rate or the emissions.

**Determination:** The Department approves your proposed request to add ten water wall platens in front of the superheater on each unit. Based on the information provided and pursuant to Rule 62.4.040(1)(b) of the Florida Administrative Code (F.A.C.), the Department determines that the project, "... will not cause the issuance of air ... contaminants in sufficient quantity, with respect to its character, quality or content, and the circumstances surrounding its location, use and operation, as to contribute significantly to the pollution problems within the State, so that the regulation thereof is not reasonably justified." Therefore, the Department exempts this project from the requirement to obtain an air construction permit. This determination may be revoked if the proposed activity is substantially modified or the basis for the exemption is determined to be materially incorrect. A copy of this letter shall be maintained at the site of the proposed activity. This permitting decision is made pursuant to Chapter 403, Florida Statutes.

**Permitting Authority:** Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212, F.A.C. The Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida 32301. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

## CASE-BY-CASE EXEMPTION

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**Petitions:** A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions must be filed within 21 days of receipt of this written notice of exemption from air permitting requirements. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this written notice. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

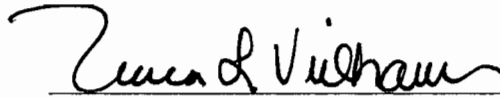
**Mediation:** Mediation is not available in this proceeding.

**Effective Date:** This permitting decision is final and effective on the date filed with the clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this action will not be effective until further order of the Department.

**Appeal:** Any party to this permitting decision (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 (30) days after this order is filed with the clerk of the Department.

CASE-BY-CASE EXEMPTION

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief  
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Case-By-Case Exemption was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on 4/24/09 to the persons listed below.

- Mr. Jairaj Gosine, Wheelabrator South Broward, Inc. (jgosine@wm.com)
- Mr. Thomas White, Wheelabrator Technologies, Inc. (twhite@wm.com)
- Mr. Chuck Faller, Wheelabrator Technologies, Inc. (cfaller@wm.com)
- Mr. Lennon Anderson, DEP SED Office (lennon.anderson@dep.state.fl.us)
- Mr. Cliff Bittle, Broward County Environmental Protection Department (cbittle@broward.org)
- Ms. Vickie Gibson, DEP BAR Reading File (victoria.gibson@dep.state.fl.us)

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)

4/24/09  
(Date)

## Livingston, Sylvia

---

**From:** Livingston, Sylvia  
**Sent:** Tuesday, April 21, 2009 3:45 PM  
**To:** 'jgosine@wm.com'  
**Cc:** 'twhite@wm.com'; 'cfaller@wm.com'; Anderson, Lennon; Clifton Bittle (cbittle@broward.org); Gibson, Victoria; Walker, Elizabeth (AIR); Koerner, Jeff  
**Subject:** Whellabrator South Broward, Inc. (0112119-012-AC) - Case-by-Case Exemption from the Requirement to Obtain an Air Construction Permit  
**Attachments:** 0112119-012-AC\_Wheelabrator.pdf

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software, *noting that you can view the documents*, and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html> .

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

Sylvia Livingston  
Bureau of Air Regulation  
Division of Air Resource Management (DARM)  
850/921-9506  
[sylvia.livingston@dep.state.fl.us](mailto:sylvia.livingston@dep.state.fl.us)

## Livingston, Sylvia

---

**From:** White, Tom [twhite@WM.com]  
**Sent:** Tuesday, April 28, 2009 7:01 AM  
**To:** Livingston, Sylvia  
**Subject:** RE: Whellabrator South Broward, Inc. (0112119-012-AC) - Case-by-Case Exemption from the Requiement to Obtain an Air Construction Permit

I have received your 4/21/09 letter. Tom White

Thomas M. White, P.E.  
Wheelabrator McKay Bay, Inc.  
107 North 34th Street  
Tampa, FL 33605

Tel 813-248-1457 ext. 25  
Cell 813-781-4815  
Fax 813-247-2052  
email [twhite@wm.com](mailto:twhite@wm.com)

-----Original Message-----

**From:** Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]  
**Sent:** Tuesday, April 21, 2009 3:45 PM  
**To:** Gosine, Jairaj  
**Cc:** White, Tom; Faller, Chuck; Anderson, Lennon; cbittle@broward.org; Gibson, Victoria; Walker, Elizabeth (AIR); Koerner, Jeff  
**Subject:** Whellabrator South Broward, Inc. (0112119-012-AC) - Case-by-Case Exemption from the Requiement to Obtain an Air Construction Permit

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Thank you,

Sylvia Livingston  
Bureau of Air Regulation  
Division of Air Resource Management (DARM)  
850/921-9506  
[sylvia.livingston@dep.state.fl.us](mailto:sylvia.livingston@dep.state.fl.us)

## Livingston, Sylvia

---

**From:** Gosine, Jairaj [jgosine@WM.com]  
**Sent:** Tuesday, April 21, 2009 4:25 PM  
**To:** Livingston, Sylvia  
**Cc:** Faller, Chuck  
**Subject:** RE: Wheelabrator South Broward, Inc. (0112119-012-AC) - Case-by-Case Exemption from the Requirement to Obtain an Air Construction Permit

Dear Ms. Livingston,

Document has been received by the facility.

Thank you,  
Jairaj Gosine

-----Original Message-----

**From:** Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]  
**Sent:** Tuesday, April 21, 2009 3:45 PM  
**To:** Gosine, Jairaj  
**Cc:** White, Tom; Faller, Chuck; Anderson, Lennon; cbittle@broward.org; Gibson, Victoria; Walker, Elizabeth (AIR); Koerner, Jeff  
**Subject:** Whellabrator South Broward, Inc. (0112119-012-AC) - Case-by-Case Exemption from the Requirement to Obtain an Air Construction Permit

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Thank you,

Sylvia Livingston  
Bureau of Air Regulation  
Division of Air Resource Management (DARM)  
850/921-9506  
[sylvia.livingston@dep.state.fl.us](mailto:sylvia.livingston@dep.state.fl.us)

*The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.*

## Livingston, Sylvia

---

**From:** Faller, Chuck [cfaller@WM.com]  
**To:** Livingston, Sylvia  
**Sent:** Tuesday, April 21, 2009 4:27 PM  
**Subject:** Read: Whellabrator South Broward, Inc. (0112119-012-AC) - Case-by-Case Exemption from the Requiement to Obtain an Air Construction Permit

Your message

**To:** [cfaller@WM.com](mailto:cfaller@WM.com)  
**Subject:**

was read on 4/21/2009 4:27 PM.



**Wheelabrator Technologies Inc.**

A Waste Management Company

4 Liberty Lane West  
Hampton, NH 03842

**RECEIVED**

APR 03 2009

**BUREAU OF AIR REGULATION**

March 30, 2009

Ms. Trina L. Vielhauer, Chief  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Subject: Wheelabrator South Broward, Inc.  
South Broward Waste-To-Energy Facility  
Project Description For Minor Boiler Upgrades

Dear Ms. Vielhauer:

Reference is made to Wheelabrator's previous letter to FDEP dated November 18, 2009, and an email from Alvaro Linero of FDEP to Chuck Faller dated January 14, 2009, same subject.

In Mr. Linero's correspondence of January 14, 2009, Wheelabrator was requested to provide additional technical heat input calculations along with drawings, to ascertain that the proposed minor boiler modifications will not result in any exceedances to existing permit limits. Submittal of this additional technical information must bear the seal of a Florida Registered Professional Engineer. The following are Wheelabrator's responses to the FDEP:

Background

The general configuration of each of the three South Broward boilers is shown in Figure 1, "Section Through Existing Boiler". Combustion of Municipal Solid Waste (MSW) on the reciprocating grates results in relatively high furnace exit gas temperature (FEGT) at the superheater. These high temperatures reduce both the life of the superheater tubes, and the time it takes for the boiler to become "fouled" and taken off line for cleaning.



### Proposed Modifications and Impacts

Wheelabrator proposes to construct ten (10) water wall platens in front of the superheater, as shown in Figure 2, "Section Through Modified Boiler". These new water wall platens will reduce the FEGT by approximately 145°F, and will produce additional steam to flow to the steam drum. As was noted in the November 18, 2008 letter to FDEP, the steam generated in the platens will be utilized to preheat combustion air in the steam coiled air heaters (SCAHs). Currently, steam for the SCAHs is extracted from the steam turbine. Thus, more steam will be available for electricity production by the facility, and for export to the utility grid.

### Permit Compliance and Electrical Generation

Each of the South Broward boilers is currently permitted for a maximum steam production rate of 192,000 pph, and a maximum design heat input rate of 323.6 MMBtu/hr. There will be no change to maximum steam production rate or maximum heat input, and no change to the maximum amount of MSW that can be combusted. The additional platens will not change the turbine generator nameplate capacity of 67 megawatts (MW), but will increase the efficiency of the turbine generator, allowing more power to be produced.

### Thermal Heat Calculations

The following calculations are based on the data shown on Figure 3, "Fuel Heat Input vs. MSW (TPD)". The original 747 TPD boilers were based on Maximum Continuous Rating (MCR) of 323.6 MMBtu/hr, and a maximum Higher Heating Value (HHV) of 5,200 btu/# as follows:

$$747 \text{ TPD} \times 2,000 \text{ \#/ton} \times 5,200 \text{ btu/\#} \div 24 \text{ hrs/day} = 323.6 \text{ MMBtu/hr (Max. Fuel Heat Input)}$$

The Wheelabrator South Broward permitted fuel heat input per permit is 323.6 MMBtu/hr, and the peak MSW feed rate is 863 TPD.

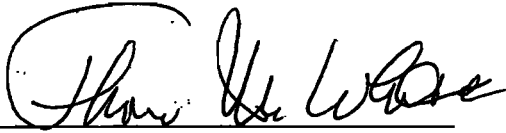
Over the past 20 years, Wheelabrator has experienced MSW HHV typically between 4500 btu/# and 5000 btu/#. Thus, Riley Power was directed by Wheelabrator to evaluate the thermal and steam generation impacts with 10 platens, clean and fouled boiler conditions, and MSW HHV between 4500 btu/# and 5000 btu/#. A summary of MSW feed rates and fuel heat inputs for low and high MSW HHV and fouled and clean boilers is listed below:

| Boiler Condition | MSW HHV (btu/#) | No. of Platens | MSW Feed Rate (TPD) | Fuel Heat Input (MM btu/hr) |
|------------------|-----------------|----------------|---------------------|-----------------------------|
| Fouled           | 4500            | 10             | 854                 | 320                         |
| Clean            | 5000            | 10             | 746                 | 320                         |

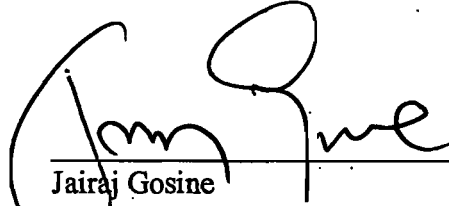
Thus, it is shown that the MSW feed rate and fuel heat input are, at all times, within the FDEP permit limits.

I hope that this additional information will allow the FDEP to conclude that this project is a minor boiler upgrade, and does not require a construction permit. If you have any questions, please feel free to contact us at any time, using the information below.

Very truly yours,



Thomas M. White, P.E.  
Project Manager  
Wheelabrator Technologies, Inc.  
(813) 781-4815

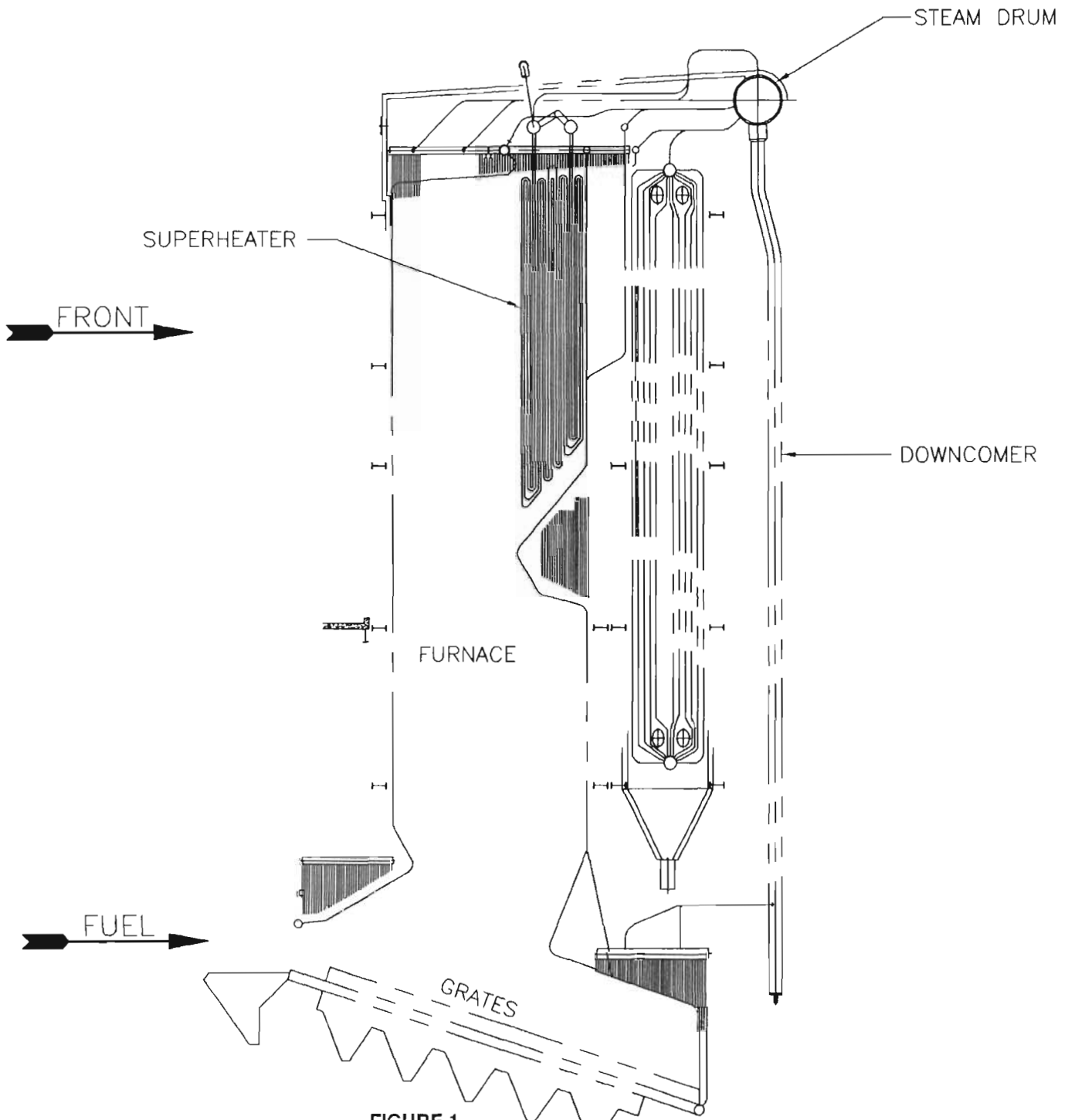


Jairaj Gosine  
Plant Manager  
Wheelabrator South Broward, Inc.  
(954) 581-6606 X212

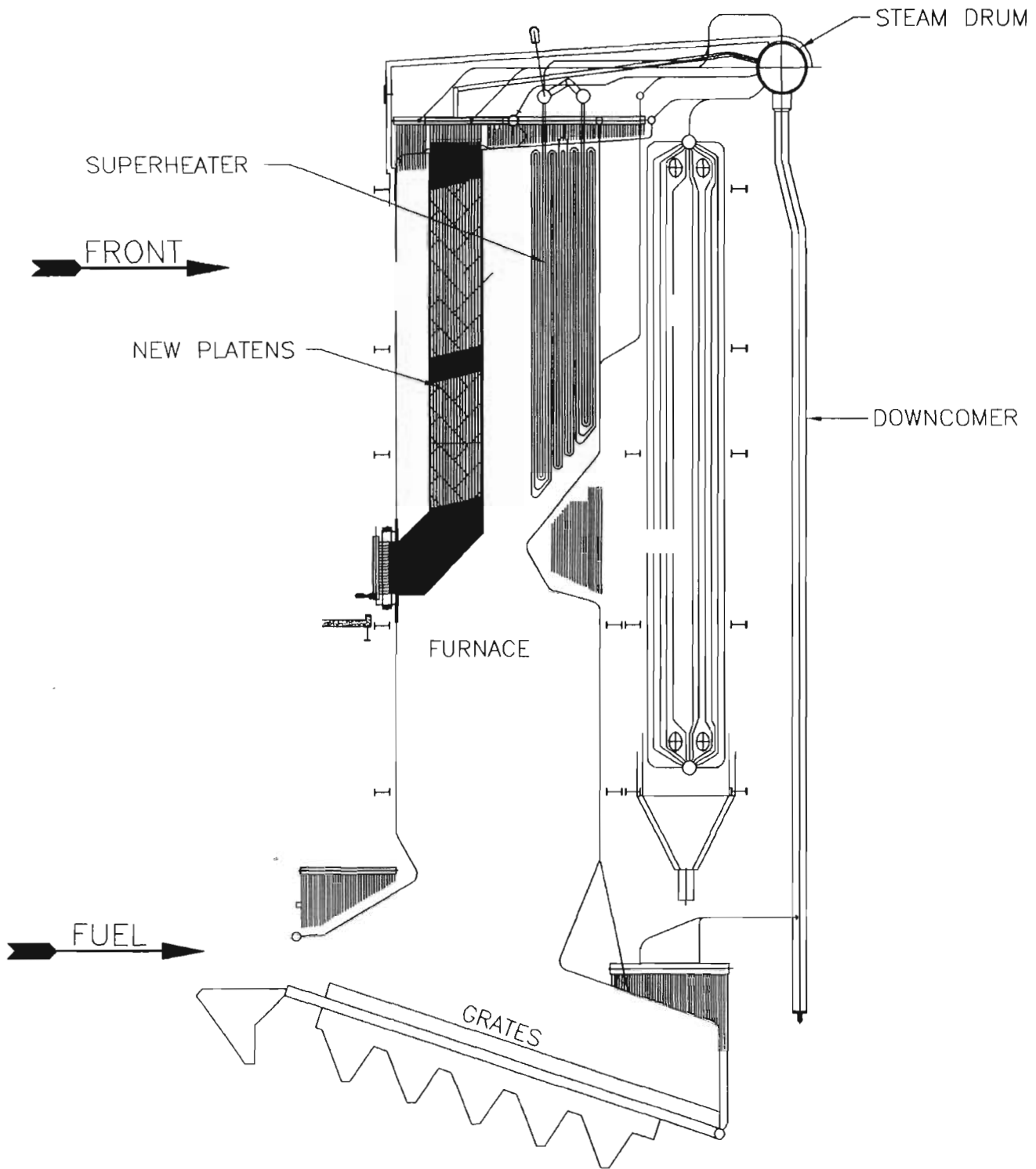
TMW/mbg  
encl

cc: K. Kosky (Golder Assoc.)  
Chuck Faller  
Timothy Porter  
A. Cole  
D. Raymond  
T. Kelly  
Theodore S. Pytlar, Jr.  
Richard Myers  
Rob French  
File





**FIGURE 1**  
**SECTION THROUGH EXISTING BOILER**



**FIGURE 2**  
**SECTION THROUGH MODIFIED BOILER**



### Fuel Heat Input vs MSW TPD

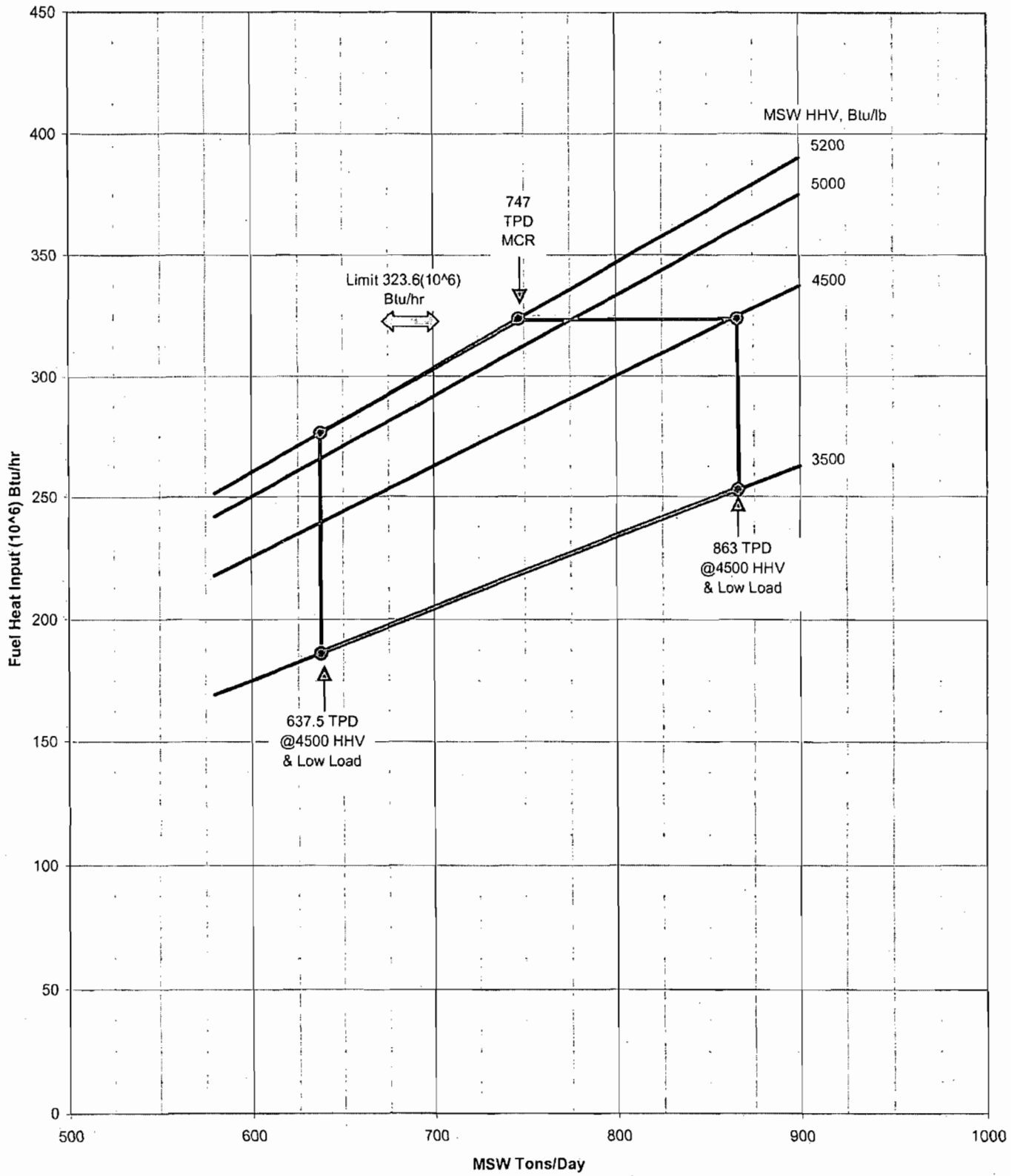


Figure 3. Fuel Heat Input vs. MSW (TPD)



**Wheelabrator Technologies Inc.**

A Waste Management Company

4 Liberty Lane West  
Hampton, NH 03842

RECEIVED

OCT 19 2009

BUREAU OF AIR REGULATION

October 1, 2009

Mr. Jeff Koerner  
Florida Department of Environmental Protection  
Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Subject: Project No. 0112119-012-AC  
Wheelabrator South Broward, Inc.  
Minor Changes to Water Wall Platen Project

Dear Mr. Koerner:

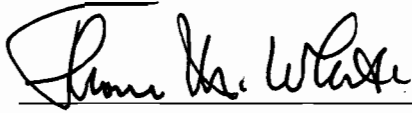
Reference is made to your Department's letter to Wheelabrator South Broward dated April 21, 2009 wherein, after review of Wheelabrator's letter of March 30, 2009 describing minor boiler upgrades, the FDEP exempted the water wall platen project from the requirement to obtain an air construction permit.

This letter is to describe some minor changes to the water wall platen installation project at South Broward. Based on recommendations from our furnace gas flow consultant, we will be installing some tempering air ports in the upper furnace to improve flue gas flow to the platens and ensure more homogenous temperature distribution along the superheater. As shown in Figure 1, "Location of Tempering Air Injection Ports", tempering air will be added via approximately 16 (2¼" diameter) ports through the "bull nose" on the furnace rear wall. This air redistribution will provide more flue gas flow into the platens, and provide some cooling to the lower sections of the superheater pendants. This should make the platens more effective, and help extend the life of the superheater pendants by reducing high temperature corrosion. The tempering air will use surplus air supplied from an existing overfire air duct, and will not have any effect on combustion or overall boiler operation.

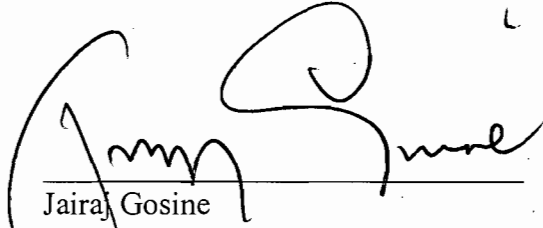
I hope that this information will allow the FDEP to conclude that this tempering air addition is also a minor boiler upgrade, and does not require a construction permit. If you have any questions, please feel free to contact either of the undersigned at any time.

**WM**  
WASTE MANAGEMENT

Very truly yours,



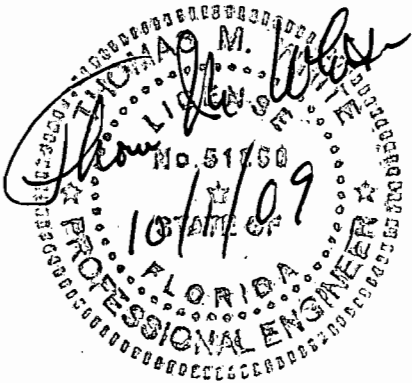
Thomas M. White, P.E.  
Project Manager  
Wheelabrator Technologies, Inc.  
(813) 781-4815

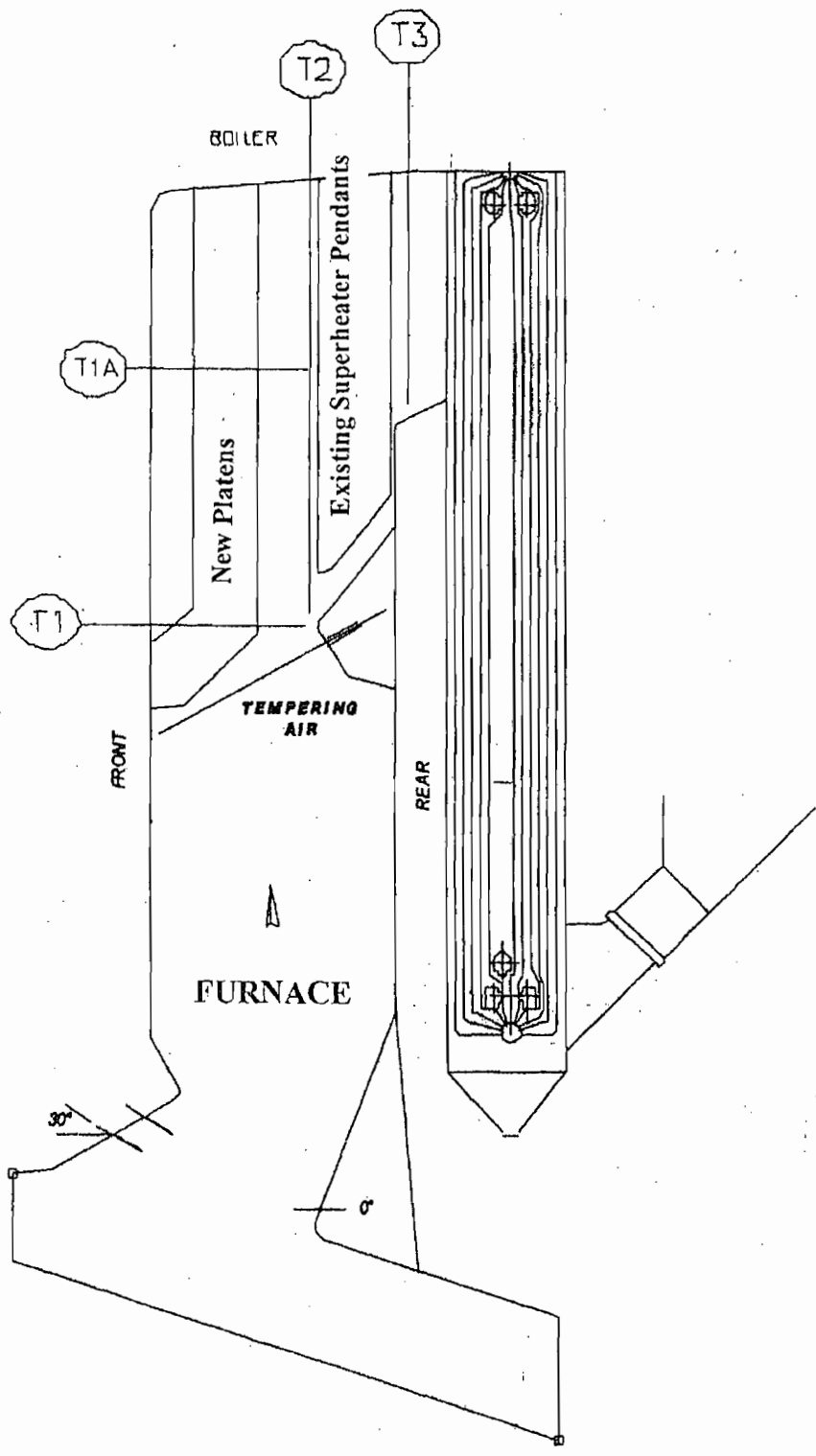


Jaira Gosine  
Plant Manager  
Wheelabrator South Broward, Inc.  
(954) 581-6606 X212

TMW/mbg  
encl

cc (w/attachment): K. Kosky (Golder Assoc.)  
Chuck Faller  
Timothy Porter  
A. Cole  
D. Raymond  
T. Kelly  
Theodore S. Pytlar, Jr.  
Richard Myers  
Rob French  
File





**Figure 1**  
**Location of Tempering**  
**Air Injection Ports**

Wheelabrator South Broward, Inc.