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ORLANDO, FLORIDA 32801  
(305) 422-4800  
OF COUNSEL  
ALFREDO G. DURAN

DER  
APR 6 1987  
BAQM

PUROLATOR

April 3, 1987

Bruce P. Miller, Chief  
Air Programs Branch  
Air, Pesticides, and Toxics  
Management Division  
U.S. EPA, Region IV  
345 Courtland Street  
Atlanta, GA 30365

Re: Pinellas County Resource Recovery  
Facility - Unit 3  
PSD-FL-098

Dear Mr. Miller:

On behalf of Pinellas County and its Department of Solid Waste Management thank you for the opportunity to review the draft PSD permit and provide written comments.

Unfortunately, we note that most of our original concerns and objections still apply to the contents of this draft permit. Although we have repeatedly expressed our position with regard to the permit and its conditions and have provided detailed documentation to support our contentions, we have attached a list of specific objections relative to the March 13, 1987 draft PSD permit which must be resolved in a manner more favorable to Pinellas County before we can accept another permit without seeking administrative or judicial relief.

May I remind you that Pinellas County undertook, in good

Bruce P. Miller, Chief  
Air Programs Branch  
April 3, 1987  
Page 2

faith, to construct Unit 3 after submitting all necessary applications and receiving all required permits. Pinellas County entered into a contract in 1983 and issued bonds in the amount 83.375 million dollars to construct Unit 3 in accordance with these permits. Pinellas County remains committed to compliance with the permits and conditions of certification previously issued.

It was not until November, 1985 that the EPA first advised Pinellas County of its position that Pinellas County did not have a valid PSD permit. At that time construction of Unit 3 was 90% complete. It is our understanding that EPA's position was premised on a determination that PSD permit delegation to the State of Florida, Department of Environmental Regulation, was improper because the State's permitting procedure did not provide for precisely the same notice requirements regarding issuance or for federal enforceability. In light of the fact that new notices pursuant to EPA requirements were published in 1986 and elicited no new comments or objections other than your own, and our previous representation to you agreeing to federal enforceability, the unique circumstances associated with the construction of this facility do not warrant the unreasonable and unfair permit conditions you seek to impose.

Furthermore, contrary to the assurances of you and your staff, the EPA PSD permit procedure you have applied to Pinellas County is not based on BACT at the time Pinellas County first applied for a permit (August 31, 1983) but rather is based on 1986 review criteria and fails to recognize that the facility has been completely constructed.

Accordingly, as it appears that the draft PSD permit you are prepared to issue can not or will not be modified, Pinellas County staff and myself have recommended to the Board of County Commissioners that Pinellas County object and oppose the draft permit and reassert and establish our entitlement to the previously issued permits through all available legal or administrative processes. This matter has been scheduled for the Board's consideration on April 14, 1987.

We sincerely regret that this course of action appears

Bruce P. Miller, Chief  
Air Programs Branch  
April 3, 1987  
Page 3

necessary to protect Pinellas County's rights and substantial investments in the construction of this facility and implore you to reconsider the ramifications of your intended action.

Sincerely,

*Van B. Cook*

VAN B. COOK  
Stearns Weaver Miller Weissler  
Alhadeff & Sitterson, P.A.  
Special Counsel to  
Pinellas County

VBC/dl

Attachment

cc: Jack E. Ravan,  
Regional Administrator  
Region IV

James H. Sargent, Esq.  
Regional Counsel  
Region IV - EPA

Jewell A. Harper, Esq.  
Office of Regional Counsel

Francis S. Blake, Esq.  
EPA - Washington, General  
Counsel

Susan L. Smith, Esq.  
Dept. of Justice - Washington

Steve Smallwood, DER

Robert VanDeman, Director  
Pinellas County Dept. of  
Solid Waste

Susan H. Churuti,  
Acting County Attorney - Pinellas

ATTACHMENT

Objections to Proposed PSD Permit (PSD-FL-098)  
Pinellas County Resource Recovery Facility - Unit 3

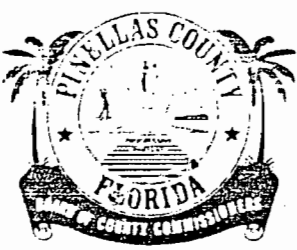
Proposed By

EPA

Pinellas Co.

Specific Conditions

1. Emission Limitations		
(a) Stack Emissions		
(1) Particulate matter	0.020	0.030
(2) Visible Emissions	15%	20%
(6) Lead	1.31 lbs/hr	4.4
(7) Fluorides	6.70 lbs/hr	10.94
(8) Beryllium	8.44 x 10 <sup>-5</sup> lbs/hr	None
(10) Enclosed Ash Handling	Required	No
Negative Air Pressured	Required	No
(b) Thermal limit	393.75 mmbtu/hr	lbs/hr steam
(c) Compliance Tests		
(2), i Carbon Monoxide	Continuous	No
2. Boiler Efficiency		
Appendix - I	Test	No



# BOARD OF COUNTY COMMISSIONERS

DEPARTMENT OF SOLID WASTE MANAGEMENT  
2800 110TH AVENUE NORTH  
ST. PETERSBURG, FLORIDA 33702  
PHONE (813) 825-1565



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

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GEORGE GREER, CHAIRMAN  
JOHN CHESNUT, JR. VICE-CHAIRMAN  
CHARLES E. RAINEY  
BARBARA SHEEN TODD  
BRUCE TYNDALL

DER

MAY 29 1987

BAQM

May 26, 1987

Mr. Hamilton S. Oven  
State of Florida  
Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Dear Mr. Oven:

In accordance with your Departments December 12, 1986 letter, we have enclosed air emission test results for Pinellas Unit No. 3 demonstrating compliance with out Conditions of Certification, No. 83-18.

Please advise if you require additional information.

Sincerely,

SOLID WASTE MANAGEMENT

Michael J. Rudd, Assistant Director  
Solid Waste Management

MJR/pmj  
Enclosure  
0515M

cc: Mr. Clair Fancy, DER  
Mr. Dean Simeroth, California Air Resources with enclosure.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30365

SEP 21 1987

4APT/APB-am

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Robert Van Deman, P.E., Director  
Pinellas County Department of  
Solid Waste Management  
2800 110th Avenue North  
St. Petersburg, Florida 33702

DER  
SEP 28 1987  
BAQM

Re: Pinellas County Resource Recovery Facility - Unit 3  
(PSD-FL-098)

Dear Mr. Van Deman:

This is in regard to your teleconference with members of my staff on August 28, 1987, in which we agreed to modify certain conditions in the PSD permit issued by EPA on June 9, 1987. The agreed modifications for particulate matter, fluoride, and beryllium emissions appear on the enclosed replacement pages for the permit (pages 1R and 4R) and final determination (pages 3, 4, 6, 18, and 21). These modifications will supersede the corresponding conditions in the original permit and final determination if Pinellas County dismisses its Petition for Administrative Review filed with the Administrator, PSD Appeal No. 87-2, Docket No. PSD-FL-028. Furthermore, it is our understanding that your counsel will promptly prepare a stipulation and order of dismissal to be jointly signed by Pinellas County and EPA. Your modified PSD permit will then become effective upon dismissal of the Petition.

If you have any questions regarding this letter or the enclosures, you may contact me at (404) 347-4727 or Mr. Bruce P. Miller of my staff at (404) 347-2864.

Sincerely yours,

*Lee A. DeHihns, III*

Lee A. DeHihns, III  
Acting Regional Administrator

Enclosures

cc: Steve Smallwood, Chief  
Bureau of Air Quality  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Copied: Pradeep Raval  
Jan Roger  
Barry Andrews } 12/4/87 (mr)  
CHFL BT

*July*

PART I. - Specific Conditions

1. Emission Limitations

a. Stack emissions from Unit 3 shall not exceed the following:

- (1) Particulate: 0.030 grains per dry standard cubic foot (corrected to 12% CO<sub>2</sub>).
- (2) Visible Emissions: Opacity of stack emissions shall not be greater than 15% opacity.
- (3) SO<sub>2</sub>: 170.0 lbs/hr
- (4) Nitrogen Oxides: 254.0 lbs/hr
- (5) Carbon Monoxide: 66.0 lbs/hr
- (6) Lead: 2.80 lbs/hr
- (7) Fluorides: 8.31 lbs/hr  
The Agency and the applicant mutually agree that actual test data may demonstrate that a higher emission limit is required. Any request for modification shall be in accordance with the requirements of the Florida PSD regulations (Chap. 17-2.500).
- (8) Beryllium:  $9.0 \times 10^{-5}$  lbs/hr  
The Agency and the applicant mutually agree that actual test data may demonstrate that a higher emission limit is required because the unit's emission controls are for particulate (PM) control only, without regard to the composition of the particulate matter. Any request for modification shall be in accordance with the requirements of the Florida PSD regulations (Chap. 17-2.500).
- (9) Mercury: 0.294 lbs/hr when more than 2205 lbs/day of municipal sludge is fired.
- (10) There shall be a 10% opacity limit for emissions from the refuse bunker and ash handling loadout. The potential for dust generation by ash handling activities will be mitigated by quenching the ash prior to loading in ash transport trucks and/or scrap piles.
- (11) Unit #3 is subject to 40 CFR Part 60, Subpart E, New Source Performance Standards, except that where requirements in this permit are more restrictive, the requirements in this permit shall apply.

- (2) CEM data recorded during periods of startup, shutdown, and malfunction shall be reported but excluded from compliance averaging periods for CO and opacity.
  - (3) Excess emissions for CO emissions shall be defined as any applicable period during which the average emissions of CO, as measured by the CEM, exceeds 150 ppm (4-day rolling average, dry volume, corrected to 8% O<sub>2</sub>).
  - (4) Excess opacity resulting from startup or shutdown or malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess opacity shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by EPA for longer duration.
8. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup or shutdown shall be prohibited.

9. Reporting

- a. A copy of the results of the stack tests shall be submitted within forty-five days of testing to the Florida DER Bureau of Air Quality Management, the DER Southwest Florida District Office, Pinellas County Department of Environmental Management, and EPA Region IV.
- b. Stack monitoring shall be reported to the DER Southwest District Office and EPA Region IV on a quarterly basis in accordance with Section 17-2.710, FAC, and 40 CFR Part 60.7.
- c. Addresses for submitting reports are:

EPA, Region IV

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

Florida Department of Environmental Regulation (DER)

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



III. PSD APPLICABILITY DETERMINATION

Title 40 Code of Federal Regulations, Section 52.21, requires that each pollutant subject to PSD review must be controlled by BACT. Seven pollutants are subject to BACT. The BACT emission limits proposed are summarized as follows:

<u>Pollutant</u>	<u>BACT EMISSION LIMITS</u>
Particulate Matter	0.030 gr/dscf (corrected to 12% CO <sub>2</sub> )
Sulfur Dioxide	170.0 lbs/hr
Nitrogen Oxides	254.0 lbs/hr
Carbon Monoxide	66.0 lbs/hr
Lead	2.80 lbs/hr
Mercury	0.294 lbs/hr (1)
Fluorides	8.31 lbs/hr (2)

Based upon these air pollutant emission limits, the calculated total annual tonnage of regulated air pollutant emitted from the units to the atmosphere is listed as follows:

<u>Pollutant</u>	<u>Maximum Annual Emissions (tons/year)</u>	<u>PSD Significant Emissions Rate (tons/year)</u>
Particulate (PM)	109	25
Sulfur Dioxide (SO <sub>2</sub> )	745	40
Nitrogen Dioxide (NO)	1112	40
Carbon Monoxide (CO)	289	100
Lead (Pb)	12.3	0.6
Mercury (Hg)	1.29	0.1
Fluorides (F)	36.4	3
Beryllium (Be)	0.000394 (3) (2)	0.0004

- (1) When more than 2205 lbs/day of municipal sludge is fired.
- (2) The Agency and the applicant mutually agree that actual test data may demonstrate that a higher emission limit is required. Any request for a modification of this limit shall be in accordance with the requirements of the Florida PSD regulations (Chap. 17-2.500).
- (3) An emission limitation is included in the permit to limit these emissions to below the PSD significant emissions rate.

#### IV. BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

##### A. Particulate Matter

NSPS for incinerators limit particulate emissions from this unit to 0.08 grains per dry standard cubic foot (gr/dscf) based on a 12% flue gas concentration of carbon dioxide. However, BACT clearinghouse reports incinerators emission limits to be from 0.01 to 0.03 gr/dscf.

In performing the BACT determination, EPA decided to take into account what BACT would have been in 1983 due to the time elapsed from the commencement of construction authorized under Florida rule and the application for a federally enforceable PSD permit. EPA has determined that a particulate emissions limit of 0.03 gr/dscf represents BACT for this facility.

##### B. Sulfur Dioxide

The emissions of sulfur dioxide from municipal solid waste incinerators depends on three factors. These factors are: the sulfur content of the waste, the conversion of organic and inorganic sulfur compounds to sulfur dioxide, and the retention of the sulfur dioxide in the ash. Emission test data for a multitude of solid waste combustion facilities is contained in the California Air Resources Board Report. These data indicate that emissions of SO<sub>2</sub> from these facilities range from 0.4 to 7.2 pounds of SO<sub>2</sub> per ton of solid waste fired. The proposed emission limit of 170 pounds per hour, equivalent to 3.9 pounds of SO<sub>2</sub> per ton of solid waste fired, is in the middle of this expected range and is determined to be BACT for this source. (It should be noted that acid gas controls were not considered to be BACT for SO<sub>2</sub> emissions at the time of the application (1983).)

##### C. Nitrogen Oxides

During combustion of municipal solid waste, NO<sub>x</sub> is formed in high temperature zones in and around the furnace flame by the oxidation of atmospheric nitrogen and nitrogen in the waste. The two primary variables that affect the formation of NO<sub>x</sub> are the temperature and the concentration of oxygen. Techniques such as the method of fuel firing to provide correct distribution of combustion air between overfire and underfire air, exhaust gas recirculation, and decreased heat release rates have been used to reduce NO<sub>x</sub> emissions. A few add-on control techniques such as catalytic reduction with ammonia and thermal de-NO<sub>x</sub> are still experimental, and are not considered to be demonstrated technology for the proposed project.

G. Fluorides

The incineration of fluorine containing wastes results in the emissions of both particulate fluoride and gaseous fluoride (as hydrogen fluoride) emissions. Emission tests have reported fluoride emissions to be from 0.0002 to 0.2 lbs/ton MSW. The emission rate determined to be BACT is 8.31 lbs/hr. However, the Agency and the applicant mutually agree that actual test data may demonstrate that a higher emissions limit is required as no control for this pollutant has been installed at this facility. Any request for modification shall be in accordance with the requirements of the Florida PSD regulations (Chap. 17-2.500).

VII. FINAL PERMIT CONDITIONS

PART I. - Specific Conditions

1. Emission Limitations

a. Stack emissions from Unit 3 shall not exceed the following:

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- (2) Visible Emissions: Opacity of stack emissions shall not be greater than 15% opacity.
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The Agency and the applicant mutually agree that actual test data may demonstrate that a higher emission limit is required. Any request for modification shall be in accordance with the requirements of the Florida PSD regulations (Chap. 17-2.500).
- (8) Beryllium:  $9.0 \times 10^{-5}$  lbs/hr  
The Agency and the applicant mutually agree that actual test data may demonstrate that a higher emission limit is required because the unit's emission controls are for particulate (PM) control only, without regard to the composition of the particulate matter. Any request for modification shall be in accordance with the requirements of the Florida PSD regulations (Chap. 17-2.500).
- (9) Mercury: 0.294 lbs/hr when more than 2205 lbs/day of municipal sludge is fired.
- (10) There shall be a 10% opacity limit for emissions from the refuse bunker and ash handling loadout. The potential for dust generation by ash handling activities will be mitigated by quenching the ash prior to loading in ash transport trucks and/or scrap piles.
- (11) Unit #3 is subject to 40 CFR Part 60, Subpart E, New Source Performance Standards, except that where requirements in this permit are more restrictive, the requirements in this permit shall apply.

- (2) CEM data recorded during periods of startup, shutdown, and malfunction shall be reported but excluded from compliance averaging periods for CO and opacity.
  - (3) Excess emissions for CO emissions shall be defined as any applicable period during which the average emissions of CO, as measured by the CEM, exceeds 150 ppm (4-day rolling average, dry volume, corrected to 8% O<sub>2</sub>).
  - (4) Excess opacity resulting from startup or shutdown or malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess opacity shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by EPA for longer duration.
8. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup or shutdown shall be prohibited.

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- a. A copy of the results of the stack tests shall be submitted within forty-five days of testing to the Florida DER Bureau of Air Quality Management, the DER Southwest Florida District Office, Pinellas County Department of Environmental Management, and EPA Region IV.
- b. Stack monitoring shall be reported to the DER Southwest District Office and EPA Region IV on a quarterly basis in accordance with Section 17-2.710, FAC, and 40 CFR Part 60.7.
- c. Addresses for submitting reports are:

EPA, Region IV

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U. S. Environmental Protection Agency  
345 Courtland Street, N.E.  
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Florida Department of Environmental Regulation (DER)

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