

Florida Department of Environmental Regulation

Northwest District • 160 Governmental Center • Pensacola, Florida 32501-5794 • 904-436-2

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary
Robert Kriegel, Deputy Assistant Secretary

Pensacola area
Permit

PERMITTEE:

Bay County Energy Systems,
Inc.

I.D. Number: 10PCY03003101

Permit/Certification Number: A003-165754

Date of Issue: **APR 13 1990**

Expiration Date: April 1, 1995

County: Bay

Latitude/Longitude: 30°15'54"N/85°30'08"W

Section/Township/Range: 35/2S/3W

Project: Municipal Waste Combustor Unit 1
(North)

This permit is issued under the provisions of Section 403.087, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Operation of municipal waste combustor (MWC) Unit 1 (North), manufactured by O'Connor, model RC120, 95.6 million Btu/hour heat input. The primary fuel for this unit is municipal solid waste with wood waste as auxiliary fuel. Particulate emissions are controlled by an electrostatic precipitator. Sulfur dioxide emissions are controlled by low sulfur content of fuels.

Located: 3/4 mile south of U.S. 231, 11 miles north of Panama City.

The following specific conditions require timely action by the permittee during the life of this permit:

- Condition 19 Annual compliance tests (by December 31)
- 20 Compliance tests (by December 31, 1994)
- 21 Annual operation report (by March 1)
- 22.a. CEMS Performance Specification (60 days after applicable)
- 22.b. CEMS Quality Assurance (Daily & Quarterly)
- 24 Excess Emissions Report (Quarterly)
- 25 Changes Reported to DER (each occurrence)
- 29 Application to renew permit (by February 1, 1995)

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Bureau of
Air Regulation

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GENERAL CONDITIONS:

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 the 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 corrected promptly.

SPECIFIC CONDITIONS:

16. 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). A 7 day average, as of 8 a.m. Monday, shall be used to determine the charging rate for each MWC. Load cells used on the loading conveyors shall be used for information purposes, and to determine their accuracy and validity.

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.

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).

17. Each MWC shall be equipped with an electrostatic precipitator for particulate emission control.

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18. Flue gas-emissions from each unit and the facility (two identical units) shall not exceed the following:

Pollutant	Emission Limitations			Emission Factors	
	Per Unit lbs/hr	Facility lbs/hr	TPY	Wood lb/ton	MSW lb/ton
X PM ₁₀	6.8	13.5	59.1	0.03 gr/dscf	
X CO	92.8*	185.6	812.9	20.0	3.58
X NO _x	26.9	53.9	236.1	2.8	2.41
X SO ₂	35.8**	71.5	313.2	0.3	3.36
X VOC	7.1	14.2	62.2	1.7	0.196
X Lead	0.10	0.20	0.876	0	0.0096
X Mercury	0.18	0.36	1.58	0	0.0017
X Beryllium	5x10 ⁻⁶	1x10 ⁻⁵	4.4x10 ⁻⁵	0	4.8x10 ⁻⁷
X Fluoride	0.15	0.30	1.31	0	0.014

* 20 TPD Wood Waste

175 TPD MSW

** 255 MSW

The following are tabulated for PSD and inventory purposes:

Pollutant	Projected Emissions			Emission Factors	
	Per Unit lb/hr	Facility lb/hr	TPY	Wood lb/ton	MSW lb/ton
X Hydrogen Chloride	61.7	123.3	540.0	0	5.8
X Sulfuric Acid Mist	1.5	3.0	13.1	0	0.14

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

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

Compliance with the permit emission limits shall be determined by EPA reference method tests included in 40 CFR Parts 60 and 61 (July 1, 1987 version) 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 exceed 100 MMBtu/hr; except that where requirements within the permit are more restrictive, the requirements of the permit shall apply.

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19. Particulates, sulfur dioxide, nitrogen oxide and visible emission tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the source is capable of compliance at the permitted maximum operating rate. Tests shall be conducted in accordance with EPA methods 1, 2, 3, 5 or 17, 6, 6C or 8, 7 or 7A thru 7E, and 9. Such tests shall be conducted once per year before the end of December. Results shall be submitted to the Department within 45 days after testing. The Department shall be notified at least 15 days prior to testing to allow witnessing.

20. Carbon monoxide, lead, fluorides, volatile organic compounds, mercury and beryllium emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the source is capable of compliance at the permitted maximum operating rate. Tests shall be conducted in accordance with EPA methods 1, 2, 3, 4, 10, 12, 13B, 25 or 25A, 101A and 104. Such tests shall be conducted in 1994 before the end of December to be submitted with the application for renewal of this permit. More frequent tests may be required if Department inspections show a need for such tests.

21. All requirements of 40 CFR 60, Subpart E, Standards of Performance for Incinerators (attached) applicable to this incinerator shall be adhered to.

22. Continuous emission monitors for opacity, oxygen, and carbon monoxide shall be calibrated, maintained and operated for each unit. This shall be in accordance with 40 CFR 60, Subpart A, Section 60.13 (attached).

A. In the event of replacement of a major component of a CEMS a performance specification test (40 CFR 60, Appendix B) shall be conducted within 60 days of such replacement.

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.

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.

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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 wet O₂ monitor may be used for CO emission correction. A wet O₂ shall be corrected to dry basis using a moisture correction determined annually using EPA Method 4. A CO value of 400 ppmvd shall indicate good combustion (800 ppm corresponds to the emission limitation in Condition No. 18).

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. 23 herein, which exceeds the applicable emission limit in Condition No. 18.

H. Quality Assurance Procedures of 40 CFR 60 Appendix F (attached) applicable to these CEMS shall be adhered to. These shall include but not be limited to:

Section 3 Q.C. Requirements - A copy of the required QC program shall be submitted to the NW District of DER with the first quarterly excess emissions report submitted following issue of this permit.

Section 4 C.D. Assessment - Keep all required records. These shall be available for Department inspections. Report as soon as possible by telephone any instances of Out-Of-Control Period due to CD criteria.

Section 5 Data Accuracy Assessment - Keep all required records. These shall be available for Department inspections. Report as soon as possible by telephone any instances of Out-Of-Control Period due to excessive inaccuracy.

Section 7 Reporting Requirements - Submit a Data Assessment Report for each quarterly audit on each CEMS.

23. Operations Monitoring

A. Devices shall be maintained 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.

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24. Reporting required to 40 CFR 60.7 and 60.13 (attached) shall be adhered to. These shall include but not be limited to:

A. A minimum of 15 days prior notification of compliance test shall be given to DER's Northwest District office.

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 every calendar quarter within 30 days after end of quarter. If there are no excess emissions during a quarter the report will so state. The report shall include the following:

1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each period of excess emissions [60.7(c)(1)].

2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the furnace boiler system. The nature and cause of any malfunction (if known) and the corrective action taken or preventive measure adopted [60.7(c)(2)].

3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments [60.7(c)(3)]. This information shall be summarized for each CEMS on a form (attached). The permittee shall reproduce the form for future quarterly submittals.

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)].

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

26. An annual operation report (DER Form 17-1.202(6) attached) shall be submitted by March 1 each year. The attached form shall be reproduced by the permittee and used for future annual submittals.

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27. All fugitive dust generated at this site shall be adequately controlled.

28. This permit does not authorize any discharges of liquid effluents or contaminated runoff from this source.

29. An application to renew this permit shall be submitted prior to February 1, 1995.

30. The permanent source identification number for this point source is 10PCY03003101. Please cite this number on all test reports and other correspondence specific to this permitted point source.

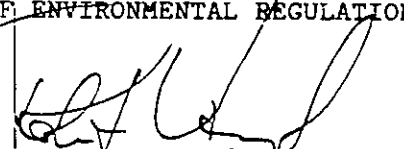
31. The Department telephone number for reporting problems, malfunctions or exceedances under this permit is (904) 436-8300, day or night, and for emergencies involving a significant threat to human health or the environment is (904) 488-1320. For routine business, telephone (904) 872-4375 during normal working hours.

Expiration date:

April 1, 1995

Issued this 13th day of April,
1990.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


ROBERT V. KRIEGEL
Deputy Assistant Secretary