

# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

September 26, 1988

Mr. Louis R. Tortora, P.E.  
Camp, Dresser, & McKee Inc.  
1321 U.S. 19S, Suite 100B  
Clearwater, Florida 34624


Dear Mr. Tortora:

Re: Pasco County Resource Recovery Facility  
PSD-FL-127

Please find enclosed a copy of the above referenced permit, which is based on the power plant site certification.

If you have any questions, please call Pradeep Raval at (904)488-1344 or write to me at the above address.

Sincerely,

*for* 

C. H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality  
Management

CHF/PR/s

Final Determination

Pasco County Resource Recovery Facility  
Pasco County, Florida

Permit No. PSD-FL-127

Florida Department of Environmental Regulation  
Bureau of Air Quality Management  
Central Air Permitting

September 19, 1988

## Final Determination

Pasco County's PSD permit application (part of the Power Plant Siting application) for a resource recovery facility in Pasco County, Florida, has been reviewed by the Bureau of Air Quality Management. Comments received concerning the proposed PSD permit are addressed in a chronological order.

I. Comments received from David Dee, on behalf of Pasco County (see Attachment 2), are addressed below.

1. The correction of the latitude/longitude of the facility is accepted as an amendment to the PSD application (Volume III), and the change will be reflected in the permit.
2. The request to allow a charging rate of upto 115% of the design capacity for the combustors cannot be granted because the resultant potential emissions would exceed the maximum emissions considered in the project evaluation. However, the Department can allow a charging rate of upto 114% of design capacity, at which level the potential emissions would match the maximum emissions evaluated for the project. Specific Condition (SC) No. 3 will be amended to reflect this.
3. SC No. 2.b. will be restated to distinguish between control of SO<sub>2</sub> emissions and control of other acid gases (namely HCl, H<sub>2</sub>SO<sub>4</sub> mist, and fluorides).
4. The particulate matter emission limitation will remain 0.0150 gr/dscf, as this is consistent with recently issued PSD permits for similar facilities.
5. In SC No. 3, DER will change the emission limit for mercury to 0.112 lb/hr, as requested. The emission limits for SO<sub>2</sub>, CO, and lead, will also be changed to 31.4, 54.7, and 0.098 lb/hr, respectively, to maintain consistency in the calculations.
6. Compliance testing at  $\pm 10\%$  of the rated 140 MMBTU/hr heat input rate is acceptable to DER and shall be incorporated into Specific Condition No. 4.e.
7. The O<sub>2</sub> CEM has been required as an indicator of good combustion for all recently permitted similar facilities. SC No. 5 will remain unchanged.
8. Monitoring of the furnace exit gas temperature (FEGT) at the economizer outlet, as proposed by Pasco County, is not acceptable because EPA requires the FEGT monitoring to be conducted as near the over-fire air fully-mixed zone in the

furnace as possible. The difference between the FEGT and the flue gas temperature at the economizer outlet, and the number of variables affecting that temperature difference, would be too great to make a reasonably accurate correlation as required.

II. In consideration of comments from the Central Air Permitting Staff, the following changes will be made in the proposed permit:

1. The reference to "design" will be deleted from SC Nos. 1.c., 2.b., and 2.c., to emphasize the performance of the facility.
2. Compliance test method 25A will be deleted from SC No. 4 as it may not be appropriate for the testing of VOC emissions from this facility.
3. SC Nos. 7.a., 7.b. and 8, will be standardized to reflect the wording used in other permits issued by DER for similar projects.

III. In consideration of the comments from the Southwest District office received by telephone on September 8, the following changes will be made in the proposed permit.

1. The project description on the first page will mention the design heat input rate of the combustors.
2. A requirement for the notification to DER of the air pollution control equipment and combustor to be purchased will be added to SC No. 2.
3. A SC will be added stating that the facility shall be operated in a manner which would preclude objectionable odors.
4. A SC will be added stating that reasonable precautions shall be taken to prevent/control unconfined emissions.
5. SC No. 7 will include a specific reference to the Southwest District office.
6. A requirement will be added to SC No. 4 requiring the permittee to submit to DER the pertinent operating parameters of the control devices, which would indicate proper operation.
7. A requirement will be added to SC No. 4 for the prior approval of DER for the location of the stack sampling platform.

IV. In consideration of comments dated September 8, 1988, from EPA Region IV (see Attachment 3), the following changes will be made to the proposed permit:

1. Emission limits for CO and SO<sub>2</sub> will be amended by including time averages as requested. However, the 24-hr limit for SO<sub>2</sub> does not seem practical.
2. Although the 0.643 lb/MM BTU nitrogen oxides (NO<sub>x</sub>) emission limitation exceeds the values for other municipal waste combustors (MWCs) in Florida, the Bureau believes that this level is representative of the NO<sub>x</sub> emissions that are emitted from modern MWCs. Modern MWCs are designed to achieve high combustion efficiencies which require high operating temperatures resulting in higher than one time anticipated NO<sub>x</sub> emissions. This is evident from recent permitting actions in which the original permitted NO<sub>x</sub> emissions limitations for MWCs in Oregon, Oklahoma, and Florida were modified to reflect the actual emissions tested.
3. The compliance testing requirements will be amended to reflect that the 1987 version of 40 CFR 60 and 61 is quoted as reference. The specific mention of the number of test runs, sample volumes, and sampling times will be incorporated into future permits after further clarification from EPA.
4. Public hearings were held both during the day and at night where the issues of air toxics and unregulated pollutants were discussed.
5. The decision for not choosing de-NO<sub>x</sub> controls as BACT for NO<sub>x</sub> was primarily based on economics. The economic analysis of using catalytic reduction indicated that the cost would be more than twice the cost guideline that is used for BACT purposes. In addition, the use of de-NO<sub>x</sub> control has not been extensive to the point of being considered well proven technology for MWCs. In the United States, only one facility (Commerce, California) has operating experience using de-NO<sub>x</sub> control (approximately 1 year at the time of the Pasco County Facility permit review). Because de-NO<sub>x</sub> control operation experience is limited, the long term cost of operating this technology is uncertain and estimates have indicated that the actual cost may be greater than those submitted for the Pasco County Facility.
6. DER does not intend to delete the requirement for an O<sub>2</sub> CEM from the proposed permit.
7. DER will clarify that the required temperature monitor should be placed as close to the fully mixed zone as possible.

The final action of the Department will be to issue the permit as proposed with the above mentioned amendments.

ATTACHMENT 3



PM  
9-7-88  
Atlanta, GA

file 207

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30365

RECEIVED  
SEP 12 1988  
DER-BAQM

SEP 03 1988

4APT/APB-aes

Mr. C. H. Fancy, Deputy Bureau Chief  
Florida Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Re: Pasco County Resource Recovery Facility (PSD-FL-127)

Dear Mr. Fancy:

Our office has reviewed the draft permit and the preliminary determination package for the proposed construction of the Pasco County Resource Recovery Facility (RRF), as well as the letter to your office from David Dee of the Carlton, Fields, Ward, Emmanuel, Smith and Cutler law offices. The permit was reviewed under the Region IV Overview of State Programs policy. We offer the following comments:

Draft Permit

In order for the permit to be more sufficient and enforceable, additional permit conditions are necessary for the flue gas emissions of each source. It is our policy that, for criteria pollutants, emission limits should specify the same averaging times as are indicated in the National Ambient Air Quality Standards (NAAQS). For example, your draft permit specifies that an eight-hour rolling average be used in determining the emission limits for carbon monoxide. Because the NAAQS for carbon monoxide was determined by using an eight-hour and a one-hour averaging times, we recommend the use of both averaging time standards in your permit. Likewise, for sulfur dioxide, a 24-hour and a three-hour average need to be specified.

Concerning the permit's emission limit for nitrogen oxides (0.643 lb/MMBTU), this limit exceeds values specified in other permits for municipal waste incinerators in Florida. Therefore, we do not consider this limit to represent BACT. For example, similar emission sources in Florida specify emission limits for nitrogen oxides (NO<sub>x</sub>) without de-NO<sub>x</sub> controls at approximately 0.051 lb/MMBTU.

Additional information is also needed in your discussion of compliance testing. When designating the test method to be used for compliance testing, you must specify which versions of 40 CFR Parts 60 and 61 are to be used. Also, for pollutants not subject to New Source Performance Standards (NSPS), you must indicate each pollutant's sample volume, sampling time, and the number of test runs for each test method specified. Concerning the Pasco County RRF permits, sampling times, test methods, etc., need to be specified for the following pollutants: Sulfur Dioxide, Nitrogen Oxides, Lead, Fluoride, Mercury, and Beryllium.

#### Public Notice

The public notice did not mention that toxics or unregulated pollutants were considered in determining BACT for this source. This causes the public notice to be deficient. However, if a public hearing was held and the public was informed of potential air toxic pollutants that would be emitted from the facility, then that would satisfy our concerns of a deficient public notice.

#### BACT Determination

We do not feel that the BACT analysis for NO<sub>x</sub> was properly performed as insufficient arguments were given for not<sup>x</sup> choosing the "top" control technology. We request that additional information be provided which shows unique and convincing arguments as to why de-NO<sub>x</sub> controls cannot be applied to this source. Based on the information we received, the cost to control NO<sub>x</sub> may be reasonable. Also, your argument that BACT analysis for NO<sub>x</sub> is not necessary because the ambient impact of increased NO<sub>x</sub> is not significant is completely unacceptable. The use of air quality modeling results to justify not using a certain level of BACT is also unacceptable. Ambient impacts do not drive the BACT determination. Ambient impacts only serve as a check to ensure that NAAQS and increments are met once a level of BACT is chosen.

#### Letter from Carton, Fields, Ward, Emmanuel, Smith and Cutler Offices - Attorneys at Law

Item 7 states that the requirement for an oxygen monitor should be deleted from Pasco County's draft permit; however, EPA's policy dictates that oxygen concentrations of exhaust gases be monitored continuously (see EPA memorandum on Operational Guidance on Control Technology for New and Modified Municipal Waste Combustors, dated June 26, 1987).



In item 8, it was assumed that the temperature probe would be located after the economizer. This is unacceptable. The location selected for measuring combustion temperatures should be based on sound engineering analysis and is usually as close as possible to the "fully mixed height," or the point beyond the final air addition where complete mixing should have occurred. We request that this point be clarified with Pasco County and the location of the temperature probe be indicated in the permit, if possible.

Thank you for the opportunity for providing our input. If you have any additional information or comments, please contact me or Karrie-Jo Shell of my staff at (404) 347-2864.

Sincerely yours,

*Wayne J. Amon / Acting for*

Bruce P. Miller, Chief  
Air Programs Branch  
Air, Pesticides, and Toxics  
Management Division

*Copied to: Pradeep Raval  
Barry Andrews  
Bill Thomas, SW Dist  
CHF/BT*

ATTACHMENT 1

Available Upon Request.

ATTACHMENT 2

PM  
8-11-84  
S. C. Caldwell, FL

file copy

CARLTON, FIELDS, WARD, EMMANUEL, SMITH & CUTLER, P. A.  
ATTORNEYS AT LAW

ONE HARBOUR PLACE  
P. O. BOX 3239  
TAMPA, FLORIDA 33601  
(813) 223-7000

FIRSTSTATE TOWER  
P. O. BOX 1171  
ORLANDO, FLORIDA 32802  
(407) 849-0300

HARBOURVIEW BUILDING  
P. O. BOX 12426  
PENSACOLA, FLORIDA 32582  
(904) 434-0142

FIRST FLORIDA BANK BUILDING  
P. O. DRAWER 190  
TALLAHASSEE, FLORIDA 32302  
(904) 224-1585

RECEIVED

PLEASE REPLY TO:

August 10, 1988

AUG 12 1988

Tallahassee

C. H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality Management  
Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

DER-BAQM

Re: Pasco County Resource Recovery Facility  
PSD-FL-127

Dear Mr. Fancy:

On behalf of Pasco County, we have reviewed the Department's draft PSD permit for the Pasco County resource recovery facility. Our comments concerning the draft permit are set forth below.

1. On page 1 of the draft permit, the latitude and longitude should be modified because they are different than the coordinates presented in Pasco County's application for site certification.

2. On page 5, Specific Condition No. 1.b. should be modified to state that the maximum throughput "shall not exceed 115% of either the design MSW charging rate of 350 TPD or the heat input rate of 140 MMBtu/hr." The Department has historically authorized resource recovery facilities to operate at a throughput up to 115% of the design capacity. This practice is recognized in the Conditions of Certification for Pasco County which authorize a throughput of 115% of the design capacity. See Conditions of Certification, page 11, §XIV., ¶ A.1.c. We believe this condition should be changed because it is extremely important for the County to have the ability to operate at a throughput up to 115% of the nameplate capacity.

3. On page 6, Specific Condition No. 2.b. refers to 90% removal of "acid gases." To avoid confusion, it should be changed to refer to hydrogen chloride (HCL).

C. H. Fancy  
Page Two  
August 10, 1988

4. On page 6, Specific Condition No. 3.a. should refer to a particulate emission limit of 0.015 grains/dscf, rather than 0.0150 grains/dscf.

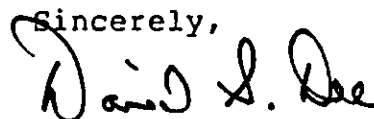
5. On page 8, the Specific Conditions contain a table of projected emissions. Our calculations indicate that the projected emissions for mercury will be 0.112 lbs/hr, rather than 0.105 lbs/hr.

6. On page 9, Specific Condition No. 4.e. should be modified to indicate that compliance tests shall be conducted at  $\pm 10\%$  of the nameplate BTU rating (i.e., 140 million BTU). As written, the draft condition suggests that a compliance test must be conducted precisely at the maximum capacity. We believe it is very important to modify this condition because it implies that there can be no flexibility in the operating conditions at the time of the compliance test.

7. On page 10, Specific Condition No. 5 requires continuous emission monitors for various substances, including oxygen. The conditions of certification for the Pasco County facility do not require a continuous emission monitor for oxygen. See Conditions of Certification at page 12, §XIV., ¶A.3.a. Accordingly, we believe the requirement for an oxygen monitor should be deleted from the draft permit.

8. On page 11, Specific Condition No. 6.a. requires continuous monitoring of the furnace exit gas temperatures. We do not know precisely where DER wants the monitor to be located for the furnace exit gas, but we assume that the monitor should be located at the economizer outlet. If our assumption is correct, we have no objections to this requirement.

Thank you for providing us with this opportunity to submit comments concerning the draft permit. Please call us if you have any questions.

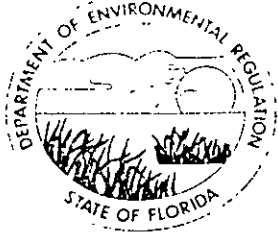
Sincerely,  


David S. Dee

cc: Ben Harrill  
John Gallagher  
Bob Hauser  
Don Elias

DSD/vc:FANCY  
*copied: Madrup Raval*  
*Tom Rogers*  
*Bill Thomas, SW Dist.*  
*David Miller, EPA*  
*Michael Adams, DPE*

*Barry Anderson*



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2000 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twitchmann, Secretary

John Shuman, Assistant Secretary

PERMITTEE:  
Pasco County  
7536 State Street  
New Port Richey, FL 33553

Permit Number: PSD-FL-127  
County: Pasco  
Latitude/Longitude: 28° 22' 05"N  
82° 33' 30"W  
Project: Pasco County Resource  
Recovery Facility Units 1, 2 and 3

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of a municipal solid waste (MSW) resource recovery facility with an ultimate capacity of 1200 TPD (tons per day), generating 29 MW of electricity. Initially, three combustors will be installed each with a design capacity of 350 TPD (total of 1050 TPD for the facility). The design rated heat input capacity of each unit will be 140 MMBTU/hr. The normal operating range of each unit will be between 80% and a maximum of 114% of the design rated capacity. Acid gases and particulates will be controlled by dry scrubber and baghouse technology. DER will be notified of the final choice of control/combustor equipment. The power plant site certification number for this project is PA 87-23.

Construction shall be in accordance with the attached permit application and additional information except as otherwise noted in the Specific Conditions.

Attachments are as follows:

1. Power Plant Site Certification package PA 87-23 and its associated attachments, dated April 4, 1988.
2. Letter from David Dee, for Pasco County, of August 10, 1983.
3. Letter from EPA dated September 8, 1988.
4. DER's Final Determination dated September 14, 1988.

PERMITTEE: Pasco County

Permit Number: PSD-FL-127

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE: Pasco County

Permit Number: PSD-FL-127

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.



PERMITTEE: Pasco County

Permit Number: PSD-FL-127

**GENERAL CONDITIONS:**

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT)
- (x) Determination of Prevention of Significant Deterioration (PSD)
- (x) Compliance with New Source Performance Standards.

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. Municipal Solid Waste Combustor

- a. Each of the three municipal waste combustors (MWC) shall have a design rated capacity of 350 tons municipal solid waste (MSW) per day, 140 million Btu heat input per hour, assuming a heating value of 4,800 Btu per pound.
- b. The maximum individual MWC's throughput shall not exceed 114% of either the design MSW charging rate of 350 TPD or the heat input rate of 140 MMBTU/hr.

SPECIFIC CONDITIONS:

- c. The furnace mean temperature at the fully mixed zone of the combustor shall not be less than 1,800°F.
  - d. The normal operating range of the MWC shall be 80% to a maximum of 114% of design rated capacity.
  - e. The MWC shall be fueled with municipal solid waste only. Other wastes shall not be burned without specific prior written approval of Florida DER.
  - f. Auxiliary fuel burner(s) shall be fueled only with natural gas. If the annual capacity factor for gas is greater than 10%, as determined by 40 CFR 60.43b(d), the facility shall be subject to 40 CFR 60.44b, standards for nitrogen oxides.
  - g. Auxiliary fuel burner(s) shall be used at start up during the introduction of MSW fuel until design furnace gas temperature is achieved.
  - h. The facility may operate continuously (8760 hrs/yr).
2. Air Pollution Control Equipment Design
- a. Each MWC shall be equipped with a baghouse for particulate emission control.
  - b. Each MWC shall be equipped with a dry scrubber for acid gas control, to remove at least 70% of SO<sub>2</sub> and 90% of other acid gases (namely HCL, H<sub>2</sub>SO<sub>4</sub> mist, and fluorides).
  - c. The acid gas emission control system shall be capable of cooling flue gases to an average temperature not exceeding 300°F (3-hour rolling average).
  - d. DER shall be notified of the control devices chosen.
3. Flue gas emissions from each unit shall not exceed the following:
- a. Particulate: 0.0150 grains/dscf corrected to 12% CO<sub>2</sub>
  - b. Sulfur Dioxide: 104 ppm<sub>dv</sub> corrected to 7% O<sub>2</sub> 3-hour (rolling) average, and 60 ppm<sub>dv</sub> corrected to 7% O<sub>2</sub> 6-hour rolling average;

PERMITTEE: Pasco County

Permit Number: PSD-FL-127

SPECIFIC CONDITIONS:

or

70% reduction of uncontrolled SO<sub>2</sub> emissions, 6-hour rolling average. Not to exceed 100 ppmdv corrected to 7% O<sub>2</sub>, 6-hr rolling average.

- c. Nitrogen Oxides: 0.643 lb/MMBtu heat input.
- d. Carbon Monoxide: 400 ppmdv corrected to 7% O<sub>2</sub>, 1-hr average, and 100 ppmdv corrected to 7% O<sub>2</sub>, 8-hr rolling average.
- e. Volatile Organic Compounds: 0.021 lb/MMBtu heat input
- f. Lead: 0.0007 lb/MMBtu heat input
- g. Fluoride: 0.008 lb/MMBtu heat input
- h. Beryllium:  $1.35 \times 10^{-7}$  lb/MMBtu heat input
- i. Mercury: 0.0008 lb/MMBtu heat input
- j. Visible Emissions: Opacity of MWC emissions shall not exceed 15% opacity (6-min. average), except for one 6-min. period per hour of not more than 20% opacity. Excess emissions resulting from startup, shut down, or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to, and the duration of excess emissions are minimized.

For each pollutant for which a continuous emissions monitoring system is required in Condition No. 5, the emission averaging time specified above shall be used to establish operating limits and reportable excess emissions.

PERMITTEE: Pasco County

Permit Number: PSD-FL-127

SPECIFIC CONDITIONS:

Compliance with the permit emission limits shall be determined by EPA reference test methods included in 40 CFR Parts 60 and 61, 1987 version, and listed in Condition No. 4 of this permit. Other DER approved methods may be used only after prior Departmental approval.

For the purpose of establishing specific increment consumption for TSP and SO<sub>2</sub> at the facility, an hourly emission rate shall be established for each pollutant at the time of performance testing using flue gas flow rates (corrected to 12% CO<sub>2</sub> or 7% O<sub>2</sub> at furnace capacity as appropriate) and the applicable concentration limits established above for TSP and SO<sub>2</sub>. Projected emissions are listed below, based on 4800 Btu/lb heat content and 350 TPD MSW charging rate for each combustor (140 MMBTU/hr). Maximum emissions will be 14% above the tabulated values below and will occur at 114% of the design heat input rate.

Pollutant	lb/MMBtu Heat Input	Projected Emissions
		lb/hr 100%
Particulate	0.0322	4.5
Sulfur Dioxide	0.224	31.4
Nitrogen Oxides	0.643	90.0
Carbon Monoxide	0.098 <sup>1</sup> , 0.391 <sup>2</sup>	13.7 <sup>1</sup> , 54.7 <sup>2</sup>
Volatile Organics	0.021	2.9
Fluoride	0.008	1.1
Hydrogen Chloride	0.127	17.8
Sulfuric Acid Mist	0.035	5.0
Lead	7 x 10 <sup>-4</sup>	0.098
Mercury	8 x 10 <sup>-4</sup>	0.112
Beryllium	1.35 x 10 <sup>-7</sup>	1.9 x 10 <sup>-5</sup>
Arsenic	9.1 x 10 <sup>-6</sup>	1.3 x 10 <sup>-3</sup>

<sup>1</sup> 8-hr average

<sup>2</sup> 1-hr average

PERMITTEE: Pasco County

Permit Number: PSD-FL-127

SPECIFIC CONDITIONS:

The combustors are subject to 40 CFR Part 60, Subpart E, and Subpart Db, New Source Performance Standards (NSPS), except that where requirements within the permit are more restrictive, the requirements of the permit shall apply.

4. Compliance Tests

- a. Initial compliance tests for particulate matter, SO<sub>2</sub>, nitrogen oxides, CO, VOC, lead, fluorides, mercury and beryllium shall be conducted in accordance with 40 CFR 60.8 (a), (b), (d), (e), and (f).
- b. Annual compliance test(s) for particulate matter and nitrogen oxides shall be performed.
- c. Compliance with the opacity standard shall be determined in accordance with 40 CFR 60.11(b) and (e).
- d. Compliance with the requirement for 70% control of sulfur dioxide emissions will be determined by using the test methods in Condition 4.f. below or a continuous emission monitoring system for SO<sub>2</sub> emissions, before and after the air pollution control equipment, which meets the requirements of Performance Specification 2 of 40 CFR 60, Appendix B.
- e. The compliance tests shall be conducted within ±10% of the design rated capacity for each permitted fuel.
- f. Prior DER approval shall be obtained for the location of the source sampling platform(s). The following test methods and procedures of 40 CFR Parts 60 and 61 (1987 version) or other DER approved methods with prior DER approval shall be used for compliance testing:
  - (1) Method 1 for selection of sample site and sample traverses.
  - (2) Method 2 for determining stack gas flow rate.
  - (3) Method 3 or 3A for gas analysis for calculation of percent O<sub>2</sub> and CO<sub>2</sub>.
  - (4) Method 4 for determining stack gas moisture content to convert the flow rate from actual standard cubic feet to dry standard cubic feet.
  - (5) Method 5 or Method 17 for concentration of particulate matter.

PERMITTEE: Pasco County

Permit Number: PSD-FL-127

SPECIFIC CONDITIONS:

- (6) Method 9 for visible determination of the opacity of emissions as required in this permit in accordance with 40 CFR 60.11.
  - (7) Method 6, 6C, or 8 for concentration of SO<sub>2</sub>.
  - (8) Method 7, 7A, 7B, 7C, 7D, or 7E for concentration of nitrogen oxides.
  - (9) Method 10 for determination of CO concentration.
  - (10) Method 12 for determination of lead concentration.
  - (11) Method 13B for determination of fluoride concentrations.
  - (12) Method 25 for determination of VOC concentration.
  - (13) Method 101A for determination of mercury emission rate.
  - (14) Method 104 for determination of beryllium emission rate.
- g. The permittee shall submit to DER a list of the pertinent operating parameters which indicate proper operation of the control equipment.

5. Continuous Emission Monitoring

Continuous emission monitors for opacity, oxygen, carbon monoxide, carbon dioxide, and sulfur dioxide shall be installed, calibrated, maintained and operated for each unit.

- a. Each continuous emission monitoring system (CEMS) shall meet performance specifications of 40 CFR 60, Appendix B. The SO<sub>2</sub> CEMS sample point shall be located downstream of control devices for each unit.
- b. CEMS data shall be recorded during periods of startup, shutdown and malfunction but shall be excluded from emission averaging calculations for CO, SO<sub>2</sub>, and opacity.

PERMITTEE: Pasco County

Permit Number: PSD-FL-127

SPECIFIC CONDITIONS:

- c. A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, any other preventable upset condition, or preventable equipment breakdown shall not be considered malfunctions.
- d. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation and operation of all CEMS.
- e. Opacity monitoring system data shall be reduced to 6-minute averages, based on 36 or more data points, and gaseous CEMS data shall be reduced to 1-hour averages, based on 4 or more data points, in accordance with 40 CFR 60.13(h).
- f. Average CO and SO<sub>2</sub> emission concentrations, corrected for O<sub>2</sub>, shall be computed in accordance with the appropriate averaging time periods included in Condition No. 3.
- g. For purposes of reports required under this permit, excess emissions are defined as any calculated average emission concentration, as determined pursuant to Condition No. 5 herein, which exceeds the applicable emission limit in Condition No. 3.

6. Operations Monitoring

- a. Devices shall be installed to continuously monitor and record steam production, furnace exit gas temperature (FEGT) and flue gas temperature at the exit of the acid gas control equipment. A FEGT to combustion zone correlation shall be established to relate furnace temperature at the temperature monitor location (as close to fully mixed zone as possible) to furnace temperature in the overfire air fully mixed zone.
- b. The furnace heat load shall be maintained between 80% and 114% of the design rated capacity during normal operations. The lower limit may be extended provided compliance with the carbon monoxide emissions limit and the FEGT within this permit at the extended turndown rate are achieved.

7. Reporting

- a. A minimum of fifteen (15) days prior notification of compliance testing shall be given to the DER Southwest District Office.



PERMITTEE: Pasco County

Permit Number: PSD-FL-127

SPECIFIC CONDITIONS:

- b. The results of compliance test shall be submitted to the DER district office within 45 days after completion of the test.
- c. The owner or operator shall submit excess emission reports for any calendar quarter during which there are excess emissions from the facility. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report semiannually stating that no excess emissions occurred during the semiannual reporting period. The report shall include the following:
  - (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each period of excess emissions (60.7(c)(1)).
  - (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the furnace boiler system. The nature and cause of any malfunction (if known) and the corrective action taken or preventive measure adopted (60.7(c)(2)).
  - (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments (60.7(c)(3)).
  - (4) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report (60.7(c)(4)).
  - (5) The owner or operator shall maintain a file of all measurements, including continuous monitoring systems performance evaluations; monitoring systems or monitoring device calibration; checks; adjustments and maintenance performed on these systems or devices; and, all other information required by this permit recorded in a permanent form suitable for inspection (60.7(d)).

PERMITTEE: Pasco County

Permit Number: PSD-FL-127

SPECIFIC CONDITIONS:

8. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, the Department must be notified in writing (Rule 17-2, F.A.C.).

9. Any change in the method of operation, fuels, equipment or operating hours shall be submitted for approval to DER's district office.

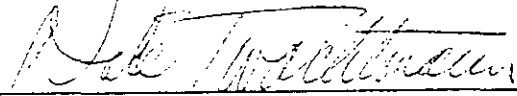
10. This facility shall be operated in such a manner so as to preclude objectionable odors pursuant to F.A.C. Rule 17-2.600(1).

11. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with F.A.C. Rule 17-2.610(3).

12. The permittee shall comply with all the applicable provisions of F.A.C. Chapter 17-2, 17-4, and 40 CFR 60 and 61.

Issued this 22 day of Sep, 1988

STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION

  
Dale Twachtmann, Secretary

P 274 007 450

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.  
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1.  Show to whom delivered, date, and addressee's address. 2.  Restricted Delivery  
↑(Extra charge)↑

3. Article Addressed to:  Mr. Bruce P. Miller Air Programs Branch U.S. EPA, Region IV 345 Courtland Street, N.E. Atlanta, Georgia 30365	4. Article Number P 274 007 460 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail Always obtain signature of addressee or agent and <u>DATE DELIVERED.</u>
5. Signature - Addressee X <i>Charles Davis</i>	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X	
7. Date of Delivery SEP 30 1988	

PS Form 3811, Mar. 1987 \* U.S.G.P.O. 1987-178-268 DOMESTIC RETURN RECEIPT

Mr. Bruce P. Miller, EPA  
345 Courtland St., N.E.  
Atlanta, Georgia 30365

Mailed: 9-26-88  
Permit: PSD-FL-127

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.  
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1.  Show to whom delivered, date, and addressee's address. 2.  Restricted Delivery  
↑(Extra charge)↑

3. Article Addressed to:  Mr. John J. Gallagher County Administrator Pasco County 7536 State Street New Port Richey, FL 33553	4. Article Number P 274 007 459 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail Always obtain signature of addressee or agent and <u>DATE DELIVERED.</u>
5. Signature - Addressee X <i>[Signature]</i>	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X	
7. Date of Delivery 9-28-88	

PS Form 3811, Mar. 1987 \* U.S.G.P.O. 1987-178-268 DOMESTIC RETURN RECEIPT

P 274 007 459  
RECEIPT FOR CERTIFIED MAIL

Mr. John J. Gallagher, Pasco Co.  
7536 State St.  
New Port Richey, FL 33553

Mailed: 9-26-88  
Permit: PSD-FL-127

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.  
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1.  Show to whom delivered, date, and addressee's address. 2.  Restricted Delivery  
↑(Extra charge)↑

3. Article Addressed to:  Mr. W. K. Miller The Citrus Hill Manufacturing Co. P. O. Box 2000 Frostproof, FL 33843	4. Article Number P 274 007 462 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail Always obtain signature of addressee or agent and <u>DATE DELIVERED.</u>
5. Signature - Addressee X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X <i>[Signature]</i>	
7. Date of Delivery 9/29/88	

PS Form 3811, Mar. 1987 \* U.S.G.P.O. 1987-178-268 DOMESTIC RETURN RECEIPT