

Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF PERMIT

Mr. D. S. Beachler
Westinghouse RESD, Cost Building
2400 Ardmore Boulevard
Pittsburgh, Pennsylvania 15221

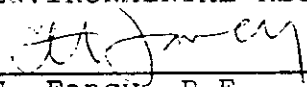
October 17, 1988

Enclosed are permits Nos. AC 03-145061, AC 03-152196 and PSD-FL-129 for Bay Resource Management Center to increase the municipal solid waste charging rate at the existing Bay County Waste-to-Energy Facility, in Bay County, Florida. These permits are issued pursuant to Section 403, Florida Statutes.

Any Party to these permits has the right to seek judicial review of these permits pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date these permits are filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



C. H. Fancy, P.E.

Deputy Chief

Bureau of Air Quality Management

- Copy furnished to:

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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 10/18/88.

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.

Judy Rogers
Clerk

10/18/88
Date

Final 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

October 13, 1988

Final Determination

Bay Resource Management Center's application for a construction permit to increase the municipal solid waste (MSW) charging rate at the existing Bay County Waste-to-Energy Facility, Bay County, Florida, has been reviewed by the Bureau of Air Quality Management. Public Notice of the Department's Intent to Issue the permit was published in the News-Herald on August 10, 1988.

Comments in response to the Public Notice are addressed below, in the order they were received.

I. Comments received from Westinghouse (see Attachment 13) are addressed below:

1. In Specific Condition No. 3 of the proposed permit, the flue gas emissions listed are for the facility. The table will be amended to include emissions for each combustor.
2. The expiration date of the proposed permit will be extended until June 1, 1989, to provide time for equipment installation and testing.
3. The facility will be allowed to charge up to 160 TPD wood waste. However, the combustor in which the wood waste is burned will have to comply with the permitted emission limitations. If the facility is to be permitted to combust wood waste in excess of 160 TPD, the permit application will have to be amended to reflect the consequent increase in emissions of several pollutants.
4. DER will not accept wood waste as start-up fuel in place of fuel oil because of greater emissions during the period when the operating conditions are not normal and emissions tend to be higher than when operating at steady state.
5. The Department will accept prior test results so long as the tests are in accordance with the permit conditions and the operation rates are representative (within 10% of the maximum permitted capacity).
6. The visible emissions limit in Specific Condition No. 3 is 15% opacity for six minutes in any one hour.
7. In consideration of comments received and further review, DER will delete the requirement for the CO₂ monitor from Specific Condition No. 5. A concentration value will be added for CO.
8. The Department will accept heat input calculations based on steam and flue gas data with a mention of the amount of waste

III. Comments from the Central Air Permitting staff on several specific conditions (SC) are addressed below:

SC No. 1: This condition will be amended to reflect wording used in permits for similar projects.

SC No. 3: A reference to the 1987 version of the CFR, and a clarification of it's applicability, will be added to the reference to 40 CFR 60.

SC No. 4d: This condition will be amended to reflect that compliance testing should be conducted within 10% of the maximum capacity.

SC No. 4e: This condition will be amended to clarify which alternate compliance tests are acceptable.

SC No. 7: A specific reference to the Northwest District office will be added to this condition.

IV. Comments received from EPA on October 11, 1988 (see attachment 15), are addressed below:

1. EPA requests the inclusion of the basis for the emission limitations into the permit conditions. The emission factors which were used to establish the emission limitations will be added to SC No. 3.
2. PM₁₀ emissions will be addressed in SC No. 3 as requested by EPA. DER conservatively assumed that PM₁₀ is 100% PM₁₀.
3. The reference to 40 CFR 60 in SC No. 4 will be qualified by a mention of the year of publication. EPA's request to include compliance test runs, sampling times, and averaging times, will be added to future permits after further clarification from EPA.
4. EPA objects to the use of wood waste as start up fuel, as does DER (see I.4, Westinghouse comments).
5. If the MSW charging rate limitation is expressed as an average, EPA feels that a 3-hour averaging time should be specified.

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

burned. However, the permit restriction on the quantity of waste burned will not be replaced with a restriction on only heat input because the Bureau believes that the mass emissions from the units are directly related to the quantity of the waste burned.

9. DER is willing to review the request for increasing the permitted charging rate of the units if the permit application is amended to reflect the increase in both fuel and emissions. The request to allow operation up to 120% of the design capacity cannot be allowed because it exceeds the maximum parameters considered in the technical review.

II. Although comments from the Bay County Audubon Society (see Attachment 14) were received late, DER will consider them in the Final Determination. The comments are addressed below:

1. DER's BACT, which does not require acid gas scrubbers, is based on the cost of controlling the incremental increase in acid gas emissions resulting from the increase in MSW and the corresponding decrease in wood waste burned, and not on the overall acid gas emissions. The control costs thus determined are over three times the EPA cost guideline of \$2000 per ton of pollutant. Therefore, DER does not consider the cost of scrubbers justifiable.
2. The fact that the time period needed to install scrubbers would be detrimental to attracting waste from surrounding counties was mentioned as a consequential issue, not as a significant factor in the BACT analysis.
3. The fact that alternate waste disposal arrangements would be required during a facility shutdown was mentioned as a consequential issue, not as a significant factor in the BACT analysis.
4. The Bureau's policy in reviewing air construction permit applications has been to evaluate projects based on applicable existing rules, regulations and guidelines. Where possible, applicants have been made aware of pending/proposed rules which may affect a given project at a later date. However, permitting or the postponement thereof, based on proposed rules is not the policy. If EPA promulgated rules that would require retrofit of acid gas controls on existing units of this size then Bay County would be required to do so.
5. The Department has directed significant resources towards the acid rain problem as well as the ozone problem. In accordance with the Clean Air Act, the Bureau has set up a project evaluation system which takes into consideration health, economics, environmental issues, etc. Only projects which meet the environmental regulatory requirements are allowed to be constructed.

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 (F.A.C.) 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 F.A.C. Rule 17-2.420.

BACT Determination Requested by the Applicant

A review of Table 1 indicates that sulfur dioxide (SO₂) 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 Bay County and other facilities, the SO₂ 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 Determination 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 pollutants 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% SO₂ 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 perceived to be a threat to air quality.

Potentially Sensitive Concerns

Although, the Bay County Waste-to-Energy 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 the 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 temporarily closing down the 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.

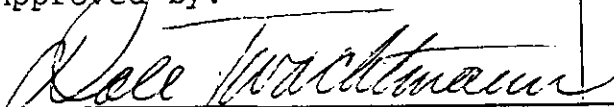
Recommended by:



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

October 13, 1988
Date

Approved by:

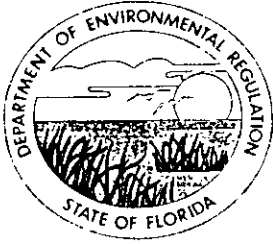


Dale Twachtman, Secretary

14 Oct. 1988
Date

TABLE 1

<u>Pollutant</u>	<u>Annual Emissions (Tons/Year) Based on 350 TPD MSW 135 TPD Wood</u>	<u>Maximum Annual Emissions (tons/yr) Based on 510 TPD MSW or 350 TPD MSW & 160 TPD Wood</u>	<u>Difference (Tons/Year)</u>	<u>PSD Significant Emissions Rate (Tons/Year)</u>
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	-



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

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: June 1, 1989
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) facility 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.
11. Bay County Audubon Society letter received July 22, 1988.
12. DER letter dated August 2, 1988.
13. Westinghouse letter received August 12, 1988.
14. Bay County Audubon Society letter received September 20, 1988.
15. EPA letter received October 11, 1988.
16. Final Determination dated October 12, 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.

PERMITTEE: Bay Resource
Management Center

Permit Numbers: AC 03-145061
03-152196

GENERAL CONDITIONS:

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

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

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

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

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

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

PERMITTEE: Bay Resource
Management Center

Permit Numbers: AC 03-145061
03-152196

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.

PERMITTEE: Bay Resource
Management Center

Permit Numbers: AC 03-145061
03-152196

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. The maximum charging rate of each municipal waste combustor (MWC) shall not exceed 255 tons of municipal solid waste (MSW) per day (a total of 510 TPD for the facility); 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 (design capacity).
- b. The wood waste utilization rate shall not exceed 160 TPD for the facility. Wood waste shall be used when sufficient MSW is not available to maintain a steady heat rate.

PERMITTEE: Bay Resource Management Center

Permit Numbers: AC 03-145061
03-152196

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 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 the facility shall not exceed the following:

Pollutant	Emission Limitations		Emission Factors	
	Per Unit lbs/hr	Facility lbs/hr	Wood lb/ton	MSW lb/ton
PM, PM ₁₀	6.8	13.5	(0.03 gr/dscf)	
CO	92.8	185.6	20.0	3.58
NOx	26.9	53.9	2.8	2.41
SO ₂	35.8	71.5	0.3	3.36
VOC	7.1	14.2	1.7	0.196
Lead	0.04	0.08	0	0.0039
Mercury	0.18	0.36	0	0.0017
Beryllium	5x10 ⁻⁶	1x10 ⁻⁵	0	4.8x10 ⁻⁷
Hydrogen Chloride	61.7	123.3	0	5.8
Sulfuric Acid Mist	1.5	3.0	0	0.14
Fluoride	0.15	0.3	0	0.014

59
E13
736
313
42
0.36
1.60
4.5x10⁻⁵
500
13
108

Visible emissions shall not exceed 15% opacity (6 min. average).

PM₁₀ emissions are conservatively assumed to be equal to 100% PM.

PERMITTEE: Bay Resource
Management Center

Permit Numbers: AC 03-145061
03-152196

SPECIFIC CONDITIONS:

Compliance with the permit emission limits shall be determined by EPA reference method tests included in 40 CFR Parts 60 and 61 (1987 version) 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 SO₂ 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, when heat input per unit exceeds 100 MMBtu/hr; 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, SO₂, 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. Initial and annual visible emissions compliance tests shall be determined in accordance with 40 CFR 60.11(b) and (e).
- d. The compliance tests shall be conducted within 10% of the maximum capacity and firing rate of each permitted fuel.
- e. The following test methods and procedures of 40 CFR Parts 60 and 61 or other DER approved methods with prior DER approval shall be used for compliance testing:
 - (1) Method 1 for selection of sample site and sample traverses.
 - (2) Method 2 for determining stack gas flow rate.
 - (3) Method 3 or 3A for gas analysis for calculation of percent O₂ and CO₂.

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- (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 SO₂.
- (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, and carbon monoxide 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.

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- 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. CO emissions, corrected to 7% O₂, shall be recorded. A CO value of 400 ppmvd shall indicate good combustion (800 ppm corresponds to the emission limitation in Condition No. 3).
- g. For purposes of reports required under this permit, excess emissions are defined as any calculated average emission concentration, as determined pursuant to Condition No. 5 herein, which exceeds the applicable emission limit in Condition No. 3.

6. Operations Monitoring

- a. Devices shall be installed to continuously monitor and record steam production, furnace exit gas temperature (FEGT) and flue gas temperature at the exit of the 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 DER's Northwest District office.

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- b. The results of compliance test shall be submitted to the Department's Northwest 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 or adjustments (60.7(c)(3)).
 - (4) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report (60.7(c)(4)).
 - (5) The owner or operator shall maintain a file of all measurements, including continuous monitoring systems performance evaluations; monitoring systems or monitoring device calibration; checks; adjustments and maintenance performed on these systems or devices; and all other information required by this permit recorded in a permanent form suitable for inspection (60.7(d)).

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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, F.A.C.).

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, compliance test results, and Certificate of Completion to the Department's Northwest 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, F.A.C.).


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, F.A.C.).

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

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

Issued this 14 day of Oct, 1988

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION


Dale Twachtman, Secretary