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DER

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DEC 16 1985

BAQM

VAN B. COOK  
COUNTY ATTORNEY

December 13, 1985

RECEIVED

DEC 17

Ms. Victoria J. Tschinkel  
Secretary, Department of  
Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Office of the Secretary

Re: U. S. EPA Region IV Administrative Order  
In the matter of:  
Pinellas County Resource Recovery Addition

Dear Ms. Tschinkel:

Enclosed is a copy of the above-referenced order received by the undersigned on December 6, 1985.

Inasmuch as Pinellas County applied for a PSD permit through your agency in the summer of 1983, we would appreciate your prompt written explanation and position with regard to the conclusions contained in the above-referenced order.

While Pinellas County continues to maintain its previously expressed position that it has obtained valid permits as required by law, the County desires to continue its good faith efforts to assist in amicably resolving this issue to the satisfaction of all concerned.

Accordingly, please consider this letter as the County's formal re-submission of its PSD permit application, incorporating by reference herein, all of the documentation previously submitted to your agency, including proposed modifications submitted through the date of this letter, for the "additional air emission source" referenced in the above-mentioned order, with the express understanding that this request is made only as a result of the above-mentioned order and that the County expressly reserves all its rights and does not waive any of said rights regarding its expressed position in this matter, including the right to contest the order and

DEPARTMENT OF ENVIRONMENTAL REGULATION

**ROUTING AND TRANSMITTAL SLIP**

ACTION NO

241

ACTION DUE DATE

1/3/86

1. TO: (NAME, OFFICE, LOCATION)

Clair Fancy Ed Svec 1/2

Initial

Date

2.

Initial

Date

3.

Initial

Date

4.

Initial

Date

REMARKS:

Pinellas Co. request for their incin. PSD permit.

Draft response for your signature promptly.

→ please handle ASAP & tell Judy to mark obb action item book.

INFORMATION

Review & Return

Review & File

Initial & Forward

DISPOSITION

Review & Respond

Prepare Response

For My Signature

For Your Signature

Let's Discuss

Set Up Meeting

Investigate & Report

Initial & Forward

Distribute

Concurrence

For Processing

Initial & Return

FROM:

Steve Smallwood Clair

DATE

12/24/86

PHONE

Patty,

could you send a copy of the letter & reply to Bill Thomas - Tampa Peter Hessling (P) Pinellas Co local

Sent 1/3/86 Thanks Ed

Continuation of letter to  
Ms. Victoria J. Tschinkel  
December 13, 1985

Page Two

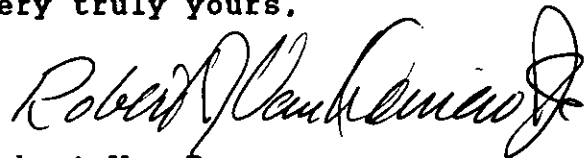
any permit denials, modifications or additional conditions imposed by any federal or state agency and any other related matters which may adversely affect Pinellas County in this regard, as well as the right to seek any and all available legal remedies it may have against the appropriate federal and state agencies. It is further my understanding that this request is required because EPA refused to accept Mr. Smallwood's proposal that DER would forward a draft PSD permit for Pinellas County upon delegation from the EPA to DER of the technical and administrative PSD permitting functions (letter of 10/14/85 to Winston A. Smith), which delegation I understood to have occurred November 1, 1985. Pinellas County expressly reserves the right to contest EPA's position in this regard.

Since Pinellas County has requested certain modifications to the permits it presently holds, we remain cautiously optimistic that this entire issue can be resolved expeditiously and properly considering the respective interests of all.

For your convenience we have enclosed a copy of Appendices I through VI of the August 31, 1983, Powerplant Siting application for unit #3 which features the PSD permit application, a BACT evaluation, a completed "Application to Operate/Construct Air Pollution Sources" permit form, and other supporting documentation. Also enclosed, you will find a copy of our letter of May 8, 1985, whereby the County requests modification of certain air emission limitations, pursuant to Section XII of the February 29, 1984, Conditions of Certification for the facility.

Please acknowledge receipt of this letter and promptly process the application since "time is of the essence."

Very truly yours,

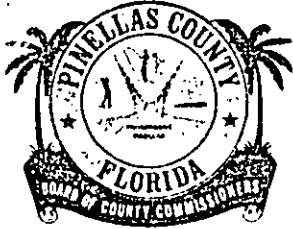


Robert Van Deman  
Director of Solid Waste

**Attachments**

cc: Jack E. Ravan, Regional Administrator EPA  
Fred E. Marquis, Pinellas County Administrator  
Van B. Cook, Pinellas County Attorney

0404d/0009q



FRED E. MARQUIS  
COUNTY ADMINISTRATOR

# PINELLAS COUNTY, FLORIDA

PHONE (813) ~~462-3485~~ • 315 COURT STREET • CLEARWATER, FLORIDA 33516  
462-3485

*Steve Smallwood -  
do you think the  
legislation will solve the  
problem or is it something  
we can  
do with.  
Fred.  
10/18*

Certified Mail - Return Receipt Requested

October 15, 1985

**RECEIVED**  
OCT 18 1985 DER

DIRECTOR - PROGRAMS 1 1985  
BAQM

Mr. Steve Smallwood, P.E., Chief  
Bureau of Air Quality Management  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Dear Mr. Smallwood:

This is to express our concern about two air emission matters at the Pinellas County Resource Recovery Facility:

1. Pinellas County has received and responded to a single letter from the EPA, dated August 23, 1985, wherein the EPA identifies statutory deficiencies in the Florida Power Plant Siting Act. It further states that the EPA intends to establish lead emission rates at the Pinellas facility. Thereafter, Pinellas County has learned that EPA considers that the Pinellas permit, issued by the DER, contains several other deficiencies. Further, EPA intends to "issue orders pursuant to Section 167 requiring Pinellas to obtain valid Federal PDS permits within sixty (60) days".

We request that the DER copy Pinellas County with all correspondence relating to this matter and confer with Pinellas County toward a resolution. Certainly, the three parties should approach a problem solution by beginning with communication.

2. The May 8, 1985 Pinellas letter to the DER (attached) remains unanswered. Both Pinellas and the DER are aware that the February 29, 1984, Conditions of Certification must be changed to acknowledge different emission limits for Units 1 and 2 than for Unit 3. Also, certain emission limits which are currently the same as one-time stack test results must be revised for compliance purposes. Modification for these reasons is required regardless of EPA action and needs to be finalized prior to start-up of Unit 3 (early 1986).

The Pinellas County Resource Recovery Facility, considered state-of-the-art for refuse disposal, has a remaining public debt obligation slightly in excess of one half billion dollars. It is imperative that we work together to solve problems. Therefore, prior to any action by the EPA or DER, we request that the DER meet with us for discussion. We will be contacting you in the near future to arrange an appointment.

Sincerely,

Fred E. Marquis,  
County Administrator

bcc: Dr. Rick Garrity, District Manager  
State of Florida Department of Environmental Regulation  
Southwest District office  
7601 Highway 301 North  
Tampa, Florida 33610-9455

Mr. Jack Ravan, Administrator  
Environmental Protection Agency, Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

Mr. Buck Oven, Administrator  
Power Plant Siting Section  
State of Florida Dept. of Env. Reg.  
Twin Towers Office Bldg.  
2600 Blair Stone Road  
Tallahassee, Florida 32301-8241

✓ Mr. Howard Rhodes  
State of Florida Dept. of Env. Reg.  
Twin Towers Office Bldg.

Mr. Buddy Menn, Governor's Aide  
Office of the Governor  
The Capitol  
Tallahassee, Florida 32301-8047

# LANDERS & PARSONS

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TALLAHASSEE, FLORIDA 32302  
TELEPHONE (904) 681-0311  
TELECOPY (904) 224-5595

August 8, 1995

Mr. Hamilton S. Oven, Jr.  
Department of Environmental Protection  
Siting Coordination Office  
2600 Blair Stone Road, MS 48  
Tallahassee, Florida 32399

RECEIVED  
AUG 8 1995  
Bureau of  
Air Regulation

Dear Mr. Oven:

As you know, in May 1995 Pinellas County filed an application for modification of the conditions of certification for the Pinellas County resource recovery facility. The County intends to install new air pollution control systems and other improvements at the facility, which will enable the County to comply with existing and proposed environmental regulations.

You asked the County to identify the specific conditions of certification that need to be modified. Accordingly, the County has prepared the attached document, which is entitled "Modifications to the Conditions of Certification for the Pinellas County Resource Recovery Facility" (the "Modified Conditions"). The Modified Conditions would supplement the existing conditions of certification, which would continue to apply to the operation of the existing facility. The Modified Conditions would apply to the construction of the facility improvements. The Modified Conditions also would establish new requirements (e.g., emissions limitations) that would apply to each combustion unit after the construction of the improvements to that unit.

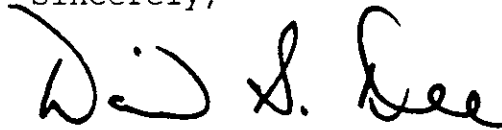
Please note that the emissions limitations and other requirements in the Modified Conditions are based on the proposed EPA Emission Guidelines for Municipal Waste Combustors (40 CFR 60, Subpart Cb) that were published in the Federal Register on September 20, 1995. We expect the final EPA Emission Guidelines to be different than the proposed regulations. Consequently, the Modified Conditions will need to be changed to be consistent with the final version of the federal regulations.

Hamilton Oven  
Page Two  
August 8, 1995

Also included for your review is a proposed "Addendum to Final Determination and Permit Conditions" for the facility's PSD permit. The Addendum and the Modified Conditions are contained in the enclosed computer diskette (Word Perfect 6.0).

Please call me after you have had an opportunity to review these materials. Pinellas County would like to work with the Department to ensure that the permitting process is completed as expeditiously as possible. Thank you for your assistance with these matters.

Sincerely,

A handwritten signature in black ink, appearing to read "D. S. Dee". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

David S. Dee

cc: Pickens Talley  
Susan Churuti  
Russ Menke  
Peter Stasis  
Don Elias  
Chip Collette (w/enclosures)  
Syed Arif (w/enclosures)  
Scott Davis  
Brian Beals

/PINCOND

## MODIFICATIONS TO THE CONDITIONS OF CERTIFICATION FOR THE PINELLAS COUNTY RESOURCE RECOVERY FACILITY

### I. GENERAL.

The Permittee shall design, construct, operate and maintain the improvements to its resource recovery facility ("facility") in the manner described in Pinellas County's application to modify the conditions of certification (dated May 1995).

### II. SITE CONFIGURATION.

The Conditions of Certification for the facility only apply to the area described in Exhibit " ?", which is a legal description of the certified site.

### III. CONSTRUCTION.

The modifications to the facility shall be designed and constructed in accordance with the general design standards presented in the application. Specific design standards, plans and specifications for certain components of the facility shall be signed and sealed by an engineer registered in the state of Florida and submitted to the Department's Southwest District Office for review at least 90 days before the construction of those portions of the facility for which the plans are being submitted. The Department shall accept the plans if they are consistent with the approved design concepts and these conditions of certification. The Department's review of the plans shall be accomplished in a timely manner in accordance with Chapter 120, F.S. Specific plans shall be required for the spray dryer absorber, fabric filter, and carbon injection systems.



#### IV. OPERATION.

The following conditions of certification shall apply to each MWC unit after the Permittee completes construction and commences operation of the improvements to that MWC unit.

##### A. Emissions Limitations for MWC Units<sup>1</sup>

The stack emissions from each MWC unit shall not exceed any of the following limitations:

1. Particulate matter (PM) emissions shall not exceed 0.012 grains/dry standard cubic feet (gr/dscf) corrected to 7% O<sub>2</sub>, 14.4 lbs/hr/unit, and 63 tons/yr/unit.
2. PM emissions less than 10 microns (PM<sub>10</sub>) in diameter shall not exceed 0.012 gr/dscf corrected to 7% O<sub>2</sub>, 14.4 lbs/hr/unit, and 63 tons/yr/unit.
3. MWC Acid Gases
  - (a) Sulphur dioxide (SO<sub>2</sub>) emissions shall not exceed 35 ppmdv at 7% O<sub>2</sub> (24-hour daily geometric mean) or achieve 75% removal efficiency as a geometric mean value, whichever is least restrictive, with a not-to-exceed cap of 122 ppmdv at 7% O<sub>2</sub>; 0.372 lbs/MMBTU, 170.0 lbs/hr/unit, and 74.46 tons/yr/unit.

---

<sup>1</sup> For the purposes of this draft permit, the following permit conditions are based on the September 20, 1994 proposed USEPA Emission Guidelines for Municipal Waste Combustors (40 CFR 60, Subpart Cb). These proposed permit conditions may need to be changed after the final USEPA Emission Guidelines are published in September, 1995.

- (b) Hydrogen chloride (HCl) emissions shall not exceed 35 ppm<sub>dv</sub> at 7% O<sub>2</sub> or achieve 95% removal efficiency with a not-to-exceed cap of 100 ppm<sub>dv</sub> at 7% O<sub>2</sub>; 0.174 lbs/MMBTU, 79.4 lbs/hr/unit, and 347.7 tons/yr/unit.
4. Carbon monoxide (CO) emissions shall not exceed 100 ppm<sub>dv</sub> at 7% O<sub>2</sub> (4-hour arithmetic block average); 0.133 lbs/MMBTU, 61.0 lbs/hr/unit, and 267.0 tons/yr/unit.
5. MWC Metals
- (a) Mercury (Hg) emissions shall not exceed 70 micrograms/dry standard cubic meter ( $\mu\text{g}/\text{dscm}$ ) or achieve 85% control;  $1.2 \times 10^{-4}$  lbs/MMBTU/unit, 0.052 lbs/hr/unit, and 0.23 tons/yr/unit.
- (b) Lead (Pb) emissions shall not exceed 500  $\mu\text{g}/\text{dscm}$  at 7% O<sub>2</sub>;  $5.7 \times 10^{-4}$  lbs/MMBTU, 0.262 lbs/hr/unit, and 1.15 tons/yr/unit.
- (c) Cadmium (Cd) emissions shall not exceed 40  $\mu\text{g}/\text{dscm}$  at 7% O<sub>2</sub>;  $4.6 \times 10^{-5}$  lbs/MMBTU, 0.021 lbs/hr/unit, and 0.092 tons/yr/unit.
6. MWC Organics
- The polychlorinated dibenzo-p-dioxin (PCDD) and polychlorinated dibenzo-furans (PCDF) emissions shall not exceed 30 nanograms per dry standard cubic meter (ng/dscm) total mass or 0.5 ng/dscm toxic equivalents (TEQ);  $3.49 \times 10^{-8}$  lbs total mass/MMBTU,  $1.6 \times 10^{-5}$  lbs/hr/unit, and  $7 \times 10^{-5}$  tons/yr/unit.
7. The opacity level in the stack shall not exceed 10% using a six minute block averaging time.

8. The emission limitation for the modified facility are based on the compliance methods specified for each pollutant. Any change in the specified compliance method for any pollutant may result in appropriate changes to the emission limitation for the pollutant.

**B. Emissions Limitations from Minor Sources**

1. There shall be no visible emissions from fly ash and bottom ash storage and handling at the facility.
2. The particulate matter emissions shall not exceed 0.005 gr/dscf from the outlet of the baghouse at the lime storage silo, two powered activated carbon storage silos, the fly ash storage silo, and the two silos at the metals recovery system.
3. The particulate matter emissions shall not exceed 0.0102 gr/dscf from the outlet of the cyclone/wet scrubber system at the metals recovery system.

**C. Operating Standards**

1. Each MWC unit shall be allowed to operate up to 110% of the unit's maximum capacity, as achieved during the most recent dioxin/furan compliance test. Maximum capacity shall be based on the steam flow rate, which would be continuously monitored according to the American Society of Mechanical Engineers (ASME) Power Test Code (PTC) for Steam Generating Units (PTC 4.1 and PTC 19.5) or as required by USEPA and/or FDEP regulations.
2. A facility-specific maximum flue gas temperature at the final PM control device inlet shall be established as demonstrated during the most recent dioxin/furan compliance test. The maximum demonstrated PM control device inlet temperature shall be established as the maximum 4-hr block average temperature measured during the most recent dioxin/furan

compliance test. The MWC must then be operated such that the temperature of the final PM control device inlet does not exceed this level by more than 17°C (4-hr block basis).

3. The chief facility operator, shift supervisors, and control room operators shall complete USEPA or State MSW operating training courses and obtain the ASME or State MWC operator certification.
4. The facility shall develop and maintain a site-specific training manual and make it available for review with all employees associated with the operation of the MWC. The manual and training should be updated annually.

**D. Compliance With Emission Limits**

1. A Continuous Emissions Monitor (CEM) shall be used for the measurement of oxygen at each location where carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), or nitrogen oxide (NO<sub>x</sub>) emissions are monitored. The monitor shall be installed, evaluated, and operated as required by 40 CFR 60.13. The monitor shall conform to Performance Specification 3 in 40 CFR 60, Appendix B. Quality assurance procedures shall conform to 40 CFR 60, Appendix F. The initial performance evaluation will be completed within 180 days after start-up of the modified facility.
2. Compliance with PM emission limits shall be determined by USEPA Method 5. USEPA Method 1 shall be used to select sampling sites and number of traverse points. USEPA Method 3 shall be used for gas analysis. Compliance with the opacity limit shall be determined by USEPA Method 9. A minimum of three test runs shall be conducted under representative full load operating conditions. The average of these test runs shall be used to determine compliance. The initial compliance for PM

emissions and opacity shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after start-up. Following the initial compliance test, performance tests for particulate and opacity shall be conducted annually.

3. A Continuous Opacity Monitor System (COMS) for measuring opacity shall be installed. The output of the COMS shall be recorded on a six-minute block average basis. The COMS shall be installed, evaluated, and operated in accordance with 40 CFR 60.13, and will conform to Performance Specification 1 in 40 CFR 60, Appendix B. The initial performance evaluation shall be completed within 180 days after start-up.
4. Compliance with emission limits for cadmium (Cd), lead (Pb), and mercury (Hg) shall be determined by USEPA Method 29. A minimum sample volume of 1.7 cubic meters shall be obtained for the mercury test. Oxygen measurement shall be obtained simultaneously with each test run. The location and number of sampling points shall be determined by USEPA Method 1. USEPA Method 3 shall be used for the flue gas analysis. A minimum of three test runs shall be conducted under representative full load operating conditions. The average of these test runs shall be used to determine compliance. Initial compliance tests shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after start-up. Following the completion of initial compliance testing, compliance shall be verified by annual stack tests.
5. Sulfur Dioxide  
Compliance with sulfur dioxide (SO<sub>2</sub>) emission limits shall be determined by using a Continuous Emissions Monitor (CEM) system to measure SO<sub>2</sub> emissions and to calculate a 24-hour daily geometric mean emission concentration. An oxygen measurement shall be obtained simultaneously

with the SO<sub>2</sub> measurements. Compliance shall be determined based on the geometric mean of the hourly arithmetic average emission concentration during each daily 24-hour period measured between 12:00 midnight and the following midnight. The one-hour arithmetic averages shall be expressed as ppm<sub>dv</sub> at 7% O<sub>2</sub>, and shall be calculated using at least two data points. The CEM system shall be installed, evaluated, and operated in compliance with 40 CFR 60.13.

The initial performance test shall be completed within 180 days after start-up. The CEM shall be operated accordance to Performance Specification 2 in 40 CFR 60, Appendix B, and quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 in 40 CFR 60, Appendix F.

#### 6. Nitrogen Oxides

Compliance with nitrogen oxides (NO<sub>x</sub>) emission limits shall be determined by use of a CEM system to measure NO<sub>x</sub> and calculating a 24-hour daily arithmetic average. Oxygen measurement shall be obtained simultaneously with each measurement. Compliance with the NO<sub>x</sub> emission limit shall be based on the arithmetic average of the hourly emission concentration with the CEM system during each 24-hour daily period corrected to 7% O<sub>2</sub>, measured between 12:00 midnight and the following midnight. At least two data points shall be used to calculate the one-hour arithmetic average. The CEM installation, evaluation, and operation shall follow the procedures set forth in 40 CFR 60.13. The CEM shall be operated according to Performance Specification 2 in 40 CFR 60, Appendix B. Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 in 40 CFR 60, Appendix F. The initial evaluation shall be completed within 180 days of the initial start-up.

7. Hydrogen Chloride

Compliance with hydrogen chloride (HCl) emission limits shall be determined by USEPA Method 26. The minimum sampling time shall be one-hour. A minimum of three test runs shall be conducted under representative full load operating conditions. The average of these test runs shall be used to determine compliance. Oxygen measurement shall be obtained simultaneously with each test run. Initial compliance tests shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after start-up. Thereafter, annual stack test shall be conducted to verify compliance.

8. Dioxins/Furans

Compliance with emission limits for dioxin/furan shall be determined by USEPA Method 23. The minimum sample time for each test run shall be four hours. Oxygen measurement shall be obtained simultaneously with each test run. A minimum of three test runs shall be conducted under representative full load operating conditions. The average of these test runs shall be used to determine compliance. Compliance shall be based on either total or Toxic Equivalency Factor (TEF) for dioxins and furans. The initial compliance test shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after start-up. Thereafter, compliance shall be demonstrated by annual stack tests.

9. Carbon Monoxide

Compliance with the carbon monoxide (CO) emission limit shall be determined by a CEM system for measuring CO at the combustor outlet using a four-hour block arithmetic average. The CEM system shall be operated according to Performance Specification 4A in 40 CFR 60, Appendix B. The four-hour arithmetic (expressed as ppm<sub>dv</sub> at 7% O<sub>2</sub>) shall be calculated from one-hour arithmetic averages with the use of at

least two data points. Required data shall consist of valid paired hourly averages (i.e., CO and O<sub>2</sub>). Quarterly accuracy determinations and daily calibration drift tests for CEM shall be performed in accordance with Procedure 1 in 40 CFR 60, Appendix F.

**E. Operating Standards for the Modified Facility**

**1. MWC Load Level**

Compliance with MWC load level requirements shall be determined by a steam flow meter using the American Society of Mechanical Engineers (ASME) Power Test Code Method 4.1. Steam flow shall be calculated in four-hour block arithmetic averages. The design, construction, installation, and calibration of the steam flow meter shall be based on ASME Test Code 19.5. The maximum demonstrated MWC unit load shall be determined during the initial compliance test for dioxins/furans and each subsequent compliance tests, during which compliance with dioxin/furan limits will be achieved. The maximum demonstrated MWC unit load shall be the maximum four-hour arithmetic average load achieved during the most recent test during which compliance with the dioxin/furan emission limit was achieved.

**2. Particulate Matter Control Device Temperature**

Compliance with maximum particulate matter (PM) control device temperature requirements shall be determined by a device to measure temperature on a continuous basis at the inlet to the final PM control device. Temperature shall be calculated in four-hour block arithmetic averages. The maximum demonstrated PM control device temperature shall be determined during the initial compliance test for dioxins/furans and each subsequent test during which compliance with the dioxin/furan emission limit will be achieved. The maximum PM control device temperature shall be the maximum four-hour arithmetic average



temperature achieved at the final PM control device inlet during the most recent test which compliance with the dioxin/furan limit was achieved.

3. **MWC Unit Capacity**

The MWC unit capacity shall be calculated based on 24-hours of operation at the maximum design charging rate.

4. **Fly Ash/Bottom Ash Fugitive Emissions**

Compliance with the fly ash/bottom ash fugitive emission standards shall be determined by USEPA Method 22. The minimum observation time shall be three hours. The observation period shall include times when the facility will transfer ash from the MWC unit to the ash storage area and times when the ash will be loaded for disposal. Initial compliance tests shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after start-up. Compliance shall be verified by annual stack tests following the date of the completion of initial stack test.

5. **The height of the boiler stack shall not be less than 165 feet above ground level at the base of the stack.**

**F. Reporting Requirements for the Modified Facility**

1. Two copies of the results of the stack test shall be submitted within forty-five days of testing to the Florida DEP Southwest Florida District Office.

2. Stack monitoring shall be reported to the DEP Southwest District Office on a quarterly basis in accordance with Section 17-2.710 F.A.C., and 40 CFR Part 60.7.

***ADDENDUM TO FINAL DETERMINATION  
AND PERMIT CONDITIONS***

***Pinellas County Resource Recovery Facility  
PSD-FL-098  
Prevention of Significant Deterioration  
(40 CFR 52.21)***

***July 10, 1995***

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## I. INTRODUCTION

Pinellas County Florida owns and operates the Pinellas County Resource Recovery Facility (PCRRF) which is an existing municipal waste combustor (MWC) located in Pinellas County. The PCRRF has the capacity to process 3150 tons per day (tpd) of municipal solid waste (MSW) at a heating value of 5000 BTU/lb. The nominal electric generating capacity of the facility is approximately 79.0 megawatts (MW) which is sold to the Florida Power Corporation (FPC). The PCRRF has three mass burn waterwall type incineration units. Each incineration unit is equipped with an independent electrostatic precipitator (ESP) to control particulate matter (PM) emissions.

Pinellas County applied to the Florida Department of Environmental Protection (FDEP) for a permit to replace the existing air pollution control (APC) system at the PCRRF with a State-Of-The-Art (SOTA) system consisting of a spray dryer absorber/fabric filter (SDA/FF) and a powdered activated carbon injection (PAC) system. Each incineration line will have an independent APC. The flue gas from each APC system will exhaust through a common stack with three separate flues. Combustion controller and furnace upgrades will also be performed for each incineration unit to facilitate Good Combustion Practices (GCP). The SOTA APC system and combustion control upgrades will be designed to achieve the emission limits as set forth in the currently proposed United States Environmental Protection Agency (USEPA) Emission Guidelines for existing MSW incineration facilities (40 CFR 60, Subpart Cb) with the exception of NO<sub>2</sub>. In addition, the proposed APC system will enable the facility to meet the Florida Mercury Rule requirements [Section 62-296.416, Florida Administrative Code (FAC)]

The proposed improvements in the APC system at the PCRRF will result in no change to or significant reductions in actual emissions from the facility for all listed PSD pollutants. In addition, modeling demonstrates that the proposed improvements in the APC system at the PCRRF will have a general reduction in impacts.

## II. PERMIT CONDITIONS AFTER MODIFICATION TO THE AIR POLLUTION CONTROL SYSTEM

### 1) Emission Limitations for MWC Units

The following permit conditions are based on the September 20, 1994 proposed USEPA Emission Guidelines for Municipal Waste Combustors (40 CFR 60, Subpart Cb). These proposed permit conditions may change according to the final USEPA Emission Guidelines scheduled to be published in September, 1995.

The stack emissions from each MWC unit shall not exceed any of the following limitations:

- a) Particulate matter (PM) emissions shall not exceed 0.012 grains/dry standard cubic feet (gr/dscf) corrected to seven percent O<sub>2</sub>, 14.4 lbs/hr/unit, and 63 tons/yr/unit.
- b) Particulate matter emissions less than 10 microns (PM<sub>10</sub>) in diameter shall not exceed 0.012 gr/dscf corrected to 7% O<sub>2</sub>, 14.4 lbs/hr/unit, and 63 tons/yr/unit.
- c) MWC Acid Gases
  - i) Sulphur dioxide (SO<sub>2</sub>) emissions shall not exceed 35 ppmdv at 7% O<sub>2</sub> (24-hour daily geometric mean) or achieve 75% removal efficiency as a geometric mean value, whichever is least restrictive, with a not-to-exceed cap of 122 ppmdv at 7% O<sub>2</sub>; 0.372 lbs/MMBTU, 170.0 lbs/hr/unit, and 74.46 tons/yr/unit.
  - ii) Hydrogen chloride (HCl) emissions shall not exceed 35 ppmdv at 7% O<sub>2</sub> or achieve 95% removal efficiency with a not-to-exceed cap of 100 ppmdv at 7% O<sub>2</sub>; 0.174 lbs/MMBTU, 79.4 lbs/hr/unit, and 347.7 tons/yr/unit.
- d) Carbon monoxide (CO) emissions shall not exceed 100 ppmdv at 7% O<sub>2</sub> (4-hour arithmetic block average); 0.133 lbs/MMBTU, 61.0 lbs/hr/unit, and 267.0 tons/yr/unit.

- e) **MWC Metals**
  - i) Mercury (Hg) emissions shall not exceed 70 micrograms/dry standard cubic meter ( $\mu\text{g}/\text{dscm}$ ) or achieve 85% control;  $1.2 \times 10^{-4}$  lbs/MMBTU/unit, 0.052 lbs/hr/unit, and 0.23 tons/yr/unit.
  - ii) Lead (Pb) emissions shall not exceed 500  $\mu\text{g}/\text{dscm}$  at 7%  $\text{O}_2$ ;  $5.7 \times 10^{-4}$  lbs/MMBTU, 0.262 lbs/hr/unit, and 1.15 tons/yr/unit.
  - iii) Cadmium (Cd) emissions shall not exceed 40  $\mu\text{g}/\text{dscm}$  at 7%  $\text{O}_2$ ;  $4.6 \times 10^{-5}$  lbs/MMBTU, 0.021 lbs/hr/unit, and 0.092 tons/yr/unit.
- f) **MWC Organics**

The polychlorinated dibenzo-p-dioxin (PCDD) and polychlorinated dibenzofurans (PCDF) emissions shall not exceed 30 nanograms per dry standard cubic meter (ng/dscm) total mass or 0.5 ng/dscm toxic equivalents (TEQ);  $3.49 \times 10^{-8}$  lbs total mass/MMBTU,  $1.6 \times 10^{-5}$  lbs/hr/unit, and  $7 \times 10^{-5}$  tons/yr/unit.
- g. The opacity level in the stack shall not exceed 10% using a six minute block averaging time.

## 2) **Emission Limitations from Minor Sources**

- a) There shall be no visible emissions from fly ash and bottom ash storage and handling at the facility.
- b) The particulate matter emissions shall not exceed 0.005 gr/dscf from the outlet of the baghouse at the lime storage silo, two powered activated carbon storage silos, the fly ash storage silo, and the two silos at the metals recovery system.
- c) The particulate matter emissions shall not exceed 0.0102 gr/dscf from the outlet of the cyclone/wet scrubber system at the metals recovery system.

## 3) **Operating Standards**

- a) Each MWC unit shall be allowed to operate up to 110% of the unit's maximum capacity, as achieved during the most recent dioxin/furan compliance test. Maximum capacity shall be based on the steam flow rate, which would be continuously monitored according to the American Society of

Mechanical Engineers (ASME) Power Test Code (PTC) for Steam Generating Units (PTC 4.1 and PTC 19.5) or as required by USEPA and/or FDEP regulations.

- b) A facility-specific maximum flue gas temperature at the final PM control device inlet shall be established as demonstrated during the most recent dioxin/furan compliance test. The maximum demonstrated PM control device inlet temperature shall be established as the maximum four-hour block average temperature measured during the most recent dioxin/furan compliance test. The MWC must then be operated such that the temperature of the final PM control device inlet does not exceed this level by more than 17°C (four-hour block basis).
- c) The chief facility operator, shift supervisors, and control room operators shall complete USEPA or State MSW operating training courses and obtain the ASME or State MWC operator certification.
- d) The facility shall develop and maintain a site-specific training manual and make it available for review with all employees associated with the operation of the MWC. The manual and training should be updated annually.

### III. COMPLIANCE DETERMINATIONS FOR THE MODIFIED FACILITY

#### 1) Compliance With Emission Limits

- a) A Continuous Emissions Monitor (CEM) for measurement of oxygen at each location where carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), or nitrogen oxide (NO<sub>x</sub>) emissions are monitored. The monitor shall be installed, evaluated, and operated as required by 40 CFR 60.13. The monitor shall conform to Performance Specification 3 in 40 CFR 60, Appendix B. Quality assurance procedures shall conform to 40 CFR 60, Appendix F. The initial performance evaluation will be completed within 180 days after start-up of the modified facility.
- b) Compliance with PM emission limits shall be determined by USEPA Method 5. USEPA Method 1 shall be used to select sampling sites and number of traverse points. USEPA Method 3 shall be used for gas analysis. Compliance with the opacity limit shall be determined by USEPA Method 9. A minimum of three test runs shall be conducted under representative full load operating conditions. The average of these test runs shall be used to determine compliance. The initial compliance for PM emissions and opacity shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after start-up. Following the initial compliance test, performance tests for particulate and opacity shall be conducted annually.

A Continuous Opacity Monitor System (COMS) for measuring opacity shall be installed. The output of the COMS shall be recorded on a six-minute block average basis. The COMS shall be installed, evaluated, and operated in accordance with 40 CFR 60.13, and will conform to Performance Specification 1 in 40 CFR 60, Appendix B. The initial performance evaluation shall be completed within 180 days after start-up.



c) Compliance with emission limits for cadmium (Cd), lead (Pb), and mercury (Hg) shall be determined by USEPA Method 29. A minimum sample volume of 1.7 cubic meters shall be obtained for the mercury test. Oxygen measurement shall be obtained simultaneously with each test run. The location and number of sampling points shall be determined by USEPA Method 1. USEPA Method 3 shall be used for the flue gas analysis. A minimum of three test runs shall be conducted under representative full load operating conditions. The average of these test runs shall be used to determine compliance. Initial compliance tests shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after start-up. Following the completion of initial compliance testing, compliance shall be verified by annual stack tests.

d) Sulfur Dioxide

Compliance with sulfur dioxide (SO<sub>2</sub>) emission limits shall be determined by using a Continuous Emissions Monitor (CEM) system to measure SO<sub>2</sub> emissions and to calculate a 24-hour daily geometric mean emission concentration. An oxygen measurement shall be obtained simultaneously with the SO<sub>2</sub> measurements. Compliance shall be determined based on the geometric mean of the hourly arithmetic average emission concentration during each daily 24-hour period measured between 12:00 midnight and the following midnight. The one-hour arithmetic averages shall be expressed as ppm<sub>dv</sub> at 7% O<sub>2</sub>, and shall be calculated using at least two data points. The CEM system shall be installed, evaluated, and operated in compliance with 40 CFR 60.13.

The initial performance test shall be completed within 180 days after start-up. The CEM shall be operated accordance to Performance Specification 2 in 40 CFR 60, Appendix B, and quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 in 40 CFR 60, Appendix F.

e) Nitrogen Oxides

Compliance with nitrogen oxides (NO<sub>x</sub>) emission limits shall be determined by use of a CEM system to measure NO<sub>x</sub> and calculating a 24-hour daily arithmetic average. Oxygen measurement shall be obtained simultaneously with each measurement. Compliance with the NO<sub>x</sub> emission limit shall be based on the arithmetic average of the hourly emission concentration with the CEM system during each 24-hour daily period corrected to 7% O<sub>2</sub>, measured between 12:00 midnight and the following midnight. At least two data points shall be used to calculate the one-hour arithmetic average. The CEM installation, evaluation, and operation shall follow the procedures set forth in 40 CFR 60.13. The CEM shall be operated according to Performance Specification 2 in 40 CFR 60, Appendix B. Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 in 40 CFR 60, Appendix F. The initial evaluation shall be completed within 180 days of the initial start-up.

f) Hydrogen Chloride

Compliance with hydrogen chloride (HCl) emission limits shall be determined by USEPA Method 26. The minimum sampling time shall be one-hour. A minimum of three test runs shall be conducted under representative full load operating conditions. The average of these test runs shall be used to determine compliance. Oxygen measurement shall be obtained simultaneously with each test run. Initial compliance tests shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after start-up. Thereafter, annual stack test shall be conducted to verify compliance.

g) Dioxins/Furans

Compliance with emission limits for dioxin/furan shall be determined by USEPA Method 23. The minimum sample time for each test run shall be four hours. Oxygen measurement shall be obtained simultaneously with each test run. A minimum of three test runs shall be conducted under representative full load operating conditions. The average of these test runs

shall be used to determine compliance. Compliance shall be based on either total or Toxic Equivalency Factor (TEF) for dioxins and furans. The initial compliance test shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after start-up. Thereafter, compliance shall be demonstrated by annual stack tests.

h) Carbon Monoxide

Compliance with the carbon monoxide (CO) emission limit shall be determined by a CEM system for measuring CO at the combustor outlet using a four-hour block arithmetic average. The CEM system shall be operated according to Performance Specification 4A in 40 CFR 60, Appendix B. The four-hour arithmetic (expressed as ppm<sub>dv</sub> at 7% O<sub>2</sub>) shall be calculated from one-hour arithmetic averages with the use of at least two data points. Required data shall consist of valid paired hourly averages (i.e., CO and O<sub>2</sub>). Quarterly accuracy determinations and daily calibration drift tests for CEM shall be performed in accordance with Procedure 1 in 40 CFR 60, Appendix F.

2) **Operating Standards for the Modified Facility**

a) MWC Load Level

Compliance with MWC load level requirements shall be determined by a steam flow meter using the American Society of Mechanical Engineers (ASME) Power Test Code Method 4.1. Steam flow shall be calculated in four-hour block arithmetic averages. The design, construction, installation, and calibration of the steam flow meter shall be based on ASME Test Code 19.5. The maximum demonstrated MWC unit load shall be determined during the initial compliance test for dioxins/furans and each subsequent compliance tests, during which compliance with dioxin/furan limits will be achieved. The maximum demonstrated MWC unit load shall be the maximum four-hour arithmetic average load achieved during the most recent test during which compliance with the dioxin/furan emission limit was achieved.

- b) **Particulate Matter Control Device Temperature**  
Compliance with maximum particulate matter (PM) control device temperature requirements shall be determined by a device to measure temperature on a continuous basis at the inlet to the final PM control device. Temperature shall be calculated in four-hour block arithmetic averages. The maximum demonstrated PM control device temperature shall be determined during the initial compliance test for dioxins/furans and each subsequent test during which compliance with the dioxin/furan emission limit will be achieved. The maximum PM control device temperature shall be the maximum four-hour arithmetic average temperature achieved at the final PM control device inlet during the most recent test which compliance with the dioxin/furan limit was achieved.
- c) **MWC Unit Capacity**  
The MWC unit capacity shall be calculated based on 24-hours of operation at the maximum design charging rate.
- d) **Fly Ash/Bottom Ash Fugitive Emissions**  
Compliance with the fly ash/bottom ash fugitive emission standards shall be determined by USEPA Method 22. The minimum observation time shall be three hours. The observation period shall include times when the facility will transfer ash from the MWC unit to the ash storage area and times when the ash will be loaded for disposal. Initial compliance tests shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after start-up. Compliance shall be verified by annual stack tests following the date of the completion of initial stack test.
- e) **The height of the boiler stack shall not be less than 165 feet above ground level at the base of the stack.**

**3) Reporting Requirements for the Modified Facility**

- a) **A copy of the results of the stack test shall be submitted within forty-five days of testing to the Florida DEP Bureau of Air Quality Management, the DEP**

Southwest Florida District Office, Pinellas County Department of Environmental Management, and EPA Region IV.

- b) Stack monitoring shall be reported to the DEP Southwest District Office and EPA Region IV on a quarterly basis in accordance with Section 17-2.710 F.A.C., and 40 CFR Part 60.7.
- c) Addresses for submitting reports are:

**EPA, Region IV**

Chief, Air Compliance Branch  
U.S. Environmental Protection Agency  
345 Cortland Street, N.E.  
Atlanta, Georgia 30365

**Florida Department of Environmental Protection**

Deputy Chief, Compliance and Ambient Monitoring  
Bureau of Air Quality Management  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

**Southwest District Office of DEP**

District Manager  
Department of Environmental Protection  
7601 Highway 301 North  
Tampa, Florida 33610

**Pinellas County**

Pinellas County Department of Environmental Management  
Division of Air Quality  
16100 Fairchild Drive  
Building V102  
Clearwater, FL 33520

Memorandum

Florida Department of  
Environmental Protection

TO: All PPSA Reviewers  
FROM: Michael S. Hickey, P.E. *MHS*  
DATE: July 28, 1995  
SUBJECT: Pinellas County Resource Recovery  
Facility Modification (PA 78011 and 83-18)

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AUG 7 1995

Bureau of  
Air Regulation

We have received four copies of the above subject. Each program coordinator will be given one copy. The copy for Water Facilities will be in conference room 257. Provide comments to your District coordinators (listed below) by August 14, 1995. WF reviewers e-mail comments to Sandra. District coordinators (listed below) provide comments to your Division coordinators with a copy to Sandra.

District Coordinators

Water Facilities - Mohammed Kader  
Waste Management - Allison Amram  
ERP - Greg Colianni  
Air Quality - Jerry Kissel

Division Coordinators

Water Facilities - Al Rushanan  
Waste Management - Raoul Clarke  
ERP - Trudie Bell  
Air Management - Al Linero

/sgl

cc: Hamilton Oven  
Al Rushanan  
Raoul Clarke  
Trudie Bell  
Al Linero

July 20, 1995

**PINELLAS COUNTY RESOURCE RECOVERY FACILITY  
AIR POLLUTION CONTROL RETROFIT PROJECT**  
14 S. FORT HARRISON AVE. 5TH FLOOR  
CLEARWATER, FL 34616  
PHONE: (813) 464-4913  
FAX: (813) 464-3944

Hamilton Oven, P.E.  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

D.E.P.  
JUL 24 1995  
TAMPA

**RE: Pinellas County Resource Recovery Facility Modification (PA 78-11 and 83-18)**

Dear Mr. Oven:

The following letter is designed to provide the Department with Pinellas County's responses to comments and questions received from various regulatory groups (Attachment 1) concerning the County's Application to modify the conditions of certification for its resource recovery facility (PCRRF). These comments have been organized by agency along with the question or comment received.

**I. Department of Environmental Regulation - Tampa Office (Solid Waste)**

**Question 1**

Please describe how the County will comply with the requirements of:

- FAC 62-702.400 for the ash management plan
- FAC 62-702.500 for the ash storage facility design
- FAC 62-702.570 for ash sampling and testing; and
- FAC 62-702.600 for ash recycling

**Response 1**

**Pursuant to FAC 62-702.400, Pinellas County has filed an Ash Management Plan with the Department. The Plan describes the County's current facility and ash management practices. It is the County's intent to modify this Plan after the final design drawings are prepared for the modifications to the PCRRF. The County will submit the designs to DEP at least 90 days before the commencement of construction of the modifications to the Ash Storage Facility. The**

County's modifications to the Ash Management Plan will be submitted to DEP at least 90 days before the County commences operations under the modified plan.

With respect to ash sampling and testing, the County is in compliance with current regulations of the Department and the U.S. Environmental Protection Agency (EPA). The County does not intend to change these procedures, unless authorized by DEP and EPA.

The County has no current plans for ash recycling off-site. Therefore, the County will continue its practice of using the ash residues for intermediate cover and berms on the Bridgeway Acres Landfill. The County also has requested authorization to use ash as the "barrier layer" for the cap and closure of the landfill.

## II. Department of Environmental Regulation - Tampa Office (Water Facilities Program)

### Question 2

The method of lime softening sludge disposal should be clarified.

### Response 2

All lime softener sludge is recycled to the bottom ash dischargers of the PCRRF and used with the makeup water to quench the bottom ash. The recycled use of the sludge water reduces the demand on potable use at the site.

### Question 3

Should the lime softening sludge be disposed of on-site then I recommend deferring to the ground water protection recommendations from the Solid Waste Section/ Waste Management Administration.

### Response 3

As a recycled commodity, the lime softener sludge becomes part of the bottom ash. The bottom ash is combined with fly ash and scrubber residues and is subsequently processed through the ash stabilization/treatment system and the metals recovery system prior to disposal in the Bridgeway Acres Landfill. This Landfill is currently permitted to use the existing ash as daily cover material and as core material in berm construction.



### **III. Department of Environmental Protection - Bureau of Air Regulation**

#### **Question 4**

Please explain why the modification is not subjected to 40 CFR Subpart Eb. If the Subpart is applicable, indicate what the emission limits will be for the criteria and non-criteria pollutants, and how those emission limits will be complied with.

#### **Response 4**

The proposed EPA New Source Performance Standards (NSPS) for Municipal Waste Combustors (MWCs) [40 CFR 60, Subpart Eb] applies to new MWC units for which construction, modification, or reconstruction began after September 20, 1994. The proposed draft EPA Emission Guidelines for MWCs [40 CFR 60, Subpart Cb], dated June 23, 1995 applies to existing MWCs for which construction, modification, or reconstruction began on or before September 20, 1994. The PCRRF is an existing MWC facility constructed prior to September 20, 1994. Therefore, the proposed NSPS is not applicable to the PCRRF. The proposed modification to the Air Pollution Control (APC) system will enable the facility to meet the requirements of the proposed EPA Emission Guidelines. As noted in 40 CFR 60.50a(f). "Physical or operational changes made to an existing MWC unit solely to comply with emission guidelines under subpart Ca are not considered a modification or reconstruction and do not bring an existing MWC unit under this subpart." It is expected that this exception will remain in subpart Eb.

#### **Question 5**

Please develop a table showing the last three years average actual emissions for the pollutants and compare it to the projected emissions from the proposed project. Based on the comparison, indicate which pollutants will be subject to PSD applicability.

#### **Response 5**

As noted in the PSD application there will be a net emissions decrease of all pollutants from the facility after the modification to the Air Pollution Control system, with the exception of ammonia. Ammonia is not a PSD regulated pollutant. Therefore, no pollutants are PSD applicable. In addition, it is not required to perform a current potential to future actuals analyses; as there will be no increase in emission rates. This is confirmed on page A-34 of the EPA New Source Review Workshop Manual, which states, "Notwithstanding the above, if a significant increase in actual emissions of a regulated pollutant occurs at an existing major source as a result of a physical change or a change in the method of operation of that source

the 'net emissions increase' of that pollutant must be determined." As stated above, there will be no increase in actual emissions for any regulated pollutant, hence the net emissions increase is irrelevant. Additionally, as requested at our meeting, attached is a table summarizing mercury stack test data for 1992 through 1994 for your information (see Attachment 2).

#### Question 6

Please explain why non-attainment area review is not triggered for NO<sub>x</sub> emissions. Table 4-2, Volume 2 of the modification indicates NO<sub>x</sub> emissions from the auxiliary burners to be more than 40 TPY, and since Pinellas County is designated as a marginal non-attainment area for ozone, and NO<sub>x</sub> is considered a precursor for ozone, therefore non-attainment area review should have been triggered for NO<sub>x</sub>.

#### Response 6

An erroneously high natural gas usage rate was used in the air permit application to determine emission rates from the low NO<sub>x</sub> auxiliary burners. The natural gas usage rate has been corrected for the burner size in the permit application. The emission rates have been revised in Table 4-2 as well as Section 4, Page 4-15 and are attached (see Attachment 3). The revised annual NO<sub>x</sub> emissions from the auxiliary burners are 0.55 tpy.

As discussed at our meeting, the auxiliary low-NO<sub>x</sub> burners will be utilized for firing the combustors during start-up, shutdowns, and to maintain required furnace temperatures when sustained low-BTU wastes are encountered. As such, no increase in annual NO<sub>x</sub> emissions is expected.

#### Question 7

Please submit air permit application forms for the auxiliary burners as indicated in the modification request.

#### Response 7

The application forms for the auxiliary burners are included in Attachment 4 for informational purposes as requested by the FDEP. Pinellas County suggests that the auxiliary burners be permitted as part of the main combustor. Because the addition of the auxiliary burners application forms affected summary forms and the pagination of the entire Appendix A of Volume II, we have submitted Attachment 4 to replace Appendix A of Volume II in its entirety. Other than the incorporation of information about the auxiliary burners, no other changes have been made to the appendix from that submitted in the original application.

#### **IV. Southwest Florida Water Management District**

##### **Question 8**

For the property associated with this application, clearly plot and label all wells (production, capped, unused, monitor, domestic, etc.) and all surface withdrawals on a current aerial photograph that has a scale of 1:200 feet and that is referenced to Section, Township, and Range. Also plot on the aerial photograph the property boundaries associated with this application.

##### **Response 8**

**There are no production or domestic wells within the property boundaries. The locations of all monitoring wells, piezometers and staff gauges were shown in Figure 2-8, Volume I of the Application. Please see attached drawings C-9 and C-10 (Attachment 5) which includes monitoring wells and pump stations. These drawings were submitted to FDEP as part of the Bridgeway Acres Landfill - Class I Operations Permit which is now under review.**

##### **Question 9**

Does the applicant own the entire pond with the proposed surface water withdrawal? If not, provide the name and complete mailing address of each riparian owner on the pond.

##### **Response 9**

**The County is the sole owner of the pond in question.**

##### **Question 10**

Provide a pump capacity (in gallons per minute), intake diameter, and construction date for each surface water withdrawal.

##### **Response 10**

**The pumping system consists of two 100 percent capacity (30 hp) submersible pumps with a design capacity of 1,200 gpm. The pump station includes a common 8 foot diameter wet well with a flooded suction connected to the stormwater pond by a 24 inch diameter submerged pipe. The discharge pipe is 12 inches in diameter and is equipped with flow meters and control valving. The stormwater pumping system construction was completed and operational at the end of 1994.**

**Question 11**

If applicable, indicate the diameter, casing depth, total depth, construction date, Well Completion Report Number, mainline diameter, and pump capacity (in gallons per minute) for each well, including production, capped, unused, monitor, and domestic wells.

**Response 11**

**There are no production wells on-site. All wells are groundwater monitoring wells and as such no pumping occurs.**

**Question 12**

Indicate the amount of water (in gallons per day) that will be pumped from the stormwater runoff pond, and, if applicable, indicate the amount of water that will be recycled to the pond. Be sure to indicate both Annual Average Daily and Peak Monthly quantities.

**Response 12**

**No water is recycled to the pond. Please refer to Figure 5-1, Volume I of the Application. As shown, the average daily pumping rate flow is 800 gpm, minimum is 0 gpm and maximum peak monthly pumping rate is 1,200 gpm.**

**Question 13**

Is there an impermeable liner in the pond that will have a surface water withdrawal?

**Response 13**

**No.**

**Question 14**

Provide a water conservation plan, which should include documentation and assessment of current and potential internal reuse, as well as external reuse sources. If applicable, the plan shall also address reducing irrigation withdrawals through evaluation of the use of drought tolerant landscaping.

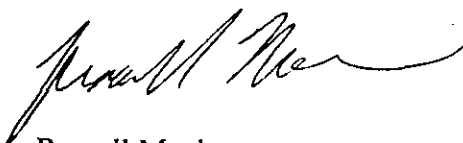
**Response 14**

Figure 5-1 of Volume I of the Application provides details on the quantities of water used during plant modifications and plant operations. The total water use is noticeably reduced from that stated in the 1983 Application. However, the proposed modifications to the PCRRF will increase non-potable consumption by approximately eight percent, primarily because the new APC system will require non-potable water for use in the SDAs. However, all of the process water for the APC system and the other components of the PCRRF will be obtained from on-site stormwater retention basins or reclaimed domestic wastewater. The use of this non-potable water at the PCRRF will provide several indirect environmental benefits, including the reduction of wastewater flow to the County sewer system (32 gpm). For example, the average non-potable withdrawal from reclaimed water sources (City of St. Petersburg and City of Largo) will be reduced from 1,590 gpm to 949 gpm (62 percent) because of the use of the Lime Softening System to treat on-site surface water.

There is limited landscaping on-site except for areas nearby buildings. These areas are irrigated using reclaimed water. Most of the Landfill portions of the Site is naturally vegetated with bahia grass which is irrigated using on-site stormwater.

Please call me if you have any further questions about this project. Pinellas County would like to resolve these issues as expediently as possible so that they can move forward with the proposed improvements to its Facility.

Sincerely,



Russell Menke  
Project Facilitator

Enclosures

cc: Attached

## DISTRIBUTION LIST

Paul Darst  
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Rhyne Building  
2740 Centerview Drive  
Tallahassee, Florida 32399  
cc letter: Dan Stengle, General Counsel

Robert D. Vandiver, General Counsel  
Public Service Commission  
101 East Gaines Street  
Fletcher Building  
Tallahassee, Florida 32399

Peter G. Hubbell, Executive Director  
Southwest Florida Water Management District  
2379 Broad Street  
Brooksville, Florida 34609-6899  
cc letter: Edward Helvenston, General Counsel  
Vivian Arenas

City of Pinellas Park  
Edward Foreman & Associates  
City Attorney  
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St. Petersburg, Florida

Mayor Cecil Bradbury  
City of Pinellas Park  
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Jim Antista  
Florida Game and Freshwater Fish Commission  
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Tallahassee, Florida 32399  
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Brad Hartman

Roger Tucker  
Tampa Bay Regional Planning Council  
945 Koger Boulevard, Suite 219  
St. Petersburg, Florida 33702-2491  
cc letter: Julia Greene, Executive Director

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Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
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Bill Hinkley  
Trudy Bell

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Pinellas Department of Environmental Management  
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Clearwater, Florida 34616

Brian Beals  
Environmental Protection Agency  
345 Courtland Street, NE  
Atlanta, Georgia 30365  
cc letter: Winston Smith

Pinellas County Building Trades Council  
c/o G. Wallace  
2165 Country Club Court North  
St. Petersburg, Florida 33710

Plumbers and Pipe Fitters Local Union #111  
c/o Fred Stiles  
4020 80th Avenue North  
Pinellas Park, Florida 33565

July 20, 1995

**PINELLAS COUNTY RESOURCE RECOVERY FACILITY  
AIR POLLUTION CONTROL RETROFIT PROJECT**  
14 S. FORT HARRISON AVE. 5TH FLOOR  
CLEARWATER, FL 34616  
PHONE: (813) 464-4913  
FAX: (813) 464-3944

Hamilton Oven, P.E.  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RECEIVED

JUL 31 1995

Bureau of  
Air Regulation

**RE: Pinellas County Resource Recovery Facility Modification (PA 78-11 and 83-18)**

Dear Mr. Oven:

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**County's modifications to the Ash Management Plan will be submitted to DEP at least 90 days before the County commences operations under the modified plan.**

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## **II. Department of Environmental Regulation - Tampa Office (Water Facilities Program)**

### **Question 2**

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### **Response 2**

**All lime softener sludge is recycled to the bottom ash dischargers of the PCRRF and used with the makeup water to quench the bottom ash. The recycled use of the sludge water reduces the demand on potable use at the site.**

### **Question 3**

Should the lime softening sludge be disposed of on-site then I recommend deferring to the ground water protection recommendations from the Solid Waste Section/ Waste Management Administration.

### **Response 3**

**As a recycled commodity, the lime softener sludge becomes part of the bottom ash. The bottom ash is combined with fly ash and scrubber residues and is subsequently processed through the ash stabilization/treatment system and the metals recovery system prior to disposal in the Bridgeway Acres Landfill. This Landfill is currently permitted to use the existing ash as daily cover material and as core material in berm construction.**

### **III. Department of Environmental Protection - Bureau of Air Regulation**

#### **Question 4**

Please explain why the modification is not subjected to 40 CFR Subpart Eb. If the Subpart is applicable, indicate what the emission limits will be for the criteria and non-criteria pollutants, and how those emission limits will be complied with.

#### **Response 4**

The proposed EPA New Source Performance Standards (NSPS) for Municipal Waste Combustors (MWCs) [40 CFR 60, Subpart Eb] applies to new MWC units for which construction, modification, or reconstruction began after September 20, 1994. The proposed draft EPA Emission Guidelines for MWCs [40 CFR 60, Subpart Cb], dated June 23, 1995 applies to existing MWCs for which construction, modification, or reconstruction began on or before September 20, 1994. The PCRRF is an existing MWC facility constructed prior to September 20, 1994. Therefore, the proposed NSPS is not applicable to the PCRRF. The proposed modification to the Air Pollution Control (APC) system will enable the facility to meet the requirements of the proposed EPA Emission Guidelines. As noted in 40 CFR 60.50a(f). "Physical or operational changes made to an existing MWC unit solely to comply with emission guidelines under subpart Ca are not considered a modification or reconstruction and do not bring an existing MWC unit under this subpart." It is expected that this exception will remain in subpart Eb.

#### **Question 5**

Please develop a table showing the last three years average actual emissions for the pollutants and compare it to the projected emissions from the proposed project. Based on the comparison, indicate which pollutants will be subject to PSD applicability.

#### **Response 5**

As noted in the PSD application there will be a net emissions decrease of all pollutants from the facility after the modification to the Air Pollution Control system, with the exception of ammonia. Ammonia is not a PSD regulated pollutant. Therefore, no pollutants are PSD applicable. In addition, it is not required to perform a current potential to future actuals analyses; as there will be no increase in emission rates. This is confirmed on page A-34 of the EPA New Source Review Workshop Manual, which states, "Notwithstanding the above, if a significant increase in actual emissions of a regulated pollutant occurs at an existing major source as a result of a physical change or a change in the method of operation of that source

the 'net emissions increase' of that pollutant must be determined." As stated above, there will be no increase in actual emissions for any regulated pollutant, hence the net emissions increase is irrelevant. Additionally, as requested at our meeting, attached is a table summarizing mercury stack test data for 1992 through 1994 for your information (see Attachment 2).

#### Question 6

Please explain why non-attainment area review is not triggered for NO<sub>x</sub> emissions. Table 4-2, Volume 2 of the modification indicates NO<sub>x</sub> emissions from the auxiliary burners to be more than 40 TPY, and since Pinellas County is designated as a marginal non-attainment area for ozone, and NO<sub>x</sub> is considered a precursor for ozone, therefore non-attainment area review should have been triggered for NO<sub>x</sub>.

#### Response 6

An erroneously high natural gas usage rate was used in the air permit application to determine emission rates from the low NO<sub>x</sub> auxiliary burners. The natural gas usage rate has been corrected for the burner size in the permit application. The emission rates have been revised in Table 4-2 as well as Section 4, Page 4-15 and are attached (see Attachment 3). The revised annual NO<sub>x</sub> emissions from the auxiliary burners are 0.55 tpy.

As discussed at our meeting, the auxiliary low-NO<sub>x</sub> burners will be utilized for firing the combustors during start-up, shutdowns, and to maintain required furnace temperatures when sustained low-BTU wastes are encountered. As such, no increase in annual NO<sub>x</sub> emissions is expected.

#### Question 7

Please submit air permit application forms for the auxiliary burners as indicated in the modification request.

#### Response 7

The application forms for the auxiliary burners are included in Attachment 4 for informational purposes as requested by the FDEP. Pinellas County suggests that the auxiliary burners be permitted as part of the main combustor. Because the addition of the auxiliary burners application forms affected summary forms and the pagination of the entire Appendix A of Volume II, we have submitted Attachment 4 to replace Appendix A of Volume II in its entirety. Other than the incorporation of information about the auxiliary burners, no other changes have been made to the appendix from that submitted in the original application.

**IV. Southwest Florida Water Management District**

**Question 8**

For the property associated with this application, clearly plot and label all wells (production, capped, unused, monitor, domestic, etc.) and all surface withdrawals on a current aerial photograph that has a scale of 1:200 feet and that is referenced to Section, Township, and Range. Also plot on the aerial photograph the property boundaries associated with this application.

**Response 8**

**There are no production or domestic wells within the property boundaries. The locations of all monitoring wells, piezometers and staff gauges were shown in Figure 2-8, Volume I of the Application. Please see attached drawings C-9 and C-10 (Attachment 5) which includes monitoring wells and pump stations. These drawings were submitted to FDEP as part of the Bridgeway Acres Landfill - Class I Operations Permit which is now under review.**

**Question 9**

Does the applicant own the entire pond with the proposed surface water withdrawal? If not, provide the name and complete mailing address of each riparian owner on the pond.

**Response 9**

**The County is the sole owner of the pond in question.**

**Question 10**

Provide a pump capacity (in gallons per minute), intake diameter, and construction date for each surface water withdrawal.

**Response 10**

**The pumping system consists of two 100 percent capacity (30 hp) submersible pumps with a design capacity of 1,200 gpm. The pump station includes a common 8 foot diameter wet well with a flooded suction connected to the stormwater pond by a 24 inch diameter submerged pipe. The discharge pipe is 12 inches in diameter and is equipped with flow meters and control valving. The stormwater pumping system construction was completed and operational at the end of 1994.**

**Question 11**

If applicable, indicate the diameter, casing depth, total depth, construction date, Well Completion Report Number, mainline diameter, and pump capacity (in gallons per minute) for each well, including production, capped, unused, monitor, and domestic wells.

**Response 11**

**There are no production wells on-site. All wells are groundwater monitoring wells and as such no pumping occurs.**

**Question 12**

Indicate the amount of water (in gallons per day) that will be pumped from the stormwater runoff pond, and, if applicable, indicate the amount of water that will be recycled to the pond. Be sure to indicate both Annual Average Daily and Peak Monthly quantities.

**Response 12**

**No water is recycled to the pond. Please refer to Figure 5-1, Volume I of the Application. As shown, the average daily pumping rate flow is 800 gpm, minimum is 0 gpm and maximum peak monthly pumping rate is 1,200 gpm.**

**Question 13**

Is there an impermeable liner in the pond that will have a surface water withdrawal?

**Response 13**

**No.**

**Question 14**

Provide a water conservation plan, which should include documentation and assessment of current and potential internal reuse, as well as external reuse sources. If applicable, the plan shall also address reducing irrigation withdrawals through evaluation of the use of drought tolerant landscaping.

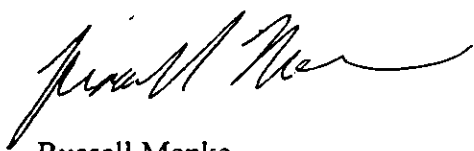
**Response 14**

Figure 5-1 of Volume I of the Application provides details on the quantities of water used during plant modifications and plant operations. The total water use is noticeably reduced from that stated in the 1983 Application. However, the proposed modifications to the PCRRF will increase non-potable consumption by approximately eight percent, primarily because the new APC system will require non-potable water for use in the SDAs. However, all of the process water for the APC system and the other components of the PCRRF will be obtained from on-site stormwater retention basins or reclaimed domestic wastewater. The use of this non-potable water at the PCRRF will provide several indirect environmental benefits, including the reduction of wastewater flow to the County sewer system (32 gpm). For example, the average non-potable withdrawal from reclaimed water sources (City of St. Petersburg and City of Largo) will be reduced from 1,590 gpm to 949 gpm (62 percent) because of the use of the Lime Softening System to treat on-site surface water.

There is limited landscaping on-site except for areas nearby buildings. These areas are irrigated using reclaimed water. Most of the Landfill portions of the Site is naturally vegetated with bahia grass which is irrigated using on-site stormwater.

Please call me if you have any further questions about this project. Pinellas County would like to resolve these issues as expediently as possible so that they can move forward with the proposed improvements to its Facility.

Sincerely,



Russell Menke  
Project Facilitator

Enclosures

cc: Attached

Syed  
Cleve

## DISTRIBUTION LIST

Paul Darst  
Department of Community Affairs  
Rhyne Building  
2740 Centerview Drive  
Tallahassee, Florida 32399  
cc letter: Dan Stengle, General Counsel

Robert D. Vandiver, General Counsel  
Public Service Commission  
101 East Gaines Street  
Fletcher Building  
Tallahassee, Florida 32399

Peter G. Hubbell, Executive Director  
Southwest Florida Water Management District  
2379 Broad Street  
Brooksville, Florida 34609-6899  
cc letter: Edward Helvenston, General Counsel  
Vivian Arenas

City of Pinellas Park  
Edward Foreman & Associates  
City Attorney  
100 Second Avenue North, Suite 300  
St. Petersburg, Florida

Mayor Cecil Bradbury  
City of Pinellas Park  
Post Office Box 1100  
Pinellas Park, Florida 34664-1100

Jim Antista  
Florida Game and Freshwater Fish Commission  
Ferris Bryant Building  
620 South Meridian Street  
Tallahassee, Florida 32399  
cc letter: Dr. Allan Egbert, Executive Director  
Brad Hartman

Roger Tucker  
Tampa Bay Regional Planning Council  
945 Koger Boulevard, Suite 219  
St. Petersburg, Florida 33702-2491  
cc letter: Julia Greene, Executive Director

Hamilton S. Oven, Jr. (4 copies)  
Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399  
cc letter: Howard Rhodes  
Clair Fancy  
Bill Hinkley  
Trudy Bell

Mike Hickey (4 copies)  
Department of Environmental Protection  
3804 Coconut Palm Drive  
Tampa, Florida 33619-8218  
cc letter: Richard Garrity  
Bill Thomas  
Kim Ford

Pinellas Department of Environmental Management  
315 Court Street  
Clearwater, Florida 34616

Brian Beals  
Environmental Protection Agency  
345 Courtland Street, NE  
Atlanta, Georgia 30365  
cc letter: Winston Smith

Pinellas County Building Trades Council  
c/o G. Wallace  
2165 Country Club Court North  
St. Petersburg, Florida 33710

Plumbers and Pipe Fitters Local Union #111  
c/o Fred Stiles  
4020 80th Avenue North  
Pinellas Park, Florida 33565



TO: Buck Oven  
THROUGH: A. A. Linero *AALinero 6/20*  
FROM: Syed Arif *SA*  
DATE: June 20, 1995  
SUBJECT: Pinellas County Resource Recovery Facility  
PA 78-11 & 83-18, Module 8021

The Bureau of Air Regulation finds the above referenced modification request insufficient. Based on our initial review of their proposal, we have determined that additional information is needed in order to process the modification. The following information is required:

1. Please explain why the modification is not subjected to 40 CFR 60 Subpart Eb? If the Subpart is applicable, indicate what the emission limits will be for the criteria and non-criteria pollutants, and how those emission limits will be complied with.
2. Please develop a table showing the last three years average actual emissions for the pollutants and compare it to the projected emissions from the proposed project. Based on the comparison, indicate which pollutants will be subject to PSD applicability.
3. Please explain why non-attainment area review is not triggered for NO<sub>x</sub> emissions. Table 4-2, Volume 2 of the modification indicates NO<sub>x</sub> emissions from the auxiliary burners to be more than 40 TPY, and since Pinellas county is designated as a marginal non-attainment area for ozone, and NO<sub>x</sub> is considered a precursor for ozone, therefore non-attainment area review should have been triggered for NO<sub>x</sub>.
4. Please submit air permit application forms for the auxiliary burners as indicated in the modification request.

SA/t

**HDR**

HDR  
Suite  
5100  
Tamp  
3360

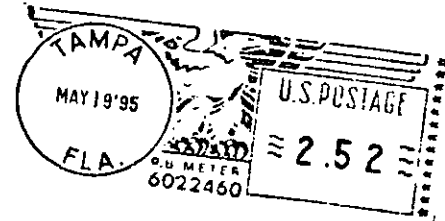
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right of the return address

**CERTIFIED**

Z 186 910 905

**MAIL**

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FL 32399



5583

**PINELLAS COUNTY RESOURCE RECOVERY FACILITY  
AIR POLLUTION CONTROL RETROFIT PROJECT**

14 S. FORT HARRISON AVE. 5TH FLOOR  
CLEARWATER, FL 34616  
PHONE: (813) 464-4913  
FAX: (813) 464-3944

RECEIVED

MAY 23 1995

Bureau of  
Air Regulation

May 19, 1995

Copy to:  
Tim + J. Ch

Mr. Hamilton Oven, Jr., P.E.  
Power Plant Siting Section  
State of Florida  
Department of Environmental Protection  
Division of Environmental Permitting  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399

**RE: Application for Modification of Power Plant Site Certification - Pinellas County Solid Waste Energy Recovery Facility**

Facility ID# 40PNLS20117

Dear Mr. Oven:

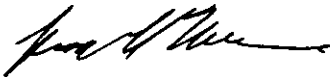
Transmitted herewith are 4 copies of Pinellas County's Application for Modification of an Electrical Power Plant Siting Certification (Volumes I, II, and III) which is submitted in accordance with Section 403.51b, Florida Statutes, and rules of the Florida Department of Environmental Protection, Chapter 62-17, F.A.C. Copies of the application also are being sent directly to the other agencies and individuals listed on the attached certificate of service.

Pinellas County welcomes the opportunity to work with the Department and the other agencies involved in reviewing this application for modification of its existing site certification.

We anticipate that the information contained herein provides all that is necessary to permit a thorough evaluation of our application. However, if you find that additional data or clarification is required, please contact me at your earliest convenience. Within the next three weeks, Pinellas County will call or meet with each of the agencies that received the application to ensure that they have all of the information they need.

Also enclosed is our check for \$10,000.00 to cover the application fee.

Sincerely,


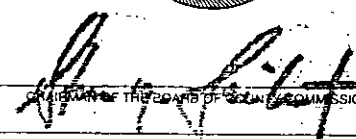
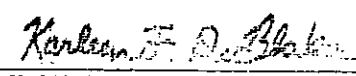


Russell Menke  
Project Facilitator

Enclosures

Engineer Submitting Application: R. Peter Stasi

Florida Registration Number: 46220

WARRANT PAYABLE AT FIRST UNION NATIONAL BANK OF FLORIDA ST. PETERSBURG, FLORIDA	<b>BOARD OF COUNTY COMMISSIONERS</b> PINELLAS COUNTY CLEARWATER, FLORIDA  IMPREST FUND	63-751 631	CHECK NO. <b>000866</b>
TEN THOUSAND DOLLARS NO CENTS		APPROVED IN OPEN SESSION VOID IF NOT CASHED WITHIN SIXTY DAYS	
PAY TO THE ORDER OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION C/O UTILITIES		5/17/95	CHECK AMOUNT \$10,000.00
 <small>CHAIRMAN OF THE BOARD OF COUNTY COMMISSIONERS</small>		 <small>CLERK CIRCUIT COURT, EX-OFFICIO CLERK OF THE BOARD OF COUNTY COMMISSIONERS</small>	

⑈000866⑈ ⑆063107513⑆ 2090001386537⑈

**BOARD OF COUNTY COMMISSIONERS**  
 PINELLAS COUNTY CLEARWATER, FLORIDA

DATE 5/17/95	CHECK NO. 000866
AP TR	71058

DATE	INVOICE OR CREDIT MEMO NUMBER	TYPE	DESCRIPTION	REFERENCE NO.	GROSS		AMOUNTS DISCOUNTS		NET	
5/17/95	000866		APPL FOR CERT		10	00000			10	000 00
	0521									
<b>TOTAL</b>						10	00000			10 000 00

THE ATTACHED CHECK IS IN PAYMENT FOR ITEMS DESCRIBED ABOVE

CERTIFICATE OF SERVICE

✓ PAUL DARST  
DEPARTMENT OF COMMUNITY AFFAIRS  
RHYNE BUILDING  
2740 CENTERVIEW DRIVE  
TALLAHASSEE, FLORIDA 32399  
CC: DAN STENGLE, GENERAL COUNSEL

ROBERT D. VANDIVER, GENERAL COUNSEL  
PUBLIC SERVICE COMMISSION  
101 E. GAINES STREET  
FLETCHER BUILDING  
TALLAHASSEE, FLORIDA 32399

PETER G. HUBBELL, EXECUTIVE DIRECTOR  
SOUTHWEST FLORIDA WATER  
MANAGEMENT DISTRICT  
2379 BROAD STREET  
BROOKSVILLE, FLORIDA 34609-6899  
CC: EDWARD HELVENSTON, GENERAL COUNSEL  
VIVIAN ARENAS

CITY OF PINELLAS PARK  
EDWARD FOREMAN & ASSOCIATES  
CITY ATTORNEY  
100 SECOND AVENUE NORTH, SUITE 300  
ST. PETERSBURG, FLORIDA

MAYOR CECIL BRADBURY  
CITY OF PINELLAS PARK  
POST OFFICE BOX 1100  
PINELLAS PARK 34664-1100

JIM ANTISTA  
FLORIDA GAME AND FRESH  
WATER FISH COMMISSION  
FERRIS BRYANT BUILDING  
620 SOUTH MERIDIAN STREET  
TALLAHASSEE, FLORIDA 32399  
CC: DR. ALLAN EGBERT, EXECUTIVE DIRECTOR  
BRAD HARTMAN

ROGER TUCKER  
TAMPA BAY REGIONAL PLANNING COUNCIL  
9455 KOGER BOULEVARD, SUITE 219  
ST. PETERSBURG, FLORIDA 33702-2491  
CC: JULIA GREENE, EXECUTIVE DIRECTOR

HAMILTON S. OVEN, JR. (4 COPIES)  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION  
TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32399  
CC: HOWARD RHODES  
CLAIR FANCY  
BILL HINKLEY  
TRUDY BELL

MIKE HICKEY (4 COPIES)  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION  
3804 COCONUT PALM DRIVE  
TAMPA, FLORIDA 33619-8218  
CC: RICHARD GARRITY  
BILL THOMAS  
KIM FORD

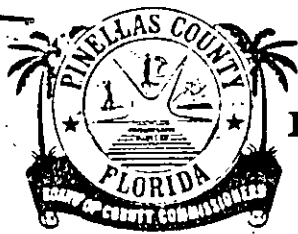
PINELLAS DEPARTMENT OF ENVIRONMENTAL  
MANAGEMENT  
315 COURT STREET  
CLEARWATER, FLORIDA 34616

BRIAN BEALS  
ENVIRONMENTAL PROTECTION AGENCY  
345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365  
CC: WINSTON SMITH

PINELLAS COUNTY BUILDING TRADES COUNCIL  
C/O G. WALLACE  
2165 COUNTRY CLUB COURT NORTH  
ST. PETERSBURG, FLORIDA 33710

PLUMBERS AND PIPE FITTERS LOCAL UNION NO. 111  
C/O FRED STILES  
4020 80TH AVENUE NORTH  
PINELLAS PARK, FLORIDA 33565

/vc:PINCERT



BOARD OF COUNTY COMMISSIONERS

DEPARTMENT OF SOLID WASTE MANAGEMENT
2800 110TH AVENUE NORTH
ST. PETERSBURG, FLORIDA 33702.
PHONE (813) 825-1585



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P.O. BOX 21623
ST. PETERSBURG, FLORIDA 33742-1623

May 8, 1985

State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

Attention: Mr. Hamilton S. Oven, Jr., P.E.

Subject: Air Emissions Modification, Pinellas County RRF

Gentlemen:

Pursuant to our meeting with the Bureau of Air Quality Management in Tallahassee on February 14, 1985, Pinellas County hereby submits proposed amendments and support documentation to the August 17, 1984, letter to the Department. Based on the discussions at the February 14 meeting, it is our understanding that the Best Available Control Technology (BACT) review process is conducted only once for each source and that it was not the Department's intent to designate that the emission limitations determined to be BACT for Unit #3 are also to be applied to existing Units 1 & 2.

Therefore, Pinellas County requests that the existing wording of Section XIV.A.1. of the February 29, 1984, Conditions of Certification (COC) be deleted, and the following text substituted in its place:

1. Emission Limitations upon Operation of Unit 3

a. Emissions from Units 1 or 2 shall not exceed the following:

Ampl as 1979 PPSC

(1) Particulate matter: in grains per standard cubic foot dry gas corrected to 12% CO2 - 0.08.

more restrictive than existing

(2) SO2-170 lbs./hr. each unit

Ampl as 1979 PPSC

(3) Odor: there shall be no objectionable odor

Ampl as 1979 PPSC

(4) Visible emissions: stack opacity shall be no greater than 20% except as provided for during start-up, shutdown, or malfunctions when the provisions of 17-2.250, FAC shall apply.

1979 PPSC has only 4 air quality criteria

Air Emissions Modification

Page 2 of 4

May 8, 1985

b. Emissions from Unit 3 shall not exceed the following:

(1) Particulate matter: in grains per standard cubic foot dry gas corrected to 12% CO<sub>2</sub> - 0.03.

(2) SO<sub>2</sub>-170 lbs./hr.

(3) Nitrogen oxides - 254 lbs./hr.

(4) Carbon monoxide - 66 lbs./hr.

(5) Lead - 4.4 lb./hr.

(6) Mercury - 3200 grams/day when more than 2205 lbs./day of municipal sludge is fired. Compliance shall be determined in accordance with 40 CFR 6.1, Method 101, Appendix B.

(7) Odor - there shall be no objectionable odor

(8) Visible emissions - stack opacity shall be no greater than 20% except as provided for during start-up, shutdown or malfunctions when the provisions of 17-2.250, FAC shall apply.

c. The height of the boiler exhaust stack shall not be less than 161 feet above grade.

d. The incinerator boilers shall not be loaded in excess of their rated capacity of 87,500 pounds of municipal solid waste per hour each.

e. The incinerator boilers shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, rated capacity and certification number.

f. Compliance with the limitations for particulates, sulfur oxides, nitrogen oxides, carbon monoxide and lead shall be determined in accordance with Florida Administrative Code Rule 17-2.700, DER Methods 1,2,3,5,6, and 40 CFR 60, Appendix A, Method 7. The stack test shall be performed at +/- 10% of the maximum steam rate of 250,000 pounds per hour.

(END OF PROPOSED WORDING CHANGE)



The rationale for the proposed amendments is as follows:

1. Particulate matter - Unchanged from the February 29, 1984 COC.
2. SO<sub>2</sub> - As Pinellas County has stated on several prior occasions, the concentration of SO<sub>2</sub> in emissions from resource recovery facilities is highly variable. This is due to the wide range in the sulfur content of solid waste, a very heterogeneous material. A compilation of tested stack emissions is presented in Appendix 1. From these data and from the data in the attached California Air Resources Board report (Appendix 2) the following conclusions are reached:
  - A. The median SO<sub>2</sub> emission rate is 3.8 pounds of SO<sub>2</sub> per ton of solid waste.
  - B. The SO<sub>2</sub> emissions exhibit wide deviations from the median.

Based on these conclusions, an emission rate in the median area is proposed. It is proposed that this emission rate be stipulated for all three units. Currently, Units 1 and 2 are permitted at 1.2 pounds of SO<sub>2</sub> per million BTU's (10.8 lbs./Ton @ 4500 BTU/pound). Modeling results at the proposed emission rate are also attached for review (Appendix 3). The results indicate that no significant increase in ambient SO<sub>2</sub> will result from emissions at this level.

3. Nitrogen oxides - As discussed in the August 17 letter, nitrogen oxide emissions are largely the result of boiler operation. Newer, more efficient units, like Pinellas, generate more of these constituents. However, nitrogen oxide emissions do not exhibit the wide deviations as noted with SO<sub>2</sub>. Therefore, it is proposed that the nitrogen oxide limit be based on an upper limit if it is to be defined as a "not-to-exceed" value. Appendix 4 features stack test results from four mass burn facilities. As shown, 95% of the time, the facilities can attain an emission limit of 5.8 lb./ton (254 lbs./hr. for Pinellas), which is the proposed level for Unit 3.
4. Carbon Monoxide - Unchanged from the February 29, 1984, COC for Unit 3.

Air Emissions Modification  
Page 4 of 4  
May 8, 1985

5. Lead - Lead emissions are largely a function of particulate matter emissions. The attached report by Arthur D. Little, Inc. (Appendix 5) states that approximately 16% of the emitted particulate is in the form of lead. Based on an allowable particulate emission rate of 0.03 g/dscf, the corresponding lead emission is 4.4 lb./hr., which is proposed for Unit 3.
6. Mercury - Unchanged from February 29, 1984, COC for Unit 3.
7. Odor - Unchanged from February 29, 1984, COC for Unit 3.
8. Visible emissions - Opacity is a function of particulate and other gaseous stack emissions. While it is not possible at this time to state what the opacity values will be for Unit 3, the continuous data obtained from Units 1 & 2 indicate that the limitation in the current COC is not consistently attainable (See Appendix 6). Furthermore, opacity and particulate emissions have been compared for Units 1 & 2. Based on this comparison, the opacity at the allowable particulate emission of 0.03 g/dscf will generally be above 10%.

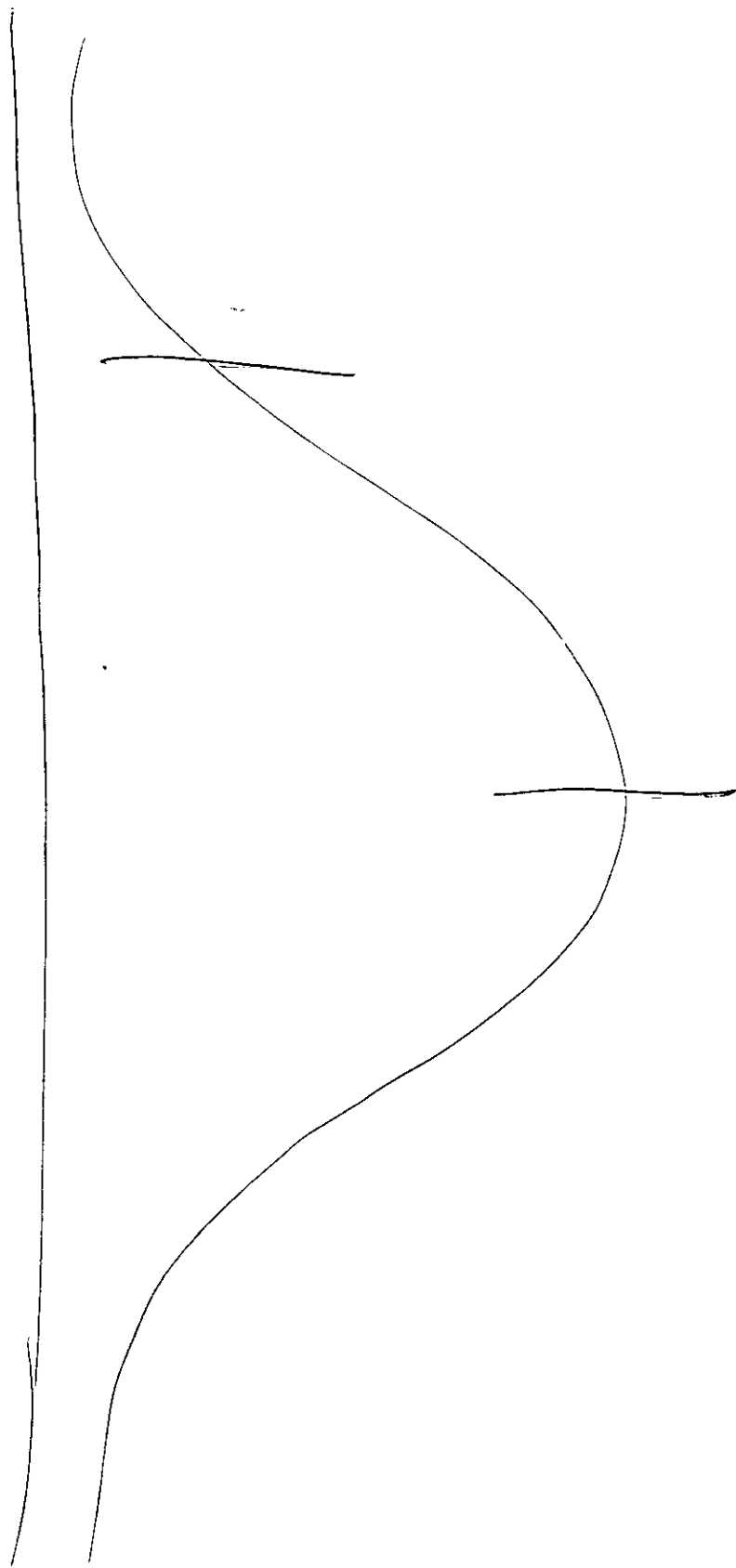
It is requested that the Department consider our request for COC amendment. If you require additional information, please contact this office.

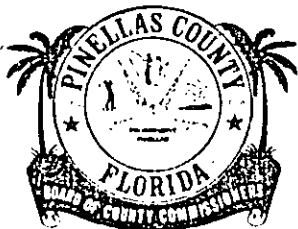
Very truly yours,



Bob Van Deman, P.E., Director  
Solid Waste Management

BVD:rvt  
encl  
0054V





FRED E. MARQUIS  
COUNTY ADMINISTRATOR

# PINELLAS COUNTY, FLORIDA

PHONE (813) ~~462-3485~~ • 315 COURT STREET • CLEARWATER, FLORIDA 33516  
462-3485

Certified Mail - Return Receipt Requested

October 15, 1985

Mr. Jack Ravan, Administrator  
Environmental Protection Agency, Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

Dear Mr. Ravan:

Pinellas County has obtained a copy of a letter dated September 16, 1985 (attached) wherein EPA notifies the State of Florida, Department of Environmental Regulation of EPA's intent to "issue orders pursuant to Section 167 of the Clean Air Act requiring Pinellas County to obtain valid Federal PSD permits within 60 days". This proposed action on behalf of the EPA results from a statutory dispute between the EPA and the State of Florida; not as the result of any action or inaction by Pinellas County.

The Pinellas County Resource Recovery Facility is considered state-of-the-art for solid waste refuse disposal throughout the United States. Remaining public debt for the facility is in excess of one half billion dollars. We believe that the interests of the EPA, Florida DER and Pinellas County would be best served by meeting to understand any perceived deficiencies and/or additional permit requirements.

Therefore, before EPA issues any order which may jeopardize the Pinellas project we request that you meet with us for discussion and will be contacting you to make an appointment in the near future.

Sincerely,

Fred E. Marquis,  
County Administrator

Attachment

DER

OCT 21 1985


BAQM

Mr. Jack Ravan, Administrator  
Environmental Protection Agency, Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

Letter dated October 15, 1985 - signed by County Administrator, Fred E. Marquis

bcc were sent to:

Mr. Steve Smallwood, P.E., Chief  
Bureau of Air Quality Management  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301



Mr. Buck Oven, Administrator  
Power Plant Siting Section  
State of Florida Dept. of Env. Reg.  
Twin Towers Office Bldg.  
2600 Blair Stone Road  
Tallahassee, Florida 32301-8241

C. W. Bill Young, Congressman  
House of Representatives  
2266 Rayburn Building  
Washington, D. C. 20515



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

SEP 16 1985

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30365

DER

SEP 27 1985

BAQM

REF: 4APT-AP

Mr. Steve Smallwood, Chief  
Bureau of Air Quality Management  
Florida Department of  
Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32301-8241

Dear Mr. Smallwood:

This letter is to acknowledge receipt of Ms. Carol A. Forthman's August 2, 1985 letter, concerning the interpretation of the Florida Power Plant Siting Act (PPSA) by the Department of Environmental Regulation's (DER) Office of General Counsel. This letter will also address the content of our August 20, 1985, telephone conversation with your office regarding the conflict between the PPSA and the Florida State Implementation Plan (SIP).

Based upon our review of the PPSA and the Florida SIP, there appear to be three major differences between these laws. These differences are: a) Under the PPSA, the Governor and the Siting Board are accorded a degree of discretion in granting or modifying certifications which may be substantively inconsistent with PSD requirements of both the Clean Air Act and the Florida SIP, b) The notification requirements of the PPSA differ significantly from those in the SIP; and c) EPA has no authority to enforce the PPSA certifications under Chapter 403 of the Florida Public Health Code (PHC).

Ms. Forthman's letter acknowledged on behalf of the State of Florida that there are some deficiencies in the notice procedures under the PPSA as compared with the PSD notice requirements in the Florida SIP. In that letter the State agreed to meet the SIP requirements in future notices. However, the real issue, as we see it, is whether the PPSA precludes the DER from issuing PSD permits and whether the PPSA certifications can be issued in lieu of PSD permits and be federally enforceable. It is the opinion of our Office of Regional Counsel staff that the State of Florida is precluded from issuing PSD permits to facilities subject to the PPSA. PHC §403.511 states that:

"Subject to the conditions set forth therein, any certification signed by the Governor shall constitute the sole license of the state and any agency as to the approval of the site and the construction and operation of the proposed electrical power plant, except as otherwise provided in subsection (4)." (Emphasis Added)

It is our understanding that it is the position of the Florida DER Office of General Counsel that the Florida legislature enacted the PPSA merely as a one-step procedural mechanism by which electrical generating facilities (EGF's) could be permitted for siting, construction and operation and that certification is intended to be a PSD permit. In our opinion, the language of PHC §403.511 is clear on its face and restricts the authority of Florida to implement any regulation pertaining to EGF's other than those set out in the PPSA. Therefore, Florida can not legally implement the PSD regulations in the SIP as to EGF's. Florida cannot require EGF's to obtain PSD permits and PPSA certifications are not equivalent to PSD permits. Hence, PPSA certificates can not be issued in lieu of PSD permits.

In 1980, when Florida's PSD SIP package was under review, EPA staff were unaware of the existence of the conflict between the proposed SIP package and the PPSA. The EPA record contains no mention of the PPSA nor was it mentioned by the State of Florida in its SIP package submittal. EPA's November 22, 1983, approval of the Florida PSD regulations as part of the SIP was based on an understanding that under those regulations Florida would have the authority to regulate all pollution sources which could be legally subject to PSD in the State of Florida except those on Indian Lands and those to which EPA had already issued PSD permits. Indeed, it now appears that from the beginning, Florida lacked the authority to implement the PSD regulations as to EGF's. EPA intends to amend the original approval of the Florida PSD regulations to make it clear that EPA has always retained PSD authority for EGF's.

There are two options Florida may wish to consider to correct the problematic differences which exist between the PPSA and the Florida PSD SIP regulations. The two options include (1) amending the PPSA to be consistent with the Florida PSD SIP regulations and submitting it as a SIP revision; or (2) recommending that the legislature rescind the PPSA and request full authority for issuing PSD permits to sources currently subject to the PPSA under the Florida SIP.

In the interim, DER may request partial delegation for the technical and administrative portions of PSD. EPA could then issue the PSD permits as we did prior to EPA approval of the Florida PSD regulations. This course of action is suggested for those sources which have commenced construction and for those sources which are undergoing or will undergo review for PPSA certifications.

Concerning the two facilities (Pinellas County and Hillsborough County Resource Recovery) which have commenced construction without valid PSD permits, EPA intends to issue orders pursuant to Section 167 of the Clean Air Act requiring the facilities to obtain valid federal PSD permits within 60 days. This would enable the facilities to continue construction provided the terms of the orders were met. However, based upon our review of the PPSA

certifications issued to these two facilities, and before EPA could issue PSD permits to these sources, several deficiencies regarding the certifications would need to be addressed. These deficiencies are discussed in the enclosure.

For the other sources applying for PPSA certifications at this time, EPA intends to notify these sources that they will be required to obtain federal PSD permits prior to commencing construction. The procedure outlined above may be followed for sources to obtain PSD permits until such time as an acceptable remedy is implemented by the state.

It is unfortunate that this apparent oversight occurred in the original approval of the PSD regulations, but we feel confident that we can work together to resolve this issue to the satisfaction of both agencies. If the approach outlined above is feasible, please advise us accordingly.

We look forward to hearing from you, so that we can proceed to issue PSD permits to the appropriate facilities. If you have any questions concerning this issue, please feel free to contact me at 404/881-3043 or Mr. Wayne J. Aronson, Team Leader, Program Support Team, at 404/881-4901.

Sincerely,



Winston A. Smith, Director  
Air, Pesticides, & Toxics Management Division

cc: Mr. Clair Fancy, P.E.  
Florida Department of  
Environmental Regulation

Enclosure



## Deficiencies of PPSA Certifications for Sources which have Commenced Construction

### Pinellas County Resource Recovery

- 1) The increment analysis included only major new sources. All increment consumption since the baseline date must be included if the air quality impact is expected to be significant, including minor sources, SIP relaxations, and increases in utilization of allowable emissions.
- 2) There is insufficient justification for use of existing SO<sub>2</sub> monitoring data in lieu of new data. The data must meet all location and quality criteria in EPA-450/4-80-012.
- 3) Sulfuric acid mist emissions are not addressed in the preliminary determination.
- 4) The emission rate of hydrocarbons is estimated as 58 tons per year. No rate is given for VOC's. The preliminary determination states that the non-methane hydrocarbon is less than 40 tons per year, but no justification is included. If the emissions of total photochemically reactive VOC's are greater than 40 tons per year, nonattainment review applies. Please calculate the emission rate.

### Hillsborough County Resource Recovery

- 1) The increment analysis included only major new sources. All increment consumption since the baseline date must be included if the special air quality impact is expected to be significant including minor sources, SIP relaxations and increases in utilization of allowable emissions.

### General Comments for Both

- 1) For both Hillsborough and Pinellas County Resource Recovery facilities, the Federal Land Manager (FLM) and EPA should be notified of each action.
- 2) Many of the emission factors used in the two applications differ significantly from one another. In some cases, figures in the same application are inconsistent. We can understand how some emission factors can differ, since they may come from different sources, and we have no objection to two sources using different factors if both appear reasonable. Some of

the factors in these applications, however, are vastly different. For example, for beryllium, the two emission factors differ by a factor of 10. For Pinellas County, the CO emission factor is stated as 0.8 lb/ton in the discussion by HDR Techserv on how the emission factors were developed, and as 1.5 lb/ton in the Table II-2. The latter number was used in the analysis.

Please review all of the emission factors to insure that they are reasonable and used consistently within each application, or that an explanation of the inconsistency is provided.