Florida Department of Environmental Regulation

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

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

July 28, 1988

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. D. S. Beachler
Westinghouse RESD, Cost Bldg.
2400 Ardmore Boulevard
Pittsburg, PA 15221

Dear Mr. Beachler:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit for Bay County Waste-to-Energy Facility located in Panama City, Bay County, Florida.

Please submit, in writing, any comments which you wish to have considered concerning the Department's proposed action to Mr. Bill Thomas of the Bureau of Air Quality Management.

Sincerely,

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

CHF/pr

Attachments

cc: E. Middleswart, NW District
T. Moody, NW District
W. Aronson, EPA
M. Flores, NPS
A. Richter, P.E.
J. Kolk, Audubon Society

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permits by:

Bay Resource Management Center
Westinghouse RESD, Cost Bldg.
2400 Ardmore Boulevard
Pittsburg, PA 15221

DER File Nos. AC 03-145061
03-152196

PSD-FL-129

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue permits (copies attached) for the proposed project as detailed in the applications specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Bay Resource Management Center, applied on February 5, 1988, to the Department of Environmental Regulation for construction permits for the Bay County Waste-to-Energy Facility in Panama City, Bay County, Florida.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit was needed for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, FAC, you (the applicant) are required to publish at your own expense the enclosed Notice of Proposed Agency Action on permit applications. The notice must be published one time only in a section of a major local newspaper of general circulation in the county in which the project is located and within thirty (30) days from receipt of this intent. Proof of publication must be provided to the Department within seven days of publication of the notice. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S. A person whose substantial interests are affected by the

Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. Petitions must comply with the requirement of Florida Administrative Code Rules 17-103.155 and 28-5.201 (copy enclosed) and be filed with (received by) the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant must be filed within fourteen (14) days of receipt of this intent. Petitions filed by other persons must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this intent, whichever first occurs. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes, concerning the subject permit application. Petitions which are not filed in accordance with the above provisions will be dismissed.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

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

Copies furnished to:

E. Middlewart, NW District
T. Moody, NW District
W. Aronson, EPA
M. Flores, NPS
A. Richter, P.E.
J. Kolk, Audubon Society

RULES OF THE ADMINISTRATIVE COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

(1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed, typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.

(2) All petitions filed under these rules should contain:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name and address of the petitioner or petitioners;

(c) All disputed issues of material fact. If there are none, the petition must so indicate;

(d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;

(e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;

(f) A demand for the relief to which the petitioner deems himself entitled; and

(g) Such other information which the petitioner contends is material.

State of Florida
Department of Environmental Regulation
Notice of Intent

The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Bay Resource Management Center for the Bay County Waste-to-Energy Facility located in Panama City, Bay County, Florida. The project involves increasing the charging rate of municipal solid waste from 350 tons per day (TPD) to 510 TPD (current design capacity). There will be increases in emissions of sulfur dioxide, nitrogen oxides, particulate matter, carbon monoxide, volatile organics, fluoride, lead, mercury, beryllium, and acid gases. The project is not expected to have significant impacts on the ambient air quality. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dept. of Environmental Regulation
Northwest District Office
160 Governmental Center
Pensacola, Florida 32501-5794

Department of Environmental Regulation
Northwest District Branch Office
340 West 23rd Street, Suite E
Panama City, Florida 32405

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the Department's final determination.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on July 28, 1988.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Martha N. Wise — July 28, 1988
Clerk — Date

Technical Evaluation
and
Preliminary Determination

Bay Resource Management Center
Panama City, Bay County, Florida

Bay County Waste-to-Energy Facility

Permit Nos. AC 03-145061
AC 03-152196

PSD-FL-129

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

July 29, 1988

I. Application

A. Applicant

Bay Resource Management Center
c/o Westinghouse RESD
Cost Building, 2400 Ardmore Blvd.
Pittsburg, PA 15221

B. Project and Location

The applicant proposes to increase the municipal solid waste (MSW) charging rate at the existing Bay County Waste-to-Energy Facility, Bay County, Florida. The project will involve an increase in the MSW charging rate of the facility from 350 tons per day (TPD) to 510 TPD, resulting in an increase in emissions of particulate matter (PM), sulfur dioxide (SO_2), nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compounds (VOCs), lead, mercury and beryllium.

The UTM coordinates of this facility are Zone 17, 644.1 km East and 3348.9 km North.

C. Facility Category

The Bay County Waste-to-Energy facility is classified in accordance with the Standard Industrial Classification (SIC) Code as Group No. 49: Electric, Gas, and Sanitary Services; Industry No. 4953, Refuse Systems. The project is classified in accordance with the Source Classification Code (SCC) as 1-01-012-01, Solid Waste Fired External Combustion Boilers.

Bay County's application was received on February 5, 1988, and was deemed complete on June 10, 1988.

II. Project Description

The facility, currently in operation, consists of two O'Connor RC 120 wet wall combustor units. The maximum design capacity of the facility is 510 tons per day (TPD) of municipal solid waste (MSW). Waste wood and bark is currently used as supplemental fuel to maximize plant capacity factor and revenues since the MSW charging rate is limited to 350 TPD in the current permit. Steam produced by the MSW incinerator/boiler produces electricity using turbine generators. Electrostatic precipitators are used for control of particulate emissions.

The proposed modification involves increasing the facility's charging rate from 350 TPD MSW and 135 TPD wood waste, to 510 TPD MSW, or 350 TPD MSW and 160 TPD wood waste.

This project will result in a significant net increase in emission of SO_2. There will be less than significant net increases in emissions of PM, CO, VOCs, fluorides, NOx, lead, mercury, beryllium, and acid gases.

III. Rule Applicability

The proposed modified project will emit the pollutants SO_2, PM, NOx, CO, VOC, lead, mercury, beryllium, flurodes, and acid gases, and is subject to a review in accordance with Rules 17-2 and 17-4 of the Florida Administrative Code (FAC) and Chapter 403 of the Florida Statutes.

The facility is located in Bay County, an area designated as attainment for all pollutants, in accordance with FAC Rule 17-2.420.

The proposed project is subject to Prevention of Significant Deterioration (PSD) Review Requirements, since there will be a net significant increase in SO_2 emissions (FAC Rule 17-2, Table 500-2), in accordance with FAC Rule 17-2.500(2)(d)4.

The proposed project is subject to a Best Available Control Technology (BACT) Review in accordance with FAC Rule 17-2.630.

The proposed project is subject to compliance testing and reporting requirements in accordance with FAC Rule 17-2.700. Compliance testing shall be conducted using EPA Methods:

a. 5/17 for PM
b. 9 for VE (visible emissions)
c. 6/8 for SO_2
d. 7 for NOx
e. 10 for CO
f. 12 for lead
g. 13B for fluoride
h. 25/25A for VOC
i. 101A for mercury
j. 104 for beryllium

IV. Source Impact Analysis

A. Emission Limitations

As addressed in the attached BACT analysis and as documented in the application, the projected emissions from this project will be:

Pollutant	Emissions lbs/hr	Emissions TPY
PM	13.5	59
CO	185.6	813
NOx	53.9	236
SO_2	71.5	313
VOC	14.2	62
Lead	0.08	0.36
Mercury	0.36	0.16
Beryllium	1×10^{-5}	4.5×10^{-5}
Hydrogen Chloride	123.3	540
Sulfuric Acid Mist	3	13
Fluoride	0.3	1.3

B. Air Quality Impact Analysis

The modification of the Bay County Waste-to-Energy facility as described in this determination, is not expected to have significant impacts on the ambient air quality.

V. Conclusion

Based on the information provided by the applicant, the Department has reasonable assurance that the modification of the Bay County Waste-to-Energy facility as described in this report and subject to the conditions of approval proposed herein, will not cause or contribute to a violation of any PSD increment or ambient air quality standard.

Florida Department of Environmental Regulation

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

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

PERMITTEE:
Bay Resource Mgmt. Center
c/o Westinghouse RESD
Cost Building
2400 Ardmore Blvd.
Pittsburg, PA 15221

Permit Numbers: AC 03-145061
03-152196
County: Bay
Expiration Date: December 1, 1988
Latitude/Longitude: 30° 15' 54"N
85° 30' 08"W
Project: Bay County Waste-Energy Facility, Units 1 & 2.

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 increase in municipal solid waste (MSW) charging rate from 350 TPD (tons per day) to 510 TPD at the Bay County Waste-to-Energy facility, Bay County, Florida.

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

The PSD number for the permits is PSD-FL-129.

Attachments are as Follows:

1. Westinghouse application package received February 5, 1988.
2. DER's letter of incompleteness dated March 7, 1988.
3. Westinghouse response received March 21, 1988.
4. U.S. EPA's letter dated March 21, 1988.
5. Fish & Wildlife Service letter received April 11, 1988.
6. DER's letter requesting additional information dated April 19, 1988.
7. Westinghouse response received April 27, 1988.
8. DER's letter dated May 26, 1988.
9. Westinghouse letter received June 10, 1988.
10. Board of Commissioners, Bay County, letter received June 16, 1988.

PERMITTEE: Bay Resource Management Center

Permit Numbers: AC 03-145061
03-152196

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.

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.

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 Waste Combustor

a. Each of the two municipal waste combustors (MWC) shall have a design rated capacity of 255 tons municipal solid waste (MSW) per day, 95.6 million Btu heat input per hour, assuming a heating value of 4,500 Btu per pound, and a steam production rate of 68,000 lbs/hr.

b. The maximum throughput for each MWC shall not exceed the design charging rate of 255 TPD or the heat input rate of 95.6 MMBtu/hr. In absence of sufficient MSW to maintain a steady heat rate, wood waste may be used but not in excess of 80 TPD for each MWC.

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 100% of design rated capacity.

e. The MWC shall be fueled with municipal solid waste and wood waste only. Other wastes shall not be burned without specific prior written approval of Florida DER.

f. Auxiliary fuel burners shall be fueled only with distillate fuel oil or natural gas. If the annual capacity factor for oil or 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 burners 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. Each MWC shall be equipped with an electrostatic precipitator for particulate emission control.

3. Flue gas emissions from each unit shall not exceed the following:

Pollutant	Emissions lbs/hr	TPY
PM	13.5	59
CO	185.6	813
NOx	53.9	236
SO_2	71.5	313
VOC	14.2	62
Lead	0.08	0.36
Mercury	0.36	0.16
Beryllium	1×10^{-5}	4.5×10^{-5}
Hydrogen Chloride	123.3	540
Sulfuric Acid Mist	3	13
Fluoride	0.3	1.3

Visible emissions shall not exceed 15% opacity.

SPECIFIC CONDITIONS:

Compliance with the permit emission limits shall be determined by EPA reference method tests included in 40 CFR Parts 60 and 61 and listed in Condition No. 4 of this permit or by equivalent methods approved by Florida DER.

For the purpose of establishing specific increment consumption for TSP and SO_2 at the facility, an hourly emission rate shall be established for each pollutant at the time of performance testing.

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_2, 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 tests for particulate matter, sulfur dioxide, 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. The compliance tests shall be conducted at the maximum capacity and at the maximum firing rate of each permitted fuel.

e. The following test methods and procedures of 40 CFR Parts 60 and 61 or equivalent methods having prior approval of Florida DER 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_2 and CO_2.

SPECIFIC CONDITIONS:

(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 particulate matter.

(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 SO_2.

(8) Method 7, 7A, 7B, 7C, 7D, or 7E for nitrogen oxides.

(9) Method 10 for CO.

(10) Method 12 for lead.

(11) Method 13B for fluorides.

(12) Method 25 or 25A for VOCs.

(13) Method 101A for mercury.

(14) Method 104 for beryllium.

5. Continuous Emission Monitoring

Continuous emission monitors for opacity, oxygen, carbon monoxide, and carbon 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.

b. CEMS data shall be recorded during periods of startup, shutdown and malfunction but shall be excluded from emission averaging calculations for CO and opacity.

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 or 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 emission concentrations, corrected for O_2, shall be computed and recorded.

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 control equipment. An FEGT to combustion zone correlation shall be established to relate furnace temperature at the temperature monitor location to furnace temperature in the overfire air fully mixed zone.

b. The furnace heat load shall be maintained between 80% and 100% 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 test shall be given to the Florida DER district office.

SPECIFIC CONDITIONS:

b. The results of compliance test shall be submitted to the Department's 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 measured 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 of adjustments (60.7(c)(3)).

(4) When no excess emissions have occured 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)).

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 a minimum of 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit, (Rule 17-2, FAC).

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with compliance test results and Certificate of Completion, to the Department's district office a minimum of 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate, (Rules 17-2 and 17-4, FAC).

If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application, (Rule 17-4, FAC).

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

10. This permit shall supercede previous permits issued for the Bay County Waste-to-Energy Facility.

Issued this_____day of_____, 1988

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

_____
Dale Twachtmann, Secretary

Best Available Control Technology (BACT) Determination
Bay Resource Management Center
Bay County

The applicant has constructed a resource recovery facility (RRF) located near Panama City, Florida. The RRF is capable of burning up to 510 tons per day (TPD) of municipal solid waste (MSW).

When the application was submitted to construct the facility in 1984, it was proposed to supplement the available MSW with wood waste to operate at a level which was equivalent in heat input to burning 510 TPD of MSW. At that time, the applicant proposed burning 350 TPD of MSW and supplementing with 135 TPD of wood, since there were insufficient quantities of MSW available to operate at the 510 TPD capacity level. In accordance with this request, the applicant was restricted to burning only 350 TPD of MSW as a condition of the construction permit.

On February 5, 1988 the applicant requested that the construction permit be modified to increase the permitted level of 350 TPD of MSW to a level of 510 TPD. This increase in the MSW operating level will allow the facility to operate as a regional resource recovery facility for Bay County and the surrounding counties.

In accordance with the increase in MSW operating capacity, the resulting air emissions from the facility will also increase. The applicant has indicated the increases in emissions resulting from the modification as shown in Table 1.

Rule 17-2.500(2)(f)3 of the Florida Administrative Code (FAC) requires a BACT review for all regulated pollutants emitted in an amount equal to or greater than the significant emission rates listed in FAC Rule 17-2, Table 500-2, Regulated Air pollutants. The facility is located in an area classified as attainment for all air pollutants, in accordance with FAC Rule 17-2.420.

BACT Determination Requested by the Applicant

A review of Table 1 indicates that sulfur dioxide (SO_2) is the only pollutant that is subject to BACT. The applicant's review indicates that BACT for the modification should be the same as the BACT approved by the Florida DER in 1984 (i.e. no acid gas control requirement). Based on test results from the Bay County and other facilities, the SO_2 emission rate proposed is equivalent to 3.36 pounds per ton of MSW charged.

Date of Receipt of a BACT Application

February 5, 1988

BACT Determiniation Procedure:

DER rules on a BACT determination require the Department to consider for each pollutant emitted, on a case by case basis, taking into account energy, environmental and economic impacts, and costs, and determine the maximum degree of reduction which is achievable through application of production processes and available methods, systems, and techniques. The applicable regulations also require the Department to consider:

(a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).

(b) All scientific, engineering, and technical material and other information available to the Department.

(c) The emission limiting standards or BACT determinations of any other state.

(d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using a "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

Energy, Economic and Environmental Impacts Analysis

In a recent policy memorandum (June 26, 1987) entitled "Operational Guidance on Control Technology for New and Modified Municipal Waste Combustors", the EPA has identified acid gas scrubbers as an effective means of controlling sulfur dioxide emissions from these facilities. The use of this type of control in conjunction with a particulate control device is considered to provide the most stringent control available for resource recovery facilities and thereby represents the first step in the "top-down" BACT review process.

In determining whether or not the installation of an acid gas scrubber is justified as BACT for this facility, the economics of

providing this control must be evaluated. To assist agencies in performing this evaluation, guidelines have been established to justify the use of control equipment/strategies in terms of the amount of pollutants controlled per dollars invested. For controlling the emissions of sulfur dioxide the EPA has considered costs of up to $2,000 per ton as being reasonable when developing New Source Performance Standards (NSPS). This guideline is pertinent when making BACT determinations since BACT must be at least as stringent as NSPS.

When performing the cost benefit analysis, it is necessary to include all the polluants which are controlled by a particular control device/strategy. This requirement was stressed in another recent EPA memorandum (September 1987) entitled "Implementation of North County Resource Recovery PSD Remand" which strongly affirms that the permitting authority should take the toxic effects of unregulated pollutants into account in making BACT decisions for regulated pollutants.

The applicant has indicated that a dry scrubber system for the facility would cost $1,337,986 annually, based on 8,760 hours per year operation. The breakdown of the costs to install a dry scrubbing system at the facility are shown as follows:

Capital Costs

I. Spray Dryers

Lime Slurry Feed and Preparation	450,000
Dryers	750,000
Erection	500,000
Ductwork	150,000
Heat Insulation	300,000
Controls	100,000
Piping	50,000
Access	125,000
Wiring	200,000
Field Supervision	60,000
Start-up and Shakedown	200,000
SUB-TOTAL:	$2,885,000

II. ESP Relocation and Stack Construction

Dismantle and Remove Existing Stack	200,000
Construct New Stack (including foundations)	510,000
Construct New ESP Foundations	70,000
Dismantle ESP's	150,000
Re-erect ESP's	350,000
Add an Additional Field to Each ESP	400,000
SUB-TOTAL	$1,690,000

III. Miscellaneous Equipment

Replace Pneumatic Conveyors with Drag Conveyors	450,000
Replace Induced Draft Fans	88,000
SUB-TOTAL	$ 538,000

IV. Direct Costs Related to 6-Month Plant Shutdown

Transportation of By-Pass Waste (510 TPD) (180 days) (2$/ton)	183,600
Landfill Depletion (383 TPD) (180 days) ($20/ton)	1,378,800
Boiler Shutdown Servicing	250,000
Lost Electrical Revenue	2,056,230
SUB-TOTAL	3,868,630
TOTAL CAPITAL COSTS:	$8,972,030

Operating and Maintenance Costs

Lime Consumption	75,555
Additional Power	56,718
Water	5,440
Maintenance	35,200
Spare Parts	78,280
Increase Disposal Costs	32,580
TOTAL OPERATING COSTS:	$283,773

Annualized Costs
(I=10%, N=20 years)

Capital Cost = 8,972,030
O&M = 283,773
Annualized Cost = 8,972,030 (A/P, 10%, 20) + $283,773
Annualized Cost = 1,337,986

Assuming that the dry scrubber controls 70% SO_2 and 90% of the other acid gases, an analysis of the cost required to control tonnage of pollutants removed can be completed. The reduction of both the regulated and non-regulated pollutants when using the dry scrubber on an incremental and overall basis are estimated to be as follows:

Pollutant	Reduction (TPY) Incremental	Overall
Sulfur Dioxide	63.0	219.1
Fluorides	0.36	1.2
Sulfuric Acid Mist	2.8	11.7
Hydrogen Chloride	153	486.0
Total	219.2	718.0

Taking the annualized control cost of $1,337,986 into consideration with the total tonnages controlled, the cost per ton of emissions controlled by the dry scrubber would be approximately $6,104 and $1863 for the incremental and overall pollutants, respectively.

BACT Determination By DER

Dispersion modeling indicates that the maximum predicted impacts from the facility with the level of emissions proposed by the applicant will be well below the Ambient Air Quality Standards, for all of the averaging periods. In addition, the proposed control is judged to limit the emissions of unregulated pollutants to a level which is deemed to be acceptable. As is the case, the impacts associated with this modification as proposed are not preceived to be a threat to air quality.

Potentially Sensitive Concerns

Although, Bay County Resource Recovery Facility was designed to process a total of 510 TPD of MSW, it was restricted to burn only 350 TPD of MSW since this corresponded to the guaranteed amount of MSW that was available in Bay County at that time. Now that there is sufficient MSW to operate at the design capacity, the applicant has asserted that permit should be granted without imposing more stringent emission control since there have been no physical changes made to the plant to increase its capacity. In addition to this concern, there are other impacts which would be brought about if additional control equipment were to be installed at the facility.

As previously indicated the installation of additional control equipment would necessitate a six month plant shutdown. This would require the MSW waste stream to be disposed in landfills which are limited in number and nearing capacity. In addition the time period needed to install additional equipment would prolong the opportunity for surrounding counties with inadequate landfills to utilize the facility.

Finally, it should be noted that the EPA is in the process of developing a policy with regard to the control equipment requirements for existing municipal waste combustors. Based on this activity, the applicant has stated that no additional control requirements should be imposed on the facility unless such control is consistent with EPA's final policy.

BACT Determination By DER

Based on the information presented in the preceding analysis, the Department has determined that BACT for the Bay County RRF is equivalent to that proposed by the applicant (i.e., no acid gas control).

From an economics standpoint, the cost of controlling the incremental increase of acid gases due to the requested MSW throughput increase is well above the $2,000 guideline. Although cost of controlling the overall acid gas emissions does fall slightly below the $2,000 guideline, the cost does not appear justified in view of the MSW disposal impacts that would be brought about by closing down the resource recovery facility in order to install the additional control equipment.

In accordance with this determination, the emission limit for sulfur dioxide will be established at the proposed level of 3.36 pounds per ton of MSW charged.

Recommended by:

_____

C. H. Fancy, P.E.
Deputy Bureau Chief, BAQM

_____

Date

Approved by:

_____

Dale Twachtmann, Secretary

_____

Date

TABLE 1

Pollutant	Annual Emissions (Tons/Year) Based on 350 TPD MSW 135 TPD Wood	Maximum Annual Emissions (tons/yr) Based on 510 TPD MSW or 350 TPD MSW & 160 TPD Wood)	Difference (Tons/Year)	PSD Significant Emissions Rate (Tons/Year)
Particulate Matter	50	59	9	25
Carbon Monoxide	722	813	91	100
Nitrogen Oxides	223	236	13	40
Sulfur Dioxide	223	313	90	40
VOC	54	62	8	40
Lead	0.25	0.36	0.11	0.6
Mercury	0.11	0.16	0.05	0.1
Beryllium	0.000031	0.000045	0.0000136	0.004
Fluorides	0.9	1.30	0.40	3
Sulfuric Acid Mist	9.0	13	4	7
Hydrogen Chloride	370	540	170	-

ATTACHMENT 1

Available Upon Request.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

March 7, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. David S. Beachler
Westinghouse RESD
Cost Building
2400 Ardmore Blvd.
Pittsburgh, Pennsylvania 15221

Dear Mr. Beachler:

Re: Completeness Review of Application to Modify Bay County Resource Recovery Facility
Permit No. AC 03-145061, PSD-FL-129

The Department has received and reviewed your application package dated January 18, 1988. The application has been deemed incomplete. Please submit the following information to resume the completeness review:

1. The emissions of the PSD regulated pollutants sulfuric acid mist and fluorides need to be addressed. In addition, all toxic air pollutants need to be addressed with respect to the proposed control technology. For municipal waste combustors the toxic air pollutants are identified in the publications entitled, "Compiling Air Toxics Emission Inventories, "EPA-450/4-86-010 and "Control Technologies for Hazardous Air Pollutants," EPA-625/6-86-014. In accordance with these publications, the pollutants cadmium, chromium, copper, manganese, nickel and polycyclic organic matter need to be addressed.

2. A cost estimate for using a dry injection system to remove acid gases needs to be included. A review of other facilities indicates that the 500 TPD Katy Seghers refuse-to-energy facility in Clearfield, Utah utilities the dry injection control technology in conjunction with an ESP to remove SO_2 and HCl with 50 percent efficiency.

3. Although the emissions data for HCl appears to be complete, please verify the accuracy of the emission limit expressed in both pounds per ton and tons per year.

If you have any questions please call Tom Rogers (modeling), Barry Andrews (BACT), or Pradeep Raval (permitting), at (904)488-1344, or write to me at the above address.

Sincerely,

Barry D. Andrews

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

CHF/DA/s

cc: E. Middleswart, NW District
W. Aronson, EPA
M. Flores, NPS
A. Richter, P.E.

ATTACHMENT 3

3 18 88
Pittsburg, PA

Westinghouse
Electric Corporation

Resource Energy Systems
Division

Cost Building
2400 Ardmore Boulevard
Pittsburgh Pennsylvania 15221
(412) 636-5800
WUX 291 5800

ENG/MG:DSB:88-049

RECEIVED
MAR 21 1988
DER - BAQM

March 17, 1988

Mr. Clair Fancy
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399

RE: Bay County Waste-to-Energy Facility
Request for Permit Modification

Dear Clair,

Please find enclosed four copies of the additional information that you requested in your March 7, 1988 letter.

Thank you for your expeditious review of this application.

Should you have any questions regarding this matter, please don't hesitate to call.

Sincerely,

David S Beachler

D. S. Beachler, Manager
Environmental and Quality Engineering

Enclosures

cc: S. J. Brady
J. J. Zebroski

/kjd
0751MM-EN01:20

Copied: Pradip Raval
Barry Andrews
Tom Rogus
CHF1BT
} 3-22-88

COMMENT:

The emissions of the PSD regulated pollutants sulfuric acid mist and fluorides need to be addressed. In addition, all toxic air pollutants need to be addressed with respect to the proposed control technology. For municipal waste combustors, the toxic air pollutants are identified in the publications entitled: "Compiling Air Toxics Emission Inventories," EPA-450/4-86-010, and "Control Technologies for Hazardous Air Pollutants," EPA-625/6-86-014. In accordance with these publications, the pollutants cadmium, chromium, copper, manganese, nickel and polycyclic organic matter need to be addressed.

RESPONSE:

The increase in H_2SO_4 and HF emissions resulting from the increased processing rate will be 4 tons/yr and 0.4 tons/yr respectively (see Table A below).

TABLE A

ESTIMATED ANNUAL H_2SO_4 AND HF EMISSIONS USING 1987 DEVELOPED EMISSION FACTORS

Pollutant	Emission Factor (Wood Chips)	Emission Factor (MSW)	Annual Emissions (tons/year) Based on 350 TPD (MSW) 135 TPD Wood	Annual Emissions (tons/year) Based on 510 TPD (MSW)	Difference tons/year
H_2SO_4	0	0.14 lb/ton	9	13	4
HF	0	0.014 lb/ton	0.9	1.3	0.4

Because metals are present in solid waste, some metals will be emitted in the flue gas from the facility. The amount emitted is a function of the quantity of metal in the waste stream, the properties of the metal, the combustion characteristics of the facility, and the characteristics and performance of the air pollution control equipment.

A significant portion of most metals vaporizes during combustion. As the exhaust gases cool (during heat recovery, in the ducting, and in air pollution control devices), many of the metals condense. Usually the condensed metals

adsorb onto the surface of particles in the gas stream and are collected by the ESP. It should be noted that mercury and mercury compounds are an exception to this rule because they exist predominantly as a vapor at common stack exit temperatures.

The estimated control efficiency for trace heavy metals is given as a range in Table B because there is a limited data base available concerning the capture of heavy metals in ESP's on resource recovery facilities. The bottom end of the range, a particulate emission control efficiency of 98.5%, represents efficiencies that have been achieved by ESP's installed on many industrial processes. The top end of the range (99%) represents a particulate emission control efficiency based on meeting a guaranteed emission limit of 0.03 gr/dscf @ 7% O_2 with an assumed inlet of 3.0 gr/dscf. Individual control efficiencies for certain metals may be somewhat less than the 99% level. However, since the proposed facility will be designed to achieve a guaranteed outlet grain loading of 0.030 gr/dscf corrected to 12% CO_2, the actual particulate emission control efficiency should be higher than 99% (assuming an inlet loading of 3.0 gr/dscf).

Table B lists the heavy metal emission factors from typical waste-to-energy plants. Factors used to predict uncontrolled emission (Column 1) are based on test data from the O'Connor combustor installed in Gallatin, Tennessee. Tests were conducted by Cooper Engineers from February 6-12, 1983. The proposed controlled emission factors (Column 2) are based on a system collection efficiency range of 98.5 to 99%.

The bottom end of the proposed emission factor range for total chromium is 1.94×10^{-4} lb/ton. This emission factor is estimated from reviewing a number of sources--various consultants' data bases including Roy F. Weston, Inc., a paper presented by Wurmbrand and Atkins that lists the proposed emission factors for seven resource recovery projects in Connecticut, and the proposed emission factors in other states including projects in California. Hexavalent chromium (Cr^{+6}) is estimated to be approximately 10% of the total chromium value. This estimate is based on tests from a utility boiler showing the contribution of Cr^{+6} to be 1% of the total chromium and tests from a cement kiln showing the contribution to be as high as 10%.

TABLE B

EMISSION FACTORS FOR HEAVY METALS

Pollutant	Uncontrolled Emission[1] Factor (lb/ton MSW burned)	Typical[2] Emission Factor Range (lb/ton MSW burned)
As	3.18×10^{-3}	4.77×10^{-5} - 3.18×10^{-5}
Be	4.8×10^{-5}	7.20×10^{-7} - 4.8×10^{-7}
Cd	2.36×10^{-2}	3.54×10^{-4} - 2.36×10^{-4}
Cr	7.86×10^{-3}	1.18×10^{-4} - 1.94×10^{-4}[4]
Cr^{+6}	7.86×10^{-4}	1.18×10^{-5} - 1.94×10^{-5}
Ni	3.32×10^{-4}	4.98×10^{-6} - 3.32×10^{-6}
Cu	3.37×10^{-2}	5.05×10^{-4} - 3.37×10^{-4}
Hg	1.71×10^{-3}	1.71×10^{-3}[3]
Mn	6.04×10^{-2}	9.06×10^{-4} - 6.04×10^{-4}
Se	1.44×10^{-4}	2.16×10^{-6} - 1.44×10^{-6}
Sn	3.10×10^{-2}	4.65×10^{-4} - 3.10×10^{-4}
Vn	1.36×10^{-2}	2.04×10^{-4} - 1.36×10^{-4}
Zn	8.31×10^{-1}	1.25×10^{-2} - 8.31×10^{-3}
Pb	2.74×10^{-1}	4.11×10^{-3} - 2.74×10^{-3}

(1) Uncontrolled metal emissions based on Gallatin test data.

(2) Control efficiency for heavy metals is estimated to range from 98.5% to 99%.

(3) Hg control estimated to be zero.

(4) Emission data for Cr in literature shows that the average controlled emissions are approximately 1.94×10^{-4} lb/ton and therefore the 99% control efficiency does not apply.

A number of polycyclic organic matter (POM) compounds are emitted in trace amounts from the facility; these include dioxins (PCDD), furans (PCDF), polynuclear aromatic hydrocarbons (PAH), and aldehydes (RCHO). A limited amount of testing has been conducted to measure PAH compounds and aldehydes. This test data is given in Tables 5-8 and 5-9, that were extracted from a report prepared for Westinghouse for the proposed Delaware County Resource Recovery Facility.

More testing to measure dioxins and furans has been conducted at resource recovery facilities. Testing has been done at a number of modern facilities that use automatic combustion controls to minimize formation of organic compounds (dioxins and furans) along with ESP's that collect organic compounds that have condensed on fly ash particles. This equipment is similar to that installed at the Bay County facility. Table 5-1 contains total PCDD emissions from a number of facilities throughout the world. The plants at Westchester, Tulsa, Pittsfield, Chicago N.W., Zurich, North Andover, and Sangus all use ESP's as the add-on air pollution control equipment

Table 5-9

Standardized Aldehydes Data and Calculated Emission Factors
(ug/Nm^3 at 12 percent CO_2, dry)

Facility	Results for Tests 1	2	3	4	5	Average
Cattaraugus, New York[a]	684.8					684.8
Oneida, New York	419.9					419.9
Westchester, New York	959.4	421.8	546.8			642.7
All Facilities[b]						
Geometric Mean						569.6
Plus One Standard Deviation						743.21
Minus One Standard Deviation						436.6

[a]Modular_unit.
[b]Mass burn (excess air and modular) facilities with data available.

Table 5-8

Standardized PAH Data and Calculated Emission Factors
(ug/Nm^3 at 12 percent CO_2, dry)

Facility	Results for Tests 1	2	3	4	5	6	Average
Cattaraugus, New York							
[c]B(a)P	1.03						1.03
Total Carcinogens							1.03
Hogdalen, Sweden							
PAH[d]	0.04						0.04
Total Carcinogens							0.04
Prince Edward Island, Canada[c]							
B(a)A	0.227	0.246	0.060				0.18
DBA	0.020	0[b]	0.006				0.01
Ind	0.054	0[b]	0.008				0.03
B (k, j) F & B(a)P	0.127	0.451	0.122				0.23
Total Carcinogens							0.45
Quebec City, Canada							
PAH[d]	0.108	0.139	0.122	0.015	0.121	0.126	0.11
Total Carcinogens							0.11
All Facilities[e]							
Total Carcinogens:							
Geometric Mean							0.21
Plus One Standard Deviation (Geometric)							0.33
Minus One Standard Deviation (Geometric)							0.14

[a](Ba)P – benzo(a)pyrene
DBA – dibenzo (a,h) anthracene
B(a)A – benzo(a) anthracene
Ind – Indeno(1,2,3-cd)pyrene
B(k,j)F-benzo(k,j) fluoranthene
[b]Value was below detection limit. It was not included in calculation of average value.
[c]Modular unit.
[d]For the purpose of this analysis it is assumed to be entirely B(a)P.
[e]Mass burn (excess air and modular) facilities with data available, excluding facilities with abnormal operations during testing.

(Tetra thru Octa homologues)

(ng/m^3 @12% CO_2, dry)

Facility	Country	A All Data	B Plants with Heat Recovery	C Plants with Normal Conditions During Testing	D Mass Burn Facilities	E Mass Burn Excess Air Facilities >50 EA
Montreal (Des Carrieres)	Canada	<1	<1	------	------	------
Marion County	USA	1.3	1.3	1.3	1.3	1.3
Stockholm-Hogdalen	Sweden	6.5	6.5	6.5	6.5	6.5
Tulsa County	USA	22	22	22	22	22
Westchester RESCO	USA	24	24	24	24	24
Wurzburg	FRG	25	25	25	25	25
Pittsfield (Vicon)	USA	36	36	36	36	36
Chicago,N.W	USA	47	47	47	47	47
Stapelfeld [b]	FRG	65	65	65	65	65
Cattaraugus	USA	67	67	67	67	-----
Eksjo RDF	Sweden	75	75	75	-----	-----
Prince Edward Island (PEI)	Canada	107	107	107	107	-----
North Andover	USA	122	122	122	122	122
Oneida	USA	135	135	135	135	-----
Stellinger Moor [b]	FRG	140	140	140	140	140
Zurich	Switzerland	171	171	171	171	171
Saugus	USA	182	182	182	182	182
Borsigstrasse [b]	FRG	185	185	185	185	185
Albany RDF (Sheridan Ave)	USA	305	305	305	-----	-----
Valmadrera	Italy	314	-----	------	-----	-----
Italy 1	Italy	516	-----	------	-----	-----
Toronto	Canada	612	-----	------	-----	-----
Italy 6	Italy	675	-----	------	-----	-----
Italy 5	Italy	746	-----	------	-----	-----
Niagara RDF (Occidental Chemical Co)	USA	853	853	853	-----	-----
Zaanstad	Netherlands	1294	-----	------	-----	-----
Hamilton/Wentworth SWARU	Canada	3141	3141	------	-----	-----
Philadelphia,N.W.	USA	3350	-----	------	-----	-----
Italy 4	Italy	5003	-----	------	-----	-----
Italy 3	Italy	8622	-----	------	-----	-----
Hampton (Langley Field)	USA	11188	11188	------	-----	-----
Italy 2	Italy	33047	-----	------	-----	-----

[a] Based on data collected as of June 1, 1987.

[b] Includes tri thru octa homologues.

COMMENT:

A cost estimate for using a dry injection system to remove acid gases needs to be included. A review of other facilities indicates that the 500 TPD Katy Seghers refuse-to-energy facility in Clearfield, Utah utilizes the dry injection control technology in conjunction with an ESP to remove SO_2 and HCl with 50 percent efficiency.

RESPONSE:

According to the Utah Department of Health's Bureau of Air Quality, the Katy Seghers facility has not been able to meet the 50% acid gas removal permit limitation. The facility has also not been able to meet the 0.023 gr/dscf particulate emission limitation. The dry injection system is experiencing severe plugging problems and is causing upsets in the operation of the facility.

Westinghouse has contacted a vendor that supplies dry injection systems used to control acid gas emissions. In dry injection systems where an ESP is used for controlling particulate matter and spent sorbent, the acid gas reaction must occur in a very short time period. In addition, the operating temperature of the ESP is generally greater than 430°F. Because the reaction time is short and the temperature for acid gas absorption is high, the predicted acid gas control levels are approximately 20% to 40% for HCl and 20% for SO_2. The vendor indicated that an injection rate of approximately 1000 lb per hour (500 lb/train) of hydrated lime would be needed to achieve 20% SO_2 and 40% HCl removal.

The following tables illustrate the estimated capital costs, operating and maintenance costs, lost revenue and equivalent uniform annual cost (EUAC) for retrofitting a dry injection system. The lime use was estimated to be 1000 lb/hr at an annual cost of $328,000. The amount of residue produced (unreacted reagent and reacted salts) is estimated to be 6000 tons per year. This reflects an increase in disposal cost of $120,000.

TABLE 1

ADD-ON DRY INJECTION SYSTEM CAPITAL COST ESTIMATE

Capital Cost:	$ 800,000	- Spray Dryers
	$ 475,000	- Drag Conveyors
TOTAL:	$1,275,000	

Cost Breakdown Includes:

- Engineering
- Foundations and Supports
- 2 Rotary Screw Feeders
- Mixing Vanes
- 2 Drag Conveyors
- Lime Storage Silo
- Shipping to the Site
- Installation
- Start-up Services

TABLE 2

ANNUAL OPERATING AND MAINTENANCE COST

	Each Train	Cost	Cost per Year For Both Trains
Lime	500 lb/hr	$75/ton	$328,500
Power for Rotary Feeder	30 kw	$0.05/kwh	$ 26,280
Power for Delta P (fan cost)	Delta P=2.0 in H_2O (see below) Gas Flow-55,000 acfm for each unit (@ 0.05/kwh)		$ 17,400

$$\text{Fan Power} = Q \times \frac{0.7456}{6356 \times E} \times \text{Delta P} \times H$$

where: P = fan power (kwh)
Q = gas volume (acfm)
E = fan efficiency (assumed 0.65)
Delta P = pressure drop
H = annual operating rate (8760 hr/yr)

Water Cost	$ - 0 -
Routine Maintenance 220 hr per injection system @ $20/hr	$ 8,800
Spare Parts	$ 10,000
Increase Disposal Costs 6000 tpy Residue @ $20/ton	$120,000
TOTAL:	$510,980

TABLE 3

LOST REVENUES BECAUSE OF PLANT SHUTDOWN
DURING DRY INJECTION SYSTEM INSTALLATION

Assume: 4 weeks shutdown per train

Lost Electrical Revenue:	$ 403,200
By-Pass Waste Costs: (350 TPD x 28 days x $10/ton)	$ 98,000
	$ 501,200

TABLE 4

EQUIVALENT UNIFORM ANNUAL COST (EUAC) FOR
ADDITION OF A DRY INJECTION SYSTEM
(i=10%, N=20 yrs)

Capital Cost:	$1,275,000	(Table 1)
Lost Revenue:	$ 501,200	(Table 8)
Total Cost:	$1,776,200	
Operation & Maintenance:	$ 510,890	(Table 2)

EUAC = $1,776,200 (A/P, 10%, 20) + $510,980

EUAC = $ 719,684

The additional annual SO_2 emissions that would be emitted when burning 510 TPD MSW instead of burning 350 TPD MSW would be a maximum of 90 tons. EPA or other State Agencies have not required any W-T-E facilities to retrofit their plants with acid gas control equipment. The high capital cost ($1,275,000), lost revenue ($501,000), annual operating cost ($510,980) and high EUAC ($719,684) for retrofitting a dry injection system cannot be justified for removing a small incremental amount of SO_2 (90 tons per year) and HCl (170 tons per year), that would be emitted if the facility were permitted at the original design capacity. In addition, the dry injection system with its low removal efficiency and its lack of known operational success when placed in front of an ESP should not be considered as BACT. Therefore, BACT for this facility should be the same as approved by the Florida DER in 1984, and no add-on acid gas control equipment should be required.

COMMENT:

Although the emissions data for HCl appears to be complete, please verify the accuracy of the emission limit expressed in both pounds per ton and tons per year.

RESPONSE:

The emission factor for HCl should be corrected to 5.8 lb HCl/ton of MSW (instead of 0.58 lb/ton). The resulting annual HCl emissions would be 370 tons and 540 tons when processing 350 TPD and 510 TPD of MSW, respectively. This reflects a yearly increase in HCl emissions of 170 tons.

ATTACHMENT 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

MAR 2 1 1989

4APT-APB

Margaret V. Janes, Planner
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Bay County Resource Recovery Facility (PSD-FL-129)

Dear Ms. Janes:

This is to acknowledge receipt of a copy of the permit application for the Bay County Resource Recovery Facility and to confirm the March 4, 1988, telephone conversation between Pradeep Raval of your staff and Gary Ng of my staff. We have reviewed the application for an increase in municipal waste throughput and have the following comments:

1) As was indicated in the phone conversation, we noticed that the applicant did not address the possible hazardous air pollutants (HAPs) (i.e., dioxin, HCl, H_2SO_4, etc.) from the combustion of the proposed additional municipal solid waste. As you know, EPA is now requiring all municipal waste combustors (MWCs) to take unregulated HAPs into consideration when evaluating BACT requirements for the regulated air pollutants (i.e., SO_2, TSP, etc.). Please require the applicant to provide the necessary analysis on the associated HAPs.

2) Also mentioned was the BACT determination for SO_2; we noticed that the application lacked an incremental cost analysis in dollars per ton of pollutant removed. Please request the applicant to provide the analysis. Also, in order to have a more complete incremental analysis, the applicant must take into consideration the amount of HAPs controlled in addition to the amount of SO_2 controlled in determining the incremental cost for each option. Then, in accordance with the December 1, 1987, Potter memorandum, we would also suggest that the applicant perform the analysis in a top-down manner.

Thank you for the opportunity to provide you with our comments. Please ask the applicant to address the above concerns before issuing your preliminary determination. If you have any additional comments or information, please contact me or Gary Ng of my staff at (404) 347-2864.

Sincerely yours,

Bruce P. Miller

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

ATTACHMENT 5

United States Department of the Interior
FISH AND WILDLIFE SERVICE

MAILING ADDRESS:
Post Office Box 25486
Denver Federal Center
Denver, Colorado 80225

STREET LOCATION:
134 Union Blvd.
Lakewood, Colorado 80228

IN REPLY REFER TO:
RW AIR QUALITY
MAIL STOP 60130

TAKE PRIDE IN AMERICA

Mr. Clair Fancy
Bureau of Air Quality Management
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Attention: Margaret V. Janes

Dear Mr. Fancy:

We have reviewed the information provided to us regarding the proposed permit modification for the Bay County Resource Recovery Facility. The facility is located in Panama City, Florida and is approximately 115 km west of St. Marks Wilderness Area, a Federal class I area administered by the U. S. Fish and Wildlife Service. We have reviewed the best available control technology (BACT), air quality modeling, and air quality related values analyses. We do not expect that the increase in sulfur dioxide emissions resulting from the proposed permit modification will adversely impact the air quality or air quality related values in St. Marks Wilderness Area. However, we provide the following comments on the BACT and air quality modeling analyses in the hope that it will assist the State in consistent analysis of impacts and application of BACT for this and future facilities.

The assumption that was made in ratioing the emission rates for the original 1984 permit and the proposed 1988 permit modification in order to arrive at revised pollutant concentrations is an appropriate technique only if it can be shown that there have been no new sources since 1984 that would contribute to an increase in the maximum concentrations (for all sources plus the proposed source) predicted for the 1984 permit. A careful examination of any new sources within 100 km of the Bay County source impact area should be done before the results of the ratioing technique are used to grant a modified permit.

We realize that when the facility was originally permitted in 1984, BACT for resource recovery facilities did not call for additional SO_2 add-on control equipment. However, when a permitted source proposes to modify and increase emissions, control technology requirements in effect at the time of the proposed modification should be met. This precedent has been set under the Federal New Source Performance Standards (NSPS). For example, if a facility

commences construction before an NSPS is proposed, that facility is exempt from NSPS. However, if that facility is later modified, the facility becomes an affected facility and must meet the applicable NSPS requirements.

Bay County concludes that the high cost of scrubbers cannot be justified for removing a small amount of SO_2. We agree that perhaps the additional costs would not be justified simply to remove SO_2. However, in addition to reducing SO_2 emissions, scrubbers would reduce emissions of hydrogen chloride and other acid gases, heavy metals, dioxins, furans, and other toxic organic compounds. Because emissions of all of these pollutants would be reduced, the additional costs to install scrubbers are warranted. In addition, recent guidance from the Environmental Protection Agency (EPA) states that a BACT review should be an integrated analysis and consider the effects of reducing nonregulated pollutants, such as toxics, as well as the particular pollutant subject to Prevention of Significant Deterioration review. As you know, the EPA is also emphasizing a "top down" approach to BACT reviews. Under this approach, the most stringent control technology available is required unless it can be shown that this level of control is technically or economically infeasible for the source in question. Therefore, to be consistent with EPA guidance, and considering the fact that new resource recovery facilities are required to install SO_2 scrubbers, as a condition for the proposed permit modification Bay County should install scrubbers to reduce emissions of SO_2 and the other pollutants mentioned above.

If you have any questions regarding these comments please feel free to call Bud Rolofson at (303) 969-2072.

Sincerely,

Ralph ... (signature)

for Nelson B. Kverno
Assistant Regional Director
Refuges and Wildlife, Region 6

cc:
Bruce P. Miller
Chief, Air Programs Branch
EPA Region IV

Copied: CHF/BT
Pradeep Raval
Tom Rogers
Barry Andrews
4.12.88, mr

ATTACHMENT 6

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

April 19, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. David S. Beachler
Westinghouse RESD
Cost Building
2400 Ardmore Blvd.
Pittsburgh, Pennsylvania 15221

Dear Mr. Beachler:

Re: Completeness Review of Application to Modify Bay County Resource Recovery Facility
Permit No. AC 03-145061, PSD-FL-129

The Department has received your response letter dated March 17, 1988. After having reviewed the responses submitted, some additional information/clarification is needed as follows:

1. Documentation of the lime injection rate for the dry injection system is needed.

2. Provide a breakdown of the costs associated with the total of $20.00 per ton to dispose of dry injection residues.

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

Sincerely,

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

CHF/BA/s

cc: E. Middleswart, NW District
W. Aronson, EPA
M. Flores, NPS
A. Richter, P.E.

ATTACHMENT 7

Gulbin [illegible]
Airbill No 33193204684
4/26/88
Pittsburgh, PA

AC 03-142061
PSD-FL-127

Westinghouse Electric Corporation
Resource Energy Systems Division

Cost Building
2400 Ardmore Boulevard
Pittsburgh Pennsylvania 15221
(412) 636 5800
WIN 261 5800

EN1073SB

April 26, 1988

RECEIVED
APR 27 1988
DER - BAQM

Mr. Clair Fancy
Florida Dept. of Environmental Regulations
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399

Re: Bay County Waste-to-Energy Facility
Request for Permit Modification

Dear Mr. Fancy:

Please find enclosed a letter from Flakt Inc., documenting the lime injection rate(s) and SO_2 removal efficiency that were stated in Westinghouse's February 3, 1988 submittal.

Also enclosed are data supporting the disposal costs for the additional residue that would be generated due to dry injection. The February 3rd submittal estimated that the costs would be $20 per ton of residue disposed where, in actuality, the costs would be closer to $22 per ton.

If there is any way that we may be able to help in expediting this matter, please feel free to contact either myself or Spencer Brady at (412) 636-5806.

Sincerely,

Spencer J. Brady for

D. S. Beachler, Manager
Environmental & Quality Engineering

/tlb
Enclosure
EN1073SB-105E

cc: S. J. Brady - w/enclosure
J. J. Zebroski - w/enclosure

Copied: Pradeep Raval
Tom Rogers
CHF/BT
Barry Andrews
Miguel Flores, NPS
} 4.28.88

Flakt Inc.

April 26, 1988

Westinghouse Electric Corp.
Resource Energy Systems Div.
Cost Bldg.
2400 Ardmore Blvd.
Pittsburgh, PA 15221

ATTENTION: Mr. Dave Beechler

REFERENCE: Bay County Resource Recovery System
Dry Injection Air Pollution Control System

Gentlemen:

Confirming our recent discussions, we are pleased to confirm that a dry injection system can be added to the above subject facility.

Based on a two train system processing 54,000 ACFM each at 435°F, we would anticipate a total hydrated lime usage of approxiamtely 1,000 lb./hr. for two trains total and an SO_2 removal efficiency in the range of 20% assuming an SO_2inlet of approximately 150 PPM. Significantly higher SO_2 removals can only be achieved if a fabric filter system would be added and/or a sodium based alkali utilized.

I trust that the above is sufficient for your current needs and that you will not hesitate to contact us if any additional information is required.

Very truly yours,

FLAKT, INC.
ENVIRONMENTAL SYSTEMS DIVISION

Steve Achtner

Steve Achtner
Regional Sales Manager

/vh

cc: P. Nijhawan/Flakt, Inc.
J. Buschmann/Flakt, Inc.
D. d'Ambrosi/Flakt, Inc.

Mr. Richard Hopkins/Westinghouse

Okaloosa eyeing Bay incinerator

Daily News Staff Report

FORT WALTON BEACH —Okaloosa County commissioners agreed Tuesday to consider shipping solid waste to Bay County, although such a move may be too expensive for Okaloosa's taste.

County Public Works Director Dave Heinrich said Bay County is soliciting counties for an extra 200 tons of solid waste a day to burn in its incinerator and convert to energy.

Bay County's incinerator, which began operation in February 1987, has a state permit to burn 350 tons of solid waste daily, although its capacity is 510 tons per day and has to run at capacity for optimum efficiency. Bay County has had to make up the 160-ton difference by burning wood chips.

Heinrich estimated it would cost $15 a ton to truck Okaloosa County's solid waste about 50 miles to Bay County's plant.

Total costs would be $40 a ton when combined with Bay County's out-of-county tipping fee of $25 per ton.

The projected tipping fee at a proposed 1,500-acre landfill near Dorcas is about $22 a ton.

Costs will probably make Bay County's proposal prohibitive, Heinrich said.

But Commissioner Don Ware, who has advocated an incineration system in Okaloosa County and has opposed plans by Waste Associates Co. to open a landfill near Dorcas, suggested that Heinrich investigate Bay County's offer.

Commissioner Joe Mosier agreed, if only to have a backup if opponents challenge the Dorcas landfill and delay its scheduled opening this summer.

The state Department of Environmental Regulation has ordered the closing of Okaloosa County's 160-acre Wright landfill by July 1. If the Dorcas site is not ready to open by then, the county would have to seek an extension for the Wright landfill or use the 27-acre Baker landfill.

The Dorcas landfill's opponents, organized as Citizens for a Clean Environment, pleaded with commissioners again Tuesday to drop the landfill project.

"We're willing to do anything to stop this landfill," said Bonnie Billoni, who lives near the proposed site at U.S. 90 and County 393 east of Crestview. "I'm publicly asking you, pleading with you, to stop this landfill."

Opponent Donna Nixon said Waste Associates has plans to accept trash and garbage from outside Okaloosa County. She believes this will worsen the situation.

A recycling program would be worth any higher costs, Nixon said.

"Sure, it's expensive," she told the commissioners. "It might take your raise next year."

RESOLUTION NO. 1370

WHEREAS, the Board of County Commissioners of Bay County, Florida (the "Board") has adopted Ordinance No. 82-10, short titled the "Bay County Solid Waste Disposal User Fee Ordinance" as amended by Ordinance No. 83-6 that provides for the assessment of user charges by resolution of the Board to fund the solid waste disposal system and resource recovery system (the "System"), and

WHEREAS, the Legislature of the State of Florida passed Chapter 83-370 (the "Special Act"), as amended, requiring persons within Bay County to deliver to solid waste disposal locations designated by the Board all solid waste which is discarded, collected or brought within Bay County, and

WHEREAS, the Board does hereby require all persons to deliver solid waste which is discarded, collected or brought within Bay County to one of the following appropriate solid waste disposal locations: the Resource Recovery Facility (the "Facility"), the Steelfield Road Landfill (the "Landfill"), the Panama City Transfer Station ("P.C. Station"), the Panama City Beach Transfer Station ("P.C.B. Station"), and the Bayou George Greenbox Station ("B.G. Greenbox"), and

WHEREAS, the Board is authorized by Florida Law to implement reasonable rules and regulations concerning the operation of the System, and

WHEREAS, the Board entered into a Service Contract authorized by the Participation Agreement dated October 30, 1986, with Bay Resource Management, Inc., a wholly owned subsidiary of Westinghouse Electric Corporation, that provides for the processing and combustion of solid waste at the Resource Recovery Facility and for payment of a Service Fee, and

WHEREAS, the Service Contract obligates the Board to have delivered to the Resource Recovery Facility solid waste of a specified quality and quantity for processing and sets forth standards for the operation of such Resource Recovery Facility, and

WHEREAS, the Board has considered information concerning the expenses that are incurred in the operation of the Facility, the

Landfill, the P.C. Station, the P.C.B. Station, and the B.G. Greenbox, and the hauling costs incurred in such operations, and

WHEREAS, the Board does desire to fund the System from revenues derived from user charges as assessed herein, and

WHEREAS, the Board does hereby determine that the present user charges being levied are insufficient to fund the System and a new schedule of user charges should be adopted that will adequately fund the System, and

WHEREAS, there exists a public need to levy user charges at the Facility, the Landfill, P.C. Station, P.C.B. Station, and the B.G. Greenbox to fund the operation, maintenance and construction of the System.

NOW THEREFORE BE IT RESOLVED, by the Board of County Commissioners of Bay County, Florida that the following schedule of user charges shall be and do hereby become effective as of July 1, 1987:

A. <u>ESTABLISHMENT OF PER TON USER CHARGES AT THE FACILITY, P.C. STATION, P.C.B. STATION, THE LANDFILL AND B.G. GREENBOX.</u>

1. <u>Establishment of Per Ton User Charge At the Facility.</u> The user charge for the deposit of solid waste at the Facility shall be Twenty-Two Dollars ($22.00) per ton as determined by the weighing of vehicles at the Facility. The user charge will be prorated at 20 pound increments in accordance with the Twenty-Two Dollar ($22.00) per ton standard for vehicles holding less than or more than one ton of solid waste. The minimum charge on any vehicle being weighed will be $2.00.

2. <u>Establishment of User Charges at the Landfill.</u> The user charge for the deposit of solid waste at the Landfill shall be Twenty-Two Dollars ($22.00) per ton as determined by the weighing of

vehicles at the Landfill. The user charge will be prorated at 20 pound increments in accordance with the Twenty-Two Dollars ($22.00) per ton standard for vehicles holding less than or more than one ton of solid waste; however, the vehicles described in Section B(1) of this Resolution shall be charged the flat rate as indicated therein. The minimum charge on any vehicle being weighed will be $2.00.

3. Establishment of User Charges At The P.C. Station. The user charge for the deposit of solid waste at the P.C. Station shall be Twenty-Five Dollars ($25.00) per ton. The City of Panama City is the only customer at the P.C. Station, and the user charge reflects the cost of hauling the solid waste to the Facility and the Landfill and the cost of operating the P.C. Station. The solid waste from the P.C. Station will be weighed at the Facility and the Landfill, and the user charge will be prorated at 20 pound increments in accordance with the Twenty-Five Dollar ($25.00) per ton standard for vehicles holding less than or more than one ton of solid waste. The minimum charge on any vehicle being weighed will be $2.00.

4. Establishment of User Charges At The P.C.B. Station. The user charge for the deposit of solid waste at the P.C.B. Station shall be Twenty-Eight Dollars ($28.00) per ton. The user charge reflects the cost of hauling the solid waste to the Facility and the Landfill and the cost of operating the P.C.B. Station. The solid waste will be weighed at the P.C.B. Station site and the user charge will be prorated at 20 pound increments in accordance with the Twenty-Eight Dollar ($28.00) per ton standard for vehicles holding less than or more than one ton of solid waste; however, the vehicles described in Section B(1) of this Resolution shall be charged the flat rate as indicated therein. The minimum charge on any vehicle being weighed will be $2.00.

5. Establishment of User Charges at B.G. Greenbox. The user charge for the deposit of solid waste at the B.G. Greenbox shall be the flat rate for cars and one-half ton trucks, station wagons and two-wheeled trailers as provided in Section B(1) of this Resolution.

B. ESTABLISHMENT OF FLAT RATE USER CHARGE SCHEDULES FOR THE FACILITY, THE LANDFILL, P.C.B. STATION, AND THE B.G. GREENBOX.

1. Flat Rate User Charge Schedule For the P.C.B. Station, B.G. Greenbox and the Landfill. The following rates and charges per vehicle for deposit of solid waste at the Landfill, P.C.B. Station, and the B.G. Greenbox shall be assessed regardless of the weight of the vehicles. The charges are determined by the vehicle capacity or load size and not the volume, quantity or

weight of waste in or on the vehicle. However, the Board reserves the right to require the vehicles listed in (1) and (2) below to weigh and be charged on the applicable per ton basis. The designation of "N/A" in the column under "P.C.B. Station/B.G. Greenbox Flat Rate Fee" shall mean that said vehicle shall not be accepted for dumping or unloading at the P.C.B. Station or the B.G. Greenbox. Flat rates are assessed herein to lower administrative costs of the Board and to accommodate vehicles in the flat rate categories with expeditious handling at the sites. The flat rates shall be as follows:

	VEHICLE	LANDFILL FLAT RATE FEE	P.C.B. STATION/ B.G. GREENBOX FLAT RATE FEE
(1)	Cars	$ 2.00	$ 2.00
(2)	One-half ton trucks, station wagons and two-wheeled trailers	$ 7.00	$ 7.00
(3)	Special wastes:		
	(a) Mixed demolition material minimum charge per load (maximum determined by per ton user charge)	$ 35.00	N/A
	(b) Small dead animals (dogs, cats, fowls, etc.) shall be assessed a minimum charge per load.	$ 7.00	N/A
	(c) An individual bringing one small dead animal from his home or the highway will not be charged	N/A	N/A
	(d) Large dead animals (cows, horses, hogs, etc.) shall be assessed a minimum charge per load (maximum determined by per ton user charge).	$ 10.00	N/A

Scales Are Inoperative. The following rates and charges per vehicle for the deposit of solid waste at the Facility, the Landfill and at the P.C.B. Station shall be followed at all times when scales are inoperative or not installed at said sites. The charges are determined by the vehicle capacity or load size and not the volume or quantity of waste in or on the vehicle. The designation of "N/A" in the column under "P.C.B. Station" shall mean that said vehicle shall

not be accepted for dumping or unloading at the P.C.B. Station. The rates and charges to be utilized when scales are inoperative or not installed are as follows:

	VEHICLE	LANDFILL/FACILITY	P.C.B. STATION
(1)	Three-quarter ton pickup trucks, over-sized two-wheeled trailers and over-sized one-half ton pickup trucks.	$ 16.50	$ 21.00
(2)	Four-wheeled trailers	$ 36.50	$ 45.50
(3)	Six- wheeled trailers	$ 50.00	$ 65.00
(4)	Ten-Wheeled (tandem axle) trucks.	$ 81.00	N/A
(5)	Semi-trailers	$ 176.00	N/A
(6)	Compacted garbage or trash, by truck size according to manufacturer's specifications:		
	(a) 16 yard truck	$ 88.00	$112.00
	(b) 20 yard truck	$110.00	$140.00
	(c) 24 yard truck	$132.00	$168.00
	(d) 26 yard truck	$143.00	$182.00
	(e) 30 yard truck	$165.00	$210.00
	(f) 75 yard truck	$412.50	N/A
(7)	Roll off - open top containers		
	(a) Twenty cubic yard or less	$110.00	$140.00
	(b) Over twenty cubic	$ 146.50	N/A

C. OPERATION OF SYSTEM. The County Manager shall have the authority to establish guidelines, rules and regulations in accordance with the Service Contract and for the operation of the System including hours of operation, method of collecting user charges, designation of solid waste disposal locations, and the acceptance or non-acceptance of burnable or nonburnable solid waste at the different waste disposal locations in the System.

_____ shall take effect as provided by law.

DONE AND ADOPTED this 19th day of May, 1987.

STATE OF FLORIDA

COUNTY OF BAY

I, Harold Bazzel, Clerk of the Circuit Court, and ex officio Clerk and Auditor of the Board of County Commissioners do hereby certify that the above and foregoing Resolution was duly adopted by

the Board of County Commissioners of Bay County in regular session on the 19th day of May, 1987.

Harold Bazzel
Clerk of the Circuit Court
and ex officio Clerk and
Auditor to the Bay County
Board of County Commissioners
By: Tammy Hoffman
Deputy Clerk

ATTACHMENT 8

Florida Department of Environmental Regulation
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400
Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

May 26, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. David S. Beachler
Westinghouse RESD
Cost Building
2400 Ardmore Blvd.
Pittsburgh, Pennsylvania 15221

Dear Mr. Beachler:

Re: Completeness Review of Application to Modify
Bay County Resource Recovery Facility
Permit No. AC 03-145061, PSD-FL-129

As per our discussion of May 19, 1988, please provide unique and convincing arguments to justify your position that acid gas scrubbing should not be required for the above referenced project. EPA has indicated that this justification is needed to avoid the acid gas control issue. I anticipate setting up a meeting between Westinghouse, Bay County, EPA, and myself next week.

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

Sincerely,

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

CHF/PR/s

cc: E. Middleswart, NW District
W. Aronson, EPA
M. Flores, NPS
A. Richter, P.E.

ATTACHMENT 9

Westinghouse
Electric Corporation

Resource Energy Systems
Division

East Building
2400 Ardmore Boulevard
Pittsburgh Pennsylvania 15221
412 636 5800
WIN 281 5800

EN1199DB

RECEIVED
JUN 10 1988
DER - BAQM

June 9, 1988

Mr. Clair Fancy
Florida Dept. of Environmental Resources
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301

Dear Clair:

In response to your May 26, 1988 letter and our subsequent meeting in Atlanta with EPA Region IV on June 1, 1988, the following is a discussion on why the Bay County Resource Recovery Facility permit modification is unique and why acid gas controls should not be required to be retrofitted to burn an additional 160 tons per day of municipal solid waste (MSW). This letter incorporates by reference the original "Request for Permit Modification" PSD Permit Application (January 18, 1988) and the responses to requests for additional information dated April 26, 1988, March 17, 1988, and February 3, 1988, respectively.

The key issues to consider in deeming this project unique are:

- The Facility was designed and constructed to process 510 tpd of MSW.
- If DER requires spray dryers as BACT, it will be necessary because of the existing plant layout, to relocate the existing ESPs and to erect a new stack.
- The costs associated with retrofitting this facility with spray dryers are enormous especially in comparison with the overall project costs.
- The burden of payment for retrofitting will be born by the residents of Bay County.
- The incremental amount of pollutants emitted from processing an additional 160 tpd of MSW is minimal.
- The USEPA is in the process of preparing regulations for new (NSPS) and existing municipal waste combustors.
- The State of Florida will realize benefits to their overall solid waste management plan as well as protection of their groundwater resources by allowing this project to proceed as planned.

Although the Facility is permitted to process 350 tpd of MSW and 160 tpd of wood waste, it is designed to process 510 tpd of MSW. When the original permit application was prepared and submitted to DER in March 1984, only 350 tpd of MSW could be secured, and therefore the permit application reflected the amount of available waste and not the plant's design rated capacity. Since there have been no physical changes made to the plant to increase its capacity, it is felt that a permit should be granted based upon the original design and that DER should not require acid gas controls because of a "paper" modification. You had indicated in your letter to Bruce Miller, EPA Region IV, dated September 16, 1987 that DER would have granted a permit to burn 510 TPD with the same control equipment that is currently installed on the facility. (See Attachment A). As was indicated in previous correspondence to your office, the County requested a permit to burn only 350 TPD MSW because that was the projected waste stream available at the time of permit submission. The additional waste stream is now available, thus the request to burn up to 510 TPD MSW. Also, the June 1987 EPA Guidance Document on BACT for Municipal Solid Waste Incinerators does not actually mandate acid gas controls, but suggests that each application be reviewed on a case-by-case basis.

The addition of lime slurry will increase the grain loading to the ESP from approximately 3.0 to 5.0 gr/dscf. Recent test results at the Bay County facility show that the ESP inlet concentration levels are approximately 3.2 gr/dscf. In order to maintain an outlet concentration level of 0.03 gr/dscf (the permit condition), an additional field must be added to the existing ESPs.

In order to retrofit spray dryers at the Bay County Facility, it will be necessary to relocate the existing ESPs and the stack to make room for the spray drying vessels and ancillary equipment. Westinghouse estimates that the Facility would be shut down for approximately six months to accommodate this retrofit. The total cost for plant renovation and lost revenues is estimated to be 11.3 million dollars. This figure represents 30% of the original plant cost of 38 million dollars. The revised capital cost estimate for the spray dryers has been increased because a more detailed estimate was obtained from the equipment supplier of the existing ESPs, Environmental Elements Corporation (EEC).

Attachment B offers a detailed analysis of the costs associated with a retrofit period of six months both from the capital as well as operational perspective.

Further explanation of some categories of direct costs is appropriate. During the shutdown period the portion of the facility unaffected by construction work would require long term storage precautions as well as periodic maintenance. Therefore, the service fee for plant operations would continue to be felt by the County as efforts were directed to operations other than burning waste.

In addition, the obligations of bond debt servicing and lease payments to the owner trustee would continue during any shutdown period while energy revenues assigned to cover these obligations would not. This would add the burden of payment to the already large County bill.

The County via its response to this issue (Attachment C) has identified the burden these additional costs would place on their constituents toward their acceptance.

It is likely that any additional capital and/or operational costs would be financed by additional bond issuance. We have not calculated in our analysis this additional burden albeit very real. A twenty year bond issue sized to provide funds for the approximate $12 million in retrofit expense would require repayment of over $28 million during its lifetime accounting, therefore, for an additional $16 million in financing expense discounting any up front issuance or legal or administrative cost.

As stated in the previous submittals, the incremental amounts of SO_2 and HCl emitted are projected to be a maximum of 90 and 170 tons per year respectively. These numbers are based upon an inlet SO_2 concentration of 150 ppm and an inlet HCl concentration of 500 ppm, and that the facility is operated 24 hr/day, 365 day/yr. Assuming that the spray dryers will reduce the SO_2 emissions by 70% and the HCl emissions by 90% results in an incremental reduction of 63 tpy for SO_2 and 153 tpy for HCl. Westinghouse estimated that the incremental H_2SO_4 and HF emissions would be 4 and 0.4 tpy, respectively. The reduction in these two pollutants would be 2.8 and 0.36 tpy.

In the previous submittals, Westinghouse provided information regarding ESP control efficiencies for heavy metals (Pb, Be, As, Cd etc.). These efficiencies ranged from 98.5% to 99% for all metals except Cr^{++} and Hg. Adding acid gas controls may increase the removal efficiency for Hg (by lowering the flue gas exit temperature) from 0% to approximately 50% which will reduce the incremental Hg emissions to 0.25 tpy. However, it is doubtful that the other metal emissions will be affected.

Modern waste-to-energy facilities using sophisticated combustion controls and ESPs designed to meet particulate emission concentrations less than 0.03 gr/dscf show very low organic emission levels. Emission data from Chicago NW; Westchester Co., NY; Saugus, MA; North Andover, MA; and Tulsa, OK verify that modern W-T-E plants routinely emit low levels of dioxins and furans.

The annualized cost for retrofitting this facility is $1,614,871 (See Attachment B). This correlates to the following costs in dollars per ton of pollutant removed:

SO_2	63 tons	$ 25,632/ton
HCl	153 tons	$ 10,555/ton
H_2SO_4	2.8 tons	$ 576,740/ton
HF	0.36 tons	$4,485,742/ton
Hg	0.25 tons	$6,459,484/ton
All of the above	219.41 tons	$ 7,360/ton

The cost for removing the additional SO_2 generated when burning 510 TPD is approximately $26,000 per ton removed, which is excessively high. Even the total acid gas and mercury costs per ton removed are extremely high, at approximately $7400/ton.

As you know, the USEPA is in the process of developing regulations for both new sources (NSPS) and existing municipal waste combustors. EPA has indicated that the proposed regulations for new sources should be published in the Federal Register in late 1989. The regulations for existing sources should also be published in 1989, with proposed rules in 1990. We feel that if regulations are promulgated requiring existing sources to install acid gas scrubbers, the Bay County Facility, along with the 100 or so MSW combustors, would then install acid gas scrubbers. If however, EPA does not require acid gas scrubbers for existing sources, then the Bay County citizens would have to bear the high cost of additional air pollution control equipment that the other existing 100 sources throughout the USA would not be required to incur.

The Bay County facility was designed to burn 510 TPD MSW having a higher heating value of 4500 Btu per lb. This was done so that the plant would be able to handle all of Bay County's waste well into the year 2000. In addition, the plant would also be able to operate as a regional waste combustion facility and process waste from other counties nearby. The facility was originally built because the existing landfill was found to be contaminating the ground water supply. Landfills with similar geological conditions in the panhandle of Florida may also be contaminating the local ground water supplies. The Florida DER Bureau of Solid Waste Management approached the officials of Bay County about the possibility of burning "out-of-County" waste at the Bay County W-T-E plant in 1987. Florida DER then sent letters to the Chairpersons of Gulf, Liberty, Washington, and Calhoun Counties on August 11, 1987 requesting that these counties consider sending their waste to the Bay County Plant to help alleviate their existing landfill problems. These letters are attached as Appendix D. In summary, the citizens of the State of Florida would realize an environmental benefit if the Bay County W-T-E plant did, in fact, burn waste from counties surrounding Bay County, thereby eliminating a source of ground water contamination.

Thank you for considering our request. Should you have any questions regarding this matter please feel free to contact me at (412) 636-5806.

Sincerely Yours,

David S Beachler

D. S. Beachler, Manager
Environmental and Quality Engineering

cc: W. Aronson, U.S.EPA, Region IV
Nevin Zimmerman - Bay County Legal Counsel

Attachments (4)

/kjd
EN1199DB-EN09

Copies, [illegible]
[illegible]
Barry Andrews
Tom Rogers
Ed Middle[illegible], [illegible]
Wayne Aronson EPA
[illegible] NPS

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

September 16, 1987

Mr. Bruce P. Miller, Chief
Air Programs Branch
U.S. EPA - Region IV
345 Courtland Street
Atlanta, Georgia 30365

Dear Mr. Miller:

The Bureau of Air Quality Management has received notification that Westinghouse Electric Corporation would like to increase the municipal solid waste (MSW) throughput at their facility (Bay County Resource Recovery Facility) near Panama City, Florida. The request would involve increasing the throughput from the presently permitted value of 350 TPD to 510 TPD in order to handle additional tonnage that would originate from adjacent counties (see attached news release).

As a result of this MSW throughput increase, the emissions of NOx and SO_2 would increase by 14 and 76 tons per year respectively. This increase would result in a major modification for SO_2, thereby requiring a BACT review. In accordance with this request, the Bureau is seeking your guidance.

Although the Bureau is well aware of EPA's feelings regarding BACT for new resource recovery facilities, we are uncertain as to how a BACT determination should be evaluated for SO_2 emissions from this existing facility. The manner in which this request should be handled is difficult to ascertain based on the permitting history of the facility. In order to better understand this situation it is well to provide some background information.

The Bay County Resource Recovery Facility (RRF) was designed to process a total of 510 TPD MSW. However, in accordance with the guaranteed amount of MSW that was available in Bay County, the applicant requested that the facility be permitted to burn 350 TPD of MSW and 178 TPD of wood wastes as a supplemental fuel.

On, August 3, 1987 the Bureau received Westinghouse's request to increase the MSW throughput at their facility. This request was based on the possibility of the Bay County RRF becoming a regional RRF, thereby requiring that the facility would need to

operate at full capacity (510 TPD) with MSW thus eliminating the need for supplementing with wood waste. This change in the quantity of MSW burned results in the SO_2 increase since the emission rate of SO_2 from MSW is much greater than that of wood wastes (3.37 and 0.3 pounds per ton respectively).

Upon evaluating this situation, the Bureau believes that the facility should be allowed to increase the MSW throughput to 510 TPD without having to take additional measures to control SO_2 emissions than were determined in the original BACT determination. It is clearly evident that Westinghouse requested a MSW throughput level which was below maximum capacity only because the County did not have an MSW generation rate which would necessitate operating at full capacity. In addition, the Bureau believes that if Westinghouse did initially apply to operate at full MSW capacity, the BACT determination would have been completed exactly as it stands today.

As you know, the permitting of resource recovery facilities has been subject to much controversy. As is the case, the Bureau does not want to proceed with this request without receiving Region IV's input.

Seeing that a MSW throughput increase for the Bay County Facility would do much to alleviate the present solid waste disposal problems in the area around Bay County, the Bureau would appreciate receiving your input as soon as possible. For your information, I have enclosed a summary of the recent stack testing results. If you have any questions, please contact Barry Andrews at (904) 488-1344.

Sincerely,

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

CF/BA/ss

Enclosures

cc: D. Beachler
T. Moody

SEP 22 1983

ATTACHMENT B

CAPITAL COSTS

I. Spray Dryers

Lime Slurry Feed and Preparation		$ 450,000
Dryers		750,000
Erection		500,000
Ductwork		150,000
Heat Insulation		300,000
Controls		100,000
Piping		50,000
Access		125,000
Wiring		200,000
Field Supervision		60,000
Start-up and Shakedown		200,000
	SUB-TOTAL:	$ 2,885,000

II. ESP Relocation and Stack Construction

Dismantle and Remove Existing Stack		$ 200,000
Construct New Stack (including foundations)		510,000
Construct New ESP Foundations		70,400
Dismantle ESP's		150,000
Re-erect ESP's		350,000
Add an Additional Field to Each ESP		400,000
	SUB-TOTAL:	$ 1,680,400

III. Miscellaneous Equipment

Replace Pneumatic Conveyors with Drag Conveyors		$ 450,000
Replace Induced Draft Fans		88,000
	SUB-TOTAL:	$ 538,000

IV. Direct Costs Related to Six-Month Plant Shutdown

Transportation of By-Pass Waste (510 TPD) (180 days) ($2/ton)		$ 183,600
Landfill Depletion (510 TPD) (180 days) ($20/ton)		1,836,000
Boiler Shutdown Servicing		250,000
Plant Staffing		1,333,072
Electrical Usage		6,000
Lease Payments		1,861,100
Bond Servicing		755,333
	SUB-TOTAL:	$ 6,225,105
	TOTAL CAPITAL COSTS:	$11,328,500

EN1199DB-EN09:5

ATTACHMENT B (Continued)

OPERATING AND MAINTENANCE COSTS

Lime Consumption	$ 75,555
Additional Power	56,718
Water	5,440
Maintenance	35,200
Spare Parts	78,280
Increase Disposal Costs	32,580
TOTAL OPERATING COSTS:	$283,773

ANNUALIZED COSTS
(I=10%, N=20 years)

Capital Cost = $11,328,500
O&M = $ 283,773

Annualized Cost = $11,328,500 (A/P,10%,20) + $283,773

Annualized Cost = $ 1,614,871

ATTACHMENT C

Board of County Commissioners

Bay County

POST OFFICE BOX 1808
PANAMA CITY, FLORIDA 32402
PHONE: (904) 784-4000

June 9, 1988

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

Re: Permits

Dear Mr. Fancy:

The purpose of this letter is to set forth the reasons that the Board of County Commissioners of Bay County ("the Board") believes that the State of Florida Department of Environmental Regulation ("DER") should issue the necessary operational permits to allow the Bay Resource Management Center ("the Facility") to operate at its designed capacity of 510 tons per day of municipal solid waste ("MSW").

The Board has a long history of administrative proceedings, consent orders and enforcement action with regard to the inadequacy of the Board's landfill to dispose of MSW generated in Bay County. Because of the substantial numbers of bays, bayous, creeks, inlets and marsh areas, the County has a high water table which combined with a geology favoring the formation of limestone sink holes, and a large public potable surface water supply in the form of Deerpoint Lake, the Board was unable to locate an adequate site for a new landfill. The efforts of the Board to locate a site spawned numerous citizens groups all opposing the various proposed sites and resulted in several formal administrative hearings involving the Board, DER and citizens groups.

While the County was experiencing problems with its existing landfill, the Florida Legislature developed a legislative policy that designated 19 counties in Florida as having a responsibility for developing a comprehensive solid waste resource recovery and management program that included consideration of incinerators, particularly those able to provide service on a regional basis. (See Fla. Admin. Code Rule §17-7.020(16)) Bay County was the least populated of the 19 counties and was also located in the most economically depressed area of the State. Through a government

grant, the County was able to obtain the necessary funds to do a preliminary feasibility study which concluded that incineration was the best course for the Board to pursue. (Municipal Solid Waste to Energy, Feasibility for Bay County, Florida, dated September 22, 1981, prepared by Stock Equipment Company, a unit of General Signal)

While the public at large was generally opposed to landfills, there was a general public acceptance of the concept of incineration including the formation of a citizens group named PIC for "Protect, Incinerate and Conserve". Because of the Board's desire to plan for the future growth of the County, to provide an opportunity for service on a regional basis and in order to secure better project economics, the Board contracted with Westinghouse Electric Corporation ("Westinghouse") for the development of a two train (each train having a capacity of 255 tons per day), 510 ton per day incinerator named the Bay Resource Management Center.

The feasibility studies with regard to the Facility contemplated that the initial needs of Bay County itself would be approximately 350 tons per day and that the additional capacity of 160 tons per day would be available for use by other counties until Bay County's needs nad increased. Because definitive contracts were not in place with other counties, the feasibility of the Facility was further based on a supplementation of MSW by waste wood which was plentiful in area forest lands.

The Board has paid Westinghouse for a 510 ton per day Facility for which Westinghouse has the responsibility for obtaining appropriate environmental permits. Westinghouse was advised by DER that the only permits that could be obtained were permits based upon the actual projected start-up use of the Facility and not on projected future uses of the Facility. Therefore, the initial operational permits were for a capacity of 350 tons per day of MSW with the balance being waste wood. The Board and Westinghouse always contemplated that DER would increase the operational permit as the amount of MSW processed by the Facility increased.

As stated above, public acceptance of the concept of incineration and the Facility in particular has generally been good with the exception of public complaints with regard to cost. While the public appears willing to pay the cost of incineration as a preferable method of disposing of MSW, the cost is substantially more than the cost of running an inadequate, non-permitted landfill and therefore the Board has been under public pressure to clearly account for the cost of the Facility.

One item that has received considerable focus is the cost of purchasing waste wood to supplement the MSW so that the Facility can run at its designed capacity of 510 tons per day. Even though the Facility is economically better off to burn waste wood and generate the additional electricity produced thereby and sell that electricity to Florida Power Company, it is obvious to the public that the County would be much better off if it could avoid

paying for waste wood and instead be paid to dispose of MSW. Since all surrounding counties have inadequate landfills and there is in general no shortage of MSW, the Board and the public believe that the excess capacity of the Facility should be filled with MSW.

Of course, Secretary Twachtmann has shared this view and has encouraged surrounding counties to use the Facility but to date, the Board has not been in a position to finalize any arrangements for additional MSW because of a concern about the permitted capacity of the Facility.

Also, as DER is aware, Bay County is a substantial tourist destination and during the summer months the population of the area and consequently the MSW produced increases substantially. Therefore, even without securing MSW from surrounding areas, during the summer months the County will approach or perhaps even exceed 350 tons per day of MSW processed through the Facility.

Thus the failure of DER to issue the 510 ton per day operation permit is costing the public of Bay County and increasing their concern about the cost of incineration.

In addition, DER has also raised the possibility that before issuing the permit to use the Facility up to its designed capacity for the disposal of MSW, additional expensive equipment in the form of acid gas scrubbers should be added to the Facility.

Of course, this only further compounds the cost associated with incineration. The contract between the Board and Westinghouse provides that if there are changes in law, regulation or policy after August 1, 1984, the expense of making such additions to the Facility will be borne by the County rather than by Westinghouse.

Westinghouse has estimated that the cost of adding the acid gas scrubbers and other equipment (including all direct or indirect costs) suggested by DER would be in the range of $11,328,500 including 176 day shutdown period for required retrofitting and that this would be an expense of the Board and not Westinghouse. This obviously has a substantial negative impact on the County.

As with most public bodies, the method Bay County would use to pay for the costs of retrofitting the incinerator would be to borrow additional money. Bay County presently has outstanding a $60,000,000 uninsured bond issue that is secured solely by the revenues of the solid waste system. Although we do not know for certain, it is doubtful that the revenues of the System are sufficient to secure additional parity bonds or even junior in lien bonds in the amount necessary to finance the retrofitting expenses.

Actually, estimates of the cost of (i) not allowing the processing of additional MSW (approximately 50,000 tons per year) in lieu of waste wood cost the public of Bay County an additional fifty

percent (50%) over the present operation and management cost (in other words, if the revenue collected from other counties is $25 per ton and the cost of wastewood is $12 per ton, then the additional expense of not being able to burn MSW will result in a loss of $1,250,000 per year in out-of-county tipping fee revenues and an expense of $600,000 per year for wastewood which translates into an additional expense of $17 per ton to the Bay County citizens and (ii) the cost of adding acid gas scrubbers is estimated to add at least $10 per ton to the cost of disposing of MSW at the Facility.

The Board does not believe that there is an adequate cost benefit ratio involved in requiring the addition of acid gas scrubbers and further believes that the Board should not be penalized for its foresight in implementing existing State policy through the development of a Facility sized for the future needs of Bay County and for interim use on a regional basis.

One final point, the Board understands that EPA is presently in the process of developing its policy with regard to pollution control devices such as acid gas scrubbers on incinerators and that this policy should be finalized in the near future. It appears to be unwise and unfair to make Bay County take some action at the present time before this final policy is established since whatever Bay County does may or may not be in compliance with the final policy. It appears to be a much wiser and sounder course to follow to issue the appropriate operational permit to Bay County at this time and then treat Bay County the same as other similarly situated when EPA's policy is finally determined.

The Board hopes that DER will agree that the 510 ton per day operational permit should be issued at the earliest possible date and will follow through so to issue the necessary permit.

Thanking you for your cooperation, ~~I remain~~

Very truly yours,

Robert H. Oldland
County Manager

RHO:mdg

ATTACHMENT D

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHWEST DISTRICT
160 GOVERNMENTAL CENTER
PENSACOLA, FLORIDA 32501-5794

August 7, 1987

Honorable William Branch
Chairman, Gulf County Board
of County Commissioners
1000 5th Street
Port St. Joe, Florida 32456

Dear Chairman Branch:

Your Buck Horn Landfill does not meet the State's requirements for the operation of landfills. We are concerned about your present status and the likelihood that you will not be able to meet these standards in the near future. However, there are alternatives. In example, Bay County's new Resource Recovery Facility (a refuse to energy plant) may be able to handle up to 510 tons per day of Municipal Solid Waste (MSW). At present, Bay County is providing only about 325 tons per day and thus could handle an additional 185 tons per day in out-of-county waste. The County is actively seeking additional waste sources; I understand the County estimates a tipping fee ranging from $22 to $28 per ton at present. Similarly, Timber Energy is examining the availability of MSW for a facility they are considering.

We suggest that you seriously consider any available alternatives. Some may be of mutual benefit to both parties, considering the rising costs of landfill operations. Your having given these alternatives serious consideration may also help you in the event the Department or other parties have to institute enforcement proceedings against your non-complying solid waste operations.

Sincerely,

Robert V. Kriegel
District Manager

RVK/rkf

cc: [redacted]

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHWEST DISTRICT
160 GOVERNMENTAL CENTER
PENSACOLA, FLORIDA 32501-5794

August 7, 1987

Honorable Gene Sidney Free
Chairman, Liberty County Board
of County Commissioners
Post Office Box 398
Bristol, Florida 32321

Dear Chairman Free:

Your Central Landfill does not meet the State's requirements for the operation of landfills. We are concerned about your present status and the likelihood that you will not be able to meet these standards in the near future. However, there are alternatives. In example, Bay County's new Resource Recovery Facility (a refuse to energy plant) may be able to handle up to 510 tons per day of Municipal Solid Waste (MSW). At present, Bay County is providing only about 325 tons per day and thus could handle an additional 185 tons per day in out-of-county waste. The County is actively seeking additional waste sources; I understand the County estimates a tipping fee ranging from $22 to $28 per ton at present. Similarly, Timber Energy is examining the availability of MSW for a facility they are considering.

We suggest that you seriously consider any available alternatives. Some may be of mutual benefit to both parties, considering the rising costs of landfill operations. Your having given these alternatives serious consideration may also help you in the event the Department or other parties have to institute enforcement proceedings against your non-complying solid waste operations.

Sincerely,

Robert V. Kriegel
District Manager

RVK/rkf

cc: [redacted]

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHWEST DISTRICT
160 GOVERNMENTAL CENTER
PENSACOLA, FLORIDA 32501-5794

August 11, 1987

Honorable John Carter
Chairman, Washington County Board
of County Commissioners
Post Office Box 647
Chipley, Florida 32428-00647

Dear Chairman Carter:

Your Chipley and Mudhill Landfills do not meet the State's new requirements for the operation of landfills. We are concerned about your present status and the likelihood that you will not be able to meet these standards in the near future. However, there are alternatives. In example, Bay County's new Resource Recovery Facility (a refuse to energy plant) may be able to handle up to 510 tons per day of Municipal Solid Waste (MSW). At present, Bay County is providing only about 325 tons per day and thus could handle an additional 185 tons per day in out-of-county waste. The County is actively seeking additional waste sources; I understand the County estimates a tipping fee ranging from $22 to $28 per ton at present. Similarly, Timber Energy is examining the availability of MSW for a facility they are considering.

We suggest that you seriously consider any available alternatives. Some may be of mutual benefit to both parties, considering the rising costs of landfill operations. Your having given these alternatives serious consideration may also help you in the event the Department or other parties have to institute enforcement proceedings concerning your solid waste operations.

Sincerely,

Robert V. Kriegel
District Manager

RVK/rkf

cc: [redacted]

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHWEST DISTRICT
160 GOVERNMENTAL CENTER
PENSACOLA, FLORIDA 32501-5794

August 11, 1987

Honorable Ron Wood
Chairman, Calhoun County Board
of County Commissioners
425 East Central Avenue
Blountstown, Florida 32424

Dear Chairman Wood:

Your Central Landfill does not meet the State's new requirements for the operation of landfills and we have executed an agreement with the county outlining corrective actions and a schedule. We are concerned about your present status and the likelihood that you will not be able to meet these standards in the near future. However, there are alternatives. In example, Bay County's new Resource Recovery Facility (a refuse to energy plant) may be able to handle up to 510 tons per day of Municipal Solid Waste (MSW). At present, Bay County is providing only about 325 tons per day and thus could handle an additional 185 tons per day in out-of-county waste. The County is actively seeking additional waste sources; I understand the County estimates a tipping fee ranging from $22 to $28 per ton at present. Similarly, Timber Energy is examining the availability of MSW for a facility they are considering.

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Sincerely,

Robert V. Kriegel
District Manager

RVK/rkf

cc: [redacted]

ATTACHMENT 10

Board of County Commissioners
Bay County
OFFICE OF THE COUNTY ATTORNEYS
221 MCKENZIE AVENUE
POST OFFICE BOX 70
PANAMA CITY, FLORIDA 32402
TELEPHONE (904) 784-4
TELECOPY (904) 784-4057

RECEIVED
JUN 16 1988
DER-BAQM

June 15, 1988

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

Re: Permits

Dear Mr. Fancy:

Please disregard the previous letter sent regarding permits dated June 9, 1988 and replace same with the enclosed letter which has editorial changes on the second page.

Thank you.

Sincerely yours,

Michelle Glover
Office of Nevin J. Zimmerman

NJZ:mdg
Enclosures

Board of County Commissioners

Bay County

OFFICE OF THE COUNTY ATTORNEYS
[illegible] McKENZIE AVENUE
POST OFFICE BOX [illegible]
PANAMA CITY, FLORIDA 32402
TELEPHONE [illegible]
TELECOPY [illegible]

ATTORNEYS
[illegible]

COMMISSIONERS
JOHN B. [illegible] JR.
RALPH [illegible]
S. RICHARD [illegible]
HAROLD [illegible]
TOMMY [illegible]

June 9, 1988

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

Re: Permits

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The Board has paid Westinghouse for a 510 ton per day Facility for which Westinghouse has the responsibility for obtaining appropriate environmental permits. Westinghouse was advised by DER that the only permits that could be obtained were permits based upon the actual projected start-up use of the Facility and not on projected future uses of the Facility. Therefore, the initial operational permits were for a capacity of 350 tons per day of MSW with the balance being waste wood. The Board and Westinghouse always contemplated that DER would increase the operational permit as the amount of MSW processed by the Facility increased.

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One item that has received considerable focus is the cost of purchasing waste wood to supplement the MSW so that the Facility can run at its designed capacity of 510 tons per day. Even though the Facility is economically better off to burn waste wood and generate the additional electricity produced thereby and sell that electricity to Florida Power Company, it is obvious to the public that the County would be much better off if it could avoid

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Of course, Secretary Twachtmann has shared this view and has encouraged surrounding counties to use the Facility but to date, the Board has not been in a position to finalize any arrangements for additional MSW because of a concern about the permitted capacity of the Facility.

Also, as DER is aware, Bay County is a substantial tourist destination and during the summer months the population of the area and consequently the MSW produced increases substantially. Therefore, even without securing MSW from surrounding areas, during the summer months the County will approach or perhaps even exceed 350 tons per day of MSW processed through the Facility.

Thus the failure of DER to issue the 510 ton per day operation permit is costing the public of Bay County and increasing their concern about the cost of incineration.

In addition, DER has also raised the possibility that before issuing the permit to use the Facility up to its designed capacity for the disposal of MSW, additional expensive equipment in the form of acid gas scrubbers should be added to the Facility.

Of course, this only further compounds the cost associated with incineration. The contract between the Board and Westinghouse provides that if there are changes in law, regulation or policy after August 1, 1984, the expense of making such additions to the Facility will be borne by the County rather than by Westinghouse.

Westinghouse has estimated that the cost of adding the acid gas scrubbers and other equipment (including all direct or indirect costs) suggested by DER would be in the range of $11,328,500 including 176 day shutdown period for required retrofitting and that this would be an expense of the Board and not Westinghouse. This obviously has a substantial negative impact on the County.

As with most public bodies, the method Bay County would use to pay for the costs of retrofitting the incinerator would be to borrow additional money. Bay County presently has outstanding a $60,000,000 uninsured bond issue that is secured solely by the revenues of the solid waste system. Although we do not know for certain, it is doubtful that the revenues of the System are sufficient to secure additional parity bonds or even junior in lien bonds in the amount necessary to finance the retrofitting expenses.

Estimates of the cost of (i) not allowing the processing of additional MSW (approximately 50,000 tons per year) in lieu of waste wood would cost the public of Bay County an additional fifty

percent (50%) over the present operation and management cost (in other words, if the revenue collected from other counties is $25 per ton and the cost of wastewood is $12 per ton, then the additional expense of not being able to burn 510 tons of MSW each day will result in a loss of $1,250,000 per year in out-of-county tipping fee revenues plus an expense of $600,000 per year for wastewood which translates into an additional expense of $17 per ton to the Bay County citizens and (ii) the cost of adding acid gas scrubbers is estimated to add at least $10 per ton to the cost of disposing of MSW at the Facility.

The Board does not believe that there is an adequate cost benefit ratio involved in requiring the addition of acid gas scrubbers and further believes that the Board should not be penalized for its foresight in implementing existing State policy through the development of a Facility sized for the future needs of Bay County and for interim use on a regional basis.

One final point, the Board understands that EPA is presently in the process of developing its policy with regard to pollution control devices such as acid gas scrubbers on incinerators and that this policy should be finalized in the near future. It appears to be unwise and unfair to make Bay County take some action at the present time before this final policy is established since whatever Bay County does may or may not be in compliance with the final policy. It appears to be a much wiser and sounder course to follow to issue the appropriate operational permit to Bay County at this time and then treat Bay County the same as other similarly situated when EPA's policy is finally determined.

The Board hopes that DER will agree that the 510 ton per day operational permit should be issued at the earliest possible date and will follow through to so issue the necessary permit.

Thanking you for your cooperation, I remain

Very truly yours,

Robert H. Oldland
County Manager

RHO:mdg