

Work into Title V

~~October 25, 1999~~

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Jonathan A. Mantay, Administrator  
Bay County, Florida  
310 West 6<sup>th</sup> Street  
Panama City, Florida

Re: Derating of Capacity  
Bay County Resource Recovery facility  
DEP File 005-0031-005-AC

Dear Mr. Mantay:

Enclosed is one copy of the Draft Modification to Air Construction Permits for the Bay County Resource Recovery Facility located near Highway 231, North of Panama City. The Technical Evaluation and Preliminary Determination, the Department's Intent to Issue Air Construction Permit Modifications, and the Public Notice of Intent to Issue Air Construction Permit Modifications are also included.

The "Public Notice of Intent to Issue Air Construction Permit Modifications" must be published one time only, as soon as possible, the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements of Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Because the previous construction permits have expired, the Department will re-issue (by reference) the most recent construction permits and modify only those conditions related to this action. Therefore we will not modify them to reflect changes such as Department rule renumbering, etc. A Title V Operation Permit will be issued in the future that will contain updated and more complete permit conditions.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please contact Mr. Linero at 850/921-9523.

Sincerely,

~~C. H. Fancy, P.E., Chief,  
Bureau of Air Regulation~~

CHF/al

Enclosures

Work into Title V

In the Matter of an  
Application for Permit Modification by:

Bay County  
C/o County Administrator  
310 West 6<sup>th</sup> Street  
Panama City, Florida

DEP File No. 0050031-005-AC (PSD-129A)  
Bay County Resource Recovery Facility  
Forced Draft Fans and Capacity Derating

**INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION**

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification (copy of DRAFT Modification attached) for the proposed project, detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Bay County, applied on October 12, 1999 to the Department for an Air Construction Permit Modification to replace the forced draft fans, thereby reducing the capacity of the two municipal waste combustors at the Bay County Resource Recovery Facility near Highway 231, North of Panama City, Bay County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that re-issuance and modification of past Air Construction Permits are required for the proposed work and to incorporate conditions requested by the County to reflect the lower capacity.

The Department intends to issue this air construction permit modification based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit Modification. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit modification. Failure to publish the notice and provide proof of publication may result in the denial of the permit modification pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of Public Notice of Intent to Issue Air Permit Modification. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed and require, if applicable, another Public Notice.

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The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying

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(implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

C. H. Fancy, P.E., Chief  
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, and the DRAFT Permit Modification) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on \_\_\_\_\_ to the person(s) listed:

- Jonathan A. Mantay, Bay County Administrator\*
- Nevin Zimmerman, Esq., Burke and Blue\*
- James M. Leddy, Plant Manager, Bay County RRF
- Carol Atkinson, Chair, Bay County BCC
- Winston Smith, EPA Region IV
- Bobby Cooley, DEP NWD

Clerk Stamp

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

\_\_\_\_\_  
(Clerk)

\_\_\_\_\_  
(Date)

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**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DEP File No. 0050031-005-AC PSD-FL-129(A)  
Bay County Resource Recovery Facility  
Bay County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Bay County to replace the forced draft fans, thereby reducing the capacity of the two municipal waste combustors at the Bay County Resource Recovery Facility near Highway 231, North of Panama City, Bay County. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The applicant's name and address are Bay County, 310 West 6th Street, Panama City, Florida.

The facility includes of two municipal waste combustors (MWCs), each of which is presently permitted to burn 255 tons per day (TPD) while producing 68,000 pounds per hour (lb/hr) of steam. The purpose of the fan replacement project is to reduce the capacity of (derate) each MWC to less than 250 tons per day of municipal solid waste (MSW). The Environmental Protection Agency (EPA) has advised Bay County and the Department that by reducing the capacity of each MWC, the facility will no longer be subject to 40 CFR 60, Subpart Cb, "Emission Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994, amended August 25, 1997, 62FR 45119," adopted and incorporated by reference as Department Rule 62-204.800(8)(b)1-10., F.A.C.

EPA has given preliminary approval to derate the facility as detailed in a letter to the Department dated September 30, 1999. EPA's final approval is contingent upon incorporation of certain enforceable permit conditions. Bay County applied to the Department on October 12, 1999 to modify the most recent air construction permits applicable to the facility. The new conditions will reflect a reduced capacity of 245 TPD of MSW and 65,333 lb/hr on a 24-hour rolling average. The Department, therefore, proposes to re-issue and modify those permits to incorporate the enforceable conditions approved by EPA.

The facility remains subject to 40CFR60, Subpart E, "Standards of Performance for Incinerators," adopted and incorporated by reference as Department Rule 62-204.800(7)(b)5., F.A.C. After the proposed action, the facility will be subject to the proposed EPA Regulation, 40CFR60, Subpart BBBB, "Emission Guidelines for Existing Stationary Sources: Small Municipal Waste Combustion Units." Compliance with Subpart BBBB will be in accordance with the ultimate schedule established following finalization of the rule. The practical effect of the derating will be deferral of additional air pollution control equipment installation by approximately three to four years.

The Department will issue the FINAL Permit Modification, in accordance with the conditions of the DRAFT Permit Modification, unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit Modification. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit modification and require, if applicable, another Public Notice.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

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A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file 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 Protection<br>Bureau of Air Regulation<br>111 S. Magnolia Drive, Suite 4<br>Tallahassee, Florida 32301<br>Telephone: 850/488-0114<br>Fax: 850/922-6979 | Dept. of Environmental Protection<br>Northwest District Office<br>160 Government Center<br>Pensacola, Florida 32501-5794<br>Telephone: 850/595-8300<br>Fax: 850/ | Dept. of Environmental Protection<br>NW District Branch Office<br>2353 Jenks Avenue<br>Panama City, Florida 32405<br>Telephone: 850/872-4375<br>Fax: |
|---|--|--|

The complete project file includes the application, technical evaluation, Draft Permit Modification, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

TECHNICAL EVALUATION  
AND  
PRELIMINARY DETERMINATION

Bay County Resource Recovery Facility

Panama City  
Bay County

DEP File: 0050031-005-AC PSD-FL-129(A)

Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation

October 25, 1999

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

## EXISTING PERMITS

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The Bay County Resource Recovery Facility (BCRRF) includes two municipal waste combustors (MWCs). It is located near Highway 231, North of Panama City. The facility was constructed under DEP Permits AC 03-84703 and AC 03-84704 issued September 24, 1984. DEP Permits AC 03-145061, AC 03-152196, and PSD-FL-129 were issued on October 14, 1988 to increase municipal solid waste (MSW) throughput to 255 tons per day (TPD) per unit. A modification of the latter permits to revise lead emissions limits was issued on January 4, 1990.

The facility presently operates under DEP Permits AO 03-165754 and AO 03-165755, issued April 13, 1990 by the Department's Northwest District. The permits were extended by rule until the Department acts on the Title V Operation Permit Application submitted on June 6, 1996. The Department expects to issue a Draft Title V Operation Permit by the end of the year.

## PERMIT REQUEST

By letter dated October 7, 1999, Bay County requested that the Department modify the facility construction permits to reflect agreement with EPA Region IV to reduce the MSW throughput of each unit to 245 TPD and the corresponding steam production rate to 65,333 pounds per hour. By derating the units, they will no longer be subject to 40 CFR 60, Subpart Cb, "Emission Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994, amended August 25, 1997, 62FR 45119," adopted and incorporated by reference as Department Rule 62-204.800(8)(b)1-10., F.A.C.

The County requests modification of the specific conditions as follows:

### SPECIFIC CONDITION 1.a.

After the physical modification are completed, ~~The~~ maximum charging rate of each municipal waste combustor (MWC) will be ~~255~~ 250 tons of municipal solid waste (MSW) per day (a total of ~~510~~ 490 TPD for the facility); ~~95.6~~ 91.875 million Btu heat input per hour, assuming a heating value of 4500 Btu per pound; and a steam production rate of ~~68,000~~ 65,333 lbs/hr (~~design capacity~~).

### SPECIFIC CONIDTION 11 – EPA REGION IV MONITORING CONDITIONS (NEW)

#### a. Demonstration Test

- (1) The maximum demonstrated MWC unit load will be the highest 24-hour rolling average MWC unit load calculated from six consecutive 4-hour block arithmetic averages demonstrated during the performance test.
- (2) This maximum MWC unit load is not to exceed 65,333 lb/hr (245 tons per day) for each unit.
- (3) Steam flow shall not exceed an average of 66.667 lb/hr (250 TPD) over any 4-hour block averaging period for each unit during the demonstration test.



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**TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION**

- b. Operational Requirement. After completion of the proposed derating, the steam flow rate will be monitored in accordance with the following requirements:
  - (1) The owner or operator shall install, calibrate, maintain, and operate a steam flow meter, measure steam flow in pounds per hour on a continuous basis, and record the output of the monitor;
  - (2) Steam flow shall be calculated in 24-hour rolling averaging periods, calculated from six consecutive 4-hour block arithmetic averaging periods for each unit;
  - (3) Steam flow shall not exceed an average of 65,333 lb/hr over any 24-hour rolling average period (provided the demonstrated full load steam flow rate/maximum demonstrated MWC unit load is 65,333 lb/hr; otherwise, the full load steam flow rate from the demonstration test will be used);
  - (4) Steam flow shall not exceed an average of 66,667 lb/hr over any 4-hour block arithmetic averaging period for each unit;
  - (5) The monitoring data must be maintained for periodic inspections by Florida DEP and/or EPA;
  - (6) Any 24-hour average steam flow or 4-hour block arithmetic average steam flow in excess of 65,333 lb/hr (or the full load steam rate from the demonstration test) will be reported within seven calendar days to Florida DEP and EPA.

**PHYSICAL MODIFICATIONS**

Bay County will reduce the full load flue gas flow rate and the corresponding steam flow from the units by physically modifying the forced draft (FD) fan wheel, as described in letters dated October 1, 1998 and June 1, 1999 to Bay County from Howden Fan Company, manufacturer and vendor of the FD fan. Bay county will complete the physical change of the FD fan wheel from an existing "A" blade arrangement to a "C" blade arrangement. The revolutions per minute (rpm), static and dynamic pressures of the FD fan, and unit capacities before and after the modification will be as follows:

| <u>Full Load Capacity</u>                                 | <u>Existing</u> | <u>Derated</u> |
|---|-----------------|----------------|
| FD Fan Wheel – rpm  | 1404            | 1404           |
| FD Fan wheel – Diameter (inches)                          | 50.75           | 49.38          |
| FD Fan Wheel – Static Pressure (inches H <sub>2</sub> O)  | 14.25           | 12.80          |
| FD Fan Wheel – Dynamic Pressure (inches H <sub>2</sub> O) | 16.37           | 14.58          |
| Combustion Air Flow Rate (scfm)                           | 22,800          | 20,780         |
| Steam Flow (pounds per hour)                              | 68,000          | 65,333         |
| Tons Per Day of MSW (@4500 Btu per pound)                 | 255             | 245            |

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## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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### RULE APPLICABILITY

Applicable rules by which the BCRRF was constructed and presently operates are listed in the previous technical evaluations and permits. The present discussion is limited to purpose of the present application request.

At the present time, the facility is required to implement a project to comply with 40 CFR 60, Subpart Cb, "Emission Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994, amended August 25, 1997, 62FR 45119," adopted and incorporated by reference as Department Rule 62-204.800(8)(b)1-10., F.A.C. subject to

Subpart Cb requires replacement of the existing electrostatic precipitators with spray dryers and baghouses to control acid gases and particulate matter including certain metals. Additional combustion modifications, control equipment or operational practices are required to control dioxins and furans, mercury, and nitrogen oxides. According to the approved compliance schedule for the State of Florida, the County must initiate the physical and/or operational changes by August 12, 1999 and achieve final compliance by December 19, 2000.

By derating the facility, it will no longer be subject to Subpart Cb and the associated compliance schedule. Instead it will become subject to the proposed EPA Regulation, 40CFR60, Subpart BBBB, "Emission Guidelines for Existing Stationary Sources: Small Municipal Waste Combustion Units." Subpart BBBB is projected to be approximately as stringent as Subpart Cb. Assuming that the final rule is promulgated by EPA and a compliance schedule is approved by the end of 2000, affected facilities will likely comply by the end of 2003.

Following is an excerpt from the Federal Register, Volume 64, Number 167, Pages 47235-36, August 30, 1999. It details the interrelationship between the two Subparts.

*"On September 20, 1994, EPA proposed emission guidelines for large and small MWC units under 40 CFR part 60, subpart Cb. Those emission guidelines covered all MWC units located at plants with an aggregate plant combustion capacity larger than 35 megagrams per day of municipal solid waste (MSW), which is approximately 39 tons per day of MSW. The subpart Cb emission guidelines for large and small MWC units were promulgated on December 19, 1995.*

*The 1995 emission guidelines divided the MWC unit population into MWC units located at large MWC plants and MWC units located at small MWC plants based on the total aggregate capacity of all MWC units at the MWC plant. The large plant category included all MWC units located at MWC plants with aggregate plant combustion capacities greater than 225 megagrams per day (approximately 248 tons per day). The small plant category comprised all MWC units located at MWC plants with aggregate plant combustion capacities of 35 to 225 megagrams per day (approximately 39 to 248 tons per day).*

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## **TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION**

*Following promulgation of the 1995 emission guidelines, a petition for review was filed with the U.S. Court of Appeals for the District of Columbia Circuit regarding the use of aggregate plant capacity as the basis for initial categorization of the MWC unit population. An initial opinion was issued by the court on December 6, 1996 (Davis County Solid Waste Management and Recovery District v. EPA, 101 F. 3d 1395, D.C. Cir. 1996). The initial opinion would have vacated (canceled) the 1995 emission guidelines for both large and small MWC units.*

*The EPA filed a petition for rehearing on February 4, 1997 requesting the court to reconsider the remedy portion of its opinion and to vacate these emission guidelines only as they apply to small MWC units (units having an individual capacity of 35 to 250 tons per day). The court granted EPA's petition, reconsidered its opinion, and issued a revised opinion on March 21, 1997 (Davis County Solid Waste Management and Recovery District v. EPA, 108 F. 3d 1454, D.C. Cir. 1997). The revised opinion remanded to EPA the 1995 emission guidelines for the large MWC unit category for amendment to be consistent with the court's final opinion and vacated these emission guidelines only as they applied to small MWC units.*

*Amendments to the 1995 emission guidelines incorporating the court's final opinion were published on August 25, 1997 (62 FR 45116). The amendments made the subpart Cb emission guidelines consistent with the court's decision and included other minor technical corrections to improve clarity. The principal change was to remove small MWC units from the applicability of subpart Cb. This was accomplished by increasing the lower size cutoff for large MWC units from 35 megagrams per day on a plant capacity basis to 250 tons per day on a unit capacity basis. No adverse comments were received on the proposal and they became effective on October 24, 1997.*

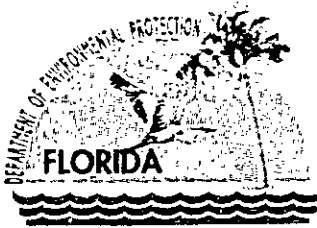
*With the increase in the lower size cutoff for large MWC units from 248 tons per day on a plant capacity basis to 250 tons per day on a unit capacity basis, 45 MWC units that were previously in the large MWC plant category were moved into the newly classified small MWC unit category. These units are commonly referred to as "Davis class" MWC units (referencing the name of the court's opinion that clarifies that EPA must move these units from the large MWC unit category to the small MWC unit category).*

*Today's proposal would reestablish emission guidelines for existing small municipal waste combustion capacities of 35 to 250 tons per day."*

### **CONCLUSION**

New Source Performance Standard applicability decisions are solely within the purview of EPA. Therefore the Department accepts EPA's assessment that the physical changes and additional permit conditions described by EPA would no longer subject the facility to Subject Cb.

The practical effect of re-issuing and modifying the construction permits is to defer implementation of a project to reduce emissions by approximately three years.



Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

October 25, 1999

Mr. Nevin J. Zimmerman  
Burke & Blue, P.A.  
P. O. Box 70  
Panama City, Florida 32402

Dear Mr. Zimmerman:

Since your October 11, 1999, application for permit modification for the Bay County Resource Recovery Facility will be processed with the Title V application for that facility, you are due a refund of the \$250 processing fee submitted with that request. Please date and sign on the Applicant's Signature line of the enclosed Application for Refund form and return it to me. If you have any questions, please call me at (850) 921-9505.

Sincerely,

Patty Adams  
Bureau of Air Regulation

/pa

Enclosure

APPLICATION FOR REFUND FORM  
THE STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

STATE OF FLORIDA, COUNTY OF \_\_\_\_\_

Pursuant to the provisions of Section 215.26, or Section \_\_\_\_\_\*, Florida Statutes,  
I hereby apply for a refund and request that a State Warrant be drawn in favor of:

NAME: BURKE & BLUE, P.A.  
ADDRESS: 221 MCKENZIE AVE. P.O. BOX 70 PANAMA CITY, FL 32402-  
FEID OR SS NUMBER:  
AMOUNT: \$250.00 DEPOSIT DATE: 19-OCT-1999 DEPOSIT: 200233  
DOCUMENT NUMBER: SYS RECEIPT#: 299208  
REV OBJECT CODE: 2222 AIR CONSTRUCT

which represents moneys I paid into the State Treasury subject to refund, and to substantiate such claim the following facts are submitted:

REASON FOR CLAIM: NO FEE DUE

-----  
CERTIFIED TRUE AND CORRECT this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
Applicant's Signature

\*Must be completed if authority is other than Section 215.26, Florida Statutes.

\*\*\*\*\*

(FOR AGENCY USE ONLY)

(1) Agency recommends denial of above claim based on the following facts, including statutory authority for collection:

OR

(2) Agency recommends approval of above claim and submits the following information to substantiate such claim. \$250.00 was originally deposited into the State Treasury, Receipt \_\_\_\_\_, dated \_\_\_\_\_.

NAME OF ACCOUNT:

SAMAS ACCOUNT CODE  
3720252600137 \_\_\_\_\_ 00000000020000

Statutory Authority for Collection \_\_\_\_\_

It is requested that payment be made from:

NAME OF ACCOUNT:

SAMAS ACCOUNT CODE  
3720252600137 \_\_\_\_\_ 00000022000000

\*\*\*\*\*

CERTIFIED TRUE AND CORRECT this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
Signature and Title of Authorized Person

\*\*\*\*\*

SECTION 215.26 STATES, IN PART: "APPLICATION FOR REFUNDS AS PROVIDED BY THIS SECTION SHALL BE FILED WITH THE COMPTROLLER, EXCEPT AS OTHERWISE PROVIDED HEREIN, WITHIN 3 YEARS AFTER THE RIGHT TO SUCH REFUND SHALL HAVE ACCRUED ELSE SUCH RIGHT SHALL BE BARRED." Three years is interpreted as meaning three years from the date of payment into State Treasury.



Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

October 20, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Nevin Zimmerman, Esq.  
Office of the County Attorneys  
Bay County Board of County Commissioners  
Post Office Box 70  
Panama City, Florida 32402

Re: Derating of Capacity  
Bay County Resource Recovery facility  
DEP File 005-0031-005-AC

Dear Mr. Zimmerman:

The Department reviewed your request for modification of the Air Construction Permits for the Bay County Resource Recovery Facility to limit its future operating capacity. The request will be incorporated into the imminent Title V Permitting action. This will make it unnecessary to re-issue and revise the previously-expired air construction permits and will allow for a single public notice.

We will refund the \$250 fee you recently submitted for the request. If you have any questions regarding this matter, please contact me at 850/921-9523 or Scott Sheplak, P.E. Administrator, Title V Section, at 850/921-9532.

Sincerely,

A. A. Linero, P.E. Administrator  
New source Review Section

AAL/al

CC: Jonathan Mantay, County Administrator  
Ed Middleswart, DEP NWD

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1.  Addressee's Address
- 2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. Nevin Zimmerman  
 Office of the Co. Attorney  
 City Co. Board of Co. Comm  
 P.O. Box 70  
 Panama City, FL  
 32402

4a. Article Number

2031 391 984

4b. Service Type

- Registered  Certified
- Express Mail  Insured
- Return Receipt for Merchandise  COD

7. Date of Delivery

5. Received By: (Print Name)

Ann Barnes

6. Signature: (Addressee or Agent)

X Ann Barnes

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994

102595-98-B-0229

Domestic Return Receipt

Thank you for using Return Receipt Service.

Z 031 391 584

US Postal Service

**Receipt for Certified Mail**

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

|   |                 |
|---|-----------------|
| Sent to   | Nevin Zimmerman |
| Street & Number   | City Co Board   |
| Post Office, State, & ZIP Code                              | Panama City FL  |
| Postage   | \$ 0            |
| Certified Fee   |                 |
| Special Delivery Fee  |                 |
| Restricted Delivery Fee                                     |                 |
| Return Receipt Showing to Whom & Date Delivered             |                 |
| Return Receipt Showing to Whom, Date, & Addressee's Address |                 |
| TOTAL Postage & Fees  | \$              |
| Postmark or Date  | 10-21-99        |
|   | CC 50031-005-AC |

PS Form 3800, April 1995

10/11/1999 Payee:FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Check # 45354 for the amount of \$ 250.00

For:RRF APPLICATION FEE

Req# 31415

By: WGM

250.00 007925

RESOURCE RECOVERY FACILITY 199

**BURKE & BLUE, P.A.**

GENERAL ACCOUNT  
221 MCKENZIE AVENUE - P.O. BOX 70  
PANAMA CITY, FL 32402  
(904) 769-1414

AMSOUTH  
AMSOUTH BANK OF FLORIDA  
63-1011-632

10/11/1999

45354

\$250.00

\*\*\*\*\*250 DOLLARS AND 00 CENTS\*\*\*

DATE

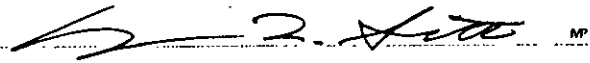
AMOUNT

PAY  
TO THE  
ORDER  
OF

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

BURKE & BLUE, P.A.

FOR RRF APPLICATION FEE



⑈045354⑈ ⑆063210112⑆ 3505593801⑈

**BURKE & BLUE, P.A.**

GENERAL ACCOUNT

45354

10/11/1999 Payee:FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Check # 45354 for the amount of \$ 250.00

For:RRF APPLICATION FEE

Req# 31415

By: WGM

250.00 007925

RESOURCE RECOVERY FACILITY 199

**RECEIVED**

OCT 12 1999

BUREAU OF AIR REGULATION





**OFFICE OF THE COUNTY ATTORNEYS**

October 11, 1999

**BOARD OF COUNTY  
COMMISSIONERS**

BURKE & BLUE, P.A.

LES W. BURKE  
ROB BLUE, JR.  
NEVIN J. ZIMMERMAN  
EDWARD A. HUTCHISON, JR.  
TIMOTHY M. WARNER  
DAVID M. NOLL  
ELIZABETH J. WALTERS  
SHERRI DENTON MALLORY  
DOUGLAS L. SMITH  
SHARON DINWIDDIE  
WILLIAM G. WARNER  
MICHAEL S. BURKE  
M. TODD BURKE

221 MCKENZIE AVENUE  
POST OFFICE BOX 70  
PANAMA CITY, FLORIDA 32402  
TELEPHONE (850) 769-1414  
TELECOPY (850) 784-1573

COMMISSIONERS:

CAROL ATKINSON  
DISTRICT I

RICHARD STEWART  
DISTRICT II

ROBERT WRIGHT  
DISTRICT III

DANNY SPARKS  
DISTRICT IV

MARC NOLEN  
DISTRICT V

Kim Tober  
Department of Environmental Protection  
111 S. Magnolia  
Tallahassee, FL 32301

Re: Bay County Resource Recovery Facility Application Modification

Dear Kim:

As we discussed, please find enclosed a check in the amount of \$250 payable to Florida Department of Environmental Protection to support the permit application by Bay County as contained in my letter dated October 7, 1999, to Mr. Fancy (a copy of the letter without attachments is enclosed).

Thank you for processing this for me.

Sincerely,

Nevin J. Zimmerman

NJZ/wgm

Enclosure

**RECEIVED**

OCT 12 1999

BUREAU OF AIR REGULATION



OFFICE OF THE COUNTY ATTORNEYS

October 7, 1999

RECEIVED

OCT 08 1999

BOARD OF COUNTY COMMISSIONERS

BUREAU OF AIR REGULATION

Mr. C.H. Fancy
Division of Air Resources
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399

BURKE & BLUE, P.A.

- LES W. BURKE
ROB BLUE, JR.
NEVIN J. ZIMMERMAN
EDWARD A. HUTCHISON, JR.
TIMOTHY M. WARNER
DAVID M. NOLL
ELIZABETH J. WALTERS
SHERRI DENTON MALLORY
DOUGLAS L. SMITH
SHARON DINWIDDIE
WILLIAM G. WARNER
MICHAEL S. BURKE
M. TODD BURKE

Re: Bay County Resource Recovery Facility

0050031-005-AC

Dear Mr. Fancy:

As instructed by Mr. Michael Hewett of the Florida DEP, this letter formally requests a minor modification to the Bay County Resource Recovery Facility's (BCRRF) construction permits that were issued to Bay Resource Management Center in January 1990.

These construction permits, and subsequent operating permits, currently allow the BCRRF to combust 255 tons of MSW per day in each of two of the Municipal Waste Combustor (MWC) units. The BCRRF proposes to make a physical modification to each of the MWC units as described previously in the derating request letter sent to both EPA Region 4 and Florida DEP, dated June 16, 1999. This permit modification request would reduce the design capacity of the MWC units to 245 tons of MSW (having a higher heating value of 4500 Btu/lb) per day, and a corresponding steam flow of 65,333 lb/hr per unit, consistent with the derating request submitted on June 16, 1999. The physical modifications will be completed to meet the schedule outlined in the Florida DEP Plan for MWCs (i.e. on-site construction and/or process changes completed by September 12, 2000 and final compliance by December 19, 2000).

As you may know, the County has been negotiating with the USEPA Region 4 and Florida DEP regarding the derating request for a number of months. USEPA has indicated that the proposed derating of the MWC units and negotiated monitoring conditions are acceptable (see the attached letters dated July 30, 1999, August 16, 1999, August 20, 1999 and September 30, 1999.)

221 MCKENZIE AVENUE
POST OFFICE BOX 70
PANAMA CITY, FLORIDA 32402
TELEPHONE (850) 769-1414
TELECOPY (850) 784-1573

COMMISSIONERS:

CAROL ATKINSON
DISTRICT I

RICHARD STEWART
DISTRICT II

ROBERT WRIGHT
DISTRICT III

DANNY SPARKS
DISTRICT IV

MARC NOLEN
DISTRICT V

October 7, 1999

Page 2

The County requests that the construction permits be modified to include changes to the following two changes:

1. Delete Number 2 under SPECIFIC CONDITIONS and insert the following:

After the physical modifications are completed, the maximum charging rate of each municipal waste combustor (MWC) will be 245 tons of municipal solid waste (MSW) per day (a total of 490 TPD for the facility); 91.875 million Btu heat input per hour, assuming a heating value of 4500 Btu per pound; and a steam production rate of 65,333 lb per hour.

2. Under SPECIFIC CONDITIONS insert the following monitoring conditions from Exhibit A (attached to this letter). These monitoring conditions were negotiated with USEPA on August 16, 1999 and August 20, 1999 and are listed as Exhibit A and referenced in the September 30, 1999, letter.

On June 7, 1996, BCRRF submitted its initial Title V Permit Application to Florida DEP. The County is currently modifying the Title V permit application according to the direction recently received from Mr. Tom Cascio of the Florida DEP, and will be submitting these modifications shortly. Mr. Cascio indicated that the Florida DEP will not issue the draft Title V operating permit until the construction permits have been modified by Florida DEP. The County is listed as the Permittee (as of September 9, 1999) for the current air quality operating permits (A003-165754 and A003-165755).

Finally, as instructed by Mr. Hewett, the County is enclosing a check for the amount of \$250.00. The County requests that the modified construction permit(s) be issued in the name of Bay County, the owner of the facility. The County is currently negotiating with Montenay to become the new operator, expected to take place on November 4, 1999.

We trust that this information is sufficient to act on our request to modify the construction permits. We request the issuance of the construction permit modification as soon as possible in light of the pending transfer to Montenay and so

October 7, 1999

Page 3

that the Facility can meet its schedule for completing the physical modifications for derating the MWC units. If you have any questions or need additional information, please call me at (850) 769-1414.

Sincerely,



Nevin J. Zimmerman

NJZ/wgm

Enclosure

cc: Bay County Board of County Commissioners  
Jonathan A. Mantay, County Manager  
R. Scott Davis, USEPA  
Dale McKeand, BCESI  
Steve Passage, Montenay  
Wolfram Schuetzenduebel, Montenay  
Charles Perry, Hunton & Williams  
Tony LoRe, Camp, Dresser & McKee  
David Beachler, Dames & Moore  
Michael Hewett, DEP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

LARRY

4APT-ARB

SEP 30 1999

Mr. Howard L. Rhodes, Director  
Department of Environmental Protection  
Division of Air Resources Management  
Mail Station 5500  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RECEIVED

SEP 14 1999

DIVISION OF AIR  
RESOURCES MANAGEMENT

SUBJ: Bay County Resource Recovery Facility

Dear Mr. Rhodes:

This letter is in response to your request for an Environmental Protection Agency (EPA) determination of whether a proposal to derate the two existing municipal waste combustor (MWC) units at the Bay County Resource Recovery Facility (RRF) is acceptable. This proposal was submitted to EPA Region 4 and the Florida Department of Environmental Protection (DEP) on June 16, 1999, and supplemented by information on July 13, 1999. In response to our most recent correspondence, dated July 30, 1999, Bay County submitted further information on August 9, 1999, and participated in a conference call with representatives of EPA and the Florida DEP on August 11, 1999, to discuss details of the derating proposal.

To ensure national consistency, EPA Region 4 consulted with the Office of Enforcement and Compliance Assurance (OECA), the Office of General Counsel (OGC), and the EPA Office of Air Quality Planning and Standards (OAQPS) in preparing this response. Based on our review of the information submitted and the discussions held regarding the proposal, EPA has determined that the Bay County proposal to derate the combustion capacity of each of its two existing MWC units from 255 tons per day to 245 tons per day of municipal solid waste (MSW) is approved in accordance with the operating conditions and monitoring requirements outlined in this correspondence. To finalize this approval, your agency must incorporate these operational and monitoring items as enforceable permit conditions for the Bay County RRF. Derating the units will allow the facility to avoid the requirements set forth in the State of Florida's Clean Air Act (CAA) section 111(d)/129 plan for large MWC units. The Bay County RRF will remain subject to 40 C.F.R. part 60, subpart E (Standards of Performance for Incinerators) and subpart BBBB (Emission Guidelines: Small Municipal Waste Combustion Units), unless modified or reconstructed in the future.

Derated Units: Operating, Testing, and Monitoring Requirements

Bay County's proposal involves physically modifying the MWC units to permanently change the capacity of each unit to below the applicability threshold level of greater than 250 tons

per day for large MWC units. As approved, Bay County will reduce the full load flue gas flow rate and the corresponding steam flow from the units by physically modifying the forced draft (FD) fan wheel, as described in letters dated October 1, 1998, and June 1, 1999, to Bay County from the Howden Fan Company, manufacturer and vendor of the FD fan. Bay County will complete the physical change of the FD fan wheel from an existing "A" blade arrangement to a "C" blade arrangement. The revolutions per minute (rpm), static and dynamic pressures of the FD fan, and unit capacities before and after the modification will be as follows:

| <u>Full Load Capacity:</u>                                       | <u>Existing</u> | <u>Derated</u> |
|--|-----------------|----------------|
| FD Fan Wheel - rpm   | 1404            | 1404           |
| FD Fan Wheel - Diameter (inches)                                 | 50.75           | 49.38          |
| FD Fan Wheel - Static Pressure (inches H <sub>2</sub> O)         | 14.25           | 12.80          |
| FD Fan Wheel - Dynamic Pressure (inches H <sub>2</sub> O)        | 16.37           | 14.58          |
| Combustion Air Flow Rate (scfm)                                  | 22,800          | 20,780         |
| Steam Flow (pounds per hour)                                     | 68,000          | 65,333         |
| Tons per day of MSW<br>(at 4500 British thermal units per pound) | 255             | 245            |

We have determined that the County's proposal to derate its units is acceptable based on agreement by the County to conduct a demonstration test, to monitor the units as provided below, and to the establishment of these operating and monitoring requirements as enforceable permit conditions by your agency. As approved, Bay County must achieve final compliance with all operating restrictions and monitoring requirements for the derated units by December 19, 2000 (the final compliance date of the emission guidelines and the Florida CAA section 111(d)/129 state plan).

A demonstration test will be performed to verify the hourly steam flow rate at full load and establish the maximum demonstrated MWC unit load. As approved, Bay County is required to submit a protocol for testing which includes: (1) testing occurring over a 72-hour period; (2) testing conducted in accordance with the applicable requirements of 40 C.F.R. § 60.8 (Performance tests); and (3) an opportunity for a Florida DEP and/or EPA observer to be present at the demonstration test.

Monitoring will provide assurance that the units are effectively derated. During the demonstration test and after completion of the derating, the affected units will be monitored in accordance with the following requirements:

- (1) Demonstration Test
  - (a) The maximum demonstrated MWC unit load will be the highest 24-hour rolling average MWC unit load calculated from six consecutive 4-hour block arithmetic averages demonstrated during the performance test.

- (b) This maximum MWC unit load is not to exceed 65,333 lb/hr (245 tons per day) for each unit.
  - (c) Steam flow shall not exceed an average of 66,667 lb/hr (250 tons per day) over any 4-hour block averaging period for each unit during the demonstration test.
- (2) Operational Requirements
- (a) The owner or operator shall install, calibrate, maintain, and operate a steam flow meter, measure steam flow in pounds per hour on a continuous basis, and record the output of the monitor.
  - (b) Steam flow shall be calculated in 24-hour rolling averaging periods, calculated from six consecutive 4-hour block arithmetic averaging periods for each unit.
  - (c) Steam flow shall not exceed an average of 65,333 lb/hr over any 24-hour rolling average period for each unit (provided the demonstrated full load steam flow rate/maximum demonstrated MWC unit load is less than or equal to 65,333 lb/hr; otherwise, the full load steam flow rate determined from the demonstration test will be used).
  - (d) Steam flow shall not exceed an average of 66,667 lb/hr over any 4-hour block arithmetic averaging period for each unit.
  - (e) The monitoring data must be maintained for periodic inspections by Florida DEP and/or EPA.
  - (f) Any 24-hour average steam flow in excess of 65,333 lb/hr for each unit (or the full load steam flow rate determined from the demonstration test) must be reported within seven calendar days to Florida DEP and EPA.
  - (g) Any 4-hour block arithmetic average steam flow in excess of 66,667 lb/hr for each unit must be reported within seven calendar days to Florida DEP and EPA.

### Conclusion

A derated unit should not exceed a threshold applicability level. According to information in the Bay County proposal, the steam output level corresponding to 250 tons per day is equivalent to a steam flow of 66,667 lb/hr for each unit. Therefore, EPA maintains the position that, consistent with prior EPA determinations for derate actions, if this MWC unit exceeds

66,667 lb/hr over any 4-hour block averaging period (demonstration period or operational), the unit would no longer be considered a derated unit. Based on the information presented, and as we stated in our previous correspondence, meetings, and discussions with the Florida DEP and Bay County on the issue of derating, if the Bay County RRF exceeds the steam output level corresponding to 250 tons per day (equivalent to a steam flow of 66,667 lb/hr) after completing the proposed modification to the FD fan wheel, the facility will be required to be in compliance with all applicable federal and state MWC requirements for large MWC units on schedule. Section 129 of the CAA and the federal MWC regulations, as well as the approved Florida section 111(d)/129 plan, require all large MWC units to be in compliance with all applicable requirements or close by December 19, 2000.

If you have any questions regarding this approval, please contact Mr. Scott Davis of the EPA Region 4 staff at (404) 562-9127. Due to litigation filed by Bay County against EPA (Petition for Review dated July 2, 1999, Case No. 99-12083-I, and Petition for Review dated September 28, 1999), if any representative of Bay County or the Bay County RRF has any questions or comments concerning this correspondence, he or she must contact Mr. Joshua Levin of the United States Department of Justice at (202) 514-4198 or Ms. Michiko Kono of the Office of Regional Counsel at (404) 562-9558.

Sincerely,



Winston A. Smith  
Director  
Air, Pesticides and Toxics  
Management Division

cc: James M. Leddy, Plant Manager  
Bay County RRF  
Zofia Kosim, OECA  
Walt Stevenson, OAQPS  
Rick Vetter, OGC  
Joshua Levin, DOJ  
Charles Perry, Hunton & Williams  
Nevin A. Zimmerman, Burke & Blue



# HUNTON & WILLIAMS

BANGKOK, THAILAND  
BRUSSELS, BELGIUM  
CHARLOTTE, NORTH CAROLINA  
HONG KONG  
KNOXVILLE, TENNESSEE  
LONDON, ENGLAND  
MCLEAN, VIRGINIA  
CHARLES A. PERRY, ESQ.  
E-MAIL: CPERRY@HUNTON.COM

NATIONSBANK PLAZA - SUITE 4100

600 PEACHTREE STREET, N.E.

ATLANTA, GEORGIA 30308-2218

TELEPHONE (404) 888-4000

FACSIMILE (404) 888-4190

MIAMI, FLORIDA  
NEW YORK, NEW YORK  
NORFOLK, VIRGINIA  
RALEIGH, NORTH CAROLINA  
RICHMOND, VIRGINIA  
WARSAW, POLAND  
WASHINGTON, D.C.

FILE NO.: 55255.000002  
DIRECT DIAL: (404) 888-4014

August 20, 1999

## VIA FACSIMILE

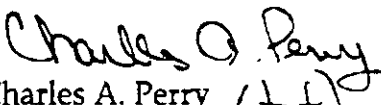
Michiko Kono, Esq.  
Assistant Regional Counsel  
United States Environmental Protection Agency, Region IV  
61 Forsyth Street, S.W. and Alabama Street  
Atlanta Federal Center  
Atlanta, GA 30303 404

Re: Bay County Resource Recovery Facility; Bay County, Florida

Dear Michi:

Attached is the revised version of Exhibit A to my letter of August 16, 1999. The reporting requirement for the 4-hour arithmetic average has been deleted from paragraph six and has been inserted in a new paragraph seven.

Sincerely,

  
Charles A. Perry (tuf)

CAP/tmf  
Enclosure

## EXHIBIT A

### BAY COUNTY RESOURCE RECOVERY FACILITY PROPOSAL TO DERATE TWO UNITS TO 245 TONS PER DAY

#### EPA REGION 4 MONITORING CONDITIONS

(1) Demonstration Test

(1) The maximum demonstrated MWC unit load will be the highest 24-hour rolling average MWC unit load calculated from six consecutive 4-hour block arithmetic averages demonstrated during the performance test.

(2) This maximum MWC unit load is not to exceed 65,333 lb/hr (245 tons per day) for each unit.

(3) Steam flow shall not exceed an average of 66,667 lb/hr (250 tons per day) over any 4-hour block averaging period for each unit during the demonstration test.

(2) Operational Requirement

After completion of the proposed derating, the steam flow rate will be monitored in accordance with the following requirements:

(1) The owner or operator shall install, calibrate, maintain, and operate a steam flow meter, measure steam flow in pounds per hour on a continuous basis, and record the output of the monitor;

(2) Steam flow shall be calculated in 24-hour rolling averaging periods, calculated from six consecutive 4-hour block arithmetic averaging periods for each unit;

(3) Steam flow shall not exceed an average of 65,333 lb/hr over any 24-hour rolling average period (provided the demonstrated full load steam flow rate/maximum demonstrated MWC unit load is 65,333 lb/hr; otherwise, the full load steam flow rate from the demonstration test will be used);

(4) Steam flow shall not exceed an average of 66,667 lb/hr over any 4-hour block arithmetic averaging period for each unit;

(5) The monitoring data must be maintained for periodic inspections by Florida DEP and/or EPA;

(6) Any 24-hour average steam flow in excess of 65,333 lb/hr (or the full load steam flow rate from the demonstration test) will be reported within seven calendar days to Florida DEP and EPA.

(7) Any 4-hour block arithmetic average steam flow in excess of 66,667 lb/hr (or the full load steam flow rate from the demonstration test) will be reported within seven calendar days to Florida DEP and EPA.

# HUNTON & WILLIAMS

NATIONSBANK PLAZA - SUITE 4100

600 PEACHTREE STREET, N.E.

ATLANTA, GEORGIA 30308-2218

TELEPHONE (404) 888-4000

FACSIMILE (404) 888-4190

BANGKOK, THAILAND  
BRUSSELS, BELGIUM  
CHARLOTTE, NORTH CAROLINA  
HONG KONG  
KNOXVILLE, TENNESSEE  
LONDON, ENGLAND  
MCLEAN, VIRGINIA  
CHARLES A. PERRY, ESQ.  
E-MAIL: CPERRY@HUNTON.COM

MIAMI, FLORIDA  
NEW YORK, NEW YORK  
NORFOLK, VIRGINIA  
RALEIGH, NORTH CAROLINA  
RICHMOND, VIRGINIA  
WARSAW, POLAND  
WASHINGTON, D.C.  
FILE NO.: 55255.000002  
DIRECT DIAL: (404) 888-4014

August 16, 1999

VIA FACSIMILE

Michiko Kono, Esq.  
Assistant Regional Counsel  
United States Environmental Protection Agency, Region IV  
61 Forsyth Street, S.W. and Alabama Street  
Atlanta Federal Center  
Atlanta, GA 30303 404

Re: Bay County Resource Recovery Facility; Bay County, Florida

Dear Michi:

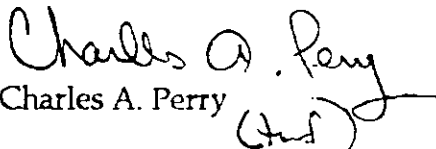
This letter will confirm our conversation on August 12, 1999, regarding the above referred facility. In that conversation we agreed that the EPA approval letter of July 30, 1999 for derating the municipal waste combustors at the Bay County Facility will be modified to include Demonstration Tests and Operational Requirements as set forth in Exhibit A. These requirements were contained in your facsimile of August 11, 1999 with the addition of the modification to paragraph 6 of the Operational Requirements regarding reporting of exceedences of the 4-hour block average period.

In addition, this letter will serve to confirm that the Note on page 2 of your August 11 facsimile constitutes a statement of EPA's position with regard to violations of a Demonstration Test and Operational Requirements, but will not be incorporated in the permit issued by the State for the Facility. Bay County reserves all rights and defenses as regards EPA's assertion of this position in any subsequent proceeding.

Upon your acknowledgment of this letter, and receipt of an acceptable operating permit from the State of Florida which is approved by EPA, Bay County agrees to dismiss the petition presently pending in the 11<sup>th</sup> Circuit Court of Appeals, Case No. 99-12083-I.

Thanking you for your consideration in this matter, I am

Sincerely yours,

  
Charles A. Perry  
(Inf)

CAP/tmf  
Enclosure

August 16, 1999  
Page 2

cc: Joshua Levin, Esq.  
Mr. Michael Hewitt  
Distribution List

Acknowledged and Accepted  
United States Environmental Protection Agency

by: \_\_\_\_\_

## EXHIBIT A

### BAY COUNTY RESOURCE RECOVERY FACILITY PROPOSAL TO DERATE TWO UNITS TO 245 TONS PER DAY

#### EPA REGION 4 MONITORING CONDITIONS

(1) Demonstration Test

(1) The maximum demonstrated MWC unit load will be the highest 24-hour rolling average MWC unit load calculated from six consecutive 4-hour block arithmetic averages demonstrated during the performance test.

(2) This maximum MWC unit load is not to exceed 65,333 lb/hr (245 tons per day) for each unit.

(3) Steam flow shall not exceed an average of 66,667 lb/hr (250 tons per day) over any 4-hour block averaging period for each unit during the demonstration test.

(2) Operational Requirement

After completion of the proposed derating, the steam flow rate will be monitored in accordance with the following requirements:

(1) The owner or operator shall install, calibrate, maintain, and operate a steam flow meter, measure steam flow in pounds per hour on a continuous basis, and record the output of the monitor;

(2) Steam flow shall be calculated in 24-hour rolling averaging periods, calculated from six consecutive 4-hour block arithmetic averaging periods for each unit;

(3) Steam flow shall not exceed an average of 65,333 lb/hr over any 24-hour rolling average period (provided the demonstrated full load steam flow rate/maximum demonstrated MWC unit load is 65,333 lb/hr; otherwise, the full load steam flow rate from the demonstration test will be used);

(4) Steam flow shall not exceed an average of 66,667 lb/hr over any 4-hour block arithmetic averaging period for each unit;

(5) The monitoring data must be maintained for periodic inspections by Florida DEP and/or EPA;

(6) Any 24-hour average steam flow or 4-hour block arithmetic average steam flow in excess of 65,333 lb/hr (or the full load steam flow rate from the demonstration test) will be reported within seven calendar days to Florida DEP and EPA.



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

JUL 30 1999

4APT-ARB

Mr. Howard L. Rhodes, Director  
Department of Environmental Protection  
Division of Air Resources Management  
Mail Station 5500  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

SUBJ: Bay County Resource Recovery Facility

Dear Mr. Rhodes:

This correspondence is a follow up to our most recent correspondence, dated July 1, 1999, to you concerning the proposal by Bay County Energy Systems to derate the municipal waste combustor (MWC) units at its existing resource recovery facility (RRF). The Environmental Protection Agency (EPA) held a meeting on May 27, 1999, with representatives of Bay County to discuss details concerning the derating proposal. Subsequently, correspondence, dated June 16, 1999, and July 13, 1999, was submitted to EPA regarding a proposal to derate the two existing units at the Bay County RRF. To ensure national consistency, EPA Region 4 consulted with the Office of Enforcement and Compliance Assurance (OECA) and the Office of General Counsel (OGC) and received technical assistance from the EPA Office of Air Quality Planning and Standards (OAQPS) on this response. Bay County has submitted a proposal that is approvable by EPA contingent upon the operating conditions and monitoring requirements outlined in this correspondence. Final approval by EPA will not be granted until Bay County has agreed in writing to these operating conditions and monitoring requirements in their entirety and to the establishment of these items as enforceable permit conditions by your agency.

The two existing MWC units at the Bay County RRF presently have a capacity of 255 tons per day of municipal solid waste (MSW) each. Presently, the Bay County RRF is subject to the State of Florida Clean Air Act (CAA) section 111(d)/129 plan for implementing the emission guidelines for large MWC units (capacity greater than 250 tons per day of MSW). Under this plan, Bay County's initiation of on-site construction or installation of emission control equipment or process changes must begin by August 12, 1999. Construction, equipment installation, or process changes must be completed by September 12, 2000, and the date for final compliance with the plan is December 19, 2000. Bay County is proposing to derate the combustion capacity of each of their two MWC units from 255 tons per day to 245 tons per day of MSW. If final approval for the derating proposal is granted by EPA, the Bay County RRF would no longer be subject to the Florida plan, but would remain subject to 40 C.F.R. part 60, subpart E (for incinerators constructed after 1971 with a charging capacity greater than 50 tons per day).

RECEIVED  
8-10-99



Bay County proposes to reduce the full load flue gas flow rate and the corresponding steam flow from the units by physically modifying the forced draft (FD) fan wheel, as described in letters dated October 1, 1998, and June 1, 1999, to Bay County from the Howden Fan Company, manufacturer and vendor of the FD fan. Bay County proposes to complete the physical change of the FD fan wheel from an existing "A" blade arrangement to a "C" blade arrangement. For final approval, Bay County must certify in writing that the revolutions per minute (rpm), static and dynamic pressures of the FD fan, and unit capacities at the conditions before derating and at the proposed derated level will be as follows:

| <u>Full Load Capacity:</u>  | <u>Existing</u> | <u>Derated</u> |
|---|-----------------|----------------|
| FD Fan Wheel - rpm  | 1404            | 1404           |
| FD Fan Wheel - Diameter (inches)  | 50.75           | 49.38          |
| FD Fan Wheel - Static Pressure (inches H <sub>2</sub> O)                  | 14.25           | 12.80          |
| FD Fan Wheel - Dynamic Pressure (inches H <sub>2</sub> O)                 | 16.37           | 14.58          |
| Combustion Air Flow Rate (scfm)   | 22,800          | 20,780         |
| Steam Flow (pounds per hour (lb/hr))                                      | 68,000          | 65,333         |
| Tons per Day of MSW<br>(at 4500 British thermal units per pound (Btu/lb)) | 255             | 245            |

Final approval of the derating proposal must include appropriate monitoring requirements. In its proposal, Bay County states that "As agreed to during our meeting on May 27, 1999, the steam flow shall not exceed 65,333 lb/hr on a 24-hour basis, which is equivalent to 245 tons per day." At the May 27 meeting, and in a May 18, 1999, facsimile (see Enclosure pages A through C), Steve Passage of Montenay Power Corporation proposed to derate the units to 245 tons per day, operate at a full load of the lesser of 65,333 lb/hr or the maximum steam rate determined during a demonstration test, and monitor steam at levels not to exceed a maximum of 100 percent of 65,333 lb/hr on a 24-hour basis (or 100 percent of the maximum demonstrated steam rate on a 24-hour basis).<sup>1</sup> During the May 27 meeting, Bay County presented 24-hour steam flow data for the period November 1997 through October 1998 and 4-hour steam flow information for the period July 1998 through September 1998. Bay County highlighted the point that all of the 24-hour average steam rates were less than 100 percent of the design rate (68,000 lb/hr) during the November 1997 to October 1998 period. As a result of EPA correspondence, dated June 16, 1999 (Enclosure page D), which indicated "we are favoring a 24-hour rolling average rather than a block average," Anthony LoRe of Camp Dresser McKee responded to EPA on July 13, 1999. Mr. LoRe asserted that a 24-hour rolling average "imposes a more stringent criteria on the facility operator" and that a 24 hour block average "represents the most practical averaging period from an administrative standpoint." However, Bay County has previously demonstrated that it is capable at the present time of collecting continuous steam flow information on the existing MWC units and that it can calculate steam flow rates on a 24-hour rolling average basis. Based on our review of the information submitted by Bay County at the May 27 meeting

---

<sup>1</sup> The June 16, 1999, proposal submitted by Bay County does not limit or require the reporting of 1-hour or 4-hour steam flow.

and in its proposal, EPA has determined that a 24-hour rolling average is the appropriate compliance monitoring period for the proposed derate action.

The basis for the 24-hour rolling averaging period is to verify that the capacity of the units is continually below 245 tons per day. There can be no dispute that the units are derated if the units meet the 24-hour rolling averages. If Bay County makes changes that truly limit the unit capacity to 245 tons per day, it would be impossible for the steam production in any 24-hour rolling average period to exceed a rate equivalent to a throughput of greater than 245 tons per day. The continued insistence by representatives of Bay County, CBS/Westinghouse, Bay Resource Management, Inc. (BRMI), and Montenay Corporation on using a block average heightens our concern that the County plans to limit throughput below 245 tons per day by manipulating unit operation rather than making a physical change that actually limits its capacity to less than 245 tons per day (see Enclosure pages E through I).<sup>2</sup>

For final approval, after completion of the proposed modification to the FD fans, Bay County must conduct a demonstration test at the derated level to verify the hourly steam flow rate at full load. The demonstration test will establish the "maximum demonstrated MWC unit load," defined as the highest 4-hour arithmetic average MWC unit load achieved during four consecutive hours during this performance test. Within 30 days of final approval, Bay County must submit a protocol for testing which includes: (1) testing occurring over a 72-hour period; (2) testing conducted in accordance with the applicable requirements of 40 C.F.R. §60.8 (Performance tests); and (3) the opportunity must be provided for a Florida DEP and/or EPA observer to be present at the demonstration test.

After completion of the proposed derating, the steam flow rate will be monitored in accordance with the following requirements:

- (1) The owner or operator shall install, calibrate, maintain, and operate a steam flow meter, measure steam flow in pounds per hour on a continuous basis, and record the output of the monitor;
- (2) Steam flow shall be calculated in 24-hour rolling averaging periods at the end of each unit operating hour;
- (3) Steam flow shall not exceed an average of 65,333 lb/hr over any 24-hour rolling average period (provided the demonstrated full load steam flow rate/maximum demonstrated MWC unit load is 65,333 lb/hr; otherwise, the full load steam flow rate from the demonstration test will be used);

---

<sup>2</sup> "[A]s you know, 'the twenty-four hour rolling average' referred to in the EPA's letter to your counsel dated June 16, 1999 is not satisfactory to Montenay [or BRMI]"-Michael Johnson, BRMI, July 6, 1999. "Under that [block average] testing method, the county could exceed the limit in one hour, but offset it by burning less in another hour"- The News Herald, July 13, 1999.

(4) The monitoring data must be maintained for periodic inspections by Florida DEP and/or EPA;

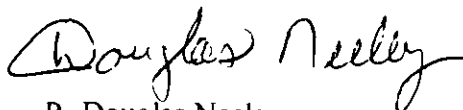
(5) Any 24-hour average steam flow in excess of 65,333 lb/hr (or the full load steam flow rate from the demonstration test) will be reported within seven calendar days to Florida DEP and EPA.

If final approval for the proposed derate is granted, Bay County must agree in writing to derate the units on the same schedule, meet the same increments of progress, and achieve the derating by the final compliance date that would be applicable to the MWC units if it did not derate (i.e. the requirements of the emission guidelines and the Florida CAA section 111(d)/129 state plan). For this facility, this would be the initiation of on-site construction for the derate action by August 12, 1999, the completion of on-site construction for the derate action by September 12, 2000, and final compliance with all operating restrictions and monitoring requirements for the derated units by December 19, 2000.

Based on the information presented, and as we stated in our previous correspondence, meetings, and discussions with the Florida DEP and Bay County on the issue of derating, if the Bay County RRF exceeds the steam output level corresponding to 250 tons per day (equivalent to a steam flow of 66,667 lb/hr) after completing the proposed modification to the FD fan wheel, the facility will be required to be in compliance with all applicable federal and state MWC requirements for large MWC units on schedule. Section 129 of the CAA and the federal MWC regulations, as well as the approved Florida section 111(d)/129 plan, require all large MWC units to be in compliance with all applicable requirements or close by December 19, 2000. Furthermore, in accordance with section 129(f) of the CAA, it shall be unlawful for any owner or operator of any solid waste incineration unit to which such standard, limitation, or requirement applies to operate such unit in violation of such standard, limitation, or requirement.

Final approval of the proposed derate action for the Bay County RRF will only be granted when EPA has assurance that these operating conditions and monitoring requirements have been agreed to in their entirety by Bay County in writing and will be established as enforceable permit conditions by your agency. If you have any questions or comments regarding this proposal, please contact Mr. Scott Davis of my staff at (404) 562-9127. Due to the ongoing litigation filed by Bay County against EPA (Petition for Review dated July 2, 1999, Case No. 99-12083-I), if any representative of Bay County or the Bay County RRF has any questions or comments concerning this correspondence, they must contact either Mr. Joshua Levin of the United States Department of Justice at (202) 514-4198 or Ms. Michiko Kono of the Office of Regional Counsel at (404) 562-9558.

Sincerely,



R. Douglas Neeley  
Chief  
Air & Radiation Technology Branch  
Air, Pesticides and Toxics  
Management Division

Enclosure

cc: James M. Leddy, Plant Manager  
Bay County RRF  
Zofia Kosim, OECA  
Walt Stevenson, OAQPS  
Rick Vetter, OGC  
Joshua Levin, DOJ  
Charles Perry, Hunton & Williams  
Nevin Zimmerman, Burke & Blue

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## FAX COVER SHEET

To: *Scott Davis, EPA, (404) 562-9095; Michael Hewett, DEP, (850) 922-6979*

From: *Martha Middleton, Nevin Zimmerman's office*

Date: *March 12, 1999*

| DOCUMENTS       | NUMBER OF PAGES* |
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| Lee Zeugin memo | 2                |
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|                 |                  |

**COMMENTS:**

**For your information re: Bay County Resource Recovery Facility**

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MAR-10-98 17:21 From:HUNTON &amp; WILLIAMS

2029551842

T-652 P.02/04 Job-334

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DIRECT DIAL: (202)955-1595

**PRIVILEGED AND CONFIDENTIAL****ATTORNEY-CLIENT COMMUNICATION****MEMORANDUM****TO:** Nevin J. Zimmerman, Esq.  
Charles A. Perry, Esq.**DATE:** March 10, 1999**FROM:** Lee B. Zeugin**Legal Requirements for Derating the Bay Resource Recovery Facility**

This memorandum, which updates my previous memorandum of December 15, 1998, summarizes the Clean Air Act regulations that govern the derating of the Bay Resource Recovery Facility (RRF) and addresses the averaging time issue that has arisen during meetings with EPA and Florida representatives. EPA has promulgated emission guidelines for large existing municipal waste combustion (MWC) units pursuant to its authority under § 111 of the Clean Air Act. Emission guidelines for large MWC units -- units with a combustion capacity of greater than 250 tons per day of municipal solid waste -- for which construction commenced before September 20, 1994 can be found at 40 CFR Part 60 Subpart Cb. Under EPA's regulations, States are required to submit to EPA a plan that implements and enforces the emission guidelines. The State of Florida met this obligation by adopting by reference EPA's MWC regulations (including the most recent changes to Subpart Cb discussed below). See Rule 62-204.800(8), F.A.C. EPA has reviewed and approved Florida's regulations. Thus, Florida is responsible for seeing that covered MWC facilities comply with the emission guidelines. However, because Florida has adopted EPA's regulations by reference, Florida will likely defer to EPA's interpretation of those guidelines.

The history of EPA's Subpart Cb regulations is an important starting point in understanding the legal significance of derating a MWC to below 250 tons per day. On December 19, 1995, EPA issued final Subpart Cb emission guidelines that covered both large and small MWCs. See 60 Fed. Reg. 65,387 (1995). These rules were challenged and on April 8, 1997, the U.S. Court of Appeals for the D.C. Circuit vacated the Subpart Cb rules that applied to MWCs less than 250 tons per day. *Davis County Solid Waste Management and Recovery District v. EPA*, 101 F.3d 1395 (D.C. Cir. 1996), amended, 108 F.3d 1454 (D.C. Cir. 1997). On August 25, 1997, EPA revised its Subpart Cb rules in keeping with the Court's decision.

Thus, EPA's and Florida's Subpart Cb rules apply only to MWCs with a "combustion capacity" more than 250 tons per day of municipal solid waste. MWC units that are derated to capacities less than this threshold are not subject to EPA's or Florida's MWC emission guidelines. EPA addressed derating in a proposed rule for federal implementation of MWC emission guidelines in those States that do not have an EPA-approved plan. 63 Fed. Reg. 3509 (Jan. 23, 1998). In that proposal, EPA defined derating as "a permanent change that physically reduces the capacity of the MWC to less than 250 tons per day of MSW." 63 Fed. Reg. 3518 col. 3. EPA added that "[o]nce the MWC unit physically is unable to combust more than 250 tons per day, it would no longer be subject to the MWC Federal plan." *Id.* In the proposed rule, EPA set out four-steps for demonstrating derating a unit:

- (i) A description of the physical changes that will be made to accomplish the derating.
- (ii) Calculations of the current maximum combustion capacity and the planned maximum combustion capacity after the derating. (See the procedures specified in 40 CFR 60.58b(j) of Subpart Eb for calculating municipal waste combustor unit capacity.)
- (iii) Engineering specifications and drawings of the physical changes that will be made to accomplish the derating.
- (iv) The same information that will be used to solicit bids to initiate the physical changes.

Proposed 40 CFR § 62.14109(j)(1). EPA issued its final rule on October 30, 1998. 63 Fed. Reg. 63,191 (Nov. 12, 1998). Neither the final rule nor the preamble to that rule sheds further light on what constitutes an acceptable derating. The only real change in the final rule was to delete the third and fourth steps for demonstrating a derating.

While the two remaining showings are not required for derating the Bay RRF because the rule does not apply in Florida since Florida has an approved plan, they do provide an indication of what EPA believes is necessary to establish that a derating has occurred. Interestingly, these two items do not match the information requested by EPA Region IV in an October 19, 1998 letter from R. Douglas Neeley to Howard L. Rhodes. EPA's letter suggests a need for continued monitoring after the derating has been accomplished and a revocation of derating approval if the monitoring shows that a steam output level corresponding to 250 tons per day is exceeded. The need for continued monitoring is inconsistent with EPA's demand that a permanent physical change needs to be made in order for a unit to be "derated." If a unit has been physically modified to have a capacity less than 250 tons per day, monitoring becomes a pointless exercise. More importantly, once a unit has been derated and is no longer subject to EPA's Subpart Cb rules, EPA and the State of Florida have no jurisdiction over that unit under § 111 of the Clean Air Act.

This lack of jurisdiction under § 111 of the Clean Air Act is important in evaluating EPA's desire to have a one-day averaging time for determining compliance with the maximum municipal waste burn rate instead of the seven-day average that now exists in the RRF permit. EPA's § 111 regulations for MWCs are premised on the amount of waste burned daily. Thus, EPA has taken the position that the averaging period can be no longer than one day. However, because the § 111 regulations do not apply to a derated unit, EPA's position is little more than an

attempt to circumvent its limited jurisdiction. In deciding what averaging period should be in the Bay RRF permit, the pertinent question is what averaging period is needed to demonstrate compliance with Florida's State Implementation Plan (SIP) – the reason the Bay RRF needs to obtain a permit. Florida has historically found that a seven-day average was sufficient. We know of no reason under SIP requirements that would compel a reduction in this averaging time to a one-day limit.

  
L.B.

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## FAX COVER SHEET

To: *Denver Stutler, Chief of Staff, DEP-(850) 488-7093*  
*Michael Hewett, (850) 922-6979*  
cc: *Skip Cook, (850) 386-6691*  
*Carol Atkinson, 769-3456*  
*Jon Mantay, 784-4026*

From: *Nevin Zimmerman*

Date: *May 7, 1999*

| DOCUMENTS                     | NUMBER OF PAGES* |
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| Letter from David S. Beachler | 2                |
|                               |                  |
|                               |                  |

COMMENTS:

**Dear Denver & Michael: Please find enclosed for your information a letter discussing the EPA meeting next Wednesday (May 12, 1999) in Atlanta. We hope that Michael can attend.**

\* NOT COUNTING COVER SHEET. IF YOU DO NOT RECEIVE ALL PAGES, PLEASE TELEPHONE US IMMEDIATELY AT. (850) 784-1573.





DAMES & MOORE

A DAMES & MOORE GROUP COMPANY

2030 Ardmore Boulevard  
Room 205  
Pittsburgh, Pennsylvania 15221  
412 351 2006 Tel  
412 351 2203 Fax

May 7, 1999

Mr. R. Scott Davis  
US Environmental Protection Agency  
61 Forsyth St. SW  
Atlanta, GA 30303-8906

Re: Bay County Resource Recovery Facility

|  |                 |            |
|--|-----------------|------------|
| Post-It™ brand fax transmittal memo 7671 |                 | # of pages |
| To                                       | Nevin Zimmerman | From       |
| Co.                                      |                 | Co.        |
| Dept.                                    |                 | Phone #    |
| Fax #                                    |                 | Fax #      |

Dear Scott:

I am writing you on behalf of the Bay County Resource Recovery Facility. As requested by you during our phone conversation on May 5, 1999 I have prepared an agenda for the proposed technical discussion meeting to be held next week. As discussed, we would like to meet with you on Wednesday May 12, 1999 in your office at 2:00 p.m. We propose the following discussion points:

1. Review the information provided by the Bay Facility previously to EPA and FDEP that describe the physical modifications being proposed for each combustor unit. We believe that these modifications will in fact, result in a capacity derating for each combustor unit.
2. Discuss how the physical modifications will result in operating steam flow levels lower the current operating levels (these data were submitted to EPA and FDEP on October 28, 1998 and discussed with Walt Stevenson and Scott Davis of EPA on January 14, 1999). In addition, we would like to discuss the operations control strategy that will be in place to maintain compliance with the derated level.
3. The Bay Facility will monitor steam flow levels as required in the letters sent by EPA on October 19, 1998 and February 3, 1999 to demonstrate compliance with the derated combustor level. The Facility will track the steam flow levels in each unit and record the levels on the Facility's control system computer in one-hour averages. Compliance with a derated design level of 66,400 pounds of steam per hour for each unit will be discussed.
4. Discussion with EPA and FDEP to define acceptable language to demonstrate compliance with the derated capacity level.

We anticipate that the following individuals will attend this technical discussion meeting: Dale McKeand - Bay Facility Operations Manager, Steve Passage and another technical representative from Montanay, a technical representative from CDM (the County's Consultant), and David

99-0437 DB.ltr

Office Worldwide

05/07/99 16:17  
DAMES & MOORE

850 784 0857  
Fax: 412-351-2203

BURKE & BLUE PA  
May 7 '99

14:50

P.02

003/003

Beachler - Dames & Moore. We look forward to meeting with you next week, please call me at (412) 351-2006 at your earliest convenience to confirm the meeting time and date.

Sincerely,



David S. Beachler

cc: Dale McKeand, Bay Facility  
Steve Passage, Montenay  
Charles Cook, CDM  
Nevin Zimmerman, Bay County Attorney

99-0437 DB.ltr

05/07/99 FRI 14:40 [TX/RX NO 9014] 002

# *Fax*

Please deliver immediately to: Mr. Michael Hewitt

of: Florida DEP

Fax number: 8-1-850-922-6979

Voice number: 8-1-850-488-0114

Fax received from: John J. Zebroski

of: CBS Corporation

Fax number: 412-256-2196

Voice number: 412-256-2168

Date: 2/24/99

Time: 10:07:29 AM

Number of Pages: 1

Subject: Conference Call

# *Message:*

Gentlemen:

The meeting with Florida DEP scheduled for 1:30 pm. on Thursday, February 25, 1999 has been changed to a conference call.

The call will be conducted at the same time and date as the proposed meeting.

For admission to the call:

The access # is 800-619-1926

The passcode # is 13139

# Fax

Please deliver immediately to: Mr. Michael Hewitt  
 of: Florida DEP  
 Fax number: 8-1-850-922-6979  
 Voice number: 8-1-850-488-0114

Fax received from: John J. Zebroski  
 of: CBS Corporation  
 Fax number: 412-256-2196  
 Voice number: 412-256-2168

Date: 2/23/99  
 Time: 5:17:12 PM

Number of Pages: 3

Subject: Bay County Modification

*Telephone on 2/25*  
*NORM ZIMMERMAN - Co. Attorney*  
*DAVE McKEAN - OPERATOR*  
*STEVE PASCONE - PRES. MONTGOMERY*  
*DAVE BRUNER - CONSULTANT*

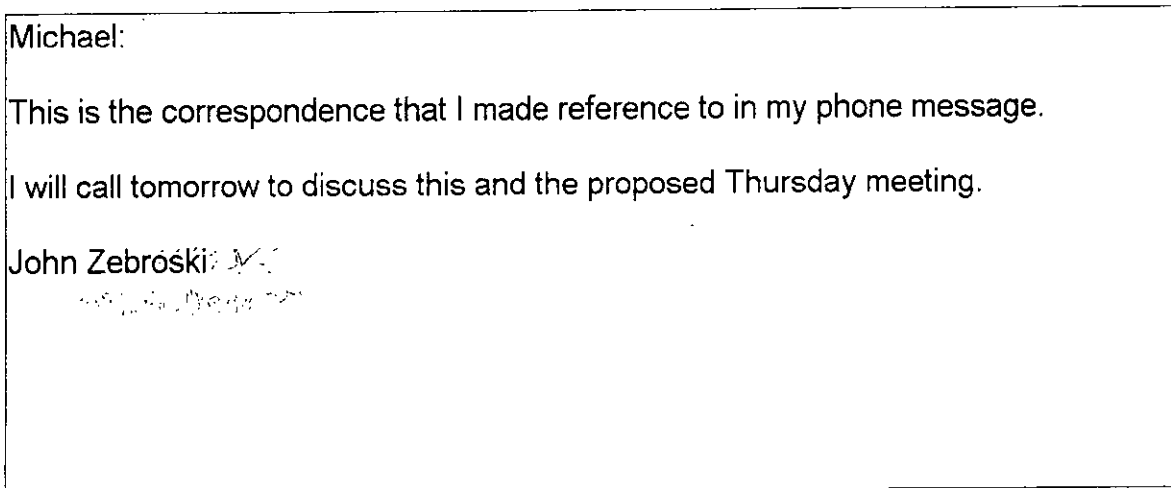
# Message:

Michael:

This is the correspondence that I made reference to in my phone message.

I will call tomorrow to discuss this and the proposed Thursday meeting.

John Zebroski



DAMES &amp; MOORE

Fax: 412-351-2203

Feb 19 '99 16:50 P. 02

**DAMES & MOORE**

A DAMES &amp; MOORE GROUP COMPANY

2020 Ardmore Boulevard  
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Pittsburgh, Pennsylvania 15221  
412 351 2006 Tel.  
412 351 2203 Fax

February 19, 1999

Al Linero  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399

Subject: Bay County Facility Small MWC Plant Permitting

Dear Al:

I am writing you on behalf of the Bay County Resource Recovery Facility. As suggested by you during our phone conversation on February 16, 1999, I have reviewed the existing facility air permits AO03-165754 and AO03-165755. Condition 16A of these permits list the capacity limit for each municipal waste combustor (MWC). Based on the recent determination by the USEPA and Florida DEP that the facility can derate to a small MWC, we suggest that Condition 16A in the air permits be modified as the following:

"16A. The maximum charging rate of each municipal waste combustor (MWC) shall not exceed 249 tons of municipal solid waste (MSW) per day (a total of 498 TPD for the facility); 93.4 million BTU heat input per hour, assuming a heating value of 4500 BTU per pound; and a steam production rate of 66,400 lbs/hr (design capacity). A seven day average, beginning 0000 hr Sunday and ending 2400 hr Saturday, shall be maintained as a weekly record. To determine compliance with the maximum charging capacity, the steam flow monitor shall be calibrated, maintained, and operated to measure steam flow in kilograms per hour (pounds per hour) steam on a continuous basis and record the output of the monitor. The maximum steam production for each combustor must not exceed the 66,400 pounds per hour design rate by more than 10 percent (73,040 lb/hr) averaged over a 4-hour block period."

The Bay Facility will operate each combustor boiler unit at the derated design steam flow set-point level of 66,400 lb/hr. In addition, the Facility will not operate the combustors at a level of greater than 110% of the maximum load level after derating which is 73,040 lb/hr for any 4-hour block arithmetic averaging period. The hourly recorded steam levels will be averaged during each 4-hour block (i.e. 12:00 a.m. - 4:00 a.m.; 4:00 - 8:00 a.m., etc.) and the calculated average cannot exceed 73,040 lb/hr. The steam flow monitoring data will be maintained at the facility for periodic inspections by Florida DEP and/or EPA.

DAMES & MOORE

Fax: 412-351-2203

Feb 19 '99 16:51 P.03

Mr. Linero  
February 18, 1999  
Page 2

Consistent with the County's purchase of the Facility, Bay County requests that the permits be issued in the name of Bay County as opposed to the operator of the facility (which is currently the case).

As I stated during our phone conversation, representatives from Bay County and the future operator, Montenay Power Corporation, would like to meet with you regarding the proposed permit language and other required permitting steps for the Bay Facility. The tentative meeting date is February 25, 1999 at 1:30 p.m. in your offices in Tallahassee.

Please call me at (412) 351-2006 if you have any questions.

Sincerely,

DAMES & MOORE

David S. Beachler  
Manager, Pittsburgh Air Services Group

- cc: Michael Hewett, Florida DEP
- Nevin Zimmerman, Bay County
- Steve Passage, Montenay
- Dale McKeand, Bay County Resource Recovery Facility



**DAMES & MOORE**

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**RECEIVED**

**FEB 25 1999**

**BUREAU OF  
AIR REGULATION**

2020 Ardmore Boulevard  
Room 205  
Pittsburgh, Pennsylvania 15221  
412 351 2006 Tel  
412 351 2203 Fax

February 19, 1999

Al Linero  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399

Subject: Bay County Facility Small MWC Plant Permitting

Dear Al:

I am writing you on behalf of the Bay County Resource Recovery Facility. As suggested by you during our phone conversation on February 16, 1999, I have reviewed the existing facility air permits AO03-165754 and AO03-165755. Condition 16A of these permits list the capacity limit for each municipal waste combustor (MWC). Based on the recent determination by the USEPA and Florida DEP that the facility can derate to a small MWC, we suggest that Condition 16A in the air permits be modified as the following:

"16A. The maximum charging rate of each municipal waste combustor (MWC) shall not exceed 249 tons of municipal solid waste (MSW) per day (a total of 498 TPD for the facility); 93.4 million BTU heat input per hour, assuming a heating value of 4500 BTU per pound; and a steam production rate of 66,400 lbs/hr (design capacity). A seven day average, beginning 0000 hr Sunday and ending 2400 hr Saturday, shall be maintained as a weekly record. To determine compliance with the maximum charging capacity, the steam flow monitor shall be calibrated, maintained, and operated to measure steam flow in kilograms per hour (pounds per hour) steam on a continuous basis and record the output of the monitor. The maximum steam production for each combustor must not exceed the 66,400 pounds per hour design rate by more than 10 percent (73,040 lb/hr) averaged over a 4-hour block period."

The Bay Facility will operate each combustor boiler unit at the derated design steam flow set-point level of 66,400 lb/hr. In addition, the Facility will not operate the combustors at a level of greater than 110% of the maximum load level after derating which is 73,040 lb/hr for any 4-hour block arithmetic averaging period. The hourly recorded steam levels will be averaged during each 4-hour block (i.e. 12:00 a.m. - 4:00 a.m.; 4:00 - 8:00 a.m., etc.) and the calculated average cannot exceed 73,040 lb/hr. The steam flow monitoring data will be maintained at the facility for periodic inspections by Florida DEP and/or EPA.

Mr. Linero  
February 18, 1999  
Page 2

Consistent with the County's purchase of the Facility, Bay County requests that the permits be issued in the name of Bay County as opposed to the operator of the facility (which is currently the case).

As I stated during our phone conversation, representatives from Bay County and the future operator, Montenay Power Corporation, would like to meet with you regarding the proposed permit language and other required permitting steps for the Bay Facility. The tentative meeting date is February 25, 1999 at 1:30 p.m. in your offices in Tallahassee.

Please call me at (412) 351-2006 if you have any questions.

Sincerely,

DAMES & MOORE

A handwritten signature in black ink that reads "David S. Beachler". The signature is written in a cursive style with a long, sweeping flourish at the end.

David S. Beachler  
Manager, Pittsburgh Air Services Group

cc: Michael Hewett, Florida DEP  
Nevin Zimmerman, Bay County  
Steve Passage, Montenay  
Dale McKeand, Bay County Resource Recovery Facility





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

*Chatt Larry, Mike  
Haw  
Federal notebook  
1*  
RECEIVED

FEB 03 1999

FEB 0 1999  
DIVISION OF AIR  
RESOURCES MANAGEMENT

4APT-ARB

Mr. Howard L. Rhodes, Director  
Department of Environmental Protection  
Division of Air Resources Management  
Mail Station 5500  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

SUBJ: Bay County Resource Recovery Facility

Dear Mr. Rhodes:

This correspondence is in response to the submittal of additional information, dated October 20, 1998, and January 15, 1999, from Bay County Energy Systems to Mr. Michael Hewett of your staff and Mr. Scott Davis of my staff (see Enclosures). This information was submitted pursuant to our request, outlined in Environmental Protection Agency (EPA) correspondence dated October 19, 1998, regarding a proposal by Bay County to derate the municipal waste combustor (MWC) units at their existing resource recovery facility (RRF). The two existing MWC units at the Bay County RRF presently have a capacity of 255 tons per day of municipal solid waste (MSW) each. To ensure national consistency, EPA Region 4 consulted with the Office of Enforcement and Compliance Assurance (OECA) and the Office of General Counsel (OGC), and received technical assistance from the EPA Office of Air Quality Planning and Standards (OAQPS) on this response. Based on our review of the information submitted, EPA is approving the proposal to derate the two MWC units at the Bay County RRF in accordance with the actions and conditions presented in this correspondence.

Determination of the approvability of this derating proposal is based on the federal MWC rules (40 C.F.R. part 60, subparts Cb and Eb, as amended), the Federal Plan requirements for large MWC units constructed on or before September 20, 1994 (40 C.F.R. part 62, subpart FFF), and the State of Florida Clean Air Act (CAA) section 111(d)/129 plan for existing MWC facilities with a MWC unit capacity greater than 250 tons per day of MSW (40 C.F.R. part 62, subpart K).

Specific criteria concerning derating are outlined in the MWC federal plan requirements. According to the federal plan, derating is defined as making a permanent physical change to the MWC unit that reduces the maximum combustion capacity of the unit to less than or equal to 250 tons per day of MSW. A permit restriction or a change in the method of operation does not

qualify as derating. The owner or operator that plans to derate a MWC unit must derate the unit on the same schedule, meet the same increments of progress, and achieve the derating by the final compliance date that would be applicable to the MWC unit if it did not derate (i.e. the requirements of the emission guidelines and state plan).

Presently, the Bay County RRF is subject to the State of Florida CAA section 111(d)/129 plan for implementing the emission guidelines for large MWC units (capacity greater than 250 tons per day of MSW). Under this plan, initiation of on-site construction or installation of emission control equipment or process changes should begin by August 12, 1999. Construction, equipment installation, or process changes should be completed by September 12, 2000, and the date for final compliance with the plan is December 19, 2000. Bay County is proposing to derate the capacity of each of their two MWC units from 255 tons per day to 249 tons per day of MSW. Upon approval of this derating proposal, the Bay County RRF would no longer be subject to the Florida plan, but would remain subject to 40 C.F.R. part 60, subpart E (for incinerators with a charging capacity greater than 50 tons per day). Also note that an emission guideline for small MWC units (250 tons per day or less) will be proposed by EPA in Spring 1999. After derating, your unit is to have a 249 tons per day capacity and your unit would be subject to that guideline and any associated Florida CAA section 111(d)/129 plan for existing small MWC units.

Under existing federal MWC regulations (§60.58b(j)), MWC unit capacity for the purposes of calculating whether MWC plants are subject to the large or small unit standards is the maximum charging rate of the MWC expressed in tons per day of MSW combusted. For combustors that are designed based on heat capacity, the maximum charging rate is calculated based on the maximum design heat input capacity of the unit and a heating value of 10,500 kilojoules per kilogram of waste fired (approximately 4500 British thermal units per pound (Btu/lb)).

As referenced in previous correspondence, the physical modification proposed for these units would be to change the forced draft (FD) fan blades. This will reduce the full load flue gas flow rate and thus the steam flow. Bay County provided a letter from the Howden Fan Company, manufacturer and vendor of the FD fan, that provides a description of the physical change of the FD fan wheel from an existing "A" blade arrangement to a "C" blade arrangement and verifies the operating characteristics of the FD fan at present and after the derating modification. For Bay County, the revolutions per minute (rpm), static and dynamic pressures of the FD fan, and unit capacities at the conditions before derating and at the derated level are as follows:

| <u>Full Load Capacity:</u>           | <u>Existing</u> | <u>Derated</u> |
|--------------------------------------|-----------------|----------------|
| FD Fan Wheel - rpm                   | 1404            | 1404           |
| FD Fan Wheel - Diameter (inches)     | 50.75           | 49.38          |
| FD Fan Wheel - Static Pressure       | 14.25           | 12.80          |
| FD Fan Wheel - Dynamic Pressure      | 16.37           | 14.64          |
| Combustion Air Flow Rate (scfm)      | 22,800          | 21,120         |
| Steam Flow (lb/hr)                   | 68,000          | 66,400         |
| Tons per Day of MSW (at 4500 Btu/lb) | 255             | 249            |

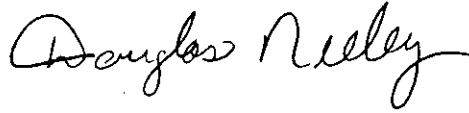
Bay County has submitted a schedule which provides for the modification of the FD fans and operation of the plant at the derated capacity at a time seventeen weeks after approval of this proposal.

After completion of the modification to the FD fans, Bay County will conduct a demonstration test at the derated level to verify the hourly steam flow rate at full load. Bay County has agreed that the facility will not be allowed to operate at an hourly load level greater than 110% of the maximum demonstrated MWC unit load after derating as measured during the demonstration test or any subsequent retest for subpart E requirements (approximately 66,400 lb/hr X 1.1 = 73,040 lb/hr). The opportunity will be provided for a Florida DEP and/or EPA observer to be present at the demonstration test. As outlined in our previous correspondence (October 19, 1998) and the Bay County correspondence (January 15, 1999), after completion of the derating, the steam flow rate will be monitored in accordance with §60.58b(i)(6), calculated in 4-hour block arithmetic averaging periods, and the monitoring data will be maintained for periodic inspections by Florida DEP and/or EPA. For compliance assurance, these monitoring provisions should be incorporated by your agency into the existing Bay County RRF permit condition in place to monitor compliance with the unit capacity limit by averaging each unit's steam flow over a seven day block averaging period.

In addition, as a point of information, the Bay County RRF is receiving approval to derate to a unit capacity of 249 tons per day for each MWC unit, just one ton below the large unit threshold of 250 tons per day. MWC units with a capacity greater than 250 tons per day of MSW remain subject to the compliance requirements of the State of Florida CAA section 111(d)/129 plan (and the federal emission guidelines). Bay County chose to request the unit capacity level of 249 tons per day in their proposal, rather than a more substantial derate. If the Bay County RRF exceeds the steam output level corresponding to 250 tons per day, the facility will be required to be in compliance with the previously applicable federal and state MWC requirements for large MWC units and comply with future increments of progress on schedule. In accordance with section 129(f) of the CAA, it shall be unlawful for any owner or operator of any solid waste incineration unit to which such standard, limitation, or requirement applies to operate such unit in violation of such standard, limitation, or requirement. Furthermore, section 129 of the CAA and the federal MWC regulations, as well as the approved Florida section 111(d)/129 plan, require all large MWC units to be in compliance with all applicable requirements or close by December 19, 2000.

Thank you for the opportunity to assist you in this determination. If you have any questions or comments, please contact Mr. Scott Davis of my staff at (404) 562-9127.

Sincerely,

A handwritten signature in cursive script that reads "Douglas Neeley".

R. Douglas Neeley  
Chief  
Air & Radiation Technology Branch  
Air, Pesticides and Toxics  
Management Division

Enclosure

cc: James M. Leddy, Plant Manager  
Bay County RRF  
Nevin Zimmerman, Burke & Blue, P.A.  
Jonathan Binder, OECA  
Walt Stevenson, OAQPS



BAY COUNTY ENERGY SYSTEMS, INC.

6510 Bay Line Drive  
Panama City, Florida 32404  
(850) 785-7933  
(850) 784-1779 Fax

BCES/DEP-98-205

October 20, 1998

OCT 21 1998  
RECORDS SECTION

Mr. Mike Hewett  
Division of Air Resources  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blirstone Road  
Tallahassee, Florida 32399

SUBJECT: DERATING REQUEST  
BAY COUNTY RESOURCE RECOVERY FACILITY

Dear Mr. Hewett:

It has come to our attention that additional information will be requested regarding the proposal to derate the two units at the Bay County Resource Recovery Facility, operated by Bay County Energy Systems, Inc. (BCESI). This response is intended to provide the additional information.

1. A request for baseline operations data has been made. Operations data for at least the most recent 90 days of operation are included as follows:

Steam flow rate - Four-hour block average steam flows for each unit are provided in Attachment 1. Earlier data are available but not presented here. A review of the facility historical records showed that the data presented are typical of earlier periods. The period presented in Attachment 1 includes July, August, and September of 1998. From September 30 through the first two weeks of October, the plant was shut down for scheduled work.

Electrical output - One-hour average Megawatt (MW) data are provided in Attachment 2 for the time period concurrent with the steam flow data.

MSW combustion rates - The facility does not have a means of directly tracking the tonnage processed on an instantaneous basis. Unit control, therefore the tonnage processed, is limited by the steam production rate. The design fuel heating value and moisture content were used to

determine the design steaming rate for the units. The steaming rate is then used as the control parameter to control the fuel feed rate. This system provides a stable data point (steam flow) for control that does not require adjustment because of the heating value and moisture variations found in the fuel. Attachment 3 lists the monthly received MSW tonnage for the last year.

Mean load level - In calculating the mean load level, an assumption was made; if a four-hour block average showed zero steam flow, the block was not included in the mean load calculation. Based on the data presented in Attachment 1, the mean load level is 61.5 thousand pounds per hour steam flow for Unit 1 and 64.2 thousand pounds per hour steam flow for Unit 2.

For calculating the maximum deviation, the following assumptions were made:

- (a) Only deviations above the baseline are of concern.
- (b) The baseline steam flow is the system control point that is the design steaming rate per unit.
- (c) The four-hour averages are to be compared to the baseline.

The table below shows the unit, deviation value and the number of occurrences during the period of data presented in Attachment 1.

|        | Baseline steam flow (# / hr) | Deviation of > +0.5 K #/hr | Deviation of > +1.0K #/hr | Deviation of > +1.5K #/hr | Deviation of = +1.6K #/hr |
|--------|------------------------------|----------------------------|---------------------------|---------------------------|---------------------------|
| Unit 1 | 68 K                         | 2                          | 1                         | 1                         | 0                         |
| Unit 2 | 68 K                         | 4                          | 2                         | 1                         | 1                         |

2. BCESI contacted the forced draft fan vendor to obtain a letter that verifies the forced draft fan operating characteristics. The requested letter is provided as Attachment 4. The attached letter also includes the current and future design data related to forced draft fan rpm and static and dynamic pressure. The facility monitors the calculated forced draft fan speed and the static pressure. The data from these instruments are not part of the facility log system.

BCES/DEP-98-205 .

October 20, 1998

Page 3

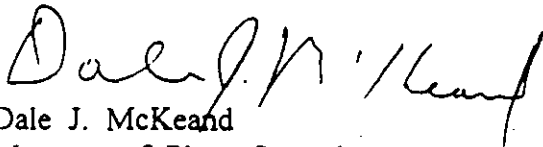
3. BCESI will certify that the measurement of the steam flow rate at normal full load will be conducted prior to and after the derating with the opportunity provided for a Florida DEP and / or EPA observer to be present. The plant is currently operating at full load and BCESI offers the plant for observation at this time.

BCESI will certify that the facility will not be run at a load level greater than 110% of the normal unit full load after derating.

BCESI will certify that after the derating, the steam flow rate will be monitored in accordance with paragraph 60.58b(i)(6), calculated in 4-hour block arithmetic averaging periods, and the monitoring data will be maintained for periodic inspections by Florida DEP.

This transmittal provides the information requested to allow the derating consideration of the Bay County Resource Recovery Facility to proceed. If additional data are needed, please contact the undersigned.

Regards,



Dale J. McKeand  
Manager of Plant Operations

cc: N. Zimmerman



OFFICE OF THE COUNTY ATTORNEYS

BOARD OF COUNTY  
COMMISSIONERS

January 15, 1999

BURKE & BLUE, P.A.

LES W. BURKE  
NEVIN J. ZIMMERMAN  
DAVID M. NOLL

221 MCKENZIE AVENUE  
POST OFFICE BOX 70  
PANAMA CITY, FLORIDA 32402  
TELEPHONE (850) 769-1414  
TELECOPY (850) 784-1573

COMMISSIONERS:

CAROL ATKINSON  
DISTRICT I

RICHARD STEWART  
DISTRICT II

ROBERT WRIGHT  
DISTRICT III

DANNY SPARKS  
DISTRICT IV

MARC NOLEN  
DISTRICT V

Mr. R. Scott Davis  
US Environmental Protection Agency  
61 Forsyth St. SW  
Atlanta, GA 30303-8960

PREVIOUSLY SENT BY FAX ON 1-19-99

RECEIVED

JAN 27 1999

AIR AND RADIATION CONTROL SECTION  
EPA REGION 4  
ATLANTA, GA

Re: Bay County Resource Recovery Facility

Dear Scott:

Thank you for spending the time meeting with the Bay County Project Team regarding the proposed Bay County Resource Recovery Facility derating request to a small MWC. As suggested by you during the follow-up telephone conversation that occurred in the afternoon on January 14, 1999, we are writing to you to confirm our agreement on the MWC Facility derating request. The following summarizes our understanding:

1. Both the US EPA Region IV and the Florida DEP have agreed that the proposed physical modification that will be made to the combustion air forced draft (FD) fans on each combustor is acceptable. The implementation of the physical modification will be consistent with 40 CFR §62.14-109(k).
2. The Bay Facility must operate each combustor boiler unit at the derated design steam flow set-point level of 66,400 lb/hr. In addition, the Facility will not operate the combustors at a level of greater than 110% of the maximum load level after derating which is 73,040 lb/hr for any 4-hour block arithmetic averaging period. The hourly recorded steam levels will be averaged during each 4- hour block (i.e. 12:00 a.m.-4:00 a.m., 4:00-8:00a.m., etc) and the calculated average cannot exceed 73,040 lb/hr. The steam flow monitoring data will be maintained at the facility for periodic inspections by Florida DEP and/or EPA.
3. The Bay Facility will certify that the steam flow rate will be monitored in accordance with 40 CFR §60.58b(i)(6) as given in item 3 on Page 3 of the letter sent by R. Douglas Neely of EPA to Mr. Howard



January 15, 1999

Page

Rhodes of Florida DEP, dated October 19, 1998. After the FD fan modifications are completed, the Bay Facility will conduct a demonstration test at the derated level, with the opportunity provided for a Florida DEP and/ or EPA inspector to be present.

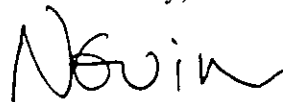
In addition, as stated during the January 14, 1999 meeting, the Florida DEP permit conditions regarding capacity will remain, but will be modified to reflect the derated levels. The revised language for specific condition 16A. will be:

"16A. The maximum charging rate of each municipal waste combustor (MWC) shall not exceed 249 tons of municipal solid waste (MSW) per day ( a total of 498 TPD for the facility); 93.4 million BTU heat input per hour, assuming a heating value of 4500 BTU per pound; and a steam production rate of 66,400 lbs/hr (design capacity). A seven day average, beginning 0000 hr Sunday and ending 2400 hr Saturday, shall be maintained as a weekly record. To determine compliance with the maximum charging capacity, the steam flow monitor shall be calibrated, maintained, and operated to measure steam flow in kilograms per hour (pounds per hour) steam on a continuous basis and record the output of the monitor. The maximum steam production must not exceed the 66,400 pounds per hour design rate by more than 10 percent (73,040 lb/hr) averaged over a 4-hour block period."

Based on the above-listed understanding the Bay County believes that we are in agreement with EPA and Florida DEP and that the derated units classify the Bay County Resource Recovery Facility as a small MWC facility.

We request clarification from EPA and Florida DEP in writing as soon as possible that the Facility will be designated as a small MWC in accordance with the conditions presented in this letter. A copy of this letter is being sent to Michael Hewett to assist in a prompt response to the County. Please call me at (850) 769-1414 or David Beachler at (412) 351-2006 if you have any questions.

Sincerely,



Nevin Zimmerman

NJZ/gmb

January 15, 1999

Page

cc: Michael Hewett, Florida DEP  
R. Douglas Neeley, Chief, Air & Radiation Technology Branch EPA  
Carol Atkinson, Chairman  
Harold Bazzel, Clerk  
Jonathan Mantay, County Manager  
Bill Hudson, Bay County Solid Waste  
Skip Cook, CDM  
Dale McKeand, BRMI  
Steve Passage, Montenay Power Corporation  
David Beachler, D&M Group  
Lee Zeugin, Hunton & Williams  
Charles Perry, Hunton & Williams  
Mike Johnson, CBS (formerly Westinghouse)



COPY

OFFICE OF THE COUNTY ATTORNEYS

RECEIVED

JAN 20 1999

DIVISION OF AIR  
RESOURCES MANAGEMENT

BOARD OF COUNTY  
COMMISSIONERS

January 15, 1999

BURKE & BLUE, P.A.

LES W. BURKE  
NEVIN J. ZIMMERMAN  
DAVID M. NOLL

221 MCKENZIE AVENUE  
POST OFFICE BOX 70  
PANAMA CITY, FLORIDA 32402  
TELEPHONE (850) 769-1414  
TELECOPY (850) 764-1573

Mr. R. Scott Davis  
US Environmental Protection Agency  
61 Forsyth St. SW  
Atlanta, GA 30303-8960

PREVIOUSLY SENT BY FAX ON 1-19-99

Re: Bay County Resource Recovery Facility

Dear Scott:

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COMMISSIONERS:

CAROL ATKINSON  
DISTRICT I

RICHARD STEWART  
DISTRICT II

ROBERT WRIGHT  
DISTRICT III

DANNY SPARKS  
DISTRICT IV

MARC NOLEN  
DISTRICT V

1. Both the US EPA Region IV and the Florida DEP have agreed that the proposed physical modification that will be made to the combustion air forced draft (FD) fans on each combustor is acceptable. The implementation of the physical modification will be consistent with 40 CFR §62.14-109(k).
2. The Bay Facility must operate each combustor boiler unit at the derated design steam flow set-point level of 66,400 lb/hr. In addition, the Facility will not operate the combustors at a level of greater than 110% of the maximum load level after derating which is 73,040 lb/hr for any 4-hour block arithmetic averaging period. The hourly recorded steam levels will be averaged during each 4-hour block (i.e. 12:00 a.m.-4:00 a.m., 4:00-8:00 a.m., etc) and the calculated average cannot exceed 73,040 lb/hr. The steam flow monitoring data will be maintained at the facility for periodic inspections by Florida DEP and/or EPA.
3. The Bay Facility will certify that the steam flow rate will be monitored in accordance with 40 CFR §60.58b(i)(6) as given in item 3 on Page 3 of the letter sent by R. Douglas Neely of EPA to Mr. Howard

January 15, 1999

Page

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In addition, as stated during the January 14, 1999 meeting, the Florida DEP permit conditions regarding capacity will remain, but will be modified to reflect the derated levels. The revised language for specific condition 16A. will be:

"16A. The maximum charging rate of each municipal waste combustor (MWC) shall not exceed 249 tons of municipal solid waste (MSW) per day ( a total of 498 TPD for the facility); 93.4 million BTU heat input per hour, assuming a heating value of 4500 BTU per pound; and a steam production rate of 66,400 lbs/hr (design capacity). A seven day average, beginning 0000 hr Sunday and ending 2400 hr Saturday, shall be maintained as a weekly record. To determine compliance with the maximum charging capacity, the steam flow monitor shall be calibrated, maintained, and operated to measure steam flow in kilograms per hour (pounds per hour) steam on a continuous basis and record the output of the monitor. The maximum steam production must not exceed the 66,400 pounds per hour design rate by more than 10 percent (73,040 lb/hr) averaged over a 4-hour block period."

Based on the above-listed understanding the Bay County believes that we are in agreement with EPA and Florida DEP and that the derated units classify the Bay County Resource Recovery Facility as a small MWC facility.

We request clarification from EPA and Florida DEP in writing as soon as possible that the Facility will be designated as a small MWC in accordance with the conditions presented in this letter. A copy of this letter is being sent to Michael Hewett to assist in a prompt response to the County. Please call me at (850) 769-1414 or David Beachler at (412) 351-2006 if you have any questions.

Sincerely,



Nevin Zimmerman

NJZ/gmb

January 15, 1999

Page

cc: Michael Hewett, Florida DEP  
R. Douglas Neeley, Chief, Air & Radiation Technology Branch EPA  
Carol Atkinson, Chairman  
Harold Bazzel, Clerk  
Jonathan Mantay, County Manager  
Bill Hudson, Bay County Solid Waste  
Skip Cook, CDM  
Dale McKeand, BRMI  
Steve Passage, Montenay Power Corporation  
David Beachler, D&M Group  
Lee Zeugin, Hunton & Williams  
Charles Perry, Hunton & Williams  
Mike Johnson, CBS (formerly Westinghouse)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY - REGION 4  
 AIR, PESTICIDES & TOXICS MANAGEMENT DIVISION  
 AIR & RADIATION TECHNOLOGY BRANCH  
 100 Alabama Street, SW  
 Atlanta, Georgia 30303  
 Fax Number: 404/562-9095

FACSIMILE TRANSMISSION SHEET

|                      |  |
|----------------------|--|
| DATE: 1-13-99        | NUMBER OF PAGES (including this sheet): 24 |
| TO: Michael Hewett   | PHONE: 850-921-9551                        |
| ADDRESS: Florida DEP | FAX NUMBER: 850-922-6979                   |
| FROM: Scott Davis    | PHONE: 404-562-9127                        |

Please call me if this transmission is received poorly.

SPECIAL INSTRUCTIONS:

Material for Bay County meeting  
at 9:30 on Thursday 1/14.

Call in number is:

202-260-8330 access 4565#

MEETING ~~1/14~~ 1/14

EPA {  
 Scott Davis  
 Dave McNamee  
 Walt Stevenson

LEE ZIGLER - Wash ATT, REPAID BY Zimmerman  
 New Zimmerman - Co Attorney  
 Dave Bencher  
 Steve Passio - Mountain  
 Skip Cook - Can Dresser  
 Dave Kim - Westinghouse

**WE ARE NOW ON EMAIL - AUDIO-TELECONF-GROUP**  
**Audio Teleconference Reservations**  
**EPA Washington Telecommunications Center (WTC)**

DATE: January 7, 1999

TO: Scott Davis

FROM: Audio Teleconference Center (MC: 3406)  
TeleTran Corp., Subcontract No. S9214-TELETRAN.005

You have reserved five lines from 9:30 a.m. to 12:30 p.m. (Eastern Time Zone) call in number (202) 260-8330, Conference Access Code: 4565#, on Jan 14, 1999. Note: You cannot call in earlier NOR stay on later than the scheduled end time as the CONFERENCES ARE CONNECTED AND DISCONNECTED AUTOMATICALLY by the system. You will begin hearing a series of warnings at fifteen, five, and one minute(s) before your call is scheduled to end. HQ AREA ONLY: Portable conference unit reserved: No

To place calls from within EPA Headquarters (HQ) area code, dial the 7-digit telephone number and after the prompt enter your conference access code number followed by the "#" sign. To place calls from outside the EPA HQ area code, dial 1 plus the area code (202) and the 7-digit telephone number and then enter your conference code followed by the "#" sign. If you call in too early, do not enter the code correctly, or you are calling from a rotary telephone, you will not be connected directly to your call but will be defaulted to the "Waiting Room" where an operator will assist you.

If your reservation is not going to be used as scheduled, OR if you need to change your reservation, please call us at (202) 260-CONF (2663) as soon as possible, so that our staff can make the necessary changes. Please give us your CALL IN NUMBER AND THE CONFERENCE ACCESS CODE NUMBER as a reference for us to search the system for your call. All reservations for audio conferences will incur a charge, unless the reservation is canceled before 8 a.m. on the day of the scheduled conference. The full charge will be applied for all reserved lines and times, regardless of whether all lines and times are actually used.

Please note that all teleconferences are monitored for audio quality by EPA's telecommunications service contractors, therefore discussions of any sensitive or restricted information during a conference call is prohibited.

The audio teleconferencing system allows the operators to assist conferees during their conferences. To request assistance, press the asterisk (\*) and zero (0) keys on your touch-tone telephone. This will alert the operator assigned to your lines. Unfortunately, this feature does not work on all speakerphones, electronic telephone systems, or rotary style telephones. If this feature is not available, you must call our hotline at (202) 260-2001.

**WE ARE NOW ON EMAIL - AUDIO-TELECONF-GROUP**  
Audio Teleconference Reservations  
EPA Washington Telecommunications Center (WTC)

DATE: January 7, 1999

TO: Scott Davis

FROM: Audio Teleconference Center (MC: 3406)  
TeleTran Corp., Subcontract No. S9214-TELETRAN.005

You have reserved five lines from 9:30 a.m. to 12:30 p.m. (Eastern Time Zone) call in number (202) 260-8330, Conference Access Code: 4565#, on Jan 14, 1999. Note: You cannot call in earlier NOR stay on later than the scheduled end time as the CONFERENCES ARE CONNECTED AND DISCONNECTED AUTOMATICALLY by the system. You will begin hearing a series of warnings at fifteen, five, and one minute(s) before your call is scheduled to end. HQ AREA ONLY: Portable conference unit reserved: No

To place calls from within EPA Headquarters (HQ) area code, dial the 7-digit telephone number and after the prompt enter your conference access code number followed by the "#" sign. To place calls from outside the EPA HQ area code, dial 1 plus the area code (202) and the 7-digit telephone number and then enter your conference code followed by the "#" sign. If you call in too early, do not enter the code correctly, or you are calling from a rotary telephone, you will not be connected directly to your call but will be defaulted to the "Waiting Room" where an operator will assist you.

If your reservation is not going to be used as scheduled, OR if you need to change your reservation, please call us at (202) 260-CONF (2663) as soon as possible, so that our staff can make the necessary changes. Please give us your CALL IN NUMBER AND THE CONFERENCE ACCESS CODE NUMBER as a reference for us to search the system for your call. All reservations for audio conferences will incur a charge, unless the reservation is canceled before 8 a.m. on the day of the scheduled conference. The full charge will be applied for all reserved lines and times, regardless of whether all lines and times are actually used.

Please note that all teleconferences are monitored for audio quality by EPA's telecommunications service contractors, therefore discussions of any sensitive or restricted information during a conference call is prohibited.

The audio teleconferencing system allows the operators to assist conferees during their conferences. To request assistance, press the asterisk (\*) and zero (0) keys on your touch-tone telephone. This will alert the operator assigned to your lines. Unfortunately, this feature does not work on all speakerphones, electronic telephone systems, or rotary style telephones. If this feature is not available, you must call our hotline at (202) 260-2001.



January 14, 1999

EPA Region 4  
EPA - OAQPS  
Florida DEP

BAY COUNTY RESOURCE RECOVERY FACILITY

I. REGULATORY ANALYSIS

-Affected Facility is defined as a "Large Municipal Waste Combustor Unit"(each MWC unit with a combustion capacity greater than 250 tons per day of municipal solid waste)

- Section 129 of Clean Air Act Amendments; 40 CFR Part 60, Subpart Cb
- State of Florida Section 111(d)/129 Plan: effective date January 12, 1998

-EPA Derating criteria for MWC units (FR January 23, 1998, pg 3518, IV.F)

- (1) Derating means a permanent change that physically reduces the capacity of the MWC unit to 250 tons per day or less of MSW.
- (2) Derating cannot be accomplished through a permit provision, but must be the result of a permanent physical restriction.
- (3) The owner or operator that plans to derate an MWC unit must derate the unit on the same schedule and increments that the MWC unit would have had to follow if it were to retrofit to meet the requirements of the emission guidelines and state plan.

-Implications of Derate Action

- (1) No longer subject to Florida Section 111(d)/129 plan.
- (2) Subject to upcoming federal rule for small MWC units.
- (3) Subject to EPA conditions of monitoring and operating provisions.
- (4) Any exceedance above 250 tons per day revokes derate approval and subjects facility to large MWC unit rule and state plan.

II. BAY COUNTY DERATE PROPOSAL

-Physical Modification to Forced Draft Fan

-Permanent change in flue gas flow rate and steam flow

III. OPERATING DATA ANALYSIS

-Information provided by Bay County

-EPA Analysis and Interpretation

IV. DISCUSSION

-Next Steps

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**DISTRIBUTION LIST**

- David Beachler, CBS ..... (412) 351-2203 (fax)
- David L. Collins, P.E. .... (850) 785-4600 (fax)
- Charles (Skip) E. Cook, P.E. .... (850) 386-6691 (fax)
- Scott Davis, EPA, Region ..... (404) 562-9095 (fax)
- Bill Hudson, Bay County ..... (850) 872-4805 (fax)
- Mike Johnson, CBS ..... (412) 256-2173 (fax)
- Charles Perry, Hunton & Williams ..... (404) 888-4196 (fax)
- Dale McKeand, CBS ..... (850) 784-1779 (fax)
- Tony LoRe', CDM ..... (617) 621-2565 (fax)
- Stephen S. Passage, P.E. .... (212) 826-9645 (fax)
- John Zebroski, CBS ..... (412) 256-2173 (fax)
- Lee Zeugin, Hunton & Williams ..... (202) 778-2201 (fax)
- Nevin Zimmerman, Bay County ..... (850) 784-1573 (fax)

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## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

ATLANTA FEDERAL CENTER

61 FORSYTH STREET

ATLANTA, GEORGIA 30303-8960

OCT 19 1998

4APT-ARB

Mr. Howard L. Rhodes, Director  
Department of Environmental Protection  
Division of Air Resources Management  
Mail Station 5500  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

SUBJ: Bay County Resource Recovery Facility

Dear Mr. Rhodes:

This correspondence is in response to a submittal, dated July 21, 1998, from Bay County Energy Systems to Mr. Michael Hewett of your staff (see Enclosure). Bay County is requesting approval of a proposal to derate the municipal waste combustor (MWC) units at their existing resource recovery facility (RRF). The two existing MWC units at the Bay County RRF each have a capacity of 255 tons per day of municipal solid waste (MSW). Determination of the approvability of this derating proposal is based on the federal MWC rules (40 C.F.R. Part 60, Subparts Cb and Eb) and the State of Florida Clean Air Act (CAA) section 111(d)/129 plan for existing MWC facilities with a MWC unit capacity greater than 250 tons per day of MSW.

Under the federal regulations (§60.58b(j)), MWC unit capacity for the purposes of calculating whether MWC plants are subject to the large or small unit standards is the maximum charging rate of the MWC expressed in tons per day of MSW combusted. For combustors that are designed based on heat capacity, the maximum charging rate is calculated based on the maximum design heat input capacity of the unit and a heating value of 10,500 kilojoules per kilogram of waste fired (approximately 4500 British thermal units per pound (Btu/lb)). The Bay County RRF is presently subject to the requirements of the Florida plan for large MWC combustor units (capacity greater than 250 tons per day of MSW). If the derating proposal is approved, the Bay County RRF would no longer be subject to the Florida plan, but would be subject to upcoming federal regulations for small MWC units (capacity of 250 tons per day or less of MSW) and the corresponding State of Florida CAA section 111(d)/129 plan for existing small MWC units.

Specific criteria concerning derating are outlined in the Federal Register notice proposing the MWC federal plan requirements (see January 23, 1998, page 3518, section IV.F). According to Environmental Protection Agency (EPA) policy, derating means a permanent change that physically reduces the capacity of the MWC unit to 250 tons per day or less of MSW. Derating cannot be accomplished through a permit provision, but must be the result of a permanent physical restriction. The owner or operator that plans to derate an MWC unit must derate the unit on the same schedule and increments that the MWC unit would have had to follow if it were to retrofit to meet the requirements of the emission guidelines and state plan. The remaining option in this circumstance would be for the facility to shut down and attempt to restart operations in the future in compliance with the emission guideline requirements.

Presently, the Bay County RRF is subject to the State of Florida CAA section 111(d)/129 plan for implementing the emission guidelines for large MWC units. Bay County is proposing to derate the capacity of each of their two MWC units from 255 tons per day to 249 tons per day of MSW. As referenced in Section 4.0 of the enclosure, the physical modification proposed for these units would be to change the forced draft fans to reduce the full load flue gas flow rate and thus the steam flow. Bay County proposes to monitor compliance with the permit capacity limit by averaging each unit's steam flow over a seven day block averaging period, with no one hour to exceed 110% of the full load steam flow. Bay County has submitted a schedule which provides for the installation and operation of the plant at the derated capacity at a time seventeen weeks after approval of their proposal. The present existing and proposed derated capacities were submitted as shown:

| <u>Capacity:</u>                     | <u>Existing</u> | <u>Derated</u> |
|--------------------------------------|-----------------|----------------|
| Combustion Air Flow Rate (scfm)      | 22,800          | 21,120         |
| Steam Flow (lb/hr)                   | 68,000          | 66,400         |
| Tons per Day of MSW (at 4500 Btu/lb) | 255             | 249            |

EPA Region 4 is coordinating our review of this proposal with the EPA Office of Air Quality Planning and Standards and the Office of Enforcement and Compliance Assurance. Based on our review and discussions concerning the derating proposal, EPA has determined that in order to be approvable the following additional information must be submitted by Bay County:

1. A baseline for existing operations at Bay County RRF must be established. Operating data for (at least) the most recent 90 days of operation must be provided. This includes:

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- Steam flow rate (pounds of steam per hour, hourly average)
  - Highest one hour peak to mean ratio for steam flow
  - Electrical output (kilowatts per hour)
  - MSW combustion rates (in tons per day fired, as fired basis; how this is monitored)
2. Bay County needs to provide a letter from the vendor of the forced draft fan that verifies the operating characteristics of the fan as presented in Section 4.0 of the July 21, 1998, correspondence to Florida DEP (at present and after the derating modification). Bay County and the vendor should provide the rpm and static and dynamic pressures of the fan at the conditions before derating and at the derated level.
  3. Bay County needs to certify in writing that measurement of the hourly steam flow rate at full load will be conducted both prior to and after the derating, with the opportunity provided for a Florida DEP and/or EPA observer to be present. Bay County needs to certify that the facility will not operate at an hourly load level greater than 110% of the maximum demonstrated MWC unit load after derating (as calculated:  $56,400 \text{ lb/hr} \times 1.1 = 73,040 \text{ lb/hr}$ ). Bay County needs to certify that after completion of the derating, the steam flow rate will be monitored in accordance with §60.58b(i)(6), calculated in 4-hour block arithmetic averaging periods, and the monitoring data will be maintained for periodic inspections by Florida DEP and/or EPA.

Submittal of this additional information must be completed before Region 4 can make a final determination on the derating proposal.

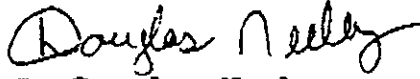
In addition, as a point of information, we are noting the fact that the Bay County RRF is seeking approval to derate to a unit capacity of 249 tons per day for each MWC unit, just one ton below the large unit threshold of 250 tons per day. MWC units with a capacity greater than 250 tons per day of MSW remain subject to the compliance requirements of the State of Florida CAA section 111(d)/129 plan (and the federal emission guidelines). Bay County chose to request the unit capacity level of 249 tons per day in their proposal, rather than a more substantial derate. If the Bay County RRF exceeds the threshold steam output level corresponding to 250 tons per day, any approval for derating will be revoked and the facility will be required to be in compliance with the previously applicable federal and state MWC requirements for large MWC units.

*[Faint handwritten notes]*

4

Thank you for the opportunity to assist you in this determination. If you have any questions or comments, please contact Mr. Scott Davis of my staff at (404) 562-9127.

Sincerely,



R. Douglas Neeley  
Chief  
Air & Radiation Technology Branch  
Air, Pesticides and Toxics  
Management Division

Enclosure

cc: James M. Leddy, Plant Manager  
Bay County RRF  
Jonathan Binder, OECA  
Walt Stevenson, OAQPS

*[Faint handwritten notes]*

**BAY COUNTY ENERGY SYSTEMS, INC.**

6510 Bay Line Drive  
Panama City, Florida 32404  
(850) 785-7933  
(850) 784-1779 Fax

BCES/DEP-98-134

July 21, 1998

**RECEIVED**

JUL 22 1998

AIR AND RADIATION TECHNOLOGY BRANCH  
EPA - REGION 4  
ATLANTA, GA

Mr. Mike Hewett  
Division of Air Resources  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blairstone Road  
Tallahassee, Florida 32399

SUBJECT: DERATING REQUEST  
BAY COUNTY RESOURCE RECOVERY FACILITY

Dear Mr. Hewett:

As has been previously discussed and reviewed with your office, please accept this notification as the formal request of Bay County Energy Systems, Inc. (BCESI), as operator of the Bay County Resource Recovery Facility (BCRRF), to derate the two Municipal Waste Combustion (MWC) units at that facility to a level of operation below 250 tons-per-day capacity of each MWC unit. This document details the proposed physical modification that would reduce present capacity of each MWC unit.

We are making this request with the understanding that all parties involved in the ownership and operation of the BCRRF are approving of this action. However, formal documentation detailing these approvals has not yet been concluded. It is our further understanding that upon initial acceptance by your Agency of this request, a formal submittal of operating permit modification will be required. All necessary documentation and participant approvals will be obtained prior to making this next submittal.

Concurrently, BCESI has initiated the activities necessary to meet the milestones required to be in compliance with the Clean Air Act as a large plant by November 13, 2000. While these actions seem to be contradictory to our intent to derate, it was felt that they are necessary to remain in compliance with federal and state standards. Continuing to proceed down this path of action, however, will soon require substantial expenditure for the County. It would, therefore, be beneficial to know of your acceptance of this request and specific compliance data as soon as possible.

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The financial structure of ownership and operation of the BCRRF necessitates numerous parties to be consulted and individual concerns to be addressed. The commercial issues are myriad and complex. Your patience and understanding and that of the Department as we have gone through this exercise is very much appreciated.

## 1.0 Introduction

The Bay County Regional Resource Recovery Facility (BCRRF) located in Panama City, Florida, consists of two independent municipal waste combustion (MWC) units, each currently rated at 255 tons-per-day of municipal solid waste (MSW) at 4500 Btu/lb waste. Each MWC unit has a separate flue contained in a common stack. The current air pollution control equipment consists of an electrostatic precipitator for particulate removal and good combustion practices for control of carbon monoxide and nitrogen oxide emissions.

The BCRRF is operated by Bay County Energy Systems, Inc. (BCESI) and services the five surrounding counties. Bay County owns the land that the facility is located on, leases the facility and, in accordance with the Solid Waste Disposal Service Agreement, provides the waste for combustion. The current air permit (A003-165754 and 55) was issued to BCESI on April 13, 1990, and expired on April 1, 1995. This permit has been extended by the Florida Department of Environmental Protection (FLDEP) pending issuance of a Title V Permit to Operate. On June 7, 1996, BCESI submitted its initial Title V Permit Application.

The U.S. Environmental Protection Agency (EPA) promulgated Emission Guidelines that apply to existing MWC units on December 19, 1995 (40 CFR 60 Subpart Cb). The status of the rules were held in question due to a law suit filed against EPA. On April 8, 1997, the United States Court of Appeals for the District of Columbia Circuit vacated subparts Cb and Eb as they apply to MWC units with the capacity to combust less than or equal to 250 tons per day of municipal solid waste (MSW), and all cement kilns combusting MSW, consistent with their opinion in Davis County Solid Waste Management and Recovery District v. EPA, 101 F.3d 1395 (D.C. Cir. 1996), as amended, 108 F.3d 1454 (D.C. Cir. 1997). As a result, subparts Cb and Eb apply only to MWC units with the capacity to combust more than 250 tons per day of MSW per unit (referred to as large MWC units). The Florida Department of Environmental Protection (FLDEP) has developed a state plan to implement these guidelines which was approved by EPA on November 13, 1997.

The BCRRF is proposing to make a physical modification to both MWC units to derate the units to 249 TPD (at 4500 Btu/lb reference waste). The physical modification would be to change the forced draft fan to reduce the full load flue gas flow rate and thus the steam flow rate. This document provides the technical rationale for this modification and derating.



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July 21, 1998

Page 3

## 2.0 Facility Description

The BCRRF uses two Westinghouse O'Connor water-walled rotary combustor and boiler trains to mass burn municipal solid wastes (MSW). Heat generated from the combustion of waste produces steam to drive a turbine that generates approximately 11.5 MW of electricity. Each water-walled combustor/boiler system is designed to burn 255 tons of municipal solid waste (MSW) with a higher heating value of 4500 Btu/lb per day or a mixture of MSW and wood waste.

The plant consists of two combustor/boiler units, a turbine generator, two truck scales, scale house, a tipping floor, front-end loaders, two conveyor systems to charge MSW and/or wood waste into the combustor, electrostatic precipitators, ash handling system, a stack, a control room, and all required ancillary equipment. The facility also has administration offices, change rooms, parking areas, roadways, and security fencing.

Waste to be processed is delivered to the facility and unloaded on the tipping floor. Front-end loaders are used to move the waste onto conveyors which transport the waste into the combustor feed chute. The waste is then combusted in the rotary combustor.

A forced draft (FD) fan is utilized to supply combustion air to the process and transport the hot gases produced in the combustion process through the boiler system. The heat released from the combustion process is recovered as the hot gases flow from the combustor barrel through the boiler's radiant, superheater, convection, and economizer sections. To maximize energy recovery and expedite combustion of high-moisture waste, the combustion gases exiting the convection section pass through a heat exchanger that preheats the incoming combustion air to about 450°F.

The flue gases from the air heater enter the electrostatic precipitator (ESP) where particulate matter is removed before exiting the stack. The ESPs are arranged into three mechanical fields, each with its own electrical field and ash removal hopper. The ESPs are designed to meet the current permit limits for particulate matter. The flue gas is drawn from the ESP by an induced draft (ID) fan before being discharged to the atmosphere through a separate flue in the common stack. The stack is made of precast concrete with two 4-ft., 6-in. diameter flues that are constructed of 4-in. thick acid-resistant bricks. The stack is 125 feet tall and has air emissions monitoring ports located 60 feet from the stack base.

The BCRRF currently continuously monitors oxygen and carbon monoxide levels in order to control the combustion process. Opacity levels after the ESP are also monitored on a continuous basis.

BCES/DEP-98-134

July 21, 1998

Page 3

## 2.0 Facility Description

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The plant consists of two combustor/boiler units, a turbine generator, two truck scales, scale house, a tipping floor, front-end loaders, two conveyor systems to charge MSW and/or wood waste into the combustor, electrostatic precipitators, ash handling system, a stack, a control room, and all required ancillary equipment. The facility also has administration offices, change rooms, parking areas, roadways, and security fencing.

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The BCRRF currently continuously monitors oxygen and carbon monoxide levels in order to control the combustion process. Opacity levels after the ESP are also monitored on a continuous basis.

BCES/DEP-98-134

July 21, 1998

Page 4

### 3.0 Regulatory Review

The BCRRF currently operates under Air Quality permit numbers A00-165754 & 55 (Unit 1 and 2) issued by the FLDEP. The current permits were issued to BCESI on April 13, 1990, and expired on April 1, 1995. The permits have been extended by FLDEP pending issuance of a Title V Operating Permit. The Title V Application was submitted to the FLDEP on June 7, 1996.

The existing permit was issued under the Prevention of Significant Deterioration (PSD) rules and contained a Best Available Control Technology (BACT) determination for the following air pollutants: particulate matter, sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and carbon monoxide (CO). The ESP was BACT for particulate matter, wherein the low sulfur content of MSW was BACT for SO<sub>2</sub>, while BACT for CO and NO<sub>x</sub> were combustor design and good operating procedures. The facility maintains operating monitor and test results to demonstrate compliance with the current permit requirements.

On December 19, 1995, the US EPA promulgated Emission Guidelines for MWC units, codified in 40 CFR Part 60, Subpart Cb. These Emission Guidelines apply to existing MWC units that commenced construction on or before September 20, 1994, and that are located at a MWC plant with an aggregate plant combustion capacity of 35 Mg per day (approximately 39 TPD) or greater.

Upon promulgation of the Emission Guidelines (and similar rules for new MWC sources), several groups entered into a litigation concerning the regulations. The litigation resulted in a court order on April 8, 1997, that vacated the guidelines as they apply to MWC units smaller than 250 TPD capacity. The large units (250 TPD and above) remain covered by the 1995 Guidelines; since the court did not vacate or stay the rules as they apply to these units. On August 25, 1997, EPA issued a direct final rule that amended the Guidelines (Subpart Cb) to be consistent with the Court ruling. Under the direct final rule, submittal deadlines for state plans remained as December 19, 1996, and existing large MWC units must still be in compliance no later than December 2000.

The FLDEP had submitted their compliance plan to EPA on November 11, 1996, and received EPA approval of the plan on November 13, 1997. The FLDEP plan mirrored the Subpart Cb Guidelines.

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 July 21, 1998  
 Page 5

**4.0 Technical Description of Derating Modification**

The BCRRF consists of two MWC units, each rated at 255 TPD of MSW with a reference waste heating value of 4500 Btu/lb. The steam flow at these conditions is 68,000 lb/hr per unit. BCRRF is proposing to make a physical modification to each unit to derate the units to a nominal capacity of 249 TPD of MSW (at reference heating value of 4500 Btu/lb) and a corresponding steam flow of 66,400 lb/hr per unit.

The BCRRF proposes to make a physical modification to the facility to reduce the flow capacity of the forced draft (FD) fans to a level commensurate with the new operating characteristics. Each existing FD fan is an American Davidson #2451-1A turbo blower, with a normal full load flow rate of 22,280 scfm. A mass and energy balance for the "derated" facility indicates that the normal full load flow rates of the fan would need to be reduced to 21,120 scfm.

Howden Buffalo of the Howden Fan Company now owns what was American Davidson, which manufactured the existing FD fans. They were consulted as to the best way to physically reduce each FD fan full load flow rate to 21,120 cfm. Howden Buffalo, after performing the necessary engineering work, recommended the following (please refer to the wheel sketch shown in Attachment 1):

The fan wheel should be changed from the existing "A" blade arrangement to a "C" blade arrangement. The only dimensional change of letters A through G would be to the dimension marked C. The existing C dimension is 50.75", while the smaller replacement wheel C dimension would be only 49.38". The same dimension blades would be used, and they would be tilted further to hold the same inner radius and yet reduce the outer radius (C dimension) of the replacement wheel. Changing the wheel out to this new geometry would reduce the FD fan normal full load point to 21,120 cfm, while maintaining the machine efficiency and keeping the same frame casing.

With the proposed modifications to the FD fans, each combustor/boiler system would be derated as follows:

|                                 | <u>Existing Capacity</u> | <u>Derating Levels</u> |
|---------------------------------|--------------------------|------------------------|
| Combustion Air Flow Rate (scfm) | 22,280                   | 21,120                 |
| Steam Flow (lb/hr)              | 68,000                   | 66,400                 |
| Tons per day (at 4500 Btu/lb)   | 255                      | 249                    |

BCES/DEP-98-134

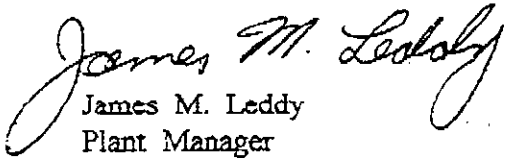
July 21, 1998

Page 6

Currently, compliance with the permit capacity limit is accomplished by averaging each unit's steam flow over a seven-day (block) average period, with no one hour over 110% of the nominal steam flow. The facility's digital control system would be moved to the new operational set point of 66,400 lb/hr steam and the feed rate (as well as other operating parameters) would be adjusted automatically to maintain this new level.

The new lower capacity FD fan wheels would be manufactured by and purchased from Howden Buffalo. The schedule shown in Attachment 2 indicates the time required after permit modification approval for the facility to have the smaller FD fan wheels installed and to be operating at the derated capacity.

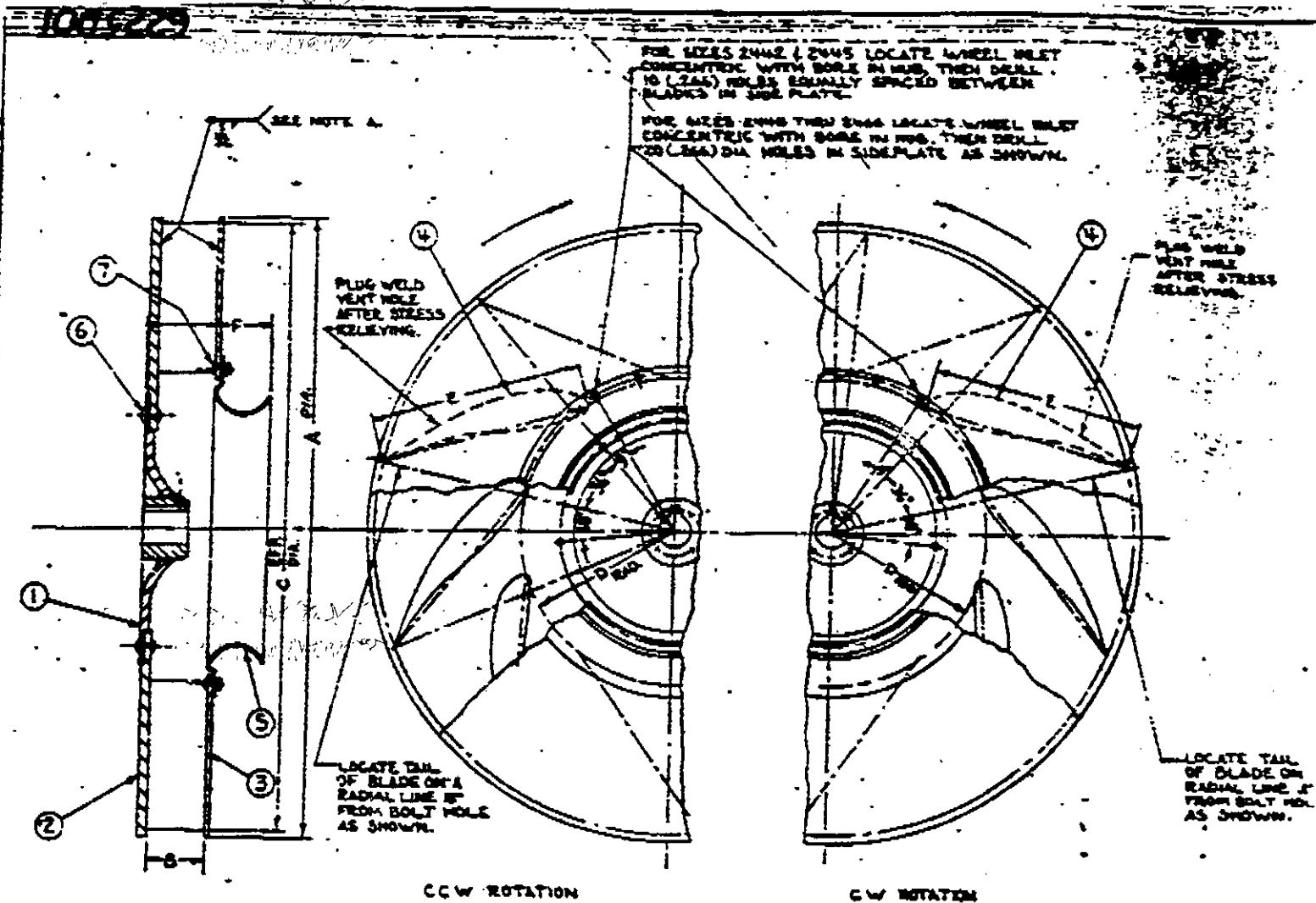
Sincerely,

  
James M. Leddy  
Plant Manager

Attachments

cc: ✓ Scott Davis  
Air, Pesticides & Toxics Mgt. Division  
61 Forsyth Street, S.W.  
Atlanta, Georgia 30303-8909

# Attachment 1



- NOTES:
- A- SET UP, WELD AND CLEAN BY WELDING SPEC. PS 27222-1
  - B- STRESS RELIEVE PER PS 227.01
  - C- HUB TEMP: 250°F
  - D- PAINT ARROW ON WHEEL SHOWING DIRECTION OF ROTATION.
  - E- BALANCE WHEEL PER. PROCESS SPEC. S1260M

## Attachment 2

| <b>BAY COUNTY PLANT CAPACITY DERATING SCHEDULE; FD FAN WHEEL SIZE REDUCTION</b> |  |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
|---|--|---|---|---|---|---|---|---|---|----|----|----|----|-------------------------------------|----|----|----|----|----|----|
| (SCHEDULE BEGINS WHEN PERMIT MODIFICATION APPROVAL IS RECEIVED)                 |  |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
| Week #  | 1  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14                                  | 15 | 16 | 17 | 18 | 19 | 20 |
|   | RECEIVE APPROVAL FOR PERMIT MODIFICATION TO DERATE PLANT |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
|   | ISSUE P.O. FOR NEW SMALLER FD FAN WHEELS                 |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
|   | ISSUE P.O. FOR NEW FD FAN WHEEL INSTALLATION             |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
|   | NEW FD FAN WHEEL FABRICATION                             |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
|   |  |   |   |   |   |   |   |   |   |    |    |    |    | DELIVERY OF NEW FD FAN WHEELS       |    |    |    |    |    |    |
|   |  |   |   |   |   |   |   |   |   |    |    |    |    | INSTALLATION OF NEW FD FAN WHEELS   |    |    |    |    |    |    |
|   |  |   |   |   |   |   |   |   |   |    |    |    |    | PLANT OPERATING AT DERATED CAPACITY |    |    |    |    |    |    |



## BAY COUNTY ENERGY SYSTEMS, INC.

6510 Bay Line Drive  
Panama City, Florida 32404  
(850) 785-7933  
(850) 784-1779 Fax

BCES/DEP-98-205

October 20, 1998

OCT 21 1998  
AIR RESOURCES DIVISION  
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Mr. Mike Hewett  
Division of Air Resources  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blainstone Road  
Tallahassee, Florida 32399

SUBJECT: DERATING REQUEST  
BAY COUNTY RESOURCE RECOVERY FACILITY

Dear Mr. Hewett:

It has come to our attention that additional information will be requested regarding the proposal to derate the two units at the Bay County Resource Recovery Facility, operated by Bay County Energy Systems, Inc. (BCESI). This response is intended to provide the additional information.

1. A request for baseline operations data has been made. Operations data for at least the most recent 90 days of operation are included as follows:

Steam flow rate - Four-hour block average steam flows for each unit are provided in Attachment 1. Earlier data are available but not presented here. A review of the facility historical records showed that the data presented are typical of earlier periods. The period presented in Attachment 1 includes July, August, and September of 1998. From September 30 through the first two weeks of October, the plant was shut down for scheduled work.

Electrical output - One-hour average Megawatt (MW) data are provided in Attachment 2 for the time period concurrent with the steam flow data.

MSW combustion rates - The facility does not have a means of directly tracking the tonnage processed on an instantaneous basis. Unit control, therefore the tonnage processed, is limited by the steam production rate. The design fuel heating value and moisture content were used to



BCES/DEP-98-205

October 20, 1998

Page 2

determine the design steaming rate for the units. The steaming rate is then used as the control parameter to control the fuel feed rate. This system provides a stable data point (steam flow) for control that does not require adjustment because of the heating value and moisture variations found in the fuel. Attachment 3 lists the monthly received MSW tonnage for the last year.

Mean load level - In calculating the mean load level, an assumption was made; if a four-hour block average showed zero steam flow, the block was not included in the mean load calculation. Based on the data presented in Attachment 1, the mean load level is 61.5 thousand pounds per hour steam flow for Unit 1 and 64.2 thousand pounds per hour steam flow for Unit 2.

For calculating the maximum deviation, the following assumptions were made:

- (a) Only deviations above the baseline are of concern.
- (b) The baseline steam flow is the system control point that is the design steaming rate per unit.
- (c) The four-hour averages are to be compared to the baseline.

The table below shows the unit, deviation value and the number of occurrences during the period of data presented in Attachment 1.

|        | Baseline steam flow (# / hr) | Deviation of > +0.5 K #/hr | Deviation of > +1.0K #/hr | Deviation of > +1.5K #/hr | Deviation of = +1.6K #/hr |
|--------|------------------------------|----------------------------|---------------------------|---------------------------|---------------------------|
| Unit 1 | 68 K                         | 2                          | 1                         | 1                         | 0                         |
| Unit 2 | 68 K                         | 4                          | 2                         | 1                         | 1                         |

2. BCESI contacted the forced draft fan vendor to obtain a letter that verifies the forced draft fan operating characteristics. The requested letter is provided as Attachment 4. The attached letter also includes the current and future design data related to forced draft fan rpm and static and dynamic pressure. The facility monitors the calculated forced draft fan speed and the static pressure. The data from these instruments are not part of the facility log system.

BCES/DEP-98-205

October 20, 1998

Page 3

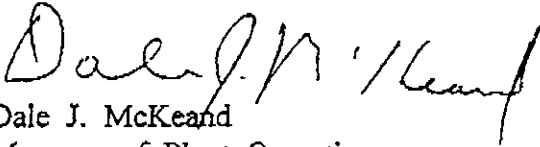
3. BCESI will certify that the measurement of the steam flow rate at normal full load will be conducted prior to and after the derating with the opportunity provided for a Florida DEP and / or EPA observer to be present. The plant is currently operating at full load and BCESI offers the plant for observation at this time.

BCESI will certify that the facility will not be run at a load level greater than 110% of the normal unit full load after derating.

BCESI will certify that after the derating, the steam flow rate will be monitored in accordance with paragraph 60.58b(i)(6), calculated in 4-hour block arithmetic averaging periods, and the monitoring data will be maintained for periodic inspections by Florida DEP.

This transmittal provides the information requested to allow the derating consideration of the Bay County Resource Recovery Facility to proceed. If additional data are needed, please contact the undersigned.

Regards,



Dale J. McKeand  
Manager of Plant Operations

cc: N. Zimmerman

**BAY COUNTY MWC**

data per owner:

2 MWC units at 255 tpd each

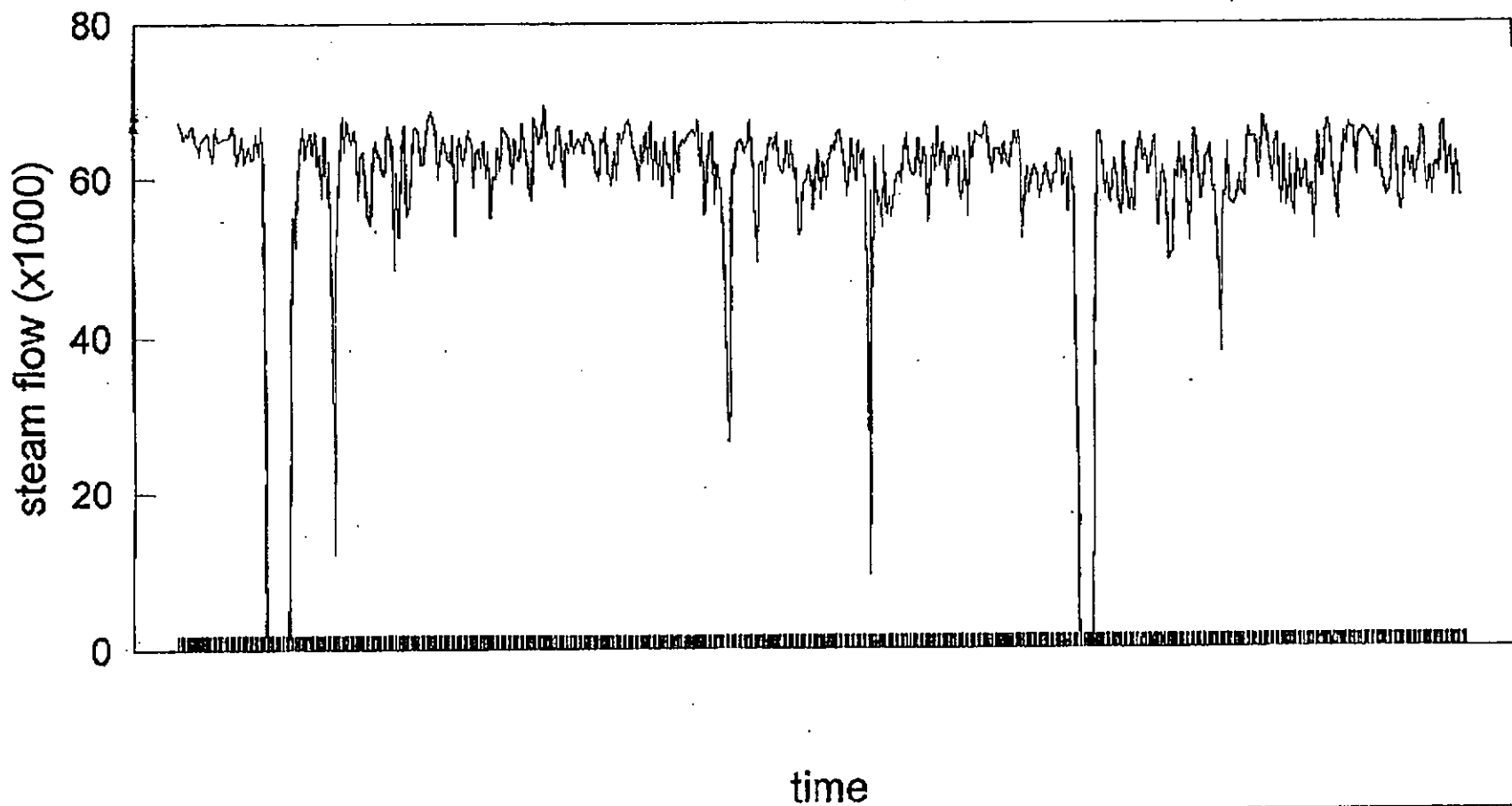
unit design capacity ----- 68,000 # steam /hr

derate required (1-249/255) ----- 2.35%

Question -- How to measure derated capacity?

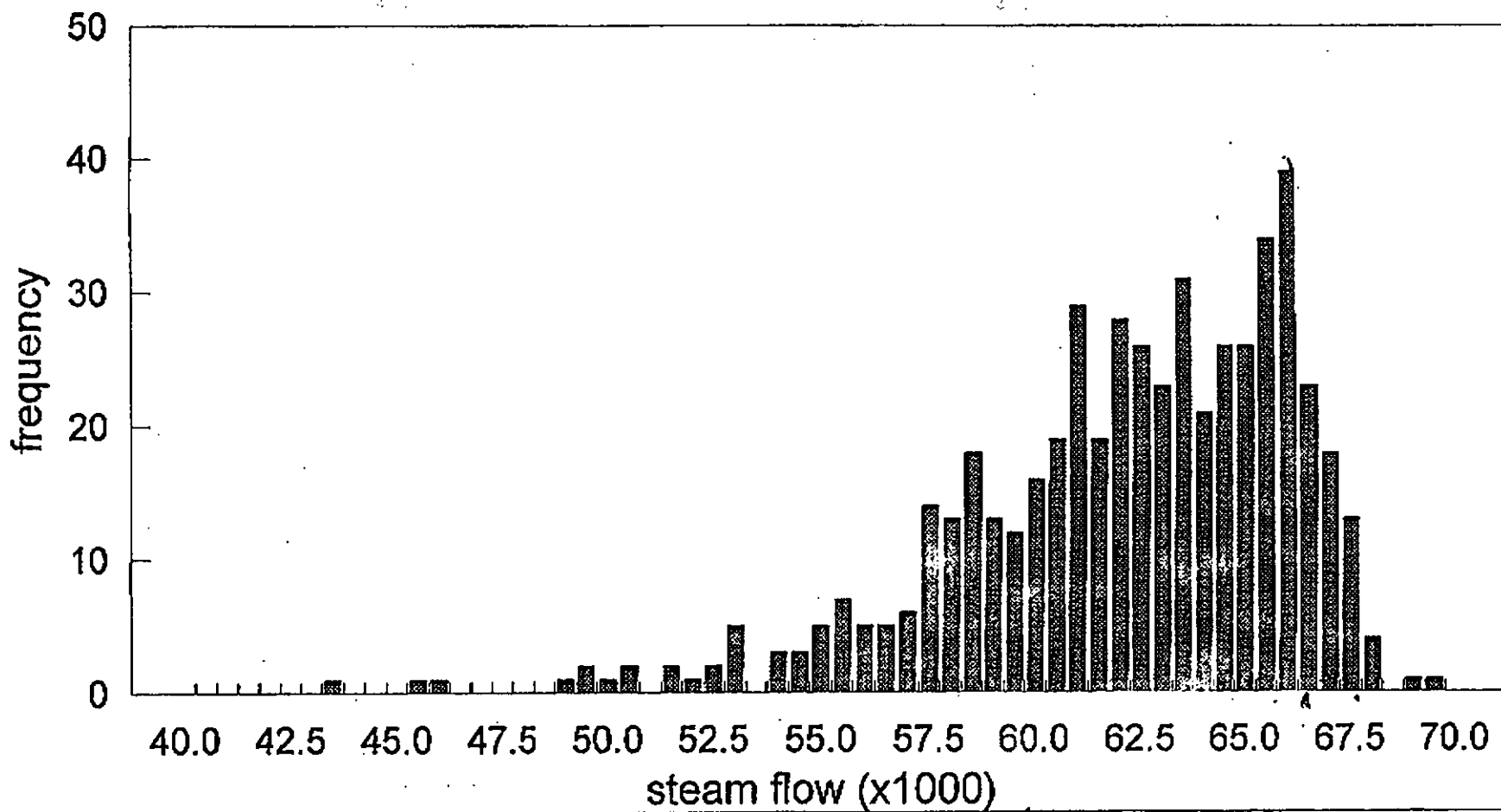
# Bay County MWC

4-hr steam load (unit #1)



# Bay County MWC

4-hr steam load (unit #1)



66.7

|       |      |
|-------|------|
| COUNT | 546  |
| 5%    | 27 ✓ |
| MEAN  | 59.4 |
| STD   | 12.4 |
| RSD   | 21%  |

| COUNT    | Ste             |
|----------|-----------------|
|          | XXX             |
|          | Unit # 1        |
| 1        | <del>69.5</del> |
| 2        | 68.7            |
| 3        | 68              |
| 4        | 68              |
| 5        | 67.8            |
| 6        | 67.7            |
| 7        | 67.5            |
| 8        | 67.5            |
| 9        | 67.5            |
| 10       | 67.4            |
| 11       | 67.4            |
| 12       | 67.3            |
| 13       | 67.3            |
| 14       | 67.2            |
| 15       | 67.2            |
| 16       | 67.2            |
| 17       | 67.1            |
| 18       | 67.1            |
| 19       | 67.1            |
| 20       | 66.9            |
| 21       | 66.8            |
| 22       | 66.8            |
| 23       | 66.8            |
| 24       | 66.8            |
| 25       | 66.8            |
| 26       | 66.8            |
| **27** ✓ | 66.7 ← MCR      |
| 28       | 66.6            |
| 29       | 66.6            |
| 30       | 66.6            |

**MCR Level @ 95%**

|                       | Unit #1 | Unit #2 |
|-----------------------|---------|---------|
| # data points         | 546     | 546     |
| 95th percentile       |         |         |
| position              | 27      | 27      |
| steam value           | 66.7 K# | 67.3 K# |
| After derate (2.35 %) | 65.1 K# | 65.7 K# |

How should we measure 95% MCR level ??

14 days — 84 points (5th position)

30 days — 180 points (9th position)



facsimile TRANSMITTAL

Mississippi, Tennessee, Alabama, Georgia, Florida, Kentucky, South Carolina, North Carolina

To: Michael Hewett  
Florida DEP

Fax #: 850-922-6979

Subject: Bay County ARF Derate

From: Scott Davis

Phone#: 404-562-9127

Date: DEC 17, 1998

Pages: 6, including this cover sheet.

COMMENTS:

Info from Walt Stevenson, OAQPS.  
Walt will call you on 12/8 at 1:30 PM  
to tie you into discussion.

TELECONFERENCE 12/8/98

w/ Walt Stevenson  
Scott Davis  
Dave Becher



Air & Radiation Technology Branch  
U.S. Environmental Protection Agency  
61 Forsyth Street, SW, 12th Floor  
Atlanta, Georgia 30303

404-562-9105  
Fax: 404-562-9095



# BAY COUNTY MWC

data per owner:

2 MWC units at 255 tpd each

#/  
unit design capacity ————— 68,000 # steam /hr

derate required (1-249/255) ————— 2.35%

68,000  
- 2.35%  
-----  
66,402 # steam/hr

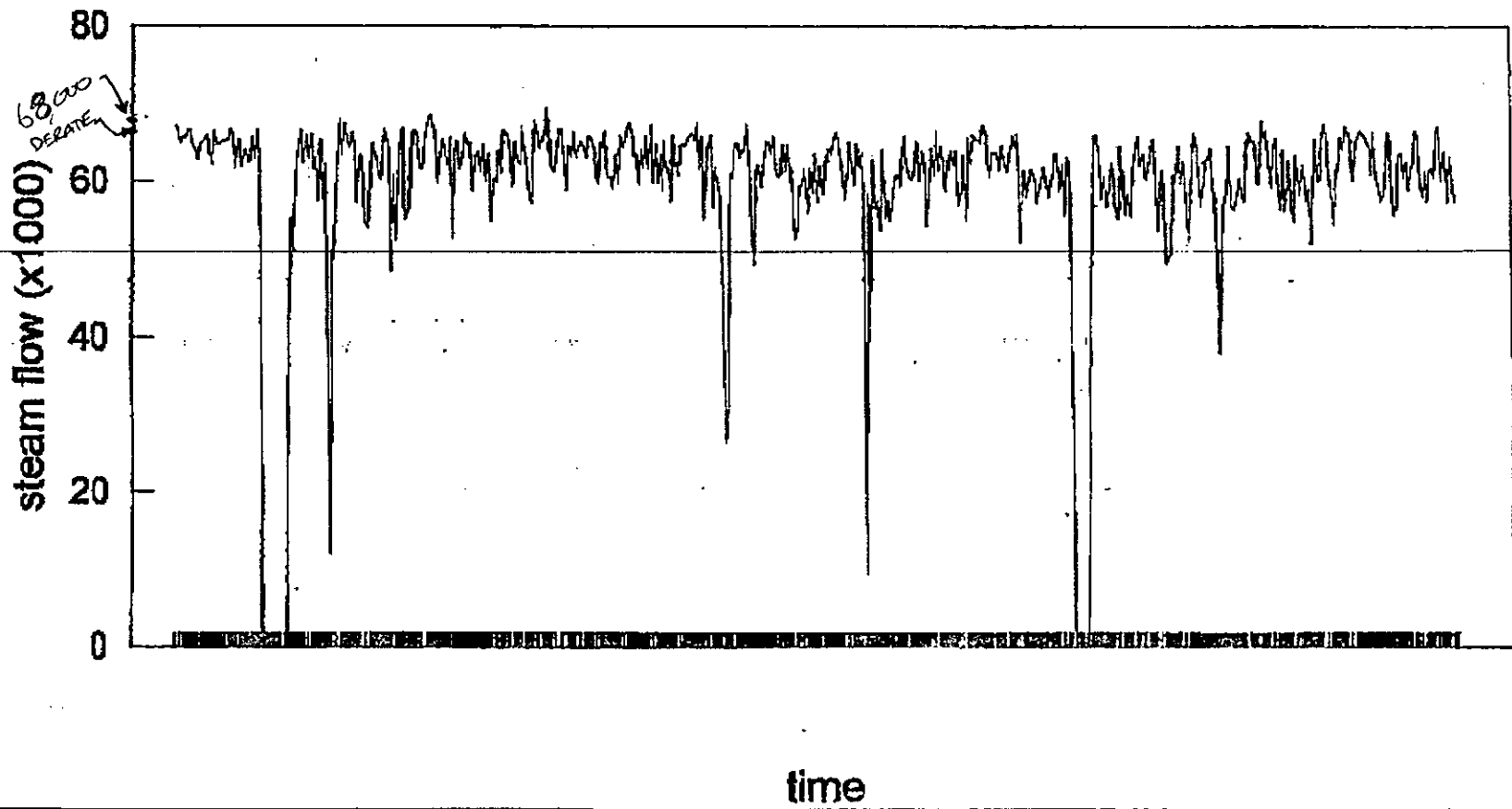
ASSUMES  
4500 Btu/lb  
DAVE BEAUMER: it can't  
GO UP TO ~~7400~~ 7400 Btu/lb  
it's HEAVY STEAM FLOW WILL  
VARY & CAN GO ABOVE 68,000

Question — How to measure derated capacity?

12-3-98

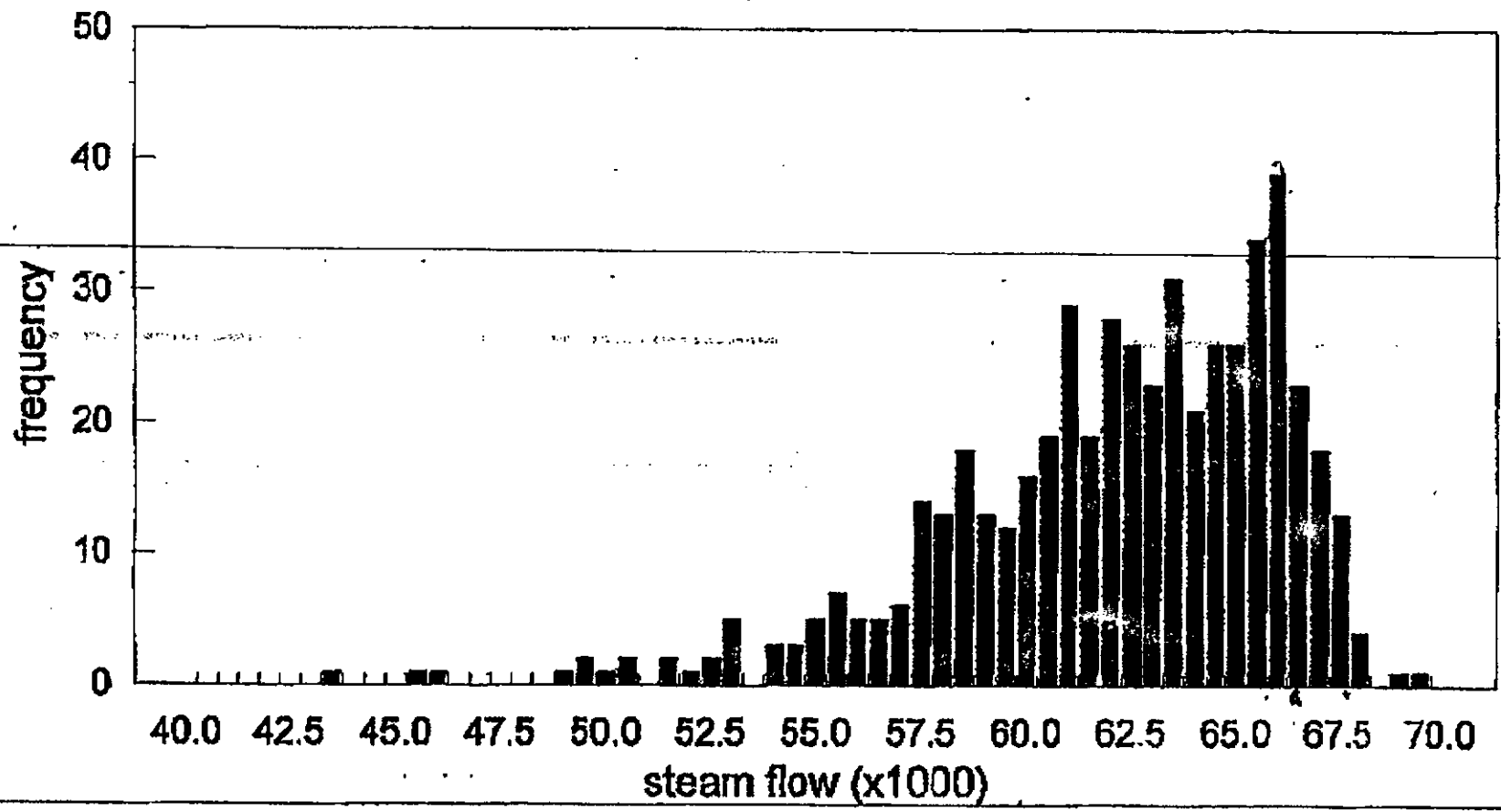
# Bay County MWC

## 4-hr steam load (unit #1)



# Bay County MWC

## 4-hr steam load (unit #1)



66.7

COUNT 546  
 5% 27 ✓  
 MEAN 59.4  
 STD 12.4  
 RSD 21%

| COUNT | Ste      |
|-------|----------|
|       | XXX      |
|       | Unit # 1 |
| 1     | 69.5     |
| 2     | 68.7     |
| 3     | 68       |
| 4     | 68       |
| 5     | 67.8     |
| 6     | 67.7     |
| 7     | 67.5     |
| 8     | 67.5     |
| 9     | 67.5     |
| 10    | 67.4     |
| 11    | 67.4     |
| 12    | 67.3     |
| 13    | 67.3     |
| 14    | 67.2     |
| 15    | 67.2     |
| 16    | 67.2     |
| 17    | 67.1     |
| 18    | 67.1     |
| 19    | 67.1     |
| 20    | 66.9     |
| 21    | 66.8     |
| 22    | 66.8     |
| 23    | 66.8     |
| 24    | 66.8     |
| 25    | 66.8     |
| 26    | 66.8     |
| 27    | 66.7     |
| 28    | 66.6     |
| 29    | 66.6     |
| 30    | 66.6     |

15TH PRESURATIVE ↑  
 TOP SLO

MCP

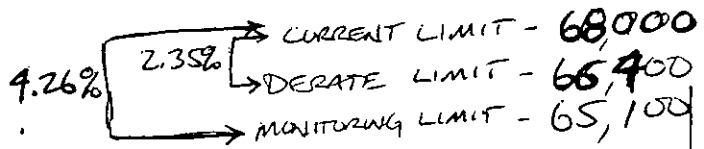
PROPOSED DERATED RATE FOR UNIT #1 IS 66,402# steam/hr

546 pounds

### MCR Level @ 95%

|                          | Unit #1 | Unit #2 |
|--------------------------|---------|---------|
| # data points            | 546     | 546     |
| 95th percentile position | 27      | 27      |
| steam value              | 66.7 K# | 67.3 K# |
|                          | - 2.35% | - 2.35% |
| After derate (2.35 %)    | 65.1 K# | 65.7 K# |

95<sup>th</sup> PERCENTILE



How should we measure 95% MCR level ??

3 MONTH OF DATA SHOW 95<sup>th</sup> PERCENTILE OF 68,000 LIMIT IS 66,700. AT 66,700 THE UNIT IS ALREADY BELOW 2SD TPD.

12 days - 100 points ( 5th position )

30 days - 240 points ( 12th position )

### \* What's Proposed:

The County derates to 66,400 #/hr (2.35% reduction), measure steam 4hr block averages (6 POINTS PER DAY), 30 DAYS OF STEAM DATA (180 POINTS), 95<sup>th</sup> PERCENTILE CAN NOT EXCEED 65,100 #/hr (ALLOWS FACILITY TO EXCEED 65,100 #/hr 9 OUT OF 180 4hr MEASUREMENTS).

\* SCOTT: 110% STILL APPLIES. THE FACILITY CAN OPERATE UP TO 110% OF MEASURED VALUE FROM LAST COMPLIANCE TEST AS LONG AS 95<sup>th</sup> PERCENTILE LIMIT OF 65,100 #/hr IS NOT EXCEEDED FOR.



# Department of Environmental Protection

Lawton Chiles  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

October 28, 1998

Scott Davis  
EPA Region 4  
Atlanta Federal Center  
61 Forsyth Street  
Atlanta, Georgia 30303-8960

Subject: Bay County Energy Systems, Inc., Request for Derating

Dear Mr. <sup>Scott</sup> Davis:

Pursuant to your October 19, request for additional information, Bay County Energy Systems has supplied this department with the enclosed information.

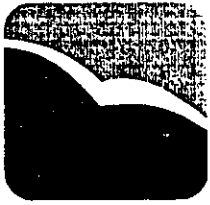
If you have any questions or would like to discuss the contents of the enclosure, please call me at 850/921-9551.

Sincerely,

Michael W. Hewett, P.E.  
Division of Air Resources Management

mh/

Enclosure



BAY COUNTY ENERGY SYSTEMS, INC.

6510 Bay Line Drive  
Panama City, Florida 32404  
(850) 785-7933  
(850) 784-1779 Fax

FILED  
OCT 21 1998

OCT 21 1998  
DIVISION OF AIR  
RESOURCES MANAGEMENT

BCES/DEP-98-205

October 20, 1998

Mr. Mike Hewett  
Division of Air Resources  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blairstone Road  
Tallahassee, Florida 32399

SUBJECT: DERATING REQUEST  
BAY COUNTY RESOURCE RECOVERY FACILITY

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| Unit 2 | 68 K                         | 4                          | 2                         | 1                         | 1                         |

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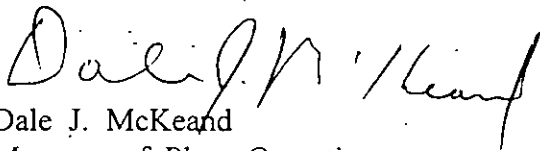
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Regards,



Dale J. McKeand  
Manager of Plant Operations

cc: N. Zimmerman

Bay County Energy Systems, Inc.

Steam Flow Per Unit - 4 hour Block Average

| Date      | Time | Unit 1 Average Steam Flow | Unit 2 Average Steam Flow |
|-----------|------|---------------------------|---------------------------|
| 01-Jul-98 | 400  | 67.3                      | 67.2                      |
| 01-Jul-98 | 800  | 66.3                      | 67.0                      |
| 01-Jul-98 | 1200 | 65.0                      | 66.2                      |
| 01-Jul-98 | 1600 | 65.9                      | 66.8                      |
| 01-Jul-98 | 2000 | 65.5                      | 64.5                      |
| 01-Jul-98 | 2400 | 66.7                      | 67.1                      |
| 02-Jul-98 | 400  | 66.8                      | 66.5                      |
| 02-Jul-98 | 800  | 64.7                      | 65.2                      |
| 02-Jul-98 | 1200 | 64.1                      | 65.5                      |
| 02-Jul-98 | 1600 | 62.9                      | 65.8                      |
| 02-Jul-98 | 2000 | 65.0                      | 66.8                      |
| 02-Jul-98 | 2400 | 65.1                      | 67.0                      |
| 03-Jul-98 | 400  | 65.7                      | 67.0                      |
| 03-Jul-98 | 800  | 65.9                      | 67.2                      |
| 03-Jul-98 | 1200 | 63.6                      | 66.9                      |
| 03-Jul-98 | 1600 | 62.2                      | 65.7                      |
| 03-Jul-98 | 2000 | 66.6                      | 67.4                      |
| 03-Jul-98 | 2400 | 64.8                      | 67.0                      |
| 04-Jul-98 | 400  | 64.8                      | 67.0                      |
| 04-Jul-98 | 800  | 65.2                      | 67.1                      |
| 04-Jul-98 | 1200 | 65.2                      | 67.0                      |
| 04-Jul-98 | 1600 | 65.3                      | 66.9                      |
| 04-Jul-98 | 2000 | 65.4                      | 66.9                      |
| 04-Jul-98 | 2400 | 66.8                      | 67.0                      |
| 05-Jul-98 | 400  | 65.9                      | 67.0                      |
| 05-Jul-98 | 800  | 61.8                      | 66.8                      |
| 05-Jul-98 | 1200 | 63.2                      | 65.9                      |
| 05-Jul-98 | 1600 | 65.4                      | 67.1                      |
| 05-Jul-98 | 2000 | 62.0                      | 63.4                      |
| 05-Jul-98 | 2400 | 63.2                      | 66.4                      |
| 06-Jul-98 | 400  | 64.0                      | 65.4                      |
| 06-Jul-98 | 800  | 62.5                      | 65.7                      |
| 06-Jul-98 | 1200 | 62.6                      | 67.3                      |
| 06-Jul-98 | 1600 | 65.8                      | 65.7                      |
| 06-Jul-98 | 2000 | 62.9                      | 66.1                      |
| 06-Jul-98 | 2400 | 66.8                      | 66.3                      |
| 07-Jul-98 | 400  | 62.1                      | 64.7                      |
| 07-Jul-98 | 800  | 0.0                       | 0.0                       |
| 07-Jul-98 | 1200 | 0.0                       | 0.0                       |
| 07-Jul-98 | 1600 | 0.0                       | 0.0                       |
| 07-Jul-98 | 2000 | 0.0                       | 0.0                       |
| 07-Jul-98 | 2400 | 0.0                       | 0.0                       |
| 08-Jul-98 | 400  | 0.0                       | 0.0                       |
| 08-Jul-98 | 800  | 0.0                       | 0.0                       |
| 08-Jul-98 | 1200 | 0.0                       | 0.0                       |
| 08-Jul-98 | 1600 | 0.0                       | 0.0                       |
| 08-Jul-98 | 2000 | 0.0                       | 0.0                       |
| 08-Jul-98 | 2400 | 0.0                       | 0.0                       |
| 09-Jul-98 | 400  | 39.9                      | 0.0                       |
| 09-Jul-98 | 800  | 55.2                      | 0.0                       |

# Bay County Energy Systems, Inc.

## Steam Flow Per Unit - 4 hour Block Average

| Date      | Time | Unit 1 Average Steam Flow | Unit 2 Average Steam Flow |
|-----------|------|---------------------------|---------------------------|
| 09-Jul-98 | 1200 | 51.2                      | 0.0                       |
| 09-Jul-98 | 1600 | 60.6                      | 0.0                       |
| 09-Jul-98 | 2000 | 64.3                      | 36.4                      |
| 09-Jul-98 | 2400 | 66.8                      | 65.9                      |
| 10-Jul-98 | 400  | 62.5                      | 65.9                      |
| 10-Jul-98 | 800  | 64.8                      | 66.0                      |
| 10-Jul-98 | 1200 | 66.0                      | 65.7                      |
| 10-Jul-98 | 1600 | 63.0                      | 63.7                      |
| 10-Jul-98 | 2000 | 66.2                      | 63.7                      |
| 10-Jul-98 | 2400 | 61.7                      | 61.6                      |
| 11-Jul-98 | 400  | 63.1                      | 62.9                      |
| 11-Jul-98 | 800  | 57.6                      | 65.6                      |
| 11-Jul-98 | 1200 | 65.5                      | 67.9                      |
| 11-Jul-98 | 1600 | 57.7                      | 64.0                      |
| 11-Jul-98 | 2000 | 62.3                      | 62.9                      |
| 11-Jul-98 | 2400 | 43.3                      | 39.2                      |
| 12-Jul-98 | 400  | 12.1                      | 61.1                      |
| 12-Jul-98 | 800  | 49.5                      | 65.8                      |
| 12-Jul-98 | 1200 | 54.4                      | 63.7                      |
| 12-Jul-98 | 1600 | 60.3                      | 66.1                      |
| 12-Jul-98 | 2000 | 68.0                      | 66.2                      |
| 12-Jul-98 | 2400 | 63.4                      | 65.9                      |
| 13-Jul-98 | 400  | 67.4                      | 66.0                      |
| 13-Jul-98 | 800  | 65.4                      | 66.1                      |
| 13-Jul-98 | 1200 | 64.4                      | 66.6                      |
| 13-Jul-98 | 1600 | 66.3                      | 66.0                      |
| 13-Jul-98 | 2000 | 64.4                      | 66.0                      |
| 13-Jul-98 | 2400 | 57.4                      | 65.8                      |
| 14-Jul-98 | 400  | 63.0                      | 66.4                      |
| 14-Jul-98 | 800  | 63.4                      | 65.7                      |
| 14-Jul-98 | 1200 | 58.3                      | 63.4                      |
| 14-Jul-98 | 1600 | 54.7                      | 65.5                      |
| 14-Jul-98 | 2000 | 54.1                      | 65.1                      |
| 14-Jul-98 | 2400 | 62.1                      | 65.3                      |
| 15-Jul-98 | 400  | 64.9                      | 65.9                      |
| 15-Jul-98 | 800  | 62.8                      | 66.1                      |
| 15-Jul-98 | 1200 | 63.3                      | 67.3                      |
| 15-Jul-98 | 1600 | 60.6                      | 67.1                      |
| 15-Jul-98 | 2000 | 60.4                      | 66.3                      |
| 15-Jul-98 | 2400 | 66.8                      | 67.0                      |
| 16-Jul-98 | 400  | 65.6                      | 67.5                      |
| 16-Jul-98 | 800  | 64.4                      | 67.0                      |
| 16-Jul-98 | 1200 | 48.6                      | 56.0                      |
| 16-Jul-98 | 1600 | 60.8                      | 64.4                      |
| 16-Jul-98 | 2000 | 52.6                      | 65.1                      |
| 16-Jul-98 | 2400 | 61.1                      | 65.8                      |
| 17-Jul-98 | 400  | 66.4                      | 59.3                      |
| 17-Jul-98 | 800  | 66.9                      | 69.0                      |
| 17-Jul-98 | 1200 | 55.2                      | 59.3                      |
| 17-Jul-98 | 1600 | 56.1                      | 63.9                      |

# Bay County Energy Systems, Inc.

## Steam Flow Per Unit - 4 hour Block Average

| Date      | Time | Unit 1 Average Steam Flow | Unit 2 Average Steam Flow |
|-----------|------|---------------------------|---------------------------|
| 17-Jul-98 | 2000 | 61.1                      | 64.6                      |
| 17-Jul-98 | 2400 | 66.5                      | 66.7                      |
| 18-Jul-98 | 400  | 66.6                      | 67.1                      |
| 18-Jul-98 | 800  | 66.0                      | 66.8                      |
| 18-Jul-98 | 1200 | 61.8                      | 63.7                      |
| 18-Jul-98 | 1600 | 61.8                      | 62.7                      |
| 18-Jul-98 | 2000 | 65.9                      | 65.1                      |
| 18-Jul-98 | 2400 | 67.7                      | 67.7                      |
| 19-Jul-98 | 400  | 68.7                      | 68.6                      |
| 19-Jul-98 | 800  | 67.2                      | 66.7                      |
| 19-Jul-98 | 1200 | 66.6                      | 62.7                      |
| 19-Jul-98 | 1600 | 59.9                      | 61.0                      |
| 19-Jul-98 | 2000 | 63.1                      | 65.6                      |
| 19-Jul-98 | 2400 | 65.5                      | 67.6                      |
| 20-Jul-98 | 400  | 63.8                      | 66.5                      |
| 20-Jul-98 | 800  | 62.3                      | 66.1                      |
| 20-Jul-98 | 1200 | 62.1                      | 66.1                      |
| 20-Jul-98 | 1600 | 65.7                      | 65.9                      |
| 20-Jul-98 | 2000 | 52.8                      | 62.5                      |
| 20-Jul-98 | 2400 | 63.6                      | 67.0                      |
| 21-Jul-98 | 400  | 65.3                      | 65.2                      |
| 21-Jul-98 | 800  | 61.8                      | 61.9                      |
| 21-Jul-98 | 1200 | 62.8                      | 66.8                      |
| 21-Jul-98 | 1600 | 66.3                      | 65.8                      |
| 21-Jul-98 | 2000 | 64.8                      | 69.0                      |
| 21-Jul-98 | 2400 | 65.2                      | 65.2                      |
| 22-Jul-98 | 400  | 58.9                      | 66.9                      |
| 22-Jul-98 | 800  | 63.1                      | 66.8                      |
| 22-Jul-98 | 1200 | 63.8                      | 63.8                      |
| 22-Jul-98 | 1600 | 61.4                      | 65.5                      |
| 22-Jul-98 | 2000 | 64.9                      | 63.7                      |
| 22-Jul-98 | 2400 | 60.1                      | 66.8                      |
| 23-Jul-98 | 400  | 63.5                      | 67.1                      |
| 23-Jul-98 | 800  | 54.9                      | 62.9                      |
| 23-Jul-98 | 1200 | 60.4                      | 62.6                      |
| 23-Jul-98 | 1600 | 59.9                      | 64.4                      |
| 23-Jul-98 | 2000 | 64.0                      | 61.6                      |
| 23-Jul-98 | 2400 | 61.2                      | 62.2                      |
| 24-Jul-98 | 400  | 66.6                      | 63.8                      |
| 24-Jul-98 | 800  | 66.2                      | 66.5                      |
| 24-Jul-98 | 1200 | 65.6                      | 64.8                      |
| 24-Jul-98 | 1600 | 64.6                      | 66.0                      |
| 24-Jul-98 | 2000 | 59.4                      | 65.0                      |
| 24-Jul-98 | 2400 | 65.2                      | 62.0                      |
| 25-Jul-98 | 400  | 62.5                      | 59.3                      |
| 25-Jul-98 | 800  | 62.3                      | 61.4                      |
| 25-Jul-98 | 1200 | 67.1                      | 66.0                      |
| 25-Jul-98 | 1600 | 64.3                      | 65.2                      |
| 25-Jul-98 | 2000 | 62.4                      | 66.0                      |
| 25-Jul-98 | 2400 | 58.1                      | 60.5                      |

## Bay County Energy Systems, Inc.

### Steam Flow Per Unit - 4 hour Block Average

| Date      | Time | Unit 1 Average<br>Steam Flow | Unit 2 Average<br>Steam Flow |
|-----------|------|------------------------------|------------------------------|
| 26-Jul-98 | 400  | 57.4                         | 63.9                         |
| 26-Jul-98 | 800  | 67.8                         | 65.5                         |
| 26-Jul-98 | 1200 | 66.4                         | 64.6                         |
| 26-Jul-98 | 1600 | 64.4                         | 63.7                         |
| 26-Jul-98 | 2000 | 65.9                         | 63.6                         |
| 26-Jul-98 | 2400 | 65.3                         | 66.6                         |
| 27-Jul-98 | 400  | 69.5                         | 65.6                         |
| 27-Jul-98 | 800  | 65.3                         | 66.5                         |
| 27-Jul-98 | 1200 | 62.0                         | 63.7                         |
| 27-Jul-98 | 1600 | 61.3                         | 63.6                         |
| 27-Jul-98 | 2000 | 62.7                         | 59.2                         |
| 27-Jul-98 | 2400 | 66.6                         | 66.0                         |
| 28-Jul-98 | 400  | 66.8                         | 66.7                         |
| 28-Jul-98 | 800  | 63.2                         | 65.1                         |
| 28-Jul-98 | 1200 | 59.0                         | 61.8                         |
| 28-Jul-98 | 1600 | 64.6                         | 65.6                         |
| 28-Jul-98 | 2000 | 63.3                         | 64.3                         |
| 28-Jul-98 | 2400 | 66.3                         | 64.4                         |
| 29-Jul-98 | 400  | 63.3                         | 64.0                         |
| 29-Jul-98 | 800  | 64.5                         | 63.0                         |
| 29-Jul-98 | 1200 | 65.2                         | 62.2                         |
| 29-Jul-98 | 1600 | 64.4                         | 64.7                         |
| 29-Jul-98 | 2000 | 63.3                         | 61.7                         |
| 29-Jul-98 | 2400 | 65.9                         | 66.4                         |
| 30-Jul-98 | 400  | 65.9                         | 66.3                         |
| 30-Jul-98 | 800  | 64.9                         | 65.3                         |
| 30-Jul-98 | 1200 | 64.4                         | 61.8                         |
| 30-Jul-98 | 1600 | 60.5                         | 63.9                         |
| 30-Jul-98 | 2000 | 59.7                         | 61.2                         |
| 30-Jul-98 | 2400 | 65.1                         | 67.8                         |
| 31-Jul-98 | 400  | 64.3                         | 65.5                         |
| 31-Jul-98 | 800  | 66.6                         | 65.9                         |
| 31-Jul-98 | 1200 | 60.6                         | 64.1                         |
| 31-Jul-98 | 1600 | 60.6                         | 61.9                         |
| 31-Jul-98 | 2000 | 59.1                         | 61.7                         |
| 31-Jul-98 | 2400 | 63.4                         | 66.3                         |
| 01-Aug-98 | 400  | 59.7                         | 65.7                         |
| 01-Aug-98 | 800  | 65.8                         | 67.8                         |
| 01-Aug-98 | 1200 | 64.6                         | 65.1                         |
| 01-Aug-98 | 1600 | 65.4                         | 63.9                         |
| 01-Aug-98 | 2000 | 67.1                         | 63.9                         |
| 01-Aug-98 | 2400 | 67.5                         | 66.3                         |
| 02-Aug-98 | 400  | 66.3                         | 63.8                         |
| 02-Aug-98 | 800  | 63.2                         | 65.2                         |
| 02-Aug-98 | 1200 | 63.4                         | 63.2                         |
| 02-Aug-98 | 1600 | 59.7                         | 66.9                         |
| 02-Aug-98 | 2000 | 64.3                         | 65.0                         |
| 02-Aug-98 | 2400 | 61.8                         | 60.5                         |
| 03-Aug-98 | 400  | 66.0                         | 67.3                         |
| 03-Aug-98 | 800  | 61.8                         | 60.5                         |

# Bay County Energy Systems, Inc.

## Steam Flow Per Unit - 4 hour Block Average

| Date      | Time | Unit 1 Average<br>Steam Flow | Unit 2 Average<br>Steam Flow |
|-----------|------|------------------------------|------------------------------|
| 03-Aug-98 | 1200 | 67.3                         | 65.6                         |
| 03-Aug-98 | 1600 | 59.8                         | 66.5                         |
| 03-Aug-98 | 2000 | 64.8                         | 62.7                         |
| 03-Aug-98 | 2400 | 59.8                         | 65.3                         |
| 04-Aug-98 | 400  | 63.5                         | 66.5                         |
| 04-Aug-98 | 800  | 59.0                         | 64.8                         |
| 04-Aug-98 | 1200 | 65.3                         | 64.5                         |
| 04-Aug-98 | 1600 | 61.3                         | 62.3                         |
| 04-Aug-98 | 2000 | 62.0                         | 63.8                         |
| 04-Aug-98 | 2400 | 57.5                         | 62.3                         |
| 05-Aug-98 | 400  | 66.0                         | 65.8                         |
| 05-Aug-98 | 800  | 62.3                         | 63.3                         |
| 05-Aug-98 | 1200 | 60.8                         | 63.3                         |
| 05-Aug-98 | 1600 | 64.3                         | 65.5                         |
| 05-Aug-98 | 2000 | 65.0                         | 66.0                         |
| 05-Aug-98 | 2400 | 64.5                         | 66.5                         |
| 06-Aug-98 | 400  | 65.3                         | 64.5                         |
| 06-Aug-98 | 800  | 66.0                         | 65.5                         |
| 06-Aug-98 | 1200 | 66.3                         | 66.3                         |
| 06-Aug-98 | 1600 | 65.5                         | 65.3                         |
| 06-Aug-98 | 2000 | 67.5                         | 66.5                         |
| 06-Aug-98 | 2400 | 61.6                         | 60.5                         |
| 07-Aug-98 | 400  | 65.8                         | 63.6                         |
| 07-Aug-98 | 800  | 55.2                         | 62.6                         |
| 07-Aug-98 | 1200 | 61.3                         | 63.3                         |
| 07-Aug-98 | 1600 | 64.7                         | 61.9                         |
| 07-Aug-98 | 2000 | 66.0                         | 61.9                         |
| 07-Aug-98 | 2400 | 56.8                         | 65.5                         |
| 08-Aug-98 | 400  | 61.9                         | 64.6                         |
| 08-Aug-98 | 800  | 59.6                         | 64.4                         |
| 08-Aug-98 | 1200 | 58.2                         | 49.5                         |
| 08-Aug-98 | 1600 | 45.5                         | 43.5                         |
| 08-Aug-98 | 2000 | 26.5                         | 41.3                         |
| 08-Aug-98 | 2400 | 31.6                         | 52.4                         |
| 09-Aug-98 | 400  | 61.1                         | 64.9                         |
| 09-Aug-98 | 800  | 60.6                         | 64.4                         |
| 09-Aug-98 | 1200 | 64.0                         | 63.2                         |
| 09-Aug-98 | 1600 | 64.9                         | 63.6                         |
| 09-Aug-98 | 2000 | 65.0                         | 63.5                         |
| 09-Aug-98 | 2400 | 63.2                         | 63.6                         |
| 10-Aug-98 | 400  | 64.1                         | 65.6                         |
| 10-Aug-98 | 800  | 63.8                         | 65.1                         |
| 10-Aug-98 | 1200 | 67.4                         | 65.8                         |
| 10-Aug-98 | 1600 | 62.8                         | 62.1                         |
| 10-Aug-98 | 2000 | 54.7                         | 63.3                         |
| 10-Aug-98 | 2400 | 49.4                         | 60.6                         |
| 11-Aug-98 | 400  | 61.8                         | 64.9                         |
| 11-Aug-98 | 800  | 62.2                         | 65.7                         |
| 11-Aug-98 | 1200 | 59.2                         | 63.7                         |
| 11-Aug-98 | 1600 | 62.3                         | 64.9                         |

# Bay County Energy Systems, Inc.

## Steam Flow Per Unit - 4 hour Block Average

| Date      | Time | Unit 1 Average Steam Flow | Unit 2 Average Steam Flow |
|-----------|------|---------------------------|---------------------------|
| 11-Aug-98 | 2000 | 65.2                      | 64.9                      |
| 11-Aug-98 | 2400 | 65.1                      | 65.0                      |
| 12-Aug-98 | 400  | 63.6                      | 65.5                      |
| 12-Aug-98 | 800  | 65.8                      | 66.2                      |
| 12-Aug-98 | 1200 | 61.6                      | 65.8                      |
| 12-Aug-98 | 1600 | 60.7                      | 65.5                      |
| 12-Aug-98 | 2000 | 60.9                      | 65.7                      |
| 12-Aug-98 | 2400 | 64.8                      | 65.4                      |
| 13-Aug-98 | 400  | 61.3                      | 66.1                      |
| 13-Aug-98 | 800  | 64.8                      | 66.3                      |
| 13-Aug-98 | 1200 | 59.9                      | 64.4                      |
| 13-Aug-98 | 1600 | 61.3                      | 65.5                      |
| 13-Aug-98 | 2000 | 52.8                      | 56.5                      |
| 13-Aug-98 | 2400 | 53.0                      | 63.3                      |
| 14-Aug-98 | 400  | 59.3                      | 63.7                      |
| 14-Aug-98 | 800  | 59.5                      | 63.6                      |
| 14-Aug-98 | 1200 | 61.6                      | 63.7                      |
| 14-Aug-98 | 1600 | 60.0                      | 61.5                      |
| 14-Aug-98 | 2000 | 56.0                      | 63.7                      |
| 14-Aug-98 | 2400 | 61.7                      | 63.9                      |
| 15-Aug-98 | 400  | 58.4                      | 63.4                      |
| 15-Aug-98 | 800  | 63.5                      | 64.9                      |
| 15-Aug-98 | 1200 | 57.4                      | 64.4                      |
| 15-Aug-98 | 1600 | 62.1                      | 65.9                      |
| 15-Aug-98 | 2000 | 58.5                      | 63.8                      |
| 15-Aug-98 | 2400 | 62.2                      | 64.3                      |
| 16-Aug-98 | 400  | 63.1                      | 63.0                      |
| 16-Aug-98 | 800  | 64.2                      | 65.9                      |
| 16-Aug-98 | 1200 | 63.5                      | 64.2                      |
| 16-Aug-98 | 1600 | 66.0                      | 66.5                      |
| 16-Aug-98 | 2000 | 66.3                      | 65.9                      |
| 16-Aug-98 | 2400 | 63.7                      | 63.5                      |
| 17-Aug-98 | 400  | 61.3                      | 64.4                      |
| 17-Aug-98 | 800  | 57.7                      | 63.3                      |
| 17-Aug-98 | 1200 | 61.1                      | 65.2                      |
| 17-Aug-98 | 1600 | 65.1                      | 65.8                      |
| 17-Aug-98 | 2000 | 61.6                      | 63.2                      |
| 17-Aug-98 | 2400 | 59.8                      | 65.6                      |
| 18-Aug-98 | 400  | 64.9                      | 65.8                      |
| 18-Aug-98 | 800  | 61.8                      | 64.2                      |
| 18-Aug-98 | 1200 | 63.6                      | 63.2                      |
| 18-Aug-98 | 1600 | 56.9                      | 61.9                      |
| 18-Aug-98 | 2000 | 9.4                       | 65.8                      |
| 18-Aug-98 | 2400 | 58.5                      | 62.7                      |
| 19-Aug-98 | 400  | 46.0                      | 63.3                      |
| 19-Aug-98 | 800  | 62.7                      | 65.7                      |
| 19-Aug-98 | 1200 | 56.5                      | 39.0                      |
| 19-Aug-98 | 1600 | 57.5                      | 28.8                      |
| 19-Aug-98 | 2000 | 53.8                      | 63.2                      |
| 19-Aug-98 | 2400 | 64.1                      | 63.7                      |

# Bay County Energy Systems, Inc.

## Steam Flow Per Unit - 4 hour Block Average

| Date      | Time | Unit 1 Average<br>Steam Flow | Unit 2 Average<br>Steam Flow |
|-----------|------|------------------------------|------------------------------|
| 20-Aug-98 | 400  | 55.3                         | 64.3                         |
| 20-Aug-98 | 800  | 57.7                         | 62.3                         |
| 20-Aug-98 | 1200 | 55.1                         | 60.9                         |
| 20-Aug-98 | 1600 | 57.8                         | 61.8                         |
| 20-Aug-98 | 2000 | 60.4                         | 65.2                         |
| 20-Aug-98 | 2400 | 60.9                         | 64.0                         |
| 21-Aug-98 | 400  | 59.4                         | 65.7                         |
| 21-Aug-98 | 800  | 63.1                         | 66.1                         |
| 21-Aug-98 | 1200 | 65.8                         | 65.1                         |
| 21-Aug-98 | 1600 | 62.6                         | 66.0                         |
| 21-Aug-98 | 2000 | 60.8                         | 66.3                         |
| 21-Aug-98 | 2400 | 60.3                         | 59.5                         |
| 22-Aug-98 | 400  | 60.9                         | 65.3                         |
| 22-Aug-98 | 800  | 65.1                         | 66.1                         |
| 22-Aug-98 | 1200 | 60.2                         | 64.4                         |
| 22-Aug-98 | 1600 | 63.8                         | 63.6                         |
| 22-Aug-98 | 2000 | 62.5                         | 66.8                         |
| 22-Aug-98 | 2400 | 54.4                         | 61.8                         |
| 23-Aug-98 | 400  | 59.5                         | 64.6                         |
| 23-Aug-98 | 800  | 64.4                         | 64.8                         |
| 23-Aug-98 | 1200 | 60.9                         | 62.6                         |
| 23-Aug-98 | 1600 | 66.6                         | 67.1                         |
| 23-Aug-98 | 2000 | 61.6                         | 65.3                         |
| 23-Aug-98 | 2400 | 64.5                         | 65.2                         |
| 24-Aug-98 | 400  | 62.7                         | 66.0                         |
| 24-Aug-98 | 800  | 58.8                         | 64.7                         |
| 24-Aug-98 | 1200 | 62.8                         | 66.9                         |
| 24-Aug-98 | 1600 | 61.7                         | 63.3                         |
| 24-Aug-98 | 2000 | 63.8                         | 64.3                         |
| 24-Aug-98 | 2400 | 62.2                         | 66.1                         |
| 25-Aug-98 | 400  | 63.9                         | 66.0                         |
| 25-Aug-98 | 800  | 57.2                         | 66.9                         |
| 25-Aug-98 | 1200 | 58.5                         | 61.3                         |
| 25-Aug-98 | 1600 | 63.4                         | 64.9                         |
| 25-Aug-98 | 2000 | 55.1                         | 65.0                         |
| 25-Aug-98 | 2400 | 65.7                         | 66.4                         |
| 26-Aug-98 | 400  | 62.4                         | 66.4                         |
| 26-Aug-98 | 800  | 66.0                         | 65.3                         |
| 26-Aug-98 | 1200 | 65.5                         | 65.7                         |
| 26-Aug-98 | 1600 | 65.5                         | 66.2                         |
| 26-Aug-98 | 2000 | 65.1                         | 65.1                         |
| 26-Aug-98 | 2400 | 67.2                         | 67.1                         |
| 27-Aug-98 | 400  | 66.6                         | 66.2                         |
| 27-Aug-98 | 800  | 62.7                         | 65.2                         |
| 27-Aug-98 | 1200 | 60.7                         | 63.8                         |
| 27-Aug-98 | 1600 | 63.7                         | 65.6                         |
| 27-Aug-98 | 2000 | 63.6                         | 67.0                         |
| 27-Aug-98 | 2400 | 63.7                         | 66.9                         |
| 28-Aug-98 | 400  | 61.7                         | 65.8                         |
| 28-Aug-98 | 800  | 64.7                         | 66.5                         |



# Bay County Energy Systems, Inc.

## Steam Flow Per Unit - 4 hour Block Average

| Date      | Time | Unit 1 Average Steam Flow | Unit 2 Average Steam Flow |
|-----------|------|---------------------------|---------------------------|
| 28-Aug-98 | 1200 | 62.2                      | 66.9                      |
| 28-Aug-98 | 1600 | 61.4                      | 64.2                      |
| 28-Aug-98 | 2000 | 63.6                      | 65.6                      |
| 28-Aug-98 | 2400 | 65.9                      | 66.5                      |
| 29-Aug-98 | 400  | 64.4                      | 67.1                      |
| 29-Aug-98 | 800  | 66.1                      | 66.2                      |
| 29-Aug-98 | 1200 | 62.9                      | 67.5                      |
| 29-Aug-98 | 1600 | 52.4                      | 67.1                      |
| 29-Aug-98 | 2000 | 57.5                      | 67.3                      |
| 29-Aug-98 | 2400 | 61.5                      | 66.2                      |
| 30-Aug-98 | 400  | 58.1                      | 66.9                      |
| 30-Aug-98 | 800  | 60.6                      | 61.7                      |
| 30-Aug-98 | 1200 | 61.6                      | 66.2                      |
| 30-Aug-98 | 1600 | 60.6                      | 67.1                      |
| 30-Aug-98 | 2000 | 57.4                      | 62.6                      |
| 30-Aug-98 | 2400 | 58.6                      | 65.4                      |
| 31-Aug-98 | 400  | 60.4                      | 64.2                      |
| 31-Aug-98 | 800  | 61.8                      | 63.4                      |
| 31-Aug-98 | 1200 | 59.6                      | 64.9                      |
| 31-Aug-98 | 1600 | 58.1                      | 61.3                      |
| 31-Aug-98 | 2000 | 60.6                      | 64.9                      |
| 31-Aug-98 | 2400 | 60.4                      | 64.3                      |
| 01-Sep-98 | 400  | 63.5                      | 64.6                      |
| 01-Sep-98 | 800  | 63.5                      | 65.1                      |
| 01-Sep-98 | 1200 | 58.9                      | 61.8                      |
| 01-Sep-98 | 1600 | 62.3                      | 64.9                      |
| 01-Sep-98 | 2000 | 55.6                      | 61.2                      |
| 01-Sep-98 | 2400 | 63.1                      | 62.7                      |
| 02-Sep-98 | 400  | 62.0                      | 63.5                      |
| 02-Sep-98 | 800  | 34.7                      | 36.0                      |
| 02-Sep-98 | 1200 | 0.0                       | 13.9                      |
| 02-Sep-98 | 1600 | 0.0                       | 63.4                      |
| 02-Sep-98 | 2000 | 0.0                       | 65.2                      |
| 02-Sep-98 | 2400 | 0.0                       | 65.7                      |
| 03-Sep-98 | 400  | 0.0                       | 66.4                      |
| 03-Sep-98 | 800  | 0.0                       | 65.9                      |
| 03-Sep-98 | 1200 | 0.0                       | 65.9                      |
| 03-Sep-98 | 1600 | 39.9                      | 58.3                      |
| 03-Sep-98 | 2000 | 53.6                      | 56.6                      |
| 03-Sep-98 | 2400 | 65.9                      | 66.8                      |
| 04-Sep-98 | 400  | 66.0                      | 67.1                      |
| 04-Sep-98 | 800  | 63.6                      | 63.1                      |
| 04-Sep-98 | 1200 | 57.8                      | 60.3                      |
| 04-Sep-98 | 1600 | 60.6                      | 63.6                      |
| 04-Sep-98 | 2000 | 56.8                      | 62.3                      |
| 04-Sep-98 | 2400 | 59.4                      | 63.1                      |
| 05-Sep-98 | 400  | 62.3                      | 67.2                      |
| 05-Sep-98 | 800  | 60.8                      | 66.9                      |
| 05-Sep-98 | 1200 | 56.2                      | 64.8                      |
| 05-Sep-98 | 1600 | 55.2                      | 62.8                      |

# Bay County Energy Systems, Inc.

## Steam Flow Per Unit - 4 hour Block Average

| Date      | Time | Unit 1 Average Steam Flow | Unit 2 Average Steam Flow |
|-----------|------|---------------------------|---------------------------|
| 05-Sep-98 | 2000 | 64.6                      | 67.3                      |
| 05-Sep-98 | 2400 | 58.7                      | 62.7                      |
| 06-Sep-98 | 400  | 55.9                      | 61.5                      |
| 06-Sep-98 | 800  | 58.4                      | 64.5                      |
| 06-Sep-98 | 1200 | 55.6                      | 67.6                      |
| 06-Sep-98 | 1600 | 61.4                      | 66.3                      |
| 06-Sep-98 | 2000 | 64.6                      | 68.1                      |
| 06-Sep-98 | 2400 | 65.8                      | 67.7                      |
| 07-Sep-98 | 400  | 62.1                      | 65.6                      |
| 07-Sep-98 | 800  | 63.5                      | 66.2                      |
| 07-Sep-98 | 1200 | 60.4                      | 65.9                      |
| 07-Sep-98 | 1600 | 61.9                      | 66.0                      |
| 07-Sep-98 | 2000 | 64.5                      | 65.7                      |
| 07-Sep-98 | 2400 | 65.5                      | 67.5                      |
| 08-Sep-98 | 400  | 58.7                      | 66.1                      |
| 08-Sep-98 | 800  | 53.8                      | 66.1                      |
| 08-Sep-98 | 1200 | 60.3                      | 63.4                      |
| 08-Sep-98 | 1600 | 61.5                      | 61.8                      |
| 08-Sep-98 | 2000 | 58.6                      | 59.5                      |
| 08-Sep-98 | 2400 | 49.6                      | 61.1                      |
| 09-Sep-98 | 400  | 50.3                      | 62.7                      |
| 09-Sep-98 | 800  | 50.4                      | 62.4                      |
| 09-Sep-98 | 1200 | 60.9                      | 60.9                      |
| 09-Sep-98 | 1600 | 59.9                      | 61.4                      |
| 09-Sep-98 | 2000 | 64.5                      | 62.0                      |
| 09-Sep-98 | 2400 | 59.7                      | 61.9                      |
| 10-Sep-98 | 400  | 62.6                      | 58.0                      |
| 10-Sep-98 | 800  | 57.6                      | 61.3                      |
| 10-Sep-98 | 1200 | 52.0                      | 61.2                      |
| 10-Sep-98 | 1600 | 58.1                      | 63.7                      |
| 10-Sep-98 | 2000 | 66.2                      | 63.8                      |
| 10-Sep-98 | 2400 | 65.3                      | 65.4                      |
| 11-Sep-98 | 400  | 61.5                      | 67.2                      |
| 11-Sep-98 | 800  | 57.1                      | 66.6                      |
| 11-Sep-98 | 1200 | 59.2                      | 61.0                      |
| 11-Sep-98 | 1600 | 62.8                      | 65.0                      |
| 11-Sep-98 | 2000 | 62.9                      | 64.3                      |
| 11-Sep-98 | 2400 | 64.4                      | 65.4                      |
| 12-Sep-98 | 400  | 58.2                      | 67.3                      |
| 12-Sep-98 | 800  | 58.8                      | 66.7                      |
| 12-Sep-98 | 1200 | 51.1                      | 65.9                      |
| 12-Sep-98 | 1600 | 38.0                      | 58.9                      |
| 12-Sep-98 | 2000 | 52.7                      | 65.4                      |
| 12-Sep-98 | 2400 | 58.2                      | 60.8                      |
| 13-Sep-98 | 400  | 57.5                      | 67.0                      |
| 13-Sep-98 | 800  | 64.6                      | 66.9                      |
| 13-Sep-98 | 1200 | 57.1                      | 66.4                      |
| 13-Sep-98 | 1600 | 56.7                      | 66.3                      |
| 13-Sep-98 | 2000 | 56.6                      | 65.4                      |
| 13-Sep-98 | 2400 | 57.8                      | 58.6                      |

# Bay County Energy Systems, Inc.

## Steam Flow Per Unit - 4 hour Block Average

| Date      | Time | Unit 1 Average Steam Flow | Unit 2 Average Steam Flow |
|-----------|------|---------------------------|---------------------------|
| 14-Sep-98 | 400  | 60.4                      | 65.2                      |
| 14-Sep-98 | 800  | 58.4                      | 60.5                      |
| 14-Sep-98 | 1200 | 57.6                      | 62.5                      |
| 14-Sep-98 | 1600 | 62.9                      | 64.1                      |
| 14-Sep-98 | 2000 | 66.4                      | 63.3                      |
| 14-Sep-98 | 2400 | 65.1                      | 65.3                      |
| 15-Sep-98 | 400  | 65.4                      | 65.0                      |
| 15-Sep-98 | 800  | 65.2                      | 63.8                      |
| 15-Sep-98 | 1200 | 59.7                      | 63.3                      |
| 15-Sep-98 | 1600 | 63.1                      | 62.2                      |
| 15-Sep-98 | 2000 | 68.0                      | 66.2                      |
| 15-Sep-98 | 2400 | 65.7                      | 64.3                      |
| 16-Sep-98 | 400  | 66.6                      | 65.8                      |
| 16-Sep-98 | 800  | 62.8                      | 63.3                      |
| 16-Sep-98 | 1200 | 59.3                      | 63.6                      |
| 16-Sep-98 | 1600 | 64.3                      | 61.8                      |
| 16-Sep-98 | 2000 | 65.7                      | 57.9                      |
| 16-Sep-98 | 2400 | 58.6                      | 54.9                      |
| 17-Sep-98 | 400  | 56.5                      | 56.9                      |
| 17-Sep-98 | 800  | 64.1                      | 56.2                      |
| 17-Sep-98 | 1200 | 56.4                      | 24.0                      |
| 17-Sep-98 | 1600 | 58.8                      | 0.0                       |
| 17-Sep-98 | 2000 | 62.8                      | 0.0                       |
| 17-Sep-98 | 2400 | 57.0                      | 0.0                       |
| 18-Sep-98 | 400  | 55.0                      | 26.5                      |
| 18-Sep-98 | 800  | 63.4                      | 0.0                       |
| 18-Sep-98 | 1200 | 60.6                      | 0.0                       |
| 18-Sep-98 | 1600 | 58.5                      | 0.0                       |
| 18-Sep-98 | 2000 | 60.5                      | 0.0                       |
| 18-Sep-98 | 2400 | 62.1                      | 0.0                       |
| 19-Sep-98 | 400  | 57.7                      | 0.0                       |
| 19-Sep-98 | 800  | 59.1                      | 61.1                      |
| 19-Sep-98 | 1200 | 52.1                      | 61.1                      |
| 19-Sep-98 | 1600 | 60.9                      | 66.5                      |
| 19-Sep-98 | 2000 | 65.7                      | 67.6                      |
| 19-Sep-98 | 2400 | 60.1                      | 65.2                      |
| 20-Sep-98 | 400  | 60.2                      | 64.9                      |
| 20-Sep-98 | 800  | 65.6                      | 68.0                      |
| 20-Sep-98 | 1200 | 67.5                      | 67.8                      |
| 20-Sep-98 | 1600 | 66.0                      | 67.3                      |
| 20-Sep-98 | 2000 | 60.2                      | 66.0                      |
| 20-Sep-98 | 2400 | 57.8                      | 64.6                      |
| 21-Sep-98 | 400  | 54.6                      | 62.1                      |
| 21-Sep-98 | 800  | 61.7                      | 66.8                      |
| 21-Sep-98 | 1200 | 60.6                      | 67.4                      |
| 21-Sep-98 | 1600 | 65.8                      | 67.0                      |
| 21-Sep-98 | 2000 | 64.2                      | 64.8                      |
| 21-Sep-98 | 2400 | 67.1                      | 67.2                      |
| 22-Sep-98 | 400  | 66.2                      | 67.3                      |
| 22-Sep-98 | 800  | 66.4                      | 67.4                      |

# Bay County Energy Systems, Inc.

## Steam Flow Per Unit - 4 hour Block Average

| Date      | Time | Unit 1 Average Steam Flow | Unit 2 Average Steam Flow |
|-----------|------|---------------------------|---------------------------|
| 22-Sep-98 | 1200 | 60.2                      | 62.7                      |
| 22-Sep-98 | 1600 | 62.9                      | 67.2                      |
| 22-Sep-98 | 2000 | 65.9                      | 67.1                      |
| 22-Sep-98 | 2400 | 65.6                      | 67.1                      |
| 23-Sep-98 | 400  | 66.5                      | 66.9                      |
| 23-Sep-98 | 800  | 66.1                      | 67.0                      |
| 23-Sep-98 | 1200 | 65.7                      | 67.1                      |
| 23-Sep-98 | 1600 | 64.6                      | 67.7                      |
| 23-Sep-98 | 2000 | 65.1                      | 68.1                      |
| 23-Sep-98 | 2400 | 61.0                      | 67.8                      |
| 24-Sep-98 | 400  | 66.5                      | 68.2                      |
| 24-Sep-98 | 800  | 60.9                      | 68.1                      |
| 24-Sep-98 | 1200 | 59.2                      | 67.1                      |
| 24-Sep-98 | 1600 | 57.6                      | 64.0                      |
| 24-Sep-98 | 2000 | 58.4                      | 63.2                      |
| 24-Sep-98 | 2400 | 60.6                      | 66.4                      |
| 25-Sep-98 | 400  | 66.3                      | 66.8                      |
| 25-Sep-98 | 800  | 66.1                      | 65.9                      |
| 25-Sep-98 | 1200 | 58.1                      | 62.7                      |
| 25-Sep-98 | 1600 | 55.7                      | 60.8                      |
| 25-Sep-98 | 2000 | 57.3                      | 61.4                      |
| 25-Sep-98 | 2400 | 63.4                      | 66.8                      |
| 26-Sep-98 | 400  | 63.6                      | 65.3                      |
| 26-Sep-98 | 800  | 60.7                      | 66.0                      |
| 26-Sep-98 | 1200 | 62.5                      | 65.7                      |
| 26-Sep-98 | 1600 | 59.0                      | 64.6                      |
| 26-Sep-98 | 2000 | 61.8                      | 63.1                      |
| 26-Sep-98 | 2400 | 62.2                      | 67.1                      |
| 27-Sep-98 | 400  | 66.5                      | 66.9                      |
| 27-Sep-98 | 800  | 66.0                      | 67.2                      |
| 27-Sep-98 | 1200 | 60.0                      | 67.0                      |
| 27-Sep-98 | 1600 | 58.1                      | 66.8                      |
| 27-Sep-98 | 2000 | 61.3                      | 65.8                      |
| 27-Sep-98 | 2400 | 57.6                      | 60.9                      |
| 28-Sep-98 | 400  | 61.4                      | 63.2                      |
| 28-Sep-98 | 800  | 61.8                      | 63.5                      |
| 28-Sep-98 | 1200 | 60.7                      | 63.9                      |
| 28-Sep-98 | 1600 | 66.6                      | 62.5                      |
| 28-Sep-98 | 2000 | 67.2                      | 65.9                      |
| 28-Sep-98 | 2400 | 60.1                      | 61.8                      |
| 29-Sep-98 | 400  | 62.6                      | 66.1                      |
| 29-Sep-98 | 800  | 63.8                      | 64.6                      |
| 29-Sep-98 | 1200 | 57.5                      | 64.1                      |
| 29-Sep-98 | 1600 | 63.3                      | 62.9                      |
| 29-Sep-98 | 2000 | 60.6                      | 64.2                      |
| 29-Sep-98 | 2400 | 57.4                      | 65.1                      |

ATTACHMENT 2

Bay County Energy Systems, Inc.

Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 01-Jul-98 | 100  | 11.8                        | 10.57                     |
| 01-Jul-98 | 200  | 11.8                        | 10.48                     |
| 01-Jul-98 | 300  | 12                          | 10.75                     |
| 01-Jul-98 | 400  | 12                          | 10.79                     |
| 01-Jul-98 | 500  | 11.7                        | 10.43                     |
| 01-Jul-98 | 600  | 12.1                        | 10.86                     |
| 01-Jul-98 | 700  | 11.8                        | 10.54                     |
| 01-Jul-98 | 800  | 11.4                        | 10.15                     |
| 01-Jul-98 | 900  | 11.8                        | 10.51                     |
| 01-Jul-98 | 1000 | 11.7                        | 10.43                     |
| 01-Jul-98 | 1100 | 11.7                        | 10.46                     |
| 01-Jul-98 | 1200 | 11.2                        | 9.91                      |
| 01-Jul-98 | 1300 | 11.8                        | 10.52                     |
| 01-Jul-98 | 1400 | 11.8                        | 10.55                     |
| 01-Jul-98 | 1500 | 11.6                        | 10.35                     |
| 01-Jul-98 | 1600 | 11.5                        | 10.16                     |
| 01-Jul-98 | 1700 | 11                          | 9.73                      |
| 01-Jul-98 | 1800 | 11.6                        | 10.35                     |
| 01-Jul-98 | 1900 | 11.6                        | 10.28                     |
| 01-Jul-98 | 2000 | 11.8                        | 10.5                      |
| 01-Jul-98 | 2100 | 11.8                        | 10.5                      |
| 01-Jul-98 | 2200 | 11.8                        | 10.53                     |
| 01-Jul-98 | 2300 | 11.8                        | 10.54                     |
| 01-Jul-98 | 2400 | 11.8                        | 10.62                     |
| 02-Jul-98 | 100  | 11.7                        | 10.42                     |
| 02-Jul-98 | 200  | 11.7                        | 10.44                     |
| 02-Jul-98 | 300  | 12                          | 10.69                     |
| 02-Jul-98 | 400  | 11.7                        | 10.42                     |
| 02-Jul-98 | 500  | 11.9                        | 10.54                     |
| 02-Jul-98 | 600  | 11.6                        | 10.31                     |
| 02-Jul-98 | 700  | 11.8                        | 10.55                     |
| 02-Jul-98 | 800  | 11                          | 9.65                      |
| 02-Jul-98 | 900  | 10.7                        | 9.48                      |
| 02-Jul-98 | 1000 | 12                          | 10.75                     |
| 02-Jul-98 | 1100 | 11.7                        | 10.5                      |
| 02-Jul-98 | 1200 | 11.6                        | 10.28                     |
| 02-Jul-98 | 1300 | 11.5                        | 10.24                     |
| 02-Jul-98 | 1400 | 11.6                        | 10.25                     |
| 02-Jul-98 | 1500 | 11.4                        | 10.2                      |
| 02-Jul-98 | 1600 | 11.3                        | 10.01                     |
| 02-Jul-98 | 1700 | 12.1                        | 10.89                     |
| 02-Jul-98 | 1800 | 10.9                        | 9.64                      |
| 02-Jul-98 | 1900 | 11.8                        | 10.5                      |
| 02-Jul-98 | 2000 | 11.9                        | 10.66                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 02-Jul-98 | 2100 | 11.3                        | 10.07                     |
| 02-Jul-98 | 2200 | 11.9                        | 10.69                     |
| 02-Jul-98 | 2300 | 11.9                        | 10.64                     |
| 02-Jul-98 | 2400 | 11.9                        | 10.68                     |
| 03-Jul-98 | 100  | 11.9                        | 10.7                      |
| 03-Jul-98 | 200  | 11.8                        | 10.59                     |
| 03-Jul-98 | 300  | 11.9                        | 10.72                     |
| 03-Jul-98 | 400  | 11.7                        | 10.32                     |
| 03-Jul-98 | 500  | 11.8                        | 10.47                     |
| 03-Jul-98 | 600  | 12                          | 10.71                     |
| 03-Jul-98 | 700  | 11.9                        | 10.69                     |
| 03-Jul-98 | 800  | 11.7                        | 10.41                     |
| 03-Jul-98 | 900  | 11.6                        | 10.32                     |
| 03-Jul-98 | 1000 | 11.8                        | 10.53                     |
| 03-Jul-98 | 1100 | 11.7                        | 10.46                     |
| 03-Jul-98 | 1200 | 11.4                        | 10.15                     |
| 03-Jul-98 | 1300 | 11.14                       | 10.14                     |
| 03-Jul-98 | 1400 | 11.3                        | 10.05                     |
| 03-Jul-98 | 1500 | 11.5                        | 10.15                     |
| 03-Jul-98 | 1600 | 11.5                        | 10.24                     |
| 03-Jul-98 | 1700 | 11.9                        | 10.71                     |
| 03-Jul-98 | 1800 | 11.9                        | 10.7                      |
| 03-Jul-98 | 1900 | 11.9                        | 10.71                     |
| 03-Jul-98 | 2000 | 11.8                        | 10.51                     |
| 03-Jul-98 | 2100 | 11.7                        | 10.49                     |
| 03-Jul-98 | 2200 | 11.9                        | 10.58                     |
| 03-Jul-98 | 2300 | 11.7                        | 10.39                     |
| 03-Jul-98 | 2400 | 11.9                        | 10.66                     |
| 04-Jul-98 | 100  | 11.8                        | 10.5                      |
| 04-Jul-98 | 200  | 12.1                        | 10.74                     |
| 04-Jul-98 | 300  | 11.7                        | 10.41                     |
| 04-Jul-98 | 400  | 11.5                        | 10.21                     |
| 04-Jul-98 | 500  | 12                          | 10.7                      |
| 04-Jul-98 | 600  | 11.7                        | 10.48                     |
| 04-Jul-98 | 700  | 11.6                        | 10.34                     |
| 04-Jul-98 | 800  | 11.9                        | 10.61                     |
| 04-Jul-98 | 900  | 11.8                        | 10.64                     |
| 04-Jul-98 | 1000 | 11.9                        | 10.65                     |
| 04-Jul-98 | 1100 | 11.8                        | 10.59                     |
| 04-Jul-98 | 1200 | 11.4                        | 10.14                     |
| 04-Jul-98 | 1300 | 11.5                        | 10.15                     |
| 04-Jul-98 | 1400 | 11.9                        | 10.58                     |
| 04-Jul-98 | 1500 | 11.8                        | 10.57                     |
| 04-Jul-98 | 1600 | 11.8                        | 10.46                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 04-Jul-98 | 1700 | 11.9                        | 10.57                     |
| 04-Jul-98 | 1800 | 11.7                        | 10.47                     |
| 04-Jul-98 | 1900 | 11.6                        | 10.34                     |
| 04-Jul-98 | 2000 | 11.6                        | 10.27                     |
| 04-Jul-98 | 2100 | 11.9                        | 10.56                     |
| 04-Jul-98 | 2200 | 11.8                        | 10.5                      |
| 04-Jul-98 | 2300 | 11.7                        | 10.44                     |
| 04-Jul-98 | 2400 | 11.8                        | 10.5                      |
| 05-Jul-98 | 100  | 11.7                        | 10.44                     |
| 05-Jul-98 | 200  | 11.8                        | 10.51                     |
| 05-Jul-98 | 300  | 11.8                        | 10.48                     |
| 05-Jul-98 | 400  | 11.7                        | 10.43                     |
| 05-Jul-98 | 500  | 11.3                        | 9.93                      |
| 05-Jul-98 | 600  | 11.7                        | 10.38                     |
| 05-Jul-98 | 700  | 11.7                        | 10.45                     |
| 05-Jul-98 | 800  | 11.2                        | 9.84                      |
| 05-Jul-98 | 900  | 11.9                        | 10.64                     |
| 05-Jul-98 | 1000 | 11.7                        | 10.35                     |
| 05-Jul-98 | 1100 | 11.3                        | 10                        |
| 05-Jul-98 | 1200 | 11.2                        | 9.82                      |
| 05-Jul-98 | 1300 | 11.9                        | 10.61                     |
| 05-Jul-98 | 1400 | 11.8                        | 10.53                     |
| 05-Jul-98 | 1500 | 11.5                        | 10.22                     |
| 05-Jul-98 | 1600 | 11.7                        | 10.37                     |
| 05-Jul-98 | 1700 | 10.9                        | 9.6                       |
| 05-Jul-98 | 1800 | 10.7                        | 9.38                      |
| 05-Jul-98 | 1900 | 11.4                        | 10.07                     |
| 05-Jul-98 | 2000 | 11.6                        | 10.27                     |
| 05-Jul-98 | 2100 | 11.2                        | 9.88                      |
| 05-Jul-98 | 2200 | 12                          | 10.65                     |
| 05-Jul-98 | 2300 | 11.3                        | 10.05                     |
| 05-Jul-98 | 2400 | 11.6                        | 10.24                     |
| 06-Jul-98 | 100  | 11.7                        | 10.42                     |
| 06-Jul-98 | 200  | 11.7                        | 10.4                      |
| 06-Jul-98 | 300  | 11.5                        | 10.2                      |
| 06-Jul-98 | 400  | 11.2                        | 9.91                      |
| 06-Jul-98 | 500  | 10.7                        | 9.35                      |
| 06-Jul-98 | 600  | 11.5                        | 10.17                     |
| 06-Jul-98 | 700  | 11.8                        | 10.56                     |
| 06-Jul-98 | 800  | 11.8                        | 10.6                      |
| 06-Jul-98 | 900  | 11.5                        | 10.15                     |
| 06-Jul-98 | 1000 | 11.5                        | 10.38                     |
| 06-Jul-98 | 1100 | 11.8                        | 10.38                     |
| 06-Jul-98 | 1200 | 11.5                        | 10.26                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 06-Jul-98 | 1300 | 11.7                        | 10.41                     |
| 06-Jul-98 | 1400 | 11.7                        | 10.45                     |
| 06-Jul-98 | 1500 | 11.7                        | 10.33                     |
| 06-Jul-98 | 1600 | 11.7                        | 10.48                     |
| 06-Jul-98 | 1700 | 11.3                        | 9.96                      |
| 06-Jul-98 | 1800 | 11.3                        | 10.02                     |
| 06-Jul-98 | 1900 | 11.6                        | 10.27                     |
| 06-Jul-98 | 2000 | 11.6                        | 10.33                     |
| 06-Jul-98 | 2100 | 11.4                        | 10.09                     |
| 06-Jul-98 | 2200 | 12                          | 10.8                      |
| 06-Jul-98 | 2300 | 11.8                        | 10.57                     |
| 06-Jul-98 | 2400 | 11.9                        | 10.63                     |
| 07-Jul-98 | 100  | 11.4                        | 10.08                     |
| 07-Jul-98 | 200  | 12.3                        | 10.99                     |
| 07-Jul-98 | 300  | 11.4                        | 10.05                     |
| 07-Jul-98 | 400  | 10.2                        | 8.65                      |
| 07-Jul-98 | 500  | 0                           | 0                         |
| 07-Jul-98 | 600  | 0                           | 0                         |
| 07-Jul-98 | 700  | 0                           | 0                         |
| 07-Jul-98 | 800  | 0                           | 0                         |
| 07-Jul-98 | 900  | 0                           | 0                         |
| 07-Jul-98 | 1000 | 0                           | 0                         |
| 07-Jul-98 | 1100 | 0                           | 0                         |
| 07-Jul-98 | 1200 | 0                           | 0                         |
| 07-Jul-98 | 1300 | 0                           | 0                         |
| 07-Jul-98 | 1400 | 0                           | 0                         |
| 07-Jul-98 | 1500 | 0                           | 0                         |
| 07-Jul-98 | 1600 | 0                           | 0                         |
| 07-Jul-98 | 1700 | 0                           | 0                         |
| 07-Jul-98 | 1800 | 0                           | 0                         |
| 07-Jul-98 | 1900 | 0                           | 0                         |
| 07-Jul-98 | 2000 | 0                           | 0                         |
| 07-Jul-98 | 2100 | 0                           | 0                         |
| 07-Jul-98 | 2200 | 0                           | 0                         |
| 07-Jul-98 | 2300 | 0                           | 0                         |
| 07-Jul-98 | 2400 | 0                           | 0                         |
| 08-Jul-98 | 100  | 0                           | 0                         |
| 08-Jul-98 | 200  | 0                           | 0                         |
| 08-Jul-98 | 300  | 0                           | 0                         |
| 08-Jul-98 | 400  | 0                           | 0                         |
| 08-Jul-98 | 500  | 0                           | 0                         |
| 08-Jul-98 | 600  | 0                           | 0                         |
| 08-Jul-98 | 700  | 0                           | 0                         |
| 08-Jul-98 | 800  | 0                           | 0                         |



## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 08-Jul-98 | 900  | 0                           | 0                         |
| 08-Jul-98 | 1000 | 0                           | 0                         |
| 08-Jul-98 | 1100 | 0                           | 0                         |
| 08-Jul-98 | 1200 | 0                           | 0                         |
| 08-Jul-98 | 1300 | 0                           | 0                         |
| 08-Jul-98 | 1400 | 0                           | 0                         |
| 08-Jul-98 | 1500 | 0                           | 0                         |
| 08-Jul-98 | 1600 | 0                           | 0                         |
| 08-Jul-98 | 1700 | 0                           | 0                         |
| 08-Jul-98 | 1800 | 0                           | 0                         |
| 08-Jul-98 | 1900 | 0                           | 0                         |
| 08-Jul-98 | 2000 | 0                           | 0                         |
| 08-Jul-98 | 2100 | 0                           | 0                         |
| 08-Jul-98 | 2200 | 0                           | 0                         |
| 08-Jul-98 | 2300 | 0                           | 0                         |
| 08-Jul-98 | 2400 | 0                           | 0                         |
| 09-Jul-98 | 100  | 0                           | 0                         |
| 09-Jul-98 | 200  | 0                           | 0                         |
| 09-Jul-98 | 300  | 4.4                         | 3.36                      |
| 09-Jul-98 | 400  | 4.4                         | 3.28                      |
| 09-Jul-98 | 500  | 4.4                         | 3.23                      |
| 09-Jul-98 | 600  | 4.3                         | 3.16                      |
| 09-Jul-98 | 700  | 3.8                         | 2.8                       |
| 09-Jul-98 | 800  | 3.6                         | 2.64                      |
| 09-Jul-98 | 900  | 3                           | 2.11                      |
| 09-Jul-98 | 1000 | 3.1                         | 2.2                       |
| 09-Jul-98 | 1100 | 3.3                         | 2.34                      |
| 09-Jul-98 | 1200 | 3.4                         | 2.42                      |
| 09-Jul-98 | 1300 | 3.9                         | 2.89                      |
| 09-Jul-98 | 1400 | 4                           | 2.98                      |
| 09-Jul-98 | 1500 | 4.6                         | 3.56                      |
| 09-Jul-98 | 1600 | 5                           | 3.94                      |
| 09-Jul-98 | 1700 | 4.8                         | 3.76                      |
| 09-Jul-98 | 1800 | 6.9                         | 5.77                      |
| 09-Jul-98 | 1900 | 10.9                        | 9.57                      |
| 09-Jul-98 | 2000 | 10.7                        | 9.34                      |
| 09-Jul-98 | 2100 | 11.6                        | 10.27                     |
| 09-Jul-98 | 2200 | 11.7                        | 10.48                     |
| 09-Jul-98 | 2300 | 11.7                        | 10.46                     |
| 09-Jul-98 | 2400 | 11.7                        | 10.41                     |
| 10-Jul-98 | 100  | 11.6                        | 10.26                     |
| 10-Jul-98 | 200  | 11.3                        | 9.96                      |
| 10-Jul-98 | 300  | 11.4                        | 10.06                     |
| 10-Jul-98 | 400  | 11.1                        | 9.7                       |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 10-Jul-98 | 500  | 11.6                        | 10.22                     |
| 10-Jul-98 | 600  | 11.3                        | 9.98                      |
| 10-Jul-98 | 700  | 11.6                        | 10.29                     |
| 10-Jul-98 | 800  | 11.8                        | 10.54                     |
| 10-Jul-98 | 900  | 11.4                        | 10.05                     |
| 10-Jul-98 | 1000 | 12                          | 10.7                      |
| 10-Jul-98 | 1100 | 11.8                        | 10.53                     |
| 10-Jul-98 | 1200 | 11.3                        | 10.01                     |
| 10-Jul-98 | 1300 | 11.7                        | 10.38                     |
| 10-Jul-98 | 1400 | 11.5                        | 9.96                      |
| 10-Jul-98 | 1500 | 10.6                        | 9.14                      |
| 10-Jul-98 | 1600 | 11                          | 9.49                      |
| 10-Jul-98 | 1700 | 11.9                        | 10.43                     |
| 10-Jul-98 | 1800 | 11.7                        | 10.28                     |
| 10-Jul-98 | 1900 | 11.6                        | 10.14                     |
| 10-Jul-98 | 2000 | 10.5                        | 9.2                       |
| 10-Jul-98 | 2100 | 10.3                        | 9                         |
| 10-Jul-98 | 2200 | 11.7                        | 10.44                     |
| 10-Jul-98 | 2300 | 10.4                        | 9.14                      |
| 10-Jul-98 | 2400 | 11                          | 9.86                      |
| 11-Jul-98 | 100  | 10.6                        | 9.29                      |
| 11-Jul-98 | 200  | 11.3                        | 10.02                     |
| 11-Jul-98 | 300  | 11.3                        | 9.97                      |
| 11-Jul-98 | 400  | 11.3                        | 9.93                      |
| 11-Jul-98 | 500  | 10.7                        | 9.43                      |
| 11-Jul-98 | 600  | 10.6                        | 9.31                      |
| 11-Jul-98 | 700  | 10.9                        | 9.6                       |
| 11-Jul-98 | 800  | 11.2                        | 9.89                      |
| 11-Jul-98 | 900  | 11.7                        | 10.41                     |
| 11-Jul-98 | 1000 | 11.8                        | 10.49                     |
| 11-Jul-98 | 1100 | 11.4                        | 10.18                     |
| 11-Jul-98 | 1200 | 12.1                        | 10.92                     |
| 11-Jul-98 | 1300 | 11                          | 9.7                       |
| 11-Jul-98 | 1400 | 11.2                        | 9.88                      |
| 11-Jul-98 | 1500 | 10                          | 8.73                      |
| 11-Jul-98 | 1600 | 10.7                        | 9.33                      |
| 11-Jul-98 | 1700 | 11.4                        | 10.07                     |
| 11-Jul-98 | 1800 | 11.2                        | 9.88                      |
| 11-Jul-98 | 1900 | 10.3                        | 8.99                      |
| 11-Jul-98 | 2000 | 11.4                        | 10.1                      |
| 11-Jul-98 | 2100 | 11                          | 9.71                      |
| 11-Jul-98 | 2200 | 7.6                         | 6.29                      |
| 11-Jul-98 | 2300 | 5.6                         | 4.37                      |
| 11-Jul-98 | 2400 | 3.4                         | 2.42                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 12-Jul-98 | 100  | 3.4                         | 2.08                      |
| 12-Jul-98 | 200  | 5.3                         | 4.14                      |
| 12-Jul-98 | 300  | 6.7                         | 5.45                      |
| 12-Jul-98 | 400  | 9.9                         | 8.62                      |
| 12-Jul-98 | 500  | 8.9                         | 7.59                      |
| 12-Jul-98 | 600  | 10.4                        | 8.98                      |
| 12-Jul-98 | 700  | 11.1                        | 9.72                      |
| 12-Jul-98 | 800  | 10.6                        | 9.24                      |
| 12-Jul-98 | 900  | 10.6                        | 9.22                      |
| 12-Jul-98 | 1000 | 11.5                        | 10.15                     |
| 12-Jul-98 | 1100 | 10.6                        | 9.23                      |
| 12-Jul-98 | 1200 | 8.9                         | 7.47                      |
| 12-Jul-98 | 1300 | 9.2                         | 7.87                      |
| 12-Jul-98 | 1400 | 11.8                        | 10.43                     |
| 12-Jul-98 | 1500 | 11.8                        | 10.45                     |
| 12-Jul-98 | 1600 | 11.6                        | 10.24                     |
| 12-Jul-98 | 1700 | 11.7                        | 10.34                     |
| 12-Jul-98 | 1800 | 11.8                        | 10.46                     |
| 12-Jul-98 | 1900 | 11.8                        | 10.47                     |
| 12-Jul-98 | 2000 | 11.9                        | 10.56                     |
| 12-Jul-98 | 2100 | 10.6                        | 9.24                      |
| 12-Jul-98 | 2200 | 11.8                        | 10.47                     |
| 12-Jul-98 | 2300 | 11.7                        | 10.28                     |
| 12-Jul-98 | 2400 | 11.5                        | 10.14                     |
| 13-Jul-98 | 100  | 11.9                        | 10.44                     |
| 13-Jul-98 | 200  | 11.8                        | 10.44                     |
| 13-Jul-98 | 300  | 11.9                        | 10.5                      |
| 13-Jul-98 | 400  | 11.7                        | 10.5                      |
| 13-Jul-98 | 500  | 11.8                        | 10.43                     |
| 13-Jul-98 | 600  | 11.8                        | 10.48                     |
| 13-Jul-98 | 700  | 11.6                        | 10.28                     |
| 13-Jul-98 | 800  | 11.5                        | 10.18                     |
| 13-Jul-98 | 900  | 11.2                        | 9.85                      |
| 13-Jul-98 | 1000 | 11.3                        | 9.93                      |
| 13-Jul-98 | 1100 | 12.1                        | 10.71                     |
| 13-Jul-98 | 1200 | 12.8                        | 11.51                     |
| 13-Jul-98 | 1300 | 11.9                        | 10.73                     |
| 13-Jul-98 | 1400 | 11.5                        | 10.17                     |
| 13-Jul-98 | 1500 | 11.8                        | 10.52                     |
| 13-Jul-98 | 1600 | 11.6                        | 10.25                     |
| 13-Jul-98 | 1700 | 11.4                        | 10.11                     |
| 13-Jul-98 | 1800 | 11.4                        | 10.06                     |
| 13-Jul-98 | 1900 | 11.7                        | 10.41                     |
| 13-Jul-98 | 2000 | 11.8                        | 10.53                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 13-Jul-98 | 2100 | 10.9                        | 9.57                      |
| 13-Jul-98 | 2200 | 11.7                        | 10.37                     |
| 13-Jul-98 | 2300 | 10.4                        | 9.1                       |
| 13-Jul-98 | 2400 | 10.8                        | 9.49                      |
| 14-Jul-98 | 100  | 10.8                        | 9.46                      |
| 14-Jul-98 | 200  | 12                          | 10.77                     |
| 14-Jul-98 | 300  | 11.7                        | 10.4                      |
| 14-Jul-98 | 400  | 11.5                        | 10.14                     |
| 14-Jul-98 | 500  | 11.5                        | 10.16                     |
| 14-Jul-98 | 600  | 11.4                        | 10.1                      |
| 14-Jul-98 | 700  | 11.7                        | 10.43                     |
| 14-Jul-98 | 800  | 11.3                        | 10                        |
| 14-Jul-98 | 900  | 11.7                        | 10.38                     |
| 14-Jul-98 | 1000 | 10.8                        | 9.54                      |
| 14-Jul-98 | 1100 | 9.3                         | 8                         |
| 14-Jul-98 | 1200 | 11.3                        | 9.96                      |
| 14-Jul-98 | 1300 | 10.71                       | 9.41                      |
| 14-Jul-98 | 1400 | 11                          | 9.71                      |
| 14-Jul-98 | 1500 | 10.1                        | 8.82                      |
| 14-Jul-98 | 1600 | 10.7                        | 9.38                      |
| 14-Jul-98 | 1700 | 10.5                        | 9.2                       |
| 14-Jul-98 | 1800 | 10.7                        | 9.4                       |
| 14-Jul-98 | 1900 | 10.3                        | 9.02                      |
| 14-Jul-98 | 2000 | 10.8                        | 9.49                      |
| 14-Jul-98 | 2100 | 11.2                        | 9.86                      |
| 14-Jul-98 | 2200 | 10.8                        | 9.5                       |
| 14-Jul-98 | 2300 | 11.4                        | 10.04                     |
| 14-Jul-98 | 2400 | 11.9                        | 10.58                     |
| 15-Jul-98 | 100  | 11.7                        | 10.41                     |
| 15-Jul-98 | 200  | 11.4                        | 10.06                     |
| 15-Jul-98 | 300  | 11.9                        | 10.66                     |
| 15-Jul-98 | 400  | 11.4                        | 10.11                     |
| 15-Jul-98 | 500  | 11.3                        | 9.99                      |
| 15-Jul-98 | 600  | 11.5                        | 10.13                     |
| 15-Jul-98 | 700  | 11.4                        | 10.13                     |
| 15-Jul-98 | 800  | 11.5                        | 10.14                     |
| 15-Jul-98 | 900  | 11.3                        | 9.96                      |
| 15-Jul-98 | 1000 | 11.9                        | 10.58                     |
| 15-Jul-98 | 1100 | 11.5                        | 10.28                     |
| 15-Jul-98 | 1200 | 11.4                        | 10.06                     |
| 15-Jul-98 | 1300 | 11.3                        | 10.03                     |
| 15-Jul-98 | 1400 | 11.1                        | 9.9                       |
| 15-Jul-98 | 1500 | 11.5                        | 10.26                     |
| 15-Jul-98 | 1600 | 11.2                        | 9.91                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 15-Jul-98 | 1700 | 11.4                        | 10.08                     |
| 15-Jul-98 | 1800 | 11.1                        | 9.82                      |
| 15-Jul-98 | 1900 | 11.5                        | 10.15                     |
| 15-Jul-98 | 2000 | 10.7                        | 9.25                      |
| 15-Jul-98 | 2100 | 12                          | 10.62                     |
| 15-Jul-98 | 2200 | 12                          | 10.67                     |
| 15-Jul-98 | 2300 | 11.6                        | 10.25                     |
| 15-Jul-98 | 2400 | 11.7                        | 10.25                     |
| 16-Jul-98 | 100  | 11.9                        | 10.63                     |
| 16-Jul-98 | 200  | 11.6                        | 10.28                     |
| 16-Jul-98 | 300  | 11.5                        | 10.17                     |
| 16-Jul-98 | 400  | 11.8                        | 10.48                     |
| 16-Jul-98 | 500  | 11.8                        | 10.48                     |
| 16-Jul-98 | 600  | 11.2                        | 9.93                      |
| 16-Jul-98 | 700  | 11.5                        | 10.12                     |
| 16-Jul-98 | 800  | 11.7                        | 10.41                     |
| 16-Jul-98 | 900  | 8.8                         | 7.47                      |
| 16-Jul-98 | 1000 | 9.5                         | 8.05                      |
| 16-Jul-98 | 1100 | 11.2                        | 9.78                      |
| 16-Jul-98 | 1200 | 10.4                        | 9.06                      |
| 16-Jul-98 | 1300 | 11.5                        | 10.23                     |
| 16-Jul-98 | 1400 | 11.2                        | 9.94                      |
| 16-Jul-98 | 1500 | 11.3                        | 9.98                      |
| 16-Jul-98 | 1600 | 10.2                        | 8.92                      |
| 16-Jul-98 | 1700 | 9.7                         | 8.32                      |
| 16-Jul-98 | 1800 | 11.2                        | 9.85                      |
| 16-Jul-98 | 1900 | 10.2                        | 8.84                      |
| 16-Jul-98 | 2000 | 10.6                        | 9.28                      |
| 16-Jul-98 | 2100 | 11.2                        | 9.88                      |
| 16-Jul-98 | 2200 | 11.1                        | 9.86                      |
| 16-Jul-98 | 2300 | 11.1                        | 9.71                      |
| 16-Jul-98 | 2400 | 11.6                        | 10.24                     |
| 17-Jul-98 | 100  | 11.6                        | 10.25                     |
| 17-Jul-98 | 200  | 11.3                        | 9.93                      |
| 17-Jul-98 | 300  | 10.9                        | 9.62                      |
| 17-Jul-98 | 400  | 10.8                        | 9.51                      |
| 17-Jul-98 | 500  | 12.1                        | 10.81                     |
| 17-Jul-98 | 600  | 12.3                        | 11.03                     |
| 17-Jul-98 | 700  | 11.9                        | 10.62                     |
| 17-Jul-98 | 800  | 11.9                        | 10.58                     |
| 17-Jul-98 | 900  | 9.8                         | 8.44                      |
| 17-Jul-98 | 1000 | 10.6                        | 9.28                      |
| 17-Jul-98 | 1100 | 10.1                        | 8.77                      |
| 17-Jul-98 | 1200 | 10                          | 8.64                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 17-Jul-98 | 1300 | 11.4                        | 10.12                     |
| 17-Jul-98 | 1400 | 11.3                        | 9.99                      |
| 17-Jul-98 | 1500 | 10.3                        | 8.99                      |
| 17-Jul-98 | 1600 | 9.4                         | 8.03                      |
| 17-Jul-98 | 1700 | 10.2                        | 8.84                      |
| 17-Jul-98 | 1800 | 11.2                        | 9.82                      |
| 17-Jul-98 | 1900 | 11.8                        | 10.56                     |
| 17-Jul-98 | 2000 | 11.3                        | 10                        |
| 17-Jul-98 | 2100 | 11.8                        | 10.53                     |
| 17-Jul-98 | 2200 | 11.3                        | 10.52                     |
| 17-Jul-98 | 2300 | 11.7                        | 10.36                     |
| 17-Jul-98 | 2400 | 11.7                        | 10.41                     |
| 18-Jul-98 | 100  | 11.9                        | 10.55                     |
| 18-Jul-98 | 200  | 11.8                        | 10.5                      |
| 18-Jul-98 | 300  | 11.9                        | 10.59                     |
| 18-Jul-98 | 400  | 11.7                        | 10.36                     |
| 18-Jul-98 | 500  | 11.9                        | 10.63                     |
| 18-Jul-98 | 600  | 11.6                        | 10.27                     |
| 18-Jul-98 | 700  | 11.7                        | 10.36                     |
| 18-Jul-98 | 800  | 11.9                        | 10.55                     |
| 18-Jul-98 | 900  | 11.8                        | 10.55                     |
| 18-Jul-98 | 1000 | 10.8                        | 9.29                      |
| 18-Jul-98 | 1100 | 10.9                        | 9.54                      |
| 18-Jul-98 | 1200 | 10.9                        | 9.5                       |
| 18-Jul-98 | 1300 | 11.2                        | 9.95                      |
| 18-Jul-98 | 1400 | 9.4                         | 8.12                      |
| 18-Jul-98 | 1500 | 11.6                        | 10.37                     |
| 18-Jul-98 | 1600 | 11.6                        | 10.29                     |
| 18-Jul-98 | 1700 | 11.5                        | 10.16                     |
| 18-Jul-98 | 1800 | 11.5                        | 10.11                     |
| 18-Jul-98 | 1900 | 11.6                        | 10.26                     |
| 18-Jul-98 | 2000 | 11.7                        | 10.33                     |
| 18-Jul-98 | 2100 | 12.2                        | 10.9                      |
| 18-Jul-98 | 2200 | 11.5                        | 10.12                     |
| 18-Jul-98 | 2300 | 12.2                        | 10.87                     |
| 18-Jul-98 | 2400 | 11.8                        | 10.52                     |
| 19-Jul-98 | 100  | 12.5                        | 11.25                     |
| 19-Jul-98 | 200  | 11.8                        | 10.49                     |
| 19-Jul-98 | 300  | 12                          | 10.76                     |
| 19-Jul-98 | 400  | 11.8                        | 10.57                     |
| 19-Jul-98 | 500  | 11.9                        | 10.65                     |
| 19-Jul-98 | 600  | 12                          | 10.68                     |
| 19-Jul-98 | 700  | 11.8                        | 10.54                     |
| 19-Jul-98 | 800  | 11.5                        | 10.18                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 19-Jul-98 | 900  | 11.8                        | 10.52                     |
| 19-Jul-98 | 1000 | 11                          | 9.61                      |
| 19-Jul-98 | 1100 | 11.3                        | 9.93                      |
| 19-Jul-98 | 1200 | 11.5                        | 10.15                     |
| 19-Jul-98 | 1300 | 11.2                        | 9.85                      |
| 19-Jul-98 | 1400 | 10.8                        | 9.42                      |
| 19-Jul-98 | 1500 | 9.9                         | 8.45                      |
| 19-Jul-98 | 1600 | 11                          | 9.7                       |
| 19-Jul-98 | 1700 | 11.6                        | 10.27                     |
| 19-Jul-98 | 1800 | 11.9                        | 10.71                     |
| 19-Jul-98 | 1900 | 11.2                        | 9.91                      |
| 19-Jul-98 | 2000 | 10.7                        | 9.4                       |
| 19-Jul-98 | 2100 | 11.8                        | 10.51                     |
| 19-Jul-98 | 2200 | 11.8                        | 10.59                     |
| 19-Jul-98 | 2300 | 11.3                        | 10                        |
| 19-Jul-98 | 2400 | 11.9                        | 10.65                     |
| 20-Jul-98 | 100  | 11.4                        | 10.07                     |
| 20-Jul-98 | 200  | 11.5                        | 10.15                     |
| 20-Jul-98 | 300  | 11.5                        | 10.13                     |
| 20-Jul-98 | 400  | 11.9                        | 10.62                     |
| 20-Jul-98 | 500  | 11.9                        | 10.67                     |
| 20-Jul-98 | 600  | 11                          | 9.64                      |
| 20-Jul-98 | 700  | 11.2                        | 9.86                      |
| 20-Jul-98 | 800  | 12                          | 10.73                     |
| 20-Jul-98 | 900  | 11.7                        | 10.34                     |
| 20-Jul-98 | 1000 | 11.4                        | 10.09                     |
| 20-Jul-98 | 1100 | 11.3                        | 9.97                      |
| 20-Jul-98 | 1200 | 11.6                        | 10.24                     |
| 20-Jul-98 | 1300 | 11.6                        | 10.37                     |
| 20-Jul-98 | 1400 | 11.6                        | 10.35                     |
| 20-Jul-98 | 1500 | 12                          | 10.81                     |
| 20-Jul-98 | 1600 | 11.7                        | 10.5                      |
| 20-Jul-98 | 1700 | 10.8                        | 9.58                      |
| 20-Jul-98 | 1800 | 8.9                         | 7.65                      |
| 20-Jul-98 | 1900 | 10.4                        | 9.17                      |
| 20-Jul-98 | 2000 | 11.4                        | 10.12                     |
| 20-Jul-98 | 2100 | 11.6                        | 10.31                     |
| 20-Jul-98 | 2200 | 11.8                        | 10.45                     |
| 20-Jul-98 | 2300 | 11.9                        | 10.6                      |
| 20-Jul-98 | 2400 | 11.6                        | 10.32                     |
| 21-Jul-98 | 100  | 12                          | 10.68                     |
| 21-Jul-98 | 200  | 11.8                        | 10.5                      |
| 21-Jul-98 | 300  | 12.1                        | 10.74                     |
| 21-Jul-98 | 400  | 11.2                        | 9.81                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 21-Jul-98 | 500  | 11.5                        | 10.19                     |
| 21-Jul-98 | 600  | 11.3                        | 10.06                     |
| 21-Jul-98 | 700  | 10.9                        | 9.61                      |
| 21-Jul-98 | 800  | 11                          | 9.66                      |
| 21-Jul-98 | 900  | 11                          | 9.72                      |
| 21-Jul-98 | 1000 | 11.4                        | 10.11                     |
| 21-Jul-98 | 1100 | 11.7                        | 10.35                     |
| 21-Jul-98 | 1200 | 12.3                        | 11.03                     |
| 21-Jul-98 | 1300 | 12                          | 10.74                     |
| 21-Jul-98 | 1400 | 12.1                        | 10.76                     |
| 21-Jul-98 | 1500 | 11.4                        | 10.11                     |
| 21-Jul-98 | 1600 | 11.8                        | 10.43                     |
| 21-Jul-98 | 1700 | 11.8                        | 10.43                     |
| 21-Jul-98 | 1800 | 11.9                        | 10.6                      |
| 21-Jul-98 | 1900 | 12                          | 10.68                     |
| 21-Jul-98 | 2000 | 12.2                        | 10.86                     |
| 21-Jul-98 | 2100 | 12                          | 10.62                     |
| 21-Jul-98 | 2200 | 11.5                        | 10.16                     |
| 21-Jul-98 | 2300 | 11.5                        | 10.12                     |
| 21-Jul-98 | 2400 | 12                          | 10.65                     |
| 22-Jul-98 | 100  | 11.3                        | 9.93                      |
| 22-Jul-98 | 200  | 11.9                        | 10.63                     |
| 22-Jul-98 | 300  | 11                          | 9.73                      |
| 22-Jul-98 | 400  | 11.3                        | 9.96                      |
| 22-Jul-98 | 500  | 11.3                        | 10.03                     |
| 22-Jul-98 | 600  | 11.9                        | 10.55                     |
| 22-Jul-98 | 700  | 11.9                        | 10.56                     |
| 22-Jul-98 | 800  | 11.9                        | 10.55                     |
| 22-Jul-98 | 900  | 10.9                        | 9.48                      |
| 22-Jul-98 | 1000 | 11.2                        | 9.64                      |
| 22-Jul-98 | 1100 | 11.8                        | 10.31                     |
| 22-Jul-98 | 1200 | 12.2                        | 10.65                     |
| 22-Jul-98 | 1300 | 11.7                        | 10.22                     |
| 22-Jul-98 | 1400 | 12                          | 10.44                     |
| 22-Jul-98 | 1500 | 11.8                        | 10.28                     |
| 22-Jul-98 | 1600 | 10.4                        | 8.8                       |
| 22-Jul-98 | 1700 | 11.3                        | 9.89                      |
| 22-Jul-98 | 1800 | 11.6                        | 10.25                     |
| 22-Jul-98 | 1900 | 11.8                        | 10.44                     |
| 22-Jul-98 | 2000 | 11.7                        | 10.37                     |
| 22-Jul-98 | 2100 | 11.5                        | 10.16                     |
| 22-Jul-98 | 2200 | 11.7                        | 10.36                     |
| 22-Jul-98 | 2300 | 11.5                        | 10.2                      |
| 22-Jul-98 | 2400 | 11.1                        | 9.82                      |



## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 23-Jul-98 | 100  | 11.4                        | 10.12                     |
| 23-Jul-98 | 200  | 12.1                        | 10.84                     |
| 23-Jul-98 | 300  | 11.6                        | 10.35                     |
| 23-Jul-98 | 400  | 12                          | 10.71                     |
| 23-Jul-98 | 500  | 11.4                        | 10.13                     |
| 23-Jul-98 | 600  | 10.2                        | 8.89                      |
| 23-Jul-98 | 700  | 11.4                        | 10.13                     |
| 23-Jul-98 | 800  | 9.7                         | 8.42                      |
| 23-Jul-98 | 900  | 9.9                         | 8.53                      |
| 23-Jul-98 | 1000 | 11.6                        | 10.28                     |
| 23-Jul-98 | 1100 | 11.8                        | 10.54                     |
| 23-Jul-98 | 1200 | 11.2                        | 9.86                      |
| 23-Jul-98 | 1300 | 11.2                        | 9.82                      |
| 23-Jul-98 | 1400 | 11.7                        | 10.4                      |
| 23-Jul-98 | 1500 | 11.1                        | 9.75                      |
| 23-Jul-98 | 1600 | 10.8                        | 9.46                      |
| 23-Jul-98 | 1700 | 11.4                        | 10.06                     |
| 23-Jul-98 | 1800 | 11.4                        | 10.03                     |
| 23-Jul-98 | 1900 | 11.7                        | 10.28                     |
| 23-Jul-98 | 2000 | 10.8                        | 9.45                      |
| 23-Jul-98 | 2100 | 10.1                        | 8.77                      |
| 23-Jul-98 | 2200 | 11.1                        | 9.76                      |
| 23-Jul-98 | 2300 | 11.4                        | 10.02                     |
| 23-Jul-98 | 2400 | 12                          | 10.66                     |
| 24-Jul-98 | 100  | 11.7                        | 10.45                     |
| 24-Jul-98 | 200  | 12                          | 10.69                     |
| 24-Jul-98 | 300  | 11.6                        | 10.36                     |
| 24-Jul-98 | 400  | 11.5                        | 10.23                     |
| 24-Jul-98 | 500  | 12.1                        | 10.8                      |
| 24-Jul-98 | 600  | 11.9                        | 10.68                     |
| 24-Jul-98 | 700  | 11.9                        | 10.62                     |
| 24-Jul-98 | 800  | 11.7                        | 10.43                     |
| 24-Jul-98 | 900  | 11.7                        | 10.45                     |
| 24-Jul-98 | 1000 | 11.9                        | 10.61                     |
| 24-Jul-98 | 1100 | 11.4                        | 10.14                     |
| 24-Jul-98 | 1200 | 11.9                        | 10.58                     |
| 24-Jul-98 | 1300 | 11.8                        | 10.55                     |
| 24-Jul-98 | 1400 | 11.8                        | 10.57                     |
| 24-Jul-98 | 1500 | 11.6                        | 10.34                     |
| 24-Jul-98 | 1600 | 11.8                        | 10.55                     |
| 24-Jul-98 | 1700 | 10.8                        | 9.5                       |
| 24-Jul-98 | 1800 | 12.2                        | 10.93                     |
| 24-Jul-98 | 1900 | 10.3                        | 9.01                      |
| 24-Jul-98 | 2000 | 11.6                        | 10.25                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 24-Jul-98 | 2100 | 11.7                        | 10.34                     |
| 24-Jul-98 | 2200 | 11.3                        | 10.01                     |
| 24-Jul-98 | 2300 | 11                          | 9.64                      |
| 24-Jul-98 | 2400 | 11.9                        | 10.62                     |
| 25-Jul-98 | 100  | 11.6                        | 10.21                     |
| 25-Jul-98 | 200  | 9.9                         | 8.54                      |
| 25-Jul-98 | 300  | 11.7                        | 10.33                     |
| 25-Jul-98 | 400  | 10.9                        | 9.58                      |
| 25-Jul-98 | 500  | 11                          | 9.6                       |
| 25-Jul-98 | 600  | 12.1                        | 10.81                     |
| 25-Jul-98 | 700  | 10                          | 8.72                      |
| 25-Jul-98 | 800  | 11.7                        | 10.39                     |
| 25-Jul-98 | 900  | 11.7                        | 10.47                     |
| 25-Jul-98 | 1000 | 12.1                        | 10.84                     |
| 25-Jul-98 | 1100 | 11.9                        | 10.67                     |
| 25-Jul-98 | 1200 | 11.9                        | 10.65                     |
| 25-Jul-98 | 1300 | 12                          | 10.73                     |
| 25-Jul-98 | 1400 | 10.6                        | 9.23                      |
| 25-Jul-98 | 1500 | 12.5                        | 11.25                     |
| 25-Jul-98 | 1600 | 11.9                        | 10.7                      |
| 25-Jul-98 | 1700 | 11.6                        | 10.34                     |
| 25-Jul-98 | 1800 | 11                          | 9.67                      |
| 25-Jul-98 | 1900 | 11.9                        | 10.69                     |
| 25-Jul-98 | 2000 | 11.7                        | 10.39                     |
| 25-Jul-98 | 2100 | 11.3                        | 10.01                     |
| 25-Jul-98 | 2200 | 10.3                        | 8.96                      |
| 25-Jul-98 | 2300 | 11.4                        | 10.05                     |
| 25-Jul-98 | 2400 | 10                          | 8.71                      |
| 26-Jul-98 | 100  | 10                          | 8.64                      |
| 26-Jul-98 | 200  | 11                          | 9.67                      |
| 26-Jul-98 | 300  | 10.5                        | 9.21                      |
| 26-Jul-98 | 400  | 12.3                        | 11                        |
| 26-Jul-98 | 500  | 11.4                        | 10.16                     |
| 26-Jul-98 | 600  | 12.4                        | 11.21                     |
| 26-Jul-98 | 700  | 12                          | 10.77                     |
| 26-Jul-98 | 800  | 12                          | 10.74                     |
| 26-Jul-98 | 900  | 11.8                        | 10.52                     |
| 26-Jul-98 | 1000 | 11.3                        | 9.95                      |
| 26-Jul-98 | 1100 | 11.7                        | 10.32                     |
| 26-Jul-98 | 1200 | 12.4                        | 11.16                     |
| 26-Jul-98 | 1300 | 11.8                        | 10.55                     |
| 26-Jul-98 | 1400 | 11.8                        | 10.47                     |
| 26-Jul-98 | 1500 | 11.2                        | 9.9                       |
| 26-Jul-98 | 1600 | 11.3                        | 9.92                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 26-Jul-98 | 1700 | 11.6                        | 10.24                     |
| 26-Jul-98 | 1800 | 11.7                        | 10.34                     |
| 26-Jul-98 | 1900 | 11.4                        | 10.06                     |
| 26-Jul-98 | 2000 | 11.9                        | 10.54                     |
| 26-Jul-98 | 2100 | 11.2                        | 9.89                      |
| 26-Jul-98 | 2200 | 12.1                        | 10.82                     |
| 26-Jul-98 | 2300 | 11.9                        | 10.61                     |
| 26-Jul-98 | 2400 | 12                          | 10.75                     |
| 27-Jul-98 | 100  | 11.8                        | 10.48                     |
| 27-Jul-98 | 200  | 11.8                        | 10.46                     |
| 27-Jul-98 | 300  | 12                          | 10.77                     |
| 27-Jul-98 | 400  | 12                          | 10.74                     |
| 27-Jul-98 | 500  | 11.9                        | 10.67                     |
| 27-Jul-98 | 600  | 11.6                        | 10.38                     |
| 27-Jul-98 | 700  | 11.5                        | 10.25                     |
| 27-Jul-98 | 800  | 11.6                        | 10.4                      |
| 27-Jul-98 | 900  | 11.5                        | 10.19                     |
| 27-Jul-98 | 1000 | 11.3                        | 9.89                      |
| 27-Jul-98 | 1100 | 9.8                         | 8.46                      |
| 27-Jul-98 | 1200 | 11.8                        | 10.54                     |
| 27-Jul-98 | 1300 | 11.5                        | 10.16                     |
| 27-Jul-98 | 1400 | 11.5                        | 10.22                     |
| 27-Jul-98 | 1500 | 10.6                        | 9.22                      |
| 27-Jul-98 | 1600 | 10.4                        | 9.06                      |
| 27-Jul-98 | 1700 | 10.3                        | 8.98                      |
| 27-Jul-98 | 1800 | 11.4                        | 10.12                     |
| 27-Jul-98 | 1900 | 10.7                        | 9.35                      |
| 27-Jul-98 | 2000 | 10.8                        | 9.49                      |
| 27-Jul-98 | 2100 | 11.5                        | 10.14                     |
| 27-Jul-98 | 2200 | 11.9                        | 10.55                     |
| 27-Jul-98 | 2300 | 11.7                        | 10.4                      |
| 27-Jul-98 | 2400 | 11.8                        | 10.57                     |
| 28-Jul-98 | 100  | 12                          | 10.71                     |
| 28-Jul-98 | 200  | 11.6                        | 10.31                     |
| 28-Jul-98 | 300  | 11.8                        | 10.61                     |
| 28-Jul-98 | 400  | 11.9                        | 10.69                     |
| 28-Jul-98 | 500  | 11.6                        | 10.42                     |
| 28-Jul-98 | 600  | 11.1                        | 9.81                      |
| 28-Jul-98 | 700  | 11.4                        | 10.19                     |
| 28-Jul-98 | 800  | 11.2                        | 10.02                     |
| 28-Jul-98 | 900  | 11                          | 9.82                      |
| 28-Jul-98 | 1000 | 11.4                        | 10.21                     |
| 28-Jul-98 | 1100 | 9.3                         | 8.12                      |
| 28-Jul-98 | 1200 | 10.7                        | 9.43                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 28-Jul-98 | 1300 | 11.1                        | 9.75                      |
| 28-Jul-98 | 1400 | 11.2                        | 9.92                      |
| 28-Jul-98 | 1500 | 11.4                        | 10.12                     |
| 28-Jul-98 | 1600 | 12.1                        | 10.91                     |
| 28-Jul-98 | 1700 | 11                          | 9.77                      |
| 28-Jul-98 | 1800 | 11.5                        | 10.18                     |
| 28-Jul-98 | 1900 | 11.5                        | 10.18                     |
| 28-Jul-98 | 2000 | 11.2                        | 9.93                      |
| 28-Jul-98 | 2100 | 11.7                        | 10.34                     |
| 28-Jul-98 | 2200 | 11.2                        | 9.92                      |
| 28-Jul-98 | 2300 | 11.4                        | 10.12                     |
| 28-Jul-98 | 2400 | 11.8                        | 10.67                     |
| 29-Jul-98 | 100  | 11.5                        | 10.3                      |
| 29-Jul-98 | 200  | 11.3                        | 10                        |
| 29-Jul-98 | 300  | 11.2                        | 9.95                      |
| 29-Jul-98 | 400  | 11.2                        | 9.89                      |
| 29-Jul-98 | 500  | 11.6                        | 10.32                     |
| 29-Jul-98 | 600  | 11.5                        | 10.24                     |
| 29-Jul-98 | 700  | 11.2                        | 9.98                      |
| 29-Jul-98 | 800  | 10.7                        | 9.45                      |
| 29-Jul-98 | 900  | 9.8                         | 8.57                      |
| 29-Jul-98 | 1000 | 11.9                        | 10.66                     |
| 29-Jul-98 | 1100 | 11.6                        | 10.33                     |
| 29-Jul-98 | 1200 | 11.6                        | 10.32                     |
| 29-Jul-98 | 1300 | 11.5                        | 10.18                     |
| 29-Jul-98 | 1400 | 11.8                        | 10.55                     |
| 29-Jul-98 | 1500 | 11.6                        | 10.36                     |
| 29-Jul-98 | 1600 | 10.8                        | 9.52                      |
| 29-Jul-98 | 1700 | 10.3                        | 8.96                      |
| 29-Jul-98 | 1800 | 11.3                        | 10.01                     |
| 29-Jul-98 | 1900 | 11.4                        | 10.14                     |
| 29-Jul-98 | 2000 | 11.2                        | 9.87                      |
| 29-Jul-98 | 2100 | 11.4                        | 10.07                     |
| 29-Jul-98 | 2200 | 11.8                        | 10.49                     |
| 29-Jul-98 | 2300 | 11.9                        | 10.61                     |
| 29-Jul-98 | 2400 | 11.6                        | 10.32                     |
| 30-Jul-98 | 100  | 11.6                        | 10.35                     |
| 30-Jul-98 | 200  | 11.9                        | 10.6                      |
| 30-Jul-98 | 300  | 11.6                        | 10.33                     |
| 30-Jul-98 | 400  | 11.6                        | 10.3                      |
| 30-Jul-98 | 500  | 11.4                        | 10.07                     |
| 30-Jul-98 | 600  | 11.6                        | 10.24                     |
| 30-Jul-98 | 700  | 11.6                        | 10.24                     |
| 30-Jul-98 | 800  | 11.6                        | 10.28                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 30-Jul-98 | 900  | 9.6                         | 8.31                      |
| 30-Jul-98 | 1000 | 11.6                        | 10.28                     |
| 30-Jul-98 | 1100 | 11.8                        | 10.45                     |
| 30-Jul-98 | 1200 | 11.4                        | 10.14                     |
| 30-Jul-98 | 1300 | 10.9                        | 9.57                      |
| 30-Jul-98 | 1400 | 11.7                        | 10.49                     |
| 30-Jul-98 | 1500 | 11.2                        | 9.95                      |
| 30-Jul-98 | 1600 | 10.1                        | 8.77                      |
| 30-Jul-98 | 1700 | 10.7                        | 9.27                      |
| 30-Jul-98 | 1800 | 9.7                         | 8.42                      |
| 30-Jul-98 | 1900 | 10.6                        | 9.32                      |
| 30-Jul-98 | 2000 | 11.5                        | 10.15                     |
| 30-Jul-98 | 2100 | 12.1                        | 10.82                     |
| 30-Jul-98 | 2200 | 11.4                        | 10.1                      |
| 30-Jul-98 | 2300 | 11.7                        | 10.38                     |
| 30-Jul-98 | 2400 | 11.6                        | 10.34                     |
| 31-Jul-98 | 100  | 11                          | 9.7                       |
| 31-Jul-98 | 200  | 11.8                        | 10.47                     |
| 31-Jul-98 | 300  | 11.6                        | 10.32                     |
| 31-Jul-98 | 400  | 11.6                        | 10.29                     |
| 31-Jul-98 | 500  | 11.8                        | 10.48                     |
| 31-Jul-98 | 600  | 11.7                        | 10.47                     |
| 31-Jul-98 | 700  | 11.8                        | 10.59                     |
| 31-Jul-98 | 800  | 11.7                        | 10.46                     |
| 31-Jul-98 | 900  | 11.5                        | 10.28                     |
| 31-Jul-98 | 1000 | 11.2                        | 9.82                      |
| 31-Jul-98 | 1100 | 10.8                        | 9.4                       |
| 31-Jul-98 | 1200 | 11.2                        | 9.92                      |
| 31-Jul-98 | 1300 | 11.1                        | 9.77                      |
| 31-Jul-98 | 1400 | 10.9                        | 9.54                      |
| 31-Jul-98 | 1500 | 10.9                        | 9.53                      |
| 31-Jul-98 | 1600 | 9.6                         | 8.2                       |
| 31-Jul-98 | 1700 | 10.5                        | 9.18                      |
| 31-Jul-98 | 1800 | 9.5                         | 8.13                      |
| 31-Jul-98 | 1900 | 11                          | 9.62                      |
| 31-Jul-98 | 2000 | 11.4                        | 10.13                     |
| 31-Jul-98 | 2100 | 11.2                        | 9.86                      |
| 31-Jul-98 | 2200 | 11.6                        | 10.23                     |
| 31-Jul-98 | 2300 | 11.6                        | 10.32                     |
| 31-Jul-98 | 2400 | 11.4                        | 10.08                     |
| 01-Aug-98 | 100  | 11.1                        | 9.73                      |
| 01-Aug-98 | 200  | 11.1                        | 9.73                      |
| 01-Aug-98 | 300  | 10.9                        | 9.57                      |
| 01-Aug-98 | 400  | 11.5                        | 10.17                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 01-Aug-98 | 500  | 11.3                        | 9.94                      |
| 01-Aug-98 | 600  | 12                          | 10.74                     |
| 01-Aug-98 | 700  | 12.17                       | 10.75                     |
| 01-Aug-98 | 800  | 12.13                       | 10.76                     |
| 01-Aug-98 | 900  | 12.09                       | 10.89                     |
| 01-Aug-98 | 1000 | 10.81                       | 9.53                      |
| 01-Aug-98 | 1100 | 11.8                        | 10.53                     |
| 01-Aug-98 | 1200 | 11.6                        | 10.3                      |
| 01-Aug-98 | 1300 | 11.8                        | 10.49                     |
| 01-Aug-98 | 1400 | 11.4                        | 9.72                      |
| 01-Aug-98 | 1500 | 11.36                       | 10.04                     |
| 01-Aug-98 | 1600 | 12.03                       | 10.9                      |
| 01-Aug-98 | 1700 | 10.87                       | 9.61                      |
| 01-Aug-98 | 1800 | 11.38                       | 10.04                     |
| 01-Aug-98 | 1900 | 11.35                       | 10                        |
| 01-Aug-98 | 2000 | 11.2                        | 10                        |
| 01-Aug-98 | 2100 | 11.2                        | 10                        |
| 01-Aug-98 | 2200 | 12.3                        | 11                        |
| 01-Aug-98 | 2300 | 11.2                        | 10                        |
| 01-Aug-98 | 2400 | 11.2                        | 10                        |
| 02-Aug-98 | 100  | 11.2                        | 10                        |
| 02-Aug-98 | 200  | 11.3                        | 10                        |
| 02-Aug-98 | 300  | 11.2                        | 11                        |
| 02-Aug-98 | 400  | 11.2                        | 10                        |
| 02-Aug-98 | 500  | 11.3                        | 10                        |
| 02-Aug-98 | 600  | 11.3                        | 10                        |
| 02-Aug-98 | 700  | 11.78                       | 10.54                     |
| 02-Aug-98 | 800  | 11.81                       | 10.32                     |
| 02-Aug-98 | 900  | 11.32                       | 10.23                     |
| 02-Aug-98 | 1000 | 10.3                        | 9.72                      |
| 02-Aug-98 | 1100 | 11.66                       | 9.91                      |
| 02-Aug-98 | 1200 | 11.29                       | 9.84                      |
| 02-Aug-98 | 1300 | 11.21                       | 10.03                     |
| 02-Aug-98 | 1400 | 11.39                       | 10.29                     |
| 02-Aug-98 | 1500 | 10.81                       | 9.71                      |
| 02-Aug-98 | 1600 | 10.67                       | 9.96                      |
| 02-Aug-98 | 1700 | 12.01                       | 9.99                      |
| 02-Aug-98 | 1800 | 11.94                       | 10.24                     |
| 02-Aug-98 | 1900 | 11.6                        | 10.3                      |
| 02-Aug-98 | 2000 | 10.75                       | 9.4                       |
| 02-Aug-98 | 2100 | 11.35                       | 10                        |
| 02-Aug-98 | 2200 | 11.15                       | 9.8                       |
| 02-Aug-98 | 2300 | 11.05                       | 9.7                       |
| 02-Aug-98 | 2400 | 11.25                       | 9.9                       |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 03-Aug-98 | 100  | 11.75                       | 10.4                      |
| 03-Aug-98 | 200  | 11.8                        | 10.6                      |
| 03-Aug-98 | 300  | 11.9                        | 10.6                      |
| 03-Aug-98 | 400  | 11.85                       | 10.6                      |
| 03-Aug-98 | 500  | 11.35                       | 10.1                      |
| 03-Aug-98 | 600  | 11.35                       | 10                        |
| 03-Aug-98 | 700  | 8.2                         | 6.98                      |
| 03-Aug-98 | 800  | 12.57                       | 9.77                      |
| 03-Aug-98 | 900  | 11.83                       | 10.39                     |
| 03-Aug-98 | 1000 | 11.86                       | 10.44                     |
| 03-Aug-98 | 1100 | 11.29                       | 10.5                      |
| 03-Aug-98 | 1200 | 11.98                       | 10.52                     |
| 03-Aug-98 | 1300 | 12.09                       | 10.49                     |
| 03-Aug-98 | 1400 | 11.73                       | 10.24                     |
| 03-Aug-98 | 1500 | 12.18                       | 10.43                     |
| 03-Aug-98 | 1600 | 10.98                       | 9.66                      |
| 03-Aug-98 | 1700 | 11.7                        | 10.05                     |
| 03-Aug-98 | 1800 | 11.82                       | 10.02                     |
| 03-Aug-98 | 1900 | 11.5                        | 10.1                      |
| 03-Aug-98 | 2000 | 11.45                       | 10.1                      |
| 03-Aug-98 | 2100 | 10.85                       | 9.5                       |
| 03-Aug-98 | 2200 | 11.45                       | 10.1                      |
| 03-Aug-98 | 2300 | 12.1                        | 10.8                      |
| 03-Aug-98 | 2400 | 12                          | 10.7                      |
| 04-Aug-98 | 100  | 12.1                        | 10.8                      |
| 04-Aug-98 | 200  | 11.6                        | 10.2                      |
| 04-Aug-98 | 300  | 11.45                       | 10.1                      |
| 04-Aug-98 | 400  | 11.7                        | 10.4                      |
| 04-Aug-98 | 500  | 11.45                       | 10.1                      |
| 04-Aug-98 | 600  | 10.75                       | 9.4                       |
| 04-Aug-98 | 700  | 11                          | 9.7                       |
| 04-Aug-98 | 800  | 10.5                        | 9.4                       |
| 04-Aug-98 | 900  | 10.2                        | 9.1                       |
| 04-Aug-98 | 1000 | 10.8                        | 9.8                       |
| 04-Aug-98 | 1100 | 11.2                        | 10                        |
| 04-Aug-98 | 1200 | 11.5                        | 10.2                      |
| 04-Aug-98 | 1300 | 11.5                        | 10.2                      |
| 04-Aug-98 | 1400 | 11.3                        | 10.1                      |
| 04-Aug-98 | 1500 | 10.8                        | 9.8                       |
| 04-Aug-98 | 1600 | 10.6                        | 9.7                       |
| 04-Aug-98 | 1700 | 11.3                        | 10.1                      |
| 04-Aug-98 | 1800 | 10.9                        | 10                        |
| 04-Aug-98 | 1900 | 11.17                       | 9.8                       |
| 04-Aug-98 | 2000 | 11.25                       | 9.9                       |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 04-Aug-98 | 2100 | 10.45                       | 9.1                       |
| 04-Aug-98 | 2200 | 10.57                       | 9.2                       |
| 04-Aug-98 | 2300 | 10.97                       | 9.6                       |
| 04-Aug-98 | 2400 | 10.55                       | 9.2                       |
| 05-Aug-98 | 100  | 11.8                        | 10.4                      |
| 05-Aug-98 | 200  | 12                          | 10.5                      |
| 05-Aug-98 | 300  | 11.6                        | 10.2                      |
| 05-Aug-98 | 400  | 11.5                        | 10.2                      |
| 05-Aug-98 | 500  | 11.4                        | 10                        |
| 05-Aug-98 | 600  | 11.7                        | 10.3                      |
| 05-Aug-98 | 700  | 11.6                        | 10.3                      |
| 05-Aug-98 | 800  | 10.9                        | 9.6                       |
| 05-Aug-98 | 900  | 11.2                        | 9.9                       |
| 05-Aug-98 | 1000 | 11.1                        | 9.9                       |
| 05-Aug-98 | 1100 | 11.3                        | 9.9                       |
| 05-Aug-98 | 1200 | 11                          | 9.7                       |
| 05-Aug-98 | 1300 | 11                          | 9.7                       |
| 05-Aug-98 | 1400 | 11.2                        | 10.1                      |
| 05-Aug-98 | 1500 | 11.6                        | 10.4                      |
| 05-Aug-98 | 1600 | 11.7                        | 10.5                      |
| 05-Aug-98 | 1700 | 11.7                        | 10.4                      |
| 05-Aug-98 | 1800 | 11.7                        | 10.5                      |
| 05-Aug-98 | 1900 | 11.8                        | 10.5                      |
| 05-Aug-98 | 2000 | 11.35                       | 10                        |
| 05-Aug-98 | 2100 | 11.7                        | 10.4                      |
| 05-Aug-98 | 2200 | 11.6                        | 10.3                      |
| 05-Aug-98 | 2300 | 11.6                        | 10.3                      |
| 05-Aug-98 | 2400 | 11.75                       | 10.4                      |
| 06-Aug-98 | 100  | 11.65                       | 10.3                      |
| 06-Aug-98 | 200  | 11.6                        | 10.3                      |
| 06-Aug-98 | 300  | 11.65                       | 10.3                      |
| 06-Aug-98 | 400  | 11.85                       | 10.5                      |
| 06-Aug-98 | 500  | 10.8                        | 10.5                      |
| 06-Aug-98 | 600  | 12.05                       | 10.7                      |
| 06-Aug-98 | 700  | 11.9                        | 10.6                      |
| 06-Aug-98 | 800  | 10.9                        | 9.5                       |
| 06-Aug-98 | 900  | 11.1                        | 9.9                       |
| 06-Aug-98 | 1000 | 11.4                        | 10.2                      |
| 06-Aug-98 | 1100 | 11.6                        | 10.4                      |
| 06-Aug-98 | 1200 | 11.4                        | 10.2                      |
| 06-Aug-98 | 1300 | 11.2                        | 9.9                       |
| 06-Aug-98 | 1400 | 11.1                        | 9.8                       |
| 06-Aug-98 | 1500 | 11.3                        | 10                        |
| 06-Aug-98 | 1600 | 11.4                        | 10.3                      |



## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 06-Aug-98 | 1700 | 11.6                        | 10.3                      |
| 06-Aug-98 | 1800 | 11.7                        | 10.4                      |
| 06-Aug-98 | 1900 | 12.36                       | 10.3                      |
| 06-Aug-98 | 2000 | 11.51                       | 10.2                      |
| 06-Aug-98 | 2100 | 10.37                       | 10.12                     |
| 06-Aug-98 | 2200 | 11.81                       | 10.44                     |
| 06-Aug-98 | 2300 | 11.67                       | 10.48                     |
| 06-Aug-98 | 2400 | 10.6                        | 10.02                     |
| 07-Aug-98 | 100  | 10.96                       | 9.59                      |
| 07-Aug-98 | 200  | 12.2                        | 9.79                      |
| 07-Aug-98 | 300  | 12                          | 10.12                     |
| 07-Aug-98 | 400  | 11.19                       | 9.72                      |
| 07-Aug-98 | 500  | 9.83                        | 9.46                      |
| 07-Aug-98 | 600  | 10.49                       | 9.67                      |
| 07-Aug-98 | 700  | 11.1                        | 9.6                       |
| 07-Aug-98 | 800  | 11.5                        | 10                        |
| 07-Aug-98 | 900  | 11.7                        | 10.5                      |
| 07-Aug-98 | 1000 | 11.7                        | 10.5                      |
| 07-Aug-98 | 1100 | 11.4                        | 10                        |
| 07-Aug-98 | 1200 | 11.5                        | 10.2                      |
| 07-Aug-98 | 1300 | 11.2                        | 9.8                       |
| 07-Aug-98 | 1400 | 11.5                        | 10.18                     |
| 07-Aug-98 | 1500 | 10.9                        | 9.53                      |
| 07-Aug-98 | 1600 | 11.8                        | 10.49                     |
| 07-Aug-98 | 1700 | 11.9                        | 10.64                     |
| 07-Aug-98 | 1800 | 10.9                        | 9.58                      |
| 07-Aug-98 | 1900 | 11.4                        | 10.06                     |
| 07-Aug-98 | 2000 | 11.5                        | 10.13                     |
| 07-Aug-98 | 2100 | 11.2                        | 9.83                      |
| 07-Aug-98 | 2200 | 11                          | 9.66                      |
| 07-Aug-98 | 2300 | 11.2                        | 9.87                      |
| 07-Aug-98 | 2400 | 10.5                        | 9.18                      |
| 08-Aug-98 | 100  | 11.4                        | 9.95                      |
| 08-Aug-98 | 200  | 11.4                        | 9.98                      |
| 08-Aug-98 | 300  | 11.5                        | 10.22                     |
| 08-Aug-98 | 400  | 11.2                        | 9.8                       |
| 08-Aug-98 | 500  | 10.8                        | 9.41                      |
| 08-Aug-98 | 600  | 11.2                        | 9.79                      |
| 08-Aug-98 | 700  | 11                          | 9.68                      |
| 08-Aug-98 | 800  | 11.6                        | 10.21                     |
| 08-Aug-98 | 900  | 10                          | 8.63                      |
| 08-Aug-98 | 1000 | 10.7                        | 9.32                      |
| 08-Aug-98 | 1100 | 9.3                         | 7.87                      |
| 08-Aug-98 | 1200 | 8.6                         | 7.23                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 08-Aug-98 | 1300 | 8.5                         | 7.13                      |
| 08-Aug-98 | 1400 | 8.5                         | 7.5                       |
| 08-Aug-98 | 1500 | 7.6                         | 6.18                      |
| 08-Aug-98 | 1600 | 6.5                         | 5.09                      |
| 08-Aug-98 | 1700 | 7.5                         | 6.1                       |
| 08-Aug-98 | 1800 | 6.5                         | 5.14                      |
| 08-Aug-98 | 1900 | 6.6                         | 5.15                      |
| 08-Aug-98 | 2000 | 3.8                         | 2.27                      |
| 08-Aug-98 | 2100 | 11.1                        | 9.77                      |
| 08-Aug-98 | 2200 | 4.7                         | 3.31                      |
| 08-Aug-98 | 2300 | 11.4                        | 10.08                     |
| 08-Aug-98 | 2400 | 11.5                        | 10.25                     |
| 09-Aug-98 | 100  | 11.6                        | 10.17                     |
| 09-Aug-98 | 200  | 11.3                        | 9.89                      |
| 09-Aug-98 | 300  | 11                          | 9.68                      |
| 09-Aug-98 | 400  | 11.4                        | 10.13                     |
| 09-Aug-98 | 500  | 11.2                        | 9.84                      |
| 09-Aug-98 | 600  | 11.7                        | 10.32                     |
| 09-Aug-98 | 700  | 11.3                        | 10.01                     |
| 09-Aug-98 | 800  | 11                          | 9.69                      |
| 09-Aug-98 | 900  | 11.2                        | 9.85                      |
| 09-Aug-98 | 1000 | 11.3                        | 9.99                      |
| 09-Aug-98 | 1100 | 11.6                        | 10.26                     |
| 09-Aug-98 | 1200 | 11.6                        | 10.23                     |
| 09-Aug-98 | 1300 | 11.5                        | 10.18                     |
| 09-Aug-98 | 1400 | 11.5                        | 10.16                     |
| 09-Aug-98 | 1500 | 11.6                        | 10.3                      |
| 09-Aug-98 | 1600 | 11.5                        | 10.16                     |
| 09-Aug-98 | 1700 | 11.5                        | 10.25                     |
| 09-Aug-98 | 1800 | 11.5                        | 10.2                      |
| 09-Aug-98 | 1900 | 11.6                        | 10.32                     |
| 09-Aug-98 | 2000 | 11.6                        | 10.28                     |
| 09-Aug-98 | 2100 | 11.6                        | 10.28                     |
| 09-Aug-98 | 2200 | 11.5                        | 10.16                     |
| 09-Aug-98 | 2300 | 11.5                        | 10.08                     |
| 09-Aug-98 | 2400 | 11.3                        | 9.93                      |
| 10-Aug-98 | 100  | 11.3                        | 9.89                      |
| 10-Aug-98 | 200  | 11.8                        | 10.39                     |
| 10-Aug-98 | 300  | 11.8                        | 10.49                     |
| 10-Aug-98 | 400  | 11.8                        | 10.4                      |
| 10-Aug-98 | 500  | 11                          | 9.6                       |
| 10-Aug-98 | 600  | 11.5                        | 10.11                     |
| 10-Aug-98 | 700  | 11.7                        | 10.39                     |
| 10-Aug-98 | 800  | 11.8                        | 10.51                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 10-Aug-98 | 900  | 11.6                        | 10.18                     |
| 10-Aug-98 | 1000 | 12                          | 10.59                     |
| 10-Aug-98 | 1100 | 11.7                        | 10.35                     |
| 10-Aug-98 | 1200 | 11.8                        | 10.54                     |
| 10-Aug-98 | 1300 | 11.7                        | 10.35                     |
| 10-Aug-98 | 1400 | 11.5                        | 10.08                     |
| 10-Aug-98 | 1500 | 11.1                        | 9.75                      |
| 10-Aug-98 | 1600 | 10.3                        | 8.9                       |
| 10-Aug-98 | 1700 | 10.2                        | 8.77                      |
| 10-Aug-98 | 1800 | 10.9                        | 9.43                      |
| 10-Aug-98 | 1900 | 10.2                        | 8.76                      |
| 10-Aug-98 | 2000 | 10.7                        | 9.27                      |
| 10-Aug-98 | 2100 | 10.8                        | 9.38                      |
| 10-Aug-98 | 2200 | 8.6                         | 7.09                      |
| 10-Aug-98 | 2300 | 9.1                         | 7.66                      |
| 10-Aug-98 | 2400 | 10.3                        | 8.84                      |
| 11-Aug-98 | 100  | 11.8                        | 10.5                      |
| 11-Aug-98 | 200  | 11.5                        | 10.16                     |
| 11-Aug-98 | 300  | 11.2                        | 9.75                      |
| 11-Aug-98 | 400  | 10.5                        | 9.09                      |
| 11-Aug-98 | 500  | 10.7                        | 9.27                      |
| 11-Aug-98 | 600  | 11.6                        | 10.25                     |
| 11-Aug-98 | 700  | 12.2                        | 10.94                     |
| 11-Aug-98 | 800  | 11                          | 9.68                      |
| 11-Aug-98 | 900  | 10.5                        | 9.2                       |
| 11-Aug-98 | 1000 | 11.1                        | 9.77                      |
| 11-Aug-98 | 1100 | 10.8                        | 9.48                      |
| 11-Aug-98 | 1200 | 11.2                        | 9.86                      |
| 11-Aug-98 | 1300 | 11.6                        | 10.32                     |
| 11-Aug-98 | 1400 | 11.6                        | 10.34                     |
| 11-Aug-98 | 1500 | 11.1                        | 9.79                      |
| 11-Aug-98 | 1600 | 10.8                        | 9.43                      |
| 11-Aug-98 | 1700 | 11.3                        | 9.89                      |
| 11-Aug-98 | 1800 | 11.8                        | 10.49                     |
| 11-Aug-98 | 1900 | 11.5                        | 10.29                     |
| 11-Aug-98 | 2000 | 11.5                        | 10.18                     |
| 11-Aug-98 | 2100 | 11.6                        | 10.38                     |
| 11-Aug-98 | 2200 | 11.2                        | 9.9                       |
| 11-Aug-98 | 2300 | 11.5                        | 10.26                     |
| 11-Aug-98 | 2400 | 11.7                        | 10.44                     |
| 12-Aug-98 | 100  | 11.5                        | 10.3                      |
| 12-Aug-98 | 200  | 11.2                        | 9.93                      |
| 12-Aug-98 | 300  | 11.6                        | 10.3                      |
| 12-Aug-98 | 400  | 11.5                        | 10.19                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 12-Aug-98 | 500  | 11.8                        | 10.57                     |
| 12-Aug-98 | 600  | 11.7                        | 10.46                     |
| 12-Aug-98 | 700  | 11.7                        | 10.53                     |
| 12-Aug-98 | 800  | 11.7                        | 10.53                     |
| 12-Aug-98 | 900  | 11.4                        | 10.18                     |
| 12-Aug-98 | 1000 | 11.1                        | 9.73                      |
| 12-Aug-98 | 1100 | 11.5                        | 10.14                     |
| 12-Aug-98 | 1200 | 11.2                        | 9.87                      |
| 12-Aug-98 | 1300 | 11.2                        | 9.92                      |
| 12-Aug-98 | 1400 | 11.3                        | 9.9                       |
| 12-Aug-98 | 1500 | 11.3                        | 9.93                      |
| 12-Aug-98 | 1600 | 10.9                        | 9.52                      |
| 12-Aug-98 | 1700 | 11.4                        | 10.06                     |
| 12-Aug-98 | 1800 | 10.9                        | 9.52                      |
| 12-Aug-98 | 1900 | 11.2                        | 9.77                      |
| 12-Aug-98 | 2000 | 11.4                        | 9.96                      |
| 12-Aug-98 | 2100 | 12                          | 10.58                     |
| 12-Aug-98 | 2200 | 11.6                        | 10.24                     |
| 12-Aug-98 | 2300 | 11                          | 9.54                      |
| 12-Aug-98 | 2400 | 11.7                        | 10.31                     |
| 13-Aug-98 | 100  | 10.8                        | 9.41                      |
| 13-Aug-98 | 200  | 11.5                        | 10.13                     |
| 13-Aug-98 | 300  | 11.4                        | 10.04                     |
| 13-Aug-98 | 400  | 11.8                        | 10.52                     |
| 13-Aug-98 | 500  | 11.7                        | 10.46                     |
| 13-Aug-98 | 600  | 12.1                        | 10.83                     |
| 13-Aug-98 | 700  | 11.6                        | 10.38                     |
| 13-Aug-98 | 800  | 11.2                        | 9.88                      |
| 13-Aug-98 | 900  | 11.6                        | 10.31                     |
| 13-Aug-98 | 1000 | 10.8                        | 9.43                      |
| 13-Aug-98 | 1100 | 10.7                        | 9.29                      |
| 13-Aug-98 | 1200 | 10.9                        | 9.61                      |
| 13-Aug-98 | 1300 | 11.8                        | 10.23                     |
| 13-Aug-98 | 1400 | 11.5                        | 10.12                     |
| 13-Aug-98 | 1500 | 10.9                        | 9.5                       |
| 13-Aug-98 | 1600 | 11.1                        | 9.69                      |
| 13-Aug-98 | 1700 | 11.7                        | 10.31                     |
| 13-Aug-98 | 1800 | 7.8                         | 6.72                      |
| 13-Aug-98 | 1900 | 10                          | 8.6                       |
| 13-Aug-98 | 2000 | 11.4                        | 9.97                      |
| 13-Aug-98 | 2100 | 10.2                        | 8.74                      |
| 13-Aug-98 | 2200 | 11                          | 9.49                      |
| 13-Aug-98 | 2300 | 10.7                        | 9.22                      |
| 13-Aug-98 | 2400 | 10.7                        | 9.16                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 14-Aug-98 | 100  | 11.1                        | 9.58                      |
| 14-Aug-98 | 200  | 10.9                        | 9.35                      |
| 14-Aug-98 | 300  | 11.7                        | 10.17                     |
| 14-Aug-98 | 400  | 11.2                        | 9.68                      |
| 14-Aug-98 | 500  | 11.2                        | 9.67                      |
| 14-Aug-98 | 600  | 11.2                        | 9.71                      |
| 14-Aug-98 | 700  | 10.9                        | 9.36                      |
| 14-Aug-98 | 800  | 11                          | 9.49                      |
| 14-Aug-98 | 900  | 11.1                        | 9.58                      |
| 14-Aug-98 | 1000 | 11.1                        | 9.65                      |
| 14-Aug-98 | 1100 | 11.3                        | 9.89                      |
| 14-Aug-98 | 1200 | 11.4                        | 10.03                     |
| 14-Aug-98 | 1300 | 11.4                        | 9.88                      |
| 14-Aug-98 | 1400 | 11.3                        | 9.87                      |
| 14-Aug-98 | 1500 | 10.7                        | 9.18                      |
| 14-Aug-98 | 1600 | 10.5                        | 9.03                      |
| 14-Aug-98 | 1700 | 11.5                        | 10.02                     |
| 14-Aug-98 | 1800 | 9.6                         | 8.16                      |
| 14-Aug-98 | 1900 | 10.6                        | 9.07                      |
| 14-Aug-98 | 2000 | 11.3                        | 9.83                      |
| 14-Aug-98 | 2100 | 11.2                        | 9.67                      |
| 14-Aug-98 | 2200 | 11.2                        | 9.62                      |
| 14-Aug-98 | 2300 | 11.7                        | 10.14                     |
| 14-Aug-98 | 2400 | 11.3                        | 9.81                      |
| 15-Aug-98 | 100  | 11                          | 9.63                      |
| 15-Aug-98 | 200  | 10.2                        | 8.84                      |
| 15-Aug-98 | 300  | 11                          | 9.7                       |
| 15-Aug-98 | 400  | 10.9                        | 9.47                      |
| 15-Aug-98 | 500  | 11.7                        | 10.34                     |
| 15-Aug-98 | 600  | 11.6                        | 10.18                     |
| 15-Aug-98 | 700  | 11.7                        | 10.37                     |
| 15-Aug-98 | 800  | 10.5                        | 9.23                      |
| 15-Aug-98 | 900  | 10.9                        | 9.81                      |
| 15-Aug-98 | 1000 | 9.8                         | 8.44                      |
| 15-Aug-98 | 1100 | 10.3                        | 8.94                      |
| 15-Aug-98 | 1200 | 11.7                        | 10.4                      |
| 15-Aug-98 | 1300 | 11.3                        | 9.95                      |
| 15-Aug-98 | 1400 | 11.3                        | 9.96                      |
| 15-Aug-98 | 1500 | 11                          | 9.7                       |
| 15-Aug-98 | 1600 | 11.4                        | 10.12                     |
| 15-Aug-98 | 1700 | 11.4                        | 10.08                     |
| 15-Aug-98 | 1800 | 10.5                        | 9.2                       |
| 15-Aug-98 | 1900 | 11.1                        | 9.75                      |
| 15-Aug-98 | 2000 | 10.3                        | 8.92                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 15-Aug-98 | 2100 | 11.2                        | 9.87                      |
| 15-Aug-98 | 2200 | 10.8                        | 9.35                      |
| 15-Aug-98 | 2300 | 11.4                        | 10.06                     |
| 15-Aug-98 | 2400 | 11.2                        | 9.79                      |
| 16-Aug-98 | 100  | 10.9                        | 9.48                      |
| 16-Aug-98 | 200  | 11.2                        | 9.75                      |
| 16-Aug-98 | 300  | 10.8                        | 9.42                      |
| 16-Aug-98 | 400  | 11.6                        | 10.19                     |
| 16-Aug-98 | 500  | 11.7                        | 10.38                     |
| 16-Aug-98 | 600  | 11.5                        | 10.19                     |
| 16-Aug-98 | 700  | 11.1                        | 9.83                      |
| 16-Aug-98 | 800  | 11.3                        | 10.02                     |
| 16-Aug-98 | 900  | 11.3                        | 9.98                      |
| 16-Aug-98 | 1000 | 11.2                        | 9.79                      |
| 16-Aug-98 | 1100 | 11                          | 9.65                      |
| 16-Aug-98 | 1200 | 11.4                        | 10.03                     |
| 16-Aug-98 | 1300 | 11.5                        | 10.16                     |
| 16-Aug-98 | 1400 | 12                          | 10.73                     |
| 16-Aug-98 | 1500 | 11.8                        | 10.51                     |
| 16-Aug-98 | 1600 | 11.6                        | 10.24                     |
| 16-Aug-98 | 1700 | 11.6                        | 10.29                     |
| 16-Aug-98 | 1800 | 11.7                        | 10.36                     |
| 16-Aug-98 | 1900 | 11.5                        | 10.24                     |
| 16-Aug-98 | 2000 | 11.7                        | 10.48                     |
| 16-Aug-98 | 2100 | 10.9                        | 9.56                      |
| 16-Aug-98 | 2200 | 11.4                        | 10.14                     |
| 16-Aug-98 | 2300 | 11.4                        | 10.17                     |
| 16-Aug-98 | 2400 | 11.2                        | 9.93                      |
| 17-Aug-98 | 100  | 10.9                        | 9.64                      |
| 17-Aug-98 | 200  | 11.3                        | 9.9                       |
| 17-Aug-98 | 300  | 11.4                        | 10.04                     |
| 17-Aug-98 | 400  | 11.1                        | 9.71                      |
| 17-Aug-98 | 500  | 10.4                        | 8.96                      |
| 17-Aug-98 | 600  | 10.6                        | 9.14                      |
| 17-Aug-98 | 700  | 10.8                        | 9.39                      |
| 17-Aug-98 | 800  | 11.7                        | 10.32                     |
| 17-Aug-98 | 900  | 11.7                        | 10.26                     |
| 17-Aug-98 | 1000 | 11.3                        | 9.86                      |
| 17-Aug-98 | 1100 | 11                          | 9.6                       |
| 17-Aug-98 | 1200 | 11.4                        | 9.92                      |
| 17-Aug-98 | 1300 | 11.5                        | 10.1                      |
| 17-Aug-98 | 1400 | 11.9                        | 10.54                     |
| 17-Aug-98 | 1500 | 11.9                        | 10.56                     |
| 17-Aug-98 | 1600 | 11.5                        | 10.09                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 17-Aug-98 | 1700 | 10.8                        | 9.36                      |
| 17-Aug-98 | 1800 | 11.7                        | 10.23                     |
| 17-Aug-98 | 1900 | 11.7                        | 10.34                     |
| 17-Aug-98 | 2000 | 10.5                        | 9.03                      |
| 17-Aug-98 | 2100 | 11.5                        | 10.07                     |
| 17-Aug-98 | 2200 | 10.3                        | 8.86                      |
| 17-Aug-98 | 2300 | 11.3                        | 9.91                      |
| 17-Aug-98 | 2400 | 11.7                        | 10.42                     |
| 18-Aug-98 | 100  | 11.9                        | 10.53                     |
| 18-Aug-98 | 200  | 11.5                        | 10.21                     |
| 18-Aug-98 | 300  | 11.7                        | 10.42                     |
| 18-Aug-98 | 400  | 11.8                        | 10.46                     |
| 18-Aug-98 | 500  | 11.5                        | 10.33                     |
| 18-Aug-98 | 600  | 11.5                        | 10.24                     |
| 18-Aug-98 | 700  | 11.2                        | 9.84                      |
| 18-Aug-98 | 800  | 10.9                        | 9.56                      |
| 18-Aug-98 | 900  | 10.1                        | 8.81                      |
| 18-Aug-98 | 1000 | 11.7                        | 10.41                     |
| 18-Aug-98 | 1100 | 11.6                        | 10.31                     |
| 18-Aug-98 | 1200 | 11.8                        | 10.42                     |
| 18-Aug-98 | 1300 | 11.6                        | 10.23                     |
| 18-Aug-98 | 1400 | 11.1                        | 9.62                      |
| 18-Aug-98 | 1500 | 8.9                         | 7.69                      |
| 18-Aug-98 | 1600 | 10.6                        | 9.21                      |
| 18-Aug-98 | 1700 | 5.7                         | 4.52                      |
| 18-Aug-98 | 1800 | 5.6                         | 4.38                      |
| 18-Aug-98 | 1900 | 5.4                         | 4.23                      |
| 18-Aug-98 | 2000 | 8.9                         | 7.62                      |
| 18-Aug-98 | 2100 | 10.7                        | 9.47                      |
| 18-Aug-98 | 2200 | 10.5                        | 9.25                      |
| 18-Aug-98 | 2300 | 10.7                        | 9.44                      |
| 18-Aug-98 | 2400 | 10.5                        | 9.1                       |
| 19-Aug-98 | 100  | 9.9                         | 8.55                      |
| 19-Aug-98 | 200  | 9.5                         | 8.14                      |
| 19-Aug-98 | 300  | 9.4                         | 8.09                      |
| 19-Aug-98 | 400  | 10.6                        | 9.24                      |
| 19-Aug-98 | 500  | 11.5                        | 10.14                     |
| 19-Aug-98 | 600  | 11.5                        | 10.08                     |
| 19-Aug-98 | 700  | 11.8                        | 10.51                     |
| 19-Aug-98 | 800  | 11.6                        | 10.25                     |
| 19-Aug-98 | 900  | 11.3                        | 10.02                     |
| 19-Aug-98 | 1000 | 11.5                        | 10.16                     |
| 19-Aug-98 | 1100 | 6.6                         | 5.26                      |
| 19-Aug-98 | 1200 | 4.2                         | 2.99                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 19-Aug-98 | 1300 | 5                           | 3.8                       |
| 19-Aug-98 | 1400 | 5.1                         | 3.81                      |
| 19-Aug-98 | 1500 | 8.7                         | 7.36                      |
| 19-Aug-98 | 1600 | 11.2                        | 9.75                      |
| 19-Aug-98 | 1700 | 10.6                        | 9.1                       |
| 19-Aug-98 | 1800 | 10.6                        | 9.18                      |
| 19-Aug-98 | 1900 | 10.6                        | 9.17                      |
| 19-Aug-98 | 2000 | 10.2                        | 8.86                      |
| 19-Aug-98 | 2100 | 11.5                        | 10.09                     |
| 19-Aug-98 | 2200 | 11.6                        | 10.19                     |
| 19-Aug-98 | 2300 | 11.4                        | 9.96                      |
| 19-Aug-98 | 2400 | 11.4                        | 10.03                     |
| 20-Aug-98 | 100  | 10.7                        | 9.22                      |
| 20-Aug-98 | 200  | 10.3                        | 8.85                      |
| 20-Aug-98 | 300  | 11                          | 9.56                      |
| 20-Aug-98 | 400  | 11.2                        | 9.8                       |
| 20-Aug-98 | 500  | 10.7                        | 9.27                      |
| 20-Aug-98 | 600  | 10.8                        | 9.35                      |
| 20-Aug-98 | 700  | 11.1                        | 9.64                      |
| 20-Aug-98 | 800  | 10.6                        | 9.23                      |
| 20-Aug-98 | 900  | 9.4                         | 8.1                       |
| 20-Aug-98 | 1000 | 11.1                        | 9.75                      |
| 20-Aug-98 | 1100 | 10.9                        | 9.48                      |
| 20-Aug-98 | 1200 | 9.8                         | 8.39                      |
| 20-Aug-98 | 1300 | 11.4                        | 9.95                      |
| 20-Aug-98 | 1400 | 11.2                        | 9.78                      |
| 20-Aug-98 | 1500 | 9.5                         | 8.01                      |
| 20-Aug-98 | 1600 | 10.7                        | 9.28                      |
| 20-Aug-98 | 1700 | 11.3                        | 9.88                      |
| 20-Aug-98 | 1800 | 11.4                        | 10.01                     |
| 20-Aug-98 | 1900 | 11.1                        | 9.74                      |
| 20-Aug-98 | 2000 | 11.2                        | 9.81                      |
| 20-Aug-98 | 2100 | 10.7                        | 9.28                      |
| 20-Aug-98 | 2200 | 11.8                        | 10.47                     |
| 20-Aug-98 | 2300 | 11.7                        | 10.34                     |
| 20-Aug-98 | 2400 | 10.4                        | 9.04                      |
| 21-Aug-98 | 100  | 11                          | 9.58                      |
| 21-Aug-98 | 200  | 10.3                        | 8.9                       |
| 21-Aug-98 | 300  | 11.7                        | 10.29                     |
| 21-Aug-98 | 400  | 11.8                        | 10.39                     |
| 21-Aug-98 | 500  | 11.7                        | 10.37                     |
| 21-Aug-98 | 600  | 11.8                        | 10.48                     |
| 21-Aug-98 | 700  | 11.4                        | 10.04                     |
| 21-Aug-98 | 800  | 11.3                        | 9.95                      |



## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 21-Aug-98 | 900  | 11                          | 9.64                      |
| 21-Aug-98 | 1000 | 11.9                        | 10.6                      |
| 21-Aug-98 | 1100 | 11.8                        | 10.53                     |
| 21-Aug-98 | 1200 | 12.1                        | 10.83                     |
| 21-Aug-98 | 1300 | 11.8                        | 10.47                     |
| 21-Aug-98 | 1400 | 11.8                        | 10.38                     |
| 21-Aug-98 | 1500 | 11.5                        | 10.13                     |
| 21-Aug-98 | 1600 | 11                          | 9.58                      |
| 21-Aug-98 | 1700 | 11.3                        | 9.9                       |
| 21-Aug-98 | 1800 | 10.5                        | 9.14                      |
| 21-Aug-98 | 1900 | 11.7                        | 10.38                     |
| 21-Aug-98 | 2000 | 12.1                        | 10.83                     |
| 21-Aug-98 | 2100 | 11.8                        | 10.47                     |
| 21-Aug-98 | 2200 | 10.2                        | 8.85                      |
| 21-Aug-98 | 2300 | 11                          | 9.64                      |
| 21-Aug-98 | 2400 | 10.2                        | 8.85                      |
| 22-Aug-98 | 100  | 11.1                        | 9.78                      |
| 22-Aug-98 | 200  | 11                          | 9.55                      |
| 22-Aug-98 | 300  | 11.4                        | 10                        |
| 22-Aug-98 | 400  | 11.9                        | 10.62                     |
| 22-Aug-98 | 500  | 11.7                        | 10.43                     |
| 22-Aug-98 | 600  | 11.9                        | 10.51                     |
| 22-Aug-98 | 700  | 11.6                        | 10.22                     |
| 22-Aug-98 | 800  | 11.9                        | 10.56                     |
| 22-Aug-98 | 900  | 11.8                        | 10.44                     |
| 22-Aug-98 | 1000 | 11.7                        | 10.38                     |
| 22-Aug-98 | 1100 | 10.6                        | 9.21                      |
| 22-Aug-98 | 1200 | 10.7                        | 9.35                      |
| 22-Aug-98 | 1300 | 11.7                        | 10.32                     |
| 22-Aug-98 | 1400 | 11.5                        | 10.14                     |
| 22-Aug-98 | 1500 | 11.3                        | 9.87                      |
| 22-Aug-98 | 1600 | 11.3                        | 9.89                      |
| 22-Aug-98 | 1700 | 12                          | 10.69                     |
| 22-Aug-98 | 1800 | 11.9                        | 10.59                     |
| 22-Aug-98 | 1900 | 11.5                        | 10.08                     |
| 22-Aug-98 | 2000 | 11.1                        | 9.67                      |
| 22-Aug-98 | 2100 | 11.6                        | 10.26                     |
| 22-Aug-98 | 2200 | 10.1                        | 8.7                       |
| 22-Aug-98 | 2300 | 10.3                        | 8.83                      |
| 22-Aug-98 | 2400 | 9.9                         | 8.44                      |
| 23-Aug-98 | 100  | 10.5                        | 9.04                      |
| 23-Aug-98 | 200  | 11.1                        | 9.63                      |
| 23-Aug-98 | 300  | 11.4                        | 9.99                      |
| 23-Aug-98 | 400  | 11.9                        | 10.55                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 23-Aug-98 | 500  | 12                          | 10.71                     |
| 23-Aug-98 | 600  | 11.7                        | 10.39                     |
| 23-Aug-98 | 700  | 11.4                        | 10.01                     |
| 23-Aug-98 | 800  | 11.6                        | 10.24                     |
| 23-Aug-98 | 900  | 11.1                        | 9.74                      |
| 23-Aug-98 | 1000 | 10.8                        | 9.48                      |
| 23-Aug-98 | 1100 | 11                          | 9.6                       |
| 23-Aug-98 | 1200 | 11.6                        | 10.26                     |
| 23-Aug-98 | 1300 | 11.9                        | 10.55                     |
| 23-Aug-98 | 1400 | 12.1                        | 10.77                     |
| 23-Aug-98 | 1500 | 11.9                        | 10.53                     |
| 23-Aug-98 | 1600 | 12                          | 10.64                     |
| 23-Aug-98 | 1700 | 11.3                        | 9.91                      |
| 23-Aug-98 | 1800 | 11.7                        | 10.32                     |
| 23-Aug-98 | 1900 | 11.1                        | 9.71                      |
| 23-Aug-98 | 2000 | 11.6                        | 10.24                     |
| 23-Aug-98 | 2100 | 11.5                        | 10.06                     |
| 23-Aug-98 | 2200 | 11.4                        | 10                        |
| 23-Aug-98 | 2300 | 11.8                        | 10.43                     |
| 23-Aug-98 | 2400 | 11.9                        | 10.52                     |
| 24-Aug-98 | 100  | 11.3                        | 9.91                      |
| 24-Aug-98 | 200  | 11.6                        | 10.18                     |
| 24-Aug-98 | 300  | 11.7                        | 10.36                     |
| 24-Aug-98 | 400  | 11.8                        | 10.5                      |
| 24-Aug-98 | 500  | 11.2                        | 9.84                      |
| 24-Aug-98 | 600  | 11                          | 9.64                      |
| 24-Aug-98 | 700  | 11.1                        | 9.68                      |
| 24-Aug-98 | 800  | 11                          | 9.62                      |
| 24-Aug-98 | 900  | 11.3                        | 9.91                      |
| 24-Aug-98 | 1000 | 11.1                        | 9.72                      |
| 24-Aug-98 | 1100 | 12                          | 10.75                     |
| 24-Aug-98 | 1200 | 11.8                        | 10.47                     |
| 24-Aug-98 | 1300 | 11.7                        | 10.38                     |
| 24-Aug-98 | 1400 | 11.9                        | 10.51                     |
| 24-Aug-98 | 1500 | 11.1                        | 9.74                      |
| 24-Aug-98 | 1600 | 9.9                         | 8.52                      |
| 24-Aug-98 | 1700 | 11.8                        | 10.42                     |
| 24-Aug-98 | 1800 | 11.5                        | 10.07                     |
| 24-Aug-98 | 1900 | 11.8                        | 10.42                     |
| 24-Aug-98 | 2000 | 10.4                        | 8.92                      |
| 24-Aug-98 | 2100 | 11.3                        | 9.83                      |
| 24-Aug-98 | 2200 | 11.5                        | 10                        |
| 24-Aug-98 | 2300 | 11                          | 9.53                      |
| 24-Aug-98 | 2400 | 11.7                        | 10.33                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 25-Aug-98 | 100  | 11.5                        | 10.14                     |
| 25-Aug-98 | 200  | 11.6                        | 10.19                     |
| 25-Aug-98 | 300  | 11.9                        | 10.54                     |
| 25-Aug-98 | 400  | 11.3                        | 9.91                      |
| 25-Aug-98 | 500  | 11.3                        | 9.92                      |
| 25-Aug-98 | 600  | 11.4                        | 10.03                     |
| 25-Aug-98 | 700  | 11.1                        | 9.88                      |
| 25-Aug-98 | 800  | 10.6                        | 9.27                      |
| 25-Aug-98 | 900  | 9.5                         | 8.18                      |
| 25-Aug-98 | 1000 | 11.3                        | 9.92                      |
| 25-Aug-98 | 1100 | 10.5                        | 9.07                      |
| 25-Aug-98 | 1200 | 11.6                        | 10.23                     |
| 25-Aug-98 | 1300 | 11.1                        | 9.71                      |
| 25-Aug-98 | 1400 | 11.9                        | 10.63                     |
| 25-Aug-98 | 1500 | 11.5                        | 10.24                     |
| 25-Aug-98 | 1600 | 11.5                        | 10.09                     |
| 25-Aug-98 | 1700 | 11.3                        | 9.94                      |
| 25-Aug-98 | 1800 | 11.3                        | 9.92                      |
| 25-Aug-98 | 1900 | 10.1                        | 8.79                      |
| 25-Aug-98 | 2000 | 10.8                        | 9.43                      |
| 25-Aug-98 | 2100 | 11.6                        | 10.26                     |
| 25-Aug-98 | 2200 | 11.9                        | 10.59                     |
| 25-Aug-98 | 2300 | 12                          | 10.67                     |
| 25-Aug-98 | 2400 | 11.8                        | 10.45                     |
| 26-Aug-98 | 100  | 11.6                        | 10.29                     |
| 26-Aug-98 | 200  | 11.5                        | 10.14                     |
| 26-Aug-98 | 300  | 11.7                        | 10.39                     |
| 26-Aug-98 | 400  | 11.4                        | 10.01                     |
| 26-Aug-98 | 500  | 11.9                        | 10.61                     |
| 26-Aug-98 | 600  | 11.4                        | 10.01                     |
| 26-Aug-98 | 700  | 11.9                        | 10.64                     |
| 26-Aug-98 | 800  | 11.9                        | 10.6                      |
| 26-Aug-98 | 900  | 11.9                        | 10.52                     |
| 26-Aug-98 | 1000 | 11.9                        | 10.52                     |
| 26-Aug-98 | 1100 | 11.4                        | 10.01                     |
| 26-Aug-98 | 1200 | 11.8                        | 10.38                     |
| 26-Aug-98 | 1300 | 11.9                        | 10.61                     |
| 26-Aug-98 | 1400 | 11.8                        | 10.48                     |
| 26-Aug-98 | 1500 | 11.7                        | 10.29                     |
| 26-Aug-98 | 1600 | 11.7                        | 10.3                      |
| 26-Aug-98 | 1700 | 11.6                        | 10.19                     |
| 26-Aug-98 | 1800 | 12                          | 10.62                     |
| 26-Aug-98 | 1900 | 11.6                        | 10.21                     |
| 26-Aug-98 | 2000 | 11.4                        | 9.96                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 26-Aug-98 | 2100 | 12                          | 10.63                     |
| 26-Aug-98 | 2200 | 11.9                        | 10.6                      |
| 26-Aug-98 | 2300 | 11.8                        | 10.56                     |
| 26-Aug-98 | 2400 | 12                          | 10.63                     |
| 27-Aug-98 | 100  | 11.7                        | 10.34                     |
| 27-Aug-98 | 200  | 11.9                        | 10.54                     |
| 27-Aug-98 | 300  | 11.9                        | 10.55                     |
| 27-Aug-98 | 400  | 11.7                        | 10.26                     |
| 27-Aug-98 | 500  | 11.4                        | 9.99                      |
| 27-Aug-98 | 600  | 11.9                        | 10.59                     |
| 27-Aug-98 | 700  | 11.5                        | 10.06                     |
| 27-Aug-98 | 800  | 10.7                        | 9.37                      |
| 27-Aug-98 | 900  | 10.3                        | 8.98                      |
| 27-Aug-98 | 1000 | 11.5                        | 10.1                      |
| 27-Aug-98 | 1100 | 11.3                        | 9.99                      |
| 27-Aug-98 | 1200 | 11.3                        | 9.82                      |
| 27-Aug-98 | 1300 | 11.5                        | 10.1                      |
| 27-Aug-98 | 1400 | 11.4                        | 9.92                      |
| 27-Aug-98 | 1500 | 11.9                        | 10.48                     |
| 27-Aug-98 | 1600 | 11.9                        | 10.57                     |
| 27-Aug-98 | 1700 | 11.6                        | 10.31                     |
| 27-Aug-98 | 1800 | 11.4                        | 10.06                     |
| 27-Aug-98 | 1900 | 11.4                        | 10.05                     |
| 27-Aug-98 | 2000 | 11.6                        | 10.32                     |
| 27-Aug-98 | 2100 | 11.6                        | 10.21                     |
| 27-Aug-98 | 2200 | 11.7                        | 10.37                     |
| 27-Aug-98 | 2300 | 11.4                        | 10.05                     |
| 27-Aug-98 | 2400 | 11                          | 9.59                      |
| 28-Aug-98 | 100  | 11.6                        | 10.21                     |
| 28-Aug-98 | 200  | 11.1                        | 9.68                      |
| 28-Aug-98 | 300  | 11.7                        | 10.35                     |
| 28-Aug-98 | 400  | 11.7                        | 10.37                     |
| 28-Aug-98 | 500  | 11.4                        | 10.06                     |
| 28-Aug-98 | 600  | 11.9                        | 10.6                      |
| 28-Aug-98 | 700  | 11.4                        | 10.11                     |
| 28-Aug-98 | 800  | 11.2                        | 9.92                      |
| 28-Aug-98 | 900  | 11.5                        | 10.17                     |
| 28-Aug-98 | 1000 | 11.4                        | 10.03                     |
| 28-Aug-98 | 1100 | 11.6                        | 10.31                     |
| 28-Aug-98 | 1200 | 11.4                        | 10.13                     |
| 28-Aug-98 | 1300 | 10.2                        | 8.89                      |
| 28-Aug-98 | 1400 | 11.4                        | 10.08                     |
| 28-Aug-98 | 1500 | 11.3                        | 9.84                      |
| 28-Aug-98 | 1600 | 11.2                        | 9.83                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 28-Aug-98 | 1700 | 11.3                        | 9.94                      |
| 28-Aug-98 | 1800 | 11.7                        | 10.32                     |
| 28-Aug-98 | 1900 | 11.7                        | 10.33                     |
| 28-Aug-98 | 2000 | 11.9                        | 10.59                     |
| 28-Aug-98 | 2100 | 11.8                        | 10.52                     |
| 28-Aug-98 | 2200 | 11.6                        | 10.33                     |
| 28-Aug-98 | 2300 | 11.6                        | 10.22                     |
| 28-Aug-98 | 2400 | 11.7                        | 10.42                     |
| 29-Aug-98 | 100  | 11.6                        | 10.27                     |
| 29-Aug-98 | 200  | 11.8                        | 10.43                     |
| 29-Aug-98 | 300  | 11.6                        | 10.27                     |
| 29-Aug-98 | 400  | 12                          | 10.65                     |
| 29-Aug-98 | 500  | 11.7                        | 10.44                     |
| 29-Aug-98 | 600  | 11.8                        | 10.28                     |
| 29-Aug-98 | 700  | 11.8                        | 10.47                     |
| 29-Aug-98 | 800  | 12                          | 10.76                     |
| 29-Aug-98 | 900  | 11.7                        | 10.49                     |
| 29-Aug-98 | 1000 | 11.4                        | 10.07                     |
| 29-Aug-98 | 1100 | 11.1                        | 9.74                      |
| 29-Aug-98 | 1200 | 10.2                        | 8.89                      |
| 29-Aug-98 | 1300 | 10.5                        | 9.12                      |
| 29-Aug-98 | 1400 | 9.9                         | 8.55                      |
| 29-Aug-98 | 1500 | 11.8                        | 10.43                     |
| 29-Aug-98 | 1600 | 11.9                        | 10.57                     |
| 29-Aug-98 | 1700 | 10.8                        | 9.46                      |
| 29-Aug-98 | 1800 | 10.1                        | 8.65                      |
| 29-Aug-98 | 1900 | 11.3                        | 9.88                      |
| 29-Aug-98 | 2000 | 11.4                        | 10.01                     |
| 29-Aug-98 | 2100 | 11.2                        | 9.89                      |
| 29-Aug-98 | 2200 | 11.1                        | 9.68                      |
| 29-Aug-98 | 2300 | 11.7                        | 10.31                     |
| 29-Aug-98 | 2400 | 11.4                        | 9.93                      |
| 30-Aug-98 | 100  | 11.5                        | 10.06                     |
| 30-Aug-98 | 200  | 11.1                        | 9.67                      |
| 30-Aug-98 | 300  | 10.7                        | 9.23                      |
| 30-Aug-98 | 400  | 10.7                        | 9.21                      |
| 30-Aug-98 | 500  | 11.2                        | 9.78                      |
| 30-Aug-98 | 600  | 10.6                        | 9.26                      |
| 30-Aug-98 | 700  | 11.1                        | 9.7                       |
| 30-Aug-98 | 800  | 11.8                        | 10.4                      |
| 30-Aug-98 | 900  | 11.4                        | 10                        |
| 30-Aug-98 | 1000 | 11.6                        | 10.18                     |
| 30-Aug-98 | 1100 | 10.6                        | 9.13                      |
| 30-Aug-98 | 1200 | 11.3                        | 9.95                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 30-Aug-98 | 1300 | 11.6                        | 10.3                      |
| 30-Aug-98 | 1400 | 11.6                        | 10.25                     |
| 30-Aug-98 | 1500 | 10.7                        | 9.3                       |
| 30-Aug-98 | 1600 | 10.8                        | 9.42                      |
| 30-Aug-98 | 1700 | 11.3                        | 9.84                      |
| 30-Aug-98 | 1800 | 10.2                        | 8.79                      |
| 30-Aug-98 | 1900 | 10.4                        | 8.99                      |
| 30-Aug-98 | 2000 | 10.9                        | 9.58                      |
| 30-Aug-98 | 2100 | 11.6                        | 10.22                     |
| 30-Aug-98 | 2200 | 11.1                        | 9.72                      |
| 30-Aug-98 | 2300 | 10.5                        | 9.04                      |
| 30-Aug-98 | 2400 | 11.2                        | 9.81                      |
| 31-Aug-98 | 100  | 11.9                        | 10.46                     |
| 31-Aug-98 | 200  | 11.1                        | 9.81                      |
| 31-Aug-98 | 300  | 10.2                        | 8.93                      |
| 31-Aug-98 | 400  | 10.7                        | 9.36                      |
| 31-Aug-98 | 500  | 11.8                        | 10.48                     |
| 31-Aug-98 | 600  | 10.7                        | 9.39                      |
| 31-Aug-98 | 700  | 11.7                        | 10.33                     |
| 31-Aug-98 | 800  | 10.6                        | 9.26                      |
| 31-Aug-98 | 900  | 11.7                        | 10.38                     |
| 31-Aug-98 | 1000 | 11.3                        | 9.96                      |
| 31-Aug-98 | 1100 | 11.1                        | 9.68                      |
| 31-Aug-98 | 1200 | 10.3                        | 8.96                      |
| 31-Aug-98 | 1300 | 11.2                        | 9.89                      |
| 31-Aug-98 | 1400 | 10.8                        | 9.48                      |
| 31-Aug-98 | 1500 | 10.4                        | 9.01                      |
| 31-Aug-98 | 1600 | 11.1                        | 9.69                      |
| 31-Aug-98 | 1700 | 11                          | 9.63                      |
| 31-Aug-98 | 1800 | 11.5                        | 10.14                     |
| 31-Aug-98 | 1900 | 11.4                        | 10.08                     |
| 31-Aug-98 | 2000 | 11.1                        | 9.72                      |
| 31-Aug-98 | 2100 | 10.9                        | 9.61                      |
| 31-Aug-98 | 2200 | 11.6                        | 10.4                      |
| 31-Aug-98 | 2300 | 11.1                        | 9.78                      |
| 31-Aug-98 | 2400 | 11.3                        | 10.06                     |
| 01-Sep-98 | 100  | 11.8                        | 10.54                     |
| 01-Sep-98 | 200  | 11.5                        | 10.17                     |
| 01-Sep-98 | 300  | 11.3                        | 9.94                      |
| 01-Sep-98 | 400  | 11.6                        | 10.26                     |
| 01-Sep-98 | 500  | 11.5                        | 10.13                     |
| 01-Sep-98 | 600  | 11.9                        | 10.53                     |
| 01-Sep-98 | 700  | 11.5                        | 10.14                     |
| 01-Sep-98 | 800  | 11                          | 9.65                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MV/H) | Net Electric Output (MWH) |
|-----------|------|------------------------------|---------------------------|
| 01-Sep-98 | 900  | 9.9                          | 8.66                      |
| 01-Sep-98 | 1000 | 11.1                         | 9.85                      |
| 01-Sep-98 | 1100 | 11.4                         | 10.09                     |
| 01-Sep-98 | 1200 | 10.6                         | 9.32                      |
| 01-Sep-98 | 1300 | 11.8                         | 10.51                     |
| 01-Sep-98 | 1400 | 11.7                         | 10.35                     |
| 01-Sep-98 | 1500 | 11.5                         | 10.17                     |
| 01-Sep-98 | 1600 | 10.4                         | 9.07                      |
| 01-Sep-98 | 1700 | 11.1                         | 9.73                      |
| 01-Sep-98 | 1800 | 10.4                         | 9.1                       |
| 01-Sep-98 | 1900 | 10.1                         | 8.76                      |
| 01-Sep-98 | 2000 | 9.9                          | 8.52                      |
| 01-Sep-98 | 2100 | 11.8                         | 10.49                     |
| 01-Sep-98 | 2200 | 11.2                         | 9.86                      |
| 01-Sep-98 | 2300 | 12.2                         | 10.96                     |
| 01-Sep-98 | 2400 | 11.6                         | 10.4                      |
| 02-Sep-98 | 100  | 10.6                         | 9.3                       |
| 02-Sep-98 | 200  | 11.7                         | 10.47                     |
| 02-Sep-98 | 300  | 11.2                         | 9.91                      |
| 02-Sep-98 | 400  | 11.3                         | 9.96                      |
| 02-Sep-98 | 500  | 11.2                         | 9.85                      |
| 02-Sep-98 | 600  | 0                            | 0                         |
| 02-Sep-98 | 700  | 0                            | 0                         |
| 02-Sep-98 | 800  | 0                            | 0                         |
| 02-Sep-98 | 900  | 0                            | 0                         |
| 02-Sep-98 | 1000 | 0                            | 0                         |
| 02-Sep-98 | 1100 | 4.1                          | 2.92                      |
| 02-Sep-98 | 1200 | 4.5                          | 3.37                      |
| 02-Sep-98 | 1300 | 4.8                          | 3.6                       |
| 02-Sep-98 | 1400 | 4.7                          | 3.53                      |
| 02-Sep-98 | 1500 | 4.7                          | 3.53                      |
| 02-Sep-98 | 1600 | 4.5                          | 3.31                      |
| 02-Sep-98 | 1700 | 4.4                          | 3.33                      |
| 02-Sep-98 | 1800 | 4.6                          | 3.54                      |
| 02-Sep-98 | 1900 | 4.5                          | 3.37                      |
| 02-Sep-98 | 2000 | 4.4                          | 3.26                      |
| 02-Sep-98 | 2100 | 4.4                          | 3.24                      |
| 02-Sep-98 | 2200 | 4.5                          | 3.45                      |
| 02-Sep-98 | 2300 | 4.4                          | 3.41                      |
| 02-Sep-98 | 2400 | 4.4                          | 3.36                      |
| 03-Sep-98 | 100  | 4.6                          | 3.58                      |
| 03-Sep-98 | 200  | 4.4                          | 3.35                      |
| 03-Sep-98 | 300  | 4.7                          | 3.66                      |
| 03-Sep-98 | 400  | 4.7                          | 3.7                       |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 03-Sep-98 | 500  | 4.7                         | 3.71                      |
| 03-Sep-98 | 600  | 4.5                         | 3.54                      |
| 03-Sep-98 | 700  | 4.3                         | 3.33                      |
| 03-Sep-98 | 800  | 4.5                         | 3.48                      |
| 03-Sep-98 | 900  | 4.3                         | 3.22                      |
| 03-Sep-98 | 1000 | 4.6                         | 3.5                       |
| 03-Sep-98 | 1100 | 4.3                         | 3.21                      |
| 03-Sep-98 | 1200 | 4.1                         | 3.03                      |
| 03-Sep-98 | 1300 | 8.7                         | 7.49                      |
| 03-Sep-98 | 1400 | 11                          | 9.69                      |
| 03-Sep-98 | 1500 | 8                           | 6.61                      |
| 03-Sep-98 | 1600 | 8.1                         | 6.59                      |
| 03-Sep-98 | 1700 | 9.6                         | 8.15                      |
| 03-Sep-98 | 1800 | 10.3                        | 8.85                      |
| 03-Sep-98 | 1900 | 9.8                         | 8.31                      |
| 03-Sep-98 | 2000 | 11.6                        | 10.18                     |
| 03-Sep-98 | 2100 | 11.7                        | 10.46                     |
| 03-Sep-98 | 2200 | 11.4                        | 10.13                     |
| 03-Sep-98 | 2300 | 11.2                        | 9.9                       |
| 03-Sep-98 | 2400 | 11.7                        | 10.38                     |
| 04-Sep-98 | 100  | 11.5                        | 10.21                     |
| 04-Sep-98 | 200  | 11.7                        | 10.32                     |
| 04-Sep-98 | 300  | 11.2                        | 9.82                      |
| 04-Sep-98 | 400  | 11.4                        | 10.01                     |
| 04-Sep-98 | 500  | 11.3                        | 10.02                     |
| 04-Sep-98 | 600  | 10.2                        | 8.76                      |
| 04-Sep-98 | 700  | 10.8                        | 9.53                      |
| 04-Sep-98 | 800  | 9.8                         | 8.44                      |
| 04-Sep-98 | 900  | 9.2                         | 7.82                      |
| 04-Sep-98 | 1000 | 9.9                         | 8.48                      |
| 04-Sep-98 | 1100 | 11.2                        | 9.81                      |
| 04-Sep-98 | 1200 | 11.6                        | 10.18                     |
| 04-Sep-98 | 1300 | 10.4                        | 8.9                       |
| 04-Sep-98 | 1400 | 9.7                         | 8.19                      |
| 04-Sep-98 | 1500 | 10.7                        | 9.21                      |
| 04-Sep-98 | 1600 | 11                          | 9.47                      |
| 04-Sep-98 | 1700 | 9.8                         | 8.32                      |
| 04-Sep-98 | 1800 | 9.7                         | 8.18                      |
| 04-Sep-98 | 1900 | 10.5                        | 8.97                      |
| 04-Sep-98 | 2000 | 10                          | 8.51                      |
| 04-Sep-98 | 2100 | 9.4                         | 7.96                      |
| 04-Sep-98 | 2200 | 10.9                        | 9.44                      |
| 04-Sep-98 | 2300 | 11.3                        | 9.88                      |
| 04-Sep-98 | 2400 | 11.3                        | 9.91                      |



## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 05-Sep-98 | 100  | 11.5                        | 10.09                     |
| 05-Sep-98 | 200  | 10.4                        | 9.56                      |
| 05-Sep-98 | 300  | 10.9                        | 9.56                      |
| 05-Sep-98 | 400  | 11.3                        | 10.02                     |
| 05-Sep-98 | 500  | 10.8                        | 9.44                      |
| 05-Sep-98 | 600  | 10.6                        | 9.19                      |
| 05-Sep-98 | 700  | 10.9                        | 9.4                       |
| 05-Sep-98 | 800  | 10.1                        | 8.65                      |
| 05-Sep-98 | 900  | 9.4                         | 7.89                      |
| 05-Sep-98 | 1000 | 11.3                        | 9.79                      |
| 05-Sep-98 | 1100 | 10.7                        | 9.2                       |
| 05-Sep-98 | 1200 | 10                          | 8.45                      |
| 05-Sep-98 | 1300 | 9.9                         | 8.4                       |
| 05-Sep-98 | 1400 | 9.7                         | 8.17                      |
| 05-Sep-98 | 1500 | 11.5                        | 10.03                     |
| 05-Sep-98 | 1600 | 12                          | 10.67                     |
| 05-Sep-98 | 1700 | 11.4                        | 10.05                     |
| 05-Sep-98 | 1800 | 11.6                        | 10.23                     |
| 05-Sep-98 | 1900 | 11.7                        | 10.34                     |
| 05-Sep-98 | 2000 | 11.3                        | 9.9                       |
| 05-Sep-98 | 2100 | 11.1                        | 9.71                      |
| 05-Sep-98 | 2200 | 9.4                         | 7.96                      |
| 05-Sep-98 | 2300 | 10.7                        | 9.29                      |
| 05-Sep-98 | 2400 | 10.3                        | 8.79                      |
| 06-Sep-98 | 100  | 9.3                         | 7.84                      |
| 06-Sep-98 | 200  | 11.4                        | 9.93                      |
| 06-Sep-98 | 300  | 10                          | 8.55                      |
| 06-Sep-98 | 400  | 10.2                        | 8.7                       |
| 06-Sep-98 | 500  | 10.8                        | 9.36                      |
| 06-Sep-98 | 600  | 11.2                        | 9.81                      |
| 06-Sep-98 | 700  | 10.9                        | 9.49                      |
| 06-Sep-98 | 800  | 11.6                        | 10.13                     |
| 06-Sep-98 | 900  | 10.1                        | 8.69                      |
| 06-Sep-98 | 1000 | 11.1                        | 9.66                      |
| 06-Sep-98 | 1100 | 11.1                        | 9.68                      |
| 06-Sep-98 | 1200 | 11.7                        | 10.3                      |
| 06-Sep-98 | 1300 | 10.4                        | 8.91                      |
| 06-Sep-98 | 1400 | 11.1                        | 9.57                      |
| 06-Sep-98 | 1500 | 11.6                        | 10.23                     |
| 06-Sep-98 | 1600 | 11.8                        | 10.47                     |
| 06-Sep-98 | 1700 | 11.4                        | 10                        |
| 06-Sep-98 | 1800 | 12                          | 10.67                     |
| 06-Sep-98 | 1900 | 11.5                        | 10.12                     |
| 06-Sep-98 | 2000 | 11.7                        | 10.21                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 06-Sep-98 | 2100 | 11.9                        | 10.5                      |
| 06-Sep-98 | 2200 | 11.7                        | 10.41                     |
| 06-Sep-98 | 2300 | 11.8                        | 10.48                     |
| 06-Sep-98 | 2400 | 11                          | 9.62                      |
| 07-Sep-98 | 100  | 11.4                        | 9.99                      |
| 07-Sep-98 | 200  | 11.6                        | 10.21                     |
| 07-Sep-98 | 300  | 11.1                        | 9.71                      |
| 07-Sep-98 | 400  | 11                          | 9.61                      |
| 07-Sep-98 | 500  | 11.3                        | 9.91                      |
| 07-Sep-98 | 600  | 12                          | 10.67                     |
| 07-Sep-98 | 700  | 12.1                        | 10.89                     |
| 07-Sep-98 | 800  | 11.9                        | 10.56                     |
| 07-Sep-98 | 900  | 11.7                        | 10.33                     |
| 07-Sep-98 | 1000 | 11.9                        | 10.51                     |
| 07-Sep-98 | 1100 | 10.2                        | 8.87                      |
| 07-Sep-98 | 1200 | 11.2                        | 9.83                      |
| 07-Sep-98 | 1300 | 11.3                        | 9.86                      |
| 07-Sep-98 | 1400 | 12.1                        | 10.65                     |
| 07-Sep-98 | 1500 | 11.6                        | 10.22                     |
| 07-Sep-98 | 1600 | 12                          | 10.53                     |
| 07-Sep-98 | 1700 | 12.2                        | 10.79                     |
| 07-Sep-98 | 1800 | 11.7                        | 10.34                     |
| 07-Sep-98 | 1900 | 11.2                        | 9.72                      |
| 07-Sep-98 | 2000 | 11.6                        | 10.14                     |
| 07-Sep-98 | 2100 | 12.6                        | 11.24                     |
| 07-Sep-98 | 2200 | 12                          | 10.7                      |
| 07-Sep-98 | 2300 | 11.9                        | 10.54                     |
| 07-Sep-98 | 2400 | 11.9                        | 10.48                     |
| 08-Sep-98 | 100  | 11.8                        | 10.44                     |
| 08-Sep-98 | 200  | 11.2                        | 9.83                      |
| 08-Sep-98 | 300  | 10.4                        | 8.97                      |
| 08-Sep-98 | 400  | 10.1                        | 8.68                      |
| 08-Sep-98 | 500  | 11.1                        | 9.72                      |
| 08-Sep-98 | 600  | 11.5                        | 10.15                     |
| 08-Sep-98 | 700  | 11                          | 9.53                      |
| 08-Sep-98 | 800  | 11.7                        | 10.26                     |
| 08-Sep-98 | 900  | 11.7                        | 10.23                     |
| 08-Sep-98 | 1000 | 10.3                        | 8.85                      |
| 08-Sep-98 | 1100 | 11.1                        | 9.71                      |
| 08-Sep-98 | 1200 | 11.5                        | 10.13                     |
| 08-Sep-98 | 1300 | 10.4                        | 8.92                      |
| 08-Sep-98 | 1400 | 11.9                        | 10.52                     |
| 08-Sep-98 | 1500 | 11                          | 9.6                       |
| 08-Sep-98 | 1600 | 10.4                        | 8.96                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 08-Sep-98 | 1700 | 9.8                         | 8.42                      |
| 08-Sep-98 | 1800 | 12.1                        | 10.81                     |
| 08-Sep-98 | 1900 | 10.6                        | 9.25                      |
| 08-Sep-98 | 2000 | 9.8                         | 8.42                      |
| 08-Sep-98 | 2100 | 9.7                         | 8.27                      |
| 08-Sep-98 | 2200 | 10.4                        | 8.99                      |
| 08-Sep-98 | 2300 | 10.3                        | 8.86                      |
| 08-Sep-98 | 2400 | 10.2                        | 8.74                      |
| 09-Sep-98 | 100  | 10.7                        | 9.22                      |
| 09-Sep-98 | 200  | 9.7                         | 8.22                      |
| 09-Sep-98 | 300  | 10.5                        | 9.07                      |
| 09-Sep-98 | 400  | 10.8                        | 9.39                      |
| 09-Sep-98 | 500  | 9.7                         | 8.29                      |
| 09-Sep-98 | 600  | 9.8                         | 8.11                      |
| 09-Sep-98 | 700  | 10.8                        | 9.41                      |
| 09-Sep-98 | 800  | 10                          | 8.58                      |
| 09-Sep-98 | 900  | 11                          | 9.65                      |
| 09-Sep-98 | 1000 | 12.2                        | 10.82                     |
| 09-Sep-98 | 1100 | 11.1                        | 9.72                      |
| 09-Sep-98 | 1200 | 11.5                        | 10.17                     |
| 09-Sep-98 | 1300 | 9.8                         | 8.35                      |
| 09-Sep-98 | 1400 | 11                          | 9.51                      |
| 09-Sep-98 | 1500 | 11.9                        | 10.37                     |
| 09-Sep-98 | 1600 | 10.4                        | 8.93                      |
| 09-Sep-98 | 1700 | 12.2                        | 10.81                     |
| 09-Sep-98 | 1800 | 11.6                        | 10.31                     |
| 09-Sep-98 | 1900 | 11.6                        | 10.31                     |
| 09-Sep-98 | 2000 | 11.4                        | 10.04                     |
| 09-Sep-98 | 2100 | 11.2                        | 9.76                      |
| 09-Sep-98 | 2200 | 11.3                        | 9.83                      |
| 09-Sep-98 | 2300 | 10.5                        | 9.03                      |
| 09-Sep-98 | 2400 | 10.8                        | 9.36                      |
| 10-Sep-98 | 100  | 11.3                        | 9.88                      |
| 10-Sep-98 | 200  | 11.1                        | 9.64                      |
| 10-Sep-98 | 300  | 10.9                        | 9.47                      |
| 10-Sep-98 | 400  | 10                          | 8.51                      |
| 10-Sep-98 | 500  | 11.1                        | 9.63                      |
| 10-Sep-98 | 600  | 11.6                        | 10.16                     |
| 10-Sep-98 | 700  | 10.6                        | 9.13                      |
| 10-Sep-98 | 800  | 9.5                         | 8.19                      |
| 10-Sep-98 | 900  | 10.8                        | 9.48                      |
| 10-Sep-98 | 1000 | 10.6                        | 9.21                      |
| 10-Sep-98 | 1100 | 10.6                        | 9.28                      |
| 10-Sep-98 | 1200 | 10.9                        | 9.52                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 10-Sep-98 | 1300 | 11.4                        | 10.02                     |
| 10-Sep-98 | 1400 | 11.2                        | 9.82                      |
| 10-Sep-98 | 1500 | 11.1                        | 9.76                      |
| 10-Sep-98 | 1600 | 11.9                        | 10.56                     |
| 10-Sep-98 | 1700 | 11.6                        | 10.19                     |
| 10-Sep-98 | 1800 | 12.3                        | 10.96                     |
| 10-Sep-98 | 1900 | 11.5                        | 10.22                     |
| 10-Sep-98 | 2000 | 12                          | 10.63                     |
| 10-Sep-98 | 2100 | 11.6                        | 10.2                      |
| 10-Sep-98 | 2200 | 12                          | 10.55                     |
| 10-Sep-98 | 2300 | 12.1                        | 10.72                     |
| 10-Sep-98 | 2400 | 11.8                        | 10.39                     |
| 11-Sep-98 | 100  | 12                          | 10.59                     |
| 11-Sep-98 | 200  | 11.4                        | 9.95                      |
| 11-Sep-98 | 300  | 11.9                        | 10.46                     |
| 11-Sep-98 | 400  | 11.7                        | 10.3                      |
| 11-Sep-98 | 500  | 11.1                        | 9.76                      |
| 11-Sep-98 | 600  | 11.4                        | 9.97                      |
| 11-Sep-98 | 700  | 11                          | 9.62                      |
| 11-Sep-98 | 800  | 11.9                        | 10.55                     |
| 11-Sep-98 | 900  | 9.5                         | 8.12                      |
| 11-Sep-98 | 1000 | 12                          | 10.65                     |
| 11-Sep-98 | 1100 | 10.3                        | 8.9                       |
| 11-Sep-98 | 1200 | 11.8                        | 10.42                     |
| 11-Sep-98 | 1300 | 11                          | 9.58                      |
| 11-Sep-98 | 1400 | 12.2                        | 10.83                     |
| 11-Sep-98 | 1500 | 11.2                        | 9.77                      |
| 11-Sep-98 | 1600 | 11.8                        | 10.35                     |
| 11-Sep-98 | 1700 | 11.5                        | 10.18                     |
| 11-Sep-98 | 1800 | 11.4                        | 10.03                     |
| 11-Sep-98 | 1900 | 11.5                        | 10.13                     |
| 11-Sep-98 | 2000 | 12                          | 10.63                     |
| 11-Sep-98 | 2100 | 11.7                        | 10.36                     |
| 11-Sep-98 | 2200 | 12                          | 10.77                     |
| 11-Sep-98 | 2300 | 11.3                        | 9.93                      |
| 11-Sep-98 | 2400 | 11.4                        | 10.04                     |
| 12-Sep-98 | 100  | 11.9                        | 10.6                      |
| 12-Sep-98 | 200  | 11.3                        | 9.9                       |
| 12-Sep-98 | 300  | 11.1                        | 9.75                      |
| 12-Sep-98 | 400  | 11.3                        | 9.93                      |
| 12-Sep-98 | 500  | 11.3                        | 9.86                      |
| 12-Sep-98 | 600  | 11.8                        | 10.42                     |
| 12-Sep-98 | 700  | 11.5                        | 10.06                     |
| 12-Sep-98 | 800  | 11.6                        | 10.15                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 12-Sep-98 | 900  | 11.5                        | 10.1                      |
| 12-Sep-98 | 1000 | 10.3                        | 8.93                      |
| 12-Sep-98 | 1100 | 9.1                         | 7.73                      |
| 12-Sep-98 | 1200 | 8.8                         | 7.29                      |
| 12-Sep-98 | 1300 | 11                          | 9.58                      |
| 12-Sep-98 | 1400 | 8.3                         | 6.86                      |
| 12-Sep-98 | 1500 | 6.7                         | 5.17                      |
| 12-Sep-98 | 1600 | 8.1                         | 6.48                      |
| 12-Sep-98 | 1700 | 11.4                        | 9.78                      |
| 12-Sep-98 | 1800 | 11.7                        | 10.26                     |
| 12-Sep-98 | 1900 | 11.9                        | 10.51                     |
| 12-Sep-98 | 2000 | 11.8                        | 10.37                     |
| 12-Sep-98 | 2100 | 8.5                         | 7.03                      |
| 12-Sep-98 | 2200 | 11                          | 9.57                      |
| 12-Sep-98 | 2300 | 11.7                        | 10.36                     |
| 12-Sep-98 | 2400 | 11.4                        | 9.98                      |
| 13-Sep-98 | 100  | 11.1                        | 9.77                      |
| 13-Sep-98 | 200  | 10.9                        | 9.51                      |
| 13-Sep-98 | 300  | 12                          | 10.68                     |
| 13-Sep-98 | 400  | 11.7                        | 10.31                     |
| 13-Sep-98 | 500  | 12.1                        | 10.74                     |
| 13-Sep-98 | 600  | 12.3                        | 10.85                     |
| 13-Sep-98 | 700  | 11.7                        | 10.28                     |
| 13-Sep-98 | 800  | 10.4                        | 8.98                      |
| 13-Sep-98 | 900  | 11.4                        | 10                        |
| 13-Sep-98 | 1000 | 11.7                        | 10.36                     |
| 13-Sep-98 | 1100 | 11.4                        | 10                        |
| 13-Sep-98 | 1200 | 11.6                        | 10.2                      |
| 13-Sep-98 | 1300 | 10.8                        | 9.39                      |
| 13-Sep-98 | 1400 | 10.7                        | 9.32                      |
| 13-Sep-98 | 1500 | 11.5                        | 10.14                     |
| 13-Sep-98 | 1600 | 11.1                        | 9.69                      |
| 13-Sep-98 | 1700 | 10.7                        | 9.31                      |
| 13-Sep-98 | 1800 | 11.7                        | 10.33                     |
| 13-Sep-98 | 1900 | 10.5                        | 9.1                       |
| 13-Sep-98 | 2000 | 9.2                         | 7.89                      |
| 13-Sep-98 | 2100 | 11.1                        | 9.76                      |
| 13-Sep-98 | 2200 | 11.3                        | 10.03                     |
| 13-Sep-98 | 2300 | 10.2                        | 8.96                      |
| 13-Sep-98 | 2400 | 10.9                        | 9.59                      |
| 14-Sep-98 | 100  | 11.3                        | 9.96                      |
| 14-Sep-98 | 200  | 11.5                        | 10.23                     |
| 14-Sep-98 | 300  | 11.8                        | 10.49                     |
| 14-Sep-98 | 400  | 11.5                        | 10.19                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 14-Sep-98 | 500  | 11.3                        | 10.03                     |
| 14-Sep-98 | 600  | 9.8                         | 8.49                      |
| 14-Sep-98 | 700  | 9.4                         | 8.13                      |
| 14-Sep-98 | 800  | 9.3                         | 7.63                      |
| 14-Sep-98 | 900  | 10.5                        | 9.1                       |
| 14-Sep-98 | 1000 | 10.5                        | 9.1                       |
| 14-Sep-98 | 1100 | 10.8                        | 9.52                      |
| 14-Sep-98 | 1200 | 11.1                        | 9.71                      |
| 14-Sep-98 | 1300 | 10                          | 8.59                      |
| 14-Sep-98 | 1400 | 11.4                        | 9.99                      |
| 14-Sep-98 | 1500 | 11.3                        | 9.89                      |
| 14-Sep-98 | 1600 | 11                          | 9.64                      |
| 14-Sep-98 | 1700 | 11.4                        | 10.01                     |
| 14-Sep-98 | 1800 | 11                          | 9.64                      |
| 14-Sep-98 | 1900 | 11.4                        | 10                        |
| 14-Sep-98 | 2000 | 10.8                        | 9.48                      |
| 14-Sep-98 | 2100 | 11.2                        | 9.94                      |
| 14-Sep-98 | 2200 | 11.9                        | 10.72                     |
| 14-Sep-98 | 2300 | 11.1                        | 9.83                      |
| 14-Sep-98 | 2400 | 11.3                        | 9.93                      |
| 15-Sep-98 | 100  | 11.2                        | 9.92                      |
| 15-Sep-98 | 200  | 11.2                        | 9.85                      |
| 15-Sep-98 | 300  | 11.6                        | 10.2                      |
| 15-Sep-98 | 400  | 11.3                        | 10.09                     |
| 15-Sep-98 | 500  | 10.6                        | 9.27                      |
| 15-Sep-98 | 600  | 11.2                        | 9.91                      |
| 15-Sep-98 | 700  | 11.2                        | 9.91                      |
| 15-Sep-98 | 800  | 11.1                        | 9.85                      |
| 15-Sep-98 | 900  | 10.4                        | 8.89                      |
| 15-Sep-98 | 1000 | 10.3                        | 8.88                      |
| 15-Sep-98 | 1100 | 11.3                        | 10.05                     |
| 15-Sep-98 | 1200 | 11.3                        | 9.93                      |
| 15-Sep-98 | 1300 | 9.7                         | 8.37                      |
| 15-Sep-98 | 1400 | 11.3                        | 9.85                      |
| 15-Sep-98 | 1500 | 11.4                        | 9.95                      |
| 15-Sep-98 | 1600 | 11.8                        | 10.41                     |
| 15-Sep-98 | 1700 | 11.8                        | 10.49                     |
| 15-Sep-98 | 1800 | 11.8                        | 10.51                     |
| 15-Sep-98 | 1900 | 11.7                        | 10.37                     |
| 15-Sep-98 | 2000 | 10.8                        | 9.52                      |
| 15-Sep-98 | 2100 | 11.6                        | 10.3                      |
| 15-Sep-98 | 2200 | 11.6                        | 10.3                      |
| 15-Sep-98 | 2300 | 11.6                        | 10.26                     |
| 15-Sep-98 | 2400 | 11.8                        | 10.46                     |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 16-Sep-98 | 100  | 11.8                        | 10.53                     |
| 16-Sep-98 | 200  | 11.5                        | 10.2                      |
| 16-Sep-98 | 300  | 11.3                        | 9.94                      |
| 16-Sep-98 | 400  | 10.8                        | 9.47                      |
| 16-Sep-98 | 500  | 11                          | 9.62                      |
| 16-Sep-98 | 600  | 11.3                        | 9.97                      |
| 16-Sep-98 | 700  | 11.5                        | 10.14                     |
| 16-Sep-98 | 800  | 9.9                         | 8.52                      |
| 16-Sep-98 | 900  | 11.3                        | 9.88                      |
| 16-Sep-98 | 1000 | 10.5                        | 9.11                      |
| 16-Sep-98 | 1100 | 11.3                        | 9.87                      |
| 16-Sep-98 | 1200 | 10.9                        | 9.46                      |
| 16-Sep-98 | 1300 | 10.9                        | 9.55                      |
| 16-Sep-98 | 1400 | 11.3                        | 9.9                       |
| 16-Sep-98 | 1500 | 11                          | 9.61                      |
| 16-Sep-98 | 1600 | 10.9                        | 9.45                      |
| 16-Sep-98 | 1700 | 11.1                        | 9.63                      |
| 16-Sep-98 | 1800 | 10.9                        | 9.47                      |
| 16-Sep-98 | 1900 | 10.7                        | 9.27                      |
| 16-Sep-98 | 2000 | 8.8                         | 7.44                      |
| 16-Sep-98 | 2100 | 11                          | 9.62                      |
| 16-Sep-98 | 2200 | 9.8                         | 8.42                      |
| 16-Sep-98 | 2300 | 10.2                        | 8.86                      |
| 16-Sep-98 | 2400 | 10.3                        | 8.93                      |
| 17-Sep-98 | 100  | 9.7                         | 8.29                      |
| 17-Sep-98 | 200  | 9.6                         | 8.22                      |
| 17-Sep-98 | 300  | 9.9                         | 8.45                      |
| 17-Sep-98 | 400  | 10.3                        | 8.85                      |
| 17-Sep-98 | 500  | 10.5                        | 9.14                      |
| 17-Sep-98 | 600  | 10.8                        | 9.49                      |
| 17-Sep-98 | 700  | 10.8                        | 9.5                       |
| 17-Sep-98 | 800  | 10.4                        | 8.96                      |
| 17-Sep-98 | 900  | 6.6                         | 5.2                       |
| 17-Sep-98 | 1000 | 5.3                         | 3.96                      |
| 17-Sep-98 | 1100 | 5.2                         | 3.88                      |
| 17-Sep-98 | 1200 | 4.4                         | 3.15                      |
| 17-Sep-98 | 1300 | 4.8                         | 3.47                      |
| 17-Sep-98 | 1400 | 4.9                         | 3.64                      |
| 17-Sep-98 | 1500 | 4.4                         | 3.24                      |
| 17-Sep-98 | 1600 | 5.5                         | 4.36                      |
| 17-Sep-98 | 1700 | 5                           | 3.85                      |
| 17-Sep-98 | 1800 | 5.1                         | 3.94                      |
| 17-Sep-98 | 1900 | 5.2                         | 4.02                      |
| 17-Sep-98 | 2000 | 5                           | 3.81                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 17-Sep-98 | 2100 | 4.4                         | 3.07                      |
| 17-Sep-98 | 2200 | 4.4                         | 3.08                      |
| 17-Sep-98 | 2300 | 4.5                         | 3.21                      |
| 17-Sep-98 | 2400 | 4.1                         | 2.86                      |
| 18-Sep-98 | 100  | 5                           | 3.7                       |
| 18-Sep-98 | 200  | 9                           | 7.46                      |
| 18-Sep-98 | 300  | 9.9                         | 8.38                      |
| 18-Sep-98 | 400  | 5.5                         | 4.08                      |
| 18-Sep-98 | 500  | 5.3                         | 4.02                      |
| 18-Sep-98 | 600  | 5.8                         | 4.46                      |
| 18-Sep-98 | 700  | 5.1                         | 3.81                      |
| 18-Sep-98 | 800  | 5.2                         | 3.93                      |
| 18-Sep-98 | 900  | 5                           | 3.79                      |
| 18-Sep-98 | 1000 | 5.2                         | 3.94                      |
| 18-Sep-98 | 1100 | 5.8                         | 4.56                      |
| 18-Sep-98 | 1200 | 5.5                         | 4.29                      |
| 18-Sep-98 | 1300 | 4.7                         | 3.43                      |
| 18-Sep-98 | 1400 | 4.8                         | 3.55                      |
| 18-Sep-98 | 1500 | 5.1                         | 3.91                      |
| 18-Sep-98 | 1600 | 4.9                         | 3.7                       |
| 18-Sep-98 | 1700 | 5.3                         | 4.07                      |
| 18-Sep-98 | 1800 | 5.3                         | 4.06                      |
| 18-Sep-98 | 1900 | 5.1                         | 3.8                       |
| 18-Sep-98 | 2000 | 5.3                         | 4.06                      |
| 18-Sep-98 | 2100 | 5.3                         | 4.06                      |
| 18-Sep-98 | 2200 | 5.8                         | 4.56                      |
| 18-Sep-98 | 2300 | 5.3                         | 4.03                      |
| 18-Sep-98 | 2400 | 4.7                         | 3.43                      |
| 19-Sep-98 | 100  | 4.9                         | 3.61                      |
| 19-Sep-98 | 200  | 4.8                         | 3.52                      |
| 19-Sep-98 | 300  | 4.7                         | 3.42                      |
| 19-Sep-98 | 400  | 9.4                         | 8.06                      |
| 19-Sep-98 | 500  | 11.5                        | 10.19                     |
| 19-Sep-98 | 600  | 10.6                        | 9.23                      |
| 19-Sep-98 | 700  | 11.1                        | 9.78                      |
| 19-Sep-98 | 800  | 10.6                        | 9.2                       |
| 19-Sep-98 | 900  | 10.5                        | 9.14                      |
| 19-Sep-98 | 1000 | 9.7                         | 8.27                      |
| 19-Sep-98 | 1100 | 9                           | 7.61                      |
| 19-Sep-98 | 1200 | 10.6                        | 9.12                      |
| 19-Sep-98 | 1300 | 11.1                        | 9.67                      |
| 19-Sep-98 | 1400 | 11.7                        | 10.35                     |
| 19-Sep-98 | 1500 | 11.3                        | 9.93                      |
| 19-Sep-98 | 1600 | 11.8                        | 10.41                     |



## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 19-Sep-98 | 1700 | 11.9                        | 10.5                      |
| 19-Sep-98 | 1800 | 11.5                        | 10.14                     |
| 19-Sep-98 | 1900 | 11.8                        | 10.42                     |
| 19-Sep-98 | 2000 | 11.5                        | 10.15                     |
| 19-Sep-98 | 2100 | 11.2                        | 9.82                      |
| 19-Sep-98 | 2200 | 11.5                        | 10.07                     |
| 19-Sep-98 | 2300 | 10.3                        | 8.85                      |
| 19-Sep-98 | 2400 | 10.6                        | 9.17                      |
| 20-Sep-98 | 100  | 11.3                        | 9.87                      |
| 20-Sep-98 | 200  | 10.9                        | 9.51                      |
| 20-Sep-98 | 300  | 11.4                        | 10.03                     |
| 20-Sep-98 | 400  | 11.7                        | 10.31                     |
| 20-Sep-98 | 500  | 12                          | 10.57                     |
| 20-Sep-98 | 600  | 12.1                        | 10.76                     |
| 20-Sep-98 | 700  | 11.3                        | 10.03                     |
| 20-Sep-98 | 800  | 12                          | 10.66                     |
| 20-Sep-98 | 900  | 11.9                        | 10.61                     |
| 20-Sep-98 | 1000 | 11.6                        | 10.23                     |
| 20-Sep-98 | 1100 | 12                          | 10.66                     |
| 20-Sep-98 | 1200 | 11.9                        | 10.6                      |
| 20-Sep-98 | 1300 | 11.6                        | 10.3                      |
| 20-Sep-98 | 1400 | 11.8                        | 10.48                     |
| 20-Sep-98 | 1500 | 11.5                        | 10.1                      |
| 20-Sep-98 | 1600 | 11                          | 9.64                      |
| 20-Sep-98 | 1700 | 11.2                        | 9.73                      |
| 20-Sep-98 | 1800 | 11.1                        | 9.72                      |
| 20-Sep-98 | 1900 | 11.4                        | 10.04                     |
| 20-Sep-98 | 2000 | 11.4                        | 9.98                      |
| 20-Sep-98 | 2100 | 11.2                        | 9.84                      |
| 20-Sep-98 | 2200 | 10.7                        | 9.32                      |
| 20-Sep-98 | 2300 | 9.9                         | 8.48                      |
| 20-Sep-98 | 2400 | 8.9                         | 7.52                      |
| 21-Sep-98 | 100  | 9.1                         | 7.71                      |
| 21-Sep-98 | 200  | 11.5                        | 10.15                     |
| 21-Sep-98 | 300  | 11.2                        | 9.8                       |
| 21-Sep-98 | 400  | 11.7                        | 10.27                     |
| 21-Sep-98 | 500  | 11.6                        | 10.24                     |
| 21-Sep-98 | 600  | 11.7                        | 10.3                      |
| 21-Sep-98 | 700  | 11.3                        | 9.91                      |
| 21-Sep-98 | 800  | 11                          | 9.67                      |
| 21-Sep-98 | 900  | 11.4                        | 10.06                     |
| 21-Sep-98 | 1000 | 11.4                        | 10.07                     |
| 21-Sep-98 | 1100 | 11.2                        | 9.86                      |
| 21-Sep-98 | 1200 | 10.9                        | 9.5                       |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 21-Sep-98 | 1300 | 10.8                        | 9.54                      |
| 21-Sep-98 | 1400 | 11                          | 9.76                      |
| 21-Sep-98 | 1500 | 10.9                        | 9.59                      |
| 21-Sep-98 | 1600 | 9.8                         | 8.47                      |
| 21-Sep-98 | 1700 | 10.6                        | 9.27                      |
| 21-Sep-98 | 1800 | 11.1                        | 9.78                      |
| 21-Sep-98 | 1900 | 11.2                        | 9.9                       |
| 21-Sep-98 | 2000 | 11.3                        | 10.07                     |
| 21-Sep-98 | 2100 | 10.9                        | 9.62                      |
| 21-Sep-98 | 2200 | 11                          | 9.64                      |
| 21-Sep-98 | 2300 | 11.1                        | 9.81                      |
| 21-Sep-98 | 2400 | 11                          | 9.64                      |
| 22-Sep-98 | 100  | 11.23                       | 9.94                      |
| 22-Sep-98 | 200  | 11.1                        | 9.73                      |
| 22-Sep-98 | 300  | 11                          | 9.68                      |
| 22-Sep-98 | 400  | 11.1                        | 9.77                      |
| 22-Sep-98 | 500  | 11.1                        | 9.77                      |
| 22-Sep-98 | 600  | 11                          | 9.62                      |
| 22-Sep-98 | 700  | 11.2                        | 9.84                      |
| 22-Sep-98 | 800  | 11.1                        | 9.79                      |
| 22-Sep-98 | 900  | 9.2                         | 7.9                       |
| 22-Sep-98 | 1000 | 9.2                         | 7.92                      |
| 22-Sep-98 | 1100 | 11.1                        | 9.81                      |
| 22-Sep-98 | 1200 | 11                          | 9.74                      |
| 22-Sep-98 | 1300 | 10.9                        | 9.62                      |
| 22-Sep-98 | 1400 | 10.8                        | 9.54                      |
| 22-Sep-98 | 1500 | 10.3                        | 9.03                      |
| 22-Sep-98 | 1600 | 11                          | 9.67                      |
| 22-Sep-98 | 1700 | 10.9                        | 9.68                      |
| 22-Sep-98 | 1800 | 11                          | 9.73                      |
| 22-Sep-98 | 1900 | 11.1                        | 9.76                      |
| 22-Sep-98 | 2000 | 10.6                        | 9.28                      |
| 22-Sep-98 | 2100 | 11.1                        | 9.75                      |
| 22-Sep-98 | 2200 | 11.2                        | 9.79                      |
| 22-Sep-98 | 2300 | 11.1                        | 9.84                      |
| 22-Sep-98 | 2400 | 11.2                        | 9.93                      |
| 23-Sep-98 | 100  | 11                          | 9.75                      |
| 23-Sep-98 | 200  | 10.7                        | 9.33                      |
| 23-Sep-98 | 300  | 11.3                        | 10.05                     |
| 23-Sep-98 | 400  | 11.1                        | 9.82                      |
| 23-Sep-98 | 500  | 10.9                        | 9.61                      |
| 23-Sep-98 | 600  | 11.1                        | 9.81                      |
| 23-Sep-98 | 700  | 11                          | 9.78                      |
| 23-Sep-98 | 800  | 10.8                        | 9.58                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 23-Sep-98 | 900  | 11                          | 9.71                      |
| 23-Sep-98 | 1000 | 11.1                        | 9.9                       |
| 23-Sep-98 | 1100 | 11.1                        | 9.8                       |
| 23-Sep-98 | 1200 | 10.7                        | 9.44                      |
| 23-Sep-98 | 1300 | 11                          | 9.65                      |
| 23-Sep-98 | 1400 | 11.2                        | 9.88                      |
| 23-Sep-98 | 1500 | 11.3                        | 9.98                      |
| 23-Sep-98 | 1600 | 10.9                        | 9.58                      |
| 23-Sep-98 | 1700 | 10.8                        | 9.52                      |
| 23-Sep-98 | 1800 | 11.3                        | 10.02                     |
| 23-Sep-98 | 1900 | 11.1                        | 9.77                      |
| 23-Sep-98 | 2000 | 11.1                        | 9.71                      |
| 23-Sep-98 | 2100 | 10.5                        | 9.16                      |
| 23-Sep-98 | 2200 | 10.5                        | 9.11                      |
| 23-Sep-98 | 2300 | 10.9                        | 9.55                      |
| 23-Sep-98 | 2400 | 11.4                        | 10.11                     |
| 24-Sep-98 | 100  | 11.2                        | 9.92                      |
| 24-Sep-98 | 200  | 11.3                        | 9.95                      |
| 24-Sep-98 | 300  | 10.9                        | 9.53                      |
| 24-Sep-98 | 400  | 10.9                        | 9.48                      |
| 24-Sep-98 | 500  | 10.8                        | 9.44                      |
| 24-Sep-98 | 600  | 10.8                        | 9.45                      |
| 24-Sep-98 | 700  | 10.9                        | 9.5                       |
| 24-Sep-98 | 800  | 10.7                        | 9.33                      |
| 24-Sep-98 | 900  | 10.9                        | 9.55                      |
| 24-Sep-98 | 1000 | 10.4                        | 9.07                      |
| 24-Sep-98 | 1100 | 10.5                        | 9.05                      |
| 24-Sep-98 | 1200 | 10.8                        | 9.32                      |
| 24-Sep-98 | 1300 | 10                          | 8.58                      |
| 24-Sep-98 | 1400 | 9.2                         | 7.75                      |
| 24-Sep-98 | 1500 | 10.8                        | 9.42                      |
| 24-Sep-98 | 1600 | 10.6                        | 9.22                      |
| 24-Sep-98 | 1700 | 10.3                        | 8.91                      |
| 24-Sep-98 | 1800 | 10.1                        | 8.68                      |
| 24-Sep-98 | 1900 | 10                          | 8.58                      |
| 24-Sep-98 | 2000 | 10.9                        | 9.49                      |
| 24-Sep-98 | 2100 | 10.6                        | 9.27                      |
| 24-Sep-98 | 2200 | 11.2                        | 9.85                      |
| 24-Sep-98 | 2300 | 10.2                        | 8.82                      |
| 24-Sep-98 | 2400 | 11.3                        | 10.02                     |
| 25-Sep-98 | 100  | 11.4                        | 10.07                     |
| 25-Sep-98 | 200  | 11.4                        | 10.09                     |
| 25-Sep-98 | 300  | 10.7                        | 9.32                      |
| 25-Sep-98 | 400  | 11.2                        | 9.84                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 25-Sep-98 | 500  | 10.9                        | 9.51                      |
| 25-Sep-98 | 600  | 11.3                        | 9.94                      |
| 25-Sep-98 | 700  | 11.3                        | 9.94                      |
| 25-Sep-98 | 800  | 10.6                        | 9.3                       |
| 25-Sep-98 | 900  | 11.2                        | 9.93                      |
| 25-Sep-98 | 1000 | 10.1                        | 8.8                       |
| 25-Sep-98 | 1100 | 8.7                         | 7.38                      |
| 25-Sep-98 | 1200 | 9.7                         | 8.35                      |
| 25-Sep-98 | 1300 | 10.5                        | 9.22                      |
| 25-Sep-98 | 1400 | 8.3                         | 6.89                      |
| 25-Sep-98 | 1500 | 10.5                        | 9.14                      |
| 25-Sep-98 | 1600 | 10.6                        | 9.23                      |
| 25-Sep-98 | 1700 | 9.4                         | 8.01                      |
| 25-Sep-98 | 1800 | 10                          | 8.64                      |
| 25-Sep-98 | 1900 | 9.4                         | 8.04                      |
| 25-Sep-98 | 2000 | 10.4                        | 9                         |
| 25-Sep-98 | 2100 | 11.2                        | 9.87                      |
| 25-Sep-98 | 2200 | 11.2                        | 9.81                      |
| 25-Sep-98 | 2300 | 11                          | 9.65                      |
| 25-Sep-98 | 2400 | 11.2                        | 9.87                      |
| 26-Sep-98 | 100  | 11.2                        | 9.88                      |
| 26-Sep-98 | 200  | 11                          | 9.59                      |
| 26-Sep-98 | 300  | 10                          | 8.59                      |
| 26-Sep-98 | 400  | 10.6                        | 9.21                      |
| 26-Sep-98 | 500  | 10.9                        | 9.6                       |
| 26-Sep-98 | 600  | 10.2                        | 8.82                      |
| 26-Sep-98 | 700  | 11                          | 9.6                       |
| 26-Sep-98 | 800  | 10.9                        | 9.5                       |
| 26-Sep-98 | 900  | 11.3                        | 10.03                     |
| 26-Sep-98 | 1000 | 10.8                        | 9.51                      |
| 26-Sep-98 | 1100 | 9.9                         | 8.41                      |
| 26-Sep-98 | 1200 | 10.8                        | 9.36                      |
| 26-Sep-98 | 1300 | 10.6                        | 9.3                       |
| 26-Sep-98 | 1400 | 10.5                        | 9.07                      |
| 26-Sep-98 | 1500 | 9.2                         | 7.82                      |
| 26-Sep-98 | 1600 | 9.9                         | 8.45                      |
| 26-Sep-98 | 1700 | 10.7                        | 9.35                      |
| 26-Sep-98 | 1800 | 10.7                        | 9.34                      |
| 26-Sep-98 | 1900 | 10.6                        | 9.17                      |
| 26-Sep-98 | 2000 | 10.9                        | 9.53                      |
| 26-Sep-98 | 2100 | 10.1                        | 8.72                      |
| 26-Sep-98 | 2200 | 11.1                        | 9.73                      |
| 26-Sep-98 | 2300 | 11.2                        | 9.91                      |
| 26-Sep-98 | 2400 | 11.2                        | 9.85                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 27-Sep-98 | 100  | 10.8                        | 9.41                      |
| 27-Sep-98 | 200  | 11.3                        | 10.02                     |
| 27-Sep-98 | 300  | 11.1                        | 9.83                      |
| 27-Sep-98 | 400  | 11.2                        | 9.9                       |
| 27-Sep-98 | 500  | 11.1                        | 9.79                      |
| 27-Sep-98 | 600  | 11                          | 9.75                      |
| 27-Sep-98 | 700  | 10.8                        | 9.55                      |
| 27-Sep-98 | 800  | 10.9                        | 9.59                      |
| 27-Sep-98 | 900  | 10.3                        | 8.95                      |
| 27-Sep-98 | 1000 | 11                          | 9.74                      |
| 27-Sep-98 | 1100 | 10                          | 8.64                      |
| 27-Sep-98 | 1200 | 10.2                        | 8.84                      |
| 27-Sep-98 | 1300 | 11                          | 9.62                      |
| 27-Sep-98 | 1400 | 10.1                        | 8.71                      |
| 27-Sep-98 | 1500 | 10.5                        | 9.06                      |
| 27-Sep-98 | 1600 | 10.7                        | 9.33                      |
| 27-Sep-98 | 1700 | 10.9                        | 9.55                      |
| 27-Sep-98 | 1800 | 11.1                        | 9.72                      |
| 27-Sep-98 | 1900 | 9.6                         | 8.21                      |
| 27-Sep-98 | 2000 | 9.1                         | 7.7                       |
| 27-Sep-98 | 2100 | 10.5                        | 9.14                      |
| 27-Sep-98 | 2200 | 9.8                         | 8.41                      |
| 27-Sep-98 | 2300 | 10.3                        | 8.97                      |
| 27-Sep-98 | 2400 | 10.3                        | 9.02                      |
| 28-Sep-98 | 100  | 10.4                        | 8.97                      |
| 28-Sep-98 | 200  | 10.7                        | 9.3                       |
| 28-Sep-98 | 300  | 10.2                        | 8.84                      |
| 28-Sep-98 | 400  | 9.4                         | 8.04                      |
| 28-Sep-98 | 500  | 10.4                        | 9.11                      |
| 28-Sep-98 | 600  | 10.7                        | 9.29                      |
| 28-Sep-98 | 700  | 10.5                        | 9.26                      |
| 28-Sep-98 | 800  | 10.6                        | 9.33                      |
| 28-Sep-98 | 900  | 10.5                        | 9.1                       |
| 28-Sep-98 | 1000 | 10.5                        | 9.24                      |
| 28-Sep-98 | 1100 | 9                           | 7.72                      |
| 28-Sep-98 | 1200 | 10.7                        | 9.35                      |
| 28-Sep-98 | 1300 | 10.5                        | 9.21                      |
| 28-Sep-98 | 1400 | 10.7                        | 9.42                      |
| 28-Sep-98 | 1500 | 10.4                        | 9                         |
| 28-Sep-98 | 1600 | 11.1                        | 9.82                      |
| 28-Sep-98 | 1700 | 10.3                        | 8.99                      |
| 28-Sep-98 | 1800 | 10.8                        | 9.5                       |
| 28-Sep-98 | 1900 | 10.8                        | 9.5                       |
| 28-Sep-98 | 2000 | 9.1                         | 7.77                      |

## Bay County Energy Systems, Inc.

### Net Electric Generation - 1 hour Average

| Date      | Time | Gross Electric Output (MWH) | Net Electric Output (MWH) |
|-----------|------|-----------------------------|---------------------------|
| 28-Sep-98 | 2100 | 9.6                         | 8.18                      |
| 28-Sep-98 | 2200 | 10.6                        | 9.27                      |
| 28-Sep-98 | 2300 | 10.6                        | 9.16                      |
| 28-Sep-98 | 2400 | 10.4                        | 8.95                      |
| 29-Sep-98 | 100  | 10.8                        | 9.32                      |
| 29-Sep-98 | 200  | 10.5                        | 9.02                      |
| 29-Sep-98 | 300  | 10.6                        | 9.18                      |
| 29-Sep-98 | 400  | 10.9                        | 9.52                      |
| 29-Sep-98 | 500  | 10.8                        | 9.41                      |
| 29-Sep-98 | 600  | 10.7                        | 9.21                      |
| 29-Sep-98 | 700  | 9.9                         | 8.46                      |
| 29-Sep-98 | 800  | 9.3                         | 7.87                      |
| 29-Sep-98 | 900  | 10.2                        | 8.74                      |
| 29-Sep-98 | 1000 | 10.6                        | 9.29                      |
| 29-Sep-98 | 1100 | 10                          | 8.57                      |
| 29-Sep-98 | 1200 | 9.6                         | 8.18                      |
| 29-Sep-98 | 1300 | 10.1                        | 8.77                      |
| 29-Sep-98 | 1400 | 10.6                        | 9.19                      |
| 29-Sep-98 | 1500 | 11.3                        | 10.07                     |
| 29-Sep-98 | 1600 | 10.5                        | 9.15                      |
| 29-Sep-98 | 1700 | 10.4                        | 9.07                      |
| 29-Sep-98 | 1800 | 10.6                        | 9.27                      |
| 29-Sep-98 | 1900 | 9.6                         | 8.2                       |
| 29-Sep-98 | 2000 | 9.5                         | 8.18                      |
| 29-Sep-98 | 2100 | 10.4                        | 8.98                      |
| 29-Sep-98 | 2200 | 9.8                         | 8.46                      |
| 29-Sep-98 | 2300 | 10.6                        | 9.21                      |
| 29-Sep-98 | 2400 | 10.4                        | 9.05                      |
| 30-Sep-98 | 100  | 11                          | 9.63                      |
| 30-Sep-98 | 200  | 11.3                        | 10.03                     |
| 30-Sep-98 | 300  | 10.6                        | 9.24                      |
| 30-Sep-98 | 400  | 11.1                        | 9.85                      |
| 30-Sep-98 | 500  | 11                          | 9.66                      |
| 30-Sep-98 | 600  | 10.9                        | 9.58                      |

ATTACHMENT 3

**Bay County Energy Systems, Inc.**

**Tonnage Received - Reported Per month**

|      |           |        |
|------|-----------|--------|
| 1997 | October   | 9,575  |
| 1997 | November  | 14,195 |
| 1997 | December  | 16,097 |
| 1998 | January   | 15,406 |
| 1998 | February  | 13,999 |
| 1998 | March     | 16,805 |
| 1998 | April     | 15,386 |
| 1998 | May       | 15,398 |
| 1998 | June      | 16,617 |
| 1998 | July      | 18,020 |
| 1998 | August    | 16,627 |
| 1998 | September | 16,041 |

**One Year Total 184,166**

**Daily Average 504.6**

**Note: Please refer to text discussion concerning processing rates.**

ATTACHMENT 4**THE HOWDEN FAN COMPANY**

110 Broadway (14203)  
P.O. Box 985  
Buffalo, NY 14240-0985  
Telephone (716) 847-5121

A Howden Group Corporation



Mr. Dale McKeand  
Bay County Energy Systems, Inc.  
6510 Bay Line Drive  
Panama City, FL 32404

Subject: Reduced FD Fan Capacity for Bay County Energy Systems, Inc. Facility

The Customer (Resource Energy Systems Division of Westinghouse Electric Company) proposed to make a physical modification to the facility to reduce the flow capacity of the forced draft (FD) fans to a level commensurate with a "derated" plant capacity. Each existing FD fan is an American Davidson #2451-1A turbo blower, with a normal full load flow rate of 22,280 scfm. The Customer performed a mass and energy balance for the "derated" facility which indicated that the normal full load flow rate of the fan would need to be reduced to 21,120 scfm.

I work for Howden Buffalo of The Howden Fan Company, which owns what was American Davidson (who manufactured the existing FD fans). I was consulted as to what would be the best way to physically reduce each FD fan full load flow rate to to the "derated" 21,120 cfm. After performing the necessary engineering analyses, I recommended the following (please refer to the wheel sketch shown in Attachment 1):


The fan wheel should be changed out from the existing "A" blade arrangement to a "C" blade arrangement. The only dimensional change of letters A through G would be to the dimension marked C. The existing C dimension is 50.75", while the smaller replacement wheel C dimension would be only 49.38". The same dimension blades would be used, and they would be tilted further to hold the same inner radius and yet reduce the outer radius (C dimension) of the replacement wheel. Changing the wheel out to this new geometry would reduce the FD fan normal full load point to 21,120 cfm, while maintaining the machine efficiency and keeping the same fan casing.



Per your request, I am providing the following data comparing each FD fan operating with the existing fan wheel at the current normal full load rate to operating with the new fan wheel running at the "derated" normal full load flow rate.

|  | CFM    | RPM  | Static Pressure<br>(" W.G.) | Dynamic Pressure<br>(" W.G.) |
|--|--------|------|-----------------------------|------------------------------|
| Existing FD Fan Wheel<br>Running at Existing<br>Normal Full Load | 22,280 | 1404 | 14.25                       | 16.37                        |
| New FD Fan Wheel<br>Running at Derated<br>Normal Full Load       | 21,120 | 1404 | 12.80                       | 14.64                        |

Regards,

  
Kipp Crickard  
Howden Buffalo  
The Howden Fan Company

OCT. 1, 1998



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY.  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

To: Larry  
cc: Clair  
Howard  
10/27

OCT 19 1998

4APT-ARB

Mr. Howard L. Rhodes, Director  
Department of Environmental Protection  
Division of Air Resources Management  
Mail Station 5500  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

SUEJ: Bay County Resource Recovery Facility

Dear Mr. Rhodes:

This correspondence is in response to a submittal, dated July 21, 1998, from Bay County Energy Systems to Mr. Michael Hewett of your staff (see Enclosure). Bay County is requesting approval of a proposal to derate the municipal waste combustor (MWC) units at their existing resource recovery facility (RRF). The two existing MWC units at the Bay County RRF each have a capacity of 255 tons per day of municipal solid waste (MSW). Determination of the approvability of this derating proposal is based on the federal MWC rules (40 C.F.R. Part 60, Subparts Cb and Eb) and the State of Florida Clean Air Act (CAA) section 111(d)/129 plan for existing MWC facilities with a MWC unit capacity greater than 250 tons per day of MSW.

Under the federal regulations (§60.58b(j)), MWC unit capacity for the purposes of calculating whether MWC plants are subject to the large or small unit standards is the maximum charging rate of the MWC expressed in tons per day of MSW combusted. For combustors that are designed based on heat capacity, the maximum charging rate is calculated based on the maximum design heat input capacity of the unit and a heating value of 10,500 kilojoules per kilogram of waste fired (approximately 4500 British thermal units per pound (Btu/lb)). The Bay County RRF is presently subject to the requirements of the Florida plan for large MWC combustor units (capacity greater than 250 tons per day of MSW). If the derating proposal is approved, the Bay County RRF would no longer be subject to the Florida plan, but would be subject to upcoming federal regulations for small MWC units (capacity of 250 tons per day or less of MSW) and the corresponding State of Florida CAA section 111(d)/129 plan for existing small MWC units.

Specific criteria concerning derating are outlined in the Federal Register notice proposing the MWC federal plan requirements (see January 23, 1998, page 3518, section IV.F). According to Environmental Protection Agency (EPA) policy, derating means a permanent change that physically reduces the capacity of the MWC unit to 250 tons per day or less of MSW. Derating cannot be accomplished through a permit provision, but must be the result of a permanent physical restriction. The owner or operator that plans to derate an MWC unit must derate the unit on the same schedule and increments that the MWC unit would have had to follow if it were to retrofit to meet the requirements of the emission guidelines and state plan. The remaining option in this circumstance would be for the facility to shut down and attempt to restart operations in the future in compliance with the emission guideline requirements.

Presently, the Bay County RRF is subject to the State of Florida CAA section 111(d)/129 plan for implementing the emission guidelines for large MWC units. Bay County is proposing to derate the capacity of each of their two MWC units from 255 tons per day to 249 tons per day of MSW. As referenced in Section 4.0 of the enclosure, the physical modification proposed for these units would be to change the forced draft fans to reduce the full load flue gas flow rate and thus the steam flow. Bay County proposes to monitor compliance with the permit capacity limit by averaging each unit's steam flow over a seven day block averaging period, with no one hour to exceed 110% of the full load steam flow. Bay County has submitted a schedule which provides for the installation and operation of the plant at the derated capacity at a time seventeen weeks after approval of their proposal. The present existing and proposed derated capacities were submitted as shown:

| <u>Capacity:</u>                     | <u>Existing</u> | <u>Derated</u> |
|--------------------------------------|-----------------|----------------|
| Combustion Air Flow Rate (scfm)      | 22,800          | 21,120         |
| Steam Flow (lb/hr)                   | 68,000          | 66,400         |
| Tons per Day of MSW (at 4500 Btu/lb) | 255             | 249            |

EPA Region 4 is coordinating our review of this proposal with the EPA Office of Air Quality Planning and Standards and the Office of Enforcement and Compliance Assurance. Based on our review and discussions concerning the derating proposal, EPA has determined that in order to be approvable the following additional information must be submitted by Bay County:

1. A baseline for existing operations at Bay County RRF must be established. Operating data for (at least) the most recent 90 days of operation must be provided. This includes:

- Steam flow rate (pounds of steam per hour, hourly average)
- Highest one hour peak to mean ratio for steam flow
- Electrical output (kilowatts per hour)
- MSW combustion rates (in tons per day fired, as fired basis; how this is monitored)

2. Bay County needs to provide a letter from the vendor of the forced draft fan that verifies the operating characteristics of the fan as presented in Section 4.0 of the July 21, 1998, correspondence to Florida DEP (at present and after the derating modification). Bay County and the vendor should provide the rpm and static and dynamic pressures of the fan at the conditions before derating and at the derated level.
3. Bay County needs to certify in writing that measurement of the hourly steam flow rate at full load will be conducted both prior to and after the derating, with the opportunity provided for a Florida DEP and/or EPA observer to be present. Bay County needs to certify that the facility will not operate at an hourly load level greater than 110% of the maximum demonstrated MWC unit load after derating (as calculated:  $66,400 \text{ lb/hr} \times 1.1 = 73,040 \text{ lb/hr}$ ). Bay County needs to certify that after completion of the derating, the steam flow rate will be monitored in accordance with §60.58b(i)(6), calculated in 4-hour block arithmetic averaging periods, and the monitoring data will be maintained for periodic inspections by Florida DEP and/or EPA.

Submittal of this additional information must be completed before Region 4 can make a final determination on the derating proposal.

In addition, as a point of information, we are noting the fact that the Bay County RRF is seeking approval to derate to a unit capacity of 249 tons per day for each MWC unit, just one ton below the large unit threshold of 250 tons per day. MWC units with a capacity greater than 250 tons per day of MSW remain subject to the compliance requirements of the State of Florida CAA section 111(d)/129 plan (and the federal emission guidelines). Bay County chose to request the unit capacity level of 249 tons per day in their proposal, rather than a more substantial derate. If the Bay County RRF exceeds the threshold steam output level corresponding to 250 tons per day, any approval for derating will be revoked and the facility will be required to be in compliance with the previously applicable federal and state MWC requirements for large MWC units.

Thank you for the opportunity to assist you in this determination. If you have any questions or comments, please contact Mr. Scott Davis of my staff at (404) 562-9127.

Sincerely,



R. Douglas Neeley  
Chief

Air & Radiation Technology Branch  
Air, Pesticides and Toxics  
Management Division

Enclosure

cc: James M. Leddy, Plant Manager  
Bay County RRF  
Jonathan Binder, OECA  
Walt Stevenson, OAQPS



BAY COUNTY ENERGY SYSTEMS, INC.

6510 Bay Line Drive  
Panama City, Florida 32404  
(850) 785-7933  
(850) 784-1779 Fax

BCES/DEP-98-134

July 21, 1998

**RECEIVED**

JUL 22 1998

AIR AND RADIATION TECHNOLOGY BRANCH  
EPA - REGION 4  
ATLANTA, GA

Mr. Mike Hewett  
Division of Air Resources  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blairstone Road  
Tallahassee, Florida 32399

SUBJECT: DERATING REQUEST  
BAY COUNTY RESOURCE RECOVERY FACILITY

Dear Mr. Hewett:

As has been previously discussed and reviewed with your office, please accept this notification as the formal request of Bay County Energy Systems, Inc. (BCESI), as operator of the Bay County Resource Recovery Facility (BCRRF), to derate the two Municipal Waste Combustion (MWC) units at that facility to a level of operation below 250 tons-per-day capacity of each MWC unit. This document details the proposed physical modification that would reduce present capacity of each MWC unit.

We are making this request with the understanding that all parties involved in the ownership and operation of the BCRRF are approving of this action. However, formal documentation detailing these approvals has not yet been concluded. It is our further understanding that upon initial acceptance by your Agency of this request, a formal submittal of operating permit modification will be required. All necessary documentation and participant approvals will be obtained prior to making this next submittal.

Concurrently, BCESI has initiated the activities necessary to meet the milestones required to be in compliance with the Clean Air Act as a large plant by November 13, 2000. While these actions seem to be contradictory to our intent to derate, it was felt that they are necessary to remain in compliance with federal and state standards. Continuing to proceed down this path of action, however, will soon require substantial expenditure for the County. It would, therefore, be beneficial to know of your acceptance of this request and specific compliance data as soon as possible.

The financial structure of ownership and operation of the BCRRF necessitates numerous parties to be consulted and individual concerns to be addressed. The commercial issues are myriad and complex. Your patience and understanding and that of the Department as we have gone through this exercise is very much appreciated.

## 1.0 Introduction

The Bay County Regional Resource Recovery Facility (BCRRF) located in Panama City, Florida, consists of two independent municipal waste combustion (MWC) units, each currently rated at 255 tons-per-day of municipal solid waste (MSW) at 4500 Btu/lb waste. Each MWC unit has a separate flue contained in a common stack. The current air pollution control equipment consists of an electrostatic precipitator for particulate removal and good combustion practices for control of carbon monoxide and nitrogen oxide emissions.

The BCRRF is operated by Bay County Energy Systems, Inc. (BCESI) and services the five surrounding counties. Bay County owns the land that the facility is located on, leases the facility and, in accordance with the Solid Waste Disposal Service Agreement, provides the waste for combustion. The current air permit (A003-165754 and 55) was issued to BCESI on April 13, 1990, and expired on April 1, 1995. This permit has been extended by the Florida Department of Environmental Protection (FLDEP) pending issuance of a Title V Permit to Operate. On June 7, 1996, BCESI submitted its initial Title V Permit Application.

The U.S. Environmental Protection Agency (EPA) promulgated Emission Guidelines that apply to existing MWC units on December 19, 1995 (40 CFR 60 Subpart Cb). The status of the rules were held in question due to a law suit filed against EPA. On April 8, 1997, the United States Court of Appeals for the District of Columbia Circuit vacated subparts Cb and Eb as they apply to MWC units with the capacity to combust less than or equal to 250 tons per day of municipal solid waste (MSW), and all cement kilns combusting MSW, consistent with their opinion in Davis County Solid Waste Management and Recovery District v. EPA, 101 F.3d 1395 (D.C. Cir. 1996), as amended, 108 F.3d 1454 (D.C. Cir. 1997). As a result, subparts Cb and Eb apply only to MWC units with the capacity to combust more than 250 tons per day of MSW per unit (referred to as large MWC units). The Florida Department of Environmental Protection (FLDEP) has developed a state plan to implement these guidelines which was approved by EPA on November 13, 1997.

The BCRRF is proposing to make a physical modification to both MWC units to derate the units to 249 TPD (at 4500 Btu/lb reference waste). The physical modification would be to change the forced draft fan to reduce the full load flue gas flow rate and thus the steam flow rate. This document provides the technical rationale for this modification and derating.

## 2.0 Facility Description

The BCRRF uses two Westinghouse O'Connor water-walled rotary combustor and boiler trains to mass burn municipal solid wastes (MSW). Heat generated from the combustion of waste produces steam to drive a turbine that generates approximately 11.5 MW of electricity. Each water-walled combustor/boiler system is designed to burn 255 tons of municipal solid waste (MSW) with a higher heating value of 4500 Btu/lb per day or a mixture of MSW and wood waste.

The plant consists of two combustor/boiler units, a turbine generator, two truck scales, scale house, a tipping floor, front-end loaders, two conveyor systems to charge MSW and/or wood waste into the combustor, electrostatic precipitators, ash handling system, a stack, a control room, and all required ancillary equipment. The facility also has administration offices, change rooms, parking areas, roadways, and security fencing.

Waste to be processed is delivered to the facility and unloaded on the tipping floor. Front-end loaders are used to move the waste onto conveyors which transport the waste into the combustor feed chute. The waste is then combusted in the rotary combustor.

A forced draft (FD) fan is utilized to supply combustion air to the process and transport the hot gases produced in the combustion process through the boiler system. The heat released from the combustion process is recovered as the hot gases flow from the combustor barrel through the boiler's radiant, superheater, convection, and economizer sections. To maximize energy recovery and expedite combustion of high-moisture waste, the combustion gases exiting the convection section pass through a heat exchanger that preheats the incoming combustion air to about 450°F.

The flue gases from the air heater enter the electrostatic precipitator (ESP) where particulate matter is removed before exiting the stack. The ESPs are arranged into three mechanical fields, each with its own electrical field and ash removal hopper. The ESPs are designed to meet the current permit limits for particulate matter. The flue gas is drawn from the ESP by an induced draft (ID) fan before being discharged to the atmosphere through a separate flue in the common stack. The stack is made of precast concrete with two 4-ft., 6-in. diameter flues that are constructed of 4-in. thick acid-resistant bricks. The stack is 125 feet tall and has air emissions monitoring ports located 60 feet from the stack base.

The BCRRF currently continuously monitors oxygen and carbon monoxide levels in order to control the combustion process. Opacity levels after the ESP are also monitored on a continuous basis.



### 3.0 Regulatory Review

The BCRRF currently operates under Air Quality permit numbers A00-165754 & 55 (Unit 1 and 2) issued by the FLDEP. The current permits were issued to BCESI on April 13, 1990, and expired on April 1, 1995. The permits have been extended by FLDEP pending issuance of a Title V Operating Permit. The Title V Application was submitted to the FLDEP on June 7, 1996.

The existing permit was issued under the Prevention of Significant Deterioration (PSD) rules and contained a Best Available Control Technology (BACT) determination for the following air pollutants: particulate matter, sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and carbon monoxide (CO). The ESP was BACT for particulate matter, wherein the low sulfur content of MSW was BACT for SO<sub>2</sub>, while BACT for CO and NO<sub>x</sub> were combustor design and good operating procedures. The facility maintains operating monitor and test results to demonstrate compliance with the current permit requirements.

On December 19, 1995, the US EPA promulgated Emission Guidelines for MWC units, codified in 40 CFR Part 60, Subpart Cb. These Emission Guidelines apply to existing MWC units that commenced construction on or before September 20, 1994, and that are located at a MWC plant with an aggregate plant combustion capacity of 35 Mg per day (approximately 39 TPD) or greater.

Upon promulgation of the Emission Guidelines (and similar rules for new MWC sources), several groups entered into a litigation concerning the regulations. The litigation resulted in a court order on April 8, 1997, that vacated the guidelines as they apply to MWC units smaller than 250 TPD capacity. The large units (250 TPD and above) remain covered by the 1995 Guidelines; since the court did not vacate or stay the rules as they apply to these units. On August 25, 1997, EPA issued a direct final rule that amended the Guidelines (Subpart Cb) to be consistent with the Court ruling. Under the direct final rule, submittal deadlines for state plans remained as December 19, 1996, and existing large MWC units must still be in compliance no later than December 2000.

The FLDEP had submitted their compliance plan to EPA on November 11, 1996, and received EPA approval of the plan on November 13, 1997. The FLDEP plan mirrored the Subpart Cb Guidelines.

#### 4.0 Technical Description of Derating Modification

The BCRRF consists of two MWC units, each rated at 255 TPD of MSW with a reference waste heating value of 4500 Btu/lb. The steam flow at these conditions is 68,000 lb/hr per unit. BCRRF is proposing to make a physical modification to each unit to derate the units to a nominal capacity of 249 TPD of MSW (at reference heating value of 4500 Btu/lb) and a corresponding steam flow of 66,400 lb/hr per unit.

The BCRRF proposes to make a physical modification to the facility to reduce the flow capacity of the forced draft (FD) fans to a level commensurate with the new operating characteristics. Each existing FD fan is an American Davidson #2451-1A turbo blower, with a normal full load flow rate of 22,280 scfm. A mass and energy balance for the "derated" facility indicates that the normal full load flow rates of the fan would need to be reduced to 21,120 scfm.

Howden Buffalo of the Howden Fan Company now owns what was American Davidson, which manufactured the existing FD fans. They were consulted as to the best way to physically reduce each FD fan full load flow rate to 21,120 cfm. Howden Buffalo, after performing the necessary engineering work, recommended the following (please refer to the wheel sketch shown in Attachment 1):

The fan wheel should be changed from the existing "A" blade arrangement to a "C" blade arrangement. The only dimensional change of letters A through G would be to the dimension marked C. The existing C dimension is 50.75", while the smaller replacement wheel C dimension would be only 49.38". The same dimension blades would be used, and they would be tilted further to hold the same inner radius and yet reduce the outer radius (C dimension) of the replacement wheel. Changing the wheel out to this new geometry would reduce the FD fan normal full load point to 21,120 cfm, while maintaining the machine efficiency and keeping the same frame casing.

With the proposed modifications to the FD fans, each combustor / boiler system would be derated as follows:

|                                 | <u>Existing Capacity</u> | <u>Derating Levels</u> |
|---------------------------------|--------------------------|------------------------|
| Combustion Air Flow Rate (scfm) | 22,280                   | 21,120                 |
| Steam Flow (lb/hr)              | 68,000                   | 66,400                 |
| Tons per day (at 4500 Btu/lb)   | 255                      | 249                    |

BCES/DEP-98-134

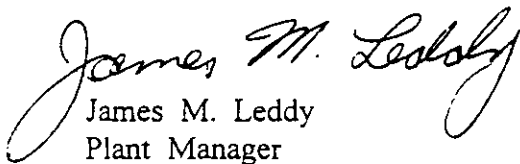
July 21, 1998

Page 6

Currently, compliance with the permit capacity limit is accomplished by averaging each unit's steam flow over a seven-day (block) average period, with no one hour over 110% of the nominal steam flow. The facility's digital control system would be moved to the new operational set point of 66,400 lb/hr steam and the feed rate (as well as other operating parameters) would be adjusted automatically to maintain this new level.

The new lower capacity FD fan wheels would be manufactured by and purchased from Howden Buffalo. The schedule shown in Attachment 2 indicates the time required after permit modification approval for the facility to have the smaller FD fan wheels installed and to be operating at the derated capacity.

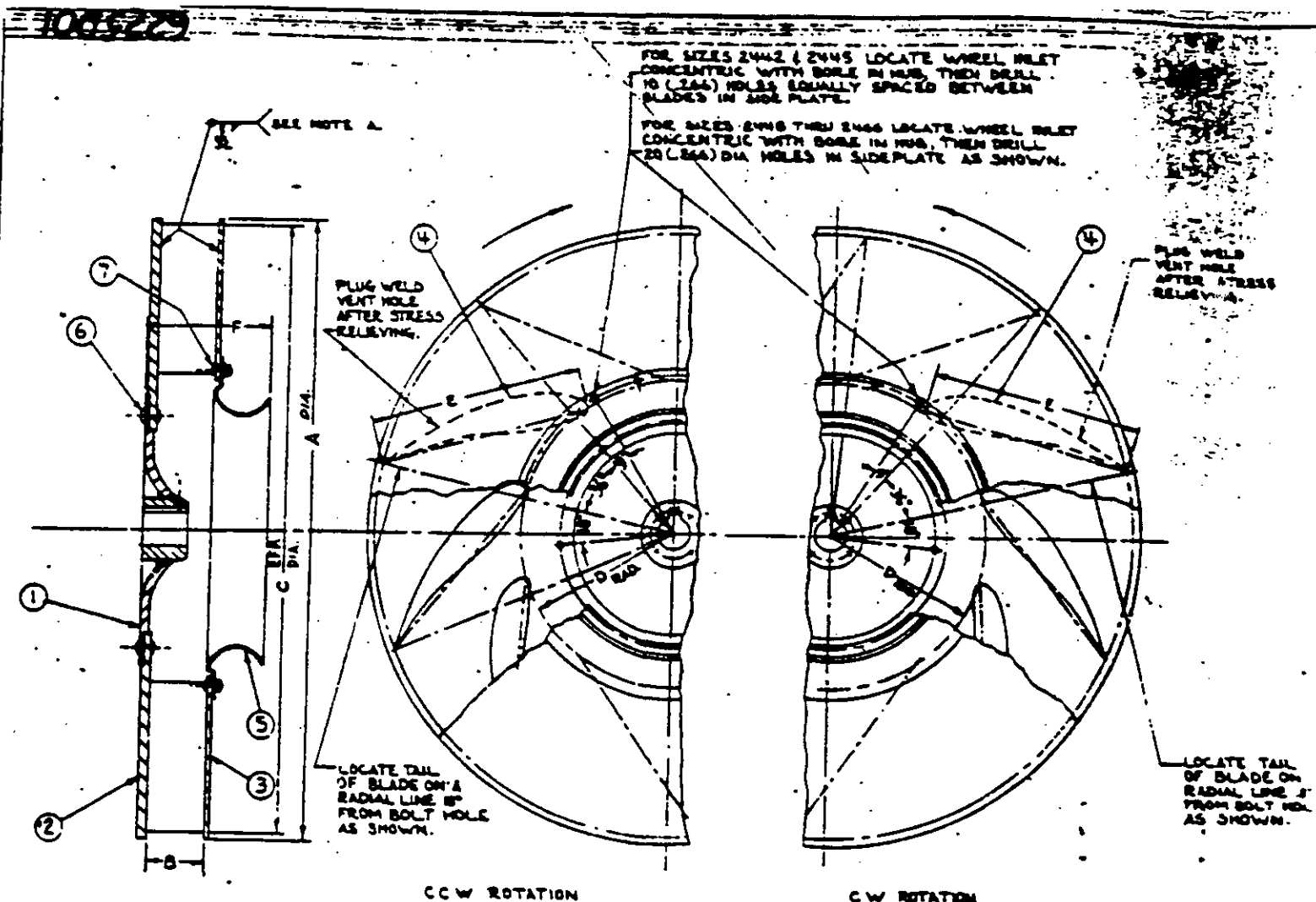
Sincerely,

  
James M. Leddy  
Plant Manager

Attachments

cc: ✓ Scott Davis  
Air, Pesticides & Toxics Mgt. Division  
61 Forsyth Street, S.W.  
Atlanta, Georgia 30303-8909

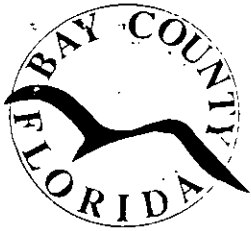
# Attachment 1



- NOTES-
- A- SET UP, WELD AND CLEAN P.P. WELDING SPEC. PS 272225-1
  - B- STRESS RELIEVE PER PS 5337.0A.
  - C- WHEEL TEMP. CROPP.
  - D- PAINT ARROW ON WHEEL SHOWING DIRECTION OF ROTATION.
  - E- BALANCE WHEEL PER. PROCESS, SPEC. 51260NF

## Attachment 2

| <b>BAY COUNTY PLANT CAPACITY DERATING SCHEDULE; FD FAN WHEEL SIZE REDUCTION</b> |  |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
|---|--|---|---|---|---|---|---|---|---|----|----|----|----|-------------------------------------|----|----|----|----|----|----|
| (SCHEDULE BEGINS WHEN PERMIT MODIFICATION APPROVAL IS RECEIVED)                 |  |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
| Week #  | 1  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14                                  | 15 | 16 | 17 | 18 | 19 | 20 |
|   | RECEIVE APPROVAL FOR PERMIT MODIFICATION TO DERATE PLANT |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
|   | ISSUE P.O. FOR NEW SMALLER FD FAN WHEELS                 |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
|   | ISSUE P.O. FOR NEW FD FAN WHEEL INSTALLATION             |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
|   | NEW FD FAN WHEEL FABRICATION                             |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
|   |  |   |   |   |   |   |   |   |   |    |    |    |    | DELIVERY OF NEW FD FAN WHEELS       |    |    |    |    |    |    |
|   |  |   |   |   |   |   |   |   |   |    |    |    |    | INSTALLATION OF NEW FD FAN WHEELS   |    |    |    |    |    |    |
|   |  |   |   |   |   |   |   |   |   |    |    |    |    | PLANT OPERATING AT DERATED CAPACITY |    |    |    |    |    |    |



OFFICE OF THE COUNTY ATTORNEYS

BOARD OF COUNTY  
COMMISSIONERS

September 30, 1998

COPY

BURKE & BLUE, P.A.

LES W BURKE  
NEVIN J. ZIMMERMAN  
DAVID M. NOLL

221 MCKENZIE AVENUE  
POST OFFICE BOX 70  
PANAMA CITY, FLORIDA 32402  
TELEPHONE (850) 769-1414  
TELECOPY (850) 784-1573

Scott Davis  
EPA Region 4  
Air & Radiation Technology Branch  
U.S. Environmental Protection Agency  
61 Forsyth Street, SW, 12th Floor  
Atlanta, Georgia 30303

RECEIVED  
OCT 0 1998  
DIVISION OF AIR  
RESOURCES MANAGEMENT

Re: De-rating of the Bay Resource Recovery Facility

Dear Scott:

Thank you for your memorandum dated September 23, 1998, concerning information needed to complete EPA's evaluation of the "de-rating" request by Bay Resource Management, Inc. (BRMI), the operator of the Bay Resource Recovery Facility (RRF) in Panama City, Florida.

I have forwarded your memorandum to John Zebroski, CBS Consultant, (412) 256-2168, (412) 256-2173 (fax), 1310 Beulah Road, Pittsburgh, Pennsylvania 15235-5098, who will respond on behalf of BRMI, the operator. CBS and the County Staff are available to meet with you and other regulatory representatives in Atlanta, Washington D.C. or Tallahassee if such meeting would assist in your review of the County's "de-rating" request.

As I indicated to you on the telephone, Bay County is acquiring title from BancAmerica this Fall, and the expected closing date is November 12, 1998. Of course, our desire is to have a permit "in-hand" prior to the November 12th closing on the purchase of the RRF. Any assistance you can provide in meeting our closing date is appreciated.

COMMISSIONERS:

CAROL ATKINSON  
DISTRICT I

RICHARD STEWART  
DISTRICT II

ROBERT WRIGHT  
DISTRICT III

DANNY SPARKS  
DISTRICT IV

MARC NOLEN  
DISTRICT V

September 30, 1998  
Page 2

We appreciate your prompt response in sending the memorandum one day after our telephone call, and I look forward to working with you closely to achieve the de-rating in a expeditious manner.

Sincerely,



Nevin J. Zimmerman

NJZ/wgm

Enclosure

cc: Michael Hewitt, Project Engineer, DEP  
John Zebroski, CBS Consultant  
Jonathan A. Mantay, CGFM, County Manager  
Bill Hudson, Solid Waste Management Director  
Charles E. (Skip) Cook, P.E., Camp Dresser & McKee

BURKE & BLUE, P.A.  
ATTORNEYS AND COUNSELORS AT LAW  
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Rob Blue, Jr.  
Nevin J. Zimmerman  
Edward A. Hutchison, Jr.  
Timothy M. Warner \*\*  
David M. Noll  
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Sherril L. Mallory  
Sharon Dinwiddie\*\*\*  
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DESTIN OFFICE:  
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Destin, Florida 32541  
Telephone (850) 267-9498  
Telecopier (850) 267-9499  
\*Also Admitted in Alabama  
\*\*Also Admitted in Louisiana  
\*\*\*Also Admitted in Georgia

**TELECOPIER TRANSMISSION**

DATE: September 30, 1998

SEND TO: Scott Davis (404) 562-9095  
Michael Hewitt (850) 922-6979  
John Zebroski (412) 256-2196  
Jon Mantay 784-4026  
Bill Hudson 872-4805  
Skip Cook (850) 386-6691

FROM: Nevin Zimmerman

FILE NAME & COMMENTS: Bay County Resource Recovery Facility - letter to Scott Davis regarding de-rating -- for your information -- hard copy to follow by U.S. Mail

1 COVER PAGE      2 DOCUMENT PAGES      3 TOTAL PAGES

OUR OFFICE NUMBER IS: 850/769-1414. OUR TELECOPIER NUMBER IS 850/784-1573. IF YOU NEED HELP WITH THIS TRANSMISSION, ASK FOR WANDA MADDOX.

THE INFORMATION CONTAINED IN THIS FACSIMILE IS CONFIDENTIAL AND MAY ALSO BE SUBJECT TO THE ATTORNEY CLIENT PRIVILEGE OR MAY CONSTITUTE PRIVILEGED WORK PRODUCT. The information is intended only for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, or the agent or employee responsible to deliver it to the intended recipient, you are hereby notified that any use, dissemination, distribution or copying of this communication is strictly prohibited. If you have received this facsimile in error, please notify us by telephone and return the original message to us at the address above via the U.S. Postal Service. Thank you.



**BOARD OF COUNTY  
COMMISSIONERS****BURKE & BLUE, P.A.**LES W. BURKE  
NEVIN J. ZIMMERMAN  
DAVID M. NOLL221 MCKENZIE AVENUE  
POST OFFICE BOX 70  
PANAMA CITY, FLORIDA 32402  
TELEPHONE (850) 769-1414  
TELECOPY (850) 784-1573

## COMMISSIONERS:

CAROL ATKINSON  
DISTRICT IRICHARD STEWART  
DISTRICT IIROBERT WRIGHT  
DISTRICT IIIDANNY SPARKS  
DISTRICT IVMARC NOLEN  
DISTRICT V**OFFICE OF THE COUNTY ATTORNEYS**

September 30, 1998

Scott Davis  
EPA Region 4  
Air & Radiation Technology Branch  
U.S. Environmental Protection Agency  
81 Forsyth Street, SW, 12th Floor  
Atlanta, Georgia 30303

Re: De-rating of the Bay Resource Recovery Facility

Dear Scott:

Thank you for your memorandum dated September 23, 1998, concerning information needed to complete EPA's evaluation of the "de-rating" request by Bay Resource Management, Inc. (BRMI), the operator of the Bay Resource Recovery Facility (RRF) in Panama City, Florida.

I have forwarded your memorandum to John Zebroski, CBS Consultant, (412) 256-2168, (412) 256-2173 (fax), 1310 Beulah Road, Pittsburgh, Pennsylvania 15235-5098, who will respond on behalf of BRMI, the operator. CBS and the County Staff are available to meet with you and other regulatory representatives in Atlanta, Washington D.C. or Tallahassee if such meeting would assist in your review of the County's "de-rating" request.

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September 30, 1998  
Page 2

We appreciate your prompt response in sending the memorandum one day after our telephone call, and I look forward to working with you closely to achieve the de-rating in a expeditious manner.

Sincerely,



Nevin J. Zimmerman

NJZ/wgm

Enclosure

cc: Michael Hewitt, Project Engineer, DEP  
John Zebroski, CBS Consultant  
Jonathan A. Mantay, CGFM, County Manager  
Bill Hudson, Solid Waste Management Director  
Charles E. (Skip) Cook, P.E., Camp Dresser & McKee



facsimile TRANSMITTAL

Mississippi, Tennessee, Alabama, Georgia, Florida, Kentucky, South Carolina, North Carolina

To: Nevin Zimmerman / Michael Hewett  
Burke + Blue / Florida DEP

Fax #: 850-784-0857 / 850-922-6979

Subject: Bay County RRF Deviating Proposal

From: Scott Davis Phone#: 404-562-9127

Date: SEPT 23, 1998

Pages: 2, including this cover sheet.

COMMENTS: Additional information list



Air & Radiation Technology Branch  
U.S. Environmental Protection Agency  
61 Forsyth Street, SW, 12th Floor  
Atlanta, Georgia 30303

404-562-9105  
Fax 404-562-9095

## FACSIMILE TRANSMISSION

DATE: September 23, 1998

FROM: Scott Davis *SD*  
EPA Region 4TO: Michael Hewett  
Florida DEPNevin Zimmerman  
Bay County Energy Systems

EPA Region 4 has completed a draft response on the Bay County Energy Systems proposal to derate the 2 units at the Bay County Resource Recovery Facility. Region 4 is coordinating our response with EPA's Office of Air Quality Planning and Standards and the Office of Enforcement and Compliance Assurance. Region 4 has not completed a final response that addresses the concerns of each office at present. However, based on discussions with these offices, the following additional information will be addressed in our correspondence to the Florida DEP on this proposal:

1. A baseline for existing operations at Bay County RRF must be established. Operating data for (at least) the most recent 90 days of operation must be provided. This includes:
  - Steam flow rate
  - Electrical output
  - MSW combustion rates (in tons per day; how is this monitored)
  - Mean load level (what were the maximum deviations)
2. Bay County needs to obtain a letter from the forced draft fan vendor that verifies the operating characteristics of the fan as presented in Section 4.0 of the July 21, 1998, correspondence to Florida DEP (at present and after the derating modification). Bay County and the vendor should provide the rpm and static and dynamic pressures of the fan at the existing operating level and at the derated level.
3. Bay County needs to certify in writing that measurement of the steam flow rate at full load will be conducted prior to and after the derating, with the opportunity provided for a Florida DEP and/or EPA observer to be present. Bay County needs to certify that the facility will not operate at a load level greater than 110% of the maximum demonstrated MWC unit load after derating. Bay County needs to certify that after completion of the derating, the steam flow rate will be monitored in accordance with §60.58b(1)(6), calculated in 4-hour block arithmetic averaging periods, and the monitoring data will be maintained for periodic inspections by Florida DEP and/or EPA.

A copy of our finalized correspondence on the derating proposal will be sent to Bay County. Submittal of the additional information must be completed before Region 4 can make a final determination on the derating proposal.



## BAY COUNTY ENERGY SYSTEMS, INC.

6510 Bay Line Drive  
Panama City, Florida 32404  
(850) 785-7933  
(850) 784-1779 Fax

BCES/DEP-98-134

July 21, 1998

Mr. Mike Hewett  
Division of Air Resources  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blairstone Road  
Tallahassee, Florida 32399

SUBJECT: DERATING REQUEST  
BAY COUNTY RESOURCE RECOVERY FACILITY

Dear Mr. Hewett:

As has been previously discussed and reviewed with your office, please accept this notification as the formal request of Bay County Energy Systems, Inc. (BCESI), as operator of the Bay County Resource Recovery Facility (BCRRF), to derate the two Municipal Waste Combustion (MWC) units at that facility to a level of operation below 250 tons-per-day capacity of each MWC unit. This document details the proposed physical modification that would reduce present capacity of each MWC unit.

We are making this request with the understanding that all parties involved in the ownership and operation of the BCRRF are approving of this action. However, formal documentation detailing these approvals has not yet been concluded. It is our further understanding that upon initial acceptance by your Agency of this request, a formal submittal of operating permit modification will be required. All necessary documentation and participant approvals will be obtained prior to making this next submittal.

Concurrently, BCESI has initiated the activities necessary to meet the milestones required to be in compliance with the Clean Air Act as a large plant by November 13, 2000. While these actions seem to be contradictory to our intent to derate, it was felt that they are necessary to remain in compliance with federal and state standards. Continuing to proceed down this path of action, however, will soon require substantial expenditure for the County. It would, therefore, be beneficial to know of your acceptance of this request and specific compliance data as soon as possible.

*(Sent down 8/3)  
Need to have DERATING DONE BEFORE  
MISSED ANY OTHER REQUIREMENTS*

The financial structure of ownership and operation of the BCRRF necessitates numerous parties to be consulted and individual concerns to be addressed. The commercial issues are myriad and complex. Your patience and understanding and that of the Department as we have gone through this exercise is very much appreciated.

### 1.0 Introduction

The Bay County Regional Resource Recovery Facility (BCRRF) located in Panama City, Florida, consists of two independent municipal waste combustion (MWC) units, each currently rated at 255 tons-per-day of municipal solid waste (MSW) at 4500 Btu/lb waste. Each MWC unit has a separate flue contained in a common stack. The current air pollution control equipment consists of an electrostatic precipitator for particulate removal and good combustion practices for control of carbon monoxide and nitrogen oxide emissions.

The BCRRF is operated by Bay County Energy Systems, Inc. (BCESI) and services the five surrounding counties. Bay County owns the land that the facility is located on, leases the facility and, in accordance with the Solid Waste Disposal Service Agreement, provides the waste for combustion. The current air permit (A003-165754 and 55) was issued to BCESI on April 13, 1990, and expired on April 1, 1995. This permit has been extended by the Florida Department of Environmental Protection (FLDEP) pending issuance of a Title V Permit to Operate. On June 7, 1996, BCESI submitted its initial Title V Permit Application.

The U.S. Environmental Protection Agency (EPA) promulgated Emission Guidelines that apply to existing MWC units on December 19, 1995 (40 CFR 60 Subpart Cb). The status of the rules were held in question due to a law suit filed against EPA. On April 8, 1997, the United States Court of Appeals for the District of Columbia Circuit vacated subparts Cb and Eb as they apply to MWC units with the capacity to combust less than or equal to 250 tons per day of municipal solid waste (MSW), and all cement kilns combusting MSW, consistent with their opinion in Davis County Solid Waste Management and Recovery District v. EPA, 101 F.3d 1395 (D.C. Cir. 1996), as amended, 108 F.3d 1454 (D.C. Cir. 1997). As a result, subparts Cb and Eb apply only to MWC units with the capacity to combust more than 250 tons per day of MSW per unit (referred to as large MWC units). The Florida Department of Environmental Protection (FLDEP) has developed a state plan to implement these guidelines which was approved by EPA on November 13, 1997.

*It is noted that the 249 TPD is not a new permit but a contract revision (under 5000 TPD)*  
The BCRRF is proposing to make a physical modification to both MWC units to derate the units to 249 TPD (at 4500 Btu/lb reference waste). The physical modification would be to change the forced draft fan to reduce the full load flue gas flow rate and thus the steam flow rate. This document provides the technical rationale for this modification and derating.

## 2.0 Facility Description

The BCRRF uses two Westinghouse O'Connor water-walled rotary combustor and boiler trains to mass burn municipal solid wastes (MSW). Heat generated from the combustion of waste produces steam to drive a turbine that generates approximately 11.5 MW of electricity. Each water-walled combustor / boiler system is designed to burn 255 tons of municipal solid waste (MSW) with a higher heating value of 4500 Btu/lb per day or a mixture of MSW and wood waste.

The plant consists of two combustor / boiler units, a turbine generator, two truck scales, scale house, a tipping floor, front-end loaders, two conveyor systems to charge MSW and / or wood waste into the combustor, electrostatic precipitators, ash handling system, a stack, a control room, and all required ancillary equipment. The facility also has administration offices, change rooms, parking areas, roadways, and security fencing.

Waste to be processed is delivered to the facility and unloaded on the tipping floor. Front-end loaders are used to move the waste onto conveyors which transport the waste into the combustor feed chute. The waste is then combusted in the rotary combustor.

A forced draft (FD) fan is utilized to supply combustion air to the process and transport the hot gases produced in the combustion process through the boiler system. The heat released from the combustion process is recovered as the hot gases flow from the combustor barrel through the boiler's radiant, superheater, convection, and economizer sections. To maximize energy recovery and expedite combustion of high-moisture waste, the combustion gases exiting the convection section pass through a heat exchanger that preheats the incoming combustion air to about 450°F.

The flue gases from the air heater enter the electrostatic precipitator (ESP) where particulate matter is removed before exiting the stack. The ESPs are arranged into three mechanical fields, each with its own electrical field and ash removal hopper. The ESPs are designed to meet the current permit limits for particulate matter. The flue gas is drawn from the ESP by an induced draft (ID) fan before being discharged to the atmosphere through a separate flue in the common stack. The stack is made of precast concrete with two 4-ft., 6-in. diameter flues that are constructed of 4-in. thick acid-resistant bricks. The stack is 125 feet tall and has air emissions monitoring ports located 60 feet from the stack base.

The BCRRF currently continuously monitors oxygen and carbon monoxide levels in order to control the combustion process. Opacity levels after the ESP are also monitored on a continuous basis.

### 3.0 Regulatory Review

The BCRRF currently operates under Air Quality permit numbers A00-165754 & 55 (Unit 1 and 2) issued by the FLDEP. The current permits were issued to BCESI on April 13, 1990, and expired on April 1, 1995. The permits have been extended by FLDEP pending issuance of a Title V Operating Permit. The Title V Application was submitted to the FLDEP on June 7, 1996.

The existing permit was issued under the Prevention of Significant Deterioration (PSD) rules and contained a Best Available Control Technology (BACT) determination for the following air pollutants: particulate matter, sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and carbon monoxide (CO). The ESP was BACT for particulate matter, wherein the low sulfur content of MSW was BACT for SO<sub>2</sub>, while BACT for CO and NO<sub>x</sub> were combustor design and good operating procedures. The facility maintains operating monitor and test results to demonstrate compliance with the current permit requirements.

On December 19, 1995, the US EPA promulgated Emission Guidelines for MWC units, codified in 40 CFR Part 60, Subpart Cb. These Emission Guidelines apply to existing MWC units that commenced construction on or before September 20, 1994, and that are located at a MWC plant with an aggregate plant combustion capacity of 35 Mg per day (approximately 39 TPD) or greater.

Upon promulgation of the Emission Guidelines (and similar rules for new MWC sources), several groups entered into a litigation concerning the regulations. The litigation resulted in a court order on April 8, 1997, that vacated the guidelines as they apply to MWC units smaller than 250 TPD capacity. The large units (250 TPD and above) remain covered by the 1995 Guidelines; since the court did not vacate or stay the rules as they apply to these units. On August 25, 1997, EPA issued a direct final rule that amended the Guidelines (Subpart Cb) to be consistent with the Court ruling. Under the direct final rule, submittal deadlines for state plans remained as December 19, 1996, and existing large MWC units must still be in compliance no later than December 2000.

The FLDEP had submitted their compliance plan to EPA on November 11, 1996, and received EPA approval of the plan on November 13, 1997. The FLDEP plan mirrored the Subpart Cb Guidelines.



#### 4.0 Technical Description of Derating Modification

The BCRRF consists of two MWC units, each rated at 255 TPD of MSW with a reference waste heating value of 4500 Btu/lb. The steam flow at these conditions is 68,000 lb/hr per unit. BCRRF is proposing to make a physical modification to each unit to derate the units to a nominal capacity of 249 TPD of MSW (at reference heating value of 4500 Btu/lb) and a corresponding steam flow of 66,400 lb/hr per unit.

The BCRRF proposes to make a physical modification to the facility to reduce the flow capacity of the forced draft (FD) fans to a level commensurate with the new operating characteristics. Each existing FD fan is an American Davidson #2451-1A turbo blower, with a normal full load flow rate of 22,280 scfm. A mass and energy balance for the "derated" facility indicates that the normal full load flow rates of the fan would need to be reduced to 21,120 scfm.

Howden Buffalo of the Howden Fan Company now owns what was American Davidson, which manufactured the existing FD fans. They were consulted as to the best way to physically reduce each FD fan full load flow rate to 21,120 cfm. Howden Buffalo, after performing the necessary engineering work, recommended the following (please refer to the wheel sketch shown in Attachment 1):

The fan wheel should be changed from the existing "A" blade arrangement to a "C" blade arrangement. The only dimensional change of letters A through G would be to the dimension marked C. The existing C dimension is 50.75", while the smaller replacement wheel C dimension would be only 49.38". The same dimension blades would be used, and they would be tilted further to hold the same inner radius and yet reduce the outer radius (C dimension) of the replacement wheel. Changing the wheel out to this new geometry would reduce the FD fan normal full load point to 21,120 cfm, while maintaining the machine efficiency and keeping the same frame casing.

With the proposed modifications to the FD fans, each combustor / boiler system would be derated as follows:

|                                 | <u>Existing Capacity</u> | <u>Derating Levels</u> |
|---------------------------------|--------------------------|------------------------|
| Combustion Air Flow Rate (scfm) | 22,280                   | 21,120                 |
| Steam Flow (lb/hr)              | 68,000                   | 66,400                 |
| Tons per day (at 4500 Btu/lb)   | 255                      | 249                    |

*(Limit Steamflow)*  
*Reduce the max steam flow. Steam control will average 4/2*

Currently, compliance with the permit capacity limit is accomplished by averaging each unit's steam flow over a seven-day (block) average period, with no one hour over 110% of the nominal steam flow. The facility's digital control system would be moved to the new operational set point of 66,400 lb/hr steam and the feed rate (as well as other operating parameters) would be adjusted automatically to maintain this new level.

The new lower capacity FD fan wheels would be manufactured by and purchased from Howden Buffalo. The schedule shown in Attachment 2 indicates the time required after permit modification approval for the facility to have the smaller FD fan wheels installed and to be operating at the derated capacity.

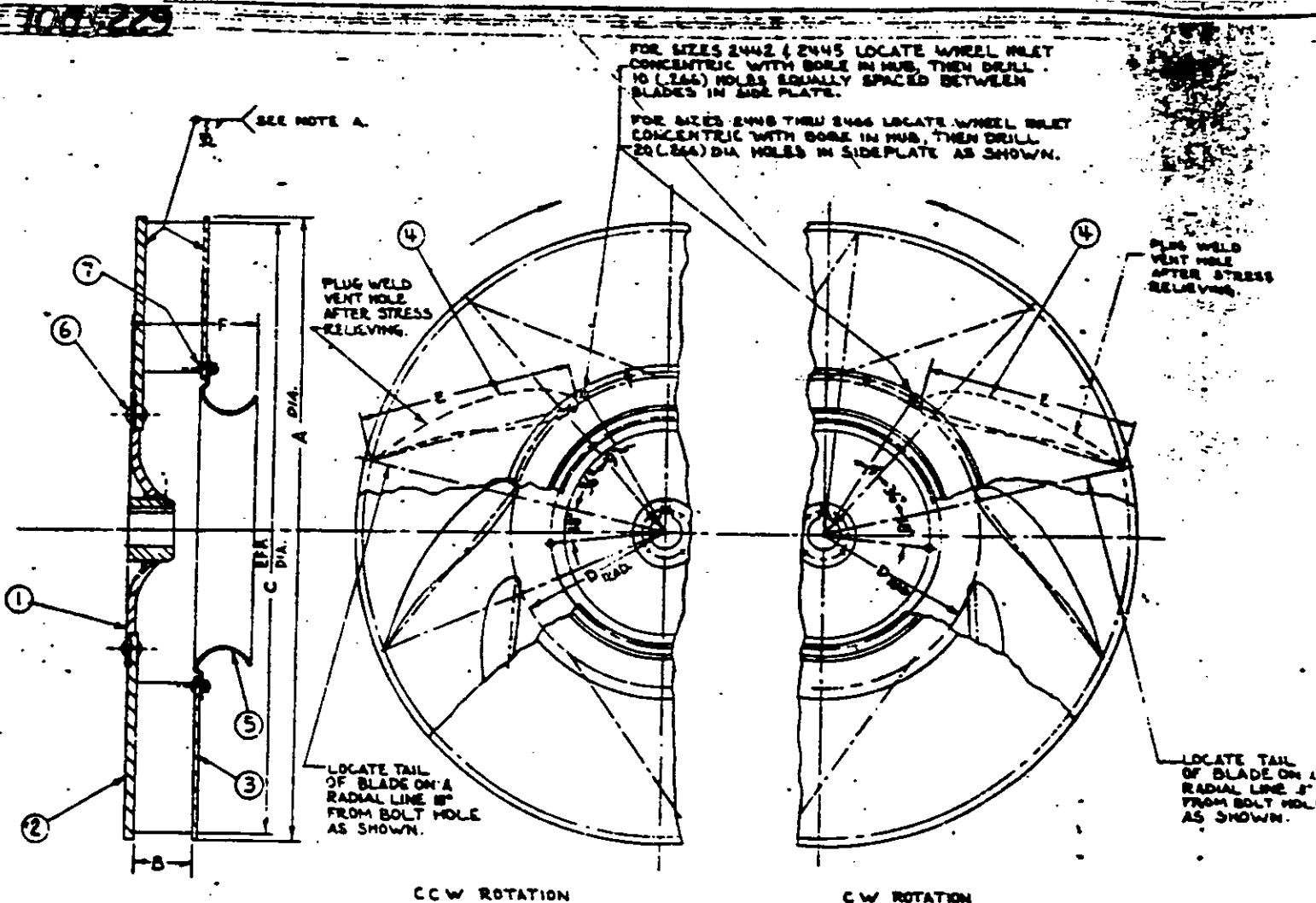
Sincerely,

*James M. Leddy*  
James M. Leddy  
Plant Manager

Attachments

cc: Scott Davis  
Air, Pesticides & Toxics Mgt. Division  
61 Forsyth Street, S.W.  
Atlanta, Georgia 30303-8909

# Attachment 1



- NOTES---
- A- SET UP, WELD AND CLEAN W.P. WELDING SPEC. PS 292275-1
  - B- STRESS RELIEVE PER PS 8337.0A.
  - C- PAINT TEMP. 200°F.
  - D- PAINT ARROW ON WHEEL SHOWING DIRECTION OF ROTATION.
  - E- BALANCE WHEEL PER. PROCESS SPEC 31260M

## Attachment 2

| <b>BAY COUNTY PLANT CAPACITY DERATING SCHEDULE; FD FAN WHEEL SIZE REDUCTION</b> |  |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
|---|--|---|---|---|---|---|---|---|---|----|----|----|----|-------------------------------------|----|----|----|----|----|----|
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| Week #  | 1  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14                                  | 15 | 16 | 17 | 18 | 19 | 20 |
|   | RECEIVE APPROVAL FOR PERMIT MODIFICATION TO DERATE PLANT |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
|   | ■ ISSUE P.O. FOR NEW SMALLER FD FAN WHEELS               |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
|   | ■ ISSUE P.O. FOR NEW FD FAN WHEEL INSTALLATION           |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
|   | ■ NEW FD FAN WHEEL FABRICATION                           |   |   |   |   |   |   |   |   |    |    |    |    |                                     |    |    |    |    |    |    |
|   |  |   |   |   |   |   |   |   |   |    |    |    |    | ■ DELIVERY OF NEW FD FAN WHEELS     |    |    |    |    |    |    |
|   |  |   |   |   |   |   |   |   |   |    |    |    |    | ■ INSTALLATION OF NEW FD FAN WHEELS |    |    |    |    |    |    |
|   |  |   |   |   |   |   |   |   |   |    |    |    |    | PLANT OPERATING AT DERATED CAPACITY |    |    |    |    |    |    |



BAY COUNTY ENERGY SYSTEMS, INC.

6510 Bay Line Drive  
Panama City, Florida 32404  
(850) 785-7933  
(850) 784-1779 Fax

RECEIVED

FEB 13 1998

DIVISION OF AIR  
RESOURCES MANAGEMENT

BCES/DEP-98-029

February 11, 1998

Mr. Michael Hewett  
Division of Air Resources  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blairstone Road  
Tallahassee, Florida 32399

SUBJECT: MUNICIPAL WASTE COMBUSTOR RETROFIT REGULATIONS  
BAY COUNTY RESOURCE RECOVERY FACILITY

Dear Mr. Hewett:

This correspondence is regarding the proposed compliance schedule with the FDEP Emission Guidelines for the Bay County Resource Recovery Facility (Bay Facility). On September 5, 1996, Bay County Energy Systems, Inc. (the operator of the Bay Facility) submitted a response to FDEP as requested by the Department that provided the Bay Facility's emission inventory and outlined the tentative compliance schedule for meeting the EPA's Emission Guidelines and MACT requirements for Municipal Waste Combustors (MWCs). In the letter, we proposed to submit a compliance plan to FDEP three months after EPA's approval of the FDEP proposed regulations for existing MWCs. This letter is the compliance plan for Bay County Energy Systems, Inc., in order to meet the regulations.

As you know, the Bay Facility is currently categorized as a large-size MWC facility for regulatory purposes under the promulgated EPA MACT standard. To comply with the large-size plant requirements, the Bay Facility would be required to install additional air pollution control (APC) equipment for removing acid gas emissions, continuous emission monitoring equipment, and mercury emission control equipment. The Bay Facility has conducted the preliminary engineering study to implement these required modifications to meet the regulatory established operational deadlines, with milestones. As previously communicated, the next milestone is the placement of an order with the APC vendor seven (7) months after approval of the SIP or 06/13/98.

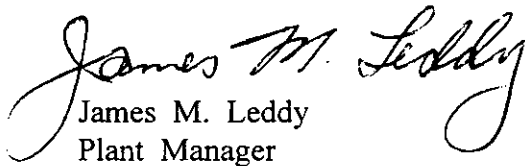
BCES/DEP-98-029  
February 11, 1998  
Page 2

However, the Bay County Commissioners are also currently negotiating with BCESI and Montenay regarding assignment and re-classifying the Bay Facility as a small-size existing facility. At this time, no definitive classification determination has been made. Because this classification is not yet finalized, we cannot define the exact compliance plan for the Bay Facility since the plan (i.e., required equipment modifications, emission limits, and implementation schedules, etc.) depend on the specific regulatory requirements and on the ultimate classification (made by FDEP).

Bay County and Bay County Energy Systems, Inc., understand that the Bay Facility will have to meet the appropriate requirements regardless of the final size classification determined by FDEP, and are making the appropriate arrangements to do so. Once this determination is made by FDEP, the County and the Facility can define the exact retrofit equipment upgrade and corresponding schedule necessary to meet the State's implementation requirements.

We will forward the appropriate information to your office as soon as this decision has been made. Please call me at (850) 785-7933, x202, if you have any questions regarding this matter.

Sincerely,

  
James M. Leddy  
Plant Manager

cc: M.F. Johnson  
J. Zebroski  
W. Hudson  
N. Zimmerman  
R. Brookins

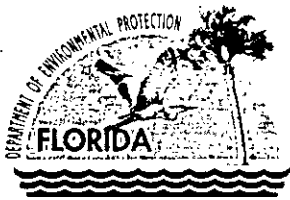
Conversation with Scott Davis, EPA Region 4  
October 6, 1997

It looks like Bay County's proposal will work. What EPA needs now is a formal request.

The deadline for completing the derating will be 6 months after EPA publishes the federal plan. It looks like the plan will be published in February, therefore the deadline will likely be in August.

The one caveat to derating is that if the County ever decides to increase the capacity again, they will find themselves subject to the NSPS (Subpart Eb) not the emission guidelines.

The County should submit a formal request to DEP and cc: EPA which explains the derating and include drawings, if available, to show the physical change. EPA will coordinate with DEP on the response which will be written by EPA and addressed to DEP. Once a favorable response is obtained, Bay County can begin the permitting and physical changes necessary to accomplish the derating.



# Department of Environmental Protection


Lawton Chiles  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

## FACSIMILE TRANSMITTAL SHEET

TO: Walt Stevenson, OAQPS  
Leslye Fraser, OGC  
Scott Davis, Region 4

FROM: Michael Hewett, P.E.   
Division of Air Resources Management  
Phone: 850/488-0114  
Fax: 850/922-6979  
e-mail: hewett\_m@dep.state.fl.us

DATE: September 23, 1997

Total number of pages, including this cover page: 2

---

Walt, Leslye and Scott,

I'm sure you remember Bay County's proposal several months ago to derate both of their municipal waste combustion (MWC) units by adjusting the digital control system to lower the amount of steam produced. Each unit has a maximum design capacity equal to 255 tons per day (TPD), but rarely do they combust more than 250 TPD. Their proposal was denied because the computer change was not considered a "permanent" change which could not be easily reversed.

Bay County has reviewed the example derating determinations, supplied by Leslye, and they have a new proposal. They would like to take each unit off-line and modify or replace the existing forced draft fan impellers so that each unit is physically limited to 249 TPD. Attached is a description of their proposal.

They have a short scheduled outage in December during which they could replace the existing impellers with smaller ones, but work orders would have to be issued very soon. Alternatively, they could modify their existing impellers during a longer outage in April 1998. Time may be an issue and I would like to know how long they have to make the modifications before derating is no longer an option. I understand that it may be too late already.

After making the modifications, we would amend their operating permit to reflect the lower throughput and they would continue to demonstrate compliance with the permitted throughput limit by averaging the unit steam flow over a 7-day period.

Given the time issue, I would like to discuss the merits of Bay County's proposal as soon as possible. I will be in the office through September 30, out of town on October 1 through 3, and back in the week of October 6. Please call or e-mail me at your earliest convenience.

Thank you.

*"Protect, Conserve and Manage Florida's Environment and Natural Resources"*



## Bay County Facility De-rating Discussion Paper

The Bay County Facility is currently rated at a nominal 510TPD of MSW with a HHV of 4500 Btu/lb, producing a steam flow of 68,000 lb/hr per unit. Compliance with the permit conditions is accomplished by averaging the unit steam flow over a 7-day reporting period. Bay County requested that the facility be de-rated to a nominal 498 TPD of MSW with a HHV of 4500 Btu/LB, producing a steam flow of 66,400 lbs/hr per unit. Compliance with the permit conditions would continue to be accomplished by averaging the steam flow over a 7-day reporting period with each hour not exceeding 110% of the nominal steam flow.

A physical modification to the facility would be performed by reducing the output capability of the forced draft (FD) fans to a level commensurate with the new operating characteristics. Each existing forced draft (FD) fan is an American Davidson #2451-IA turbo blower, with a nominal full load output of 22,280 scfm. A mass and energy balance for the derated facility indicates that the output of the fan would need to be 21,120 scfm. The new nominal full load rate is a 5.2% reduction from the current full load flow rate.

This modification can be performed by either replacing the current impeller with a new, smaller impeller or by reducing the diameter of the current fan impeller. Replacing the current impellers with new, smaller ones could be accomplished by the end of 1997 provided that the Notice to Proceed is placed by October 1, 1997. Each unit would require a one-day outage to accomplish the change-out. Modification of the existing plant impellers would have to be accomplished during a scheduled outage since it is anticipated that this modification will require approximately four days per unit to accomplish. However, a four-week lead time is required after Notice to Proceed to mobilize for the modification. Therefore, the modification could be performed during the April 1998, outage.

In order to return the units to their current capacity and maintain environmental requirements, the units would require a shutdown to replace the modified or new smaller impellers with the current design.

With the proposed modification to the FD fans, each combustor/boiler system would be de-rated to no more than 249 tons per day of municipal waste processing at 4500 Btu/lb, this would equate to an hourly steam production of 66,400 pounds per each combustor/boiler system.

$$(249/255) \times 68,000 \text{ lb/hr} = 66,400 \text{ lb/hr}$$

The facility digital control system would now be set to the new operational set point of 66,400 lbs/hr. The feed rate would be automatically adjusted accordingly, as would the other operating parameters necessary to accommodate the reduced production rate.



**BAY COUNTY ENERGY SYSTEMS, INC.**

6510 BAY LINE DRIVE  
PANAMA CITY, FLORIDA 32404  
PHONE (850)785-7933 FAX (850)784-1779

|   |   |
|---|---|
|   | Date: <u>9/22/97</u>  |
| To:                                     | <u>Michael Hewett</u>                                       |
| Company:                                | <u>FDEP</u>   |
| FAX #:                                  | <u>850-922-6979</u>   |
| Telephone #:                            | <u>850-488-0114</u>   |
| From:                                   | <u>Jim Leddy</u>  |
| Company (if different from letterhead): | _____   |
| Telephone Number and Extension:         | <u>X 202</u>  |
| Number of Pages:                        | <u>2</u> (including cover sheet)                            |
| Comments:                               | _____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____ |

## Bay County Facility De-rating Discussion Paper

The Bay County Facility is currently rated at a nominal 510 TPD of MSW with a HHV of 4500 Btu/LB, producing a steam flow of 68,000 lbs/hr per unit. Compliance with the permit conditions is accomplished by averaging the unit steam flow over a 7-day reporting period. Bay County requested that the facility be de-rated to a nominal 498 TPD of MSW with a HHV of 4500 Btu/LB, producing a steam flow of 66,400 lbs/hr per unit. Compliance with the permit conditions would continue to be accomplished by averaging the steam flow over a 7-day reporting period with each hour not exceeding 110% of the nominal steam flow.

A physical modification to the facility would be performed by reducing the output capability of the forced draft (FD) fans to a level commensurate with the new operating characteristics. Each existing forced draft (FD) fan is an American Davidson #2451-1A turbo blower, with a normal full load output of 22,280 scfm. A mass and energy balance for the "de-rated" facility indicates that the output of the fan would need to be 21,120 scfm. The new normal full load rate is a 5.2% reduction from the current full load flow rate.

This modification can be performed by either replacing the current impeller with a new, smaller impeller or by reducing the diameter of the current fan impeller. Replacing the current impellers with new, smaller ones could be accomplished by the end of 1997 provided that the Notice to Proceed is placed by October 1, 1997. Each unit would require a one-day outage to accomplish the change-out. Modification of the existing plant impellers would have to be accomplished during a scheduled outage since it is anticipated that this modification will require approximately four days per unit to accomplish. However, a four-week lead time is required after Notice to Proceed to mobilize for the modification. Therefore, the modification could be performed during the April, 1998, outage.

In order to return the units to their current capacity and maintain environmental requirements, the units would require a shutdown to replace the modified or new smaller impellers with the current design.

With the proposed modification to the FD fans, each combustor / boiler system would be de-rated to no more than 249 tons per day of municipal waste processing at 4500 Btu/LB, this would equate to an hourly steam production of 66,400 pounds per each combustor / boiler system.

$$(249/255) \times 68,000 \text{ lb/hr} = 66,400 \text{ lb/hr}$$

The facility digital control system would now be set to the new operational set point of 66,400 lbs/hr. The feed rate would be automatically adjusted accordingly, as would the other operating parameters necessary to accommodate the reduced production rate.

\* PRESENTED AT 9/19 MEETING

**Discussion Paper  
Concerning the examination of  
Bay County Facility Re-rating**

|  |           |            |   |
|--|-----------|------------|---|
| Post-It™ brand fax transmittal memo 7671 |           | # of pages | 2 |
| To                                       | WIM LEADY |            |   |
| From                                     | JOHN E    |            |   |
| Co.                                      |           |            |   |
| Dept.                                    |           |            |   |
| Phone #                                  |           |            |   |
| Fax #                                    |           |            |   |

The Bay County Facility currently is rated at a nominal 510 tons per day of municipal waste processing of material with a higher heating value of 4500 btu/lb. This translates into an operational steam generation capability of 68,000 lbs. per hour from each boiler. The facility is currently permitted to produce no more than 68,000 lbs. per hour of steam per boiler averaged over a seven day reporting period.

The method for compliance with this regulatory limit is to establish a set point within the facility's digital control system which automatically controls the steam generation of the combustor/boiler system to no more than 68,000 lbs. of steam per hour. This digital control systems establishes the feed rate and other parameters that result in a set steam production rate.

Documentation of how much steam was produced over any specific period of time is used to demonstrate compliance with the requirement to limit the production of steam and thus the municipal solid waste feed rate. A simple calculation will allow verification that the steam production limit has been kept in compliance.

If the facility were to be considered for a new processing rating, the same operational philosophy will be maintained. If each combustor/boiler system were to be derated to no more than 249 tons per day of municipal waste processing at 4500 btu per lb. this would equate to a hourly steam production of 66,400 pounds per each combustor/boiler system.

$$(249/255) \times 68,000 \text{ lb./hr.} = 66,400 \text{ lb./hr.}$$

The facility digital control system would now be set to the new operational set point of 66,400 lbs./hr.. The feed rate would be automatically adjusted accordingly as would the other operating parameters necessary to accommodate the reduced production rate.

In addition to this operational control a physical modification to the facility will be performed to modify the output capability of the facility's forced draft (FD) fans to a level commensurate with the new operating characteristics.

Each existing forced draft (FD) fan is an American Davidson #2451-1A turbo blower. The normal full load operating point for each fan is 22,280 scfm.

A mass and energy balance for the "derated" 249 tons per day per unit of 4500 btu/lb Municipal Solid Waste indicates that the air flow through the FD fan would be 21,120 scfm. This new normal full load flow rate is a 5.2 % reduction from the 22,280 scfm full load indicated for the existing fan.

To decrease the normal full load operation point to 21,120 scfm, the fan wheel blade tip to tip diameter will be reduced or a smaller blower impeller will be installed to meet the new output requirement.

The method of verifying compliance would need not change. The only adjustment necessary would be to now verify compliance with the production of 66,400 lbs./hr. rather than the previous limit of 68,000 lbs./hr..



OFFICE OF THE COUNTY ATTORNEYS

BOARD OF COUNTY COMMISSIONERS

September 15, 1997

VIA FACSIMILE

BURKE & BLUE, P.A.

LES W. BURKE  
NEVIN J. ZIMMERMAN  
DAVID M. NOLL

221 MCKENZIE AVENUE  
POST OFFICE BOX 70  
PANAMA CITY, FLORIDA 32402  
TELEPHONE (850) 789-1414  
TELECOPY (850) 784-1579

Michael Hewitt, Project Engineer  
Department of Environmental Protection  
Air Resources Management  
2600 Blair Stone Road  
Mail Station 5500  
Tallahassee, Florida 32399-2400

Re: Bay County Resource Recovery Facility

Dear Michael:

This letter will confirm the meeting presently scheduled for September 19, 1997, at 10:30 (EST) in Tallahassee. We look forward to meeting with you concerning Bay County's desire to discuss "down-sizing" the rated capacity on Bay County's two Municipal Waste Combusters.

Sincerely,

Nevin J. Zimmerman

NJZ/wgm

COMMISSIONERS:

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District I

RICHARD STEWART  
District II

ROBERT WRIGHT  
District III

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cc: Jonathan A. Mantay, CGFM, County Manager  
Charles E. (Skip) Cook, P.E., Camp Dresser & McKee, Inc.  
Dave Collins, Camp Dresser & McKee, Inc.  
John Zebroski, Manager, Westinghouse Electric Corporation  
James M. Leddy, Plant Manager, Bay County Energy Systems  
Travis Windham, Public Utilities Director  
Bill Hudson, Public Utilities

BURKE & BLUE, P.A.  
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Rob Blue, Jr.  
Nevin J. Zimmerman  
Edward A. Hutchison, Jr.  
Timothy M. Warner \*\*  
David M. Noll  
Elizabeth J. Waters\*  
Sheri L. Mallory  
Sharon Dimasiddie\*\*\*  
Douglas L. Smith

DESTIN OFFICE:  
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Telephone (850) 267-9498  
Telecopier (850) 267-9499  
\*Also Admitted in Alabama  
\*\*Also Admitted in Louisiana  
\*\*\*Also Admitted in Georgia

TELECOPIER TRANSMISSION

DATE: September 15, 1997

SEND TO: Michael Hewitt (850) 922-6979  
Jonathan A. Mantay 784-4026  
Charles E. (Skip) Cook (850) 386-6691  
Dave Collins 785-4600  
John Zebroski (412) 256-2173  
James Leddy 784-1779  
Travis Windham 872-4805  
Bill Hudson 872-4805

FROM: Nevin Zimmerman

FILE NAME & COMMENTS: Bay County Resource Recovery Facility -- confirming meeting

1 COVER PAGE      1 DOCUMENT PAGES      2 TOTAL PAGES

OUR OFFICE NUMBER IS: 850/769-1414. OUR TELECOPIER NUMBER IS 850/784-0857. IF YOU NEED HELP WITH THIS TRANSMISSION, ASK FOR WANDA MADDOX.

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## FACSIMILE TRANSMISSION COVER SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF GENERAL COUNSELTO: Michael Hewitt850 922-6979DATE: 8/29/97FROM: Leslye FraserU.S. Environmental Protection Agency  
Office of General Counsel  
401 M Street, S.W.  
Washington, DC 20460

FAX: (202) 401-0939

Number of pages including cover sheet: 37Comments: Derating Determinations - You'll see the  
general tone is permanent change / not easily  
reversible.Have a great weekend!

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DATE: 05/01/97

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PAGE 1

ADI Category: NSPS  
Selection Criteria:

LETTERS with DERATE

Control Number: 9300007

June 7, 1993

## MEMORANDUM

SUBJECT: Proposed Boiler Derate, Fort Howard Corporation, Green  
Bay, WisconsinFROM: John B. Rasnic, Director  
Stationary Source Compliance Division  
Office of Air Quality Planning and StandardsTo: Peter B. Spyropoulos, Chief  
Enforcement Section  
Air Toxics And Radiation Branch

Our office has reviewed the proposed boiler deration at the Fort Howard Corporation in Green Bay, Wisconsin which you forwarded to my staff by a memo dated March 8, 1993. One of their proposals has the potential to be permanent, but more information must be provided by the Fort Howard Corporation to make a determination.

Past SSCD applicability determinations have clarified acceptable derate mechanisms. The determinations are summarized as follows:

- 10/7/77; Derating must be a permanent physical change.
- 2/28/78; Installation of fans with capacity < 250 mm Btu/hr is an acceptable means for derating.
- 1/28/82; A deration cannot be accomplished by welding the coal feeder so that the maximum feed rate would be lowered

because it is easy to change and does not require the boiler to be removed from operation.

- 1/28/82; Acceptable means of derating include switching to smaller fans with a smaller capacity; use of smaller pipes and pumps to control feed rate. Changes involving the burner of pulverizer which requires a unit outage to be undone are also acceptable.

- 11/25/86; Stokers are included in the affected facility.

These determinations emphasize that a derating must be permanent; it cannot be easily undone, a system shutdown should be required to make the change or reverse it, and the capacity of the boiler, not the feed rate, needs to be decreased. Further, a deration must

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ADI Category: NSPS  
Selection Criteria:

## LETTERS with DERATE

be incurred by the affected facility itself, and not by equipment outside of the affected facility.

The first change proposed by Fort Howard Corporation to permanently derate boiler #8 is to weld stops to the Stephenson Link to limit the maximum fuel feed rate. This is not, by itself, an acceptable derate mechanism. It is specifically addressed as unacceptable in the 1/28/82 applicability determination which indicates such a proposal decreases the feed rate to the boiler, and is not permanent because of the ease of reversal.

The second change proposed to permanently derate boiler #8 is to limit the fuel feed capacity. This would be accomplished by installing new adjusting rods to limit the throat blade height of the stoker. The stoker was determined to be part of the affected facility in a determination dated November 25, 1986. There is no information included in the proposal from the Detroit Stoker Company on the feasibility and effectiveness of this alteration. The Emissions Standards Division (ESD) staff has indicated that this change appears to be a legitimate "permanent physical restriction" based on the fact that it would require a shutdown of the boiler and physical removal of the feeders to reverse the restriction.

Before a determination can be made, the Fort Howard Corporation will have to contact the Detroit Stoker Company for detailed specifications and documentation to ascertain whether this change will effectively limit the capacity of the boiler. If there is sufficient evidence as to the feasibility and effectiveness of the derate methods, the following specific provisions should be required before EPA approves this as a permanent boiler derate.

- Before and after photographs should be taken of the modified linkage stops, and other modified parts of the boiler that are

accessible.

- The source should perform, with an EPA observer present, a 24-hour full load demonstration measuring peak coal rate, BTU/hr heat input, and lb/hr steam output after achieving steady state conditions. A coal sample should be taken.
- The source should have the coal sample analyzed for its higher heating value (HHV) and EPA should adjust the maximum steam output based on the use of 13,500 Btu/lb coal.
- The source should continuously monitor and record the steam output. Data on the maximum one-hour steam output for each calendar month should be reported on a quarterly basis. Fort Howard Corporation should already be keeping track of this data as standard procedure. This data should be kept on file for a minimum of five years.

DATE: 05/01/97

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LETTERS with DERATE

- It should be made clear that EPA reserves the right for site inspection of the stoker system at any time.

The source cannot operate above the maximum output steam rate (corrected to 13,500 Btu/lb) achieved during the demonstration test. If the boiler should ever operate at a rate greater than 250 Million BTU/hr, the boiler would again be subject to NSPS subpart D.

In addition, if this derating is determined to be acceptable the associated costs should not affect any settlement penalties assessed.

If you have any additional questions please contact either Rick Copeland of ESD at (919)541-5265 or Belinda Breidenbach of my staff at (703)308-8710.

DATE: 05/01/97

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PAGE 4

ADI Category: NSPS  
Selection Criteria:

LETTERS with DERATE

## MEMORANDUM

SUBJECT: Approval of Proposed Deration of Stanley-Bostitch's  
Kewanee Boiler -- Subpart DcFROM: John B. Rasnic, Director (6306-W)  
Stationary Source Compliance Division  
Office of Air Quality Planning and StandardsTO: Linda M. Murphy, Director  
Air, Pesticides, and Toxics Management Division  
Region I

The Stationary Source Compliance Division (SSCD) has received your November 30, 1993 memorandum which contained information submitted by Stanley-Bostitch, Inc. (Stanley) dated November 15, 1993, that requested approval of a proposed derate method for a Kewanee boiler. The present Kewanee boiler has a blower wheel with 250 HP and a firing rate of 10,463,000 Btu/hour. The proposed derate method would replace the current blower wheel with one rated at 200 HP and a firing rate of 8,370,000 Btu/hour. The SSCD approves the proposed derate method upon determination that it would constitute a permanent physical change precluding the facility from operating at a capacity equal to, or in excess of, the 10,000,000 Btu/hour applicability threshold as set forth in 40 C.F.R. Part 60, Subpart Dc -- Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

Stanley previously submitted a request for approval of a

proposed derate method for the Kewanee boiler that would have added a flow meter and altered the feed rate. The SSCD denied approval of the first proposed derate method since it would not have been a permanent physical change to reduce the capacity of the boiler. The history of SSCDOs derating determinations specifies that the derate must:

1. Be accomplished through a permanent physical change to the affected facility which will preclude it from operating at a capacity greater than the derated value;
2. Be a change that cannot be easily undone;
3. Require a system shutdown to make the change or to reverse it; and
4. Reduce the capacity, not the feed rate, of the boiler to constitute an appropriate deration.

If you have any questions pertaining to this approval you may contact either Ms. Gwendolyn K. Feltis at (703)308-8376, or

Derate  
Rights

DATE: 05/01/97

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PAGE 6

ADI Category: NSPS  
Selection Criteria:

LETTERS with DERATE

4APT-AEB

Mar 17, 1995

Mr. Carlos Gonzalez  
Environmental Protection Commission of Hillsborough County  
1900 - 9th Avenue  
Tampa, Florida 33605

SUBJ: Proposed Boiler Derate for Speedling, Inc.

Dear Mr. Gonzalez:

This letter is in response to your March 7, 1995, for a determination regarding an approach that Speedling, Inc. has proposed for derating a boiler in order to exempt it from 40 C.F.R. Part 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. After reviewing this proposal, Region 4 has determined that it constitutes an acceptable means of derating the boiler to avoid applicability under Subpart Dc.

Speedling has proposed to derate the boiler by replacing its 300 boiler horsepower (BHP) oil metering stem with a 200 BHP metering stem. This replacement will limit the boiler heat input capacity to approximately 9.6 million BTU per hour by restricting the amount of oil that can be burned to 69 gallons per hour. The applicability threshold for Subpart Dc is 10 million BTU per hour. In order to reverse the proposed change, the boiler would have to be shut down, and burner adjustments would have to be made by a boiler technician after reinstallation of the 300 BHP



metering stem.

In a previous determination about derating facilities to avoid New Source Performance Standards (summary enclosed), the U.S. Environmental Protection Agency (EPA) indicated that a derate must involve a permanent physical change that prevents a facility from operating in excess of the applicability threshold in an NSPS. According to this previous determination, one of the criteria used to determine if a change is permanent is whether it is necessary to shut the facility down in order to reverse the change. Since the replacement of the oil metering stem at Speedling will limit the boiler heat input capacity to less than 10 million BTU per hour and will require a boiler outage to reverse, it constitutes an acceptable derate under the criteria that EPA has previously used for evaluating such proposals.

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Selection Criteria:

LETTERS with DERATE

If you have any questions about the determination in this letter, please contact Mr. David McNeal of my staff at 404/3473555, voice mail box 4158.

Sincerely yours,

Jewell A. Harper  
Chief  
Air Enforcement Branch  
Air, Pesticides and Toxics  
Management Division

Enclosure

DATE: 05/01/97

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ADI Category: NSPS  
Selection Criteria:

LETTERS with DERATE

Control Number: D079

October 07, 1977

## MEMORANDUM

SUBJECT: Derating of Steam Generators

FROM: Director, Division of Stationary Source Enforcement

TO: Louise Gross, Attorney, Enforcement Division, Region V

This is in response to the request you made, via telephone, concerning this office's policy on derating of fossil fuel-fired steam generators as a method to comply with and/or avoid applicability to State and Federal regulations.

The applicability of the New Source Performance Standards (NSPS) is based on the maximum design capacity of an affected facility (in this case a steam generator). It has also been our position to base emission limitations for existing sources covered under State Implementation Plans (SIPs), in a similar manner. Design capacity as used in the implementation of these programs has been used interchangeably with the rated capacity of a particular facility. Thus the design capacity and the rated capacity are equivalent. Therefore, if a source is able to derate its facility through some permanent means, that facility may be able to avoid application of either NSPS or the applicable SIP.

I would like to stress, however, that such derating must be

accomplished through a physical change to the affected facility which will preclude it from operating at a capacity greater than the derated value. It is also important to note that these are EPA's minimum standards and that any SIP which would prohibit such derating would prevent a source from pursuing such a course of action.

If you have any additional questions or comments, please contact Rich Biondi (755-2564) of my staff.

Edward E. Reich

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  DOWNLOAD REPORT

ADI Category:    NSPS  
Selection Criteria:

LETTERS with DERATE

Control Number:    D083

February 28, 1978

MEMORANDUM

SUBJECT: NSPS Determination - Subpart D

FROM:    Director  
          Division of Stationary Source Enforcement

TO:      Brian L. Beals  
          Air Engineering Branch, Region IV

This is in response to your memo of January 20, 1978, requesting a determination as to what specific changes to a fossil fuel fired steam generator would insure that derating is accomplished "through a permanent physical change that precludes operation at a capacity greater than the derated value."

Without knowing the specific ways Amoco plans to modify its system, it is difficult to know what information is needed for a determination. We suggest that you ask Amoco to indicate the specific change planned. We can then tell what additional information, if any, to request.

Amoco has indicated that it plans to revise the control systems for gas and oil flows. If this means only that internal settings of existing control systems will be changed, it is unlikely that the planned revisions will be adequate. The system capacity should be changed. For example, the gas lines

should be replaced with smaller pipes or the oil feed pumps should be changed.

Amoco is planning to modify the boiler fans to correspond with a boiler rating of 249 MM BTU per hour. If new fans whose maximum capacity is below 250 MM BTU per hour are installed, this would probably suffice. In this case we would need a summary of engineering calculations showing the total gas flow corresponding to 249 MM BTU per hour plus a fan curve from the manufacture showing that the maximum capacity of the fan is less than the gas flow corresponding to 250 MM BTU per hour.

Please note that once derating has been accomplished, if the boiler should ever operate at a rate greater than 250 MM BTU per hour, the boiler will be subject to NSPS, Subpart D.

If you should have any further question on this determination

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please contact Craig Cobert (FTS 755-2564) of my staff.

Edward E. Reich

cc: Jack Farmer - SDB

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ADI Category: NSPS  
Selection Criteria:

LETTERS with DERATE

Control Number: D096

July 07, 1980

## MEMORANDUM

SUBJECT: Applicability of PSD and NSPS to Northern State Power  
CompanyFROM: Director  
Division of Stationary Source EnforcementTO: Sandra Gardebring, Director  
Enforcement Division, Region V

This is in response to your May 29, 1980 memo concerning Northern States Power Company (NSP). You requested a determination as to whether modifications proposed for units 1, 2, 3, and 4 at Black Dog generating plant and units 3, 4, 5 and 6 at High Bridge generating plant would subject the units to NSPS and the generating plants to PSD requirements. This response is based on the information presented in the attachment to your letter, and on the information obtained during a June 19, 1980 phone conversation between Robert Myers of my staff and Joseph Bizzano, Jr., of NSP.

The original design fuel for these units was 100% high sulfur, high Btu Illinois coal. To comply with the state's sulfur-in-fuel requirement, NSP in the early 1970's shifted to burning a blend of 70% low sulfur, low Btu Montana coal and 30% Illinois coal. Because of the limitations in the capacity of



the fuel handling and feeding equipment, NSP has since been unable to burn enough of the blended coal to achieve the same level of steam/electricity production as it enjoyed when it burned 100% Illinois coal.

The company is studying a program of modifications to restore the derate the boilers currently are experiencing. The modifications principally involve the enlargement of the fuel handling and feeding equipment to each boiler so that the original output of steam/electricity can once again be attained. This will result in SO2 emissions increases of well above 100 tons per year at each plant. NSP reports that particulate emissions will increase as well, however, there is no indication as to the effect the modification will have on NOx emissions. The issue is whether NSPS or PSD requirements would apply to this proposed modification.

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Under NSPS a modification is defined at 40 CFR 60.2(h) as "any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted." This is limited somewhat by 40 CFR 60.14(e)(2), as revised July 1, 1979, which states that an increase in production rate of an existing facility is not considered a modification if that increase can be accomplished without a capital expenditure on that facility. Capital expenditure is defined at 45 FR 5617, 40 CFR 60.2(bb) (January 23, 1980) and means an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable IRS asset guideline and the existing facility's basis as defined in the IR code.

It appears that NSP is undergoing an increase in production rate. This would be subject to NSPS if it involves a capital expenditure on the facility, the individual burner. It is thus essential to determine if the components being enlarged, the fuel handling and feeding equipment, are part of the affected facility.

We have been in contact with OAQPS and they have provided general guidance as to what they consider to be the components of the affected facility. Under EPA's BID for proposed Particulate Matter Emission Standards from Electric Utility Steam Generating Units (450/2-78-006a, July 1978) boiler components include burners (pulverizer, crusher, stoker), combustion air system, steam generation system (firebox, tubes) and draft system.

Joseph Bizzano mentioned to Robert Myers, that the changes being considered include changing the superheater spacing, adding soot blowers to the boiler, and increasing pulverizer size. Since the

superheater and pulverizer are considered part of the affected facility, replacement or redesign which would change the physical characteristics of these components may be a case where modification provisions apply. A final decision must await a complete description by NSP of the specific changes to be made and equipment involved.

For purposes of PSD applicability during the period of the February 5, 1980 stay (45 FR 7800), major modification is determined by a source's potential to emit under both the September 5, 1979 (44FR 51924) proposed PSD regulations and the June 19, 1978 (43 FR 26388) regulations. Major modification considers changes over the entire source, the generating plant, rather than changes for each boiler.

Under the June 19, 1978 regulations major modification is defined as any physical change in, change in the method of operation of, or addition to a stationary source which increases

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## LETTERS with DERATE

the potential emission rate (regardless of any emissions reduction achieved elsewhere in the source) of any air pollutant regulated under the Act by 100 tons per year for fossil fuel-fired boilers totaling over 250 mm Btu per hour heat input.

Potential to emit means the capability at maximum capacity unless otherwise limited by an enforceable permit condition (43 FR 26404), to emit a pollutant in the absence of air pollution control equipment.

Under the September 5, 1979 proposed PSD regulations, potential to emit is the capability at maximum design capacity to emit a pollutant after the application of air pollution control equipment. Major modification is defined as any physical change in or change in the method of operation of a major stationary source, or series of contemporaneous physical changes in or changes in the method of operation of a major stationary source that would result in a significant net increase in that source's potential to emit the pollutant for which the stationary source is major. For SO<sub>2</sub> and particulate matter ten tons was proposed to be a significant net increase.

Under the June 19, 1978 regulations (43 FR 26404) and the September 5, 1979 proposal, (44 FR 51948) potential to emit includes enforceable permit conditions on the type of materials combusted or processed. Thus, for the two generating plants in question, potential to emit would include Minnesota's sulfur-in-fuel requirement under both definitions.

Generating potential emissions is limited by the quantity of fuel the source is capable of combusting. The ability of the generating plants to combust additional fuel subsequent to the modification results in increased emissions. Since the generating plants were not capable of accommodating this additional fuel without changes to the fuel handling and feeding equipment, this would represent an increase in the potential to

emit. NSP would be subject to PSD review if the changes would result in an increase of 100 tons per year of uncontrolled SO<sub>2</sub> or particulate matter emissions and 10 tons per year of controlled emissions. The June 18, 1978 regulations would be applied. This determination assumes that the sources in question are located in attainment or unclassified areas and that no additional controls will be added to the sources to offset any emission increase.

The final PSD regulations are expected to be promulgated before the end of this month. If the proposed modifications of the sources in question take place after promulgation, the new regulations will apply (providing the sources cannot be "grandfathered"). Under the latest draft of these regulations, a source must have an increase of 40 tons of particulate or SO<sub>2</sub> controlled emissions in order to be subject to PSD review. These regulations also allow a source's potential to emit to include enforceable limitations on hours of operation or type or

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amount of material combusted or processed.

This response was prepared in conjunction with the Office of Air Quality Planning and Standards and the Office of General Counsel, if you have any questions concerning this determination, please contact either Robert Myers or Janet Littlejohn of my staff, at FTS 755-2564.

Edward E. Reich  
(signed)cc: Peter Kelly  
Peter Wyckoff  
Earl Salo  
Dave Patrick  
Walt Stevenson  
Jim Weigold

EN:341:RMyers:ncb:7/2/80:3202:52564

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Control Number: D104

January 28, 1982

## MEMORANDUM

SUBJECT: Painesville Municipal Power Boiler Derate

FROM: Director  
Division of Stationary Source EnforcementTO: Sandra S. Gardebring, Director  
Enforcement Division, Region V

This is in response to your December 11, 1981 request for an applicability determination, and the follow-up material which we received January 5, 1982. Your request involves the Painesville Municipal Power Plant boiler No. 5, which is subject to NSPS, Subpart D.

The City of Painesville wishes to avoid meeting the 1.2 lb/mm Btu standard for SO<sub>2</sub> by derating the boiler so that its capacity is less than the 250 mm Btu/hour minimum required by Subpart D. Painesville proposes to do this by inserting a plate in the feeder to the pulverizer which will restrict the maximum coal feed capability. Once set, the upper limit on the coal feeder gate adjusters would be welded in place to make the derate permanent.

Region V feels this does not meet criteria established by DSSE in its October 7, 1977 derate memorandum. This provided that a

derate "must be accomplished through a permanent physical change to the affected facility which will preclude it from operating at a capacity greater than the derated value." The Region believes the cost and length of time needed to undo the derate are minimal, and that it is physically possible to undo the derate without a unit outage. Concurrence is requested from DSSE that Painesville's proposed derate strategy is unacceptable, and guidance is requested as to what specific physical changes would result in acceptable derated for purposes of avoiding NSPS applicability.

DSSE has discussed this issue with EPA's Office of Air Quality Planning and Standards, and we are in agreement with your position. What Painesville has proposed would not represent a permanent physical derate because it would be relatively easy to undo the plate and increase the feed rate to the pulverizer, and it could be done without removing the boiler from operation.



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Although DSSE and OAQPS believe that modifications to the boiler would be preferable, we will consider other procedures involving the coal feed system which would result in a permanent physical derate while not causing boiler damage.

Because of the wide range of possible derate options, an inclusive list of acceptable ones can obviously not be given. General guidance can, however, be provided. DSSE has previously determined, in its February 28, 1978 memorandum, that changing system capacity represents an acceptable derate. This would involve a switch to smaller fans with smaller capacity, and the use of smaller pipes and pumps to control feed rate. Additionally, both DSSE and OAQPS agree that changes involving the burner or pulverizer which require a unit outage to be undone offer the best guarantee that the derate will be permanent, but any proposed derate will be considered. It must provide enough detail to allow a judgement as to its permanency, and allow a determination as to the resulting maximum capacity. In no other case must the maximum derated capacity exceed 250 mm Btu per hour heat input, averaged over any one hour period.

The source must submit any proposed derate to your office in order to ensure it is acceptable. If you need assistance in evaluating a proposal, please feel free to contact us.

This response has been prepared with the concurrence of OAQPS. Should you have any questions, please contact Robert Myers of my staff at FTS 382-2875.

Edward E. Reich  
(signed)cc: David Schultz  
John Gaitskill  
Edith Ardiente

DATE: 05/01/97

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Control Number: NB15

July 14, 1983

Mr. Alberto Bruno Vega  
Executive Director  
Puerto Rico Electric Power Authority  
G.P.O. Box 4257  
San Juan, Puerto Rico 00936

Dear Mr. Vega:

I have carefully considered your October 6, 1982, letter requesting an interpretation of the New Source Performance Standards (NSPS) and Prevention of Significant Deterioration (PSD) regulations as they apply to your situation. After an extensive examination of the regulations and supporting background documents, I must conclude that the construction of the boilers would subject them to NSPS, Subpart Da, standards of performance for electric utility steam generating units. Also, regarding the PSD issue, I must conclude that applicability is to be based on the increase in actual emissions, calculated by finding the difference between the potential emissions of the proposed units and the actual emissions of the existing units. Any definite decisions on PSD applicability, however, will have to be deferred pending the submission of additional documentation concerning the operation of the existing units and the potential to emit of the new units. The rationale for my decision is discussed below.

Background

The Puerto Rico Electric Power Authority (PREPA) is considering the feasibility of converting two 450 MW oil-fired units to the use of coal. This would provide relief from the high cost and uncertainty of imported oil. Conversion by simple modification of the boilers is not considered a viable option by PREPA because it would result in a substantial derating of the generating capacity. This derating could not be absorbed without causing power disruptions or requiring new units to replace the derated capacity. The alternative chosen, which minimizes down-time and assures full capacity operation after conversion, is the construction of two new replacement coal-fired boilers next to the existing boilers. The existing boilers would then be dismantled.

#### NSPS Applicability

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With regard to NSPS you urge a determination that the two replacement boilers will not be subject to Subpart Da. As support for this position, you correctly point out that 60.40a(d) exempts conversions from oil to coal from being considered modifications for NSPS purposes:

"any change to an existing steam generating unit originally designed to fire gaseous or liquid fossil fuels, to accommodate the use of any other fuel (fossil or nonfossil) shall not bring that unit under the applicability of this subpart."

However, the situation here is not conversion of an existing oil unit to coal, but rather construction of two new dual-fuel capable units. Your letter even states that the existing oil-fired units will not be dismantled until the new units are constructed. These replacement units are clearly new units. Since they will commence construction after September 18, 1978, they will be subject to Subpart Da. Section 60.40a(a)(2).

I also wish to address your claim that since \$83.9 million of existing boiler equipment will be utilized in the replacement boilers, they cannot be considered new sources. Most of the equipment listed in Exhibit B is not part of the affected facility, as the facility is defined. See pp. 5-3 to 5-5 of EPA's "Background Information Document for Proposed Particulate Matter Emission Standards", EPA-450/2-78-006a, July 1978, a copy of which is enclosed. Of the 43 components listed in Exhibit B, the only ones which could be considered part of the electric utility steam generating unit are the boiler feed pumps, boiler feed discharge, boiler feed recirculating and warm-up pipes, and the supports, insulation and piping directly associated with these components. These pieces of equipment are an inconsequential part of the proposed replacement boiler and do not include the most significant component, the steam generator. Utilizing all new components except for these few pieces of

equipment is clearly constructing a new source.

I wish to stress two additional points. First, because I have determined the proposed units would be subject to NSPS Subpart Da, I have not addressed your arguments concerning Subpart D applicability. This in no way implies acceptance of your arguments; it simply indicates that consideration of Subpart D applicability is unnecessary since Subpart Da does apply.

Second, I wish to emphasize that you are exempted from the SO<sub>2</sub> reduction requirement under Subpart Da. See 60.41a and 60.43a(d). This exemption from the SO<sub>2</sub> mandatory scrubbing requirement for boilers located in non-continental areas is provided because of the unique boiler siting problems for these areas. However, the costs of meeting the other requirements were considered during the rulemaking promulgating Subpart Da, and those costs were determined to be reasonable.

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## PSD

On the issue of PSD applicability, I would first like to clarify, with regard to the CMA vs EPA settlement agreement, that EPA has only agreed to propose certain amendments to the regulations. The existing PSD requirements remain in effect and binding for all new major sources or major modifications, until such time as any regulatory amendments are promulgated.

In regard to the applicability of PSD to your project, the August 7, 1980 PSD amendments generally base applicability of review on increases in actual emissions. The PSD regulations define "actual emissions" at 40 CFR 52.21(b)(21) as:

"(i) Actual emissions means the actual rate of emissions of a pollutant from an emissions unit, as determined in accordance with subparagraphs (ii)-(iv) below.

(ii) In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a two-year period which precedes the particular date and which is representative of normal source operation. The Administrator shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.

(iii) The Administrator may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit.

(iv) For any emissions unit which has not begun normal operations on the particular date, actual emissions shall equal

the potential to emit of the unit on that date."

As you correctly point out in your letter, the definition of actual emissions provides that a different time period than the usual two years preceding a particular change may be used to calculate actual emissions. In fact, the Administrator may presume source specific allowable emissions equals actual emissions. The preamble to the August 7, 1980 amendments provides a more in-depth discussion of this provision:

"EPA believes that, in calculating actual emissions, emissions allowed under federally enforceable source-specific requirements should be presumed to represent actual emission levels. Source-specific requirements include permits that specify operating conditions for an individual source, such as PSD permits, State NSR permits issued in accordance with 51.18(j) and other 51.18 programs, including Appendix S (the Offset Ruling), and SIP emissions limitations established for

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individual sources. The presumption that federally enforceable source-specific requirements correctly reflect actual operating conditions should be rejected by EPA or a State, if reliable evidence is available which shows that actual emissions differ from the level established in the SIP or the permit."

From the data submitted in your letter, it is apparent that PREPA has consistently operated well below its allowable emission rates. Even using each unit's highest capacity year as the level of actual emissions, the conversion will most likely result in a significant increase in SO<sub>2</sub> and NO<sub>x</sub> emissions.

An actual emissions rate should reflect what is representative of normal source operation. PREPA has been in operation since 1975. The Agency has no basis at present to conclude that the operation of PREPA's Units 1 and 2 will reach 70% capacity. The history of PREPA's capacity utilization coupled with the intent of the regulations on this matter, compels me to reject the use of the allowable emission rate as a baseline.

You have asked me to accept PREPA's allowable emissions as its actual emissions to avoid "the delays occasioned by preconstruction air quality monitoring and other facets of the PSD process." Although air quality monitoring may be required for SO<sub>2</sub> if the actual emission baseline is used, there is a likelihood that ample air quality data exists that would obviate the need for actual monitoring. I am exploring this possibility with our Region II office and by copy of this letter am asking them to contact you regarding any air quality data that must be obtained.

Your letter also asks me to look upon the proposed change as merely an increase in the hours of operation. This analysis must also be rejected. PREPA is proposing a physical change and change in the method of operation of its facility. If the



existing facility increased hours of operation or production rate, PSD review would not be required. PREPA, however, plans to install new units, and use a different fuel than is being used in the existing units. That is more than an increase in hours of operation.

In summary, PSD applicability will be based on the increase in "actual emissions" that will result from the installation of the two coal and oil-fired units. This figure will be calculated by finding the difference between the potential emissions of the new units and the actual emissions of the existing units. In determining what the potential emissions of the new units are, we must assume the maximum capacity of these two units, reflected by the application of the Subpart Da NSPS, unless further restricted by federally enforceable conditions on the hours of operation, or on the type or amount of fuel combusted. Actual emissions of the existing units will be based upon PREPA's operation of the two existing units up until the time

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the two new units start up. Although operation of the two existing units has been relatively low up until now, if the emission from these two units do rise for two years or more and you can show that their performance during the rise was representative of normal operation, EPA would accept into the netting calculation the decrease from the new higher level of emissions to zero emissions that would result from dismantlement, so long as the dismantlement became federally enforceable before construction on the new units began. Given the uncertainty of the two existing units' operation over the next several years, we strongly recommend that PREPA make application for a permit now covering all pollutants in order to avoid the possibility of having to apply when the new units are ready to start up. This could possibly result in having the new units sit idle during the permit processing period.

I have discussed my conclusions not only with members of my staff, but also with EPA's Office of General Counsel. We are all in agreement that the regulations clearly require the interpretations presented in this letter.

Should you wish to discuss this matter in more detail, please contact Edward Reich, Director, Stationary Source Compliance Division. He can be reached at (202) 382-2807.

Sincerely yours,  
(signed)  
Charles E. Elkins  
Acting Assistant Administrator for Air, Noise and Radiation

Enclosure

cc: Joseph Cannon  
William Anderson II  
Regional Administrator, Region II

DATE: 05/01/97

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Control Number: NB23

April 03, 1990

## MEMORANDUM

SUBJECT: Boiler Deration To Avoid Application of 40 CFR Part  
60, Subpart DbFROM: John S. Seitz, Director  
Stationary Source Compliance Division  
Office of Air Quality Planning and Standards (EN-341)TO: Roger O. Pfaff, Chief  
Air Compliance Branch  
Air, Pesticides and Toxics Management Division  
Region IV

I am writing in reply to your January 9, 1990, memorandum to me.

You asked about a situation where a boiler owner would like to derate the boiler below 100 million Btu per hour heat input to avoid application of 40 CFR Part 60, Subpart Db. The source owner has proposed installing an orifice in the natural gas supply pipeline to achieve this deration. In addition, the source owner has proposed installing a seal so that EPA could detect if the orifice was removed.

Only permanent changes to the boiler or fuel supply equipment can be considered to affect the capacity of the boiler. The issue here is permanence, not detectability. Previous guidance on this subject stated that a welded plate which limited fuel

flow was not a permanent change because the plate could be relatively easily removed and it could be done without removing the boiler from operation (D-104, Reich to Gardebring, January 28, 1982). An orifice in a gas pipeline is similar and would not be considered permanent.

The 1982 guidance also stated that a deration to below the applicability cut-off must be accomplished through a permanent physical change to the affected facility which will preclude it from operating at a capacity greater than the derated value. This could be done by switching to smaller fans with smaller capacity and the use of smaller pipes and pumps to control the feed rate. A copy of this guidance is attached.

I hope this is helpful to you. These comments were conveyed to Paul Reinermann of your staff on January 24, 1990. Please contact me at 382-2807 or Myra Cysper of my staff at 382-2872 if



# Department of Environmental Protection


Lawton Chiles  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

## FACSIMILE TRANSMITTAL SHEET

TO: Scott Davis, EPA Region 4

FROM: Michael Hewett, P.E. 

CC: Walt Stevenson, EPA OAQPS

Division of Air Resources Management

Phone: 850/488-0114

DATE: August 27, 1997

Fax: 850/922-6979

e-mail: hewett\_m@dep.state.fl.us

Total number of pages, including this cover page: 5

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Scott,

About a month ago you and I discussed Bay County Energy System's proposal to limit their capacity by adjusting their combustion control system. I have discussed this proposal with representatives of Bay County and with facility operators, and I believe it provides reasonable assurance that each MWC unit at the facility will be effectively limited to 249 tons per day (each unit has a design capacity of 255 TPD).

Attached to this memorandum is a discussion of the Bay County proposal and a description of the combustion control system at the facility. Please provide me with your comments concerning the County's proposal at your earliest convenience. Once we decide whether the Bay County proposal is acceptable or not, I will be able to provide you with a Department letter confirming the capacity of every MWC unit in Florida and you may continue with your review of Florida's implementation plan.

Thank you for your assistance in this matter.

/mh

Attachments



BAY COUNTY ENERGY SYSTEMS, INC.

6510 Bay Line Drive  
Panama City, Florida 32404  
(904) 785-7933  
(904) 784-1779 Fax

BCES/DEP-97-216

August 14, 1997

RECEIVED

AUG 15 1997

DIVISION OF AIR  
RESOURCE MANAGEMENT


Mr. Michael Hewett  
Division of Air Resources Management  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Dear Mr. Hewett:

Enclosed, please find a description of the combustion control system in the WDPF (plant control computer system). As discussed, our proposed modification will put a high limit of 66,400 pounds per hour on the steam flow set point. By putting this limit in the steam flow controller for each unit, the operations staff will not be able to burn more than 249 tons per day of MSW with a heating value of 4500 BTU/Lb per unit.

If I may be of any further assistance in this matter, please do not hesitate to contact me at (850) 785-7933, x 206.

Sincerely,

  
Richard S. Brooks, Jr.  
Industrial Hygiene, Safety and  
Environmental Coordinator

Attachments

cc: J. M. Leddy  
Travis Windham - Bay County  
Nevin Zimmerman - Bay County  
Skip Cook - CDM, Tallahassee

## Bay County Energy Systems, Inc.

---

July 10, 1996

### Combustion Control Overview

The automatic control system is used to various degrees, the following is a description of the system.

The feed ram speed control consists of a dominant manual speed setpoint biased by two feedback signals. The first is a steam flow error signal derived from the difference between measured steam flow and a manual setpoint. This compensated signal is referred to as the steam flow demand, and is also used in the windbox air flow controllers. The second bias signal is generated from a flue gas oxygen concentration error signal. The oxygen setpoint is set at approximately 5.0 to 5.5%. Both of the bias signals are limited in magnitude.

The rotation of the combustor controls the fuel bed profile, burnout point, and promotes mixing of the fuel. Combustor rotation also promotes fuel transport down the combustor, so increasing the rotation rate will reduce the fuel residence time. Consequently, the primary consideration in selecting the combustor rotation rate is to obtain the desired burnout point. The combustor rotation rate then becomes a function of the fuel characteristics and the fuel feed and consumption rates.

In general, faster combustor rotation rates are used for fuels that burn better. A relatively fast rotation of 5.1 rph is used for burning dry MSW. 4.0 rph is the minimum for dry MSW. Running the combustor slower than 4.0 rph for MSW contributes to clinker formation. Fast rotation rates contribute to better fuel mixing and improved combustion. Dry MSW requires about a 45 minute residence time to complete combustion, and wet MSW requires a greater residence time in order for adequate drying and combustion to take place. Wet MSW requires slowing the combustor to 2.0 to 2.5 rph in order to provide 60 to 90 minutes of retention.

The windbox air flows are controlled by a compensated steam flow error signal. The output of this controller feeds two function generators. The first function generator determines a common air flow setpoint for the overfire and underfire windboxes in zones 1 and 2. The second function generator provides a setpoint for the zone 3 underfire windbox. Windbox flow setpoints are limited by the function generators to between 175 and 350 MSCFH. In each windbox the difference between the measured flow and the setpoint is sent to the corresponding windbox damper positioner. This system uses the windbox air flows to control steam flow. Increases in steam flow cause a reduction in combustion air, which in turn reduces the combustion rate, causing the steam flow to

decrease. Similarly, decreases in steam flow result in increased combustion air, which also tends to restore steam flow to its setpoint. The air flow to zone 3 overfire windbox is controlled by a CO error signal. The output of this controller provides a setpoint to the zone 3 overfire windbox. Windbox flow setpoints are limited by the function generators to between 175 and 350 MSCFH.

The furnace overfire air flow is determined by manual damper position control. There is no automatic control provided for this function.

The forced draft fan and damper control the forced draft fan discharge pressure. The difference between the measured pressure and a manual setpoint is used to position the fan damper. The difference between the fan damper position demand and a manual position setpoint is then used to control the forced draft fan speed. This arrangement allows the damper to be used for fast response to perturbations in air flow, followed by a slower response from the fan speed controller bringing the damper back to its desired position.

The induced draft fan and damper control the furnace pressure. The difference between the measured pressure and a manual setpoint is used to position the fan damper. The difference between the fan damper position demand and a second manual setpoint is then used to control the induced draft fan speed. This arrangement allows the damper to be used for fast response to perturbations in furnace pressure, followed by a slower response from the fan speed controller bringing the damper back to its desired position.



CITY CO. KIT MEETING  
8/6/97

NAME

1. MICHAEL HAWEST
2. RICHARD BROOKIN
3. JAMES M. LEDDY
4. TRAVIS WINDHAM Bay Co. Public Utilities (850) 872-9785
5. NOVIN ZIMMERMAN County Atty (850) 769-1414
6. SKIP COOK - Camp Dresser & McKee, Tall. 386-5277
7. WOLFRAM SCHWETZENDUEBEL Monticney (334) 271-9343
8. STEVE PASSAGE Monticney 212-826-7054
9. ~~DAVE~~ COMER DEP/OGC 488-9730
- 10.

Rogers said.

Getting the incinerator de-rated was a major factor in the county's decision to buy.

Concerns that air quality will suffer if the incinerator is de-rated are unfounded, Hudson said.

"The 1990 Clean Air Act is geared toward those municipal waste combustors in densely populated areas that have serious air pollution problems," he said.

Hudson cited incinerators in Tampa and Broward County that burn 3,000 or 3,500 tons of garbage a day.

"We're 510 (tons a day) compared to them," he said. "We're a 55-gallon barrel in the back yard."

"If there's a special waste we want to incinerate we send it to DEP for approval prior to striking a match to it," he said.

Hudson recalls only one air quality problem since the incinerator went online. In September 1987, a mechanical problem caused the incinerator to exceed its air permit for one hour. "We repaired it, and we 'fessed up. We

told (DEP)," he said.

The county also paid a \$1,200 fine.

**THE ORIGINAL SALE**

The county sold the incinerator to Ford Motor Credit Co. (now BancAmerica) in 1987 for \$50 million. Rogers said the sale was a financing maneuver so the county could pay off some debt and so Ford could take advantage of tax credits.

"It was worth \$15 million to (Ford)," Rogers said. "That's what they gave the county so the tax benefit was probably more than that."

Since that time, the county has spent \$39 million in lease payments to BancAmerica and \$27 million in management fees to Westinghouse (now CBS Broadcasting).

In addition, the county has paid \$384,000 a year for maintenance and about \$400,000 a year in property taxes on the incinerator. This amounts to a grand total of about \$3.8 million in maintenance fees and about \$4 million in taxes.

Once the county owns the incinerator, it would no longer pay taxes. But that won't be considered a "savings" because that amount of money will be used to pay for School Resource Officers. The County Commission has pledged to continue funding the SRO program in Bay District schools.

In 1997, the incinerator budget was \$13.3 million, which paid property taxes, the lease, debt and other expenses. That accounted for 57 percent of the Solid Waste Division's total budget. Income included about \$8 million in tipping fees and other charges and \$9 million from a half-cent sales tax.

When the county studied several bond options for buying the incinerator now, including a 14-year term or a 25-year term, it looked closely at the year 2003. That's when the voter-approved half-cent tax that funds the incinerator runs out.

With the \$48 million bond over 25 years, the county projects it will have \$36.5 million cash on hand in 2003.

"The amount of debt owed (in 2003) would be \$42 million," Wright said. "(The commission) could take the \$36 million and make a policy decision. They could pay off the bonds or get to some point of a sunset on this tax."

If the county doesn't purchase the incinerator and refinance the

bonds, Wright said, the county may have to raise tipping fees if the voters don't reapprove the tax in 2003.

"The half-cent sales tax could go away if there were no debt," Wright said. "It might require a slight adjustment to the tipping fee. What that would be, I have no idea. We might not be able to sunset it that year. But we'll have the opportunity at that time to understand several issues."

Those issues include EPA requirements for a small waste generator, electricity deregulation and the county's cash-versus-debt situation.

Rogers, the county finance officer, said it's unlikely the county could do without the sales tax.

"Without the sales tax, it doesn't float," he said.

The 1997 figures show the Solid Waste Division would have lost \$4 million without the \$9 million sales tax revenues.

"Commissioners are reluctant to say the half-cent would go away," Rogers said.

"They could commit to that, but they don't want to make a promise they may have to renege on."

**ART OF THE DEAL**

The county plans to buy the incinerator for \$43 million. CBS, who wants out of the industrial business, is going to pay more than \$7 million to break its contract with the county.

CBS will spend \$505,000 on de-rating efforts and change-of-law items, roughly \$2.8 million in capital improvements at the incinerator, and \$4 million to help the county with its purchase.

But there are strings attached.

The county has to agree to transfer CBS' contract to Montenary Power.

"(With Montenary) we have the same assurances we had with Westinghouse," Wright said. "They have gone out well over a year ago and looked at all different companies in the waste energy business. They chose Montenary. In their estimation they were the best."

Montenary also has agreed to secure a \$10 million line of credit in case of management problems.

"We still have some challenges," Hudson said. "The retrofit issue is one we'll have to address later. But I don't anticipate that we'll miss a beat and we'll continue to provide a high level of service."

"I believe in ownership over renting anything," said Hudson. "It gives us a little more control over the destiny of the facility."

# INCINERATOR: Ownership would make de-rating facility easier for county

From Page 1A

pared the sale to refinancing a home.

Interest rates on old incinerator bonds vary from 3.5 to 7.75 percent, depending on whether the bonds were taxable or nontaxable, Rogers said. That amounts to an annual debt service of about \$5.2 million. New bonds would have interest rates from 3.45 to 5 percent with an annual debt service of about \$3.8 million, he said.

By going with a \$48 million bond issue at a 25-year term, the county saves money on interest rates and has more cash on hand because the bond payments will be lower, Rogers said. This allows the county to build up reserves for landfill maintenance and a possible acid gas scrubber retrofit.

The scrubber purifies and controls emissions from the incinerator. It is required under regulations from the Florida Department of Environmental Protection and the Environmental Protection Agency.

## INCINERATOR REVENUES FOR 1996-97

|                                |                     |
|--------------------------------|---------------------|
| Half-cent sales tax:           | \$8,699,086         |
| Tipping fees (Bay County):     | \$4,229,237         |
| Florida Power:                 | \$3,196,557         |
| Tipping fees (Non-Bay County): | \$468,608           |
| <b>TOTAL:</b>                  | <b>\$16,593,488</b> |

Source: Solid Waste Management Director

The DEP says large generators - those permitted to burn 500 or more tons a day - must install the scrubber. The Bay County incinerator is permitted to burn 510 tons a day. Officials want to "de-rate" the incinerator so it can burn 498 tons a day and delay the scrubber retrofit.

"The goal was to avoid the initial cost of \$15-to- \$20 million (for the retrofit)," Wright said. "The actual operation is an additional \$700,000 to \$800,000 a year. That's a significant amount of money."

Operating the scrubbers includes buying chemicals, maintenance and other associated

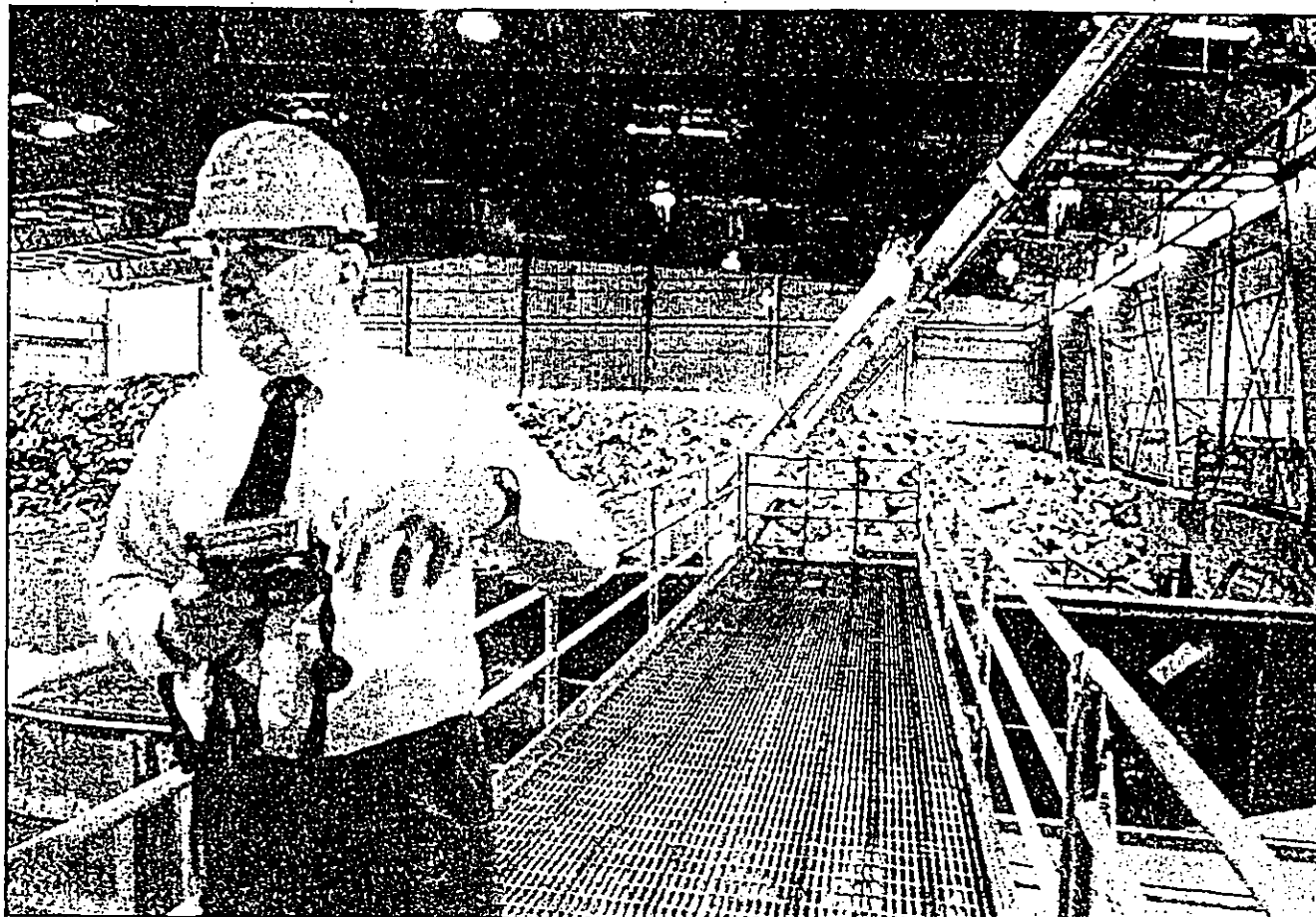
costs.

If the county owns the incinerator, it has more control over getting the facility de-rated. If the de-rating doesn't go through, the county would have to raise tipping fees by about 50 percent to pay for the retro-

fit. But county officials feel that's highly unlikely. As county attorney, Zimmerman said he talks frequently with DEP and EPA representatives and feels the de-rating will go through by year's end.

Wright said BancAmerica, which currently owns the incinerator, is reluctant to de-rate the facility because it would de-value it. The county must pay for the retrofit because it's considered a "change of law" item.

If the government requires small generators to be retrofitted in a few years, the county would be able to pay cash for the project instead of issuing a small bond,



News Herald Photo: Tom Needham

"We're a 55-gallon barrel in the back yard" compared to large metropolitan incinerators, says Bill Hudson.

## County expecting benefits from incinerator

(Second of two articles.)

SUSAN LaGORE  
The News Herald

Boiling down the county's reasons for spending \$43 million to buy the incinerator from BancAmerica requires a lot of cooking.

"It's very difficult to take an incinerator bond issue and in a one-sentence blurb explain this thing," said county finance officer, Joey Rogers.

Bay County residents won't see any immediate benefit if the sale goes through.

- Tipping fees won't change.
- Garbage rates shouldn't either.



■ The half-cent sales tax won't go away.

But the county foresees long-term benefits, not just from continuing present activities such as selling incinerator-generated electricity to Florida Power, but also from a new bond issue

that will save the county about \$25 million in interest over 25 years.

Involved parties met this weekend in Boston to review contracts and bond documents. Bay County representatives included County Manager Jon Mantay, Commissioner Richard Stewart, County Attorney Nevin

Zimmerman and Clerk of Circuit Court Harold Bazzel.

The sale should be complete within weeks.

The county doesn't anticipate any additional expenses once it owns the incinerator, said Bill Hudson, director of the Solid Waste Management Department. Everything will continue as normal except the county will own the building and Montanay Power Corp. will replace CBS Broadcasting as the incinerator's operator.

"There may be more labor involved with contract monitoring," Hudson said. "I'll be more concerned about maintenance than I was before."

Rogers and Robert Wright, the commission vice chairman who's been the county's point man on this issue, com-

Please see INCINERATOR, 6A

## MEETING: BAY COUNTY

9/19/97

| <u>NAME</u>        | <u>AFFILIATION</u>         | <u>PHONE</u>      |
|--------------------|----------------------------|-------------------|
| MICHAEL HEWETT     | FL DEP                     | 850/488-0114      |
| EMIL JOHNSON       | MDXENAY                    | 305 854 2229      |
| NEVIN ZIMMERMAN    | Bay City Atty              | 850/769-1414      |
| SKIP COOK          | Camp Dresser & McKee       | 850-386-5277      |
| TRAVIS WINDHAM     | Bay County                 | 850-872-4785      |
| Wm. G. Hudson      | BAY COUNTY                 | 850-872-4785      |
| J. M. LEDDY        | BAY COUNTY ENERGY SYS, INC | 850-785-7933      |
| Linda Reel         | DEP OGC                    | 850-921-9630      |
| KEVIN S. BROWNS JR | ACOSI                      | 850 785 7133 x266 |
| MICHAEL F. JOHNSON | WESTINGHOUSE               | 412-256-2165      |

JUL 29 '97 12:35PM (W) RESD ENGINEERING 412-244209E

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|--|-------|--------------|
| Post-It™ brand fax transmittal memo 7671 |       | # of pages > |
| To                                       | NEVIN |              |
| From                                     |       |              |
| Co.                                      |       |              |
| Dept.                                    |       |              |
| Phone #                                  |       |              |
| Fax #                                    |       |              |

**Discussion Paper  
Concerning the examination of  
Bay County Facility Re-rating**

The Bay County Facility currently is rated at a nominal 510 tons per day of municipal waste processing of material with a higher heating value of 4500 btu/lb. This translates into an operational steam generation capability of 68,000 lbs. per hour from each boiler. The facility is currently permitted to produce no more than 68,000 lbs. per hour of steam per boiler averaged over a seven day reporting period.

The method for compliance with this regulatory limit is to establish a set point within the facility's digital control system which automatically controls the steam generation of the combustor/boiler system to no more than 68,000 lbs. of steam per hour. This digital control systems establishes the feed rate and other parameters that result in a set steam production rate.

Documentation of how much steam was produced over any specific period of time is used to demonstrate compliance with the requirement to limit the production of steam and thus the municipal solid waste feed rate. A simple calculation will allow verification that the steam production limit has been kept in compliance.

If the facility were to be considered for a new processing rating, the same operational philosophy could be maintained. If each combustor/boiler system were to be derated to no more than 249 tons per day of municipal waste processing at 4500 btu per lb. this would equate to a hourly steam production of 66,400 pounds per each combustor/boiler system.

$$(249/255) \times 68,000 \text{ lb./hr.} = 66,400 \text{ lb./hr.}$$

The facility digital control system would now be set to the new operational set point of 66,400 lbs./hr.. The feed rate would be automatically adjusted accordingly as would the other operating parameters necessary to accommodate the reduced production rate.

The method of verifying compliance would need not change. The only adjustment necessary would be to now verify compliance with the production of 66,400 lbs./hr. rather than the previous limit of 68,000 lbs./hr..



OFFICE OF THE COUNTY ATTORNEYS

RECEIVED

JUL 31 1997

Division of Air  
RESOURCES MANAGEMENT

July 29, 1997

BOARD OF COUNTY  
COMMISSIONERS

BURKE & BLUE, P.A.

LES W. BURKE  
NEVIN J. ZIMMERMAN  
DAVID M. NOLL

221 MCKENZIE AVENUE  
POST OFFICE BOX 70  
PANAMA CITY, FLORIDA 32402  
TELEPHONE (904) 769-1414  
TELECOPY (904) 764-0857

COMMISSIONERS:

CAROL ATKINSON  
DISTRICT I

RICHARD STEWART  
DISTRICT II

ROBERT WRIGHT  
DISTRICT III

DANNY SPARKS  
DISTRICT IV

MARC NOLEN  
DISTRICT V


Michael Hewitt, Project Engineer  
Department of Environmental Protection  
Air Resources Management  
2600 Blair Stone Road  
Mail Station 5500  
Tallahassee, Florida 32399-2400

Re: Bay County Resource Recovery Facility

Dear Michael:

This letter will merely confirm the meeting presently scheduled for August 6, 1997, at 1:30 (EST) in Tallahassee. We look forward to meeting with you concerning the classification of the Bay County facility as a "small generator" for Clean Air Act Amendment purposes.

Sincerely,

  
for Nevin J. Zimmerman

NJZ/wgm

cc: Travis Windham, Public Utilities Director  
Charles (Skip) E. Cook, Camp Dresser and McKee, Inc.  
James M. Leddy, Plant Manager, Bay Resource Energy Systems  
Richard Brookins, Plant Environmental Engineer, Resource Energy Systems  
John J. Zebroski, Westinghouse Electric Corporation



OFFICE OF THE COUNTY ATTORNEYS

RECEIVED

JUN 28 1997

DIVISION OF AIR RESOURCES MANAGEMENT

BOARD OF COUNTY COMMISSIONERS

June 25, 1997

BURKE & BLUE, P.A.

LES W. BURKE
NEVIN J. ZIMMERMAN
DAVID M. NOLL

Michael Hewitt, Project Engineer
Department of Environmental Protection
Air Resources Management
2600 Blair Stone Road
Mail Station 5500
Tallahassee, Florida 32399-2400

Re: Bay County Resource Recovery Facility

Dear Michael:

This letter is a follow up to the phone message I left while you were on vacation concerning Bay County's desire to meet with you to discuss "down-sizing" the rated capacity on Bay County's two Municipal Waste Combusters.

The existing municipal waste combusters have a rated capacity of 255 tons per day, and Bay County's desire is to have the municipal waste combuster units deemed "small" for purposes of EPA regulations.

At your earliest convenience, Travis Windham, Public Utilities Department Director, Skip Cook, Bay County's consulting engineer with Camp Dresser and McKee, Inc. and I would like to meet with you in Tallahassee to discuss this issue. We will be contacting your office after you return on Monday, June 30, 1997.

Sincerely,

[Handwritten signature of Nevin J. Zimmerman]

Nevin J. Zimmerman

NJZ:mam

cc: Travis Windham, Public Utilities Director
Skip Cook, Camp Dresser and McKee, Inc.

221 MCKENZIE AVENUE
POST OFFICE BOX 70
PANANMA CITY, FLORIDA 32402
TELEPHONE (904) 769-1414
TELECOPY (904) 784-0857

COMMISSIONERS:

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DISTRICT I

RICHARD STEWART
DISTRICT II

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DISTRICT III

DANNY SPARKS
DISTRICT IV

MARC NOLEN
DISTRICT V



**BAY COUNTY PUBLIC UTILITIES DEPARTMENT  
 WATER SYSTEMS DIVISION - SOLID WASTE DIVISION  
 3410 Transmitter Road  
 Panama City, Florida 32404  
 Telephone: 904/872-4785 - Fax: 904/872-4805**

**FAX TRANSMISSION FORM**

**DATE:** April 28, 1997

**TIME:** 9:17

**TO/FAX # :** Mr. Michael Hewitt  
 Florida Department of Environmental Protection  
 Air Division  
 Fax 904-922-6979

**FROM:** Clifton "Travis" Windham, P.E., Director  
 Public Utilities Department

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**ADDITIONAL INFORMATION:**

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**Total Pages (including cover):** 9

C97046.FAX

BAY COUNTY PUBLIC UTILITIES DEPARTMENT  
WATER SYSTEMS DIVISION - SOLID WASTE DIVISION  
3410 Transmitter Road  
Panama City, Florida 32404  
Telephone: 904/872-4785 - Fax: 904/872-4805

FAX TRANSMISSION FORM

DATE: April 7, 1997 TIME: 0930

TO/FAX #: Mr. Scott Barnhart  
Senator Connie Mack's Office  
Phone 202-224-5274  
Fax 202-224-1907

FROM: Clifton "Travis" Windham, P.E., Director  
Public Utilities Department

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**ADDITIONAL INFORMATION:**

Forwarded is a proposed letter for your review and use. We attempted to prepare the letter for the Senator that is pretty much void of a lot of technical and demographic data. However, we do believe that the "discussion paper" data will be helpful and informative for EPA. Thanks for your help. If you have any questions, please contact me at 904-872-4785.

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Total Pages (including cover): 8

C97044.FAX

April 7, 1997

Ms. Carol M. Browner, Administrator  
U.S. Environmental Protection Agency  
401 M Street, S.W.  
Washington, D.C. 20460

Dear Administrator:

I recently met with a delegation of my constituents from Bay County, Florida. They brought to my attention that the U.S. Environmental Protection Agency's (EPA's) regulations requiring enhanced emission controls for municipal waste combustors (MWC) have been partially vacated, specifically those for small and "Davis County Class" facilities. It is further my understanding that EPA's schedule for promulgating new rules for these classes may delay the compliance date beyond the year 2000. Delaying the date by which Bay County would need to install new emission controls would be of great fiscal benefit to not only Bay County's citizens, but also the citizens of the five (5) neighboring counties which use this facility as their means of solid waste disposal.

Much of the information we discussed during our meeting is included in the attached "discussion paper". I believe there is sound rationale for their facility to be classified as a small MWC facility. I strongly support their position.

I am requesting that Bay County's municipal waste combustor be designated as a "small" facility limited to processing up to 250 tpd of solid waste with a heating value of 4500 Btu/lb in each of its combustion units and be subject to the emission guidelines to be

promulgated for the small classification of MWC.

Sincerely,

Connie Mack, Senator

United States Senate

Attachment

**Discussion Paper  
for Designating the  
Bay County Florida Waste-to-Energy Facility  
A "Small Facility" for Purposes of Emission Guideline Applicability**

Background

Bay County, Florida, is a small rural county with a permanent population of approximately 136,000 located on the Gulf of Mexico between Pensacola and Tallahassee. During the spring and summer months, Bay County plays host to approximately 3 million visitors. This activity places a tremendous burden on municipal services, including solid waste collection and disposal.

Bay County began researching alternative solid waste disposal options in mid-1980 after contaminated groundwater was discovered at its sanitary landfill. At that time, the Florida Department of Environmental Regulation (now FDEP) was promoting waste-to-energy as a viable, cost effective and environmentally preferred alternative to landfilling in the State of Florida, and was offering grant monies to qualifying municipalities for the purpose of conducting "feasibility studies". Bay County was one of a number of counties which received grant funds to perform a feasibility study. The results of the study undertaken for Bay County indicated that a waste-to-energy facility would be a cost effective and environmentally sound option for disposing of the waste generated within the county.

Based on the results of the feasibility study and support of the State of Florida, Bay County contracted with a private firm to build a 510 ton per day (tpd) waste-to-energy (WTE) facility. Bonds were issued in 1985 and the County incurred a \$60 million debt to

fund the construction costs for the WTE plant, a new ash landfill and new infrastructure to support both facilities. Bay County's WTE facility was placed into operation in 1987.

Bay County's WTE facility was initially designed to handle solid waste generated within the County only. As a result of aggressive source reduction and recycling programs, the amount of solid waste requiring disposal has decreased considerably. This has allowed Bay County to "regionalize" its WTE facility, which currently handles the solid waste from five surrounding rural counties. This has provided a cost effective and environmentally sound solution for these counties and has further reduced the region's dependence on sanitary landfills, minimizing the threat to groundwater supplies.

#### New Federal Regulations

The Clean Air Act Amendments of 1990 required the US EPA to develop new air emission standards for existing and new municipal waste combustors (MWCs). The US EPA promulgated final emission guidelines applicable to existing MWCs on December 19, 1995. These regulations require existing MWCs to provide enhanced air emission controls at considerable capital cost. The estimated cost to install these controls on the Bay County WTE facility is \$20 million compared to the original capital cost of \$37 million for the entire facility.

These rules were written such that any facility with a total installed plant capacity greater than 250 tpd was considered a "large" facility and therefore subject to the provisions of these regulations. Bay County's facility has two combustion units each with a design

capacity of 255 tpd and would be considered a "large" facility if classification is based on the total installed capacity of 510 tpd as originally defined in the US EPA's final rules. On December 6, 1996, a federal appeals court vacated the US EPA's final emission guideline rules following a challenge by Davis County, Utah, over how the US EPA classified large versus small facilities. Davis County successfully argued that the US EPA should have considered individual unit capacity and not total plant capacity in determining whether a facility was to be considered "large" or "small" for purposes of determining the applicable emission standards. The emission standards for "small" facilities, which have yet to be promulgated, are anticipated to be less stringent than for "large" facilities. The US EPA has a petition pending requesting the court vacate only portions of the rule applicable to "small" MWCs (total capacity of 250 tpd or less) and small units (individual unit capacity of 250 tpd or less).

#### Classification of the Bay County WTE Facility

Based on the recent federal appeals court ruling, Bay County seeks to have its WTE facility (with design unit capacities of 255 tpd each) classified as a "small" facility. It's facility would then be regulated under less stringent standards which would be established at a later date for facilities of this size. Classification of the Bay County facility as a small unit facility would provide Bay County several significant benefits while still protecting the health of its residents. The benefits include:

- o Substantially reducing the capital and operating cost of retrofitting the facility because the degree of control equipment would be less than for large facilities.

- o Delaying the compliance date for completion of the retrofit, thereby allowing the County to build a cash reserve and reduce the amount of money required to be borrowed to finance the retrofit.
- o Allowing the facility to financially compete with other less environmentally sensitive disposal options (i.e. landfills).
- o Allowing the County to continue to provide a cost effective and environmentally sound disposal site for surrounding counties.

#### Technical Rationale for Classification as Small Unit Facility

As currently written, the US EPA's rules allow small and large facilities to operate up to 110 percent of the maximum demonstrated load which is the capacity demonstrated during the most recent dioxin emission test. Assuming a facility with a name plate of 250 tpd at 4500 Btu/lb demonstrates its maximum capacity at the nameplate rating, it is allowed to process up to 110 percent of that load or 275 tpd of solid waste with a heating value of 4500 Btu/lb while still being classified as a "small" facility. This processing level is substantially higher than either the nameplate rating of, or the operational history demonstrated by, the Bay County WTE facility.

Historical operating data indicates that the actual operating level of the Bay County WTE facility on a steam flow basis has been in the range of 90-95 percent of the design capacity. This is equivalent to 230-242 tpd of refuse with a higher heating value (HHV)



of 4500.

To further support designation as a small unit, Bay County is willing to agree to a permit condition which limits the maximum capacity of each unit to 250 tpd when processing 4500 Btu/lb solid waste. Such determination would be made on a real time basis by limiting the steam flow from each unit to the equivalent amount of steam that would be generated if 250 tpd of refuse with an HHV of 4500 Btu/lb were processed.

#### Environmental Rationale for Classification as a Small Unit Facility

The existing air quality in Bay County is excellent. Located on the Gulf of Mexico, Bay County land area is flat with an average annual rainfall of 67 inches and constant sea breezes. The region is in attainment with state requirements and the National Ambient Air Quality Standards. The Bay County WTE facility is currently operating, and has consistently operated, within the air quality standards established in its current "air permit". The Bay County WTE facility as now equipped and operated is protective of public health and the environment. Further protection would be provided under anticipated new regulations for "small" facilities. The degree of protection required of "large" facilities is not warranted for the Bay County WTE facility, nor is it cost effective.

Facilities using dioxin/furan data from one unit to represent dioxin/furan data for similar units were required to demonstrate that all of the units are of the same design, operate with the same fuel, have the same operating parameters, and are expected to have similar emission levels. The data submitted by each of the six facilities is located in Appendix B of this plan. After review of the data, the Department is satisfied that each facility has adequately demonstrated the test data provided to be representative of similar units. Therefore, the reduced testing is "at least as protective" under the provisions of Section 129(b)(2) of the Clean Air Act.

#### **5.0 Compliance Schedules and Closure Agreements**

Under the provisions of 40 CFR 60.24, the Department must include compliance schedules for each affected MWC facility. Furthermore, in 40 CFR 60.39b, small facilities (more than 35 but less than or equal to 225 megagrams per day) must comply with all of the standards and conditions of Subpart Cb within three years of EPA approval of this plan, while large facilities (greater than 225 megagrams per day) must comply within one to three years. If the compliance schedule for a large facility extends beyond one year, the schedule must include the measurable and enforceable incremental steps of progress specified in 40 CFR 60.21(h). The five increments of progress are:

**Increment 1:** Submittal of a final control plan for the designated facility to the appropriate air pollution control agency.

**Increment 2:** Awarding of contracts for emission control systems or for process modifications, or issuance of orders for the purchase of component parts to accomplish emission control or process modification.

**Increment 3:** Initiation of on-site construction or installation of emission control equipment or process change.

**Increment 4:** Completion of on-site construction or installation of emission control equipment or process change.

**Increment 5:** Final compliance.

Under the provisions of 40 CFR 60.39b, and in accordance with the July 1996 EPA document, *Municipal Waste Combustion: Summary of the Requirements for Section 111(d)/129 State Plans for Implementing the Municipal Waste Combustor Emission Guidelines*, a State plan may include provisions for an MWC unit to cease operation and restart as part of its retrofit schedule. In a case where an MWC facility (which may include multiple units) requires such extensive construction that the work cannot be completed within a three-year time frame, a closure agreement may be included in the plan which would require the unfinished MWC unit(s) to close at the end of three years and not reopen until construction is complete. Performance testing of the unit(s) covered by the closure agreement must be completed within 180 days of reopening.

Sections 5.1 through 5.13 of this plan present the compliance schedules and, where applicable, the closure agreements for each MWC unit at every affected facility.

### **5.1 Bay County Energy Systems**

The municipal waste combustion facility in Bay County consists of two mass burn units. Each unit can burn 231 megagrams per day (approximate total: 510 tons per day) of waste and uses an electrostatic precipitator to control gaseous emissions. The facility is large and will require more than one year after EPA approval of this plan to comply with all of the standards and conditions of Rules 62-210.300(8)(b) and 62-296.416, F.A.C. Each unit will be retrofitted concurrently. Therefore, both units will meet the following compliance schedule.

- Increment 1: 3 months after EPA approval of this plan. - 2/13/98
- Increment 2: 7 months after EPA approval of this plan. - 6/13/98
- Increment 3: 19 months after EPA approval of this plan. - 6/13/99
- Increment 4: 32 months after EPA approval of this plan. - 7/13/00
- Increment 5: 36 months after EPA approval of this plan or December 19, 2000,  
whichever is earlier. - 11/13/00

## 5.2 Lake County Resource Recovery

The municipal waste combustion facility in Lake County consists of two mass burn units. Each unit can burn 261 megagrams per day (approximate total: 576 tons per day) of waste and uses a spray dryer, carbon injection and fabric filter to control gaseous emissions. The facility is large and will require more than one year after EPA approval of this plan to comply with all of the standards and conditions of Rules 62-210.300(8)(b) and 62-296.416, F.A.C. Each unit will be retrofitted concurrently. Therefore, both units will meet the following compliance schedule.

- Increment 1: 3 months after EPA approval of this plan.
- Increment 2: 15 months after EPA approval of this plan.
- Increment 3: 21 months after EPA approval of this plan.
- Increment 4: 25 months after EPA approval of this plan.
- Increment 5: 36 months after EPA approval of this plan or December 19, 2000,  
whichever is earlier.

## 5.3 Pasco County Solid Waste

The municipal waste combustion facility in Pasco County consists of three mass burn units. Each unit can burn 317 megagrams per day (approximate total: 1050 tons per day) of waste and uses a spray dryer, carbon injection and fabric filter to control gaseous emissions. The facility is large and will require more than one year after EPA approval