

MBLLC/DEP-01-099

June 14, 2001

Ms. Sandra Veazey
Florida DEP
160 Governmental Center
Pensacola, FL 32501-5794

SUBJECT: Title V FINAL Permit No.: 0050031-002-AV
Responsible Official

Dear Ms. Veazey:

In a letter from you dated January 24, 2001, you indicated that Jonathan Mantay, Bay County Administrator, was listed in your records as the Responsible Official for Bay Resource Management Center.

Please update your records to indicate C. Travis Windham P.E., Bay County Public Utilities Director, as Responsible Official for Bay Resource Management Center. Mr. Windham meets the definition of Responsible Official as set forth in F.A.C. 62-210.

Mr. Mantay and Mr. Windham are in agreement with this change as indicated by their signatures below.

Jonathan Mantay Date
Bay County Administrator
310 West 6th Street
Panama City FL 32401

C. Travis Windham, P.E. Date
Director, Bay County Public Utilities
3410 Transmitter Road
Panama City FL 32404

MBLLC/DEP-01-099 Page 2

Please contact me at (850) 785-7933, x206 if you need further assistance.

Sincerely,

Chalmous Beechem
Operations Manager

cc: Jerry Gross, Montenay Bay, LLC
Bill Hudson, Bay County
Clair Fancy, P.E., Bureau of Air Regulation, DEP
Scott Sheplak, P.E., Bureau of Air Regulation, DEP
Dave Beachler, URS Corporation

Mitchell, Bruce

To: Moose Beechem
Cc: Fancy, Clair; Sheplak, Scott
Subject: RE: Responsible official

8/8/02

Dear Mr. Beechem,

Your welcome. Thank you for the update on the R.O. I have completed the evaluation on the 2nd segregated waste stream request and the letter is on the way...it was approved with the same stipulations that were established in the 1st letter regarding the percentage that could be incinerated and the compliance timeframe. If we can be of further service, please give me a call. Take care.

Bruce

-----Original Message-----

From: Moose Beechem [mailto:cbeechem@montenaybay.com]
Sent: Wednesday, August 07, 2002 10:04 AM
To: Mitchell, Bruce
Subject: RE: Responsible official

Mr. Mitchell,

Once again, I appreciate the quick response on these approval requests. I also appreciate the background information on Buckeye Industries.

Thank you,
Moose Beechem

> -----Original Message-----

> From: Mitchell, Bruce [mailto:Bruce.Mitchell@dep.state.fl.us]
> Sent: Tuesday, August 06, 2002 4:10 PM
> To: Moose Beechem
> Subject: RE: Responsible official

>

>

> 8/6/02

>

> Mr. Beechem,

>

> Thanks for providing me with the change in the R.O for your facility. On
> future correspondence, I will use Mr. Windham's name and address. Again,
> thanks for the update.

>

> Bruce

>

> -----Original Message-----

> From: Moose Beechem [mailto:cbeechem@montenaybay.com]
> Sent: Tuesday, August 06, 2002 12:31 PM
> To: Mitchell, Bruce
> Subject: Responsible official

>

>

> Bruce,

>

> Attached is the document containing the RO information that we discussed
> yesterday. I will call later today to ensure that you received this and to
> see if you have any questions.

>

> Thanks

> Moose

>

NO TITLE V



BAY COUNTY ENERGY SYSTEMS, INC.

6510 Bay Line Drive
Panama City, Florida 32404
(904) 785-7933
(904) 784-1779 Fax

RECEIVED

JUN 19 1996

BUREAU OF
AIR REGULATION

BCES/DEP-96-119

June 7, 1996

Mr. Ed Middleswart
Florida Department of Environmental Protection
Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

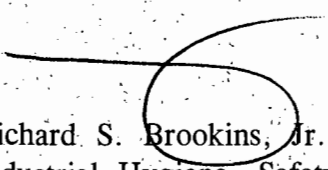
REF: Title V Permit Application

Dear Ed:

Enclosed, please find four electronic copies of our Title V permit application and four hard copies of our attachments. Also enclosed for your convenience is one hard copy of the permit application. This is being sent in the event that the disks are damaged during shipment. In the unlikely event that this should occur, please notify me immediately and replacements will be provided.

If I may be of any further service in this matter, please do not hesitate to contact me at (904) 785-7933.

Sincerely,


Richard S. Brookins, Jr.
Industrial Hygiene, Safety, and
Environmental Coordinator

cc: Bill Hudson w/attachments
Jim Leddy w/attachments
Jerry Joseph w/attachments

RECEIVED

JUN 10 1996

Northwest Florida
DEP

RECEIVED

JUN 19 1996

BUREAU OF
AIR REGULATION

**Department of
Environmental Protection**

DIVISION OF AIR RESOURCES MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Identification of Facility Addressed in This Application

1. Facility Owner/Company Name : Bay County Energy Systems, Inc.	
2. Site Name : Bay Resource Management Center	
3. Facility Identification Number : 0050031 [] Unknown	
4. Facility Location : Bay Industrial Park - approximately 2 miles North of intersection of U.S. 231 and County Road 2301 ✓ Street Address or Other Locator : 6510 Bay Line Drive City : Panama City County : Bay Zip Code : 32404-____	
5. Relocatable Facility? [] Yes [X] No	6. Existing Permitted Facility? [X] Yes [] No

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JUN 10 1996

Northwest Florida
DEP

I. Part 1 - 1

**STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR RESOURCES MANAGEMENT
APPLICATION FOR AIR PERMIT - LONG FORM**

I. APPLICATION INFORMATION

Identification of Facility Addressed in This Application

Bay Industrial Park - approximately 2 miles North of intersection of U.S. 231 and County Road 2301

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official :

Name : James M. Leddy
Title : Plant Manager

2. Owner or Authorized Representative or Responsible Official Mailing Address :

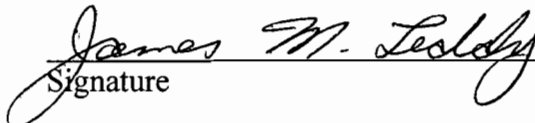
Organization/Firm : Bay County Energy Systems, Inc.
Street Address : 6510 Bay Line Drive
City : Panama City
State : FL Zip Code : 32404-____

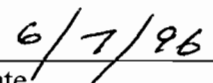
3. Owner/Authorized Representative or Responsible Official Telephone Numbers :

Telephone : (904)785-7933 Fax : (904)784-1779

4. Owner/Authorized Representative or Responsible Official Statement :

I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions units.*


Signature


Date

* Attach letter of authorization if not currently on file.

RECEIVED

I. Part 2 - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

JUN 10 1996

Northwest Florida
DEP

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type
001	MSW-Fired Combustor/Boiler #1 W/ESP	1
002	MSW-Fired Combustor/Boiler #2 W/ESP	1

Purpose of Application and Category

Category I : All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain :

Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number :

Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed :

Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number :

Operation permit to be revised :

Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application.

Operation permit to be revised/corrected :

-] Air operation permit revision for a Title V source for reasons other than construction or modification of an emissions unit.

Operation permit to be revised :

Reason for revision :

Category II : All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain :

-] Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s) :

-] Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed :

-] Air operation permit revision for a synthetic non-Title V source.

Operation permit to be revised :

Reason for revision :

Category III : All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain :

-] Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

I. Part 4 - 2

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

Current operation permit number(s), if any :

- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s) :

- Air construction permit for one or more existing, but unpermitted, emissions units.

Application Processing Fee

Check one :

Attached - Amount : _____

Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations :
2. Projected or Actual Date of Commencement of Construction :
3. Projected Date of Completion of Construction :

Professional Engineer Certification

1. Professional Engineer Name : Gerald T. Joseph Registration Number : PE-0048703
2. Professional Engineer Mailing Address : DMG Environmental, Inc. Street Address : 21 Yost Blvd. Suite 202 City : Pittsburgh State : PA Zip Code : 15221-____
3. Professional Engineer Telephone Numbers : Telephone : (412)824-2355 Fax : (412)824-8131

4. Professional Engineer Statement :

I, the undersigned, hereby certified, except as particularly noted herein, that :*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Gerald T. Joseph
Signature

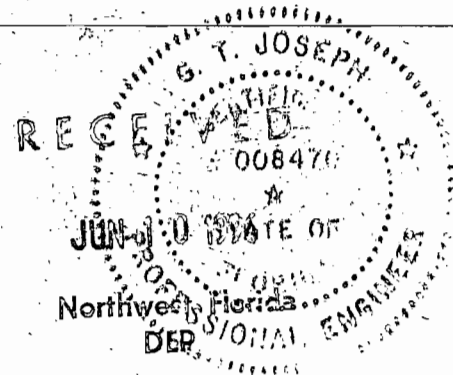
6-5-96
Date

* Attach any exception to certification statement.

I. Part 6 - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96



Professional Engineer Certification

1. Professional Engineer Name : Gerald T. Joseph

Registration Number : PE-0048703

2. Professional Engineer Mailing Address :

Organization/Firm : DMG Environmental, Inc.

Street Address : 21 Yost Blvd. Suite 202

City : Pittsburgh

State : PA

Zip Code : 15221-_____

3. Professional Engineer Telephone Numbers :

Telephone : (412)824-2355

Fax : (412)824-8131

4. Professional Engineer Statement :

I, the undersigned, hereby certified, except as particularly noted herein, that :*

(1) To the best of my knowledge, there is reasonable assurance (a) that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions in the Florida Statutes and rules of the Department of Environmental Protection; or (b) for any application for a Title V source air operation permit, that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in the application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application;

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application; and

(3) For any application for an air construction permit for one or more proposed new or modified emissions units, the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

Signature

Date

* Attach any exception to certification statement.

I. Part 7 - 1

DEP Form No. 62-210.900(1) - Form

4. Professional Engineer Statement :

I, the undersigned, hereby certified, except as particularly noted herein, that :*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Gerald T. Joseph
Signature

6-5-96
Date

* Attach any exception to certification statement.

I. Part 6 - 1

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

Application Worksheet

Owner :	James M. Leddy		
City :	Panama City		
County :	Bay		
Status :	A	Major Group SIC :	49
AOR Required?		Ozone SIP Facility?	
Title V?	Y		
NSPS?	Y		
NESHAP?	Y		

Application Contact

1. Name and Title of Application Contact : Name : Richard S. Brookins Jr. Title : IH, S, and Env. Coordinator
2. Application Contact Mailing Address : Organization/Firm : Bay County Energy Systems, Inc. Street Address : 6510 Bay Line Drive City : Panama City State : FL Zip Code : 32404-____
3. Application Contact Telephone Numbers : Telephone : (904)785-7933 Fax : (904)784-1779

Application Comment

This application addresses existing rules and permits. The applicant is aware that DEP has proposed draft regulations for existing MWC's. When these rules are finalized the applicant will submit appropriate permit applications to comply with the final rule.

Application Contact

1. Name and Title of Application Contact : Name : Richard S. Brookins Jr. Title : IH, S, and Env. Coordinator
2. Application Contact Mailing Address : Organization/Firm : Bay County Energy Systems, Inc. Street Address : 6510 Bay Line Drive City : Panama City State : FL Zip Code : 32404-____
3. Application Contact Telephone Numbers : Telephone : (904)785-7933 Fax : (904)784-1779

Application Comment

This application addresses existing rules and permits. The applicant is aware that DEP has proposed draft regulations for existing MWC's. When these rules are finalized the applicant will submit appropriate permit applications to comply with the final rule.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Name, Location, and Type

1. Facility Owner or Operator : Bay County Energy Systems, Inc.			
2. Facility Name : Bay Resource Management Center			
3. Facility Identification Number : 0050031			
4. Facility Location Information :			
Bay Industrial Park - approximately 2 miles North of intersection of U.S. 231 and County Road 2301 Facility Address : 6510 Bay Line Drive City : Panama City County : Bay Zip Code : 32404-____			
5. Facility UTM Coordinates :			
Zone : 16	East (km) : 642.40	North (km) : 3,349.50	
6. Facility Latitude/Longitude :			
Latitude (DD/MM/SS) : 30 15 54		Longitude (DD/MM/SS) : 85 30 8	
7. Governmental Facility Code :	8. Facility Status Code :	9. Relocatable Facility?	10. Facility Major Group SIC Code :
0	A	N	49
11. Applicant Comment :			
Owner - County Code 3 Operator - Bay County Energy Systems, Inc. Code 0			
DEP Facility Comment :			

Facility SIC Codes

Facility SIC Codes :

--

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility, Location, and Type

1. Facility UTM Coordinates : Zone : 16 ✓ East (km) : 642.40 ✓ North (km) : 3349.50 ✓			
2. Facility Latitude/Longitude : Latitude (DD/MM/SS) : 30 15 54 ✓ Longitude (DD/MM/SS) : 85 30 8 ✓			
3. Governmental Facility Code : 0	4. Facility Status Code : A	5. Facility Major Group SIC Code : 49	6. Facility SIC(s) : 4953
7. Facility Comment : Owner - County Code 3 Operator - Bay County Energy Systems, Inc. Code 0			

Facility Contact

1. Name and Title of Facility Contact : Richard S. Brookins Jr. IH, S, and Env. Coordinator
2. Facility Contact Mailing Address : Organization/Firm : Bay County Energy Systems, Inc. Street Address : 6510 Bay Line Drive City : Panama City State : FL Zip Code : 32404-____
3. Facility Contact Telephone Numbers : Telephone : (904)785-7933 Fax : (904)784-1779

Facility Regulatory Classifications

1. Small Business Stationary Source?	N
2. Title V Source?	Y
3. Synthetic Non-Title V Source?	N
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	Y
5. Synthetic Minor Source of Pollutants Other than HAPs?	N
6. Major Source of Hazardous Air Pollutants (HAPs)?	Y
7. Synthetic Minor Source of HAPs?	N
8. One or More Emissions Units Subject to NSPS?	Y
9. One or More Emission Units Subject to NESHAP?	Y
10. Title V Source by EPA Designation?	Y
11. Facility Regulatory Classifications Comment :	

B. FACILITY REGULATIONS

Rule Applicability Analysis

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II. Part 3a - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

B. FACILITY REGULATIONS

List of Applicable Regulations

State of Florida Title V Core List - dated 3/25/96

62-204.220 (4) Air Quality Models

62-210.550 Stack Height Policy

62-296.320 (4) General Visible Emission Standard

62-296.416 Waste-to-Energy Facilities, specifically:

62-296.416(3)(e) Mercury Emissions Inventory

62-296.416(3)(f) Mercury Emissions Test Method and Procedures

62-212.400 Prevention of Significant Deterioration (PSD)

62-204.800 Standards of Performance for New Stationary Sources (NSPS), specifically:

62-204.800 (7)(b) 5 and 40 CFR 60.50 Subpart E. Incinerators

Air Permit AO03-165754 & 55 Specific Condition 24C Quarterly Excess Emission Reports

Air Permit AO03-165754 & 55 Specific Condition 25 Notification of certain changes for DEP approval

Air Permit AO03-165754 & 55 Specific Condition 26 Annual Operations Report by March 1

Air Permit AO03-165754 & 55 Specific Condition 27 Adequately control fugitive dust.

II. Part 3b - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

C. FACILITY POLLUTANTS

Facility Pollutant Information

1. Pollutant Emitted	2. Pollutant Classification
CO	A
NOX	A
SO2	A
HCL	A

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information

Pollutant 1

1. Pollutant Emitted :	CO	
2. Requested Emissions Cap :	185.6000 (lbs/hour)	812.9000 (tons/year)
3. Basis for Emissions Cap Code :	OTHER	
4. Facility Pollutant Comment :	Air Permit AO03-165754 & 55 Specific Condition 18	

II. Part 4b - 1

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information

Pollutant 2

1. Pollutant Emitted :	NOX	
2. Requested Emissions Cap :	53.9000 (lbs/hour)	236.1000 (tons/year)
3. Basis for Emissions Cap Code :	OTHER	
4. Facility Pollutant Comment :	Air Permit AO03-165754 & 55 Specific Condition 18	

II. Part 4b - 2

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information

Pollutant 3

1. Pollutant Emitted :	SO2	
2. Requested Emissions Cap :	71.5000 (lbs/hour)	313.2000 (tons/year)
3. Basis for Emissions Cap Code :	OTHER	
4. Facility Pollutant Comment :	Air Permit AO03-165754 & 55 Specific Condition 18	

II. Part 4b - 3

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information

Pollutant 4

1. Pollutant Emitted :	HCL	
2. Requested Emissions Cap :	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code :	OTHER	
4. Facility Pollutant Comment :	Air Permit AO03-165754 & 55 Specific Condition 18 list HCl for PSD and Inventory purposes only. There is not an emission limit therefore an emission cap has not been asked for.	

II. Part 4b - 4

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

D. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

1. Area Map Showing Facility Location :	Attachment 1
2. Facility Plot Plan :	Attachment 2
3. Process Flow Diagram(s) :	Attachment 3
4. Precautions to Prevent Emissions of Unconfined Particulate Matter :	Attachment 4
5. Fugitive Emissions Identification :	Attachment 5
6. Supplemental Information for Construction Permit Application :	NA

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities :	Attachment 6
8. List of Equipment/Activities Regulated under Title VI :	Attachment 7
9. Alternative Methods of Operation :	NA
10. Alternative Modes of Operation (Emissions Trading) :	NA
11. Identification of Additional Applicable Requirements :	NA
12. Compliance Assurance Monitoring Plan :	NA
13. Risk Management Plan Verification :	NA
14. Compliance Report and Plan :	Attachment 8
15. Compliance Certification (Hard-copy Required) :	Attachment 9

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 1

MSW-Fired Combustor/Boiler #1 W/ESP

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

- [X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
- [] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

- [X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
- [] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
- [] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 2

MSW-Fired Combustor/Boiler #2 W/ESP

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

- [X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
- [] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

- [X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
- [] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
- [] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 2

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : MSW-Fired Combustor/Boiler #1 W/ESP		
2. Emissions Unit Identification Number : 001 [] No Corresponding ID [] Unknown		
3. Emissions Unit Status Code : A	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code : 49
6. Emissions Unit Comment :		

**B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)**

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : MSW-Fired Combustor/Boiler #2 W/ESP		
2. Emissions Unit Identification Number : 002 [] No Corresponding ID [] Unknown		
3. Emissions Unit Status Code : A	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code : 49
6. Emissions Unit Comment :		

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP _____

Emissions Unit Control Equipment 1

1. Description :	
Electrostatic Precipitator - 95 - 99+ % Efficiency	
2. Control Device or Method Code :	10

III. Part 3 - 1

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP _____

Emissions Unit Control Equipment 2

1. Description :	
Staged Combustion	
2. Control Device or Method Code :	25

III. Part 3 - 2

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Emissions Unit Control Equipment 1

1. Description :	
Electrostatic Precipitator - 95 - 99+ % Efficiency	
2. Control Device or Method Code :	10

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Emissions Unit Control Equipment 2

1. Description :	
Staged Combustion	
2. Control Device or Method Code :	25

**C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Emissions Unit Details

1. Initial Startup Date :	01-May-1987		
2. Long-term Reserve Shutdown Date :			
3. Package Unit :			
Manufacturer :	O'CONNOR COMBUSTOR	Model Number : RC 120	
4. Generator Nameplate Rating :	15	MW	
5. Incinerator Information :			
Dwell Temperature :	1,800	Degrees Fahrenheit	
Dwell Time :	1.00	Seconds	
Incinerator Afterburner Temperature :	Degrees Fahrenheit		

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	96	mmBtu/hr		
2. Maximum Incinerator Rate :	21250.00	lb/hr	255.00	tons/day
3. Maximum Process or Throughput Rate :	74800	#/hr steam flow		
4. Maximum Production Rate :				
5. Operating Capacity Comment :				
	Combustor design capacity is 255 TPD based on a waste heating value of 4500 BTU/Lb. Both emission units feed a common turbine-generator.			

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year

III. Part 4 - 2

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**C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Emissions Unit Details

1. Initial Startup Date :	01-May-1987		
2. Long-term Reserve Shutdown Date :			
3. Package Unit :			
Manufacturer :	Westinghouse O'Connor Combustor	Model Number : RC 120	
4. Generator Nameplate Rating :	15	MW	
5. Incinerator Information :			
Dwell Temperature :	1,800	Degrees Fahrenheit	
Dwell Time :	1.00	Seconds	
Incinerator Afterburner Temperature :	Degrees Fahrenheit		

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	96	mmBtu/hr		
2. Maximum Incinerator Rate :	21250.00	lb/hr	255.00	tons/day
3. Maximum Process or Throughput Rate :	74800	#/hr steam flow		
4. Maximum Production Rate :				
5. Operating Capacity Comment :				
Combustor design capacity is 255 TPD based on a waste heating value of 4500 BTU/Lb. Both emission units feed a common turbine-generator.				

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
24 hours/day	7 days/week	
52 weeks/year	8,760 hours/year	

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP _____

Rule Applicability Analysis

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**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

Emissions Unit Information Section 2

MSW-Fired Combustor/Boiler #2 W/ESP

Rule Applicability Analysis

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III. Part 6a - 2

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List of Applicable Regulations

Air Permit AO03-165754 Specific Condition 22B CEM Data during Startup, Shutdown, & Malfunction

Air Permit AO03-165754 Specific Condition 22F CO & O2 Monitor Data (CO emission limit of 800 ppm)

Air Permit AO03-165754 Specific Condition 23 Operations Monitoring

62-297.310 General Test Requirements

40CFR60.7 Continuous Monitoring Requirements

40CFR60.13 Reporting Requirements

40CFR60, Appendix F Quality Assurance for CEM's

Air Permit AO03-165754 Specific Condition 16A Maximum Charging Rate

Air Permit AO03-165754 Specific Condition 16B Wood Waste Limit

Air Permit AO03-165754 Specific Condition 16C Mean Furnance Temperature Limit

Air Permit AO03-165754 Specific Condition 16E Types of Waste Allowed to Process

Air Permit AO03-165754 Specific Condition 16F Aux Burner Fuel Types

Air Permit AO03-165754 Specific Condition 16H Hours of Operation

Air Permit AO03-165754 Specific Condition 16G Aux Burner Use during Startup

III. Part 6b - 1

List of Applicable Regulations

Air Permit AO03-165754 Specific Condition 17 MWC to be Equipped with ESP's

Air Permit AO03-165754 Specific Condition 18 Emission Limitations for Specific Pollutants

Air Permit AO03-165754 Specific Condition 19 Annual Compliance Test for PM, SO₂, NO_x, & VE's

Air Permit AO03-165754 Specific Condition 20 Compliance Testing for CO, Pb, Fl, VOC, Mercury, & Be

Air Permit AO03-165754 Specific Condition 22 CEM Requirement for Opacity, CO, & O₂

List of Applicable Regulations

62-297.310 General Test Requirements

40CFR60.7 Continuous Monitoring Requirements

40CFR60.13 Reporting Requirements

40CFR60, Appendix F Quality Assurance for CEM's

Air Permit AO03-165755 Specific Condition 16A Maximum Charging Rate

Air Permit AO03-165755 Specific Condition 16B Wood Waste Limit

Air Permit AO03-165755 Specific Condition 16C Mean Furnance Temperature Limit

Air Permit AO03-165755 Specific Condition 16E Types of Waste Allowed to Process

Air Permit AO03-165755 Specific Condition 16F Aux Burner Fuel Types

Air Permit AO03-165755 Specific Condition 16H Hours of Operation

Air Permit AO03-165755 Specific Condition 16G Aux Burner Use during Startup

Air Permit AO03-165755 Specific Condition 17 MWC to be Equipped with ESP's

Air Permit AO03-165755 Specific Condition 18 Emission Limitations for Specific Pollutants

Air Permit AO03-165755 Specific Condition 19 Annual Compliance Test for PM, SO₂, Nox, & VE's

III. Part 6b - 3

List of Applicable Regulations

Air Permit AO03-16575 Specific Condition 20 Compliance Testing for CO, Pb, Fl, VOC, Mercury, & Be

Air Permit AO03-165755 Specific Condition 22 CEM Requirement for Opacity, CO, & O2

Air Permit AO03-165755 Specific Condition 22B CEM Data during Startup, Shutdown, & Malfunction

Air Permit AO03-165755 Specific Condition 22F CO & O2 Monitor Data (CO emission limit of 800 ppm)

Air Permit AO03-165755 Specific Condition 23 Operations Monitoring

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 1

MSW-Fired Combustor/Boiler #1 W/ESP

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	S001	
2. Emission Point Type Code :	1	
3. Descriptions of Emission Points Comprising this Emissions Unit :	Flue gas stack from water-walled rotary combustor/boiler.	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :		
5. Discharge Type Code :	V	
6. Stack Height :	125	feet
7. Exit Diameter :	4.5	feet
8. Exit Temperature :	400	°F
9. Actual Volumetric Flow Rate :	56000	acfm
10. Percent Water Vapor :	20.00	%
11. Maximum Dry Standard Flow Rate :	28300	dscfm
12. Nonstack Emission Point Height :	feet	
13. Emission Point UTM Coordinates :		
Zone :	16	
East (km) :	642.400	
North (km) :	3349.500	
14. Emission Point Comment :	UTM Coordinates are approximate.	

III. Part 7a - 1

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E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section

2

MSW-Fired Combustor/Boiler #2 W/ESP

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	S002	
2. Emission Point Type Code :	1	
3. Descriptions of Emission Points Comprising this Emissions Unit :	Flue gas stack from MSW-Fired Water-Walled Rotary Combustor/Boiler	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :		
5. Discharge Type Code :	V	
6. Stack Height :	125 feet	
7. Exit Diameter :	4.5 feet	
8. Exit Temperature :	400 °F	
9. Actual Volumetric Flow Rate :	56000 acfm	
10. Percent Water Vapor :	20.00 %	
11. Maximum Dry Standard Flow Rate :	28300 dscfm	
12. Nonstack Emission Point Height :	feet	
13. Emission Point UTM Coordinates :		
Zone : 16	East (km) : 642.400	North (km) : 3349.500
14. Emission Point Comment :	UTM Coordinates are approximate.	

III. Part 7a - 2

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1

MSW-Fired Combustor/Boiler #1 W/ESP

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : SOLID WASTE DISPOSAL: INCINERATION - INDUSTRIAL MASS BURN ROTARY WATERWALL COMBUSTOR	
2. Source Classification Code (SCC) : 5-03-001-13	
3. SCC Units : Tons Burned (all solid fuels)	
4. Maximum Hourly Rate :	5. Maximum Annual Rate :
6. Estimated Annual Activity Factor : 97,730.00	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit : 9	
10. Segment Comment : 9 MILLION BTU/TON BURNED - BASED ON 4500 Btu/lb ESTIMATED ANNUAL ACTIVITY FACTOR BASED ON DESIGN RATE x 5% TPY	

III. Part 8 - 1

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1

MSW-Fired Combustor/Boiler #1 W/ESP

Segment Description and Rate : Segment 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : SOLID WASTE DISPOSAL: INDUSTRIAL AUXILLARY FUEL: LIQUIFIED PETROLEUM GAS (LPG)	
2. Source Classification Code (SCC) : 5-03-900-10	
3. SCC Units : Thousand Gallons Burned (all liquid fuels)	
4. Maximum Hourly Rate :	5. Maximum Annual Rate :
6. Estimated Annual Activity Factor : 1.00	
7. Maximum Percent Sulfur : 0.00	8. Maximum Percent Ash : 0.00
9. Million Btu per SCC Unit : 92	
10. Segment Comment : Propane Used for Auxiliary Burner Pilot Lights	

III. Part 8 - 2

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1

MSW-Fired Combustor/Boiler #1 W/ESP

Segment Description and Rate : Segment 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : SOLID WASTE DISPOSAL: INCINERATION - INDUSTRIAL MASS BURN ROTARY WATERWALL COMBUSTOR WOOD/VEGETATION/LEAVES	
2. Source Classification Code (SCC) : 5-02-002-01	
3. SCC Units : Tons Burned (all solid fuels)	
4. Maximum Hourly Rate :	5. Maximum Annual Rate : 56,575.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment : This is the permitted limit on the annual amount of supplemental wood waste that can be combusted.	

III. Part 8 - 3

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1

MSW-Fired Combustor/Boiler #1 W/ESP

Segment Description and Rate : Segment 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : SOLID WASTE DISPOSAL: INDUSTRIAL AUXILLARY FUEL: DISTILLATE OIL	
2. Source Classification Code (SCC) : 5-03-900-05	
3. SCC Units : Thousand Gallons Burned (all liquid fuels)	
4. Maximum Hourly Rate :	5. Maximum Annual Rate :
6. Estimated Annual Activity Factor : 15.00	
7. Maximum Percent Sulfur : 0.50	8. Maximum Percent Ash : 0.10
9. Million Btu per SCC Unit : 136	
10. Segment Comment : The auxilary burners are only used during startup.	

III. Part 8 - 4

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 2

MSW-Fired Combustor/Boiler #2 W/ESP

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : SOLID WASTE DISPOSAL: INCINERATION - INDUSTRIAL MASS BURN ROTARY WATERWALL COMBUSTOR	
2. Source Classification Code (SCC) : 5-03-001-13	
3. SCC Units : Tons Burned (all solid fuels)	
4. Maximum Hourly Rate :	5. Maximum Annual Rate :
6. Estimated Annual Activity Factor : 97,730.00	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit : 9	
10. Segment Comment : 9 MILLION BTU/TON BURNED - BASED ON 4500 BTU/LB ESTIMATED ANNUAL ACTIVITY FACTOR BASED ON DESIGN RATE x 5% TPY	

III. Part 8 - 5

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 2

MSW-Fired Combustor/Boiler #2 W/ESP

Segment Description and Rate : Segment 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : SOLID WASTE DISPOSAL: INDUSTRIAL AUXILIARY FUEL: LIQUIFIED PETROLEUM GAS (LPG)	
2. Source Classification Code (SCC) : 5-03-900-10	
3. SCC Units : Thousand Gallons Burned (all liquid fuels)	
4. Maximum Hourly Rate :	5. Maximum Annual Rate :
6. Estimated Annual Activity Factor : 1.00	
7. Maximum Percent Sulfur : 0.00	8. Maximum Percent Ash : 0.00
9. Million Btu per SCC Unit : 92	
10. Segment Comment : Propane Used for Auxiliary Burner Pilot Lights	

III. Part 8 - 6

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 2

MSW-Fired Combustor/Boiler #2 W/ESP

Segment Description and Rate : Segment 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : SOLID WASTE DISPOSAL: INCINERATION - INDUSTRIAL MASS BURN ROTARY WATERWALL COMBUSTOR WOOD/VEGETATION/LEAVES	
2. Source Classification Code (SCC) : 5-02-002-01	
3. SCC Units : Tons Burned (all solid fuels)	
4. Maximum Hourly Rate :	5. Maximum Annual Rate : 56,575.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur : 0.00	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment : <p style="text-align: center;">This is the permitted limit on the annual amount of supplemental wood waste that can be combusted.</p>	

III. Part 8 - 7

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 2

MSW-Fired Combustor/Boiler #2 W/ESP

Segment Description and Rate : Segment 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : SOLID WASTE DISPOSAL: INDUSTRIAL AUXILIARY FUEL: DISTILLATE OIL	
2. Source Classification Code (SCC) : 5-03-900-05	
3. SCC Units : Thousand Gallons Burned (all liquid fuels)	
4. Maximum Hourly Rate :	5. Maximum Annual Rate :
6. Estimated Annual Activity Factor : 15.00	
7. Maximum Percent Sulfur : 0.50	8. Maximum Percent Ash : 0.10
9. Million Btu per SCC Unit : 136	
10. Segment Comment : <p style="text-align: center;">The auxiliary burners are only used during startup.</p>	

III. Part 8 - 8

**G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)**

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP _____

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO	025		EL
PB	010		EL
NOX	025		EL
PM	010		EL
PM10	010		EL
SO2		010	EL
VOC	025		EL
FL		010	EL
HCL			NS
SAM			NS
H114		010	EL
CO	025		EL
PB	010		EL

III. Part 9a - 1

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**G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)**

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
NOX	025		EL
PM	010		EL
PM10	010		EL
SO2		010	EL
VOC	025		EL
FL		010	EL
HCL			NS
SAM			NS
H114		010	EL

III. Part 9a - 2

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**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted :	CO		
2. Total Percent Efficiency of Control :	%		
3. Potential Emissions :	92.80	lb/hour	406.46 tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:	to tons/year		
6. Emissions Factor : Reference : AO03-165754			
7. Emissions Method Code :	0		
8. Calculations of Emissions :	 (92.8 lb CO/hr * 24 hr/day * 365 days/year) / 2000 = 406.464 TPY		
9. Pollutant Potential/Estimated Emissions Comment :	 Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted :	PB		
2. Total Percent Efficiency of Control :	98.60	%	
3. Potential Emissions :	0.10	lb/hour	0.44 tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor : Reference : AO03-165754			
7. Emissions Method Code :	0		
8. Calculations of Emissions :	$(0.10 \text{ lb Pb/hr} \times 24 \text{ hr/day} \times 365 \text{ days/year}) / 2000 = 0.438 \text{ TPY}$		
9. Pollutant Potential/Estimated Emissions Comment :	Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit		

III. Part 9b - 2

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 3

1. Pollutant Emitted :	NOX		
2. Total Percent Efficiency of Control :	50.00	%	
3. Potential Emissions :	26.90	lb/hour	117.82 tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor : Reference :	AO03-165754		
7. Emissions Method Code :	0		
8. Calculations of Emissions :	(26.9 lb NOx/hr x 24 hr/day x 365 days/year) / 2000 = 117.822 TPY		
9. Pollutant Potential/Estimated Emissions Comment :	Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 4

1. Pollutant Emitted :	PM		
2. Total Percent Efficiency of Control :	99.00	%	
3. Potential Emissions :	6.80	lb/hour	29.78 tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor : Reference : AO03-165754			
7. Emissions Method Code :	0		
8. Calculations of Emissions :	$(6.8 \text{ lb/hr} * 24 \text{ hr/day} * 365 \text{ days/year}) / 2000 = 29.784 \text{ TPY}$		
9. Pollutant Potential/Estimated Emissions Comment :	Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit		

III. Part 9b - 4

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1
 MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 5

1. Pollutant Emitted :	PM10		
2. Total Percent Efficiency of Control :	99.00	%	
3. Potential Emissions :	6.80	lb/hour	29.78 tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
5. Range of Estimated Fugitive/Other Emissions:			tons/year
6. Emissions Factor : Reference : AO03-165754			
7. Emissions Method Code :	0		
8. Calculations of Emissions :	$(6.8 \text{ lb/hr} * 24 \text{ hr/day} * 365 \text{ days/year}) / 2000 = 29.784 \text{ TPY}$		
9. Pollutant Potential/Estimated Emissions Comment :	<p>Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit</p> <p>PM10 emissions are conservatively assumed to be equal to 100% PM.</p>		

III. Part 9b - 5

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1
 MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 6

1. Pollutant Emitted :	SO2		
2. Total Percent Efficiency of Control :	%		
3. Potential Emissions :	35.80	lb/hour	156.80 tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor : Reference :	AO03-165754		
7. Emissions Method Code :	0		
8. Calculations of Emissions :	$(35.8 \text{ lb SO}_2/\text{hr} \times 24 \text{ hr/day} \times 365 \text{ days/year}) / 2000 = 156.804 \text{ TPY}$		
9. Pollutant Potential/Estimated Emissions Comment :	Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1
 MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 7

1. Pollutant Emitted :	VOC			
2. Total Percent Efficiency of Control :	%			
3. Potential Emissions :	7.10	lb/hour	31.10	tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
5. Range of Estimated Fugitive/Other Emissions:			to	tons/year
6. Emissions Factor : Reference : AO03-165754				
7. Emissions Method Code :	0			
8. Calculations of Emissions :	(7.1 lb/hr x 24 hr/day x 365 days/year = 31.098 TPY			
9. Pollutant Potential/Estimated Emissions Comment :	Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit			

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 8

1. Pollutant Emitted :	FL		
2. Total Percent Efficiency of Control :	%		
3. Potential Emissions :	0.15	lb/hour	0.66 tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:	to tons/year		
6. Emissions Factor : Reference :	AO03-165754		
7. Emissions Method Code :	0		
8. Calculations of Emissions :	$(0.15 \text{ lb FL/hr} \times 24 \text{ hr/day} \times 365 \text{ days/year}) / 2000 = 0.657 \text{ TPY}$		
9. Pollutant Potential/Estimated Emissions Comment :	Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1
 MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 9

1. Pollutant Emitted :	HCL	
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor : Reference :		
7. Emissions Method Code :	5	
8. Calculations of Emissions :		
9. Pollutant Potential/Estimated Emissions Comment :	Not an Emission Limited pollutant.	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1
 MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 10

1. Pollutant Emitted :	SAM	
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor : Reference :		
7. Emissions Method Code :	0	
8. Calculations of Emissions :		
9. Pollutant Potential/Estimated Emissions Comment :	Not an Emissions Limited pollutant.	

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 11

1. Pollutant Emitted :	H114		
2. Total Percent Efficiency of Control :	%		
3. Potential Emissions :	0.18	lb/hour	0.79 tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor : Reference :	AO03-165754		
7. Emissions Method Code :	0		
8. Calculations of Emissions :	(0.18 lb/hr x 24 hr/day x 365 days/year) / 2000 = 0.7884 TPY		
9. Pollutant Potential/Estimated Emissions Comment :	Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2
 MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted :	CO		
2. Total Percent Efficiency of Control :	%		
3. Potential Emissions :	92.80	lb/hour	406.46 tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
5. Range of Estimated Fugitive/Other Emissions:	to tons/year		
6. Emissions Factor : Reference : AO03-165755			
7. Emissions Method Code :	0		
8. Calculations of Emissions :	$(92.8 \text{ lb/hr} \times 24 \text{ hr/day} \times 365 \text{ days/year}) / 2000 = 406.464 \text{ TPY}$		
9. Pollutant Potential/Estimated Emissions Comment :	<p>Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit</p>		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2
 MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted :	PB		
2. Total Percent Efficiency of Control :	98.60	%	
3. Potential Emissions :	0.10	lb/hour	0.44 tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor : Reference :	AO03-165755		
7. Emissions Method Code :	0		
8. Calculations of Emissions :	$(0.10 \text{ lb Pb/hr} \times 24 \text{ hr/day} \times 365 \text{ days/year}) / 2000 = 0.438 \text{ TPY}$		
9. Pollutant Potential/Estimated Emissions Comment :	Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2
 MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 3

1. Pollutant Emitted :	NOX		
2. Total Percent Efficiency of Control :	50.00	%	
3. Potential Emissions :	26.90	lb/hour	117.82 tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor : Reference : AO03-165755			
7. Emissions Method Code :	0		
8. Calculations of Emissions :	$(26.9 \text{ lb NOx/hr} \times 24 \text{ hr/day} \times 365 \text{ days/year}) / 2000 = 117.822 \text{ TPY}$		
9. Pollutant Potential/Estimated Emissions Comment :	<p>Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit</p>		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2
 MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 4

1. Pollutant Emitted :	PM		
2. Total Percent Efficiency of Control :	99.00	%	
3. Potential Emissions :	6.80	lb/hour	29.78 tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor : Reference : AO03-165755			
7. Emissions Method Code :	0		
8. Calculations of Emissions :	$(6.8 \text{ lb/hr} * 24 \text{ hr/day} * 365 \text{ days/year}) / 2000 = 29.784 \text{ TPY}$		
9. Pollutant Potential/Estimated Emissions Comment :	<p>Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit</p>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 5

1. Pollutant Emitted :	PM10		
2. Total Percent Efficiency of Control :	99.00	%	
3. Potential Emissions :	6.80	lb/hour	29.78 tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor : Reference :	AO03-165755		
7. Emissions Method Code :	0		
8. Calculations of Emissions :	$(6.8 \text{ lb/hr} * 24 \text{ hr/day} * 365 \text{ days/year}) / 2000 = 29.784 \text{ TPY}$		
9. Pollutant Potential/Estimated Emissions Comment :	<p>Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit</p> <p>PM10 emissions are conservatively assumed to be equal to 100% PM.</p>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 6

1. Pollutant Emitted :	SO2		
2. Total Percent Efficiency of Control :	%		
3. Potential Emissions :	35.80	lb/hour	156.80 tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:		to	tons/year
6. Emissions Factor : Reference :	AO03-165755		
7. Emissions Method Code :	0		
8. Calculations of Emissions :	$(35.8 \text{ lb SO}_2/\text{hr} \times 24 \text{ hr/day} \times 365 \text{ days/year}) / 2000 = 156.804 \text{ TPY}$		
9. Pollutant Potential/Estimated Emissions Comment :	Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 7

1. Pollutant Emitted :	VOC		
2. Total Percent Efficiency of Control :	%		
3. Potential Emissions :	7.10	lb/hour	31.10 tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:	to tons/year		
6. Emissions Factor : Reference : AO03-165755			
7. Emissions Method Code :	0		
8. Calculations of Emissions :	(7.1 lb/hr x 24 hr/day x 365 days/year) / 2000 = 31.098 TPY		
9. Pollutant Potential/Estimated Emissions Comment :	Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2
 MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 8

1. Pollutant Emitted :	FL		
2. Total Percent Efficiency of Control :	%		
3. Potential Emissions :	0.15	lb/hour	0.66 tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:	to tons/year		
6. Emissions Factor : Reference : AO03-165755			
7. Emissions Method Code :	0		
8. Calculations of Emissions :	 (0.15 lb Fl/hr x 24 hr/day x 365 days/year) / 2000 = 0.657 TPY		
9. Pollutant Potential/Estimated Emissions Comment :	 Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2
 MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 9

1. Pollutant Emitted :	HCL	
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor : Reference :		
7. Emissions Method Code :	0	
8. Calculations of Emissions :		
9. Pollutant Potential/Estimated Emissions Comment :	Not Emissions Limited	

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 10

1. Pollutant Emitted :	SAM	
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor : Reference :		
7. Emissions Method Code :	0	
8. Calculations of Emissions :		
9. Pollutant Potential/Estimated Emissions Comment :	Not Emissions Limited	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2
 MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Potential/Estimated Emissions : Pollutant 11

1. Pollutant Emitted :	H114			
2. Total Percent Efficiency of Control :	%			
3. Potential Emissions :	0.18	lb/hour	0.79	tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
5. Range of Estimated Fugitive/Other Emissions:				to tons/year
6. Emissions Factor : Reference : AO03-165755				
7. Emissions Method Code :	0			
8. Calculations of Emissions :	$(0.18 \text{ lb Hg/hr} \times 24 \text{ hr/day} \times 365 \text{ days/year}) / 2000 = 0.7884 \text{ TPY}$			
9. Pollutant Potential/Estimated Emissions Comment :	<p>Emission Limitations and Factors as specified in Specific Condition 18 of the above referenced Air Operating Permit</p>			

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Information Section 1

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	92.80 lb/hour 406.46 tons/year
5. Method of Compliance :	5 Year Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165754. Testing requirements as specified in Specific Condition 20 of permit AO03-165754.

III. Part 9c - 1

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Information Section 2

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	
	0.10 lb/hour 0.44 tons/year
5. Method of Compliance :	5 Year Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165754. Testing requirements as specified in Specific Condition 20 of permit AO03-165754.

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Information Section 3

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	
	26.90 lb/hour 117.82 tons/year
5. Method of Compliance :	Annual Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165754. Testing requirements as specified in Specific Condition 19 of permit AO03-165754.

III. Part 9c - 3

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Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Information Section 4

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	
	6.80 lb/hour 29.78 tons/year
5. Method of Compliance :	Annual Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165754. Testing requirements as specified in Specific Condition 19 of permit AO03-165754.

III. Part 9c - 4

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Effective : 3-21-96

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Information Section 5

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	6.80 lb/hour 29.78 tons/year
5. Method of Compliance :	Annual Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165754. Testing requirements as specified in Specific Condition 19 of permit AO03-165754.

III. Part 9c - 5

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Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Information Section 6

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	
	35.80 lb/hour 156.80 tons/year
5. Method of Compliance :	Annual Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165754. Testing requirements as specified in Specific Condition 19 of permit AO03-165754.

III. Part 9c - 6

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Information Section 7

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	7.10 lb/hour 31.10 tons/year
5. Method of Compliance :	5 Year Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165754. Testing requirements as specified in Specific Condition 20 of permit AO03-165754.

III. Part 9c - 7

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Pollutant Information Section 8

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	0.15 lb/hour 0.66 tons/year
5. Method of Compliance :	5 Year Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165754. Testing requirements as specified in Specific Condition 20 of permit AO03-165754.

III. Part 9c - 8

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Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP _____

Pollutant Information Section 11

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	
	0.18 lb/hour 0.79 tons/year
5. Method of Compliance :	Annual Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165754. Compliance testing as required by 62-296.416

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Information Section 1

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	92.80 lb/hour 406.46 tons/year
5. Method of Compliance :	5 Year Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165755. Testing requirements as specified in Specific Condition 20 of permit AO03-165755.

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Information Section 2

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	0.10 lb/hour 0.44 tons/year
5. Method of Compliance :	5 Year Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165755. Testing requirements as specified in Specific Condition 20 of permit AO03-165755.

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Information Section 3

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	26.90 lb/hour 117.82 tons/year
5. Method of Compliance :	Annual Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165755. Testing requirements as specified in Specific Condition 19 of permit AO03-165755.

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Information Section 4

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	
	6.80 lb/hour 29.78 tons/year
5. Method of Compliance :	Annual Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165755. Testing requirements as specified in Specific Condition 19 of permit AO03-165755.

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Information Section 5

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	
	6.80 lb/hour 29.78 tons/year
5. Method of Compliance :	Annual Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165755. Testing requirements as specified in Specific Condition 19 of permit AO03-165755.

III. Part 9c - 14

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Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Information Section 6

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	
	35.80 lb/hour 156.80 tons/year
5. Method of Compliance :	Annual Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165755. Testing requirements as specified in Specific Condition 19 of permit AO03-165755.

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Information Section 7

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	
	7.10 lb/hour 31.10 tons/year
5. Method of Compliance :	5 Year Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165755. Testing requirements as specified in Specific Condition 20 of permit AO03-165755.

III. Part 9c - 16

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Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Information Section 8

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	0.15 lb/hour 0.66 tons/year
5. Method of Compliance :	5 Year Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165755. Testing requirements as specified in Specific Condition 20 of permit AO03-165755.

III. Part 9c - 17

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Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Pollutant Information Section 11

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	
	0.18 lb/hour 0.79 tons/year
5. Method of Compliance :	Annual Stack Test
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission Limits as specified in Specific Condition 18 of permit AO03-165755. Testing requirements per 62-296.416.

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 1

MSW-Fired Combustor/Boiler #1 W/ESP

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	VE
2. Basis for Allowable Opacity :	OTHER
3. Requested Allowable Opacity :	
	Normal Conditions : 15 %
	Exceptional Conditions : 15 %
	Maximum Period of Excess Opacity Allowed : min/hour
4. Method of Compliance :	
	EPA Reference Method 9 on an annual basis. Opacity CEM
5. Visible Emissions Comment :	
	As specified in Specific Conditions 18 & 19 of permit AO03-165754

III. Part 10 - 1

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	VE
2. Basis for Allowable Opacity :	RULE
3. Requested Allowable Opacity :	
	Normal Conditions : 15 %
	Exceptional Conditions : 15 %
	Maximum Period of Excess Opacity Allowed : min/hour
4. Method of Compliance :	
	EPA Reference Method 9 on an annual basis. Opacity CEM located in stack.
5. Visible Emissions Comment :	
	As specified in Specific Condition 18 & 19 of permit AO03-165755.

III. Part 10 - 2

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Continuous Monitoring System : Continuous Monitor 1

1. Parameter Code : VE	2. Pollutant :
3. CMS Requirement : OTHER	
4. Monitor Information : Manufacturer : Lear-Siegler Model Number : RM41 Serial Number : 15904446	
5. Installation Date :	19-Mar-1987
6. Performance Specification Test Date :	04-Dec-1987
7. Continuous Monitor Comment : As specified in Specific Condition 22 of permit AO03-165754.	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Continuous Monitoring System : Continuous Monitor 2

1. Parameter Code : O2	2. Pollutant :
3. CMS Requirement : OTHER	
4. Monitor Information : Manufacturer : Westinghouse/Rosemount Model Number : 3000 Serial Number : R-95009055	
5. Installation Date :	01-Mar-1987
6. Performance Specification Test Date :	15-Dec-1995
7. Continuous Monitor Comment : As specified in Specific Condition 22 of permit AO03-165754. NOTE: The original O2 probes were Westinghouse/Hagan Model 318 (SN 8262). The above mentioned probes replaced the original in 12/95.	

**J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Information Section 1
MSW-Fired Combustor/Boiler #1 W/ESP

Continuous Monitoring System : Continuous Monitor 3

1. Parameter Code : CO	2. Pollutant :
3. CMS Requirement : OTHER	
4. Monitor Information :	
Manufacturer : Westinghouse/Maihak Model Number : UNOR 6N Serial Number : 794390	
5. Installation Date :	01-Jun-1989
6. Performance Specification Test Date :	15-Dec-1995
7. Continuous Monitor Comment :	
AS specified in Specific Condition 22 of permit AO03-165754.	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Continuous Monitoring System : Continuous Monitor 1

1. Parameter Code : VE	2. Pollutant :
3. CMS Requirement : OTHER	
4. Monitor Information :	
Manufacturer : Lear-Siegler	
Model Number : RM41	
Serial Number : 15904448	
5. Installation Date :	19-Mar-1987
6. Performance Specification Test Date :	01-Nov-1987
7. Continuous Monitor Comment :	
As specified in Specific Condition 22 of permit AO03-165755.	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Continuous Monitoring System : Continuous Monitor 2

1. Parameter Code : O2	2. Pollutant :
3. CMS Requirement : OTHER	
4. Monitor Information :	
Manufacturer : Westinghouse/Rosemount	
Model Number : 3000	
Serial Number : R-95008672	
5. Installation Date :	01-Mar-1987
6. Performance Specification Test Date :	14-Dec-1995
7. Continuous Monitor Comment :	
As specified in Specific Condition 22 of permit AO03-165755. NOTE: The original O2 probes were Westinghouse/Hagan Model 318 (SN 8264). The above mentioned probes replaced the original in 12/95.	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 2
MSW-Fired Combustor/Boiler #2 W/ESP

Continuous Monitoring System : Continuous Monitor 3

1. Parameter Code : CO	2. Pollutant :
3. CMS Requirement : OTHER	
4. Monitor Information : Manufacturer : Land Model Number : 5000 Serial Number : 8709932	
5. Installation Date :	01-Jul-1987
6. Performance Specification Test Date :	14-Dec-1995
7. Continuous Monitor Comment : As specified in Specific Condition 22 of permit AO03-165755.	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section

1

MSW-Fired Combustor/Boiler #1 W/ESP

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

- [X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- [] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
- [] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- [] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- [] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

2. Increment Consuming for Nitrogen Dioxide?

- [X] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- [] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- [] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- [] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- [] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM : C	SO2 : C	NO2 : C
4. Baseline Emissions :		
PM :	lb/hour	29.5500 tons/year
SO2 :	lb/hour	156.6000 tons/year
NO2 :		118.0500 tons/year
5. PSD Comment :		
Baseline emissions were obtained by deviding facilities limit by 2.		

III. Part 12 - 2

III. Part 12 - 3

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT
TRACKING INFORMATION**

Emissions Unit Information Section 2

MSW-Fired Combustor/Boiler #2 W/ESP

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

- [X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

- [] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

- [] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

- [] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

- [] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 4

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

2. Increment Consuming for Nitrogen Dioxide?

- The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM : C	SO2 : C	NO2 : C
4. Baseline Emissions :		
PM :	lb/hour	29.5500 tons/year
SO2 :	lb/hour	156.6000 tons/year
NO2 :		118.0500 tons/year
5. PSD Comment :		
Baseline emissions were obtained by deviding facility limit by 2.		



III. Part 12 - 6

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section

1

MSW-Fired Combustor/Boiler #1 W/ESP

Supplemental Requirements for All Applications

1. Process Flow Diagram :	Attachment 3
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	Attachment 10
4. Description of Stack Sampling Facilities :	Attachment 11
5. Compliance Test Report :	1/96
6. Procedures for Startup and Shutdown :	Attachment 12
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	NA
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :	NA
11. Alternative Modes of Operation (Emissions Trading) :	NA

III. Part 13 - 1

12. Enhanced Monitoring Plan :	NA
13. Identification of Additional Applicable Requirements :	NA
14. Acid Rain Application (Hard-copy Required) :	
NA	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
NA	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
NA	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
NA	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 2

MSW-Fired Combustor/Boiler #2 W/ESP

Supplemental Requirements for All Applications

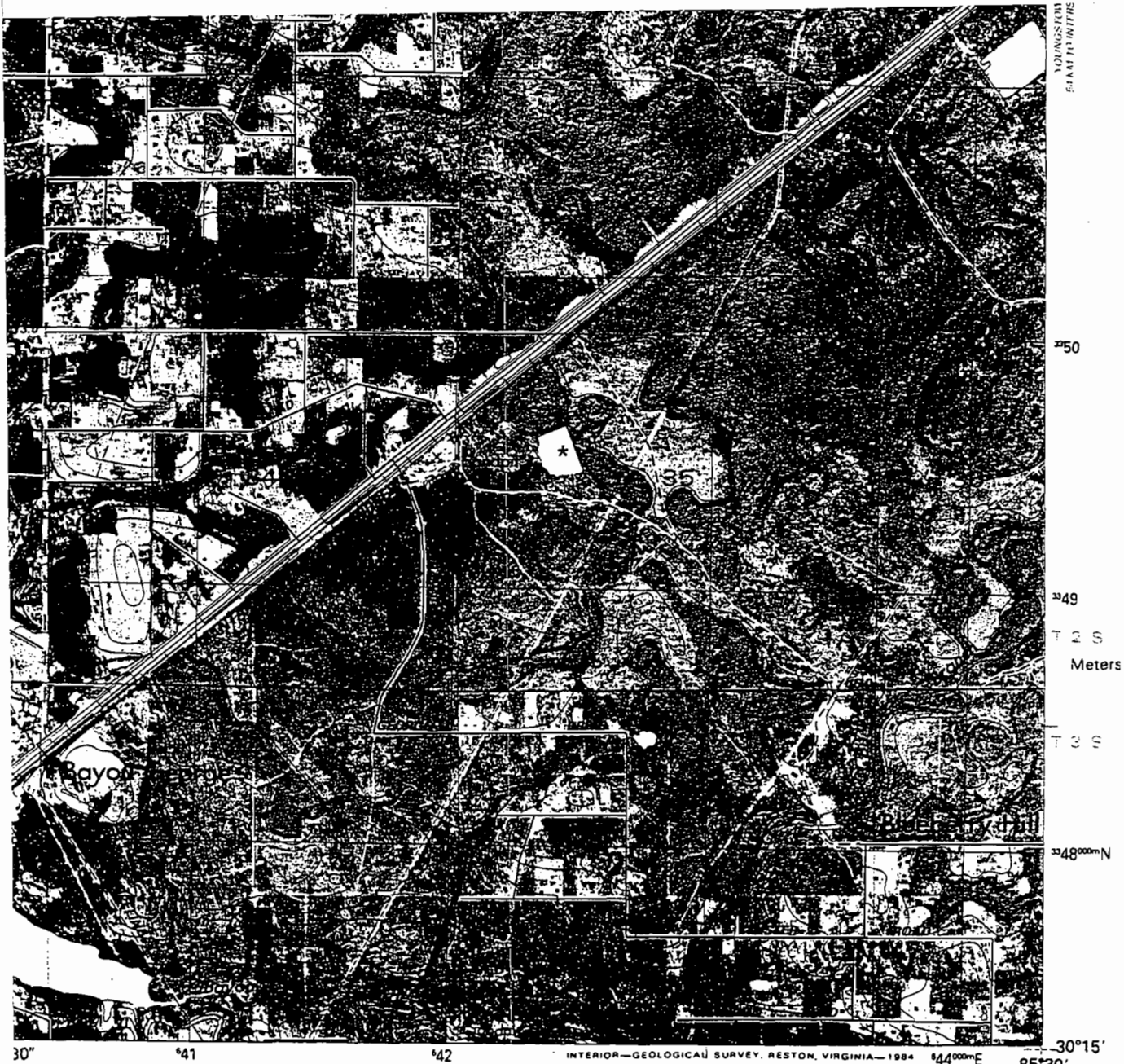
1. Process Flow Diagram :	Attachment 3
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	Attachment 10
4. Description of Stack Sampling Facilities :	Attachment 11
5. Compliance Test Report :	1/96
6. Procedures for Startup and Shutdown :	Attachment 12
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	NA
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

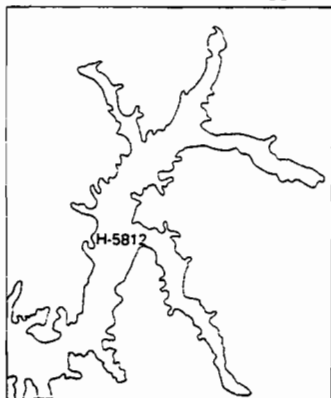
10. Alternative Methods of Operations :	NA
11. Alternative Modes of Operation (Emissions Trading) :	NA

12. Enhanced Monitoring Plan :	NA
13. Identification of Additional Applicable Requirements :	NA
14. Acid Rain Application (Hard-copy Required) :	
NA	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
NA	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
NA	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
NA	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

III. Part 13 - 4



NATIONAL OCEAN SURVEY
HYDROGRAPHIC SURVEY INDEX



ROAD CLASSIFICATION

- | | | |
|--|--|-------------|
| Primary highway,
hard surface _____ | Light-duty road, hard or
improved surface _____ | |
| Secondary highway,
hard surface _____ | Unimproved road _____ | |
| Trails _____ | | |
| Interstate Route | U. S. Route | State Route |
| County Route | | |

CONTOURS AND ELEVATIONS
IN METERS

BAYHEAD, FLA.

30085-C5-TB-024

1982

DMA 3844 I SE - SERIES V8470

*approximate site location

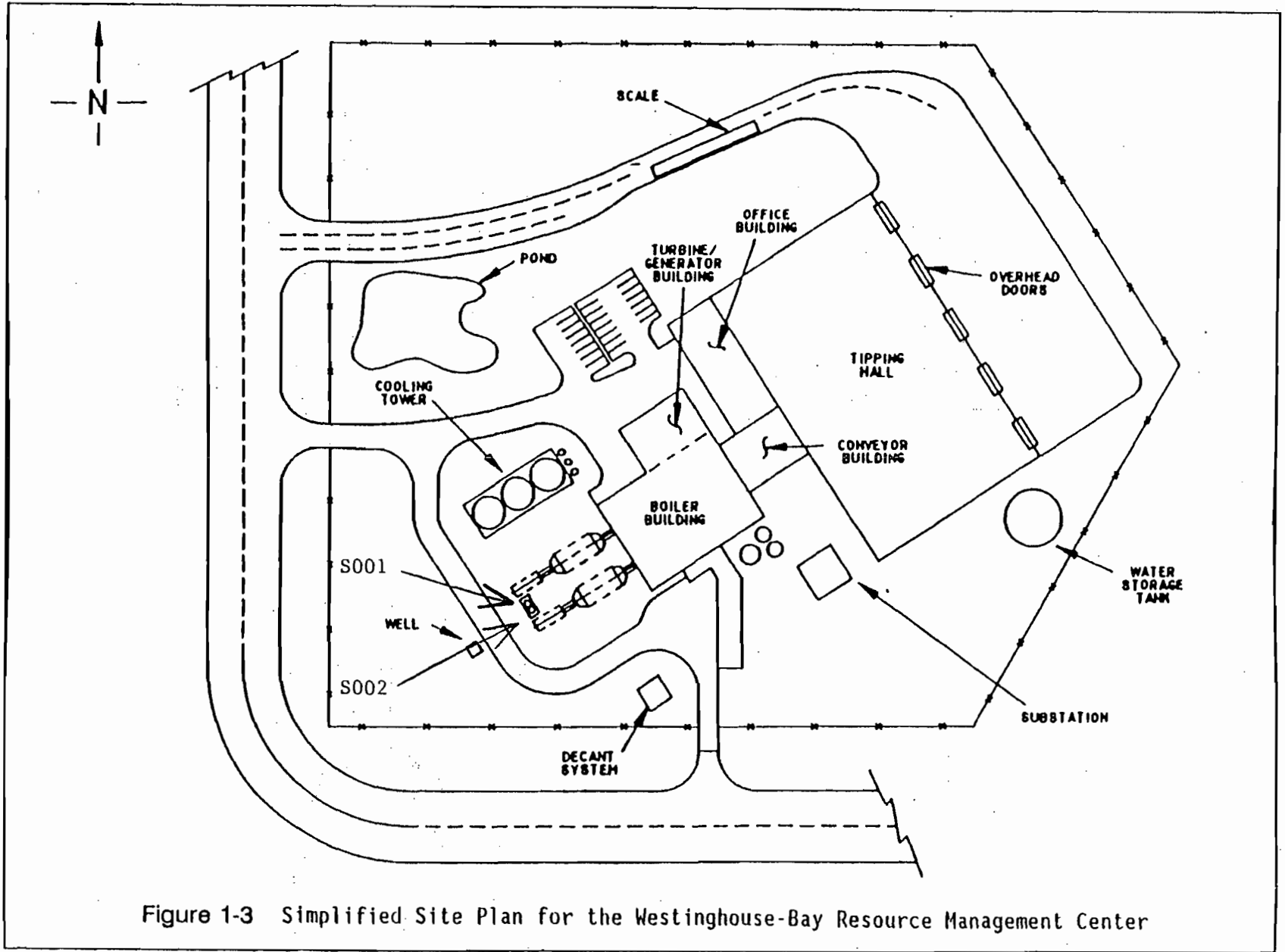
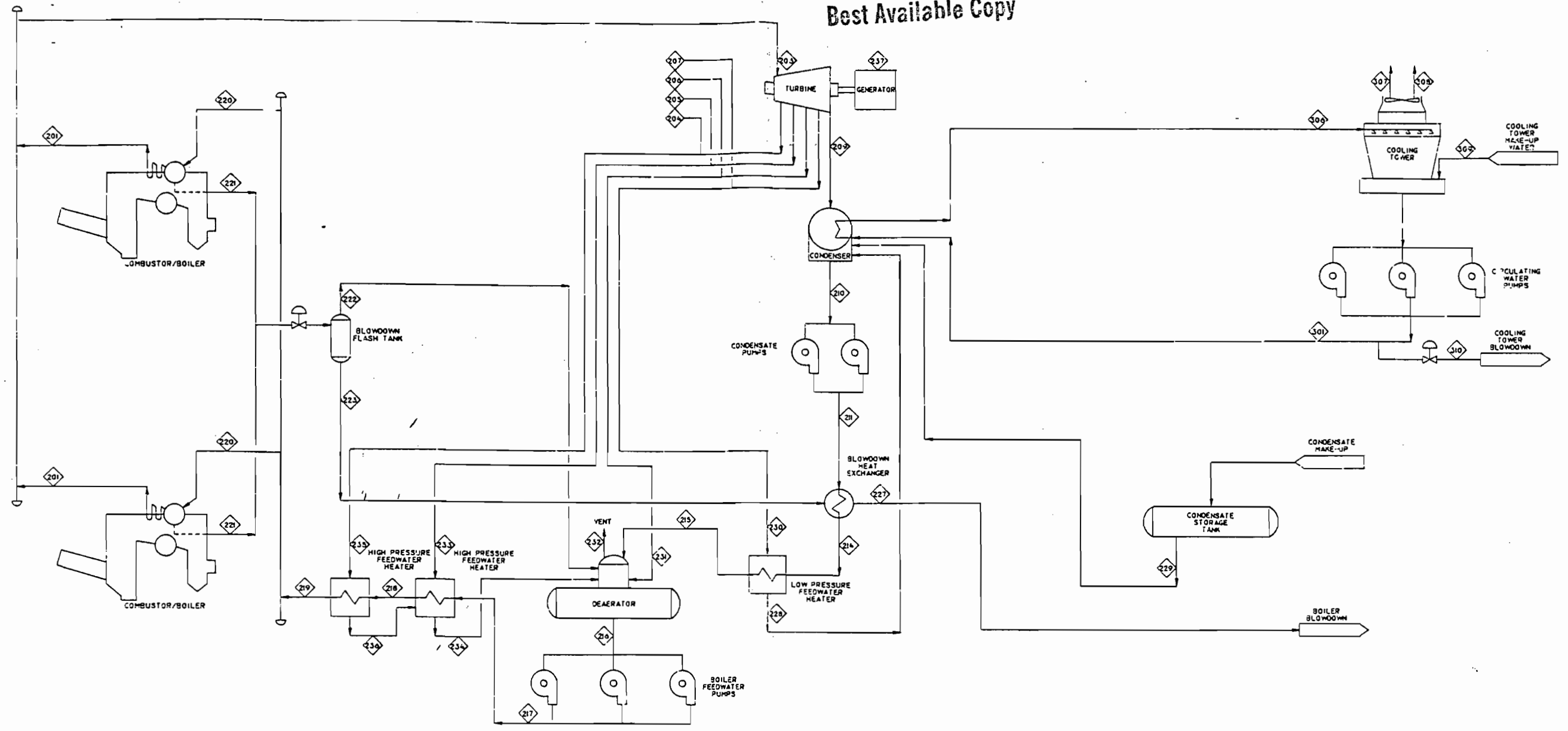


Figure 1-3 Simplified Site Plan for the Westinghouse-Bay Resource Management Center



NOTE:
SEE SHEET 2 FOR MASS FLOW CHART

ZONE	DESCRIPTION	DATE	BY
2	REVISIONS		
1	REVISIONS		

REV	NO.	DATE	BY	STATUS
2	2			REV
2	1			SHEET

BAY COUNTY, FLORIDA
RESOURCE RECOVERY FACILITY

Westinghouse Electric Corporation
Resource Energy Systems Division
Pittsburgh, Pennsylvania

STEAM CYCLE PROCESS FLOW DIAGRAM
2 UNITS IN OPERATION
100% PLANT STEAM FLOW
100% PLANT THERMAL LOAD

PROJECT NO. 1886E97 SHEET 2 OF 2

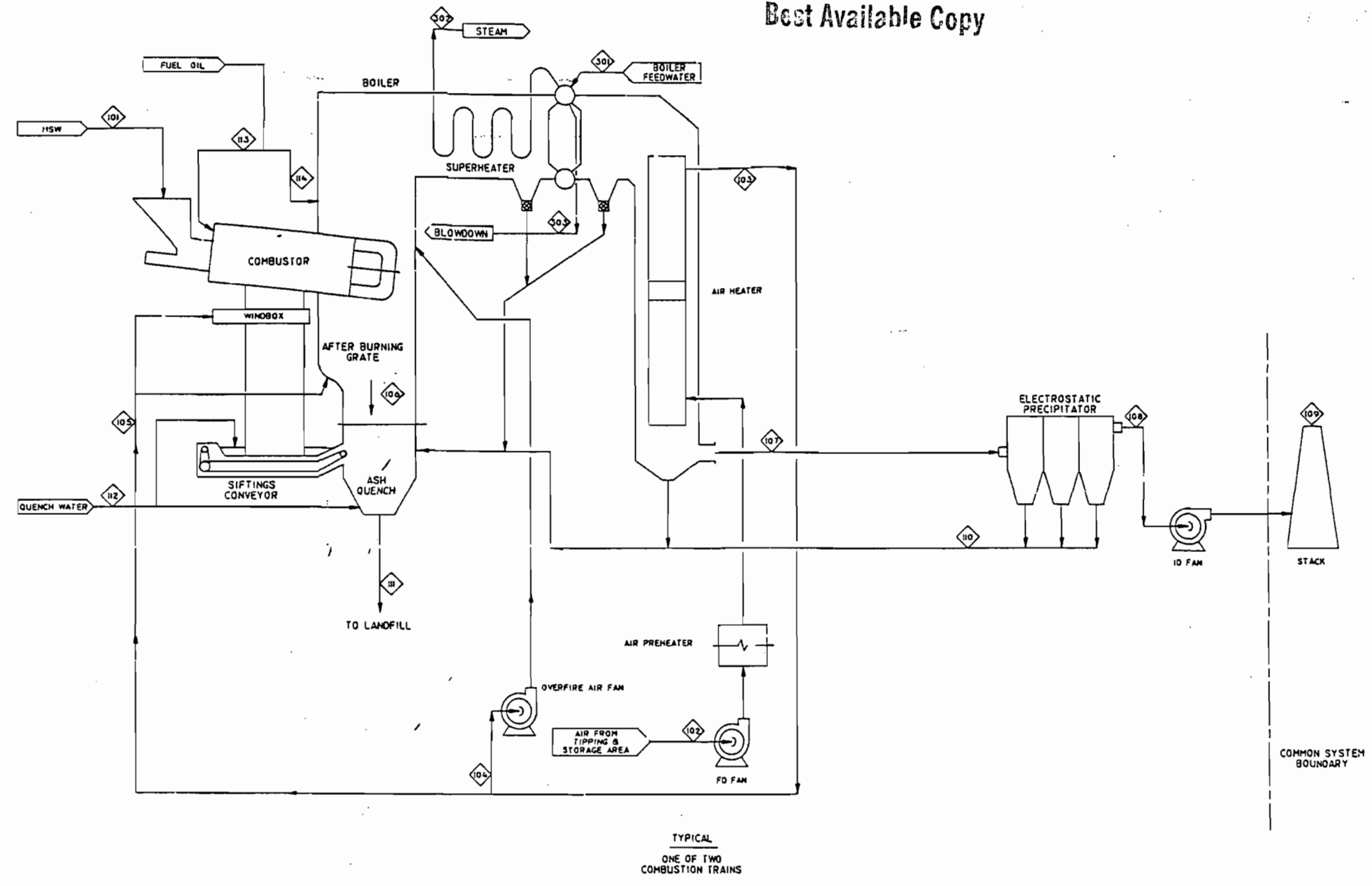
FLOW NUMBER	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216
MEDIUM	STEAM		STEAM (I)	STEAM	STEAM	STEAM	STEAM		STEAM	CONDENSATE	CONDENSATE			CONDENSATE	CONDENSATE	CONDENSATE
FLOW FROM	SUPERHTR OUTLET		MAIN STM HEADER	1ST TURBINE EXTR	2ND TURBINE EXTR	3RD TURBINE EXTR	4TH TURBINE EXTR		TURBINE EXHAUST	CONDENSATE HOTWELL	CONDENSATE PUMP			CONDENSATE BLOWDOWN HX	CONDENSATE FEEDWATER HTR I	CONDENSATE FEEDWATER HTR I
FLOW TO	MAIN STEAM HEADER		TURBINE THROTTLE	EXTRACTION PIPING	EXTRACTION PIPING	EXTRACTION PIPING	EXTRACTION PIPING		CONDENSER	CONDENSATE PUMP	BLOWDOWN HX			FEEDWATER HTR I	FEEDWATER HTR I	BOILER FEED PUMPS
MASS FLOW (LBS/HR)	64,048		136,096	12,385	10,302	9,894	5,038		98,478	104,563	104,563			104,563	104,563	137,457
TEMPERATURE (F)	752		750	650	402	253.7	163.8		108.7	108.7	108.9			102	156.7	250.7
PRESSURE (PSIA)	640		614.7	351.4	126.4	31.8	5.2		1.23	1.23	100			90	80	30.2
ENTHALPY (BTU/LB)	1379.3		1379.6	1338.9	1256.7	1160.3	1053.7		993.6	76.7	77.1			78.4	124.8	219.3
REMARKS			100% STEAM ABSORBED						2.5' HgA	2.5' HgA						
FLOW NUMBER	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232
MEDIUM	FEEDWATER	FEEDWATER	FEEDWATER	FEEDWATER	CONTINUOUS BLOWDOWN	STEAM	WATER				WATER	WATER	WATER	STEAM	STEAM	STEAM
FLOW FROM	BOILER FEED PUMPS	FEEDWATER HTR 3	FEEDWATER HTR 4	FEEDWATER HEADER	BOILER DRUM	FLASH TANK	FLASH TANK		FEEDWATER HEADER	BOILER DRUM	FLASH TANK	FLASH TANK	BLOWDOWN HX	FEEDWATER HTR I	MAKEUP TANK	EXTRACTION PIPING
FLOW TO	FEEDWATER HTR 3	FEEDWATER HTR 4	FEEDWATER HEADER	BOILER DRUM	FLASH TANK	DEAERATOR	BLOWDOWN HX				BLOWDOWN HX	FEEDWATER HTR I	MAKEUP TANK	EXTRACTION PIPING	EXTRACTION PIPING	DEAERATOR
MASS FLOW (LBS/HR)	137,457	137,457	137,457	137,457	522	593	978		137,457	137,457	137,457	137,457	137,457	137,457	137,457	137,457
TEMPERATURE (F)	252.5	336.3	422.3	422.3	499.8	254	254		252.5	252.5	252.5	252.5	252.5	252.5	252.5	252.5
PRESSURE (PSIA)	800	790	780	780	678.7	32	32		800	800	800	800	800	800	800	800
ENTHALPY (BTU/LB)	222.8	307.4	399.4	399.4	487.7	1165.4	222.7		222.8	222.8	222.8	222.8	222.8	222.8	222.8	222.8
REMARKS					1% BLOWDOWN											
FLOW NUMBER	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248
MEDIUM	STEAM	CONDENSATE DRN	STEAM	CONDENSATE DRN	GENERATOR OUTPUT											
FLOW FROM	EXTRACTION PIPING	FEEDWATER HTR 3	EXTRACTION PIPING	FEEDWATER HTR 4												
FLOW TO	FEEDWATER HTR 3	DEAERATOR	FEEDWATER HTR 4	FEEDWATER HTR 3												
MASS FLOW (LBS/HR)	10,302	22,086	12,385	12,385												
TEMPERATURE (F)	400	262.5	64	346.3												
PRESSURE (PSIA)	120.1	120.1	333.9	333.9												
ENTHALPY (BTU/LB)	1256.7	231.3	338.9	317.8												
REMARKS	HTR I SAT=341.3°F		HTR I SAT=427.3°F		12,259 KW											
FLOW NUMBER	301	302	303	304	305	306	307	308	309	310						
MEDIUM	WATER					WATER	WATER VAPOR	WATER	WATER	WATER						
FLOW FROM	CIRC WATER PUMPS					CONDENSER	COOLING TOWER	COOLING TOWER	MAKEUP WATER SYS	PUMP DISCHARGE						
FLOW TO	CONDENSER					COOLING TOWER	ATMOSPHERE	ATMOSPHERE	COOLING TOWER	WASTE WTR SYS						
MASS FLOW (LBS/HR)	7,996,448					7,996,448	90,360	640	109,072	18,072						
FLOW (GPM)	16,051					16,091	218	60	218	36						
TEMPERATURE (F)	91					102.3			60	91						
PRESSURE (PSIA)																
ENTHALPY (BTU/LB)	59					70.3			28	59						
REMARKS						EVAPORATION	DRIFT			6 CYC OF CONC						

(1) PLANT 100% STEAM FLOW = 136,096 LB/HR
 (2) PLANT 100% THERMAL LOAD = 133.52 x 10⁶ BTU/HR ABSORBED

NO.	DESCRIPTION	DATE
2	ADDED THIS SHEET	4-13-88

NOTE:
SEE SHEET 1 FOR FLOW DIAGRAM

Best Available Copy



TYPICAL
ONE OF TWO
COMBUSTION TRAINS

NOTE:
SEE SHEET 2 FOR MASS FLOW CHART

ZONE	DESCRIPTION
1	ADD MASS FLOW
2	ADD MASS FLOW
3	ADD MASS FLOW
4	ADD MASS FLOW
5	ADD MASS FLOW
6	ADD MASS FLOW
7	ADD MASS FLOW
8	ADD MASS FLOW

REV	REV STATUS	DATE
1	REV	2-25-83
2	SHEET	3-16-87

BAY COUNTY, FLORIDA RESOURCE RECOVERY FACILITY	
Westinghouse Electric Corporation Resource Energy Systems Division Pittsburgh, Pennsylvania	
GAS CYCLE PROCESS FLOW DIAGRAM 2 UNITS IN OPERATION 100% PLANT STEAM FLOW 100% PLANT THERMAL LOAD	
PROJECT NO.	1887E15
SCALE	NONE
SHEET	1 OF 2

1887E15

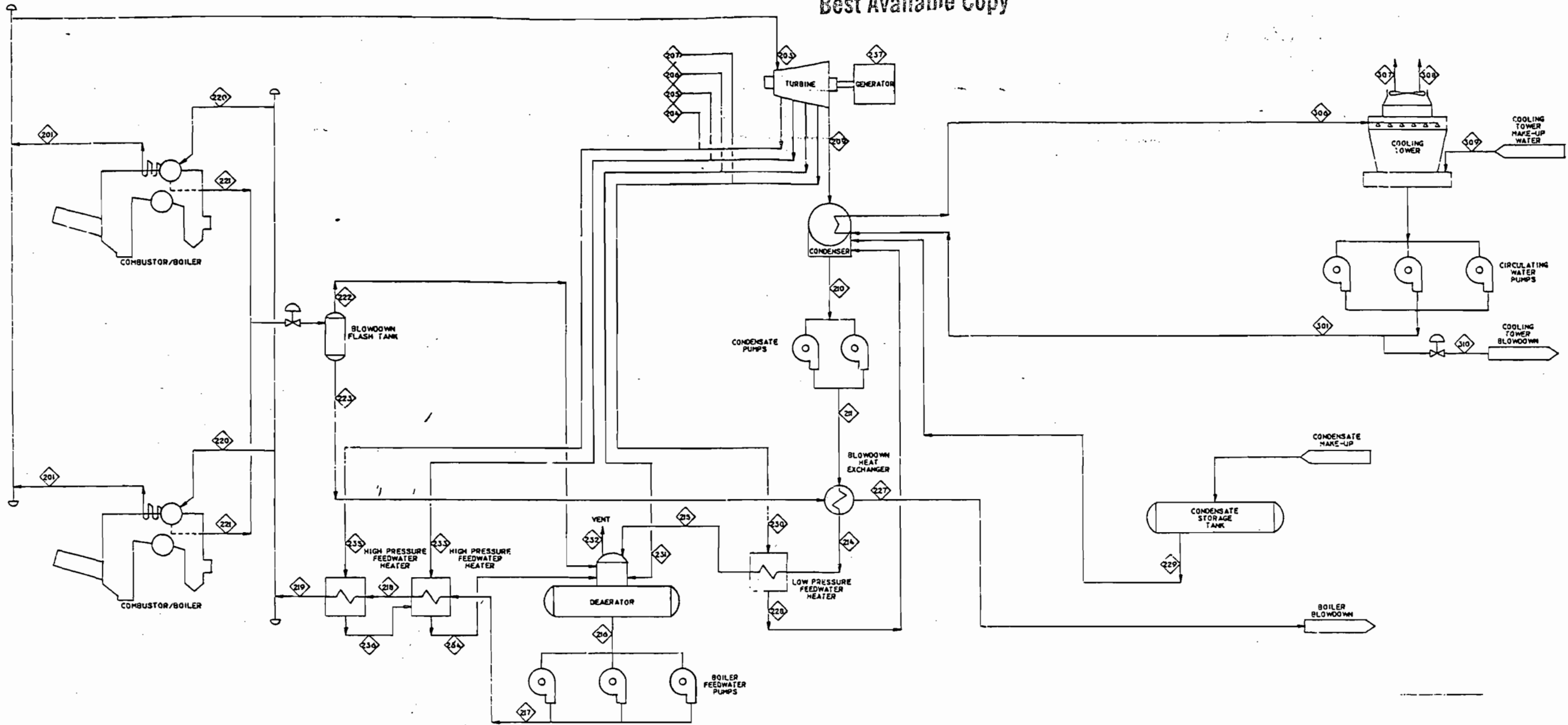
FLOW NUMBER	101	102	103	104	105	106	107	108	109	110	111	112	113	114
MEDIUM	MSW STORAGE COMBUSTOR	COMBUSTION AIR TIPPING FLOOR TO FAN	COMBUST. AIR AIR HEATER DUCTING	COMBUST. AIR HEATER DUCTING CYCLONE FAN	COMBUST. AIR DUCTING COMBUSTOR/GRATE	ASH GRATE ASH QUENCH	FLUE GAS AIR HEATER ESP	FLUE GAS ESP TO FAN	FLUE GAS STACK AMBIENT	FLY ASH ESP CONVEYOR	RESIDUE ASH QUENCH LANDFILL	WATER PIPING ASH QUENCH	FUEL OIL PIPING BURNER?	FUEL OIL PIPING BURNER
FLOW FROM	WT %	WT %	WT %	WT %	WT %	WT %	WT %	WT %	WT %	WT %	WT %	WT %	WT %	WT %
FLOW TO	VOL %		VOL %		VOL %		VOL %		VOL %		VOL %		VOL %	
C	25.10	N ₂ 175.88	177.39				N ₂ 65.53	65.70	3.0	g/dscft part. (3)	0.2	g/dscft part. (3)		
H	3.70	O ₂ 22.85	20.56				CO ₂ 16.17	10.32	150 ppm _{dry}	SO ₂ 16.4	150 ppm _{dry}	SO ₂ 16.4		
O	21.70	H ₂ O 1.28	2.05				H ₂ O 11.67	18.19	1500 ppm _{dry}	HCl 16.1500	1500 ppm _{dry}	HCl 16.1500		
S	0.20						O ₂ 6.57	5.77						
N	0.60						SO ₂ 0.07	0.03						
H ₂ O	27.00													
INERT	21.70													
MASS FLOW (LB/HR)	21,928	107,561	107,561	0	107,561	428	124,730	124,730	249,460	626	6,772	2,037	0	0
VOLUME FLOW (ACFM)		24,084	4,362	0	4,362		40,460	45,919	90,217					
VOLUME FLOW (SCFM)		23,993	23,993	0	23,993		28,317	28,317	57,034					
MOLE FLOW (LB MOLES/HR)		3,736	3,736	0	3,736		4,441	4,441	8,882					
TEMPERATURE (F)	70	70	450	450	450	700	-00	390	375		70	70	70	70
PRESSURE (IN H ₂ O G)		0	0	0	0									
ENTHALPY (BTU/LB)	HHV=1500 BTU/LB													
REMARKS	263J TPO	50 %XS AIR		0%	100%	0% 2 BTU/LB - F	7.28.1				30% MOISTURE	4.1 GPM		* 2 FUEL OIL HHV=18,200 BTU/LB * 2 FUEL OIL HHV=130,000 BTU/GAL

FLOW NUMBER	301	302	303
MEDIUM	FEEDWATER	STEAM (S)	BLOWDOWN
FLOW FROM	FEEDWATER HEATER	SUPERHEATER OUTLET	BOILER DRUM
FLOW TO	BOILER DRUM	MAIN STEAM HEADER	FLASH TANK
MASS FLOW (LB/HR)	68,729	68,048	680
VOLUME FLOW (GPM)	162.0		1.7
TEMPERATURE (F)	422.3	750	499.8
PRESSURE (PSIA)	779.7	614.7	679.7
ENTHALPY (BTU/LB)	399.4	1379.6	487.7
REMARKS	67.7% BOILER EFF.	66.76 x 10 ⁶ BTU/HR	1 % BLOWDOWN

- (1) STANDARD TEMPERATURE=68°F
STANDARD PRESSURE=1 ATMOSPHERE
- (2) AMBIENT PRESSURE=760mm Hg
- (3) AT 12% CO₂
- (4) AT 12% CO₂
- (5) PLANT 100% STEAM FLOW=134,096 LB/HR
- (6) PLANT 100% THERMAL LOAD=133.52 x 10⁶ BTU/HR ABSORBED

ZONE	DESCRIPTION	DATE	BY
A	ADDED THIS SHEET	1-13-68	LCSTEFFEY

NOTE:
SEE SHEET 1 FOR FLOW DIAGRAM



FLOW NUMBER	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216
MEDIUM	STEAM		STEAM (I)	STEAM	STEAM	STEAM	STEAM		STEAM	CONDENSATE	CONDENSATE			CONDENSATE	CONDENSATE	CONDENSATE
FLOW FROM	SUPERHTR OUTLET		MAIN STM HEADER	1ST TURBINE EXTR	2ND TURBINE EXTR	3RD TURBINE EXTR	4TH TURBINE EXTR		TURBINE EXHAUST	CONDENSER	CONDENSATE PUMP	CONDENSATE PUMP		CONDENSATE BLOWDOWN HX	FEEDWATER HTR I	DEAERATOR
FLOW TO	MAIN STEAM HEADER		TURBINE THROTTLE	EXTRACTION PIPING	EXTRACTION PIPING	EXTRACTION PIPING	EXTRACTION PIPING		CONDENSER	CONDENSATE PUMP	BLOWDOWN HX			FEEDWATER HTR I	DEAERATOR	BOILER FEED PUMPS
MASS FLOW (#/HR)	78,252		56,504	14,887	12,480	8,344	6,339		11,454	119,004	119,004			119,004	119,004	158,069
TEMPERATURE (F)	752		750	680	487	260	169		108.7	108.7	108.9			110.2	162.1	256.7
PRESSURE (PSIA)	640		614.7	407.6	145.9	35.3	5.9		1.23	1.23	100			90	50	33.5
ENTHALPY (BTU/#)	1379.6		1579.6	1351.9	1267.2	866.6	1059.6		994.4	76.7	77.1			78.4	130.1	225.4
REMARKS			SLM 1" STEAM SERVICE OR						2.5" HgA	2.5" HgA						
FLOW NUMBER	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232
MEDIUM	FEEDWATER	FEEDWATER	FEEDWATER	FEEDWATER	CONTINUOUS BLOWN	STEAM	WATER									
FLOW FROM	BOILER FEED PUMPS	FEEDWATER HTR 3	FEEDWATER HTR 4	FEEDWATER HEADER	BOILER DRUM	FLASH TANK	DEAERATOR									
FLOW TO	FEEDWATER HTR 3	FEEDWATER HTR 4	FEEDWATER HEADER	BOILER DRUM	FLASH TANK	DEAERATOR	BLOWDOWN HX									
MASS FLOW (#/HR)	158,069	158,069	159,769	79,034	78.3	4.33	1132									
TEMPERATURE (F)	258.6	347.2	436.4	436.4	499.8	259.3	259.3									
PRESSURE (PSIA)	800	790	780	780	679.7	35	35									
ENTHALPY (BTU/#)	228.9	318.8	415.1	415.1	487.7	1167.1	228									
REMARKS					1% BLOWDOWN											
FLOW NUMBER	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248
MEDIUM	STEAM	CONDENSATE DRN	STEAM	CONDENSATE DRN	GENERATOR OUTPUT											
FLOW FROM	EXTRACTION PIPING	FEEDWATER HTR 3	EXTRACTION PIPING	FEEDWATER HTR 4	FEEDWATER HTR 4											
FLOW TO	FEEDWATER HTR 3	DEAERATOR	FEEDWATER HTR 4	FEEDWATER HTR 3												
MASS FLOW (#/HR)	12,480	27,367	14,887	14,887												
TEMPERATURE (F)	485	268.6	678	357.2												
PRESSURE (PSIA)	138.6	138.6	387.2	387.2												
ENTHALPY (BTU/#)	1267.2	237.3	1351.9	329.4												
REMARKS	HTR I SAT=352.2°F		HTR I SAT=441.6°F		13,860 kW											
FLOW NUMBER	301	302	303	304	305	306	307	308	309	310						
MEDIUM	WATER															
FLOW FROM	CIRC WATER PUMPS															
FLOW TO	CONDENSER															
MASS FLOW (#/HR)	9,058,004															
FLOW (GPM)	18,183															
TEMPERATURE (F)	91															
PRESSURE (PSIA)	91															
ENTHALPY (BTU/#)	59															
REMARKS										6 CYC OF CONC						

(1) PLANT 100% STEAM FLOW = 136,096 LB/HR
 (2) PLANT 100% THERMAL LOAD = 153.52 x 10⁶ BTU/HR ABSORBED

REVISIONS
 ZONE DESCRIPTION

BAY COUNTY, FLORIDA
 RESOURCE RECOVERY FACILITY

Westinghouse Electric Corporation
 Resource Energy Systems Division
 Pittsburgh, Pennsylvania

STEAM CYCLE PROCESS FLOW DIAGRAM
 2 UNITS IN OPERATION
 115% PLANT STEAM FLOW
 113% PLANT THERMAL LOAD

1887E24

ATTACHMENT 4

D. Facility Supplement Information

4. Precautions to Prevent Emissions of Unconfined Particulate Matter

The following areas have been identified as potential source of fugitive particulate emissions along with the precautions used to prevent these emissions.

1. Emissions from Paved and Unpaved Roads

At the Bay Resource Management Center site, there are only approximately 0.112 miles of paved roads and 0.08 miles of unpaved roads that are used by trucks delivering MSW, trucks removing ash, passenger vehicles and other plant equipment. To minimize potential emissions from the paved roadways, the facility utilizes a road sweeper to clean these areas twice per month. The unpaved areas are used infrequently in order that vehicles can travel from the tipping floor to the rear of the facility without exiting plant property ✓

2. Residue Handling

The residual material remaining after the solid waste is combusted is loaded via conveyor into trucks and then hauled to the landfill. The residue (ash) is handled wet in order to minimize emissions. All ash is combined inside the boiler building and goes to the quench tank where it is submerged in water. A drag conveyor lifts the material from the quench tank up an incline to allow standing water to drain. The material is then discharged into a roll-off container that is loaded on a truck. The roll-off containers are covered before the trucks exit the site. ✓

ATTACHMENT 5

D. Facility Supplement Information

5. Fugitive Emissions Identification

The following potential fugitive emission sources have been identified at the Facility:

<u>AREA</u>	<u>POLLUTANT</u>
Ash/Residue Handling	Particulate Matter
MSW Handling - Tipping Floor	Particulate Matter
MSW Handling - Conveyor Room	Particulate Matter
Paved/Unpaved Roads	Particulate Matter
Cooling Tower	Particulate Matter
Fuel Oil Storage Tanks	VOC

The fugitive emission sources are listed here for completeness purposes. They are also listed on Attachment 6 - List of Insignificant Sources.

ATTACHMENT 6

LIST OF INSIGNIFICANT SOURCES			
ITEM	SOURCE	UNIT TYPE	RATIONALE FOR EXEMPTION
1	All Sources listed in 62-210.200(3)		Exempted by Rule 62-213.400 and 62-210.300(3)
2	Plant grounds maintenance Lawn maintenance equipment/activities	Small engine emissions; fertilizers, etc.	EPA Listed
3	Maintenance/repair activities	Cleaning, painting, welding, coating, applications; hand tools/equipment meter repair/on-line tools/equipment/meter repair on-line/off-line cleaning of equipment. Abrasive cleaning indoors.	Presumptive Exemption
4	Main steam pressure relief valves; steam from boiler operations. Steam leaks Steam releases; turbine vents Safety devices	Valves T/G Trips Steam PRV	Steam exempt; not a pollutant.
5	Office Activities	Vacuum Cleaning Refrigerators Office Supplies/Equipment	EPA Listed
6	Chemical Storage Tanks	Sulfuric Acid (2) 1500 gallons Propane (1) 125 gallons Sodium Hypochlorite (55-gal drums) Sodium Hydroxide (1) 1500 gallons 1 acid/1 caustic day tanks (250 gal ea) Performax 412 (1) 1000 gallons	EPA Listed
7	Testing & Monitoring Equipment	CEMs, stack sampling calibration gases, oxygen detector.	EPA Listed
8	Internal Combustion Engines which drive compressors, generators, water pumps, or other auxiliary equipment.	Fire/Safety Diesel Pump	Exempt by 62-210.300(3)(t) if diesel and operated <400 hrs/yr, otherwise presumptively exempt at time of application. Operates less than 400 hours per year. (987 hrs since plant startup).
9	HVAC Equipment	Cooling/heating	Exempt by 62-213.400 and 62-210.300(3).

Bay County Resource Recovery Facility
 Title V Application

LIST OF INSIGNIFICANT SOURCES			
ITEM	SOURCE	UNIT TYPE	RATIONALE FOR EXEMPTION
10	Vents/Exhausts	Boiler Feed Pump Relief Valve Blowdown Flash tank Vent Feedwater Heater Vent Boiler Blowdown Tank Vent Gland Seal Vent Steam Dump Steam Drum Vent Dearator Vents Battery Room Exhaust Fans (2) Boiler Building Exhaust Fans (6) Maintenance Building Exhaust Generator Venting - Turbine Trip Sewer vents/exhausts Drain vents Turbine Roof Exhausts (2)	Water/Steam - Not a pollutant
11	Air compressors/Instrument air		EPA Listed
12	Waste accumulation for Safety Kleen Disposal	Accumulation in 10 gallon containers that are closed.	Extremely small quantities (less than 100 gal/yr).
13	Lab vents/lab operations		Exempt by 62-210.300(3)(o)
14	Mobile sources - FEL, fork lifts		EPA Listed
15	Containers, reservoirs, tanks for oils wax, grease (non-solvents)	Lube oil reservoirs Gearbox vents Packing seals	No Emissions
16	Transportation/conveying and handling of waste and ash		Emission estimated to be negligible.
17	Fuel oil storage tanks	4000 gal 1000 gal 250 gal	Diesel storage-very low vapor pressure.
18	Cooling Tower		Emissions less than significant level
19	Road Emissions		Emissions estimated at less than 1 ton per year

ATTACHMENT 7

8: List of Equipment / Activities Regulated under Title VI :

The following equipment has been identified as being regulated under Title VI:

AIR-1 Control Room Air Conditioner manufactured by Liebert, model number UH114AUA10.

AIR-2 Control Room Backup Air Conditioner manufactured by Marvair, model number WHP57HPA.

AIR-3 Back Stairwell Air Conditioner manufactured by Lennox, model number HS18-653.

SLF-1 Chem Lab Air Conditioner manufactured by Miller / Nortek, model number MSC-30E-C3.

HPR-1 Office Building Heat Pump manufactured by Lennox, model number CHP1113535.


HPR-2 MCC Room Air Conditioner, Unit 2, manufactured by Trane, model number BTA180D400.

HPR-3 MCC Room Air Conditioner, Unit 3, manufactured by Trane, model number BWV180B400.

ATTACHMENT 8

14. Compliance Report and Plan:

I hereby certify that the facility and the emission units described in this application are in compliance with the applicable requirements as listed.

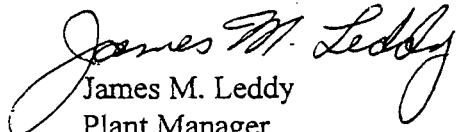

Richard S. Brookins Jr.
Industrial Hygiene, Safety, and
Environmental Coordinator

Date 6/6/96

ATTACHMENT 9

15: Compliance Certification:

I, the undersigned, am the Responsible Official as defined in Chapter 62-210.200 F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete.


James M. Leddy
Plant Manager

Date: 6/7/96

ATTACHMENT 10

3: Detailed Description of Control Equipment

Electrostatic Precipitator Description

Electrostatic precipitators (ESPs) are used to remove particulate matter from the flue gas before it exits the stack. The ESPs, manufactured by Environmental Elements Corporation (EEC), are arranged into three mechanical fields, each with its own electrical field and ash removal hopper. The fly ash handling system, designed and supplied by Macawber, interfaces with the ESP's ash removal hopper and includes an inflatable seal to prevent fly ash re-entrainment from occurring during the fly ash system's "blow" cycle. The ESP specific design information includes:

Fields:	3 (identical in size)
Discharge Electrodes:	Rigid Frame
Plate Dimensions:	24 ft high by 9 ft long
Collection Plate Area:	19,710 ft ²
Specific Collection Area:	350 ft ² /1000 acfm
Design Gas Flow Rate:	56,000 acfm @ 400 °F
Gas Velocity Thru ESP:	4 ft/sec
Gas Retention Time:	9.7 sec
T-R Sets	3 per ESP rated at 23.5 KVA (55 kv, 300 mA)
Corona Density:	300 watt/1000 acfm; 0.94 watt/ft ²
Pressure Drop:	1 inch H ₂ O
Design Pressure:	+ or - 15 inch H ₂ O

ATTACHMENT 11

4: Description of Stack Sampling Facilities:

Each incinerator train exhaust through a 53-inch inside diameter stack measuring 125 feet in height. The two stacks are housed in a common flue, which has a testing platform located approximately 60 feet from the stack base. Two 3.5-inch diameter sampling ports are installed on each stack approximately five feet above the testing platform.

COUNTY ENERGY SYSTEMS, INC.

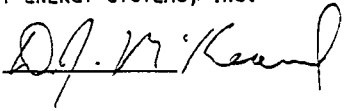
COMBUSTOR/BOILER START-UP PROCEDURE

PROCEDURE NO SU-11

REV 1

ISSUE DATE 6/8/92

APPROVED



PAGE 1 OF 4

PROCEDURE OBJECTIVE: TO PROVIDE A UNIFORM METHOD OF STARTING O'CONNOR ROTARY COMBUSTOR/DELTAK BOILER FROM COLD TO ON LINE CONDITION IN A CONTROLLED AND SYSTEMATIC MANNER.

DATE: ___/___/___

CO: _____ SHIFT: _____

RELIEVING CO: _____ SHIFT: _____

BOILER NO. _____

TIME OF RELIEF: _____

STEP NO.	DESCRIPTION	TIME	INITIALS
1	CLEAR SAFETY TAGS AND LOCKS.		
2	COMPLETE THE FOLLOWING PROCEDURE FORMS AND ATTACH: A. DCS/CONTROL ROOM PRE START-UP CHECKLIST (SU-11A) B. BOILER VALVE LINEUP CHECKLIST (SU-11B) C. BOILER PRE START-UP INSPECTION CHECKLIST (SU-11C)		
3	START ASH SYSTEM IN ACCORDANCE WITH PROCEDURE NO.9. HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION.		
4	START ELECTROSTATIC PRECIPITATOR IN ACCORDANCE WITH WITH PROCEDURE NO.13		
5	ADJUST STEAM DRUM WATER LEVEL TO 0.0 INWC. HAVE THE OUTSIDE OPERATOR VERIFY LEVEL AT THE DRUM SIGHT GLASS.		
6	VERIFY THE BOILER WATER CHEMISTRY IS IN SPEC. FOR START-UP AND START CHEM. FEED PUMP.		
7	START COMBUSTOR CIRCULATION PUMP. HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION.		
8	START THE RAM/COMBUSTOR HYDRAULIC PUMP SYSTEM.		
9	START ID FAN: A. CLOSE ID FAN INLET DAMPER. B. SET THE ID FAN SPEED DEMAND TO 0%. C. START ID FAN. D. HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION.		
10	IN THE MANUAL MODE, SET THE ID FAN SPEED AND THE SUCTION DAMPER TO 40%. NOTE: THIS IS DONE TO PREVENT OVERLOADING THE ID FAN MOTOR WHEN FLOWING COLD GAS THROUGH THE BOILER WITH THE FEED CHUTE OPEN.		
11	TEST THE RAM/COMBUSTOR HYDRAULIC SYSTEM AND HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION: A. CYCLE THE RESISTANCE DOOR AND CLOSE AFTER TESTING. B. CYCLE THE RAMS. C. ROTATE THE COMBUSTOR AND SET THE ROTATION SPEED TO APPROXIMATELY TWO (2) RPH.		

COUNTY ENERGY SYSTEMS, INC.		COMBUSTOR/BOILER START-UP PROCEDURE	PROCEDURE NO SU-11
REV 1			PAGE 2 OF 4
STEP NO.	DESCRIPTION	TIME	INITIALS
12	START THE FD FAN: A. CLOSE FD FAN INLET DAMPER. B. SET THE FD FAN SPEED DEMAND TO 0%. C. START FD FAN. D. HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION.		
13	START FUEL OIL SYSTEM IN ACCORDANCE WITH PROCEDURE NO.6		
14	LINEUP ATOMIZING SYSTEM FOR FUEL OIL BURNERS (steam is preferred but if it is not available, use compressed air).		
15	SET THE FURNACE PRESSURE CONTROLLER SETPOINT TO -0.45 INWC AND PLACE THE ID FAN SUCTION DAMPER IN THE AUTOMATIC MODE.		
16	SET THE ID FAN SPEED CONTROLLER SETPOINT TO 70% AND PLACE THE CONTROLLER IN THE AUTOMATIC MODE		
17	INCREASE FD FAN SPEED AND DAMPER POSITION FOR AN AIR FLOW OF 850 MSCFH		
18	START COMBUSTOR IGNITION BURNER AND SET AT 50%		
19	START FURNACE LOAD BURNER AND ADJUST AS NECESSARY TO MAINTAIN THE HEAT-UP RATE NOT GREATER THAN 100 F deg/hr. NOTE: PUT THE COMBUSTOR OUTLET WATER TEMPERATURE ON THE TREND SO THAT A PRINTOUT CAN BE MADE EACH HOUR UNTIL THE START-UP IS COMPLETE.		
20	STOP THE FD FAN.		
21	STOP THE COMBUSTOR IGNITION BURNER.		
22	MAINTAIN THE STEAM DRUM WATER LEVEL DURING HEAT-UP WITH THE BLOWDOWN VALVE AS THE LEVEL RISES. (Limits -2.0 to +2.0)		
23	WHEN THE BOILER PRESSURE REACHES 15 PSIG, CLOSE THE STEAM DRUM VENT VALVES.		
24	PLACE SUPERHEAT STEAM TEMPERATURE CONTROLLER IN THE AUTOMATIC MODE AND ADJUST THE SETPOINT TO 750 degrees F.		
25	WHEN THE COMBUSTOR OUTLET WATER TEMPERATURE REACHES 400 degrees F, IF THERE IS NOT A BOILER FEED PUMP RUNNING AT THIS TIME, START ONE OF THE ELECTRIC DRIVEN PUMPS IN ACCORDANCE WITH PROCEDURE NO.5a.		
26	OPEN SEAL WATER SUPPLY TO COMBUSTOR ROTARY JOINT.		
27	HAVE THE LOADER OPERATOR BEGIN FEEDING MSW TO THE CONVEYER SYSTEM UNTIL IT IS TO THE TOP OF THE INCLINE CONVEYER		

COUNTY ENERGY SYSTEMS, INC.		COMBUSTOR/BOILER START-UP PROCEDURE	PROCEDURE NO SU-11
REV 1			PAGE 3 OF 4
STEP NO.	DESCRIPTION	TIME	INITIALS
28	WHEN THE FLUE GAS TEMPERATURE AT THE EXIT OF THE PRECIPITATOR REACHES 350 degrees F, FILL THE CHARGING CHUTE WITH FUEL TO THE NORMAL OPERATING LEVEL AND PUT THE CONVEYER CONTROLS IN THE AUTOMATIC MODE.		
29	START THE RAMS AND RUN THEM IN AUTOMATIC IN THE SERIES MODE AT A MANUAL SPEED OF 60 % UNTIL THERE IS SUFFICIENT FUEL IN THE COMBUSTOR TO START A FIRE.		
30	START THE FD FAN: A. CLOSE FD FAN INLET DAMPER. B. SET THE FD FAN SPEED DEMAND TO 0%. C. START FD FAN. D. HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION.		
31	INCREASE FD FAN SPEED AND DAMPER POSITION FOR AN AIR FLOW OF 850 MSCFH		
32	START COMBUSTOR IGNITION BURNER AND SET AT 50% TO IGNITE THE MSW.		
33	PUT COMBUSTION AIR PRESSURE CONTROLLER IN THE AUTOMATIC MODE AND ADJUST THE SETPOINT TO 15 INWC.		
34	PUT THE FD FAN SPEED CONTROLLER IN THE AUTOMATIC MODE AND ADJUST THE SETPOINT TO 80%.		
35	WHEN THE MSW FIRE IS ESTABLISHED AND THE EMISSIONS ARE WITHIN PERMIT LIMITS STOP THE COMBUSTOR BURNER AND LOAD BURNER.		
36	INCREASE FUEL FEED RATE WITH RAM SPEED, ADJUST COMBUSTOR SPEED AND ADJUST COMBUSTION AIR FLOW AND DISTRIBUTION AS NECESSARY TO BRING THE UNIT ON LINE.		
37	WHEN THE STEAM DRUM WATER LEVEL BEGINS TO DECREASE AND REQUIRES WATER, HAVE THE OUTSIDE OPERATOR LINEUP THE FEEDWATER REGULATOR AND FEED STOP VALVE AT THE ECONOMIZER INLET FOR AUTOMATIC OPERATION. ADD FEEDWATER AS NECESSARY TO MAINTAIN A SATISFACTORY WATER LEVEL.		
38	PUT THE STEAM DRUM LEVEL CONTROLLER IN THE AUTOMATIC MODE AND ADJUST THE SETPOINT TO 0.0 INWC.		
39	PUT THE ID FAN SPEED CONTROLLER IN THE AUTOMATIC MODE AND ADJUST THE SETPOINT TO 70%.		
40	WHEN THE STEAM FLOW IS GREATER THAN 20,000 LB/HR CLOSE THE SUPERHEATER VENT VALVE.		
41	PUT THE COMBUSTOR ZONE AIR FLOW CONTROLLERS IN THE AUTOMATIC MODE AND ADJUST THE SETPOINTS AS NECESSARY TO STABILIZE THE COMBUSTION.		
42	MANUALLY ADJUST THE RAM SPEED AND COMBUSTOR SPEED AS NECESSARY TO STABILIZE THE COMBUSTION AND ESTABLISH A GOOD FUEL BED WITH A STEAM FLOW AT ABOUT 68,000 LB/HR.		

COUNTY ENERGY SYSTEMS, INC.

COMBUSTOR/BOILER START-UP PROCEDURE

PROCEDURE NO SU-11

REV 1

PAGE 4 OF 4

STEP NO.	DESCRIPTION	TIME	INITIALS
43	PUT THE STEAM FLOW CONTROLLER IN THE AUTOMATIC AND ADJUST THE SETPOINT TO 68,000 LB/HR.		
44	PUT THE COMBUSTOR ZONE TWO (2) AIR FLOW CONTROLLERS IN THE CASCADE MODE.		
45	PUT THE OXYGEN CONTROLLER IN THE AUTOMATIC AND ADJUST THE SETPOINT TO 5% O2.		
46	PUT THE RAM SPEED CONTROLLER IN THE AUTOMATIC MODE.		
47	HAVE THE OUTSIDE OPERATOR VERIFY PROPER BOILER WATER CHEMISTRY AND PLACE THE CONTINUOUS BLOWDOWN IN SERVICE.		
48	BOILER IS ON LINE AT FULL POWER AND STABLE.		

BELOW IS FOR USE IN RECORDING STEPS NOT PERFORMED OR PERFORMED OUT OF SEQUENCE.

STEP NO.	REASON	SHIFT SUPERVISOR
.....
_____	_____	_____
_____	_____	_____

COMPLETION: _____
CONTROL OPERATOR

SHIFT SUPERVISOR

Y COUNTY ENERGY SYSTEMS, INC.

BOILER SHUT DOWN PROCEDURE

PROCEDURE NO SD-11

REV 0

ISSUE DATE 6/4/92

APPROVED

D.J. McKeel

PAGE 1 OF 2

PROCEDURE OBJECTIVE: TO PROVIDE FOR A SAFE AND ORDERLY SHUT DOWN OF THE O'CONNOR ROTARY COMBUSTOR/DELTAK BOILER.

DATE: ___/___/___

CO: _____ SHIFT: _____

RELIEVING CO: _____ SHIFT: _____

BOILER NO. _____

TIME OF RELIEF: _____

STEP NO.	DESCRIPTION	TIME	INITIALS
1	NOTIFY THE ENTIRE OPERATING SHIFT THAT THE BOILER IS BEING TAKEN OFF LINE.		
2	NOTIFY GULF POWER THAT A BOILER IS BEING TAKEN OFF THE LINE, THE REASON WHY AND THE NEW SCHEDULED POWER PRODUCTION.		
3	NOTIFY MANAGEMENT THAT THE BOILER IS BEING TAKEN OFF THE LINE.		
4	STOP FEEDING FUEL TO THE CONVEYOR SYSTEM SUPPLYING THE UNIT BEING TAKEN OFF THE LINE.		
5	WHEN ALL THE FUEL ON THE CONVEYOR HAS BEEN FED INTO THE FEED CHUTE, PUT THE FEED CHUTE LEVEL IN THE MANUAL MODE AND STOP THE FUEL FEED CONVEYOR SYSTEM.		
6	WHEN ALL OF THE FUEL HAS BEEN FED INTO THE COMBUSTOR AND THE FEED CHUTE IS EMPTY, STOP THE RAM FEED SYSTEM.		
7	PUT ALL THE COMBUSTOR AIR FLOW CONTROLLERS IN THE AUTOMATIC MODE AND DECREASE THE AIR FLOW AS THE FUEL BURNS OUT.		
8	STOP THE OVERFIRE AIR FAN: A. CLOSE THE FAN INLET DAMPER B. STOP THE OVERFIRE AIR FAN		
9	WHEN THE STEAM FLOW DECREASES TO 20,000 LB/HR, OPEN THE SUPERHEATER VENT.		
10	WHEN ALL OF THE FUEL IN THE COMBUSTOR IS BURNED OUT: A. PUT THE COMBUSTION AIR PRESSURE CONTROLLER IN THE MANUAL MODE B. PUT THE FD FAN SPEED CONTROLLER IN THE MANUAL MODE C. SET THE FAN SPEED TO 0% DEMAND D. CLOSE THE FAN INLET DAMPER E. STOP THE FD FAN NOTE: THE COOL DOWN OF THE BOILER SHOULD NOT BE AT A RATE GREATER THAN 100 F degrees/hr.		
11	WITH THE COMBUSTOR SPEED CONTROLLER STILL IN AUTOMATIC INCREASE THE SETPOINT TO 10 RPH UNTIL ALL THE ASH IS OUT OF THE COMBUSTOR THEN REDUCE THE SETPOINT TO 2 RPH AND CONTINUE TO ROTATE THE COMBUSTOR UNTIL THE COMBUSTOR OUTLET WATER COOLS TO 250 degrees F.		
12	CLOSE THE CONTINUOUS BLOWDOWN VALVE.		

STEP NO.	DESCRIPTION	TIME	INITIALS
13	PUT ALL THE COMBUSTOR ZONE AIR FLOW CONTROLLERS IN THE MANUAL MODE AND CLOSE ALL THE ZONE DAMPERS.		
14	WHEN THE BOILER PRESSURE REACHES 15 PSIG OPEN THE STEAM DRUM VENT.		
15	DE-ENERGIZE FIELD ONE (1) AND TWO (2) OF THE ELECTROSTATIC PRECIPITATOR. LEAVE FIELD THREE ENERGIZED TO PREVENT DUST FROM DISCHARGING FROM THE STACK ONLY DE-ENERGIZE FIELD THREE (3) FOR MAINTENANCE/SAFETY REQUIREMENTS.		
16	SHUTDOWN THE FOLLOWING SYSTEMS ONLY FOR MAINTENANCE OR SAFETY REQUIREMENTS: FLY ASH SYSTEM (MACAWBER) ROTARY VALVES (1-1 & 1-2 UNIT #1) OR (2-1 & 2-2 UNIT #2) THIS IS TO PREVENT CLOGGING FROM THE CONDENSING OF MOISTURE WHEN THE SYSTEMS COOL DOWN		
17	WHEN THE COMBUSTOR OUTLET WATER COOLS TO 250 degrees F. STOP THE ROTATION OF THE COMBUSTOR.		
18	CLOSE SEAL WATER SUPPLY TO COMBUSTOR ROTARY JOINT.		
19	OPEN THE RESISTANCE DOOR AND INSTALL THE SAFETY PIN.		
20	STOP THE RAM/COMBUSTOR HYDRAULIC PUMP SYSTEM.		
21	STOP COMBUSTOR CIRCULATION PUMP.		
22	CLOSE FEEDWATER STOP VALVE AT STEAM DRUM.		
23	STOP THE SIFTINGS CONVEYOR.		
24	STOP THE ID FAN: A. PUT THE ID FAN SPEED CONTROLLER IN THE MANUAL MODE B. SET THE FAN SPEED TO 0% DEMAND C. STOP THE ID FAN D. PUT FURNACE PRESSURE CONTROLLER IN THE MANUAL MODE E. SET THE FAN INLET DAMPER TO 50% OPEN		
25	STOP THE RAPPING SEQUENCE ON THE PRECIPITATOR AND DE-ENERGIZE THE REMAINING FIELD.		

BELOW IS FOR USE IN RECORDING STEPS NOT PERFORMED OR PERFORMED OUT OF SEQUENCE.

STEP NO.

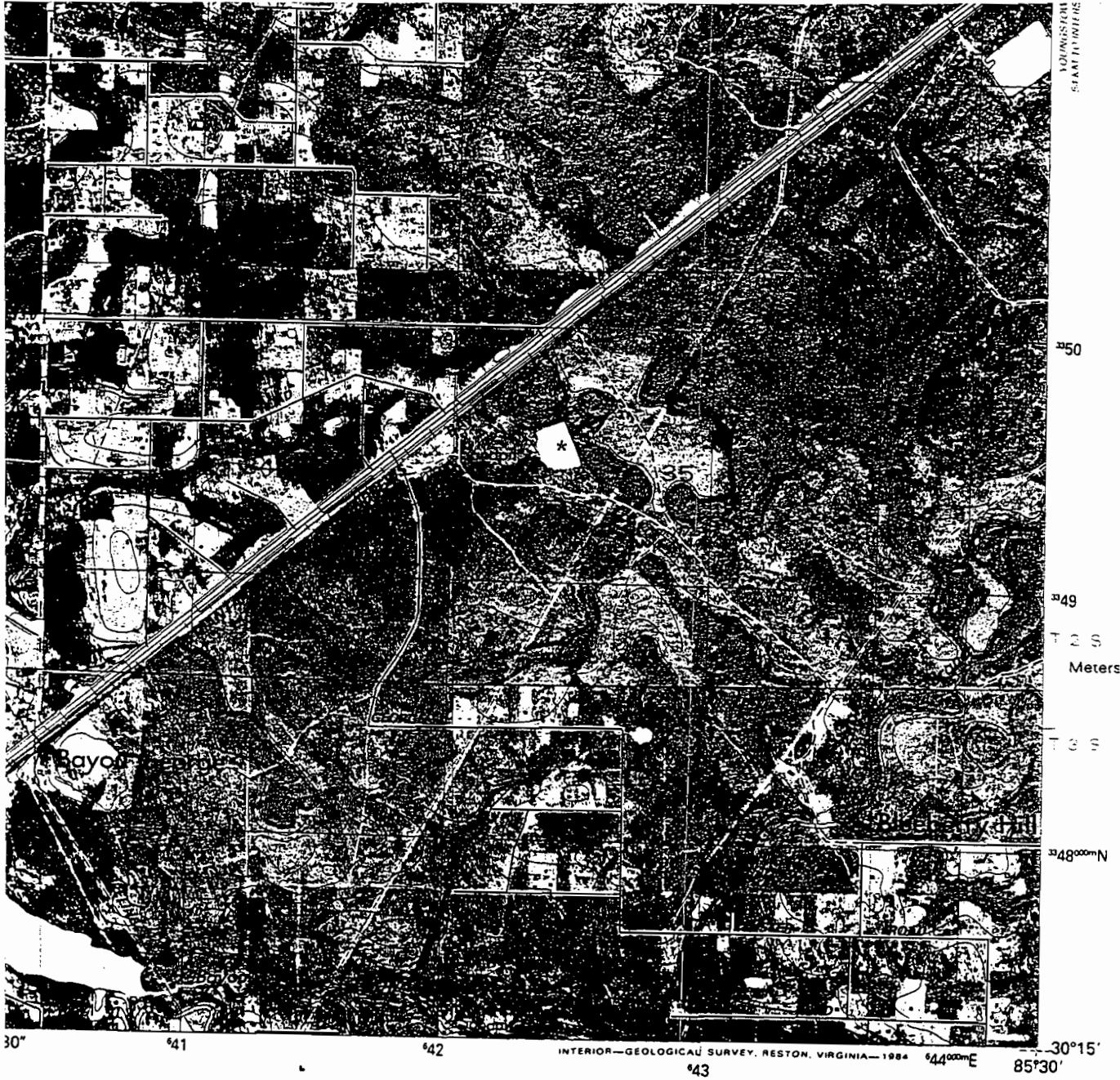
REASON

SHIFT SUPERVISOR

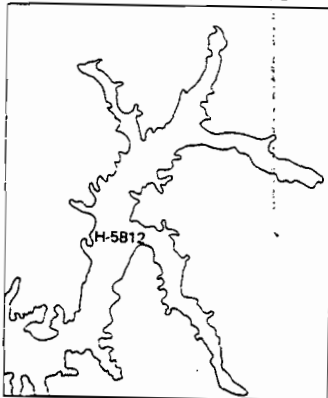
COMPLETION:

CONTROL OPERATOR

SHIFT SUPERVISOR



NATIONAL OCEAN SURVEY
HYDROGRAPHIC SURVEY INDEX



RECEIVED

JUN 10 1986

**Northwest Florida
DEP**

CONTOURS AND ELEVATIONS
IN METERS

ROAD CLASSIFICATION

- Primary highway, hard surface _____
- Secondary highway, hard surface _____
- Trails _____
- Interstate Route _____
- County Route _____
- Light-duty road, hard or improved surface _____
- Unimproved road _____
- U. S. Route _____
- State Route _____

BAYHEAD, FLA.

30085-C5-TB-024

1982

DMA 3844 I SE - SERIES V8470

*approximate site location

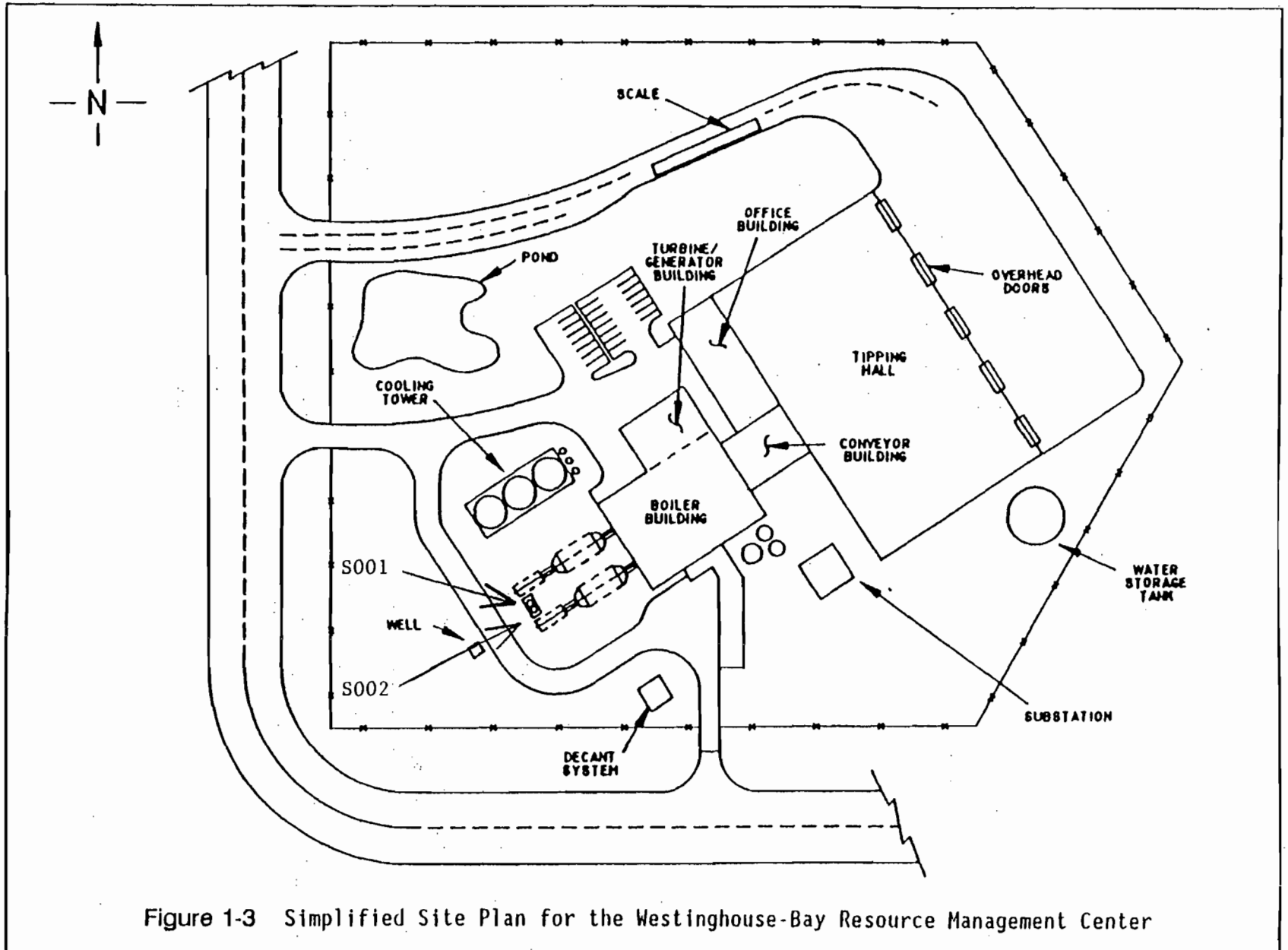
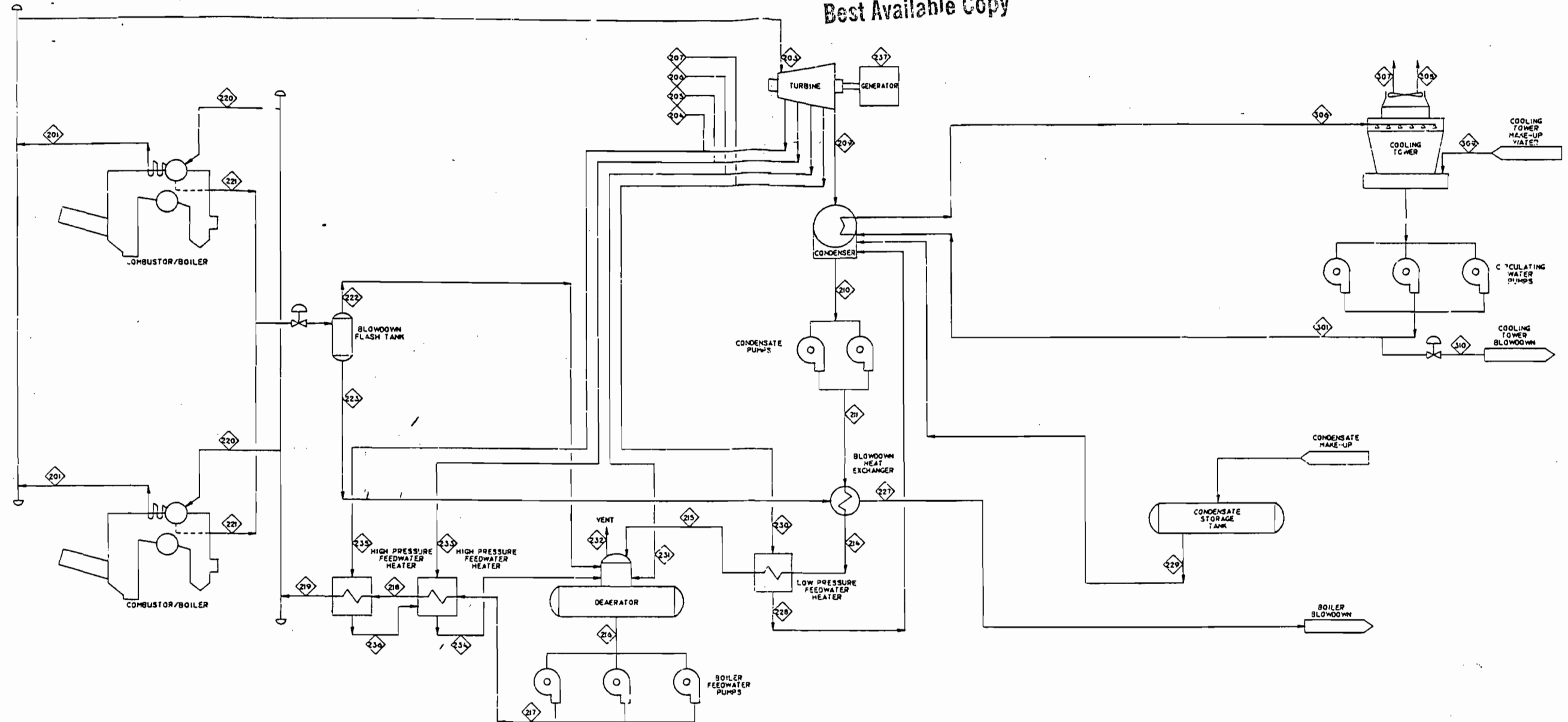


Figure 1-3 Simplified Site Plan for the Westinghouse-Bay Resource Management Center

Best Available Copy



NOTE:
SEE SHEET 2 FOR MASS FLOW CHART

ZONE	DESCRIPTION	DATE	BY
A	REVISIONS		
	DESCRIPTION		
	REVISION NO.		
	DATE		
	BY		
	REVISION NO.		
	DATE		
	BY		

DATE	2-5-87	REV	2	REV STATUS	REVISED	
DATE	2-5-87	REV	1	REV STATUS	ISSUED	
BAY COUNTY, FLORIDA RESOURCE RECOVERY FACILITY Westinghouse Electric Corporation Resource Energy Systems Division Pittsburgh, Pennsylvania						
STEAM CYCLE PROCESS FLOW DIAGRAM 2 UNITS IN OPERATION 100% PLANT STEAM FLOW 100% PLANT THERMAL LOAD						
PROJECT NO.	1886E97				SHEET	2
SCALE						

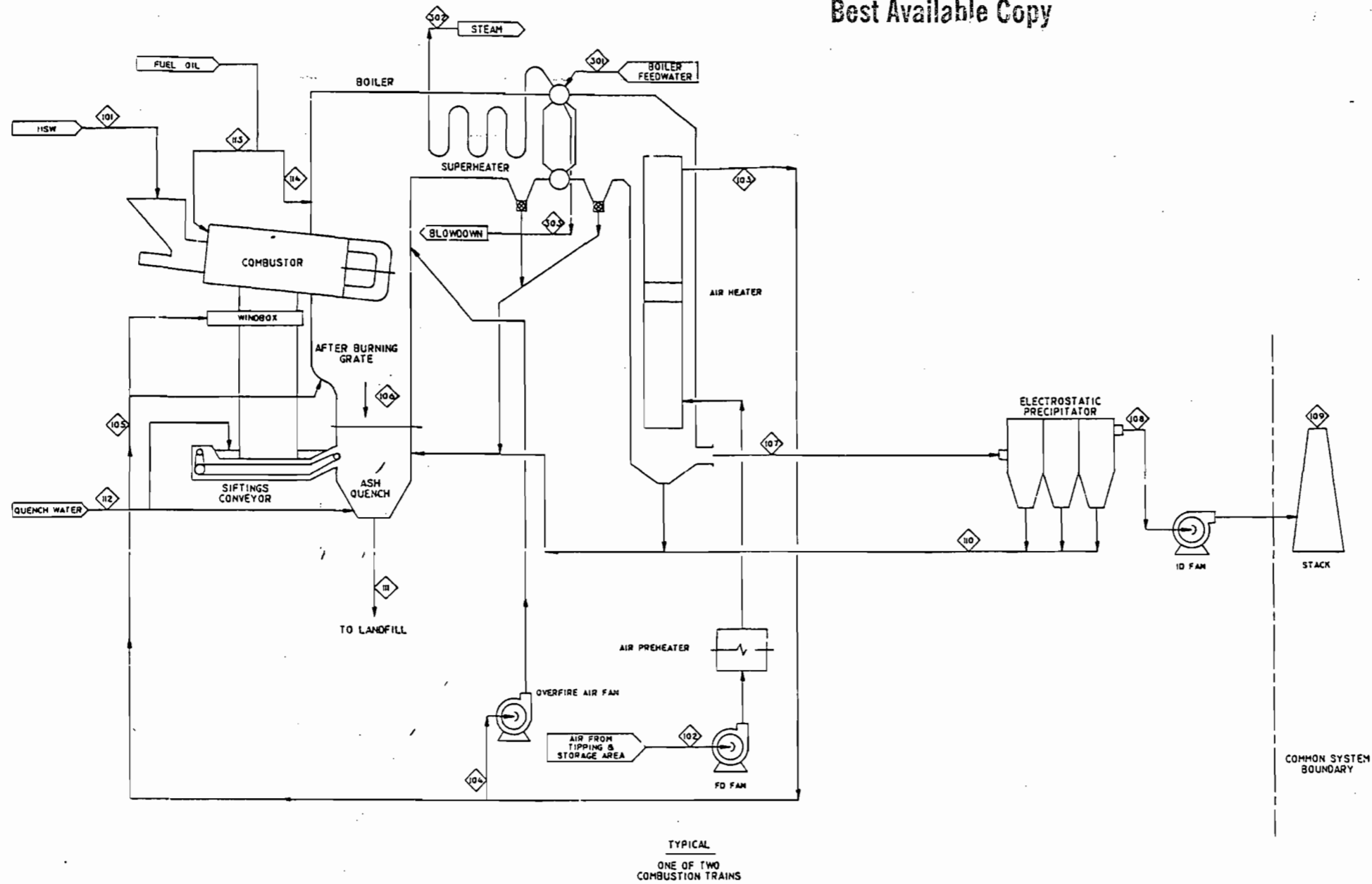
FLOW NUMBER	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216
MEDIUM	STEAM		STEAM (I)	STEAM	STEAM	STEAM	STEAM		STEAM	CONDENSATE	CONDENSATE			CONDENSATE	CONDENSATE	CONDENSATE
FLOW FROM	SUPERHTR OUTLET		MAIN STM HEADER	1ST TURBINE EXTR	2ND TURBINE EXTR	3RD TURBINE EXTR	4TH TURBINE EXTR		TURBINE EXHAUST	CONDENSATE	CONDENSATE PUMP			CONDENSATE	CONDENSATE	CONDENSATE
FLOW TO	MAIN STEAM HEADER		TURBINE THROTTLE	EXTRACTION PIPING	EXTRACTION PIPING	EXTRACTION PIPING	EXTRACTION PIPING		CONDENSER	CONDENSATE PUMP	BLOWDOWN HX			FEEDWATER HTR 1	FEEDWATER HTR 1	BOILER FEED PUMPS
MASS FLOW (#/HR)	69.048		136.096	12.385	10.302	9.892	5.038		98.478	104.563	104.563			104.563	104.563	137.457
TEMPERATURE (F)	752		750	650	462	253.7	163.8		108.7	108.7	108.9			10.2	156.7	250.7
PRESSURE (PSIA)	640		614.7	351.4	126.4	31.8	5.2		1.23	1.23	100			90	80	30.2
ENTHALPY (BTU/#)	1379.3		1379.6	1338.9	1256.7	1160.3	1053.7		993.6	76.7	77.1			78.4	124.8	219.3
REMARKS			100% THRM ABSORBED						2.5' HgA	2.5' HgA						
FLOW NUMBER	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232
MEDIUM	FEEDWATER	FEEDWATER	FEEDWATER	FEEDWATER	CONTINUOUS BLOWDOWN	STEAM	WATER				WATER	WATER	WATER	STEAM	STEAM	STEAM
FLOW FROM	BOILER FEED PUMPS	FEEDWATER HTR 3	FEEDWATER HTR 4	FEEDWATER HTR 4	FEEDWATER HEADER	BOILER DRUM	FLASH TANK	FLASH TANK			BLOWDOWN HX	FEEDWATER HTR 1	MAKEUP TANK	EXTRACTION PIPING	EXTRACTION PIPING	DEAERATOR
FLOW TO	FEEDWATER HTR 3	FEEDWATER HTR 4	FEEDWATER HTR 4	FEEDWATER HTR 4	BOILER DRUM	FLASH TANK	FLASH TANK	BLOWDOWN HX			DRAIN TANK	HOTWELL	HOTWELL	FEEDWATER HTR 1	DEAERATOR	ATMOSPHERE
MASS FLOW (#/HR)	137.457	137.457	137.457	137.457	NR 17#	220	343	978			978	5.038	104.7	5.038	9.894	59
TEMPERATURE (F)	252.5	336.3	222.3	422.3	499.8	254	254	120.9			122.2	90	161.0	161.0	250.7	250.7
PRESSURE (PSIA)	800	790	780	780	679.7	32	32	32			4.93	4.93	30.2	30.2	30.2	30.2
ENTHALPY (BTU/#)	222.8	307.4	399.4	399.4	399.4	1163.4	222.7	18.9			90.1	28	1053.7	1160.5	1164.2	1164.2
REMARKS					1% BLOWDOWN									HTR T SAT=101.7°F		
FLOW NUMBER	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248
MEDIUM	STEAM	CONDENSATE DRN	STEAM	CONDENSATE DRN	GENERATOR OUTPUT											
FLOW FROM	EXTRACTION PIPING	FEEDWATER HTR 3	EXTRACTION PIPING	FEEDWATER HTR 4												
FLOW TO	FEEDWATER HTR 3	DEAERATOR	FEEDWATER HTR 4	FEEDWATER HTR 3												
MASS FLOW (#/HR)	10.302	22.686	12.385	12.385												
TEMPERATURE (F)	460	202.5	646	346.3												
PRESSURE (PSIA)	120.1	120.1	333.9	333.9												
ENTHALPY (BTU/#)	1256.7	231.3	1338.9	317.8												
REMARKS	HTR T SAT=341.3°F		HTR T SAT=427.3°F		12,259 KW											
FLOW NUMBER	301	302	303	304	305	306	307	308	309	310						
MEDIUM	WATER					WATER	WATER VAPOR	WATER	WATER	WATER						
FLOW FROM	CIRC WATER PUMPS					CONDENSER	COOLING TOWER	COOLING TOWER	MAKEUP WATER SYS	PUMP DISCHARGE						
FLOW TO	CONDENSER					COOLING TOWER	ATMOSPHERE	ATMOSPHERE	COOLING TOWER	WASTE WTR SYS						
MASS FLOW (#/HR)	7,996,448					7,996,448	90,360	640	109,072	18,072						
FLOW (GPM)	16,051					16,091	218	218	218	36						
TEMPERATURE (F)	91					102.3			60	91						
PRESSURE (PSIA)																
ENTHALPY (BTU/#)	59					70.3			28	59						
REMARKS						EVAPORATION	DRIFT			6 CYC OF CONC						

(1) PLANT 100% STEAM FLOW = 136,096 LB/HR
 (2) PLANT 100% THERMAL LOAD = 133.52 X 10⁶ BTU/HR ABSORBED

NO.	DATE	DESCRIPTION
1	11-15-88	ADDED THIS SHEET

NOTE:
 SEE SHEET 1 FOR FLOW DIAGRAM

Best Available Copy



TYPICAL
ONE OF TWO
COMBUSTION TRAINS

NOTE:
SEE SHEET 2 FOR MASS FLOW CHART

REV	REV STATUS
1	REV
2	SHEET

BAY COUNTY FLORIDA
RESOURCE RECOVERY FACILITY
Westinghouse Electric Corporation
Resource Energy Systems Division
Pittsburgh, Pennsylvania

GAS CYCLE PROCESS FLOW DIAGRAM
2 UNITS IN OPERATION
100% PLANT STEAM FLOW
100% PLANT THERMAL LOAD

DATE: 2-25-81
BY: AC STEFFET
DATE: 3-16-87
BY: DM D'VARGO
DATE: 1-13-88
BY: AC STEFFET

1887E15

ZONE	DESCRIPTION
1	REVISIONS

1887E15

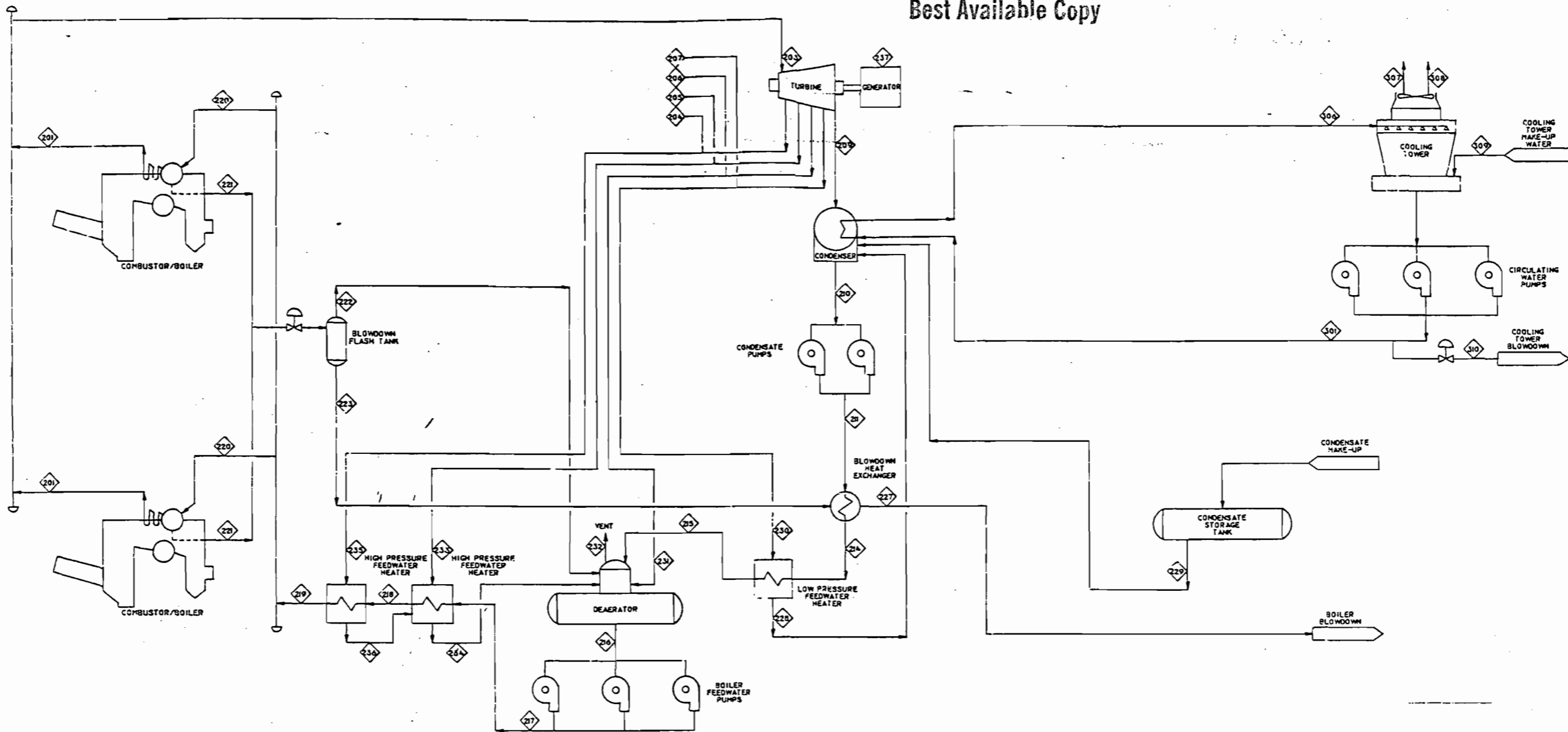
FLOW NUMBER	101	102	103	104	105	106	107	108	109	110	111	112	113	114
MEDIUM	HSW STORAGE COMBUSTOR	COMBUSTION AIR TIPPING FLOOR FD FAN	COMBUST. AIR AIR HEATER DUCTING	COMBUST. AIR DUCTING CYERFIRE FAN	COMBUST. AIR DUCTING COMBUSTOR/GRATE	ASH GRATE ASH QUENCH	FLUE GAS AIR HEATER ESP	FLUE GAS ESP 10 FAN	FLUE GAS STACK AMBIENT	FLY ASH ESP CONVEYOR	RESIDUE ASH QUENCH LANDFILL	WATER PIPING ASH QUENCH	FUEL OIL PIPING BURNER?	FUEL OIL PIPING BURNER
WT %		WT % VOL %					WT % VOL %							
C	25.10	N ₂ 75.85	77.39				N ₂ 65.53	65.70	3.0	gr/dact part. (3)	0.2	gr/dact part. (3)		
H	3.70	O ₂ 22.85	20.56				CO ₂ 16.17	10.52	150	ppm _{dry} SO ₂ (4)	150	ppm _{dry} SO ₂ (4)		
O	21.70	H ₂ O 1.28	2.05				H ₂ O 11.67	18.19	1500	ppm _{dry} HCl (4)	13500	ppm _{dry} HCl (4)		
S	0.20													
N	0.60													
H ₂ O	27.00													
INERT	21.70													
MASS FLOW (LB/HR)	21.928	107.561	107.561	0	107.561	428	124.730	124.730	249.460	929	6.722	2.037	0	0
VOLUME FLOW (ACFM)		24.084	41.362	0	41.362		46.460	45.909	90.287					
VOLUME FLOW (SCFM)		23.993	23.993	0	23.993		28.517	28.517	57.034					
MOLAR FLOW (LB MOLES/HR)		3.736	3.736	0	3.736		4.441	4.441	8.882				0	0
TEMPERATURE (F)	70	70	450	450	700		-00	390	375			70	70	70
PRESSURE (IN H ₂ O G)			0	0	0			0	0					
ENTHALPY (BTU/LB)	1114500													
REMARKS	263J TPU	50 %XS AIR		0%	100%	OP-2 BTU/LB - F	11.28J				30% MOISTURE	4.1 GPM	* 2 FUEL OIL HHV=18,200 BTU/LB	* 2 FUEL OIL HHV=130,000 BTU/GAL

FLOW NUMBER	301	302	303
MEDIUM	FEEDWATER	STEAM (S)	BLOWDOWN
FLOW FROM	FEEDWATER HEATER	SUPERHEATER OUTLET	BOILER DRUM
FLOW TO	BOILER DRUM	MAIN STEAM HEADER	FLASH TANK
MASS FLOW (LB/HR)	68.729	68.048	680
VOLUME FLOW (GPM)	162.0		1.7
TEMPERATURE (F)	422.3	750	499.8
PRESSURE (PSIA)	779.7	614.7	679.7
ENTHALPY (BTU/LB)	399.4	1379.6	487.7
REMARKS	67.7% BOILER EFF.	66.76 X 10 ⁶ BTU/HR	1 % BLOWDOWN

- (1) STANDARD TEMPERATURE=68°F
- STANDARD PRESSURE=1 ATMOSPHERE
- (2) AMBIENT PRESSURE=760mm Hg
- (3) AT 12% CO₂
- (4) AT 12% CO₂
- (5) PLANT 100% STEAM FLOW=134,096 LB/HR
- (6) PLANT 100% THERMAL LOA=133.52 X 10⁶ BTU/HR ABSORBED

REVISIONS	DESCRIPTION
1	ADDED THIS SHEET
2	AC STEFFY 4-15-88

NOTE:
SEE SHEET 1 FOR FLOW DIAGRAM



FLOW NUMBER	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216
MEDIUM	STEAM	STEAM	STEAM III	STEAM	STEAM	STEAM	STEAM	STEAM	CONDENSATE	CONDENSATE	CONDENSATE	CONDENSATE	CONDENSATE	CONDENSATE	CONDENSATE	CONDENSATE
FLOW FROM	SUPERHTR OUTLET	MAIN STM HEADER	MAIN STM HEADER	1ST TURBINE EXTR	2ND TURBINE EXTR	3RD TURBINE EXTR	4TH TURBINE EXTR	TURBINE EXHAUST	CONDENSER	CONDENSATE PUMP	CONDENSATE PUMP	CONDENSATE PUMP	CONDENSATE PUMP	CONDENSATE PUMP	CONDENSATE PUMP	CONDENSATE PUMP
FLOW TO	MAIN STEAM HEADER	TURBINE THROTTLE	TURBINE THROTTLE	EXTRACTION PIPING	EXTRACTION PIPING	EXTRACTION PIPING	EXTRACTION PIPING	EXTRACTION PIPING	CONDENSER	CONDENSATE PUMP	CONDENSATE PUMP	CONDENSATE PUMP	CONDENSATE PUMP	CONDENSATE PUMP	CONDENSATE PUMP	CONDENSATE PUMP
MASS FLOW (LBS/HR)	78,252	156,504	156,504	14,887	12,480	11,344	6,339	18,454	19,004	19,004	19,004	19,004	19,004	19,004	19,004	19,004
TEMPERATURE (F)	752	750	750	480	487	487	169	108.7	108.7	108.9	108.9	108.9	108.9	108.9	108.9	108.9
PRESSURE (PSIA)	640	614.7	614.7	407.6	165.9	35.3	5.9	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23
ENTHALPY (BTU/LB)	1379.6	1379.6	1379.6	1351.9	1267.2	1046.6	1059.6	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4
REMARKS			1% BLOWDOWN					2.5" HgA	2.5" HgA							

FLOW NUMBER	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232
MEDIUM	FEEDWATER	FEEDWATER	FEEDWATER	FEEDWATER	CONTINUOUS BLOWDOWN	STEAM	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FLOW FROM	BOILER FEED PUMPS	FEEDWATER HTR 3	FEEDWATER HTR 4	FEEDWATER HTR 4	BOILER DRUM	FLASH TANK	FLASH TANK	FLASH TANK	FLASH TANK	FLASH TANK	FLASH TANK	FLASH TANK	FLASH TANK	FLASH TANK	FLASH TANK	FLASH TANK
FLOW TO	FEEDWATER HTR 3	FEEDWATER HTR 4	FEEDWATER HTR 4	BOILER DRUM	FLASH TANK	DEAERATOR	DEAERATOR	DEAERATOR	DEAERATOR	DEAERATOR	DEAERATOR	DEAERATOR	DEAERATOR	DEAERATOR	DEAERATOR	DEAERATOR
MASS FLOW (LBS/HR)	158,069	158,069	158,069	158,069	79,034	78.3	4.33	121	121	121	121	121	121	121	121	121
TEMPERATURE (F)	258.6	347.2	436.4	436.4	499.8	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3
PRESSURE (PSIA)	800	790	780	780	679.7	35	35	35	35	35	35	35	35	35	35	35
ENTHALPY (BTU/LB)	228.9	318.8	415.1	415.1	487.7	1167.1	228	88.7	89.9	28	1059.6	1168.5	1168.5	1168.5	1168.5	1168.5
REMARKS					1% BLOWDOWN											

FLOW NUMBER	233	234	235	236	237	238	239	240	241	242	243	244	245	246
MEDIUM	STEAM	CONDENSATE DRN	STEAM	CONDENSATE DRN	GENERATOR OUTPUT									
FLOW FROM	EXTRACTION PIPING	FEEDWATER HTR 3	EXTRACTION PIPING	FEEDWATER HTR 4	FEEDWATER HTR 4									
FLOW TO	FEEDWATER HTR 3	DEAERATOR	FEEDWATER HTR 4	FEEDWATER HTR 3										
MASS FLOW (LBS/HR)	12,480	27,567	14,887	14,887										
TEMPERATURE (F)	485	208.6	678	357.2										
PRESSURE (PSIA)	138.0	138.0	187.2	187.2										
ENTHALPY (BTU/LB)	1267.2	237.3	1351.9	329.4										
REMARKS	HTR 1 SAT=332.2°F		HTR 1 SAT=441.6°F		13,860 kW									

(1) PLANT 100% STEAM FLOW = 136,096 LB/HR
 (2) PLANT 100% THERMAL LOAD = 133.52 X 10⁶ BTU/HR ABSORBED

REVISIONS
 TOWER DESCRIPTION

DATE: 11/27/87
 BY: [Signature]
 CHK: [Signature]
 SCALE: 1/4" = 1'-0"
 PROJECT: [Blank]
 SHEET: 1887E24

BAY COUNTY, FLORIDA
 RESOURCE RECOVERY FACILITY
 Westinghouse Electric Corporation
 Resource Energy Systems Division
 Pittsburgh, Pennsylvania

STEAM CYCLE PROCESS FLOW DIAGRAM
 2 UNITS IN OPERATION
 115% PLANT STEAM FLOW
 113% PLANT THERMAL LOAD

ATTACHMENT 4

D. Facility Supplement Information

4. Precautions to Prevent Emissions of Unconfined Particulate Matter

The following areas have been identified as potential source of fugitive particulate emissions along with the precautions used to prevent these emissions.

1. Emissions from Paved and Unpaved Roads

At the Bay Resource Management Center site, there are only approximately 0.112 miles of paved roads and 0.08 miles of unpaved roads that are used by trucks delivering MSW, trucks removing ash, passenger vehicles and other plant equipment. To minimize potential emissions from the paved roadways, the facility utilizes a road sweeper to clean these areas twice per month. The unpaved areas are used infrequently in order that vehicles can travel from the tipping floor to the rear of the facility without exiting plant property

2. Residue Handling

The residual material remaining after the solid waste is combusted is loaded via conveyor into trucks and then hauled to the landfill. The residue (ash) is handled wet in order to minimize emissions. All ash is combined inside the boiler building and goes to the quench tank where it is submerged in water. A drag conveyor lifts the material from the quench tank up an incline to allow standing water to drain. The material is then discharged into a roll-off container that is loaded on a truck. The roll-off containers are covered before the trucks exit the site.

ATTACHMENT 5

D. Facility Supplement Information

5. Fugitive Emissions Identification

The following potential fugitive emission sources have been identified at the Facility:

<u>AREA</u>	<u>POLLUTANT</u>
Ash/Residue Handling	Particulate Matter
MSW Handling - Tipping Floor	Particulate Matter
MSW Handling - Conveyor Room	Particulate Matter
Paved/Unpaved Roads	Particulate Matter
Cooling Tower	Particulate Matter
Fuel Oil Storage Tanks	VOC

The fugitive emission sources are listed here for completeness purposes. They are also listed on Attachment 6 - List of Insignificant Sources.

ATTACHMENT 6

LIST OF INSIGNIFICANT SOURCES			
ITEM	SOURCE	UNIT TYPE	RATIONALE FOR EXEMPTION
1	All Sources listed in 62-210.200(3)		Exempted by Rule 62-213.400 and 62-210.300(3)
2	Plant grounds maintenance Lawn maintenance equipment/activities	Small engine emissions; fertilizers, etc.	EPA Listed
3	Maintenance/repair activities	Cleaning, painting, welding, coating, applications; hand tools/equipment meter repair/on-line tools/equipment/meter repair on-line/off-line cleaning of equipment. Abrasive cleaning indoors.	Presumptive Exemption
4	Main steam pressure relief valves; steam from boiler operations. Steam leaks Steam releases; turbine vents Safety devices	Valves T/G Trips Steam PRV	Steam exempt; not a pollutant.
5	Office Activities	Vacuum Cleaning Refrigerators Office Supplies/Equipment	EPA Listed
6	Chemical Storage Tanks	Sulfuric Acid (2) 1500 gallons Propane (1) 125 gallons Sodium Hypochlorite (55-gal drums) Sodium Hydroxide (1) 1500 gallons 1 acid/1 caustic day tanks (250 gal ea) Performax 412 (1) 1000 gallons	EPA Listed
7	Testing & Monitoring Equipment	CEMs, stack sampling calibration gases, oxygen detector.	EPA Listed
8	Internal Combustion Engines which drive compressors, generators, water pumps, or other auxiliary equipment.	Fire/Safety Diesel Pump	Exempt by 62-210.300(3)(t) if diesel and operated <400 hrs/yr, otherwise presumptively exempt at time of application. Operates less than 400 hours per year. (987 hrs since plant startup).
9	HVAC Equipment	Cooling/heating	Exempt by 62-213.400 and 62-210.300(3).

LIST OF INSIGNIFICANT SOURCES			
ITEM	SOURCE	UNIT TYPE	RATIONALE FOR EXEMPTION
10	Vents/Exhausts	Boiler Feed Pump Relief Valve Blowdown Flash tank Vent Feedwater Heater Vent Boiler Blowdown Tank Vent Gland Seal Vent Steam Dump Steam Drum Vent Dearator Vents Battery Room Exhaust Fans (2) Boiler Building Exhaust Fans (6) Maintenance Building Exhaust Generator Venting - Turbine Trip Sewer vents/exhausts Drain vents Turbine Roof Exhausts (2)	Water/Steam - Not a pollutant
11	Air compressors/Instrument air		EPA Listed
12	Waste accumulation for Safety Kleen Disposal	Accumulation in 10 gallon containers that are closed.	Extremely small quantities (less than 100 gal/yr).
13	Lab vents/lab operations		Exempt by 62-210.300(3)(o)
14	Mobile sources - FEL, fork lifts		EPA Listed
15	Containers, reservoirs, tanks for oils wax, grease (non-solvents)	Lube oil reservoirs Gearbox vents Packing seals	No Emissions
16	Transportation/conveying and handling of waste and ash		Emission estimated to be negligible.
17	Fuel oil storage tanks	4000 gal 1000 gal 250 gal	Diesel storage-very low vapor pressure.
18	Cooling Tower		Emissions less than significant level
19	Road Emissions		Emissions estimated at less than 1 ton per year

ATTACHMENT 7

8: List of Equipment / Activities Regulated under Title VI :

The following equipment has been identified as being regulated under Title VI:

AIR-1 Control Room Air Conditioner manufactured by Liebert, model number UH114AUA10.

AIR-2 Control Room Backup Air Conditioner manufactured by Marvair, model number WHP57HPA.

AIR-3 Back Stairwell Air Conditioner manufactured by Lennox, model number HS18-653.

SLF-1 Chem Lab Air Conditioner manufactured by Miller / Nortek, model number MSC-30E-C3.

HPR-1 Office Building Heat Pump manufactured by Lennox, model number CHP1113535.

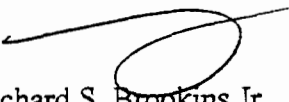
HPR-2 MCC Room Air Conditioner, Unit 2, manufactured by Trane, model number BTA180D400.

HPR-3 MCC Room Air Conditioner, Unit 3, manufactured by Trane, model number BWV180B400.

ATTACHMENT 8

14. Compliance Report and Plan:

I hereby certify that the facility and the emission units described in this application are in compliance with the applicable requirements as listed.

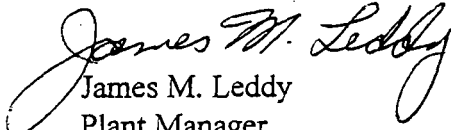

Richard S. Brookins Jr.
Industrial Hygiene, Safety, and
Environmental Coordinator

Date 6/6/96

ATTACHMENT 9

15: Compliance Certification:

I, the undersigned, am the Responsible Official as defined in Chapter 62-210.200 F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete.


James M. Leddy
Plant Manager

Date: 6/7/96

ATTACHMENT 10

3: Detailed Description of Control Equipment

Electrostatic Precipitator Description

Electrostatic precipitators (ESPs) are used to remove particulate matter from the flue gas before it exits the stack. The ESPs, manufactured by Environmental Elements Corporation (EEC), are arranged into three mechanical fields, each with its own electrical field and ash removal hopper. The fly ash handling system, designed and supplied by Macawber, interfaces with the ESP's ash removal hopper and includes an inflatable seal to prevent fly ash re-entrainment from occurring during the fly ash system's "blow" cycle. The ESP specific design information includes:

Fields:	3 (identical in size)
Discharge Electrodes:	Rigid Frame
Plate Dimensions:	24 ft high by 9 ft long
Collection Plate Area:	19,710 ft ²
Specific Collection Area:	350 ft ² /1000 acfm
Design Gas Flow Rate:	56,000 acfm @ 400 °F
Gas Velocity Thru ESP:	4 ft/sec
Gas Retention Time:	9.7 sec
T-R Sets	3 per ESP rated at 23.5 KVA (55 kv, 300 mA)
Corona Density:	300 watt/1000 acfm; 0.94 watt/ft ²
Pressure Drop:	1 inch H ₂ O
Design Pressure:	+ or - 15 inch H ₂ O

ATTACHMENT 11

4: Description of Stack Sampling Facilities:

Each incinerator train exhaust through a 53-inch inside diameter stack measuring 125 feet in height. The two stacks are housed in a common flue, which has a testing platform located approximately 60 feet from the stack base. Two 3.5-inch diameter sampling ports are installed on each stack approximately five feet above the testing platform.

COUNTY ENERGY SYSTEMS, INC.

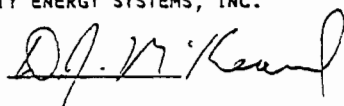
COMBUSTOR/BOILER START-UP PROCEDURE

PROCEDURE NO SU-11

REV 1

ISSUE DATE 6/4/92

APPROVED



PAGE 1 OF 4

PROCEDURE OBJECTIVE: TO PROVIDE A UNIFORM METHOD OF STARTING O'CONNOR ROTARY COMBUSTOR/DELTAK BOILER FROM COLD TO ON LINE CONDITION IN A CONTROLLED AND SYSTEMATIC MANNER.

DATE: ___/___/___

CO: _____ SHIFT: _____

RELIEVING CO: _____ SHIFT: _____

BOILER NO. _____

TIME OF RELIEF: _____

STEP NO.	DESCRIPTION	TIME	INITIALS
1	CLEAR SAFETY TAGS AND LOCKS.		
2	COMPLETE THE FOLLOWING PROCEDURE FORMS AND ATTACH: A. DCS/CONTROL ROOM PRE START-UP CHECKLIST (SU-11A) B. BOILER VALVE LINEUP CHECKLIST (SU-11B) C. BOILER PRE START-UP INSPECTION CHECKLIST (SU-11C)		
3	START ASH SYSTEM IN ACCORDANCE WITH PROCEDURE NO.9. HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION.		
4	START ELECTROSTATIC PRECIPITATOR IN ACCORDANCE WITH WITH PROCEDURE NO.13		
5	ADJUST STEAM DRUM WATER LEVEL TO 0.0 INWC. HAVE THE OUTSIDE OPERATOR VERIFY LEVEL AT THE DRUM SIGHT GLASS.		
6	VERIFY THE BOILER WATER CHEMISTRY IS IN SPEC. FOR START-UP AND START CHEM. FEED PUMP.		
7	START COMBUSTOR CIRCULATION PUMP. HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION.		
8	START THE RAM/COMBUSTOR HYDRAULIC PUMP SYSTEM.		
9	START ID FAN: A. CLOSE ID FAN INLET DAMPER. B. SET THE ID FAN SPEED DEMAND TO 0%. C. START ID FAN. D. HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION.		
10	IN THE MANUAL MODE, SET THE ID FAN SPEED AND THE SUCTION DAMPER TO 40%. NOTE: THIS IS DONE TO PREVENT OVERLOADING THE ID FAN MOTOR WHEN FLOWING COLD GAS THROUGH THE BOILER WITH THE FEED CHUTE OPEN.		
11	TEST THE RAM/COMBUSTOR HYDRAULIC SYSTEM AND HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION: A. CYCLE THE RESISTANCE DOOR AND CLOSE AFTER TESTING. B. CYCLE THE RAMS. C. ROTATE THE COMBUSTOR AND SET THE ROTATION SPEED TO APPROXIMATELY TWO (2) RPH.		

COUNTY ENERGY SYSTEMS, INC.		COMBUSTOR/BOILER START-UP PROCEDURE	PROCEDURE NO SU-11
REV 1			
			PAGE 2 OF 4
STEP NO.	DESCRIPTION	TIME	INITIALS
12	START THE FD FAN: A. CLOSE FD FAN INLET DAMPER. B. SET THE FD FAN SPEED DEMAND TO 0%. C. START FD FAN. D. HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION.		
13	START FUEL OIL SYSTEM IN ACCORDANCE WITH PROCEDURE NO.6		
14	LINEUP ATOMIZING SYSTEM FOR FUEL OIL BURNERS (steam is preferred but if it is not available, use compressed air).		
15	SET THE FURNACE PRESSURE CONTROLLER SETPOINT TO -0.45 INWC AND PLACE THE ID FAN SUCTION DAMPER IN THE AUTOMATIC MODE.		
16	SET THE ID FAN SPEED CONTROLLER SETPOINT TO 70% AND PLACE THE CONTROLLER IN THE AUTOMATIC MODE		
17	INCREASE FD FAN SPEED AND DAMPER POSITION FOR AN AIR FLOW OF 850 MSCFH		
18	START COMBUSTOR IGNITION BURNER AND SET AT 50%		
19	START FURNACE LOAD BURNER AND ADJUST AS NECESSARY TO MAINTAIN THE HEAT-UP RATE NOT GREATER THAN 100 F deg/hr. NOTE: PUT THE COMBUSTOR OUTLET WATER TEMPERATURE ON THE TREND SO THAT A PRINTOUT CAN BE MADE EACH HOUR UNTIL THE START-UP IS COMPLETE.		
20	STOP THE FD FAN.		
21	STOP THE COMBUSTOR IGNITION BURNER.		
22	MAINTAIN THE STEAM DRUM WATER LEVEL DURING HEAT-UP WITH THE BLOWDOWN VALVE AS THE LEVEL RISES. (Limits -2.0 to +2.0)		
23	WHEN THE BOILER PRESSURE REACHES 15 PSIG, CLOSE THE STEAM DRUM VENT VALVES.		
24	PLACE SUPERHEAT STEAM TEMPERATURE CONTROLLER IN THE AUTOMATIC MODE AND ADJUST THE SETPOINT TO 750 degrees F.		
25	WHEN THE COMBUSTOR OUTLET WATER TEMPERATURE REACHES 400 degrees F, IF THERE IS NOT A BOILER FEED PUMP RUNNING AT THIS TIME, START ONE OF THE ELECTRIC DRIVEN PUMPS IN ACCORDANCE WITH PROCEDURE NO.5a.		
26	OPEN SEAL WATER SUPPLY TO COMBUSTOR ROTARY JOINT.		
27	HAVE THE LOADER OPERATOR BEGIN FEEDING MSW TO THE CONVEYER SYSTEM UNTIL IT IS TO THE TOP OF THE INCLINE CONVEYER		

ATTACHMENT 12

Sheet 3 of 6

COUNTY ENERGY SYSTEMS, INC.	COMBUSTOR/BOILER START-UP PROCEDURE	PROCEDURE NO SU-11
REV 1		
PAGE 3 OF 4		
STEP NO.	DESCRIPTION	TIME INITIALS
28	WHEN THE FLUE GAS TEMPERATURE AT THE EXIT OF THE PRECIPITATOR REACHES 350 degrees F, FILL THE CHARGING CHUTE WITH FUEL TO THE NORMAL OPERATING LEVEL AND PUT THE CONVEYER CONTROLS IN THE AUTOMATIC MODE.	
29	START THE RAMS AND RUN THEM IN AUTOMATIC IN THE SERIES MODE AT A MANUAL SPEED OF 60 % UNTIL THERE IS SUFFICIENT FUEL IN THE COMBUSTOR TO START A FIRE.	
30	START THE FD FAN: A. CLOSE FD FAN INLET DAMPER. B. SET THE FD FAN SPEED DEMAND TO 0%. C. START FD FAN. D. HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION.	
31	INCREASE FD FAN SPEED AND DAMPER POSITION FOR AN AIR FLOW OF 850 MSCFH	
32	START COMBUSTOR IGNITION BURNER AND SET AT 50% TO IGNITE THE MSW.	
33	PUT COMBUSTION AIR PRESSURE CONTROLLER IN THE AUTOMATIC MODE AND ADJUST THE SETPOINT TO 15 INWC.	
34	PUT THE FD FAN SPEED CONTROLLER IN THE AUTOMATIC MODE AND ADJUST THE SETPOINT TO 80%.	
35	WHEN THE MSW FIRE IS ESTABLISHED AND THE EMISSIONS ARE WITHIN PERMIT LIMITS STOP THE COMBUSTOR BURNER AND LOAD BURNER.	
36	INCREASE FUEL FEED RATE WITH RAM SPEED, ADJUST COMBUSTOR SPEED AND ADJUST COMBUSTION AIR FLOW AND DISTRIBUTION AS NECESSARY TO BRING THE UNIT ON LINE.	
37	WHEN THE STEAM DRUM WATER LEVEL BEGINS TO DECREASE AND REQUIRES WATER, HAVE THE OUTSIDE OPERATOR LINEUP THE FEEDWATER REGULATOR AND FEED STOP VALVE AT THE ECONOMIZER INLET FOR AUTOMATIC OPERATION. ADD FEEDWATER AS NECESSARY TO MAINTAIN A SATISFACTORY WATER LEVEL.	
38	PUT THE STEAM DRUM LEVEL CONTROLLER IN THE AUTOMATIC MODE AND ADJUST THE SETPOINT TO 0.0 INWC.	
39	PUT THE ID FAN SPEED CONTROLLER IN THE AUTOMATIC MODE AND ADJUST THE SETPOINT TO 70%.	
40	WHEN THE STEAM FLOW IS GREATER THAN 20,000 LB/HR CLOSE THE SUPERHEATER VENT VALVE.	
41	PUT THE COMBUSTOR ZONE AIR FLOW CONTROLLERS IN THE AUTOMATIC MODE AND ADJUST THE SETPOINTS AS NECESSARY TO STABILIZE THE COMBUSTION.	
42	MANUALLY ADJUST THE RAM SPEED AND COMBUSTOR SPEED AS NECESSARY TO STABILIZE THE COMBUSTION AND ESTABLISH A GOOD FUEL BED WITH A STEAM FLOW AT ABOUT 68,000 LB/HR.	

STEP NO.	DESCRIPTION	TIME	INITIALS
43	PUT THE STEAM FLOW CONTROLLER IN THE AUTOMATIC AND ADJUST THE SETPOINT TO 68,000 LB/HR.		
44	PUT THE COMBUSTOR ZONE TWO (2) AIR FLOW CONTROLLERS IN THE CASCADE MODE.		
45	PUT THE OXYGEN CONTROLLER IN THE AUTOMATIC AND ADJUST THE SETPOINT TO 5% O2.		
46	PUT THE RAM SPEED CONTROLLER IN THE AUTOMATIC MODE.		
47	HAVE THE OUTSIDE OPERATOR VERIFY PROPER BOILER WATER CHEMISTRY AND PLACE THE CONTINUOUS BLOWDOWN IN SERVICE.		
48	BOILER IS ON LINE AT FULL POWER AND STABLE.		

BELOW IS FOR USE IN RECORDING STEPS NOT PERFORMED OR PERFORMED OUT OF SEQUENCE.

STEP NO.	REASON	SHIFT SUPERVISOR
-----	-----	-----
_____	_____	_____
_____	_____	_____

COMPLETION: _____
CONTROL OPERATOR

SHIFT SUPERVISOR

Y COUNTY ENERGY SYSTEMS, INC.

BOILER SHUT DOWN PROCEDURE

PROCEDURE NO SD-11

REV 0

ISSUE DATE 6/4/92

APPROVED

D. J. McKend

PAGE 1 OF 2

PROCEDURE OBJECTIVE: TO PROVIDE FOR A SAFE AND ORDERLY SHUT DOWN OF THE O'CONNOR ROTARY COMBUSTOR/DELTA K BOILER.

DATE: ___/___/___

CO: _____ SHIFT: _____

RELIEVING CO: _____ SHIFT: _____

BOILER NO. _____

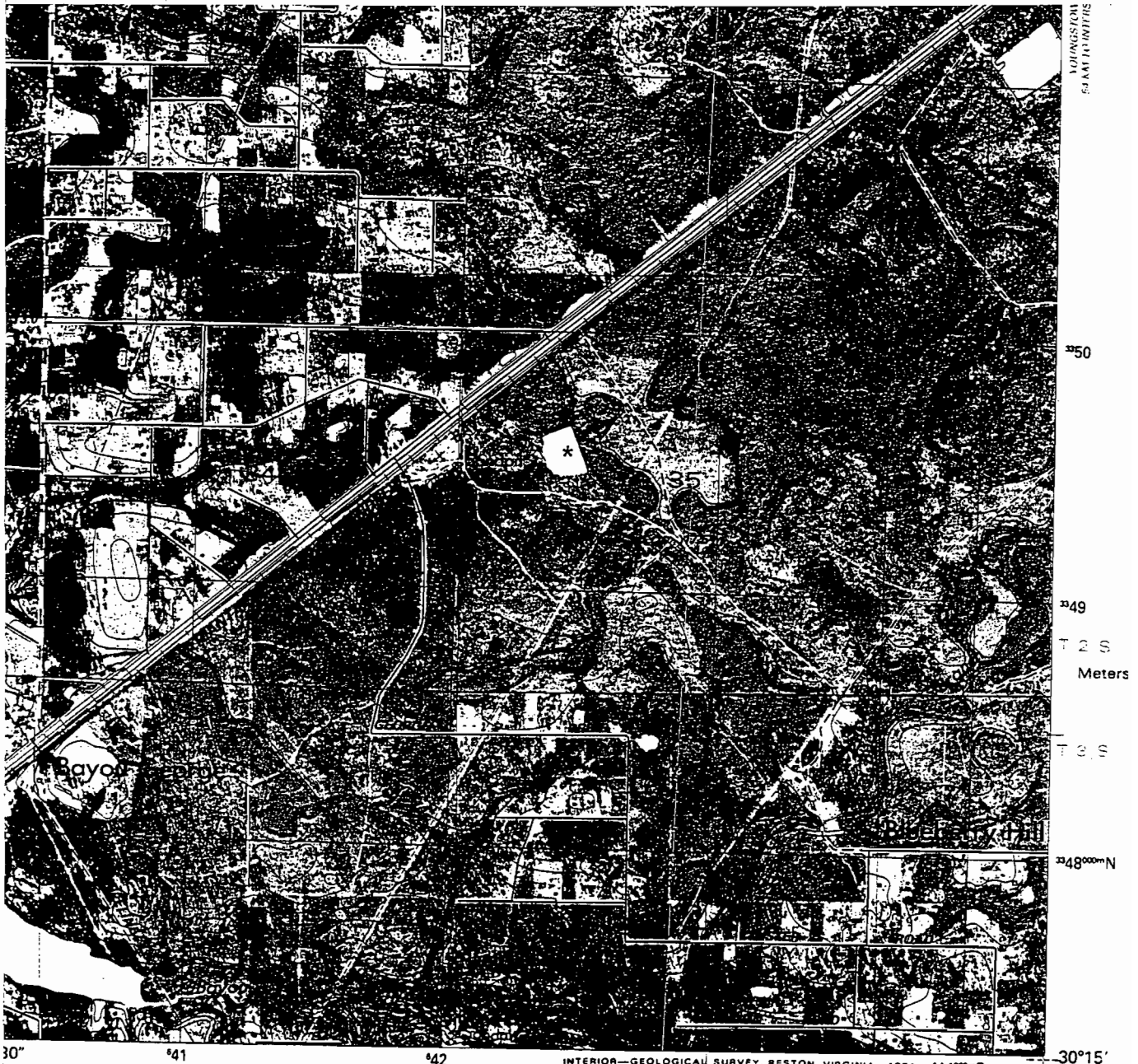
TIME OF RELIEF: _____

STEP NO.	DESCRIPTION	TIME	INITIALS
1	NOTIFY THE ENTIRE OPERATING SHIFT THAT THE BOILER IS BEING TAKEN OFF LINE.		
2	NOTIFY GULF POWER THAT A BOILER IS BEING TAKEN OFF THE LINE, THE REASON WHY AND THE NEW SCHEDULED POWER PRODUCTION.		
3	NOTIFY MANAGEMENT THAT THE BOILER IS BEING TAKEN OFF THE LINE.		
4	STOP FEEDING FUEL TO THE CONVEYOR SYSTEM SUPPLYING THE UNIT BEING TAKEN OFF THE LINE.		
5	WHEN ALL THE FUEL ON THE CONVEYOR HAS BEEN FED INTO THE FEED CHUTE, PUT THE FEED CHUTE LEVEL IN THE MANUAL MODE AND STOP THE FUEL FEED CONVEYOR SYSTEM.		
6	WHEN ALL OF THE FUEL HAS BEEN FED INTO THE COMBUSTOR AND THE FEED CHUTE IS EMPTY, STOP THE RAM FEED SYSTEM.		
7	PUT ALL THE COMBUSTOR AIR FLOW CONTROLLERS IN THE AUTOMATIC MODE AND DECREASE THE AIR FLOW AS THE FUEL BURNS OUT.		
8	STOP THE OVERFIRE AIR FAN: A. CLOSE THE FAN INLET DAMPER B. STOP THE OVERFIRE AIR FAN		
9	WHEN THE STEAM FLOW DECREASES TO 20,000 LB/HR, OPEN THE SUPERHEATER VENT.		
10	WHEN ALL OF THE FUEL IN THE COMBUSTOR IS BURNED OUT: A. PUT THE COMBUSTION AIR PRESSURE CONTROLLER IN THE MANUAL MODE B. PUT THE FD FAN SPEED CONTROLLER IN THE MANUAL MODE C. SET THE FAN SPEED TO 0% DEMAND D. CLOSE THE FAN INLET DAMPER E. STOP THE FD FAN NOTE: THE COOL DOWN OF THE BOILER SHOULD NOT BE AT A RATE GREATER THAN 100 F degrees/hr.		
11	WITH THE COMBUSTOR SPEED CONTROLLER STILL IN AUTOMATIC INCREASE THE SETPOINT TO 10 RPH UNTIL ALL THE ASH IS OUT OF THE COMBUSTOR THEN REDUCE THE SETPOINT TO 2 RPH AND CONTINUE TO ROTATE THE COMBUSTOR UNTIL THE COMBUSTOR OUTLET WATER COOLS TO 250 degrees F.		
12	CLOSE THE CONTINUOUS BLOWDOWN VALVE.		

STEP NO.	DESCRIPTION	TIME	INITIALS
13	PUT ALL THE COMBUSTOR ZONE AIR FLOW CONTROLLERS IN THE MANUAL MODE AND CLOSE ALL THE ZONE DAMPERS.		
14	WHEN THE BOILER PRESSURE REACHES 15 PSIG OPEN THE STEAM DRUM VENT.		
15	DE-ENERGIZE FIELD ONE (1) AND TWO (2) OF THE ELECTROSTATIC PRECIPITATOR. LEAVE FIELD THREE ENERGIZED TO PREVENT DUST FROM DISCHARGING FROM THE STACK ONLY DE-ENERGIZE FIELD THREE (3) FOR MAINTENANCE/SAFETY REQUIREMENTS.		
16	SHUTDOWN THE FOLLOWING SYSTEMS ONLY FOR MAINTENANCE OR SAFETY REQUIREMENTS: FLY ASH SYSTEM (MACAWBER) ROTARY VALVES (1-1 & 1-2 UNIT #1) OR (2-1 & 2-2 UNIT #2) THIS IS TO PREVENT CLOGGING FROM THE CONDENSING OF MOISTURE WHEN THE SYSTEMS COOL DOWN		
17	WHEN THE COMBUSTOR OUTLET WATER COOLS TO 250 degrees F. STOP THE ROTATION OF THE COMBUSTOR.		
18	CLOSE SEAL WATER SUPPLY TO COMBUSTOR ROTARY JOINT.		
19	OPEN THE RESISTANCE DOOR AND INSTALL THE SAFETY PIN.		
20	STOP THE RAM/COMBUSTOR HYDRAULIC PUMP SYSTEM.		
21	STOP COMBUSTOR CIRCULATION PUMP.		
22	CLOSE FEEDWATER STOP VALVE AT STEAM DRUM.		
23	STOP THE SIFTINGS CONVEYOR.		
24	STOP THE ID FAN: A. PUT THE ID FAN SPEED CONTROLLER IN THE MANUAL MODE B. SET THE FAN SPEED TO 0% DEMAND C. STOP THE ID FAN D. PUT FURNACE PRESSURE CONTROLLER IN THE MANUAL MODE E. SET THE FAN INLET DAMPER TO 50% OPEN		
25	STOP THE RAPPING SEQUENCE ON THE PRECIPITATOR AND DE-ENERGIZE THE REMAINING FIELD.		

BELOW IS FOR USE IN RECORDING STEPS NOT PERFORMED OR PERFORMED OUT OF SEQUENCE.

STEP NO.	REASON	SHIFT SUPERVISOR
<hr/>		
<hr/>		
COMPLETION:	<hr/>	<hr/>
	CONTROL OPERATOR	SHIFT SUPERVISOR



INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1984 1:44,000 E

ROAD CLASSIFICATION

- Primary highway, hard surface ————— Light-duty road, hard or improved surface —————
- Secondary highway, hard surface - - - - - Unimproved road - - - - -
- Trails
- Interstate Route ⊖ U. S. Route ⊖ State Route
- County Route ⊖

RECEIVED

JUN 10 1996

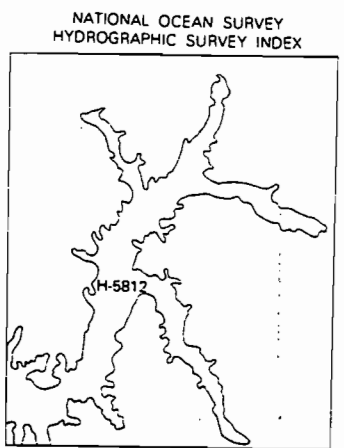
Northwest Florida DEP
CONTOURS AND ELEVATIONS
IN METERS

BAYHEAD, FLA.

30085-C5-TB-024

1982

DMA 3844 I SE - SERIES V8470



*approximate site location

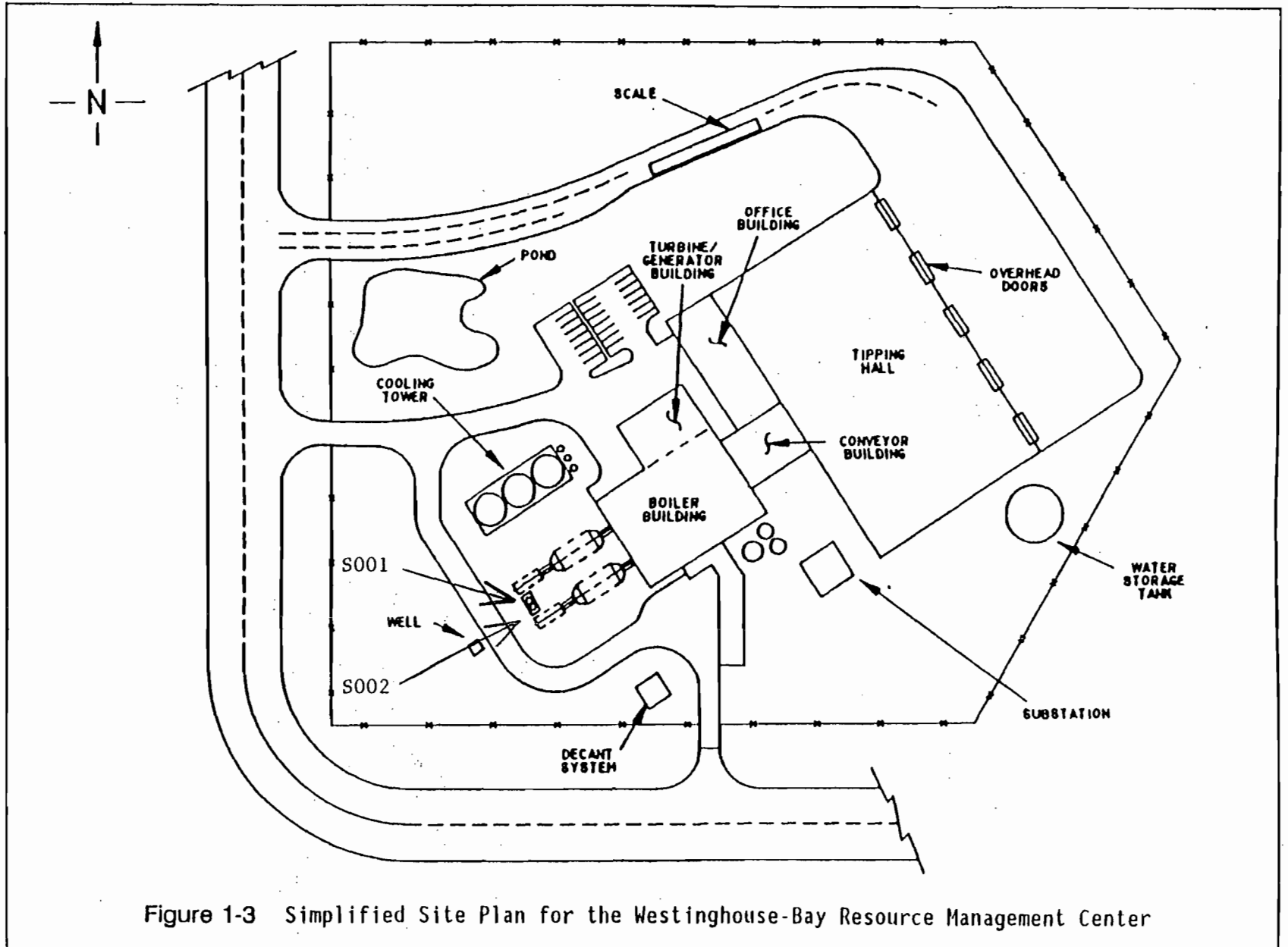
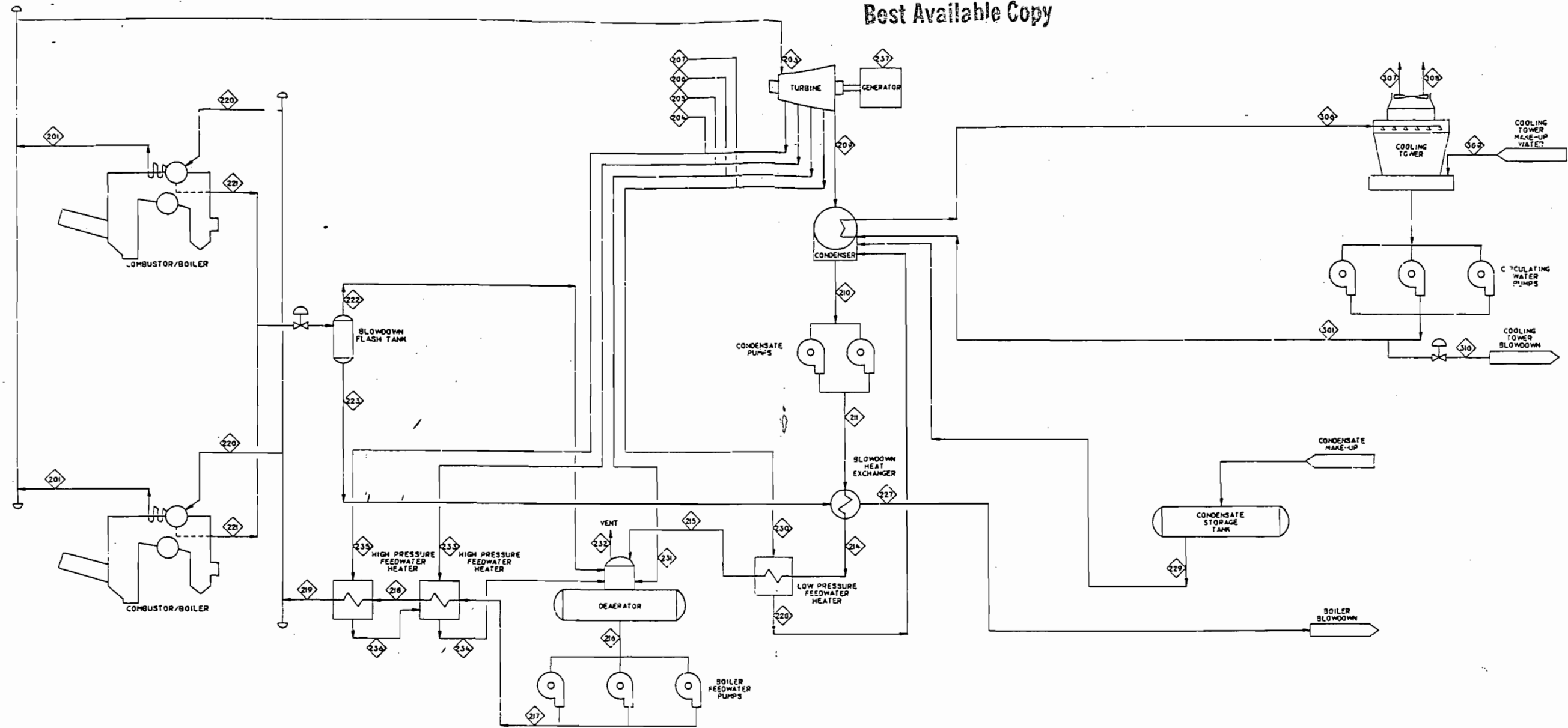


Figure 1-3 Simplified Site Plan for the Westinghouse-Bay Resource Management Center

Best Available Copy



NOTE:
SEE SHEET 2 FOR MASS FLOW CHART

ZONE	REVISIONS	DESCRIPTION
2	1	PROGRAM & ASSESS SHEET
2	2	REVISION TO SHEET
2	3	REVISION TO SHEET
2	4	REVISION TO SHEET

REV	NO	DATE	BY	CHKD	REV STATUS
2	2				REVISED
2	1				ISSUED

BAY COUNTY, FLORIDA
 RESOURCE RECOVERY FACILITY
 Westinghouse Electric Corporation
 Resource Energy Systems Division
 Pittsburgh, Pennsylvania
STEAM CYCLE PROCESS FLOW DIAGRAM
 2 UNITS IN OPERATION
 100% PLANT STEAM FLOW
 100% PLANT THERMAL LOAD
 PROJECT NO. 1886E97
 SHEET 2 OF 2

ATTACHMENT 3
Sheet 1 of 5

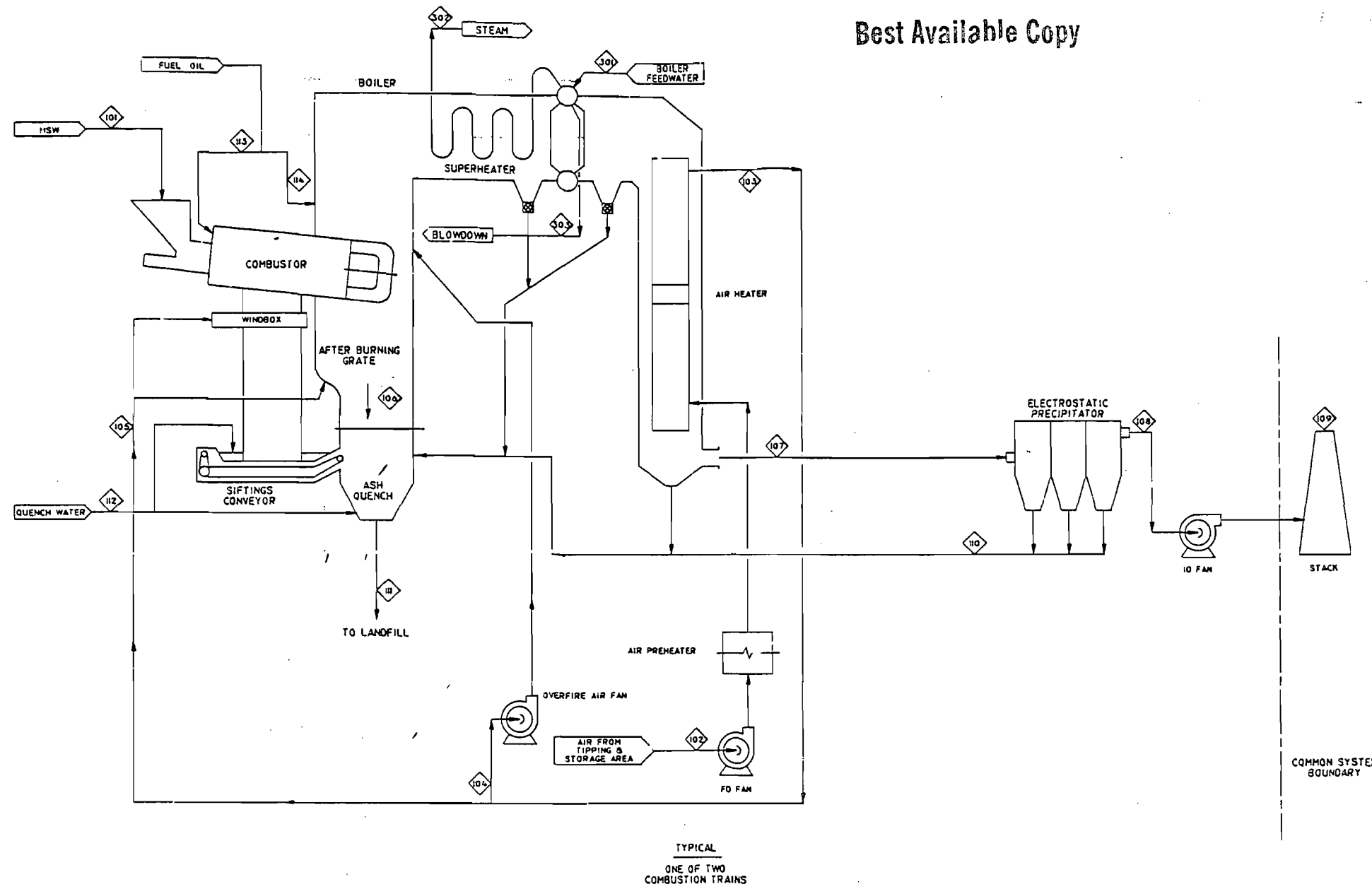
FLOW NUMBER	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216
MEDIUM	STEAM		STEAM (II)	STEAM	STEAM	STEAM	STEAM	STEAM	CONDENSATE	CONDENSATE				CONDENSATE	CONDENSATE	CONDENSATE
FLOW FROM	SUPERHTR OUTLET		MAIN STM HEADER	1ST TURBINE EXTR	2ND TURBINE EXTR	3RD TURBINE EXTR	4TH TURBINE EXTR	TURBINE EXHAUST	CONDENSER	CONDENSATE PUMP	CONDENSATE PUMP			BLOWDOWN HX	FEEDWATER HTR I	FEEDWATER HTR I
FLOW TO	MAIN STEAM HEADER		TURBINE THROTTLE	EXTRACTION PIPING	EXTRACTION PIPING	EXTRACTION PIPING	EXTRACTION PIPING	CONDENSER	CONDENSATE PUMP	CONDENSATE PUMP	BLOWDOWN HX			FEEDWATER HTR I	FEEDWATER HTR I	BOILER FEED PUMPS
MASS FLOW (#/HR)	69,048		136,096	12,385	10,302	9,894	5,038	98,478	104,563	104,563	104,563			104,563	104,563	137,457
TEMPERATURE (F)	752		750	650	602	253.7	163.8	108.7	108.7	108.9	108.9			10.2	156.7	250.7
PRESSURE (PSIA)	640		614.7	351.4	126.4	31.8	5.2	1.23	1.23	100	100			90	80	30.2
ENTHALPY (BTU/#)	1379.3		1379.6	1338.9	1256.7	1160.5	1033.7	993.6	76.7	77.1	77.1			78.4	124.8	219.3
REMARKS			111% OF 100% STEAM ABSORBED					2.5" HgA	2.5" HgA							
FLOW NUMBER	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232
MEDIUM	FEEDWATER	FEEDWATER	FEEDWATER	FEEDWATER	CONTINUOUS BLOWDOWN	STEAM	WATER									
FLOW FROM	BOILER FEED PUMPS	FEEDWATER HTR 3	FEEDWATER HTR 4	FEEDWATER HEADER	BOILER DRUM	FLASH TANK	FLASH TANK	FEEDWATER HEADER	BOILER DRUM	FLASH TANK	FLASH TANK	BLOWDOWN HX	FEEDWATER HTR I	MAKEUP TANK	EXTRACTION PIPING	EXTRACTION PIPING
FLOW TO	FEEDWATER HTR 3	FEEDWATER HTR 4	FEEDWATER HEADER	BOILER DRUM	FLASH TANK	DEAERATOR	BLOWDOWN HX					DRAIN TANK	HOTWELL	HOTWELL	FEEDWATER HTR I	DEAERATOR
MASS FLOW (#/HR)	137,457	137,457	137,457	137,457	137,457	137,457	137,457	137,457	137,457	137,457	137,457	137,457	137,457	137,457	137,457	137,457
TEMPERATURE (F)	252.5	336.3	422.3	422.3	422.3	422.3	422.3	422.3	422.3	422.3	422.3	422.3	422.3	422.3	422.3	422.3
PRESSURE (PSIA)	800	790	780	780	780	780	780	780	780	780	780	780	780	780	780	780
ENTHALPY (BTU/#)	222.8	307.4	399.4	399.4	399.4	399.4	399.4	399.4	399.4	399.4	399.4	399.4	399.4	399.4	399.4	399.4
REMARKS					1% BLOWDOWN											
FLOW NUMBER	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248
MEDIUM	STEAM	CONDENSATE DRN	STEAM	CONDENSATE DRN	GENERATOR OUTPUT											
FLOW FROM	EXTRACTION PIPING	FEEDWATER HTR 3	EXTRACTION PIPING	FEEDWATER HTR 4												
FLOW TO	FEEDWATER HTR 3	DEAERATOR	FEEDWATER HTR 4	FEEDWATER HTR 3												
MASS FLOW (#/HR)	10,302	22,086	12,385	12,385												
TEMPERATURE (F)	460	262.5	646	346.3												
PRESSURE (PSIA)	120.1	120.1	333.9	333.9												
ENTHALPY (BTU/#)	1256.7	231.3	338.9	317.8												
REMARKS	HTR T SAT=341.3°F		HTR T SAT=427.3°F		12,259 KW											
FLOW NUMBER	301	302	303	304	305	306	307	308	309	310						
MEDIUM	WATER					WATER	WATER VAPOR	WATER	WATER	WATER						
FLOW FROM	CIRC WATER PUMPS					CONDENSER	COOLING TOWER	COOLING TOWER	MAKEUP WATER SYS	PUMP DISCHARGE						
FLOW TO	CONDENSER					COOLING TOWER	ATMOSPHERE	ATMOSPHERE	COOLING TOWER	WASTE WTR SYS						
MASS FLOW (#/HR)	7,996,448					7,996,448	90,360	640	109,072	18,072						
FLOW (GPM)	16,051					16,091	218	218	218	36						
TEMPERATURE (F)	91					102.3			60	91						
PRESSURE (PSIA)																
ENTHALPY (BTU/#)	59					70.3			28	59						
REMARKS						EVAPORATION	DRIFT			6 CYC OF CONC						

(1) PLANT 100% STEAM FLOW = 136,096 LB/HR
 (2) PLANT 100% THERMAL LOAD = 133.52 x 10⁶ BTU/HR ABSORBED

NO.	DATE	DESCRIPTION
1	11-13-88	ADDED THIS SHEET
2	11-13-88	ADDED THIS SHEET

NOTE:
 SEE SHEET 1 FOR FLOW DIAGRAM

Best Available Copy



NOTE:
SEE SHEET 2 FOR MASS FLOW CHART

1	1	REV	REV STATUS
2	1	SHEET	OF SHEETS

SAY COUNTY FLORIDA
RESOURCE RECOVERY FACILITY
Westinghouse Electric Corporation
Resource Energy Systems Division
Pittsburgh, Pennsylvania

DATE AC STEFFEY 2-25-83
DWB
COL DR QYMGD 3-6-87
CON. NO.
DATE
PROJECT NO.

GAS CYCLE PROCESS FLOW DIAGRAM
2 UNITS IN OPERATION
100% PLANT STEAM FLOW
100% PLANT THERMAL LOAD

1887E15

REVISIONS

NO.	DESCRIPTION
1	REVISIONS & ASSESS SHEET
2	REVISED MASS FLOW
3	REVISIONS & ASSESS SHEET
4	REVISIONS & ASSESS SHEET

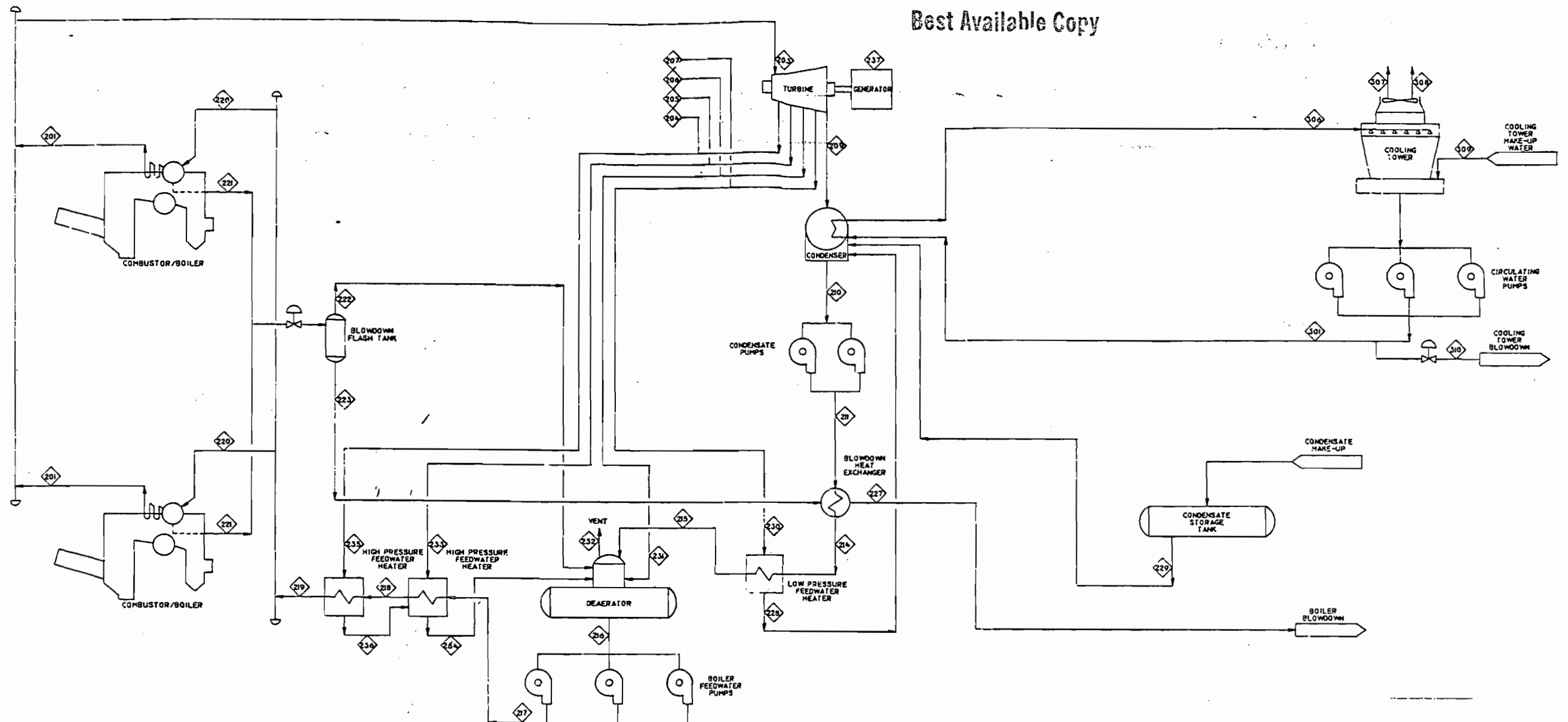
FLOW NUMBER	101	102	103	104	105	106	107	108	109	110	111	112	113	114
MEDIUM	MSW STORAGE COMBUSTOR	COMBUSTION AIR TIPPING FLOOR TO FAN	COMBUST. AIR AIR HEATER DUCTING	COMBUST. AIR DUCTING OVERFIRE FAN	COMBUST. AIR DUCTING COMBUSTOR/GRATE	ASH GRATE ASH QUENCH	FLUE GAS AIR HEATER ESP	FLUE GAS ESP TO FAN	FLUE GAS STACK AMBIENT	FLY ASH ESP CONVEYOR	RESIDUE ASH QUENCH LANDFILL	WATER PIPING ASH QUENCH	FUEL OIL PIPING BURNER	FUEL OIL PIPING BURNER
FLOW FROM														
FLOW TO														
	WT %		VOL %		WT %		VOL %		WT %		VOL %		WT %	
C	25.10	N ₂ 75.85	77.39				N ₂ 65.53	65.70	3.0	g/dscf part. (3)				
H	3.70	O ₂ 22.85	20.56				CO ₂ 16.17	10.32	150	ppm _v SO ₂ (4)	150	ppm _v SO ₂ (4)		
O	21.70	H ₂ O 1.28	2.05				H ₂ O 11.67	18.19	500	ppm _v HCl (4)	1500	ppm _v HCl (4)		
S	0.20						O ₂ 0.57	5.77						
N	0.60						SO ₂ 0.07	0.03						
H ₂ O	23.00													
INERT	21.70													
MASS FLOW (LB/HR)	21,928	107,561	107,561	0	107,561	428	124,730	124,730	249,460	926	6,752	2,037	0	0
VOLUME FLOW (ACFM)		24,084	41,362	0	41,362		46,460	45,919	90,217					
VOLUME FLOW (SCFM)		23,993	23,993	0	23,993		28,517	28,517	57,034					
MOLE FLOW (LB MOLES/HR)		3,736	3,736	0	3,736		4,441	4,441	8,882					
TEMPERATURE (F)	70	70	450	450	450	700	-0.0	390	375		70	70	70	70
PRESSURE (IN H ₂ O G)	0	0	0	0	0	0	0	0	0		0	0	0	0
ENTHALPY (BTU/LB)	1114506	1114506	1114506	1114506	1114506	1114506	1114506	1114506	1114506	1114506	1114506	1114506	1114506	1114506
REMARKS	263J TPU	50 %XS AIR		0%	100%	100% 2 BTU/LB - F	1114506	1114506	1114506	1114506	1114506	1114506	1114506	1114506

FLOW NUMBER	301	302	303
MEDIUM	FEEDWATER	STEAM (5)	BLOWDOWN
FLOW FROM	FEEDWATER HEATER	SUPERHEATER OUTLET	BOILER DRUM
FLOW TO	BOILER DRUM	MAIN STEAM HEADER	FLASH TANK
MASS FLOW (LB/HR)	68,729	68,048	680
VOLUME FLOW (GPM)	162.0	1.7	
TEMPERATURE (F)	422.3	750	499.8
PRESSURE (PSIA)	779.7	644.7	679.7
ENTHALPY (BTU/LB)	399.4	1379.6	487.7
REMARKS	67.7% BOILER EFF.	66.76 x 10 ⁶ BTU/HR	1% BLOWDOWN

- (1) STANDARD TEMPERATURE=68°F
- STANDARD PRESSURE=1 ATMOSPHERE
- (2) AMBIENT PRESSURE=760mm Hg
- (3) AT 12% CO₂
- (4) AT 12% CO₂
- (5) PLANT 100% STEAM FLOW=136,096 LB/HR
- (6) PLANT 100% THERMAL L.O.A.=133.52 x 10⁶ BTU/HR ABSORBED

REVISIONS	DESCRIPTION
1	ADDED THIS SHEET
2	DATE 4-13-88

NOTE:
SEE SHEET 1 FOR FLOW DIAGRAM



FLOW NUMBER	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216
MEDIUM	STEAM		STEAM (H)	STEAM	STEAM	STEAM	STEAM		STEAM	CONDENSATE	CONDENSATE					
FLOW FROM	SUPERHTR OUTLET		MAIN STM HEADER	1ST TURBINE EXTR	2ND TURBINE EXTR	3RD TURBINE EXTR	4TH TURBINE EXTR		TURBINE EXHAUST	CONDENSATE HOTWELL	CONDENSATE PUMP					
FLOW TO	MAIN STEAM HEADER		TURBINE THROTTLE	EXTRACTION PIPING	EXTRACTION PIPING	EXTRACTION PIPING	EXTRACTION PIPING		CONDENSER	CONDENSATE PUMP	CONDENSATE HX					
MASS FLOW (L/HR)	78,252		56,504	14,887	12,480	8,344	6,339		11,454	119,004	119,004					
TEMPERATURE (F)	752		750	680	487	260	169		108.7	108.7	108.9					
PRESSURE (PSIA)	840		614.7	407.6	145.9	35.3	5.9		1.23	1.23	100					
ENTHALPY (BTU/LB)	1379.6		1379.6	1351.9	1267.2	1166.6	1059.6		994.4	76.7	77.1					
REMARKS			95% 1" H ₂ O/HR ABSORBED ON						2.5" HgA	2.5" HgA						
FLOW NUMBER	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232
MEDIUM	FEEDWATER	FEEDWATER	FEEDWATER	FEEDWATER	CONTINUOUS BLOWDOWN	STEAM	WATER									
FLOW FROM	BOILER FEED PUMPS	FEEDWATER HTR 3	FEEDWATER HTR 4	FEEDWATER HEADER	BOILER DRUM	FLASH TANK	FLASH TANK									
FLOW TO	FEEDWATER HTR 3	FEEDWATER HTR 4	FEEDWATER HEADER	BOILER DRUM	FLASH TANK	DEAERATOR	BLOWDOWN HX									
MASS FLOW (L/HR)	158,069	158,069	155,209	79,034	78.3	433	1132									
TEMPERATURE (F)	258.6	347.2	436.4	436.4	499.8	259.3	259.3									
PRESSURE (PSIA)	800	790	780	780	679.7	35	35									
ENTHALPY (BTU/LB)	228.9	318.8	415.1	415.1	487.7	1167.1	228									
REMARKS					1% BLOWDOWN											
FLOW NUMBER	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248
MEDIUM	STEAM	CONDENSATE DRN	STEAM	CONDENSATE DRN	GENERATOR OUTPUT											
FLOW FROM	EXTRACTION PIPING	FEEDWATER HTR 3	EXTRACTION PIPING	FEEDWATER HTR 4												
FLOW TO	FEEDWATER HTR 3	DEAERATOR	FEEDWATER HTR 4	FEEDWATER HTR 3												
MASS FLOW (L/HR)	12,480	27,367	14,887	14,887												
TEMPERATURE (F)	485	268.6	678	357.2												
PRESSURE (PSIA)	138.6	158.6	138.2	387.2												
ENTHALPY (BTU/LB)	1267.2	237.3	1351.9	329.4												
REMARKS	HTR T SAT=352.2°F		HTR T SAT=441.4°F		13,860 kWh											
FLOW NUMBER	301	302	303	304	305	306	307	308	309	310						
MEDIUM	WATER															
FLOW FROM	CIRC WATER PUMPS															
FLOW TO	CONDENSER															
MASS FLOW (L/HR)	9,058,604															
FLOW (GPM)	18,183															
TEMPERATURE (F)	91															
PRESSURE (PSIA)																
ENTHALPY (BTU/LB)	59															
REMARKS																

(1) PLANT 100% STEAM FLOW = 156,096 LB/HR
 (2) PLANT 100% THERMAL LOAD = 133.52 x 10⁶ BTU/HR ABSORBED

BAY COUNTY, FLORIDA
 RESOURCE RECOVERY FACILITY
 Westinghouse Electric Corporation
 Resource Energy Systems Division
 Pittsburgh, Pennsylvania
STEAM CYCLE PROCESS FLOW DIAGRAM
 2 UNITS IN OPERATION
 115% PLANT STEAM FLOW
 113% PLANT THERMAL LOAD
 PROJECT NO. 1887E24
 SHEET 5 OF 5

ATTACHMENT 4

D. Facility Supplement Information

4. Precautions to Prevent Emissions of Unconfined Particulate Matter

The following areas have been identified as potential source of fugitive particulate emissions along with the precautions used to prevent these emissions.

1. Emissions from Paved and Unpaved Roads

At the Bay Resource Management Center site, there are only approximately 0.112 miles of paved roads and 0.08 miles of unpaved roads that are used by trucks delivering MSW, trucks removing ash, passenger vehicles and other plant equipment. To minimize potential emissions from the paved roadways, the facility utilizes a road sweeper to clean these areas twice per month. The unpaved areas are used infrequently in order that vehicles can travel from the tipping floor to the rear of the facility without exiting plant property

2. Residue Handling

The residual material remaining after the solid waste is combusted is loaded via conveyor into trucks and then hauled to the landfill. The residue (ash) is handled wet in order to minimize emissions. All ash is combined inside the boiler building and goes to the quench tank where it is submerged in water. A drag conveyor lifts the material from the quench tank up an incline to allow standing water to drain. The material is then discharged into a roll-off container that is loaded on a truck. The roll-off containers are covered before the trucks exit the site.

ATTACHMENT 5

D. Facility Supplement Information

5. Fugitive Emissions Identification

The following potential fugitive emission sources have been identified at the Facility:

<u>AREA</u>	<u>POLLUTANT</u>
Ash/Residue Handling	Particulate Matter
MSW Handling - Tipping Floor	Particulate Matter
MSW Handling - Conveyor Room	Particulate Matter
Paved/Unpaved Roads	Particulate Matter
Cooling Tower	Particulate Matter
Fuel Oil Storage Tanks	VOC

The fugitive emission sources are listed here for completeness purposes. They are also listed on Attachment 6 - List of Insignificant Sources.

ATTACHMENT 6

LIST OF INSIGNIFICANT SOURCES			
ITEM	SOURCE	UNIT TYPE	RATIONALE FOR EXEMPTION
1	All Sources listed in 62-210.200(3)		Exempted by Rule 62-213.400 and 62-210.300(3)
2	Plant grounds maintenance Lawn maintenance equipment/activities	Small engine emissions; fertilizers, etc.	EPA Listed
3	Maintenance/repair activities	Cleaning, painting, welding, coating, applications; hand tools/equipment meter repair/on-line tools/equipment/meter repair on-line/off-line cleaning of equipment. Abrasive cleaning indoors.	Presumptive Exemption
4	Main steam pressure relief valves; steam from boiler operations. Steam leaks Steam releases; turbine vents Safety devices	Valves T/G Trips Steam PRV	Steam exempt; not a pollutant.
5	Office Activities	Vacuum Cleaning Refrigerators Office Supplies/Equipment	EPA Listed
6	Chemical Storage Tanks	Sulfuric Acid (2) 1500 gallons Propane (1) 125 gallons Sodium Hypochlorite (55-gal drums) Sodium Hydroxide (1) 1500 gallons 1 acid/1 caustic day tanks (250 gal ea) Performax 412 (1) 1000 gallons	EPA Listed
7	Testing & Monitoring Equipment	CEMs, stack sampling calibration gases, oxygen detector.	EPA Listed
8	Internal Combustion Engines which drive compressors, generators, water pumps, or other auxiliary equipment.	Fire/Safety Diesel Pump	Exempt by 62-210.300(3)(t) if diesel and operated <400 hrs/yr, otherwise presumptively exempt at time of application. Operates less than 400 hours per year. (987 hrs since plant startup).
9	HVAC Equipment	Cooling/heating	Exempt by 62-213.400 and 62-210.300(3).

Bay County Resource Recovery Facility
 Title V Application

LIST OF INSIGNIFICANT SOURCES			
ITEM	SOURCE	UNIT TYPE	RATIONALE FOR EXEMPTION
10	Vents/Exhausts	Boiler Feed Pump Relief Valve Blowdown Flash tank Vent Feedwater Heater Vent Boiler Blowdown Tank Vent Gland Seal Vent Steam Dump Steam Drum Vent Dearator Vents Battery Room Exhaust Fans (2) Boiler Building Exhaust Fans (6) Maintenance Building Exhaust Generator Venting - Turbine Trip Sewer vents/exhausts Drain vents Turbine Roof Exhausts (2)	Water/Steam - Not a pollutant
11	Air compressors/Instrument air		EPA Listed
12	Waste accumulation for Safety Kleen Disposal	Accumulation in 10 gallon containers that are closed.	Extremely small quantities (less than 100 gal/yr).
13	Lab vents/lab operations		Exempt by 62-210.300(3)(o)
14	Mobile sources - FEL, fork lifts		EPA Listed
15	Containers, reservoirs, tanks for oils wax, grease (non-solvents)	Lube oil reservoirs Gearbox vents Packing seals	No Emissions
16	Transportation/conveying and handling of waste and ash		Emission estimated to be negligible.
17	Fuel oil storage tanks	4000 gal 1000 gal 250 gal	Diesel storage-very low vapor pressure.
18	Cooling Tower		Emissions less than significant level
19	Road Emissions		Emissions estimated at less than 1 ton per year

ATTACHMENT 7

8: List of Equipment / Activities Regulated under Title VI :

The following equipment has been identified as being regulated under Title VI:

AIR-1 Control Room Air Conditioner manufactured by Liebert, model number UH114AUA10.

AIR-2 Control Room Backup Air Conditioner manufactured by Marvair, model number WHP57HPA.

AIR-3 Back Stairwell Air Conditioner manufactured by Lennox, model number HS18-653.

SLF-1 Chem Lab Air Conditioner manufactured by Miller / Nortek, model number MSC-30E-C3.

HPR-1 Office Building Heat Pump manufactured by Lennox, model number CHP1113535.


HPR-2 MCC Room Air Conditioner, Unit 2, manufactured by Trane, model number BTA180D400.

HPR-3 MCC Room Air Conditioner, Unit 3, manufactured by Trane, model number BWV180B400.

ATTACHMENT 8

14. Compliance Report and Plan:

I hereby certify that the facility and the emission units described in this application are in compliance with the applicable requirements as listed.

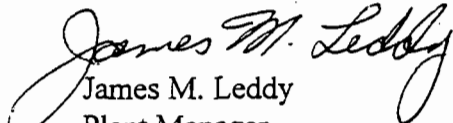

Richard S. Brookins Jr.
Industrial Hygiene, Safety, and
Environmental Coordinator

Date 6/6/96

ATTACHMENT 9

15: Compliance Certification:

I, the undersigned, am the Responsible Official as defined in Chapter 62-210.200 F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete.


James M. Leddy
Plant Manager

Date: 6/7/96

ATTACHMENT 10

3: Detailed Description of Control Equipment

Electrostatic Precipitator Description

Electrostatic precipitators (ESPs) are used to remove particulate matter from the flue gas before it exits the stack. The ESPs, manufactured by Environmental Elements Corporation (EEC), are arranged into three mechanical fields, each with its own electrical field and ash removal hopper. The fly ash handling system, designed and supplied by Macawber, interfaces with the ESP's ash removal hopper and includes an inflatable seal to prevent fly ash re-entrainment from occurring during the fly ash system's "blow" cycle. The ESP specific design information includes:

Fields:	3 (identical in size)
Discharge Electrodes:	Rigid Frame
Plate Dimensions:	24 ft high by 9 ft long
Collection Plate Area:	19,710 ft ²
Specific Collection Area:	350 ft ² /1000 acfm
Design Gas Flow Rate:	56,000 acfm @ 400 °F
Gas Velocity Thru ESP:	4 ft/sec
Gas Retention Time:	9.7 sec
T-R Sets	3 per ESP rated at 23.5 KVA (55 kv, 300 mA)
Corona Density:	300 watt/1000 acfm; 0.94 watt/ft ²
Pressure Drop:	1 inch H ₂ O
Design Pressure:	+ or - 15 inch H ₂ O

ATTACHMENT 11

4: Description of Stack Sampling Facilities:

Each incinerator train exhaust through a 53-inch inside diameter stack measuring 125 feet in height. The two stacks are housed in a common flue, which has a testing platform located approximately 60 feet from the stack base. Two 3.5-inch diameter sampling ports are installed on each stack approximately five feet above the testing platform.

COUNTY ENERGY SYSTEMS, INC.

COMBUSTOR/BOILER START-UP PROCEDURE

PROCEDURE NO SU-11

REV 1
APPROVED *D.J. McKee*

ISSUE DATE 6/8/92

PAGE 1 OF 4

PROCEDURE OBJECTIVE: TO PROVIDE A UNIFORM METHOD OF STARTING O'CONNOR ROTARY COMBUSTOR/DELTAK BOILER FROM COLD TO ON LINE CONDITION IN A CONTROLLED AND SYSTEMATIC MANNER.

DATE: ___/___/___

CO: _____ SHIFT: _____

RELIEVING CO: _____ SHIFT: _____

BOILER NO. _____

TIME OF RELIEF: _____

STEP NO.	DESCRIPTION	TIME	INITIALS
1	CLEAR SAFETY TAGS AND LOCKS.		
2	COMPLETE THE FOLLOWING PROCEDURE FORMS AND ATTACH: A. DCS/CONTROL ROOM PRE START-UP CHECKLIST (SU-11A) B. BOILER VALVE LINEUP CHECKLIST (SU-11B) C. BOILER PRE START-UP INSPECTION CHECKLIST (SU-11C)		
3	START ASH SYSTEM IN ACCORDANCE WITH PROCEDURE NO.9. HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION.		
4	START ELECTROSTATIC PRECIPITATOR IN ACCORDANCE WITH WITH PROCEDURE NO.13		
5	ADJUST STEAM DRUM WATER LEVEL TO 0.0 INWC. HAVE THE OUTSIDE OPERATOR VERIFY LEVEL AT THE DRUM SIGHT GLASS.		
6	VERIFY THE BOILER WATER CHEMISTRY IS IN SPEC. FOR START-UP AND START CHEM. FEED PUMP.		
7	START COMBUSTOR CIRCULATION PUMP. HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION.		
8	START THE RAM/COMBUSTOR HYDRAULIC PUMP SYSTEM.		
9	START ID FAN: A. CLOSE ID FAN INLET DAMPER. B. SET THE ID FAN SPEED DEMAND TO 0%. C. START ID FAN. D. HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION.		
10	IN THE MANUAL MODE, SET THE ID FAN SPEED AND THE SUCTION DAMPER TO 40%. NOTE: THIS IS DONE TO PREVENT OVERLOADING THE ID FAN MOTOR WHEN FLOWING COLD GAS THROUGH THE BOILER WITH THE FEED CHUTE OPEN.		
11	TEST THE RAM/COMBUSTOR HYDRAULIC SYSTEM AND HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION: A. CYCLE THE RESISTANCE DOOR AND CLOSE AFTER TESTING. B. CYCLE THE RAMS. C. ROTATE THE COMBUSTOR AND SET THE ROTATION SPEED TO APPROXIMATELY TWO (2) RPH.		

COUNTY ENERGY SYSTEMS, INC.		COMBUSTOR/BOILER START-UP PROCEDURE	PROCEDURE NO SU-11
REV 1			PAGE 2 OF 4
STEP NO.	DESCRIPTION	TIME	INITIALS
12	START THE FD FAN: A. CLOSE FD FAN INLET DAMPER. B. SET THE FD FAN SPEED DEMAND TO 0%. C. START FD FAN. D. HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION.		
13	START FUEL OIL SYSTEM IN ACCORDANCE WITH PROCEDURE NO.6		
14	LINEUP ATOMIZING SYSTEM FOR FUEL OIL BURNERS (steam is preferred but if it is not available, use compressed air).		
15	SET THE FURNACE PRESSURE CONTROLLER SETPOINT TO -0.45 INWC AND PLACE THE ID FAN SUCTION DAMPER IN THE AUTOMATIC MODE.		
16	SET THE ID FAN SPEED CONTROLLER SETPOINT TO 70% AND PLACE THE CONTROLLER IN THE AUTOMATIC MODE		
17	INCREASE FD FAN SPEED AND DAMPER POSITION FOR AN AIR FLOW OF 850 MSCFH		
18	START COMBUSTOR IGNITION BURNER AND SET AT 50%		
19	START FURNACE LOAD BURNER AND ADJUST AS NECESSARY TO MAINTAIN THE HEAT-UP RATE NOT GREATER THAN 100 F deg/hr. NOTE: PUT THE COMBUSTOR OUTLET WATER TEMPERATURE ON THE TREND SO THAT A PRINTOUT CAN BE MADE EACH HOUR UNTIL THE START-UP IS COMPLETE.		
20	STOP THE FD FAN.		
21	STOP THE COMBUSTOR IGNITION BURNER.		
22	MAINTAIN THE STEAM DRUM WATER LEVEL DURING HEAT-UP WITH THE BLOWDOWN VALVE AS THE LEVEL RISES. (Limits -2.0 to +2.0)		
23	WHEN THE BOILER PRESSURE REACHES 15 PSIG, CLOSE THE STEAM DRUM VENT VALVES.		
24	PLACE SUPERHEAT STEAM TEMPERATURE CONTROLLER IN THE AUTOMATIC MODE AND ADJUST THE SETPOINT TO 750 degrees F.		
25	WHEN THE COMBUSTOR OUTLET WATER TEMPERATURE REACHES 400 degrees F, IF THERE IS NOT A BOILER FEED PUMP RUNNING AT THIS TIME, START ONE OF THE ELECTRIC DRIVEN PUMPS IN ACCORDANCE WITH PROCEDURE NO.5a.		
26	OPEN SEAL WATER SUPPLY TO COMBUSTOR ROTARY JOINT.		
27	HAVE THE LOADER OPERATOR BEGIN FEEDING MSW TO THE CONVEYER SYSTEM UNTIL IT IS TO THE TOP OF THE INCLINE CONVEYER		

ATTACHMENT 12

Sheet 3 of 6

COUNTY ENERGY SYSTEMS, INC.		COMBUSTOR/BOILER START-UP PROCEDURE	PROCEDURE NO SU-11
REV 1			PAGE 3 OF 4
STEP NO.	DESCRIPTION	TIME	INITIALS
28	WHEN THE FLUE GAS TEMPERATURE AT THE EXIT OF THE PRECIPITATOR REACHES 350 degrees F, FILL THE CHARGING CHUTE WITH FUEL TO THE NORMAL OPERATING LEVEL AND PUT THE CONVEYER CONTROLS IN THE AUTOMATIC MODE.		
29	START THE RAMS AND RUN THEM IN AUTOMATIC IN THE SERIES MODE AT A MANUAL SPEED OF 60 % UNTIL THERE IS SUFFICIENT FUEL IN THE COMBUSTOR TO START A FIRE.		
30	START THE FD FAN: A. CLOSE FD FAN INLET DAMPER. B. SET THE FD FAN SPEED DEMAND TO 0%. C. START FD FAN. D. HAVE THE OUTSIDE OPERATOR VERIFY PROPER OPERATION.		
31	INCREASE FD FAN SPEED AND DAMPER POSITION FOR AN AIR FLOW OF 850 MSCFH		
32	START COMBUSTOR IGNITION BURNER AND SET AT 50% TO IGNITE THE MSW.		
33	PUT COMBUSTION AIR PRESSURE CONTROLLER IN THE AUTOMATIC MODE AND ADJUST THE SETPOINT TO 15 INWC.		
34	PUT THE FD FAN SPEED CONTROLLER IN THE AUTOMATIC MODE AND ADJUST THE SETPOINT TO 80%.		
35	WHEN THE MSW FIRE IS ESTABLISHED AND THE EMISSIONS ARE WITHIN PERMIT LIMITS STOP THE COMBUSTOR BURNER AND LOAD BURNER.		
36	INCREASE FUEL FEED RATE WITH RAM SPEED, ADJUST COMBUSTOR SPEED AND ADJUST COMBUSTION AIR FLOW AND DISTRIBUTION AS NECESSARY TO BRING THE UNIT ON LINE.		
37	WHEN THE STEAM DRUM WATER LEVEL BEGINS TO DECREASE AND REQUIRES WATER, HAVE THE OUTSIDE OPERATOR LINEUP THE FEEDWATER REGULATOR AND FEED STOP VALVE AT THE ECONOMIZER INLET FOR AUTOMATIC OPERATION. ADD FEEDWATER AS NECESSARY TO MAINTAIN A SATISFACTORY WATER LEVEL.		
38	PUT THE STEAM DRUM LEVEL CONTROLLER IN THE AUTOMATIC MODE AND ADJUST THE SETPOINT TO 0.0 INWC.		
39	PUT THE ID FAN SPEED CONTROLLER IN THE AUTOMATIC MODE AND ADJUST THE SETPOINT TO 70%.		
40	WHEN THE STEAM FLOW IS GREATER THAN 20,000 LB/HR CLOSE THE SUPERHEATER VENT VALVE.		
41	PUT THE COMBUSTOR ZONE AIR FLOW CONTROLLERS IN THE AUTOMATIC MODE AND ADJUST THE SETPOINTS AS NECESSARY TO STABILIZE THE COMBUSTION.		
42	MANUALLY ADJUST THE RAM SPEED AND COMBUSTOR SPEED AS NECESSARY TO STABILIZE THE COMBUSTION AND ESTABLISH A GOOD FUEL BED WITH A STEAM FLOW AT ABOUT 68,000 LB/HR.		

STEP NO.	DESCRIPTION	TIME	INITIALS
43	PUT THE STEAM FLOW CONTROLLER IN THE AUTOMATIC AND ADJUST THE SETPOINT TO 68,000 LB/HR.		
44	PUT THE COMBUSTOR ZONE TWO (2) AIR FLOW CONTROLLERS IN THE CASCADE MODE.		
45	PUT THE OXYGEN CONTROLLER IN THE AUTOMATIC AND ADJUST THE SETPOINT TO 5% O2.		
46	PUT THE RAM SPEED CONTROLLER IN THE AUTOMATIC MODE.		
47	HAVE THE OUTSIDE OPERATOR VERIFY PROPER BOILER WATER CHEMISTRY AND PLACE THE CONTINUOUS BLOWDOWN IN SERVICE.		
48	BOILER IS ON LINE AT FULL POWER AND STABLE.		

BELOW IS FOR USE IN RECORDING STEPS NOT PERFORMED OR PERFORMED OUT OF SEQUENCE.

STEP NO.	REASON	SHIFT SUPERVISOR
.....
_____	_____	_____
_____	_____	_____

COMPLETION: _____
CONTROL OPERATOR
SHIFT SUPERVISOR

Y COUNTY ENERGY SYSTEMS, INC.

BOILER SHUT DOWN PROCEDURE

PROCEDURE NO SD-11

REV 0

ISSUE DATE 6/4/92

APPROVED

D.J. McKeel

PAGE 1 OF 2

PROCEDURE OBJECTIVE: TO PROVIDE FOR A SAFE AND ORDERLY SHUT DOWN OF THE O'CONNOR ROTARY COMBUSTOR/DELTAK BOILER.

DATE: ___/___/___

CO: _____ SHIFT: _____

RELIEVING CO: _____ SHIFT: _____

BOILER NO. _____

TIME OF RELIEF: _____

STEP NO.	DESCRIPTION	TIME	INITIALS
1	NOTIFY THE ENTIRE OPERATING SHIFT THAT THE BOILER IS BEING TAKEN OFF LINE.		
2	NOTIFY GULF POWER THAT A BOILER IS BEING TAKEN OFF THE LINE, THE REASON WHY AND THE NEW SCHEDULED POWER PRODUCTION.		
3	NOTIFY MANAGEMENT THAT THE BOILER IS BEING TAKEN OFF THE LINE.		
4	STOP FEEDING FUEL TO THE CONVEYOR SYSTEM SUPPLYING THE UNIT BEING TAKEN OFF THE LINE.		
5	WHEN ALL THE FUEL ON THE CONVEYOR HAS BEEN FED INTO THE FEED CHUTE, PUT THE FEED CHUTE LEVEL IN THE MANUAL MODE AND STOP THE FUEL FEED CONVEYOR SYSTEM.		
6	WHEN ALL OF THE FUEL HAS BEEN FED INTO THE COMBUSTOR AND THE FEED CHUTE IS EMPTY, STOP THE RAM FEED SYSTEM.		
7	PUT ALL THE COMBUSTOR AIR FLOW CONTROLLERS IN THE AUTOMATIC MODE AND DECREASE THE AIR FLOW AS THE FUEL BURNS OUT.		
8	STOP THE OVERFIRE AIR FAN: A. CLOSE THE FAN INLET DAMPER B. STOP THE OVERFIRE AIR FAN		
9	WHEN THE STEAM FLOW DECREASES TO 20,000 LB/HR, OPEN THE SUPERHEATER VENT.		
10	WHEN ALL OF THE FUEL IN THE COMBUSTOR IS BURNED OUT: A. PUT THE COMBUSTION AIR PRESSURE CONTROLLER IN THE MANUAL MODE B. PUT THE FD FAN SPEED CONTROLLER IN THE MANUAL MODE C. SET THE FAN SPEED TO 0% DEMAND D. CLOSE THE FAN INLET DAMPER E. STOP THE FD FAN NOTE: THE COOL DOWN OF THE BOILER SHOULD NOT BE AT A RATE GREATER THAN 100 F degrees/hr.		
11	WITH THE COMBUSTOR SPEED CONTROLLER STILL IN AUTOMATIC INCREASE THE SETPOINT TO 10 RPH UNTIL ALL THE ASH IS OUT OF THE COMBUSTOR THEN REDUCE THE SETPOINT TO 2 RPH AND CONTINUE TO ROTATE THE COMBUSTOR UNTIL THE COMBUSTOR OUTLET WATER COOLS TO 250. degrees F.		
12	CLOSE THE CONTINUOUS BLOWDOWN VALVE.		

Y COUNTY ENERGY SYSTEMS, INC.
REV 0

BOILER SHUT DOWN PROCEDURE

PROCEDURE NO SD-11

STEP NO.	DESCRIPTION	TIME	INITIALS
13	PUT ALL THE COMBUSTOR ZONE AIR FLOW CONTROLLERS IN THE MANUAL MODE AND CLOSE ALL THE ZONE DAMPERS.		
14	WHEN THE BOILER PRESSURE REACHES 15 PSIG OPEN THE STEAM DRUM VENT.		
15	DE-ENERGIZE FIELD ONE (1) AND TWO (2) OF THE ELECTROSTATIC PRECIPITATOR. LEAVE FIELD THREE ENERGIZED TO PREVENT DUST FROM DISCHARGING FROM THE STACK ONLY DE-ENERGIZE FIELD THREE (3) FOR MAINTENANCE/SAFETY REQUIREMENTS.		
16	SHUTDOWN THE FOLLOWING SYSTEMS ONLY FOR MAINTENANCE OR SAFETY REQUIREMENTS: FLY ASH SYSTEM (MACAWBER) ROTARY VALVES (1-1 & 1-2 UNIT #1) OR (2-1 & 2-2 UNIT #2) THIS IS TO PREVENT CLOGGING FROM THE CONDENSING OF MOISTURE WHEN THE SYSTEMS COOL DOWN		
17	WHEN THE COMBUSTOR OUTLET WATER COOLS TO 250 degrees F. STOP THE ROTATION OF THE COMBUSTOR.		
18	CLOSE SEAL WATER SUPPLY TO COMBUSTOR ROTARY JOINT.		
19	OPEN THE RESISTANCE DOOR AND INSTALL THE SAFETY PIN.		
20	STOP THE RAM/COMBUSTOR HYDRAULIC PUMP SYSTEM.		
21	STOP COMBUSTOR CIRCULATION PUMP.		
22	CLOSE FEEDWATER STOP VALVE AT STEAM DRUM.		
23	STOP THE SIFTINGS CONVEYOR.		
24	STOP THE ID FAN: A. PUT THE ID FAN SPEED CONTROLLER IN THE MANUAL MODE B. SET THE FAN SPEED TO 0% DEMAND C. STOP THE ID FAN D. PUT FURNACE PRESSURE CONTROLLER IN THE MANUAL MODE E. SET THE FAN INLET DAMPER TO 50% OPEN		
25	STOP THE RAPPING SEQUENCE ON THE PRECIPITATOR AND DE-ENERGIZE THE REMAINING FIELD.		

BELOW IS FOR USE IN RECORDING STEPS NOT PERFORMED OR PERFORMED OUT OF SEQUENCE.

STEP NO.	REASON	SHIFT SUPERVISOR
COMPLETION: _____		
CONTROL OPERATOR	SHIFT SUPERVISOR	

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official :

Name : James M. Leddy
Title : Plant Manager

2. Owner or Authorized Representative or Responsible Official Mailing Address :

Organization/Firm : Bay County Energy Systems, Inc.
Street Address : 6510 Bay Line Drive
City : Panama City
State : FL Zip Code : 32404-_____

3. Owner/Authorized Representative or Responsible Official Telephone Numbers :

Telephone : (904)785-7933 Fax : (904)784-1779

4. Owner/Authorized Representative or Responsible Official Statement :

I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions units.*

James M. Leddy
Signature

6/7/86
Date

* Attach letter of authorization if not currently on file.