



September 15, 1997

Mr. Hamilton S. Oven, Jr., P.E., Administrator  
Florida DEP Office of Siting Coordination, Mail Station 48  
2600 Blair Stone Road, Twin Towers Office Building  
Tallahassee, FL 32399-2400

DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
SEP 17 1997  
SITING COORDINATION

RE: Site Certification  
Pinellas County Resource Recovery Facility Units 1-3  
Certification No. PA 78-11 and PA 83-18

Dear Mr. Oven:

Enclosed please find four copies of Pinellas County's permit application to revise the PPSA Conditions of Certification for the retrofit project. The revisions requested to the PPSA Conditions of Certification (given in Appendix B to the application) are as follows:

1. Replace the flyash storage silo with two flyash surge bins to be located inside the new ash conditioning building (emissions controlled by a high-energy wet venturi scrubber) and
2. Add Method 26A as an acceptable testing method for HCL compliance tests in accordance with 40 CFR 60.58a(f)(1).

Pinellas County also proposes the following changes to the previously approved retrofit design which need review by the Bureau of Air Regulation:

1. Increasing the size of the MWC auxiliary burners to 130 MMBTU/hour based on combustor operating requirements, increasing the MWC auxiliary burner NOx emission factor to 0.3 lb./MMBTU consistent with the auxiliary burners' design and function, and increasing the permitted annual consumption of natural gas by the MWC auxiliary burners to 97.76 million cubic feet per year per combustor based on potential operating loads; and
2. Including ventilation fans in the ash storage and processing building and ash conveyor gallery (no particulate emissions are expected from these fans since the ash is stored, handled, and conveyed in a wet state).

None of the proposed changes would result in a PSD significant increase in permitted facility emissions. In fact, the overall retrofit project will result in a significant reduction in actual facility emissions from current levels. However, since there will be a slight increase

in permitted emissions based on the proposed revisions to the retrofit design, a complete PPSA permit modification fee of \$10,000 is enclosed. It is our understanding that the DEP will return any unused portion of the fee upon completion of the permit modification. Also, based on your conversation with David Dee concerning this project, Pinellas County may be due reimbursement of a portion of the PPSA application fees from our previous application submitted in May 1995 for the retrofit project. Pinellas County has submitted under separate cover, dated August 22, 1997, a request for information regarding the applicability of a refund on this matter.

Pinellas County has mailed copies of the enclosed permit application to all parties of interest as required by Condition XII.B of the PPSA Conditions of Certification.

In addition to the changes detailed in this letter, we will be contacting your staff to incorporate the changes contained in the August 25, 1997 Direct Final Rule for Large Municipal Waste Combustion Units. We request that the changes that respond to the final rule be included in this Amendment to the PPSA Conditions of Certification.

If you have any questions concerning the enclosed permit application, please feel free to contact me at 813/464-7527, William E. Corbin of RTP at 732/968-9600 or David S. Dee, Esq. of Landers & Parsons at 904/681-0311.

Sincerely,

HDR Engineering, Inc.



R. Peter Stasis, P.E.

Florida Registration Number 46220

Vice President

Enclosures: Certificate of Service  
Permit Application (4 copies)

cc: File

CERTIFICATE OF SERVICE

I HEREBY CERTIFY this 15<sup>th</sup> day of September 1997, that a true and correct copy of the foregoing has been sent by Certified Mail to the following listed persons:

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WARRANT PAYABLE AT  
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 PINELLAS COUNTY CLEARWATER, FLORIDA

63-751  
 631

CHECK NO.

105559

IMPREST FUND

APPROVED IN OPEN SESSION  
 VOID IF NOT CASHED WITHIN SIXTY DAYS

TEN THOUSAND DOLLARS NO CENTS

PAY TO THE ORDER OF  
 FLORIDA DEPARTMENT OF  
 ENVIRONMENTAL PROTECTION  
 C/O UTILITIES



8/29/97

CHECK AMOUNT  
 \$10,000.00

*[Handwritten Signature]*  
 CHAIRMAN OF THE BOARD OF COUNTY COMMISSIONERS

*[Handwritten Signature]*  
 CLERK CIRCUIT COURT, EX-OFFICIO CLERK  
 OF THE BOARD OF COUNTY COMMISSIONERS

⑈ 105559 ⑈ ⑆ 063107513 ⑆ 2090001386537 ⑈

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

DATE  
 8/29/97

CHECK NO.  
 105559

AP TR 70337

DATE	INVOICE OR CREDIT MEMO NUMBER	TYPE	DESCRIPTION	REFERENCE NO.	GROSS		AMOUNTS DISCOUNTS		NET				
829 97	CERT082897		CERTIFICATION		10	000	00			10	000	00	
	0521												
<b>TOTAL</b>						10	000	00			10	000	00

THE ATTACHED CHECK IS IN PAYMENT FOR ITEMS DESCRIBED ABOVE

**APPLICATION FOR MINOR REVISIONS  
TO THE AIR PERMIT FOR THE  
PINELLAS CO. RESOURCE RECOVERY FACILITY  
RETROFIT PROJECT**

AND

**APPLICATION FOR MODIFICATION OF  
PPSA CONDITIONS OF CERTIFICATION**

Prepared for:

**THE PINELLAS COUNTY RESOURCE RECOVERY FACILITY**  
Pinellas County Department of Solid Waste Operations  
3095 114<sup>th</sup> Avenue North  
St. Petersburg, Florida 33716

Prepared by:

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August, 1997

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## LIST OF ABBREVIATIONS

<u>Abbreviation</u>	<u>Definition</u>
acfm	actual cubic feet per minute
ACI	Activated Carbon Injection (system)
APC	Air Pollution Control (equipment)
BACT	Best Available Control Technology
BTU	British Thermal Unit
CO	Carbon Monoxide
CFR	Code of Federal Regulations
dscfm	dry standard cubic feet per minute
EG	USEPA Emission Guidelines (40 CFR 60 Subpart Cb)
ESPs	Electrostatic Precipitators
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FF	Fabric Filter (baghouse or dust collector)
GCP	Good Combustion Practices
gr/dscf	grains per dry standard cubic foot
HCl	Hydrogen Chloride
Hg	Mercury
lb/hr	pound (of pollutant) per hour
lb/(10 <sup>6</sup> )ft <sup>3</sup>	pound (of pollutant) per million cubic feet of natural gas
lb/MMBTU	pound (of pollutant) per million BTU
MMBTU/hr	million BTU per hour
MSW	Municipal Solid Waste
MWC(s)	Municipal Waste Combustor(s)
NO <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standards (in 40 CFR 60)
PCRRF	Pinellas County Resource Recovery Facility
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter less than 10 microns in diameter
PPSA	Power Plant Siting Act
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SDA	Spray Dry Absorbers
SNCR	Selective Non-catalytic Reduction (system)
SO <sub>2</sub>	Sulfur Dioxide
tons/yr	tons (of pollutant) per year
TSP	Total Suspended Particulates
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds

## 1.0 INTRODUCTION

In May 1995, an application to revise the Power Plant Site Act (PPSA) Conditions of Certification and Prevention of Significant Deterioration (PSD) permits was submitted to the Florida Department of Environmental Protection (FDEP) for proposed improvements to the Pinellas County Resource Recovery Facility (PCRRF). Revised permit application forms and comment responses were also submitted on July 7 and September 6, 1995. The proposed improvements would allow the facility's Municipal Waste Combustors (MWCs) to meet the final MWC Emission Guidelines (EG) requirements promulgated by the United States Environmental Protection Agency (USEPA) at 40 CFR 60, Subpart Cb. On October 11, 1995, FDEP issued a permit amendment to PSD permits PSD-FL-011 and PSD-FL-098 to allow the construction of the proposed improvements. On July 29, 1996, FDEP filed a Final Order modifying the PPSA Conditions of Certification (Certification Numbers PA 78-11 and PA 83-18), which included appropriate emission limitations, operating requirements, and permit conditions for the Final EG requirements promulgated by USEPA on December 19, 1995.

The revised PPSA Conditions of Certification permitted the following proposed improvements to the air pollution control (APC) equipment for MWC units 1-3:

- Replacing the existing electrostatic precipitators (ESPs) with fabric filters (FF) for improved control of particulate and MWC metal emissions;
- Adding spray dry absorbers (SDA) for the control of MWC acid gas emissions;
- Adding activated carbon injection (ACI) systems for the control of mercury (Hg) emissions; and
- Adding selective non-catalytic reduction (SNCR) systems for the control of nitrogen oxides (NO<sub>x</sub>) emissions.

Other minor sources associated with the PCRRF improvements permitted by the PPSA Conditions of Certification include fabric filter dust collectors to control particulate matter (PM) emissions from a flyash storage silo, a lime storage silo, and two activated carbon storage silos; and a cyclone/wet scrubber to control PM emissions from the Metal Recovery System in the Ash Storage and Processing Building. The permitted PCRRF improvements also include adding natural gas-fired auxiliary burners to achieve or maintain proper MWC temperatures during warm-up, start-up, and shut-down periods and intermittently during normal operations when required for poor fuel conditions (e.g., wet or low BTU wastes).

The Pinellas County Department of Solid Waste Operations is currently involved in soliciting bids for the MWC improvements. Based on vendor responses, two minor revisions to the permitted improvements are required. First, the flyash storage silo is being deleted from the improved facility design. The silo will be replaced by two flyash surge bins. The surge bins will be housed in an Ash Conditioning Building, a recent addition to the proposed PCRRF



retrofit design. Emissions from Ash Conditioning Building activities will be controlled by a wet scrubber. Second, some modifications to the MWC auxiliary burners are proposed, as described later. Since the first change will require revision of the PPSA Conditions of Certification, Pinellas County is also requesting that the PPSA Conditions of Certification be revised to allow the use of USEPA Method 26A for annual hydrogen chloride (HCl) compliance tests. Finally, slight design changes to the Ash Storage and Processing Building are discussed.

This application is being submitted to revise the PPSA Conditions of Certification (Certification Numbers PA 78-11 and 83-18) and to obtain a permit amendment to the PSD permits (PSD-FL-011 and -098). The requested revisions will affect improvements to the PCRRF that were previously permitted but not yet constructed. Section 2.0 contains a description of the proposed revisions. Section 3.0 discusses the regulatory requirements for the affected emissions units. Revisions to the permit application forms are contained in Appendix A. Proposed modifications to the PPSA Conditions of Certification are contained in Appendix B.

### 1.1 Other Facility Permitting Actions

As noted above, an application was submitted in May 1995 for certain facility improvements required by the MWC EG. In response, FDEP issued a PSD permit amendment and modified the PPSA Conditions of Certification. Other recent permitting actions are described below.

In December 1994, an air construction permit application was submitted for a small hydrated lime storage silo used by the PCRRF water softening system. Construction Permit AC52-259351 and Operating Permit AO52-268853 for the hydrated lime storage silo were issued by the FDEP Southwest District on January 24, 1995 and June 5, 1995, respectively. These permits for the lime storage silo were incorporated by reference into the July 29, 1996 PPSA Conditions of Certification at Condition XIV.A.

In April 1996, an air construction permit application was submitted for an auxiliary boiler and 30,000 gallon fuel oil storage tank at the facility. Permit conditions for the auxiliary boiler were incorporated into the July 29, 1996 PPSA Conditions of Certification at Condition XV.A. Since the auxiliary boiler has yet to be constructed, an operating permit application has not been submitted nor an operating permit issued.

In June 1996, a Title V operating permit application was submitted for emission units at the facility as they existed at the time of the application -- i.e., the MWC units as currently configured with the existing ESPs and the small hydrated lime storage silo for the water softening system. Also, in accordance with Section 62-210.300(3)(b) of the Florida Administrative Code, two small sources not currently permitted were included in the Title V permit application: (1) a diesel engine used in mulching operations at the adjacent landfill and (2) a cyclone/wet scrubber

owned and operated by Resource Recycling, LLC., which operates a metal recovery system onsite. In addition, fugitive volatile organic compound (VOC) emissions for the adjacent Bridgewater Acres solid waste landfill were included in the Title V application. Since the July 29, 1996 PPSA Conditions of Certification reduced the certified site to exclude landfilling operations, landfill and diesel engine emissions are not subject to PPSA requirements.

## 2.0 PROPOSED REVISIONS TO FACILITY IMPROVEMENTS

This application addresses the proposed revisions to the permitted design for the PCRRF improvements, which consist of: (1) replacing the flyash storage silo with two flyash surge bins located in the Ash Conditioning Building and (2) revising the size, type, and permitted annual consumption of natural gas for the MWC auxiliary burners. This application also notes that the Ash Storage and Processing Building (including the Metal Recovery System) has some roof vents, but no emissions are associated with these vents. Since the first change will require revision of the PPSA Conditions of Certification, Pinellas County is also requesting that the PPSA Conditions of Certification be revised to allow the use of USEPA Method 26A for annual HCl compliance tests. While the proposed revisions to the EG improvements might cause a slight increase in potential facility emissions, the previously permitted EG improvements will result in a substantial decrease in current facility emissions, even with the proposed revisions.

### 2.1 Ash Conditioning Building

In this application for the revised design for the facility improvements, Pinellas County proposes to replace the flyash storage silo with two 20 ton capacity flyash surge bins. The surge bins will be housed in an Ash Conditioning Building, a recent addition to the proposed PCRRF retrofit design. As described in the May 1995 application, stabilizers such as lime and phosphoric acid will be added to condition the flyash, collected from the economizer, SDA, and fabric filter of each MWC. A drawing of the Ash Conditioning Building is attached. Emissions from the Ash Conditioning Building activities will be controlled by a high-energy wet venturi scrubber. PM emissions from the wet scrubber will be controlled to 0.03 grains per dry standard cubic foot (gr/dscf). A maximum flowrate of 5,000 dry standard cubic feet per minute (dscfm) is proposed (conservatively assuming dscfm flow equal to the design flow in actual cubic feet per minute [acfm]). Thus, wet scrubber PM emissions will be as follows:

$$\frac{0.03 \text{ grains}}{\text{dscf}} \times \frac{\text{lb}}{7000 \text{ grains}} \times \frac{5,000 \text{ dscf}}{\text{minute}} \times \frac{60 \text{ minutes}}{\text{hour}} = \frac{1.3 \text{ lb}}{\text{hour}}$$

$$\frac{1.3 \text{ lb}}{\text{hour}} \times \frac{8760 \text{ hours}}{\text{year}} \times \frac{\text{ton}}{2000 \text{ lbs}} = \frac{5.7 \text{ tons}}{\text{year}}$$

The originally proposed flyash storage silo being replaced would have been controlled by a FF dust collector and had permitted PM emissions of 0.005 gr/dscf at 1500 dscfm, 0.064 pounds per hour (lb/hr), and 0.28 tons per year (tons/yr). Thus, this revision represents an increase in potential PM emissions of 1.2 lb/hr and 5.4 tons/yr. This is less than the PSD significant emission levels of 25 tons/yr for total suspended particulates (TSP) and 15 tons/yr for particulate matter less than 10 microns in diameter (PM<sub>10</sub>). Thus, this minor revision does not represent a significant increase in PM emissions. And, as noted above, the overall EG facility improvements will result in a substantial decrease in actual facility emissions, even with this minor potential PM emissions increase. Revised permit application forms and proposed revisions to Condition XIV.A.2.b of the PPSA Conditions of Certification are presented in Appendices A and B, respectively, to authorize the replacement of the flyash storage silo with the two flyash surge bins and wet scrubber to be located in the Ash Conditioning Building.

## 2.2 MWC Auxiliary Burners

Auxiliary burners are required in the improved facility design to minimize MWC organic emissions and to meet the carbon monoxide (CO) emission limitations specified by the EG Good Combustion Practices (GCP) requirements. The auxiliary burners are used during: (1) *warm-up periods* to heat the MWCs prior to introducing municipal solid waste (MSW), (2) *start-up periods* when MSW input rates are increased to normal operating conditions, (3) *shut-down periods* when MSW is not introduced into the MWC (but combustion conditions are maintained to completely combust any remaining MSW), and intermittently under (4) *poor fuel conditions* (fuel-related malfunctions), such as low-BTU and wet MSW, when the auxiliary burners are required to maintain adequate combustion temperatures.

Although the auxiliary burners will be an integral part of the improved MWCs, they were permitted as separate emission units at the request of FDEP. Permit application forms showing the auxiliary burners as separate emission units, with corrected emissions information, were submitted on July 7 and revised on September 6, 1995.

Based on current engineering estimates, the presently permitted auxiliary burner capacity of 108.3 million BTU per hour (MMBTU/hr) per MWC unit may not be sufficient under all possible operating scenarios. Therefore, Pinellas County proposes to increase the gross heat input of the auxiliary burners to 130 MMBTU/hr per MWC unit (two burners per MWC unit at 65 MMBTU/hr each). Estimated annual hours of operation during warm-up/start-up/shut-down periods are based on 8 hours per episode with 47 episodes per year per unit. In the original application, an additional 15% annual fuel consumption was added for auxiliary burner usage during poor fuel conditions. Pinellas County is requesting that the estimated warm-up/start-up/shut-down fuel consumption be doubled to account for operation during poor fuel conditions. Therefore, natural gas usage for the revised burner size is as follows:

$$\frac{130 \text{ MMBTU}}{\text{MWC-hour}} \times \frac{10^6 \text{ BTU}}{\text{MMBTU}} \times \frac{\text{ft}^3}{1000 \text{ BTU}} = \frac{0.130(10^6)\text{ft}^3}{\text{MWC-hour}}$$

$$\frac{0.130(10^6)\text{ft}^3}{\text{MWC-hour}} \times \frac{8 \text{ hours}}{\text{episode}} \times \frac{47 \text{ episodes}}{\text{MWC-year}} \times 200\% = \frac{97.76(10^6)\text{ft}^3}{\text{MWC-year}}$$

As noted above, the purpose of the auxiliary burners is to heat the MWCs during warm-up, start-up, and shut-down periods as well as maintain adequate combustion temperatures during certain poor fuel conditions. A hot, intense burner flame is required for these uses. Consequently, low-NO<sub>x</sub> burners as originally proposed are not appropriate for this facility. A revised NO<sub>x</sub> emission factor of 300 pounds per million cubic feet of natural gas (lb/(10<sup>6</sup>)ft<sup>3</sup>) or 0.3 pounds per million BTU (lb/MMBTU) is being proposed for the correct type of auxiliary burner. This emission factor is equivalent to the New Source Performance Standard (NSPS) Subpart Db NO<sub>x</sub> emission limit for boilers greater than 100 MMBTU/hr which simultaneously combust natural gas with municipal-type solid waste. Since the SNCR system cannot be used during the warm-up period and part of the start-up period due to inadequate furnace temperature profiles, reductions in NO<sub>x</sub> emissions due to the SNCR system were not included in the auxiliary burner emissions calculations.

Revised potential emissions for the auxiliary burners are compared on the following table to potential emissions presented as part of the original permit application for NO<sub>x</sub>, CO, TSP/PM<sub>10</sub>, VOC, and sulfur dioxide (SO<sub>2</sub>).

Pollutant	Original Permit Emissions			Proposed Revised Emissions			Facility Increase (tons/yr)
	lb/(10 <sup>6</sup> )ft <sup>3</sup>	lb/hr /MWC <sup>a</sup>	tons/yr /MWC <sup>b</sup>	lb/(10 <sup>6</sup> )ft <sup>3</sup>	lb/hr /MWC <sup>c</sup>	tons/yr /MWC <sup>d</sup>	
NO <sub>x</sub>	81	8.77	1.90	300	39.00	14.66	38.28
SO <sub>2</sub>	0.6	0.065	0.014	0.6	0.078	0.029	0.05
CO	40	4.33	0.94	40	5.20	1.96	3.06
TSP/PM <sub>10</sub>	5	0.542	0.12	5	0.650	0.24	0.36
VOC	1.7	0.184	0.040	1.7	0.221	0.083	0.13

<sup>a</sup>Based on 0.1083(10<sup>6</sup>)ft<sup>3</sup> of natural gas usage per MWC per hour.

<sup>b</sup>Based on 46.83(10<sup>6</sup>)ft<sup>3</sup> of natural gas usage per MWC per year.

<sup>c</sup>Based on 0.130(10<sup>6</sup>)ft<sup>3</sup> of natural gas usage per MWC per hour.

<sup>d</sup>Based on 97.76(10<sup>6</sup>)ft<sup>3</sup> of natural gas usage per MWC per year.

As expected, the largest increase in auxiliary burner emissions for the facility due to the increased size, annual fuel consumption, and NO<sub>x</sub> emission factor is for NO<sub>x</sub> at 38 tons/yr. However, emissions increases for NO<sub>x</sub> and all other PSD pollutants are less than the PSD significant emission rates. Thus, this proposed revision does not represent a significant increase in facility emissions. (As noted earlier, the overall EG facility improvements will actually result in a substantial decrease in actual facility emissions due to replacing the current ESPs with SDA/FF/ACI/SNCR systems.)

Permit application forms for the auxiliary burners are contained in Appendix A. Appendix A shows the revisions from the 1995 permit application submittals for the new gross heat input, annual fuel consumption, and NO<sub>x</sub> emission factor. These permit application forms also show the emission calculations in more detail.

### 2.3 Ash Storage and Processing Building

Construction of the proposed PCRRF improvements are staged to minimize impacts on facility operations. Construction of the Ash Storage and Processing Building (including the Metal Recovery System) has been completed. FDEP has witnessed the initial visible emissions test of the cyclone/wet scrubber.

The Ash Storage and Processing Building includes four typical roof ventilation fans and the attached conveyor enclosure contains two typical roof ventilation fans, as shown on the attached drawings. Since emissions from the Metal Recovery System will be controlled by the cyclone/wet scrubber, and the ash is wetted before conveying and processed and stored in a wet state, it is anticipated that no PM emissions will be released by the ventilation fans. Hence, no revised forms are included in Appendix A and no revisions are required to the PPSA Conditions of Certification in Appendix B for these ventilation fans. Although no PM emissions are expected, this minor revision to the plans for the Ash Storage and Processing Building is being described here to notify FDEP of the existence of the ventilation fans.

### 2.4 Hydrogen Chloride Test Method

Since the PPSA Conditions of Certification must be revised to replace the flyash storage silo with the two flyash surge bins to be located in the Ash Conditioning Building, Pinellas County is also requesting that another minor revision be incorporated into the PPSA Conditions of Certification for annual HCl compliance tests.

Condition XIV.A.2.d(7) of the current PPSA Conditions of Certification provides that compliance with the HCl emission limit is to be based on annual stack tests using USEPA Method 26 after the facility improvements are completed. Pinellas County is requesting that

Method 26A be added as an acceptable compliance test method consistent with the compliance and performance testing requirements specified in 40 CFR 60.58a(f)(1). Method 26A consists of the large impinger Method 5 sampling train with Method 26 reagents, sampling procedures, and analytical methods. The Method 5 train is easier to use in the field than the Method 26 midjet impinger train. The use of the Method 5 train greatly reduces the chances of obtaining negative bias in the results due to moisture condensation in the Method 26 probe and 3-way valve. Method 26A improves the accuracy and precision of the HCl test results due to the higher sample volumes obtained in a one hour test run.

### **3.0 REGULATORY REQUIREMENTS**

This permit application is being submitted to obtain the necessary FDEP approvals as required by Chapter 62-210 of the Florida Administrative Code (FAC). The revisions being proposed to the PCRRF facility improvements involve changes to the size or type of emissions units. FAC 62-210.300 requires the applicant to obtain an appropriate permit from FDEP prior to beginning construction. The proposed revisions are also subject to the preconstruction review requirements of Chapter 62-212, FAC. As noted above, the proposed revisions have associated emissions increases less than the PSD significant emission rates. Therefore, the "General Preconstruction Review Requirements" of FAC 62-212.300 apply, rather than PSD requirements of FAC 62-212.400. The preceding information and attached permit application forms should provide FDEP with the necessary information to meet the requirements of FAC 62-212.300(3). There are no nonattainment areas in Florida (FAC 62-210.340(2)), so "Preconstruction Review for Nonattainment Areas" in FAC 62-212.500 does not apply here. The "Specific Preconstruction Review Requirements" in FAC 62-212.600 are not applicable because they apply only to sulfur storage and handling facilities.

Regulatory requirements for the overall EG facility improvements were discussed in detail in the May 1995 permit application. Regulatory requirements for the facility itself were listed in detail in the June 1996 Title V operating permit application. Therefore, the following discussion focuses on the regulatory requirements for the proposed systems that are being revised.

#### **3.1 Ash Conditioning Building**

There are no federal regulations and very few state rules applicable to the Ash Conditioning Building. The "General Pollutant Emission Limiting Standards" of FAC 62-296.320 apply, primarily the objectionable odor prohibition (FAC 62-296.320(2)) and the general requirements for unconfined PM emissions (FAC 62-296.320(4)(c)). The requirements of FAC 62-296.320(4)(a) and (b) are not applicable because of other applicable limits described next.

The entire State of Florida is either classified as attainment or considered to be in attainment (i.e., unclassifiable) with respect to the federal ambient air quality standards. However, the facility is located within 50 kilometers (i.e., within the area of influence) of a PM maintenance area identified in FAC 62-204.340(4)(b). Consequently, the wet scrubber is subject to certain Reasonably Available Control Technology (RACT) requirements. General PM RACT requirements in FAC 62-296.700 are applicable to the wet scrubber, including:

- Requirements for the Operating Permit to contain certain specifications and information (FAC 62-296.700(4));
- Prohibition on circumventing emission limit by increasing the volume of gas for purposes of reducing the stack gas concentration (FAC 62-296.700(5));
- Requirements for the Operating Permit to contain an Operation and Maintenance Plan (FAC 62-296.700(6));

The information required under FAC 62-296.700(4) and (6), such as equipment specifications and an Operation and Maintenance Plan, will be submitted as part of the Operating Permit Application after the final equipment is selected.

Specific RACT emission limits applicable to the wet scrubber are contained in FAC 62-296.711 for materials handling, sizing, screening, crushing, and grinding operations. These RACT limits are applicable to the loading of trucks and storage structures, conveyor systems, storage of materials, and sizing or screening operations (FAC 62-296.711(1)). Emission limits in FAC 62-296.711 applicable to Ash Conditioning Building operations are:

- Opacity from handling operations is limited to no visible emission (5% opacity) by FAC 62-296.711(2)(a).
- When materials handling operations are enclosed (like the Ash Conditioning Building) to meet the opacity limit and exhausted through a stack (like the wet scrubber stack), PM emissions from the stack are limited to 0.03 gr/dscf by FAC 62-296.711(2)(b).

As discussed in Section 2.1, potential PM emissions from activities in the Ash Conditioning Building will be controlled by a high-energy wet venturi scrubber. The wet scrubber will control PM emissions to 0.03 gr/dscf or less. Since the wet scrubber is functionally equivalent to a baghouse, Pinellas County is requesting that compliance with the RACT emission limits for the wet scrubber be determined using a USEPA Method 9 test indicating no visible emissions in lieu of particulate stack tests pursuant to FAC 62-296.711(3)(c) and 62-297.620(4).

### 3.2 MWC Auxiliary Burners

The EG limits do not apply to the auxiliary burners during start-up, shut-down, or malfunction periods, provided these periods are limited to less than three hours per occurrence (40 CFR

60.58b(a)(1)), or during warm-up periods when only natural gas is combusted (warm-up times are not limited by the EG). Therefore, although the auxiliary burners are being added to the improved facility to meet the EG requirements, there are no EG emission limits applicable to the auxiliary burners during those times when the auxiliary burners are used during warm-up, start-up, shut-down, or malfunction periods.

There are no other federal requirements or emission limits applicable to the auxiliary burners. NSPS Subpart Db requirements apply to industrial-commercial-institutional steam generating units with heat input capacity greater than 100 MMBTU/hr which commenced construction, modification, or reconstruction after June 19, 1984. Initial construction on the PCRRF MWCs commenced prior to June 19, 1984 on all three units. The planned EG improvements to the PCRRF will result in a net decrease in actual short-term emissions of all PSD pollutants and therefore do not qualify as a modification for NSPS purposes. The planned expenditures for the EG improvements do not exceed 50% of the capital cost of the facility and therefore do not qualify as a reconstruction. Therefore, NSPS Subpart Db requirements do not apply to the facility or the auxiliary burners.

State emission limits applicable to the MWCs at FAC 62-296.401(3) and mercury control requirements at FAC 62-296.416 do not apply to the auxiliary burners. The auxiliary burners would be subject to the "General Pollutant Emission Limiting Standards" of FAC 62-296.320. However, the requirements of FAC 62-296.320(1), (2), (3), (4)(a), and (4)(c) are not applicable. FAC 62-296.320(4)(b) limits general visible emissions to 20% opacity. The auxiliary burners when used alone would have visible emissions much less than 20% opacity (when the auxiliary burners are used during poor fuel conditions, the EG limit is 10% opacity).

The auxiliary burners would be limited to the emission limits in FAC 62-296.406 for new and existing fossil fuel steam generating units with less than 250 MMBTU/hr heat input. These requirements are:

- Visible emissions limited to 20% opacity except for either one 6-minute period per hour during which opacity shall not exceed 27% or one 2-minute period per hour during which opacity shall not exceed 40% (FAC 62-296.406(1));
- PM limited to Best Available Control Technology (BACT) (FAC 62-296.406(2)); and
- SO<sub>2</sub> limited to BACT (FAC 62-296.406(3)).

Since the auxiliary burners utilized natural gas, a very low-sulfur and low-ash fuel, they would be presumed to meet BACT requirements for SO<sub>2</sub> and PM. As noted above, the auxiliary burners will have visible emissions much less than 20% opacity (EG limit when combusting MSW is 10% opacity).



#### 4.0 SUMMARY

In May 1995, an application was submitted to FDEP to revise the PPSA Conditions of Certification and PSD permits for proposed improvements to the PCRRF. FDEP issued a permit amendment to the PSD permits on October 11, 1995 to allow the construction of the proposed improvements. A Final Order modifying the PPSA Conditions of Certification was issued on July 29, 1996, which included appropriate emission limitations, operating requirements, and permit conditions for the EG requirements. At this time, it is necessary to make two minor revisions to the proposed improvements: (1) replace the flyash storage silo with two flyash surge bins to be housed in a new Ash Conditioning Building and (2) increase the size, the permitted annual consumption of natural gas, and the NO<sub>x</sub> emission factor for the MWC auxiliary burners.

Since the proposed revisions involve changes to the size, type, or use of specific emissions units, Pinellas County is requesting the necessary FDEP approvals as required by Chapters 62-210 and 62-212, FAC. Therefore, this application is being submitted for authorization to revise the PPSA Conditions of Certification and to obtain a permit amendment to the PSD permits for these two minor revisions to the PCRRF improvement project.

Revisions to the affected permit application forms originally submitted with the May 1995 application (and the July 7 and September 6 revisions) are contained in Appendix A. The replacement pages are the same version as those originally submitted to allow for easy replacement. Also included are signature and summary pages for this amendment to append to the original submittal.

Proposed revisions to the PPSA Conditions of Certification to replace the flyash silo with the Ash Conditioning Building wet scrubber are contained in Appendix B. The affected section is PPSA Condition XIV.A.2.b, which describes the minor sources for the PCRRF improvements. In addition, one other minor revision to the PPSA Conditions of Certification is proposed at Condition XIV.A.2.d(7) to allow Method 26A, in addition to Method 26, for annual HCl compliance tests.

**APPENDIX A**

**REVISED PERMIT APPLICATION FORMS**

Attached are revised permit application forms for the Pinellas County Resource Recovery Facility (PCRRF). As described in Section 1.0 of the enclosed August 1997 permit application, an application to revise the PPSA Conditions of Certification and PSD permits was originally submitted in May 1995 and revised permit application forms were submitted on July 7 and September 6, 1995. The May 1995 permit application was for proposed improvements to the PCRRF to meet the USEPA MWC Emission Guidelines. Accordingly, FDEP issued a permit amendment to the PSD permits on October 11, 1995 and a Final Order modifying the PPSA Conditions of Certification on July 29, 1996.

At this time, two minor revisions to the permitted improvements are needed, based on project requirements. First, the flyash storage silo is being replaced in the improved facility design with two flyash surge bins, to be located in the new Ash Conditioning Building. Emissions from Ash Conditioning Building activities will be controlled by a wet scrubber. Second, the size of the MWC auxiliary burners is being increased to 130 MMBTU/hr/unit, the  $\text{NO}_x$  emission factor increased to  $300 \text{ lb}/(10^6)\text{ft}^3$ , and the permitted annual natural gas consumption rate increased to  $97.76(10^6)\text{ft}^3/\text{year}/\text{unit}$ .

Revisions to the affected permit application forms originally submitted with the May 1995 application (and the July 7 and September 6, 1995 revisions) are given here in Appendix A. Replacement pages to the original permit application forms are being submitted based on discussions with FDEP (May 28, 1997 telephone conversation with Syed Aris, FDEP Bureau of Air Quality Regulation). The page numbers on these revised forms correspond to the page numbers in the original submittal. Replacement pages are denoted by including "(Replacement)" beside the page number. The replacement pages are the same version as those originally submitted to allow for easy replacement. Revisions from the original are either redlined (in text/tables) or **bolded** (in equations). Also included are signature and summary pages for this permit application amendment to append to the original submittal. These pages are denoted by including "(Amendment)" beside the page number.

**Department of  
Environmental Protection**

**DIVISION OF AIR RESOURCES MANAGEMENT  
APPLICATION FOR AIR PERMIT - LONG FORM**

See Instructions for Form No. 62-210.900(1)

**I. APPLICATION INFORMATION**

This section of the Application for Air Permit form provides general information on the scope of this application, the purpose for which this application is being submitted, and the nature of any construction or modification activities proposed as a part of this application. This section also includes information on the owner or authorized representative of the facility (or the responsible official in the case of a Title V source) and the necessary statements for the applicant and professional engineer, where required, to sign and date for formal submittal of the Application for Air Permit to the Department. If the application form is submitted to the Department on diskette, this section of the Application for Air Permit must also be submitted in hard-copy.

**Identification of Facility Addressed in This Application**

Enter the name of the corporation, business, governmental entity, or individual that has ownership or control of the facility; the facility name, if any; and a brief reference to the facility's physical location. If known, also enter the ARMS or AIRS facility identification number. This information is intended to give a quick reference, on the first page of the application form, to the facility addressed in this application. Elsewhere in the form, numbered data fields are provided for entry of the facility data in computer-input format.

<b><u>Applicant: Pinellas County Florida Board of County Commissioners</u></b>
<b><u>Facility: Pinellas County Resource Recovery Facility</u></b>
<b><u>3095 114th Ave. North, St. Petersburg, Florida 33716</u></b>

**Application Processing Information (DEP Use)**

1. Date of Receipt of Application:	
2. Permit Number:	
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

1 (Amendment)

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official:  
**Pick Talley, Director of Utilities, Pinellas County**

2. Owner/Authorized Representative or Responsible Official Mailing Address:

Organization/Firm: **Pinellas County Florida Board of County Commissioners/  
Utilities Administration**

Street Address: **14 South Fort Harrison Avenue, 5th Floor**

City: **Clearwater** State: **Florida** Zip Code: **33756**

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:  
Telephone: **(813) 464-3438** Fax: **(813) 464-3944**

4. Owner/Authorized Representative or Responsible Official Statement:

*I, the undersigned, am the owner or authorized representative\* of the facility (non-Title V source) addressed in this Application for Air Permit or the responsible official, as defined in Chapter 62-213, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. Further, I agree to operate and maintain the air pollutant emissions units and air pollution control equipment described in this application so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. If the purpose of this application is to obtain an air operation permit or operation permit revision for one or more emissions units which have undergone construction or modification, I certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.*

*Pick Talley*  
\_\_\_\_\_  
Signature

*Sept. 3, 1997*  
\_\_\_\_\_  
Date

\* Attach letter of authorization if not currently on file.

2 (Amendment)

### Scope of Application

This Application for Air Permit addresses the following emissions unit(s) at the facility (or Title V source). An Emissions Unit Information Section (a Section III of the form) must be included for each emissions unit listed.

<u>Emissions Unit ID</u>	<u>Description of Emissions Unit</u>
001	Mass Burn Incinerator Unit 1
002	Mass Burn Incinerator Unit 2
003	Mass Burn Incinerator Unit 3
004	Ash Conditioning Building - Wet Scrubber (replaces Fly Ash Storage Silo)
005	Activated Carbon Storage Silo 1
006	Activated Carbon Storage Silo 2
007	Lime Storage Silo
008	Cyclone/Wet Scrubber for Metals Recovery System
009	Auxiliary Burner Set - Unit 1 (size revised)
010	Auxiliary Burner Set - Unit 2 (size revised)
011	Auxiliary Burner Set - Unit 3 (size revised)

3 (Replacement)

**Application Processing Fee**

Check one:

Attached - Amount: \$ 10,000

Not Applicable.

**Construction/Modification Information**

1. Description of Proposed Project or Alterations:

Facility improvements to the Pinellas County Resource Recovery Facility (PCRRF) were originally permitted in an October 11, 1995 permit amendment to the PSD permits and a July 29, 1996 Final Order modifying the PPSA Conditions of Certification. The improvements are to be made to comply with the USEPA Emission Guidelines (40 CFR 60 Cb) and Florida mercury standards (Section 62-296.416, FAC). Actual facility emissions of all PSD pollutants will either remain the same or decrease as a result of the improvement project.

The permitted improvements to the PCRRF air pollution control (APC) equipment consist of replacing the current electrostatic precipitator (ESPs) on each of the municipal waste combustors (MWC) with APC systems consisting of a spray dry absorber (SDA), a fabric filter (FF) baghouse, an activated carbon injection (ACI) system, and a selective non-catalytic reduction (SNCR) system. Also, combustion controller and furnace upgrades will also be installed. The permitted facility improvements include four outdoor storage silos (i.e., one lime storage silo, two carbon storage silos, and one flyash storage silo); auxiliary burners (used to heat the MWCs prior to introducing municipal solid waste [MSW] and to augment MSW heat release rates as necessary during normal operations); and a cyclone/wet scrubber system to control particulate matter (PM) emissions from the metals recovery system.

Minor modifications to the improvement project design are needed consisting of:

- Replacing the flyash storage silo with two flyash surge bins, located in a new Ash Conditioning Building, with emissions controlled by a wet scrubber; and
- Increasing the the size, correcting the NO<sub>x</sub> emission factor, and increasing the annual natural gas consumption rate for the MWC auxiliary burners.

2. Projected or Actual Date of Commencement of Construction (DD-MON-YYYY):

--/06/1996

3. Projected Date of Completion of Construction (DD-MON-YYYY):

--/11/2000

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Robert Peter Stasis</b> Registration Number: <b>0046220</b>
2. Professional Engineer Mailing Address:  Organization/Firm: <b>HDR Engineering, Inc.</b> Street Address: <b>5100 W. Kennedy Blvd., Suite 300</b> City: <b>Tampa</b> State: <b>Florida</b> Zip Code: <b>33609-1806</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>(813) 287-1960</b> Fax: <b>(813) 282-2440</b>
4. Professional Engineer Statement:  <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i>  <i>(1) To the best of my knowledge, there is reasonable assurance (a) that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; or (b) for any application for a Title V source air operation permit, that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application;</i>  <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application; and</i>  <i>(3) For any application for an air construction permit for one or more proposed new or modified emissions units, the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i>  <i>Robert Peter Stasis</i> _____ <i>September 3, 1997</i> Signature Date  (seal)

\* Attach any exception to certification statement.



**Application Contact**

1. Name and Title of Application Contact:  <b>Russell Menke, Project Manager</b>
2. Application Contact Mailing Address:  Organization/Firm: <b>Pinellas County Florida Board of County Commissioners/ Pinellas County Resource Recovery Facility Air Pollution Control Retrofit Project</b> Street Address: <b>14 South Fort Harrison Avenue, 5th Floor</b> City: <b>Clearwater</b> State: <b>FL</b> Zip Code: <b>33756</b>
3. Application Contact Telephone Numbers: Telephone: <b>(813) 464-4913</b> Fax: <b>(813) 464-3944</b>

**Application Comment**

**This permit application is an amendment to the permit application submitted as part of a Power Plant Siting Act (PPSA) application for the Pinellas County Resource Recovery Facility in May 1995 and revised on July 7, 1995 and September 6, 1995. For further information, please refer to the current August 1997 permit application or Volume II of the original May 1995 PPSA application.**

**Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section:  <p style="text-align: center;"><b>Construction of an Ash Conditioning Building, including two 20-ton capacity flyash surge bins, to treat MWC flyash. Emissions from Ash Conditioning Building activities will be controlled by a high-energy wet venturi scrubber. The Ash Conditioning Building and wet scrubber will replace the previously permitted flyash storage silo dust collector.</b></p>		
2. ARMS Identification Number: <input checked="" type="checkbox"/> No Corresponding ID <input type="checkbox"/> Unknown		
3. Emissions Unit Status Code: <b>C</b>	4. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Emissions Unit Major Group SIC Code: <b>49</b>
6. Initial Startup Date (DD-MON-YYYY): <b>xx-August-1998</b>		
7. Long-term Reserve Shutdown Date (DD-MON-YYYY): <b>Not Applicable</b>		
8. Package Unit: <b>To Be Provided Later</b> Manufacturer: _____ Model Number: _____		
9. Generator Nameplate Rating: <b>Not Applicable MW</b>		
10. Incinerator Information: <b>Not Applicable</b> Dwell Temperature: _____ °F Dwell Time: _____ seconds Incinerator Afterburner Temperature : _____ °F		
11. Emissions Unit Comment:		

**Emissions Unit Control Equipment**

**A.**

1. Description: <b>Wet Scrubber</b>
2. Control Device or Method Code: <b>001</b>

**B.**

1. Description:
2. Control Device or Method Code:

**C.**

1. Description:
2. Control Device or Method Code:

**D.**

1. Description:
2. Control Device or Method Code:

**E.**

1. Description:
2. Control Device or Method Code:

**Emissions Unit Information Section 4 of 11**

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate: <b>Not Applicable</b>	mmbtu/hr
2. Maximum Incineration Rate: <b>Not Applicable</b> lb/hr	tons/day
3. Maximum Process or Throughput Rate: <b>240 tons/day flyash conveying rates</b>	
4. Maximum Production Rate: <b>Not Applicable</b>	
5. Operating Capacity Comment:	

**Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule:		
24 hours/day		7 days/week
52 weeks/year		8,760 hours/year

**List of Applicable Regulations** (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

<b>62-210.300 FAC</b>	<b>Stationary Sources-General Requirements Permits Required</b>
<b>62-212.300 FAC</b>	<b>Stationary Sources-Preconstruction Review General Preconstruction Review Requirements</b>
<b>62-296.320 FAC</b>	<b>Stationary Sources-Emission Standards General Pollutant Emission Limiting Standards</b>
<b>62-296.700 FAC</b>	<b>Stationary Sources-Emission Standards Particulate Matter RACT</b>
<b>62-269.711 FAC</b>	<b>Stationary Sources-Emission Standards PM RACT - Material Handling...Operations</b>
<b>For further information on Applicable Regulations, please see Section 3.0-Regulatory Requirements in August 1997 Report</b>	

**C. EMISSION POINT (STACK/VENT) INFORMATION**

This subsection of the Application for Air Permit form provides information about the emission point associated with the emissions unit addressed in this Emissions Unit Information Section. An emission point is typically a stack or vent but can be any identifiable location at which air pollutants, including fugitive emissions, are discharged into the atmosphere.

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram:	<b>Wet Scrubber in Ash Conditioning Building</b>
2. Emission Point Type Code: [ X ] 1      [ ] 2      [ ] 3      [ ] 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit:	<b>Not Applicable</b>
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	<b>Not Applicable</b>
5. Discharge Type Code: [ ] D      [ ] F      [ ] H      [ ] P [ ] R      [ X ] V      [ ] W	
6. Stack Height:	<b>To be determined</b> feet
7. Exit Diameter:	<b>To be determined</b> feet
8. Exit Temperature:	<b>77°F</b>
9. Actual Volumetric Flow Rate:	<b>~5,000</b> acfm

**Emissions Unit Information Section 4 of 11**

10. Percent Water Vapor :	Not Applicable %
11. Maximum Dry Standard Flow Rate:	5,000 dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: 17                      East (km): 335.25                      North (km): 3084.10	
14. Emission Point Comment:	

**D. SEGMENT (PROCESS/FUEL) INFORMATION**

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of segment data (Fields 1-10) must be completed for each segment required to be reported and for each alternative operating method or mode (emissions trading scenario) under Chapter 62-213, F.A.C., for which the maximum hourly or annual segment-related rate would vary. A segment is a material handling, process, fuel burning, volatile organic liquid storage, production, or other such operation to which emissions of the unit are directly related. See instructions for further details on this subsection of the Application for Air Permit.

**Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode):  <b>General Process (emissions related to tons processed)</b>	
2. Source Classification Code (SCC): <b>50400201</b>	
3. SCC Units: <b>Tons processed (flyash conveying rates)</b>	
4. Maximum Hourly Rate: <b>10</b>	5. Maximum Annual Rate: <b>87,600</b>
6. Estimated Annual Activity Factor: <b>Not Applicable</b>	
7. Maximum Percent Sulfur: <b>Not Applicable</b>	8. Maximum Percent Ash: <b>Not Applicable</b>
9. Million Btu per SCC Unit: <b>Not Applicable</b>	
10. Segment Comment: <b>Maximum hourly rate is the greater of the material charge rate or discharge rate.</b>	



E. POLLUTANT INFORMATION

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

Pollutant Potential/Estimated Emissions: Pollutant 1 of 1

1. Pollutant Emitted:	PM/PM <sub>10</sub>		
2. Total Percent Efficiency of Control:	98 %		
3. Primary Control Device Code:	001		
4. Secondary Control Device Code:			
5. Potential Emissions:	1.3 lb/hour	5.7 tons/year	
6. Synthetically Limited?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
7. Range of Estimated Fugitive/Other Emissions:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year		
8. Emission Factor:	0.03 grains/dscf Reference: Engineering Estimate (FAC 62-296.711(2)(b))		
9. Emissions Method Code:	<input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5		
10. Calculation of Emissions:	$\frac{0.03 \text{ grains}}{\text{dscf}} \times \frac{5000 \text{ dscf}}{\text{minute}} \times \frac{1 \text{ lb}}{7000 \text{ grains}} \times \frac{60 \text{ minutes}}{\text{hour}} = \frac{1.3 \text{ lb}}{\text{hour}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		

Emissions Unit Information Section 4 of 11

I. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

This subsection of the Application for Air Permit form provides supplemental information related to the emissions unit addressed in this Emissions Unit Information Section. Supplemental information must be submitted as an attachment to each copy of the form, in hard-copy or computer-readable form.

**Supplemental Requirements for All Applications**

1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input checked="" type="checkbox"/> Attached, Document ID: <u>See August 1997 Report</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable



**Emissions Unit Control Equipment**

**A.**

1. Description:
2. Control Device or Method Code:

**B.**

1. Description:
2. Control Device or Method Code:

**C.**

1. Description:
2. Control Device or Method Code:

**D.**

1. Description:
2. Control Device or Method Code:

**E.**

1. Description:
2. Control Device or Method Code:

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate: <b>130</b>	mmbtu/hr
2. Maximum Incineration Rate: <b>Not Applicable</b>	lb/hr tons/day
3. Maximum Process or Throughput Rate: <b>Natural Gas Usage = 97.76 MM cu ft/yr</b>	
4. Maximum Production Rate: <b>Not Applicable</b>	
5. Operating Capacity Comment:	
$\frac{130 \text{ MMBTU}}{\text{hour}} \times \frac{752 \text{ hours}}{\text{year}} \times \frac{\text{cu ft}}{1000 \text{ BTU}} = \frac{97.76 \text{ MM cu ft}}{\text{year}}$	

**Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule:	
8* hours/day	* days/week
* weeks/year	<b>752</b> hours/year

\*

$$\frac{8 \text{ hrs}}{\text{startup/shutdown episode}} \times \frac{47 \text{ episodes}}{\text{year}} = \frac{376 \text{ hrs}}{\text{year}}$$

$$+ \frac{376 \text{ hrs}}{\text{year}} \text{ for low BTU waste} = \frac{752 \text{ hrs}}{\text{year}}$$

Emissions Unit Information Section  9  of  11

**List of Applicable Regulations** (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

<b>62-210.300 FAC</b>	<b>Stationary Sources-General Requirements Permits Required</b>
<b>62-212.300 FAC</b>	<b>Stationary Sources-Preconstruction Review General Preconstruction Review Requirements</b>
<b>62-296.320 FAC</b>	<b>Stationary Sources-Emission Standards General Pollutant Emission Limiting Standards</b>
<b>62-296.406 FAC</b>	<b>Stationary Sources-Emission Standards Fossil fuel steam generators &lt; 250 MMBTU/hr</b>
<b>40 CFR 60.58b(a)(1) from NSPS Subpart Eb</b>	<b>EG/NSPS Provisions and Exceptions for startup, shutdown, and malfunction periods</b>
<b>For further information on Applicable Regulations, please see Section 3.0-Regulatory Requirements in August 1997 Report</b>	

**C. EMISSION POINT (STACK/VENT) INFORMATION**

This subsection of the Application for Air Permit form provides information about the emission point associated with the emissions unit addressed in this Emissions Unit Information Section. An emission point is typically a stack or vent but can be any identifiable location at which air pollutants, including fugitive emissions, are discharged into the atmosphere.

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram:  <b>Volume I, Figure 2-2</b>	
2. Emission Point Type Code: [ ] 1            [ X ] 2            [ ] 3            [ ] 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit:  <b>Each incinerator has two auxiliary burners. Burner emissions will exhaust along with the flue gas through a common stack.</b>	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:  <b>Mass Burn Incinerator Units #1, #2, and #3 will all exhaust to a common stack consisting of three separate flues.</b>	
5. Discharge Type Code: [ ] D            [ ] F            [ ] H            [ ] P [ ] R            [ X ] V            [ ] W	
6. Stack Height:	<b>165 feet</b>
7. Exit Diameter:	<b>8.5 feet</b>
8. Exit Temperature:	<b>270°F</b>
9. Actual Volumetric Flow Rate:	<b>243,117* acfm</b>

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Emissions Unit Information Section 9 of 11

10. Percent Water Vapor :	13.40* %
11. Maximum Dry Standard Flow Rate:	152,280 dscfm
12. Nonstack Emission Point Height:	Not Applicable feet
13. Emission Point UTM Coordinates: Zone: 17                      East (km): 335.25                      North (km): 3084.10	
14. Emission Point Comment:	

**\* Data for flue gas from incinerator at worst-case conditions (110% thermal load and 5000 BTU/lb MSW). The volume of flue gas from the auxiliary burners is considerably lower than the volume of flue gas from MSW combustion.**



**D. SEGMENT (PROCESS/FUEL) INFORMATION**

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of segment data (Fields 1-10) must be completed for each segment required to be reported and for each alternative operating method or mode (emissions trading scenario) under Chapter 62-213, F.A.C., for which the maximum hourly or annual segment-related rate would vary. A segment is a material handling, process, fuel burning, volatile organic liquid storage, production, or other such operation to which emissions of the unit are directly related. See instructions for further details on this subsection of the Application for Air Permit.

**Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode): <b>Not Available</b>	
2. Source Classification Code (SCC): <b>Not Available</b>	
3. SCC Units: <b>MMcu ft of gas burned</b>	
4. Maximum Hourly Rate: <b>0.130</b>	5. Maximum Annual Rate: <b>97.76</b>
6. Estimated Annual Activity Factor: <b>Not Applicable</b>	
7. Maximum Percent Sulfur: <b>Negligible</b>	8. Maximum Percent Ash: <b>Negligible</b>
9. Million Btu per SCC Unit: <b>1000</b>	
10. Segment Comment:	

## E. POLLUTANT INFORMATION

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

Pollutant Potential/Estimated Emissions: Pollutant 1 of 6

1. Pollutant Emitted:	PM		
2. Total Percent Efficiency of Control:	Not Applicable %		
3. Primary Control Device Code:	Not Applicable		
4. Secondary Control Device Code:	Not Applicable		
5. Potential Emissions:	0.650 lb/hour	0.24 tons/year	
6. Synthetically Limited?	[ ] Yes [ X ] No		
7. Range of Estimated Fugitive/Other Emissions:	[ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year		
8. Emission Factor:	5 lb/MM cu ft Reference: AP-42		
9. Emissions Method Code:	[ ] 1	[ ] 2	[ X ] 3 [ ] 4 [ ] 5
10. Calculation of Emissions:	$\frac{5 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{0.650 \text{ lbs}}{\text{hr}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		

E. POLLUTANT INFORMATION

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions:** Pollutant 2 of 6

1. Pollutant Emitted:	PM <sub>10</sub>		
2. Total Percent Efficiency of Control:	Not Applicable %		
3. Primary Control Device Code:	Not Applicable		
4. Secondary Control Device Code:	Not Applicable		
5. Potential Emissions:	0.650 lb/hour	0.24 tons/year	
6. Synthetically Limited?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
7. Range of Estimated Fugitive/Other Emissions:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year		
8. Emission Factor:	5 lb/MM cu ft Reference: AP-42		
9. Emissions Method Code:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
10. Calculation of Emissions:	$\frac{5 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{0.650 \text{ lbs}}{\text{hr}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		

Emissions Unit Information Section 9 of 11

E. POLLUTANT INFORMATION

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions:** Pollutant 3 of 6

1. Pollutant Emitted:	CO		
2. Total Percent Efficiency of Control:	Not Applicable %		
3. Primary Control Device Code:	Not Applicable		
4. Secondary Control Device Code:	Not Applicable		
5. Potential Emissions:	5.20 lb/hour	1.96 tons/year	
6. Synthetically Limited?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
7. Range of Estimated Fugitive/Other Emissions:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year		
8. Emission Factor:	40 lb/MM cu ft		
Reference:	AP-42		
9. Emissions Method Code:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
10. Calculation of Emissions:	$\frac{40 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{5.20 \text{ lbs}}{\text{hr}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		

Emissions Unit Information Section 9 of 11

E. POLLUTANT INFORMATION

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions:** Pollutant 4 of 6

1. Pollutant Emitted:	SO <sub>2</sub>		
2. Total Percent Efficiency of Control:	Not Applicable %		
3. Primary Control Device Code:	Not Applicable		
4. Secondary Control Device Code:	Not Applicable		
5. Potential Emissions:	0.078 lb/hour	0.029 tons/year	
6. Synthetically Limited?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
7. Range of Estimated Fugitive/Other Emissions:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year		
8. Emission Factor:	0.6 lb/MM cu ft Reference: AP-42		
9. Emissions Method Code:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
10. Calculation of Emissions:	$\frac{0.6 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{0.078 \text{ lbs}}{\text{hr}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		

E. POLLUTANT INFORMATION

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions: Pollutant 5 of 6**

1. Pollutant Emitted:	NO <sub>x</sub>		
2. Total Percent Efficiency of Control:	Not Applicable %		
3. Primary Control Device Code:	Not Applicable		
4. Secondary Control Device Code:	Not Applicable		
5. Potential Emissions:	39.00 lb/hour	14.66 tons/year	
6. Synthetically Limited?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
7. Range of Estimated Fugitive/Other Emissions:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year		
8. Emission Factor:	300 lb/MM cu ft		
Reference:	Engineering Estimate (40 CFR 60.44b(d))		
9. Emissions Method Code:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5		
10. Calculation of Emissions:	$\frac{300 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{39.00 \text{ lbs}}{\text{hr}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		

**E. POLLUTANT INFORMATION**

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions: Pollutant 6 of 6**

1. Pollutant Emitted:	VOC		
2. Total Percent Efficiency of Control:	Not Applicable %		
3. Primary Control Device Code:	Not Applicable		
4. Secondary Control Device Code:	Not Applicable		
5. Potential Emissions:	0.221 lb/hour	0.083 tons/year	
6. Synthetically Limited?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
7. Range of Estimated Fugitive/Other Emissions:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year		
8. Emission Factor:	1.7 lb/MM cu ft Reference: AP-42		
9. Emissions Method Code:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
10. Calculation of Emissions:	$\frac{1.7 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{0.221 \text{ lbs}}{\text{hr}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		

**Emissions Unit Information Section 10 of 11**

**Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section:  <b>Auxiliary Burners for Mass Burn Incinerator #2.</b>		
2. ARMS Identification Number: <input checked="" type="checkbox"/> No Corresponding ID <input type="checkbox"/> Unknown		
3. Emissions Unit Status Code: <b>C</b>	4. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Emissions Unit Major Group SIC Code: <b>49</b>
6. Initial Startup Date (DD-MON-YYYY): <del>xx-June-1999</del>		
7. Long-term Reserve Shutdown Date (DD-MON-YYYY):		
8. Package Unit: <b>Auxiliary Burner</b> Manufacturer: <b>To Be Determined</b> Model Number: <b>To Be Determined</b>		
9. Generator Nameplate Rating: <b>Not Applicable</b> MW		
10. Incinerator Information: <b>Not Applicable</b> Dwell Temperature: °F Dwell Time: seconds Incinerator Afterburner Temperature : °F		
11. Emissions Unit Comment:  <b>Two natural gas-fired auxiliary burners totalling 130 MMBTU/hr for firing the combustor during warm-ups, start-ups, and shutdowns and to maintain required furnace temperatures when sustained low-BTU wastes are encountered.</b>		



**Emissions Unit Information Section 10 of 11**

**Emissions Unit Control Equipment**

**A.**

1. Description:
2. Control Device or Method Code:

**B.**

1. Description:
2. Control Device or Method Code:

**C.**

1. Description:
2. Control Device or Method Code:

**D.**

1. Description:
2. Control Device or Method Code:

**E.**

1. Description:
2. Control Device or Method Code:

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate: <b>130</b> mmbtu/hr
2. Maximum Incineration Rate: <b>Not Applicable</b> lb/hr tons/day
3. Maximum Process or Throughput Rate: <b>Natural Gas Usage = 97.76 MM cu ft/yr</b>
4. Maximum Production Rate: <b>Not Applicable</b>
5. Operating Capacity Comment:  $\frac{130 \text{ MMBTU}}{\text{hour}} \times \frac{752 \text{ hours}}{\text{year}} \times \frac{\text{cu ft}}{1000 \text{ BTU}} = \frac{97.76 \text{ MM cu ft}}{\text{year}}$

**Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule:	
8* hours/day	* days/week
* weeks/year	<b>752</b> hours/year

\*

$$\frac{8 \text{ hrs}}{\text{startup/shutdown episode}} \times \frac{47 \text{ episodes}}{\text{year}} = \frac{376 \text{ hrs}}{\text{year}}$$

$$+ \frac{376 \text{ hrs}}{\text{year}} \text{ for low BTU waste} = \frac{752 \text{ hrs}}{\text{year}}$$

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Emissions Unit Information Section 10 of 11

**List of Applicable Regulations** (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

<b>62-210.300 FAC</b>	<b>Stationary Sources-General Requirements Permits Required</b>
<b>62-212.300 FAC</b>	<b>Stationary Sources-Preconstruction Review General Preconstruction Review Requirements</b>
<b>62-296.320 FAC</b>	<b>Stationary Sources-Emission Standards General Pollutant Emission Limiting Standards</b>
<b>62-296.406 FAC</b>	<b>Stationary Sources-Emission Standards Fossil fuel steam generators &lt; 250 MMBTU/hr</b>
<b>40 CFR 60.58b(a)(1) from NSPS Subpart Eb</b>	<b>EG/NSPS Provisions and Exceptions for startup, shutdown, and malfunction periods</b>
<b>For further information on Applicable Regulations, please see Section 3.0-Regulatory Requirements in August 1997 Report</b>	

**C. EMISSION POINT (STACK/VENT) INFORMATION**

This subsection of the Application for Air Permit form provides information about the emission point associated with the emissions unit addressed in this Emissions Unit Information Section. An emission point is typically a stack or vent but can be any identifiable location at which air pollutants, including fugitive emissions, are discharged into the atmosphere.

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram:  <b>Volume I, Figure 2-2</b>	
2. Emission Point Type Code: <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit:  <b>Each incinerator has two auxiliary burners. Burner emissions will exhaust along with the flue gas through a common stack.</b>	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:  <b>Mass Burn Incinerator Units #1, #2, and #3 will all exhaust to a common stack consisting of three separate flues.</b>	
5. Discharge Type Code: <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input checked="" type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	<b>165 feet</b>
7. Exit Diameter:	<b>8.5 feet</b>
8. Exit Temperature:	<b>270°F</b>
9. Actual Volumetric Flow Rate:	<b>243,117* acfm</b>

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Emissions Unit Information Section 10 of 11

10. Percent Water Vapor :	13.40* %
11. Maximum Dry Standard Flow Rate:	152,280 dscfm
12. Nonstack Emission Point Height:	Not Applicable feet
13. Emission Point UTM Coordinates: Zone: 17                      East (km): 335.25                      North (km): 3084.10	
14. Emission Point Comment:	

**\* Data for flue gas from incinerator at worst-case conditions (110% thermal load and 5000 BTU/lb MSW). The volume of flue gas from the auxiliary burners is considerably lower than the volume of flue gas from MSW combustion.**

**D. SEGMENT (PROCESS/FUEL) INFORMATION**

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of segment data (Fields 1-10) must be completed for each segment required to be reported and for each alternative operating method or mode (emissions trading scenario) under Chapter 62-213, F.A.C., for which the maximum hourly or annual segment-related rate would vary. A segment is a material handling, process, fuel burning, volatile organic liquid storage, production, or other such operation to which emissions of the unit are directly related. See instructions for further details on this subsection of the Application for Air Permit.

**Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode): <b>Not Available</b>	
2. Source Classification Code (SCC): <b>Not Available</b>	
3. SCC Units: <b>MMcu ft of gas burned</b>	
4. Maximum Hourly Rate: <b>0.130</b>	5. Maximum Annual Rate: <b>97.76</b>
6. Estimated Annual Activity Factor: <b>Not Applicable</b>	
7. Maximum Percent Sulfur: <b>Negligible</b>	8. Maximum Percent Ash: <b>Negligible</b>
9. Million Btu per SCC Unit: <b>1000</b>	
10. Segment Comment:	

**E. POLLUTANT INFORMATION**

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions: Pollutant 1 of 6**

1. Pollutant Emitted:	PM		
2. Total Percent Efficiency of Control:	Not Applicable %		
3. Primary Control Device Code:	Not Applicable		
4. Secondary Control Device Code:	Not Applicable		
5. Potential Emissions:	0.650 lb/hour	0.24 tons/year	
6. Synthetically Limited?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
7. Range of Estimated Fugitive/Other Emissions:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year		
8. Emission Factor:	5 lb/MM cu ft Reference: AP-42		
9. Emissions Method Code:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
10. Calculation of Emissions:	$\frac{5 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{0.650 \text{ lbs}}{\text{hr}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		

**E. POLLUTANT INFORMATION**

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions: Pollutant 2 of 6**

1. Pollutant Emitted:	PM <sub>10</sub>		
2. Total Percent Efficiency of Control:	Not Applicable %		
3. Primary Control Device Code:	Not Applicable		
4. Secondary Control Device Code:	Not Applicable		
5. Potential Emissions:	0.650 lb/hour	0.24	tons/year
6. Synthetically Limited?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
7. Range of Estimated Fugitive/Other Emissions:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year		
8. Emission Factor:	5 lb/MM cu ft Reference: AP-42		
9. Emissions Method Code:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
10. Calculation of Emissions:	$\frac{5 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{0.650 \text{ lbs}}{\text{hr}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		



Emissions Unit Information Section 10 of 11

E. POLLUTANT INFORMATION

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

Pollutant Potential/Estimated Emissions: Pollutant 3 of 6

1. Pollutant Emitted:	CO		
2. Total Percent Efficiency of Control:	Not Applicable %		
3. Primary Control Device Code:	Not Applicable		
4. Secondary Control Device Code:	Not Applicable		
5. Potential Emissions:	5.20 lb/hour	1.96 tons/year	
6. Synthetically Limited?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
7. Range of Estimated Fugitive/Other Emissions:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year		
8. Emission Factor:	40 lb/MM cu ft Reference: AP-42		
9. Emissions Method Code:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
10. Calculation of Emissions:	$\frac{40 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{5.20 \text{ lbs}}{\text{hr}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		

**E. POLLUTANT INFORMATION**

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions: Pollutant 4 of 6**

1. Pollutant Emitted:	SO <sub>2</sub>		
2. Total Percent Efficiency of Control:	Not Applicable %		
3. Primary Control Device Code:	Not Applicable		
4. Secondary Control Device Code:	Not Applicable		
5. Potential Emissions:	0.078 lb/hour	0.029 tons/year	
6. Synthetically Limited?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
7. Range of Estimated Fugitive/Other Emissions:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year		
8. Emission Factor:	0.6 lb/MM cu ft Reference: AP-42		
9. Emissions Method Code:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
10. Calculation of Emissions:	$\frac{0.6 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{0.078 \text{ lbs}}{\text{hr}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		

Emissions Unit Information Section 10 of 11

E. POLLUTANT INFORMATION

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions:** Pollutant 5 of 6

1. Pollutant Emitted:	NO <sub>x</sub>		
2. Total Percent Efficiency of Control:	Not Applicable %		
3. Primary Control Device Code:	Not Applicable		
4. Secondary Control Device Code:	Not Applicable		
5. Potential Emissions:	39.00 lb/hour	14.66 tons/year	
6. Synthetically Limited?	[ ] Yes [ X ] No		
7. Range of Estimated Fugitive/Other Emissions:	[ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year		
8. Emission Factor:	300 lb/MM cu ft Reference: Engineering Estimate (40 CFR 60.44b(d))		
9. Emissions Method Code:	[ ] 1	[ ] 2	[ X ] 3 [ ] 4 [ X ] 5
10. Calculation of Emissions:	$\frac{300 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{39.00 \text{ lbs}}{\text{hr}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		

Emissions Unit Information Section 10 of 11

E. POLLUTANT INFORMATION

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

Pollutant Potential/Estimated Emissions: Pollutant 6 of 6

1. Pollutant Emitted:	VOC		
2. Total Percent Efficiency of Control:	Not Applicable %		
3. Primary Control Device Code:	Not Applicable		
4. Secondary Control Device Code:	Not Applicable		
5. Potential Emissions:	0.221 lb/hour	0.083 tons/year	
6. Synthetically Limited?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
7. Range of Estimated Fugitive/Other Emissions:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year		
8. Emission Factor:	1.7 lb/MM cu ft Reference: AP-42		
9. Emissions Method Code:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
10. Calculation of Emissions:	$\frac{1.7 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{0.221 \text{ lbs}}{\text{hr}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		



**Emissions Unit Control Equipment**

**A.**

1. Description:
2. Control Device or Method Code:

**B.**

1. Description:
2. Control Device or Method Code:

**C.**

1. Description:
2. Control Device or Method Code:

**D.**

1. Description:
2. Control Device or Method Code:

**E.**

1. Description:
2. Control Device or Method Code:

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate: <b>130</b>	mmbtu/hr
2. Maximum Incineration Rate: <b>Not Applicable</b>	lb/hr                      tons/day
3. Maximum Process or Throughput Rate: <b>Natural Gas Usage = 97.76</b>	MM cu ft/yr
4. Maximum Production Rate: <b>Not Applicable</b>	
5. Operating Capacity Comment:	
$\frac{130 \text{ MMBTU}}{\text{hour}} \times \frac{752 \text{ hours}}{\text{year}} \times \frac{\text{cu ft}}{1000 \text{ BTU}} = \frac{97.76 \text{ MM cu ft}}{\text{year}}$	

**Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule:	
8* hours/day	* days/week
* weeks/year	<b>752</b> hours/year

\*

$$\frac{8 \text{ hrs}}{\text{startup/shutdown episode}} \times \frac{47 \text{ episodes}}{\text{year}} = \frac{376 \text{ hrs}}{\text{year}}$$

$$+ \frac{376 \text{ hrs}}{\text{year}} \text{ for low BTU waste} = \frac{752 \text{ hrs}}{\text{year}}$$

Emissions Unit Information Section  11  of  11

**List of Applicable Regulations** (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

<b>62-210.300 FAC</b>	<b>Stationary Sources-General Requirements Permits Required</b>
<b>62-212.300 FAC</b>	<b>Stationary Sources-Preconstruction Review General Preconstruction Review Requirements</b>
<b>62-296.320 FAC</b>	<b>Stationary Sources-Emission Standards General Pollutant Emission Limiting Standards</b>
<b>62-296.406 FAC</b>	<b>Stationary Sources-Emission Standards Fossil fuel steam generators &lt; 250 MMBTU/hr</b>
<b>40 CFR 60.58b(a)(1) from NSPS Subpart Eb</b>	<b>EG/NSPS Provisions and Exceptions for startup, shutdown, and malfunction periods</b>
<b>For further information on Applicable Regulations, please see Section 3.0-Regulatory Requirements in August 1997 Report</b>	



## C. EMISSION POINT (STACK/VENT) INFORMATION

This subsection of the Application for Air Permit form provides information about the emission point associated with the emissions unit addressed in this Emissions Unit Information Section. An emission point is typically a stack or vent but can be any identifiable location at which air pollutants, including fugitive emissions, are discharged into the atmosphere.

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram:  <b>Volume I, Figure 2-2</b>	
2. Emission Point Type Code: [ ] 1            [ X ] 2            [ ] 3            [ ] 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit:  <b>Each incinerator has two auxiliary burners. Burner emissions will exhaust along with the flue gas through a common stack.</b>	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:  <b>Mass Burn Incinerator Units #1, #2, and #3 will all exhaust to a common stack consisting of three separate flues.</b>	
5. Discharge Type Code: [ ] D            [ ] F            [ ] H            [ ] P [ ] R            [ X ] V            [ ] W	
6. Stack Height:	<b>165 feet</b>
7. Exit Diameter:	<b>8.5 feet</b>
8. Exit Temperature:	<b>270°F</b>
9. Actual Volumetric Flow Rate:	<b>243,117* acfm</b>

275 (Replacement)

Emissions Unit Information Section 11 of 11

10. Percent Water Vapor :	13.40* %
11. Maximum Dry Standard Flow Rate:	152,280 dscfm
12. Nonstack Emission Point Height:	Not Applicable feet
13. Emission Point UTM Coordinates: Zone: 17                      East (km): 335.25                      North (km): 3084.10	
14. Emission Point Comment:	
<p><b>* Data for flue gas from incinerator at worst-case conditions (110% thermal load and 5000 BTU/lb MSW). The volume of flue gas from the auxiliary burners is considerably lower than the volume of flue gas from MSW combustion.</b></p>	

**D. SEGMENT (PROCESS/FUEL) INFORMATION**

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of segment data (Fields 1-10) must be completed for each segment required to be reported and for each alternative operating method or mode (emissions trading scenario) under Chapter 62-213, F.A.C., for which the maximum hourly or annual segment-related rate would vary. A segment is a material handling, process, fuel burning, volatile organic liquid storage, production, or other such operation to which emissions of the unit are directly related. See instructions for further details on this subsection of the Application for Air Permit.

**Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode): <b>Not Available</b>	
2. Source Classification Code (SCC): <b>Not Available</b>	
3. SCC Units: <b>MMcu ft of gas burned</b>	
4. Maximum Hourly Rate: <b>0.130</b>	5. Maximum Annual Rate: <b>97.76</b>
6. Estimated Annual Activity Factor: <b>Not Applicable</b>	
7. Maximum Percent Sulfur: <b>Negligible</b>	8. Maximum Percent Ash: <b>Negligible</b>
9. Million Btu per SCC Unit: <b>1000</b>	
10. Segment Comment:	

**E. POLLUTANT INFORMATION**

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions: Pollutant 1 of 6**

1. Pollutant Emitted:	PM		
2. Total Percent Efficiency of Control:	Not Applicable %		
3. Primary Control Device Code:	Not Applicable		
4. Secondary Control Device Code:	Not Applicable		
5. Potential Emissions:	0.650 lb/hour	0.24	tons/year
6. Synthetically Limited?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
7. Range of Estimated Fugitive/Other Emissions:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year		
8. Emission Factor:	5 lb/MM cu ft Reference: AP-42		
9. Emissions Method Code:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
10. Calculation of Emissions:	$\frac{5 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{0.650 \text{ lbs}}{\text{hr}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		

**E. POLLUTANT INFORMATION**

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions: Pollutant 2 of 6**

1. Pollutant Emitted:	<b>PM<sub>10</sub></b>
2. Total Percent Efficiency of Control:	<b>Not Applicable %</b>
3. Primary Control Device Code:	<b>Not Applicable</b>
4. Secondary Control Device Code:	<b>Not Applicable</b>
5. Potential Emissions:	<b>0.650 lb/hour                      0.24 tons/year</b>
6. Synthetically Limited?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7. Range of Estimated Fugitive/Other Emissions:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3            _____ to _____ tons/year
8. Emission Factor:	<b>5 lb/MM cu ft</b> Reference: <b>AP-42</b>
9. Emissions Method Code:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
10. Calculation of Emissions:	$\frac{5 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{0.650 \text{ lbs}}{\text{hr}}$
11. Pollutant Potential/Estimated Emissions Comment:	<b>See August 1997 Report</b>

**E. POLLUTANT INFORMATION**

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions: Pollutant 3 of 6**

1. Pollutant Emitted:	CO			
2. Total Percent Efficiency of Control:	Not Applicable %			
3. Primary Control Device Code:	Not Applicable			
4. Secondary Control Device Code:	Not Applicable			
5. Potential Emissions:	5.20 lb/hour	1.96 tons/year		
6. Synthetically Limited?	[ ] Yes [ X ] No			
7. Range of Estimated Fugitive/Other Emissions:	[ ] 1	[ ] 2	[ ] 3	_____ to _____ tons/year
8. Emission Factor:	40 lb/MM cu ft Reference: AP-42			
9. Emissions Method Code:	[ ] 1	[ ] 2	[ X ] 3	[ ] 4 [ ] 5
10. Calculation of Emissions:	$\frac{40 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{5.20 \text{ lbs}}{\text{hr}}$			
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report			

E. POLLUTANT INFORMATION

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions:** Pollutant 4 of 6

1. Pollutant Emitted:	SO <sub>2</sub>		
2. Total Percent Efficiency of Control:	Not Applicable %		
3. Primary Control Device Code:	Not Applicable		
4. Secondary Control Device Code:	Not Applicable		
5. Potential Emissions:	0.078 lb/hour	0.029 tons/year	
6. Synthetically Limited?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
7. Range of Estimated Fugitive/Other Emissions:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year		
8. Emission Factor:	0.6 lb/MM cu ft Reference: AP-42		
9. Emissions Method Code:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
10. Calculation of Emissions:	$\frac{0.6 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{0.078 \text{ lbs}}{\text{hr}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		

**E. POLLUTANT INFORMATION**

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions: Pollutant 5 of 6**

1. Pollutant Emitted:	NO <sub>x</sub>		
2. Total Percent Efficiency of Control:	Not Applicable %		
3. Primary Control Device Code:	Not Applicable		
4. Secondary Control Device Code:	Not Applicable		
5. Potential Emissions:	39.00 lb/hour	14.66 tons/year	
6. Synthetically Limited?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
7. Range of Estimated Fugitive/Other Emissions:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year		
8. Emission Factor:	300 lb/MM cu ft		
Reference:	Engineering Estimate (40 CFR 60.44b(d))		
9. Emissions Method Code:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5		
10. Calculation of Emissions:	$\frac{300 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{39.00 \text{ lbs}}{\text{hr}}$		
11. Pollutant Potential/Estimated Emissions Comment:	See August 1997 Report		



**E. POLLUTANT INFORMATION**

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions: Pollutant 6 of 6**

1. Pollutant Emitted: <b>VOC</b>
2. Total Percent Efficiency of Control: <b>Not Applicable</b> %
3. Primary Control Device Code: <b>Not Applicable</b>
4. Secondary Control Device Code: <b>Not Applicable</b>
5. Potential Emissions: <b>0.221</b> lb/hour <b>0.083</b> tons/year
6. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/year
8. Emission Factor: <b>1.7 lb/MM cu ft</b> Reference: <b>AP-42</b>
9. Emissions Method Code: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
10. Calculation of Emissions:  $\frac{1.7 \text{ lb}}{\text{MM cu ft}} \times \frac{0.130 \text{ MM cu ft}}{\text{hr}} = \frac{0.221 \text{ lbs}}{\text{hr}}$
11. Pollutant Potential/Estimated Emissions Comment: <b>See August 1997 Report</b>

**APPENDIX B**

**PROPOSED REVISIONS TO THE  
PPSA CONDITIONS OF CERTIFICATION**

Attached are proposed revisions to the PPSA Conditions of Certification for the Pinellas County Resource Recovery Facility (PCRRF). As described in Section 1.0 of the enclosed August 1997 permit application, an application to revise the PPSA Conditions of Certification and PSD permits was originally submitted in May 1995 for proposed improvements to the PCRRF to meet the USEPA MWC Emission Guidelines. Accordingly, FDEP issued a permit amendment to the PSD permits on October 11, 1995 and a Final Order modifying the PPSA Conditions of Certification on July 29, 1996.

At this time, two minor revisions to the permitted improvements are needed, based on project requirements. First, the flyash storage silo is being replaced in the improved facility design with two flyash surge bins, to be located in the new Ash Conditioning Building. Emissions from Ash Conditioning Building activities will be controlled by a wet scrubber. Second, the size of the MWC auxiliary burners is being increased to 130 MMBTU/hr/unit, the NO<sub>x</sub> emission factor increased to 300 lb/(10<sup>6</sup>)ft<sup>3</sup>, and the permitted annual natural gas consumption rate increased to 97.76(10<sup>6</sup>)ft<sup>3</sup>/year/unit.

Revisions to the PPSA Conditions of Certification are required to replace the flyash silo with the Ash Conditioning Building wet scrubber. Proposed revisions are given here in Appendix B to Condition XIV.A.2.b which describes the minor sources after the PCRRF improvements. In addition, one other minor revision to the PPSA Conditions of Certification is proposed at Condition XIV.A.2.d(7) to allow Method 26A, in addition to Method 26, for annual HCl compliance tests.

(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 corrected to 7% O<sub>2</sub>; 3.44 x 10<sup>-8</sup> lbs total mass/MMBTU, 1.6 x 10<sup>-5</sup> lbs/hr/unit and 6.9 x 10<sup>-5</sup> tons/yr/unit.

(7) Nitrogen oxides emissions (measured as NO<sub>2</sub>) shall not exceed 200 ppmv corrected to 7% O<sub>2</sub>; or 0.439 lb/MMBTU, 200.3 lb/hr/unit, and 877.3 tons/yr/unit. The permittee may request authorization from the Department to conduct nitrogen oxides emissions averaging pursuant to 40 CFR 60.33b.

(8) The opacity level in the stack shall not exceed 10% (six minute block average).

(9) The emission limitations 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 for Minor Sources, after the retrofit is complete, are as follows:

(1) Visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) shall not occur in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period). This visible emissions limitation shall not apply during maintenance and repair of the ash conveying system.

(2) The particulate matter emissions shall not exceed 0.005 gr/dscf from the outlets of the baghouses at the lime storage silo/ <sup>and</sup> two activated carbon storage silos ~~and the fly ash storage silo~~. Pursuant to Section 62-297.620(4), FAC, the particulate matter compliance test requirements are waived for these minor sources and an alternate standard of 5% opacity shall apply. A visible emission reading

Revisions to delete flyash silo

greater than 5% opacity does not create a presumption that the emission limit (i.e., in gr/dscf) is being violated, but would require the permittee to perform a particulate stack test in accordance with EPA Methods contained in 40 CFR 60, Appendix A.

- (3)
- (4) The particulate matter emissions shall not exceed 0.03 gr/dscf from the outlet of the wet scrubber system at the ash conditioning building. Pursuant to Section 62-297.620(4), FAC, the particulate matter compliance test requirements are waived for this minor source and an alternative standard of 5% opacity shall apply. A visible emission reading greater than 5% opacity does not create a presumption that the emission limit (i.e., in gr/dscf) is being violated, but would require the permittee to perform a particulate stack test in accordance with EPA Methods contained in 40 CFR 60, Appendix A.

c. Operating Standards

(1)

After the modifications to the Resource Recovery Facility are complete, the height of the boiler stack shall not be less than 165 feet above the ground level at the base of the stack.

(2)

Each MWC unit shall be allowed to operate up to 110% of the unit's maximum demonstrated load capacity, as achieved during the most recent dioxin/furan compliance test. Maximum capacity shall be based on the steam (or feedwater) flow rate, which shall 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.

(3)

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.

(4)

A Facility-specific maximum flue gas temperature at

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

Revision for HCl test method

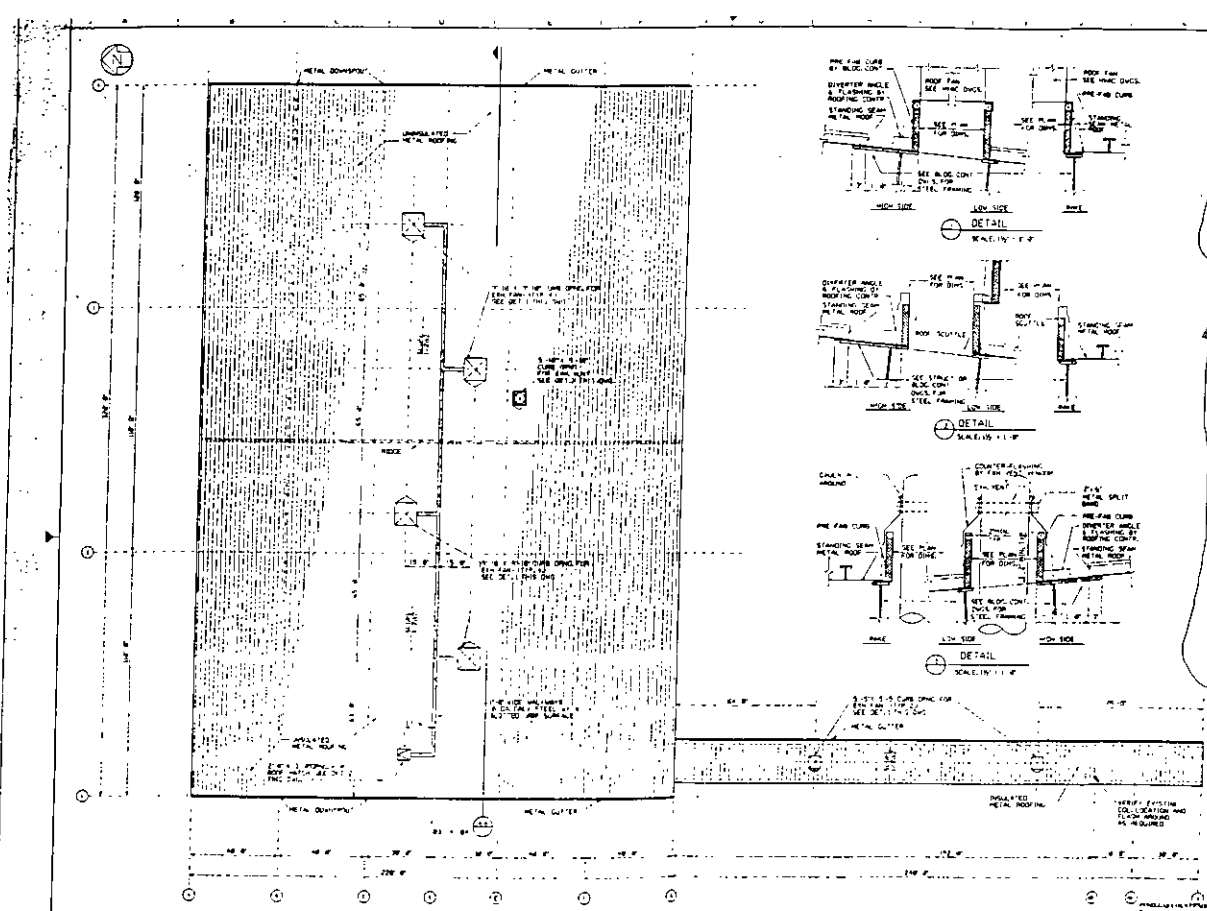
Compliance with hydrogen chloride (HCl) emission limits shall be determined by USEPA Method 26 or 26A. The minimum sampling time shall be one hour. A minimum of three test runs shall be conducted under representative full load operating conditions. The average of these test runs shall be used to determine 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 performance tests 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. The initial compliance test shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after





**GENERAL NOTES:**

1. ALL ROOF PENETRATIONS SHALL BE APPROVED BY THE BUILDING DEPARTMENT AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PALM BEACH COUNTY ORDINANCES.
2. PROVIDE CLUTTER PROTECTION ABOVE WHEN REQUIRED ACCORDING TO SPECIFICATIONS. SEE METAL & WOOD CHIMNEY CONTRACTOR FOR METAL ROOFING, ETC.
3. ALL ROOF PENETRATIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PALM BEACH COUNTY ORDINANCES. PROVIDE PROTECTIVE FLASHING AND WATER STOPPING AS REQUIRED. PROVIDE PROTECTIVE FLASHING AND WATER STOPPING AS REQUIRED. PROVIDE PROTECTIVE FLASHING AND WATER STOPPING AS REQUIRED.

**EQUIPMENT SPECIFICATIONS:**

1. ALL ROOF PENETRATIONS SHALL BE APPROVED BY THE BUILDING DEPARTMENT AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PALM BEACH COUNTY ORDINANCES.
2. ALL ROOF PENETRATIONS SHALL BE APPROVED BY THE BUILDING DEPARTMENT AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PALM BEACH COUNTY ORDINANCES.
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4. ALL ROOF PENETRATIONS SHALL BE APPROVED BY THE BUILDING DEPARTMENT AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PALM BEACH COUNTY ORDINANCES.
5. ALL ROOF PENETRATIONS SHALL BE APPROVED BY THE BUILDING DEPARTMENT AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PALM BEACH COUNTY ORDINANCES.

**ROOF PLAN**

ASH STORAGE AND PROCESSING BUILDING  
 ROOF PLAN AND DETAILS  
 METAL ROOFING SYSTEM DETAILS  
 PALM BEACH COUNTY, FLORIDA

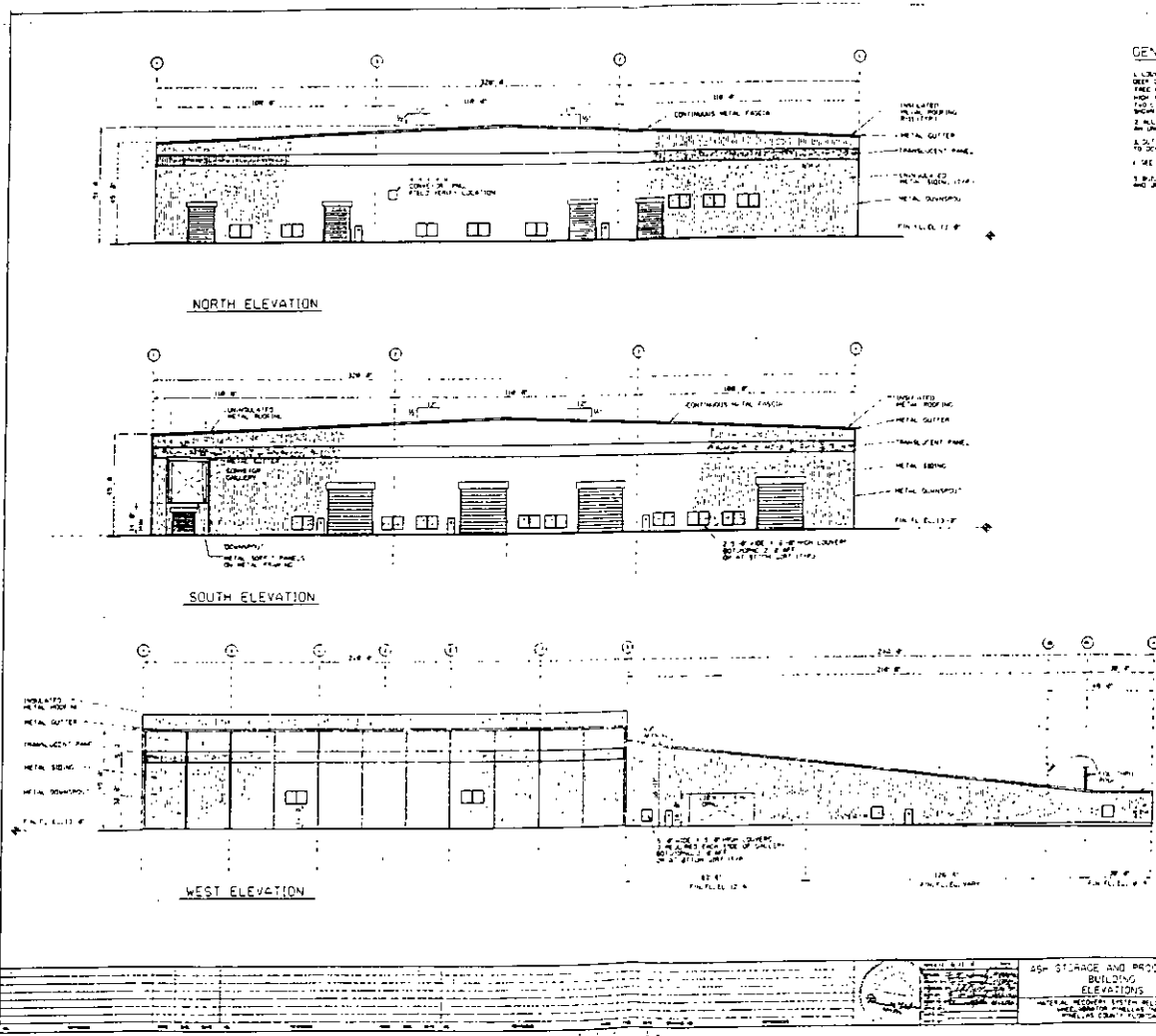
REV. 11 BY: *[Signature]* DATE: 11/11/11

PREPARED FOR CONSTRUCTION BY: *[Signature]* DATE: 11/11/11

**WELLBROTHER ENVIRONMENTAL SYSTEMS**

1





**GENERAL NOTES:**

1. LAYOUT FOR THIS STORAGE & PROCESS BUILDING SHALL BE OF BEST AVAILABLE PRACTICE/STANDARD AS SHOWN.
2. ALL DIMENSIONS TO CENTER UNLESS OTHERWISE NOTED.
3. SEE STRUCTURAL DRAWING FOR FOUNDATION PLAN AND DETAILS.
4. SEE ELECTRICAL DRAWING FOR ELECTRICAL PLAN AND DETAILS.
5. BUILDING CONTRACTOR SHALL DETERMINE THE SIZE AND QUANTITY OF MATERIALS AND COMPONENTS.

**NORTH ELEVATION**

**SOUTH ELEVATION**

**WEST ELEVATION**

PROJECT NO.	110
DATE	11/10/04
SCALE	AS SHOWN
DRAWN BY	...
CHECKED BY	...
DATE	...

RELEASED FOR CONSTRUCTION  
 BY: [Signature] DATE: 11/10/04

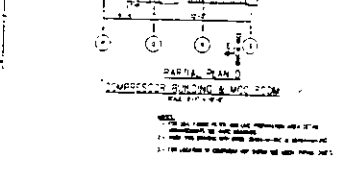
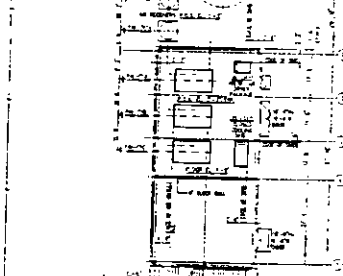
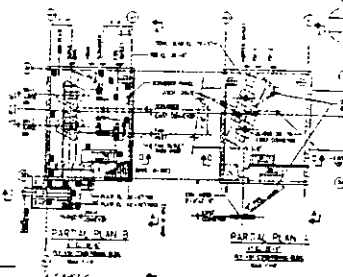
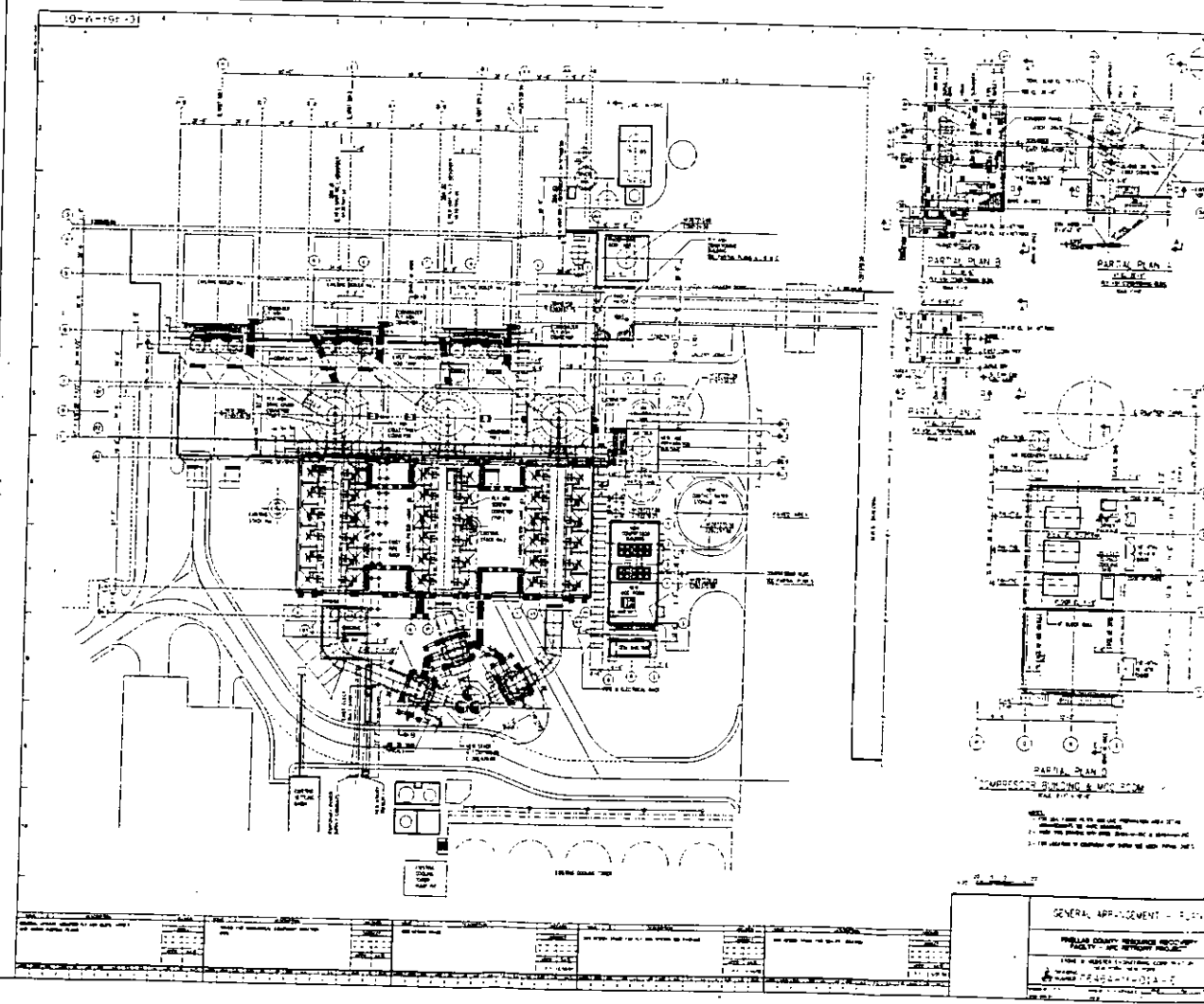
**WHEELABRATOR ENVIRONMENTAL SYSTEMS**

**25M STORAGE AND PROCESSING BUILDING ELEVATIONS**

WHEELABRATOR ENVIRONMENTAL SYSTEMS

DATE: 03-24-10

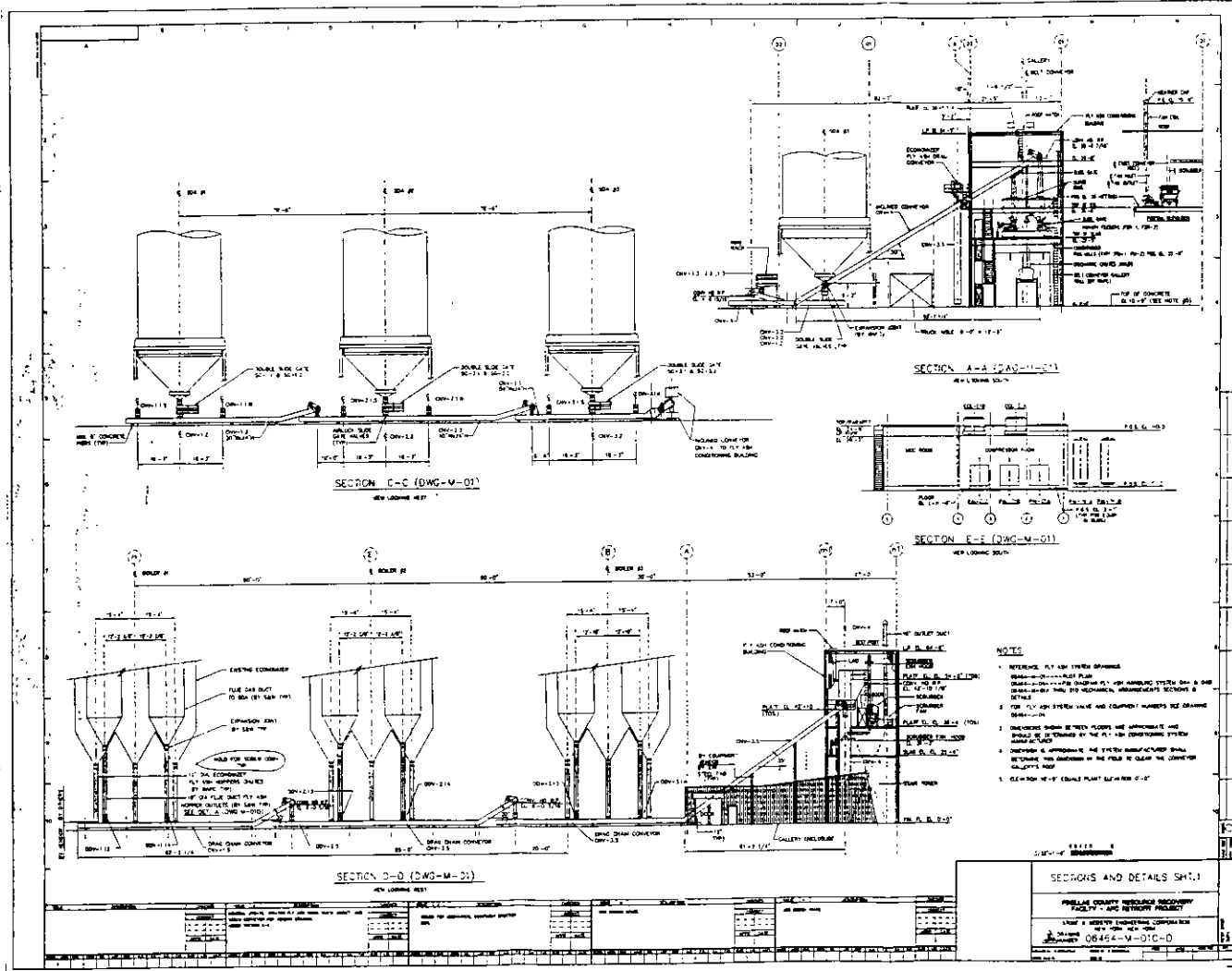
10-K-15F-31



GENERAL APPROPRIATION - \$1,000,000  
 PHOENIX COUNTY RESERVE FUND  
 PAGE IV - OF RETIREMENT FACILITY  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 DATE: [Date]

NO.	DESCRIPTION	AMOUNT	TOTAL
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GENERAL APPROPRIATION - \$1,000,000  
 PHOENIX COUNTY RESERVE FUND  
 PAGE IV - OF RETIREMENT FACILITY  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 DATE: [Date]



NO.	REVISION	DATE	BY	CHKD.	APP.
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19	REVISED FOR CONSTRUCTION	04/15/90	J. J. [unclear]	[unclear]	[unclear]
20	REVISED FOR CONSTRUCTION	05/15/90	J. J. [unclear]	[unclear]	[unclear]
21	REVISED FOR CONSTRUCTION	06/15/90	J. J. [unclear]	[unclear]	[unclear]
22	REVISED FOR CONSTRUCTION	07/15/90	J. J. [unclear]	[unclear]	[unclear]
23	REVISED FOR CONSTRUCTION	08/15/90	J. J. [unclear]	[unclear]	[unclear]
24	REVISED FOR CONSTRUCTION	09/15/90	J. J. [unclear]	[unclear]	[unclear]
25	REVISED FOR CONSTRUCTION	10/15/90	J. J. [unclear]	[unclear]	[unclear]
26	REVISED FOR CONSTRUCTION	11/15/90	J. J. [unclear]	[unclear]	[unclear]
27	REVISED FOR CONSTRUCTION	12/15/90	J. J. [unclear]	[unclear]	[unclear]
28	REVISED FOR CONSTRUCTION	01/15/91	J. J. [unclear]	[unclear]	[unclear]
29	REVISED FOR CONSTRUCTION	02/15/91	J. J. [unclear]	[unclear]	[unclear]
30	REVISED FOR CONSTRUCTION	03/15/91	J. J. [unclear]	[unclear]	[unclear]
31	REVISED FOR CONSTRUCTION	04/15/91	J. J. [unclear]	[unclear]	[unclear]
32	REVISED FOR CONSTRUCTION	05/15/91	J. J. [unclear]	[unclear]	[unclear]
33	REVISED FOR CONSTRUCTION	06/15/91	J. J. [unclear]	[unclear]	[unclear]
34	REVISED FOR CONSTRUCTION	07/15/91	J. J. [unclear]	[unclear]	[unclear]
35	REVISED FOR CONSTRUCTION	08/15/91	J. J. [unclear]	[unclear]	[unclear]
36	REVISED FOR CONSTRUCTION	09/15/91	J. J. [unclear]	[unclear]	[unclear]
37	REVISED FOR CONSTRUCTION	10/15/91	J. J. [unclear]	[unclear]	[unclear]
38	REVISED FOR CONSTRUCTION	11/15/91	J. J. [unclear]	[unclear]	[unclear]
39	REVISED FOR CONSTRUCTION	12/15/91	J. J. [unclear]	[unclear]	[unclear]
40	REVISED FOR CONSTRUCTION	01/15/92	J. J. [unclear]	[unclear]	[unclear]
41	REVISED FOR CONSTRUCTION	02/15/92	J. J. [unclear]	[unclear]	[unclear]
42	REVISED FOR CONSTRUCTION	03/15/92	J. J. [unclear]	[unclear]	[unclear]
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45	REVISED FOR CONSTRUCTION	06/15/92	J. J. [unclear]	[unclear]	[unclear]
46	REVISED FOR CONSTRUCTION	07/15/92	J. J. [unclear]	[unclear]	[unclear]
47	REVISED FOR CONSTRUCTION	08/15/92	J. J. [unclear]	[unclear]	[unclear]
48	REVISED FOR CONSTRUCTION	09/15/92	J. J. [unclear]	[unclear]	[unclear]
49	REVISED FOR CONSTRUCTION	10/15/92	J. J. [unclear]	[unclear]	[unclear]
50	REVISED FOR CONSTRUCTION	11/15/92	J. J. [unclear]	[unclear]	[unclear]
51	REVISED FOR CONSTRUCTION	12/15/92	J. J. [unclear]	[unclear]	[unclear]
52	REVISED FOR CONSTRUCTION	01/15/93	J. J. [unclear]	[unclear]	[unclear]
53	REVISED FOR CONSTRUCTION	02/15/93	J. J. [unclear]	[unclear]	[unclear]
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56	REVISED FOR CONSTRUCTION	05/15/93	J. J. [unclear]	[unclear]	[unclear]
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58	REVISED FOR CONSTRUCTION	07/15/93	J. J. [unclear]	[unclear]	[unclear]
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62	REVISED FOR CONSTRUCTION	11/15/93	J. J. [unclear]	[unclear]	[unclear]
63	REVISED FOR CONSTRUCTION	12/15/93	J. J. [unclear]	[unclear]	[unclear]
64	REVISED FOR CONSTRUCTION	01/15/94	J. J. [unclear]	[unclear]	[unclear]
65	REVISED FOR CONSTRUCTION	02/15/94	J. J. [unclear]	[unclear]	[unclear]
66	REVISED FOR CONSTRUCTION	03/15/94	J. J. [unclear]	[unclear]	[unclear]
67	REVISED FOR CONSTRUCTION	04/15/94	J. J. [unclear]	[unclear]	[unclear]
68	REVISED FOR CONSTRUCTION	05/15/94	J. J. [unclear]	[unclear]	[unclear]
69	REVISED FOR CONSTRUCTION	06/15/94	J. J. [unclear]	[unclear]	[unclear]
70	REVISED FOR CONSTRUCTION	07/15/94	J. J. [unclear]	[unclear]	[unclear]
71	REVISED FOR CONSTRUCTION	08/15/94	J. J. [unclear]	[unclear]	[unclear]
72	REVISED FOR CONSTRUCTION	09/15/94	J. J. [unclear]	[unclear]	[unclear]
73	REVISED FOR CONSTRUCTION	10/15/94	J. J. [unclear]	[unclear]	[unclear]
74	REVISED FOR CONSTRUCTION	11/15/94	J. J. [unclear]	[unclear]	[unclear]
75	REVISED FOR CONSTRUCTION	12/15/94	J. J. [unclear]	[unclear]	[unclear]
76	REVISED FOR CONSTRUCTION	01/15/95	J. J. [unclear]	[unclear]	[unclear]
77	REVISED FOR CONSTRUCTION	02/15/95	J. J. [unclear]	[unclear]	[unclear]
78	REVISED FOR CONSTRUCTION	03/15/95	J. J. [unclear]	[unclear]	[unclear]
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82	REVISED FOR CONSTRUCTION	07/15/95	J. J. [unclear]	[unclear]	[unclear]
83	REVISED FOR CONSTRUCTION	08/15/95	J. J. [unclear]	[unclear]	[unclear]
84	REVISED FOR CONSTRUCTION	09/15/95	J. J. [unclear]	[unclear]	[unclear]
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87	REVISED FOR CONSTRUCTION	12/15/95	J. J. [unclear]	[unclear]	[unclear]
88	REVISED FOR CONSTRUCTION	01/15/96	J. J. [unclear]	[unclear]	[unclear]
89	REVISED FOR CONSTRUCTION	02/15/96	J. J. [unclear]	[unclear]	[unclear]
90	REVISED FOR CONSTRUCTION	03/15/96	J. J. [unclear]	[unclear]	[unclear]
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93	REVISED FOR CONSTRUCTION	06/15/96	J. J. [unclear]	[unclear]	[unclear]
94	REVISED FOR CONSTRUCTION	07/15/96	J. J. [unclear]	[unclear]	[unclear]
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97	REVISED FOR CONSTRUCTION	10/15/96	J. J. [unclear]	[unclear]	[unclear]
98	REVISED FOR CONSTRUCTION	11/15/96	J. J. [unclear]	[unclear]	[unclear]
99	REVISED FOR CONSTRUCTION	12/15/96	J. J. [unclear]	[unclear]	[unclear]
100	REVISED FOR CONSTRUCTION	01/15/97	J. J. [unclear]	[unclear]	[unclear]

SECTIONS AND DETAILS SH1.1

PHILADELPHIA COUNTY RECOVERY FACILITY - AND RECOVERY PRODUCT

DATE: 08/15/96

PROJECT: 0846-M-01C-D

