KBN
A GOLDER ASSOCIATES COMPANY

Letter of Transmittal

Date: 06/14/96

Project No.: 14383-0900

RECEIVED
JUN 14 1996
BUREAU OF AIR REGULATION

To:
Florida Dept. of Environmental Prot.
2600 Blair Stone Road
Tallahassee, Florida 32399

Re: City of Vero Beach ID# 0610029

The following items are being sent to you: ☒ *with this letter* ☐ *under separate cover*

Copies	*Description*
4	Title V Air Operating Permit Application (Hard Copy)

These are transmitted:

☐ *As requested*
☐ *For approval*
☐ *For review*
☐ *For your information*
☐ *For review and comment*
☒ *See Below*

Remarks: As indicated on the enclosed bulletin, we will be submitting the above referenced application electronically after June 15, 1996

RECEIVED BY: _____

DATE: _____ *TIME:* _____

14422Y/F1/WP/ALL-LOT-15 (06/14/96)

6241 Northwest 23rd Street, Suite 500, Gainesville, Florida 32653-1500, 352-336-5600 FAX 352-336-6603
5405 West Cypress Street, Suite 215, Tampa, Florida 33607, 813-287-1717 FAX 813-287-1716
1801 Clint Moore Road, Suite 105, Boca Raton, Florida 33487, 407-994-9910 FAX 407-994-9393
7785 Baymeadows Way, Suite 105, Jacksonville, Florida 32256, 904-739-5600 FAX 904-739-7777
1616 'P' Street NW, Suite 350, Washington, DC 20036, 202-462-1100 FAX 202-462-2270

KBN
A GOLDER ASSOCIATES COMPANY

Letter of Transmittal

Date: 06/13/96

Project No.: 14383

To: Scott Sheplak
FDEP
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Vero Beach Facility

The following items are being sent to you: ☒ *with this letter* ☐ *under separate cover*

Copies	*Description*
4	Title V Applications (Hard Copy)

These are transmitted:

☐ *As requested*
☐ *For approval*
☐ *For review*
☐ *For your information*
☐ *For review and comment*
☒ *See Below*

Remarks: Enclosed are 4 Title V Permit Applications, as indicated on the enclosed bulletin 4 copies will be filed electronically after June 15, 1996.

Sender: Bob McCann/arz

Copy to: Mike Siefert

14383Y/F1/4LOT (06/13/96)

6241 Northwest 23rd Street, Suite 500, Gainesville, Florida 32653-1500, 352-336-5600 FAX 352-336-6603
5405 West Cypress Street, Suite 215, Tampa, Florida 33607, 813-287-1717 FAX 813-287-1716
1801 Clint Moore Road, Suite 105, Boca Raton, Florida 33487, 407-994-9910 FAX 407-994-9393
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KBN
A GOLDER ASSOCIATES COMPANY

Bulletin

Due to FDEP's recall of ELSA Version 1.3 dated prior to June 7, 1996, this permit application will be submitted as hard copy and electronically.

To proceed efficiently and meet the June 15, 1996 deadline, this permit application is being submitted as follows:

* Four hard copies of the complete application submittal (i.e., form and attachments) for FDEP are enclosed.

* After June 15th, KBN will submit four copies of the application to FDEP electronically, using the approved ELSA Version 1.3. (Signature pages and hard-copy attachments will not be resubmitted.)

In addition, KBN Engineering and Applied Sciences, Inc. has received prior FDEP verification from Patricia Comer, June 7, 1996, that FDEP receipt of the permit application by 5:00 pm, Monday, June 17, 1996 will meet the rule deadline of June 15, 1996.

6241 Northwest 23rd Street
Suite 500
Gainesville, Florida 32653-1500
352-336-5600 FAX 352-336-6603

5405 West Cypress Street
Suite 215
Tampa, Florida 33607
813-287-1717 FAX 813-287-1716

1801 Clint Moore Road
Suite 105
Boca Raton, Florida 33487
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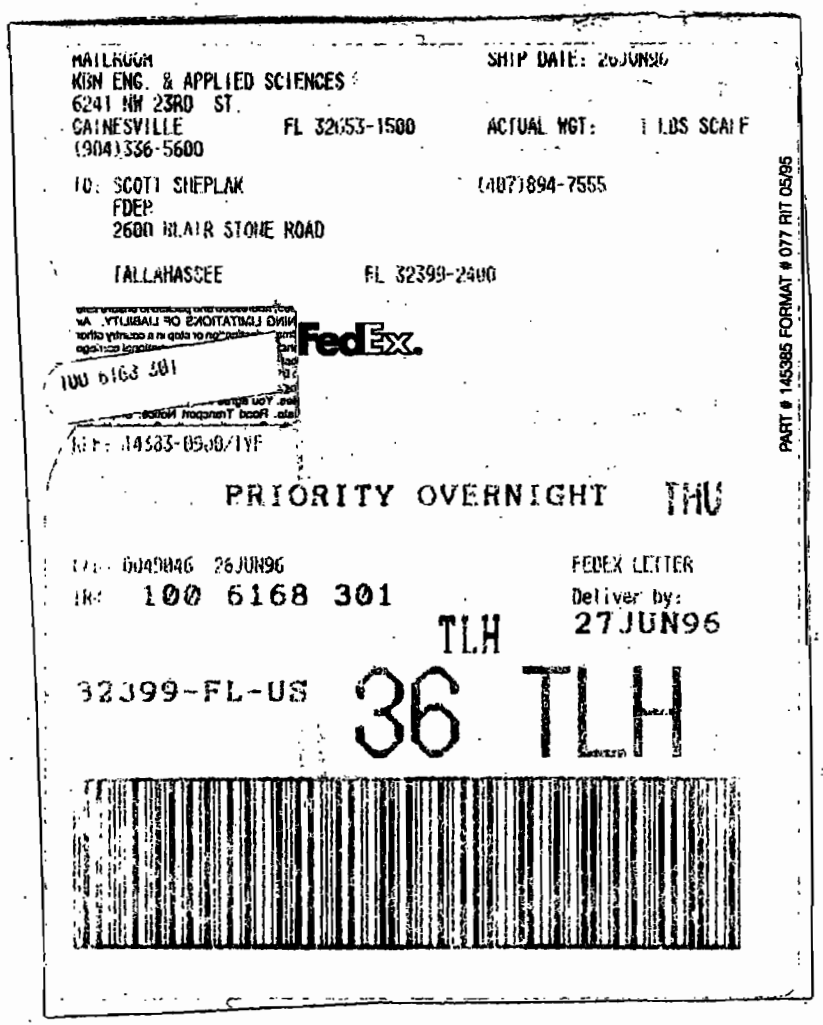
Jacksonville, Florida 32256
904-739-5600 FAX 904-739-7777

1616 'P' Street NW
Suite 350
Washington, DC 20036
202-462-1100 FAX 202-462-2270



MAILROOM
KBN ENG. & APPLIED SCIENCES
6241 NW 23RD ST.
GAINESVILLE FL 32653-1500
(904)336-5600

SHIP DATE: 26JUN96
ACTUAL WGT: 1 LBS SCALE

TO: SCOTT SHEPLAK (407)894-7555
FDEP
2600 BLAIR STONE ROAD

TALLAHASSEE FL 32399-2400

FedEx.

PRIORITY OVERNIGHT THU

FEDEX LETTER
Deliver by:
27JUN96

100 6168 301

TLH

32399-FL-US 36 TLH

PART # 145385 FORMAT # 077 RIT 05/95

Department of
Environmental Protection

DIVISION OF AIR RESOURCES MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

This section of the Application for Air Permit form identifies the facility and provides general information on the scope and purpose of this application. This section also includes information on the owner or authorized representative of the facility (or the responsible official in the case of a Title V source) and the necessary statements for the applicant and professional engineer, where required, to sign and date for formal submittal of the Application for Air Permit to the Department. If the application form is submitted to the Department using ELSA, this section of the Application for Air Permit must also be submitted in hard-copy.

Identification of Facility Addressed in This Application

Enter the name of the corporation, business, governmental entity, or individual that has ownership or control of the facility; the facility site name, if any; and the facility's physical location. If known, also enter the facility identification number.

1. Facility Owner/Company Name: **City of Vero Beach**	
2. Site Name: **City of Vero Beach Municipal Utilities**	
3. Facility Identification Number: **30ORL310029** 0610029 [ ] Unknown	
4. Facility Location Information: Street Address or Other Locator: **100 17th Street** City: **Vero Beach** County: **Indian River** Zip Code: **32960**	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	
2. Permit Number:	
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

Owner/Authorized Representative or Responsible Official

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

   Rex Taylor, City Manager, Utilities Director

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

Organization/Firm: **City of Vero Beach**
Street Address: **1053 20th Place PO Box 1389**
City: **Vero Beach** State: **FL** Zip Code: **32961-1389**

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

Telephone: **(407) 567-5151** Fax: **(407) 569-0130**

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 unit.*

Rex Taylor
Signature

6-12-96
Date

* Attach letter of authorization if not currently on file.

Scope of Application

This Application for Air Permit addresses the following emissions unit(s) at the facility. An Emissions Unit Information Section (a Section III of the form) must be included for each emissions unit listed.

Emissions Unit ID		Description of Emissions Unit	Permit Type
Unit #	Unit ID		
1R	001	Fossil Fuel Steam Generator Unit No.1	
2R	002	Fossil Fuel Steam Generator Unit No.2	
3R	003	Fossil Fuel Steam Generator Unit No.3	
4R	004	Fossil Fuel Steam Generator Unit No.4	
5R	005	Combined Cycle Gas Turbine Unit No.5	
6		Facility-Wide Fugitive Emissions	

See individual Emissions Unit (EU) sections for more detailed descriptions.
Multiple EU IDs indicated with an asterisk (*). Regulated EU indicated with an "R".

Purpose of Application and Category

Check one (except as otherwise indicated):

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:

[x] 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 renewed: _____

[ ] 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. Also check Category III.

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. Give reason for the revision e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit to be revised: _____

Reason for revision: _____

_____

Category II: All Air Construction 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. Give reason for revision; e.g.; to address one or more newly constructed or modified emissions units.

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).

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: $ _____ [X] 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: **Kennard F. Kosky** Registration Number: **14996**
2. Professional Engineer Mailing Address: Organization/Firm: **KBN Eng and Applied Sciences Inc.** Street Address: **6241 NW 23rd Street, Suite 500** City: **Gainesville** State: **FL** Zip Code: **32653-1500**
3. Professional Engineer Telephone Numbers: Telephone: **(352) 336-5600** Fax: **(352) 336-6603**

4. Professional Engineer's Statement:

I, the undersigned, hereby certify, 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 pollution 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 [X] 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 unit 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.

Signature — Date: 6/12/96

(seal)

Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact:

   Richard M. Siefert, Superintendent of Env. Engineering

2. Application Contact Mailing Address:

   Organization/Firm: **City of Vero Beach Power Plant**
   Street Address: **100 17th Street**
   City: **Vero Beach** State: **FL** Zip Code: **32960**

3. Application Contact Telephone Numbers:

   Telephone: **(407) 562-7231** Fax: **(407) 569-5981**

Application Comment

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates:
   Zone: **17** East (km): **561.4** North (km): **3056.5**

2. Facility Latitude/Longitude:
   Latitude (DD/MM/SS): **27 / 37 / 52** Longitude: (DD/MM/SS): **80 / 22 / 33**

3. Governmental Facility Code:	4. Facility Status Code:	5. Facility Major Group SIC Code:	6. Facility SIC(s):
4	**A**	**49**	

7. Facility Comment (limit to 500 characters):

Information included in this application applies to the City of Vero Beach Power Plant and Wastewater Treatment Plant, which are located on adjacent properties.

Facility Contact

1. Name and Title of Facility Contact:
   Richard M. Siefert, Superintendent of Env. Engineering

2. Facility Contact Mailing Address:
   Organization/Firm: **City of Vero Beach Power Plant**
   Street Address: **100 17th Street**
   City: **Vero Beach** State: **FL** Zip Code: **32960**

3. Facility Contact Telephone Numbers:
   Telephone: **(407) 562-7231** Fax: **(407) 569-5981**

Facility Regulatory Classifications

1. Small Business Stationary Source?	[ ] Yes [x] No [ ] Unknown
2. Title V Source?	[x] Yes [ ] No
3. Synthetic Non-Title V Source?	[ ] Yes, [x] No
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	[x] Yes [ ] No
5. Synthetic Minor Source of Pollutants Other than HAPs?	[ ] Yes [x] No
6. Major Source of Hazardous Air Pollutants (HAPs)?	[x] Yes [ ] No
7. Synthetic Minor Source of HAPs?	[ ] Yes [x] No
8. One or More Emissions Units Subject to NSPS?	[x] Yes [ ] No
9. One or More Emissions Units Subject to NESHAP?	[ ] Yes [x] No
10. Title V Source by EPA Designation?	[ ] Yes [x] No
11. Facility Regulatory Classifications Comment (limit to 200 characters): **Unit 4 is subject to NSPS, 40CFR60 Subpart D. Unit 5 is subject to NSPS, 40CFR60 Subpart GG.**	

B. FACILITY REGULATIONS

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment VB-FB-1

C. FACILITY POLLUTANTS

Facility Pollutant Information

1. Pollutant Emitted		2. Pollutant Classification
SO2	Sulfur Dioxide	A
PM	Particulate Matter - Total	A
PM10	Particulate Matter - PM10	A
NOx	Nitrogen Oxides	A
CO	Carbon Monoxide	A
FL	Fluorides - Total	A
H106	Hydrochloric acid	A
SAM	Sulfuric Acid Mist	A
HAPS	Total Hazardous Air Pollutants	A

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Detail Information:

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

Facility Pollutant Detail Information:

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

E. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

1. Area Map Showing Facility Location:
   [X] Attached, Document ID: VB-FE-1
   [ ] Not Applicable [ ] Waiver Requested

2. Facility Plot Plan:
   [X] Attached, Document ID: VB-FE-2
   [ ] Not Applicable [ ] Waiver Requested

3. Process Flow Diagram(s):
   [X] Attached, Document ID(s): VB-FE-3
   [ ] Not Applicable [ ] Waiver Requested

4. Precautions to Prevent Emissions of Unconfined Particulate Matter:
   [X] Attached, Document ID: VB-FE-4
   [ ] Not Applicable [ ] Waiver Requested

5. Fugitive Emissions Identification:
   [X] Attached, Document ID: VB-FE-5
   [ ] Not Applicable [ ] Waiver Requested

6. Supplemental Information for Construction Permit Application:
   [ ] Attached, Document ID: _____
   [X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities:
   [ ] Attached, Document ID: _____
   [x] Not Applicable

8. List of Equipment/Activities Regulated under Title VI:
   [X] Attached, Document ID: VB-FE-8
   [ ] Equipment/Activities On site but Not Required to be Individually Listed
   [ ] Not Applicable

9. Alternative Methods of Operation:
   [ ] Attached, Document ID: _____
   [x] Not Applicable

10. Alternative Modes of Operation (Emissions Trading):
    [ ] Attached, Document ID: _____
    [X] Not Applicable

11. Identification of Additional Applicable Requirements:
[ ] Attached, Document ID: _____
[x] Not Applicable

12. Compliance Assurance Monitoring Plan:
[x] Attached, Document ID: **VB-FE-12**
[ ] Not Applicable

13. Risk Management Plan Verification:

[ ] Plan Submitted to Implementing Agency - Verification Attached
Document ID: _____

[x] Plan to be Submitted to Implementing Agency by Required Date

[ ] Not Applicable

14. Compliance Report and Plan
[x] Attached, Document ID: **VB-FE-14**
[ ] Not Applicable

15. Compliance Statement (Hard-copy Required)
[x] Attached, Document ID: **VB-FE-15**
[ ] Not Applicable

ATTACHMENT VB-FB-1

LIST OF APPLICABLE REGULATIONS

ATTACHMENT VB-FB-1
Applicable Requirements Listing - Power Plants Facility

FACILITY ID: Vero Beach Facility

FDEP Rules:
General Permits:

62-4.030	- All Permits
62-4.040(1)(a)	- All Permits (Exemptions from permitting)
62-4.040(1)(b)	- All Permits (Exemptions from permitting)
62-4.100	- All Permits
62-4.130	- All Permits

Asbestos NESHAP:

62-204.800(8)(b)8.(State Only)	- Asbestos Removal
62-204.800(8)(d) (State Only)	- General Provisions (Asbestos)
62-204.800(19) (State Only)	- Part 82 (CFCs)

Stationary Sources-General:

62-210.300(2)[except (b)	- All Permits

Exemptions - Plant Specific:

62-210.300(3)(a)4.	- comfort heating < 1 mmBtu/hr
62-210.300(3)(a)5.	- mobile sources
62-210.300(3)(a)7.	- non-industrial vacuum cleaning
62-210.300(3)(a)8.	- refrigeration units
62-210.300(3)(a)9.	- vacuum pumps for labs
62-210.300(3)(a)10.	- steam cleaning equipment
62-210.300(3)(a)11.	- sanders < 5 ft2
62-210.300(3)(a)12.	- space heating equip.; (non-boilers)
62-210.300(3)(a)14.	- bakery ovens
62-210.300(3)(a)15.	- lab equipment
62-210.300(3)(a)16.	- brazing, soldering or welding
62-210.300(3)(a)17.	- laundry dryers
62-210.300(3)(a)20.	- emergency generators < 32,000 gal/yr
62-210.300(3)(a)21.	- general purpose engines < 32,000 gal.yr
62-210.300(3)(a)22.	- fire and safety equipment
62-210.300(3)(a)23.	- surface coating >5% VOC; 6 gal. or less/month (avg.)
62-210.300(3)(a)24.	- surface coating <5% VOC
62-210.300(3)(b)	- Temporary Exemptions
62-210.370(3)	- All Permits (AOR's)
62-210.900(5)	- All Permits (AOR Form)

Title V Permits:

62-213.205(1)(a)	- All Permits (Fees)
62-213.205(1)(b)	- All Permits
62-213.205(1)(c)	- All Permits
62-213.205(1)(e)	- All Permits

62-213.205(1)(f)	- All Permits
62-213.205(1)(g)	- All Permits
62-213.205(1)(i)	- All Permits
62-213.205(1)(j)	- All Permits
62-213.400	- All Permits (Permits/Revisions)
62-213.410	- All permits (Changes without permit revisions)
62-213.420.(1)(b)2.	- All Permits (Permits-allows continued operation)
62-213.420.(1)(b)3.	- All Permits (Permits-additional information)
62-213.460	- All Permits (Permit Shield)
62-213.900(1)	- All Permits (Fee Form)

Open Burning:

62-256.300	- Prohibitions
62-256.500	- Land Clearing
62-256.700	- Open burning Allowed

Asbestos Removal:

62-257.301	- Notification and Fee
62-257.400	- Fee Schedule
62-257.900	- Form

Stationary Sources-Emission Standards:

62-296.320(2) (State Only)	- All Permits (Odor)
62-296.320(3)(b)(State Only)	- Emergency Open Burning
62-296.320(4)(b)	- General VE
62-296.320(4)(c)	- Unconfined PM

Federal Regulations:
Asbestos Removal:

40 CFR 61.05	- Prohibited Activities
40 CFR 61.12(b)	- Compliance with work practice standard
40 CFR 61.19	- Circumvention
40 CFR 61.145	- Demolition and Renovation
40 CFR 61.148	- Standard for Insulating Material

CFCs > 50lb:

40 CFR 82.154 - Prohibitions
40 CFR 82.156 - Required practices
40 CFR 82.158 - Equipment standards for recycling and recovery
40 CFR 82.161 - Technician certification
40 CFR 82.166 - Reporting and Record keeping

ATTACHMENT VB-FE-1

AREA MAP

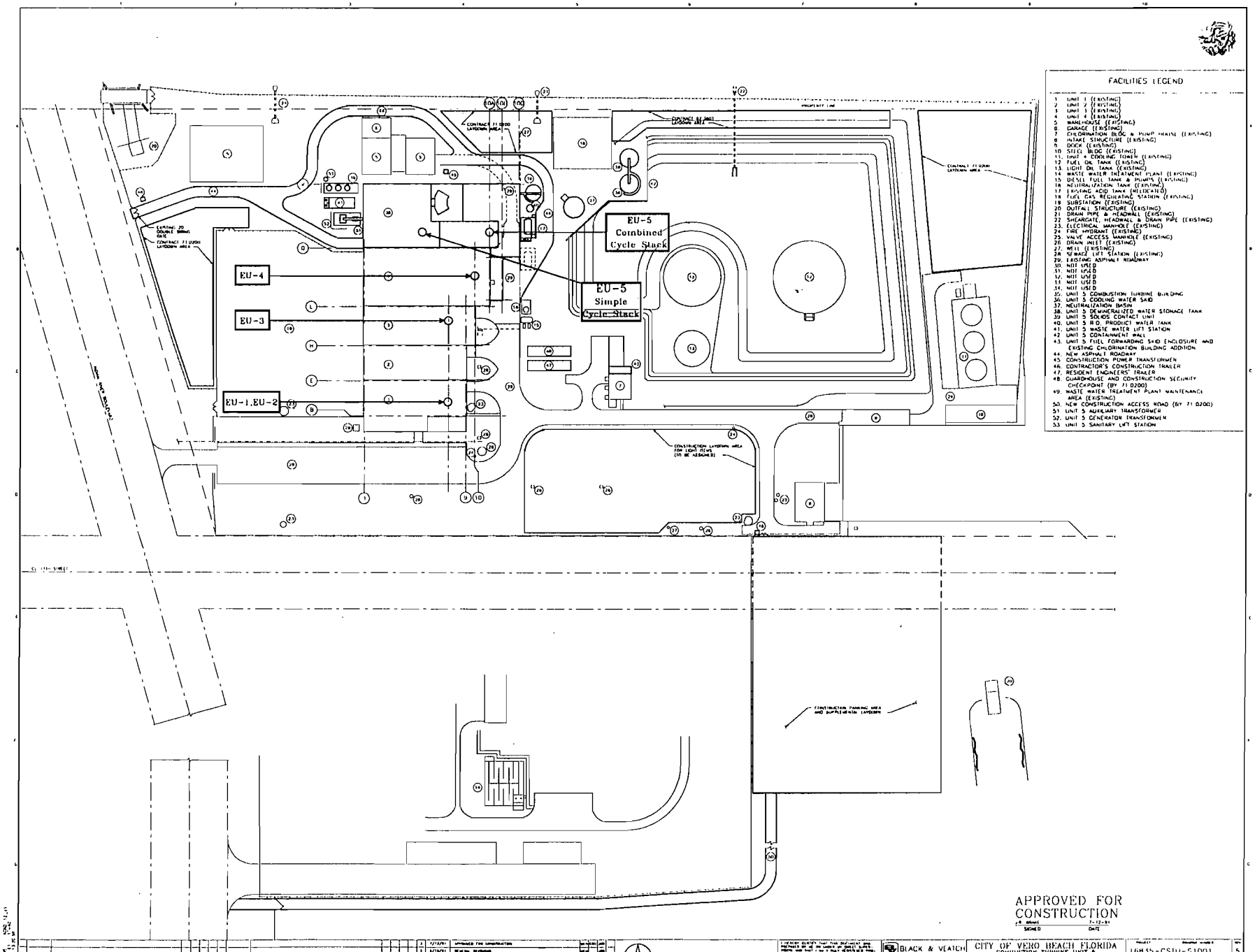
Figure VB-FE-1
Location of the City of Vero Beach
Municipal Utilities

Source: USGS, 1983.

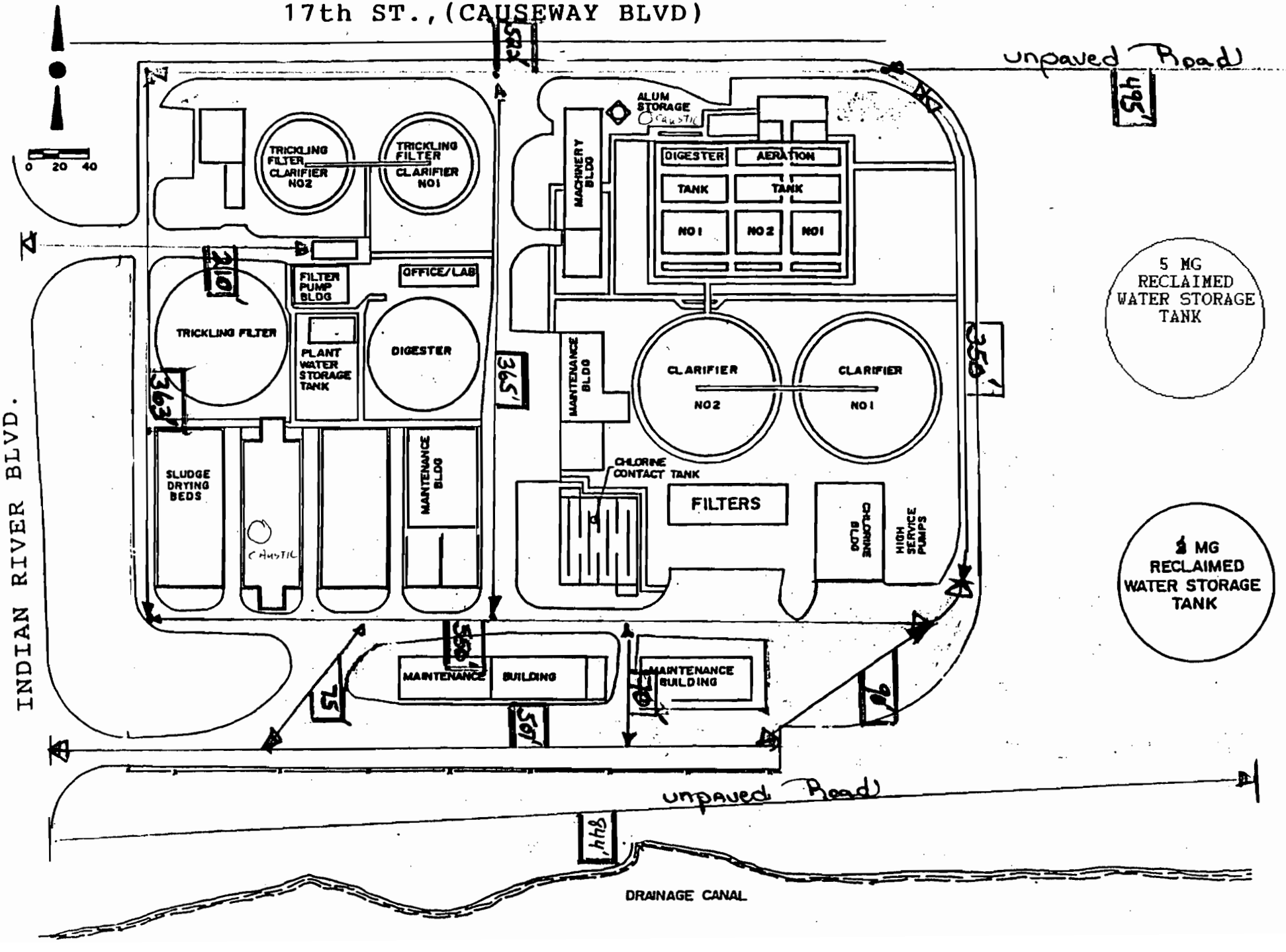
KBN

ATTACHMENT VB-FE-2

FACILITY PLOT PLAN

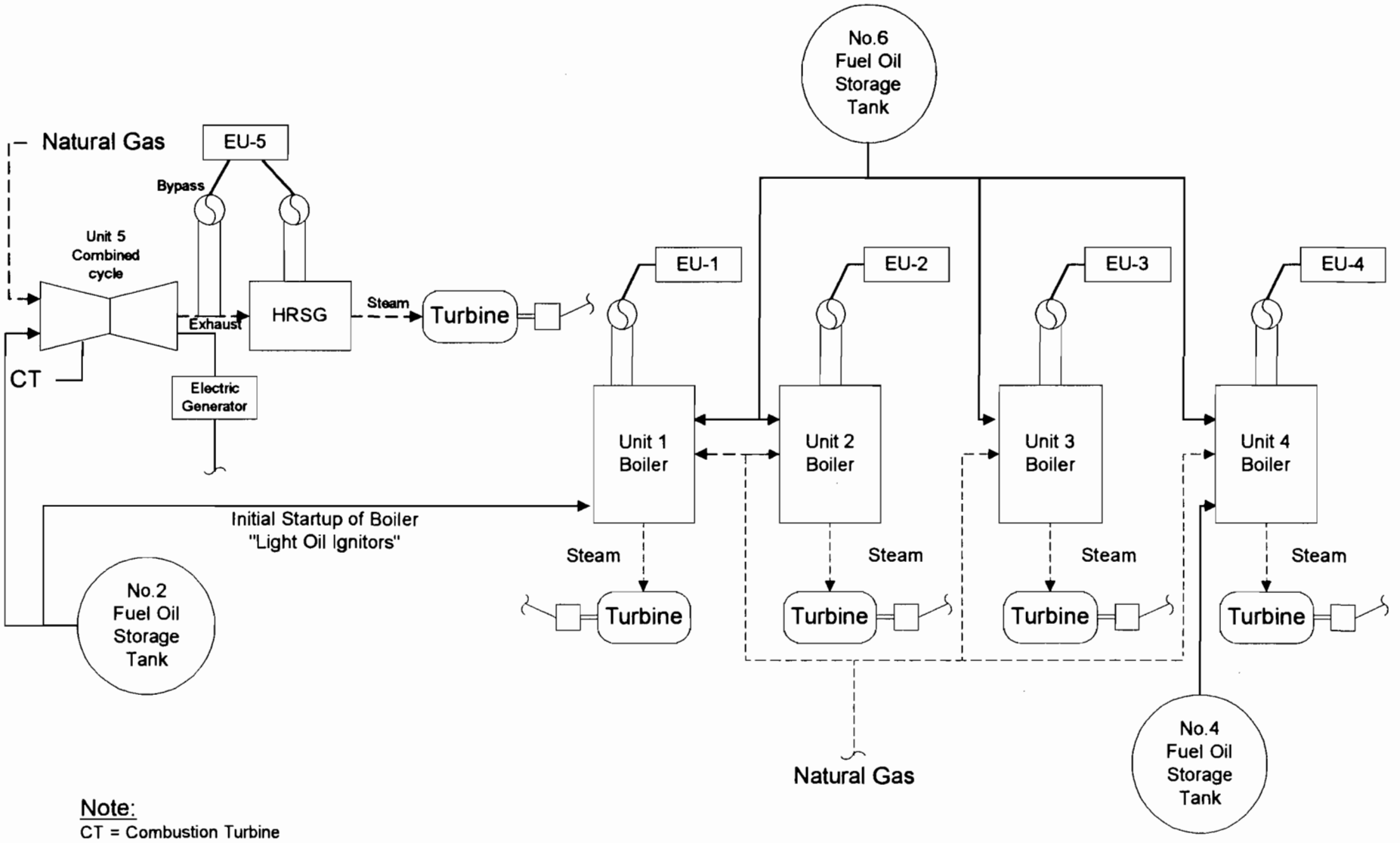

EU-4
EU-3
EU-1,EU-2
EU-5
Combined
Cycle Stack
EU-5
Simple
Cycle Stack
FACILITIES LEGEND
1 UNIT 1 (EXISTING)
2 UNIT 2 (EXISTING)
3 UNIT 3 (EXISTING)
4 UNIT 4 (EXISTING)
5 WAREHOUSE (EXISTING)
6 GARAGE (EXISTING)
7 CHLORINATION BLDG & PUMP HOUSE (EXISTING)
8 INTAKE STRUCTURE (EXISTING)
9 DOCK (EXISTING)
10 STEEL BLDG (EXISTING)
11 UNIT 4 COOLING TOWER (EXISTING)
12 FUEL OIL TANK (EXISTING)
13 LIGHT OIL TANK (EXISTING)
14 WASTE WATER TREATMENT PLANT (EXISTING)
15 DIESEL FUEL TANK & PUMPS (EXISTING)
16 NEUTRALIZATION TANK (EXISTING)
17 EXISTING ACID TANK (RELOCATED)
18 FUEL GAS REGULATING STATION (EXISTING)
19 SUBSTATION (EXISTING)
20 OUTFALL STRUCTURE (EXISTING)
21 DRAIN PIPE & HEADWALL (EXISTING)
22 SHEARGATE, HEADWALL & DRAIN PIPE (EXISTING)
23 ELECTRICAL MANHOLE (EXISTING)
24 FIRE HYDRANT (EXISTING)
25 VALVE ACCESS MANHOLE (EXISTING)
26 DRAIN INLET (EXISTING)
27 WELL (EXISTING)
28 SEWAGE LIFT STATION (EXISTING)
29 EXISTING ASPHALT ROADWAY
30 NOT USED
31 NOT USED
32 NOT USED
34 NOT USED
35 UNIT 5 COMBUSTION TURBINE BUILDING
36 UNIT 5 COOLING WATER SKID
37 NEUTRALIZATION BASIN
38 UNIT 5 DEMINERALIZED WATER STORAGE TANK
39 UNIT 5 SOLIDS CONTACT UNIT
40 UNIT 5 R.O. PRODUCT WATER TANK
41 UNIT 5 WASTE WATER LIFT STATION
42 UNIT 5 CONTAINMENT WALL
43 UNIT 5 FUEL FORWARDING SKID ENCLOSURE AND EXISTING CHLORINATION BUILDING ADDITION
44 NEW ASPHALT ROADWAY
45 CONSTRUCTION POWER TRANSFORMER
46 CONTRACTOR'S CONSTRUCTION TRAILER
47 RESIDENT ENGINEERS' TRAILER
48 GUARDHOUSE AND CONSTRUCTION SECURITY CHECKPOINT (BY J1 0200)
49 WASTE WATER TREATMENT PLANT MAINTENANCE AREA (EXISTING)
50 NEW CONSTRUCTION ACCESS ROAD (BY J1 0200)
51 UNIT 5 AUXILIARY TRANSFORMER
52 UNIT 5 GENERATOR TRANSFORMER
53 UNIT 5 SANITARY LIFT STATION
CONSTRUCTION LAYDOWN AREA FOR LIGHT ITEMS (TO BE ASSIGNED)
CONSTRUCTION PARKING AREA AND SUPERINTENDENTS LAYDOWN
APPROVED FOR CONSTRUCTION
SIGNED
DATE
BLACK & VEATCH
CITY OF VERO BEACH FLORIDA
COMBUSTION TURBINE UNIT 5
SITE - ARRANGEMENT
OVERALL SITE - PLOT PLAN
16835-CSTU-S1001
5

7/27/95
SK.



ATTACHMENT VB-FE-3

PROCESS FLOW DIAGRAM



Note:
CT = Combustion Turbine
EU = Emission Unit Number
HRSG = Heat Recovery Steam Generator
See Segment Information for process operating rates for emisssion units.

Attachment VB-FE-3 City of Vero Beach Municipal Power Plant Facility Process Flow Diagram Vero Beach, Florida	Process Flow Legend: Solid / Liquid → Gas - - - →	Emission Unit: Facility Process Area: Facility *Filename:* VB-FE-3.VSD *Latest Revision Date:* 6/4/96	KBN Engineering and Applied Sciences, Inc.

ATTACHMENT VB-FE-4

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

ATTACHMENT VB-FE-4

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

The facility may emit negligible amounts of unconfined particulate matter as a result of the operation of the facility. Potential examples of particulate matter include:

- Fugitive dust from paved and unpaved roads, and
- Fugitive particulates from the use of bagged chemical products.

Operational measures are undertaken at the facility which also minimize particulate emissions, in accordance with 62-296.310(3), F.A.C.:

- Maintenance of paved areas as needed,
- Regular mowing of grass and care of vegetation, and
- Limiting access to plant property by unnecessary vehicles.

ATTACHMENT VB-FE-5

FUGITIVE EMISSIONS IDENTIFICATION

ATTACHMENT VB-FE-5
FUGITIVE EMISSIONS IDENTIFICATION

Many fugitive emissions at the plant site have been classified as "trivial activities" (as presented in EPA's memorandum, "White Paper for Streamlined Development of Part 70 Permit Applications," July 10, 1995). As a result, these activities are not included as part of this permit application. For example, emissions from general plant maintenance and upkeep activities at the facility would be considered fugitive emissions, but have been judged to be trivial since these activities are not conducted as part of a manufacturing process, not related to the source's primary business activity, and do not otherwise trigger a permit modification.

Fugitive emissions that may result from the operation of activities that are not trivial at the facility are addressed in Emission Unit No. 6. This emission unit contains information on fugitive emissions that occur on a facility-wide basis. A summary of potential fugitive emission sources at the facility is presented in the following sections.

Criteria and Precursor Air Pollutants

The City of Vero Beach (CVB) has not identified fugitive emissions of sulfur dioxide, nitrogen oxides, carbon monoxide, or lead compounds which would exceed the thresholds defined in the permit application instructions.

Volatile Organic Compounds (VOCs)

Fugitive emissions of VOCs include those resulting from the use of cleaners and solvents for maintenance and operation. VOCs are also emitted by the various fuel oil storage tanks on the plant property, and by the combined-cycle combustion turbine and the fossil-fuel steam generators.

Fugitive HAPs Emissions

The following hazardous air pollutants are present on the facility property and are potential sources of fugitive HAPs emissions:

- asbestos
- benzene
- ethyl benzene
- hexane
- hydrochloric acid
- mercury compounds

- methyl ethyl ketone
- toluene
- 2,2,4 trimethylpentane
- xylene

Asbestos - Present in gasket material, pipe insulation, and various other locations. The facility complies with the federal NESHAPS (40 CFR 61 Subpart M) and state rules (62-257, F.A.C.) governing the abatement of asbestos-containing materials. No releases of asbestos are expected for the facility.

Benzene, Toluene, 2,2,4 Trimethylpentane, Xylene, Ethyl benzene - Present in unleaded gasoline. The facility maintains a 500-gallon storage tank for unleaded gasoline. These emissions have been calculated to be less than 1 TPY.

Hydrochloric Acid - The facility maintains 2 1-liter containers of hydrochloric acid in the chemistry laboratory for use in analytical procedures.

Mercury Compounds - The facility maintains a total of ½ liter of mercury-containing compounds in the chemistry laboratory for use in analytical procedures.

Methyl Ethyl Ketone, Toluene, Xylene - The facility maintains less than 12 1-gallon containers of paint thinner and solvents (which may contain MEK, toluene, or xylene) for use in power and wastewater treatment plant maintenance activities. These containers are kept closed and are stored in weather-tight buildings.

Regulated Toxic or Flammable Substances

The following regulated toxic or flammable substances are present at the CVB facility:

- hydrochloric acid
- sulfuric acid
- acetylene
- methane (natural gas)
- chlorine
- sulfur dioxide (anhydrous)

Sulfuric Acid - The facility maintains a 7,500-gallon Sulfuric Acid storage tank for water treatment use.

Acetylene - Present on the facility property in 125 ft^3 capacity cylinders which are used for plant maintenance (welding and cutting).

Methane - Is a primary component of natural gas. The facility has a natural gas pipeline which delivers fuel to the generating units. This fuel delivery system is normally airtight, but does have safety valves which occasionally relieve (open) when an over pressure condition develops in the gas line.

Chlorine - The wastewater treatment plant maintains five (5) 1-ton chlorine cylinders for use at the plant.

Sulfur Dioxide (anhydrous) - The wastewater treatment plant maintains four to six 1-ton sulfur dioxide cylinders for use at the plant.

ATTACHMENT VB-FE-8

LIST OF EQUIPMENT/ACTIVITIES REGULATED UNDER TITLE VI

ATTACHMENT VB-FE-8

LIST OF EQUIPMENT / ACTIVITIES REGULATED — TITLE VI

The City of Vero Beach Municipal Utilities currently has approximately 80 refrigeration and air-conditioning units on the plant site. Of these, no air-conditioning units currently meet the 50-pound threshold established by the Department.

ATTACHMENT VB-FE-12

COMPLIANCE ASSURANCE MONITORING PLAN

ATTACHMENT VB-FE-12
COMPLIANCE ASSURANCE MONITORING PLAN

The compliance assurance monitoring plan is to be submitted to the implementing agency by the required date.

ATTACHMENT VB-FE-14

COMPLIANCE REPORT AND PLAN

ATTACHMENT VB-FE-14
COMPLIANCE REPORT AND PLAN

As of the date of submittal of this application, the facility and emission units identified in this application are in compliance with all applicable regulations and additional applicable requirements with one single exception. The single exception relates to fuel monitoring requirements for Unit 5 under 40 CFR 60 Subpart GG. Because Unit 5 is supplied natural gas without intermediate bulk storage (i.e., a storage tank), 40 CFR §60.334(b)(2) requires daily monitoring of the sulfur and nitrogen content of any natural gas fired. However, based on the design and operation characteristics of Unit 5, as well as the characteristics of the fuel supply, daily monitoring is not necessary to determine compliance with the emission limits set forth in 40 CFR 60, Subpart GG. Accordingly, pursuant to 40 CFR §60.334(b)(2), the City hereby applies for approval of the custom fuel monitoring schedule as set forth below. Similar custom schedules have been approved for other natural gas-fired combustion turbines subject to 40 CFR §60.334(b)(2). The City currently follows the proposed custom schedule and therefore, will be in compliance with 40 CFR §60.334(b)(2) upon final approval of the schedule.

Natural Gas

Pursuant to 40 CFR 60.334(b)(2), a custom fuel monitoring schedule shall be followed for the natural gas fired at this facility and shall be as follows:

Custom Fuel Monitoring Schedule for Natural Gas (NG)

1. Monitoring of fuel nitrogen content shall not be required when NG is the only fuel being fired in the turbines.
2. Sulfur Monitoring
    a. Analysis for fuel sulfur content of the NG fired at this facility shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-80, ASTM D3031-81, ASTM D3246-81, and ASTM D4084-82, as referenced in 40 CFR 60.335(b)(2).
    b. This custom fuel monitoring schedule shall become effective on the date this permit is amended. Effective the date of this custom schedule, sulfur monitoring of NG fired at the facility shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content and indicates

consistent compliance with 40 CFR 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.

c. If, after the monitoring required in item 2(b) above, or herein, the sulfur content of the NG fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333 and in this permit, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.

d. Should any sulfur analysis, as required in items 2(b) or 2(c), above, indicate noncompliance with 40 CFR 60.333 or this permit, the owner or operator shall notify the Department of such excess emissions and the custom schedule shall be re-examined by the Environmental Protection Agency. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

3. If there is a change in fuel supply, the owner or operator must notify the Department of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

4. Records of sample analysis and fuel supply pertinent to this custom fuel monitoring schedule for NG shall be retained for a period of five years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.

ATTACHMENT VB-FE-15

COMPLIANCE STATEMENT

ATTACHMENT VB-FE-15

COMPLIANCE STATEMENT

I, the undersigned, am the responsible official as defined in Chapter 62-213, 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.

R. Taylor

Signature, Responsible Official

6-12-96

Date

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

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

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.

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

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Fossil Fuel Steam Generator Unit No.1**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown **001**		
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 (limit to 500 characters): **Unit exempt from Acid Rain rules (i.e. less than 25 MW).**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

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

Emissions Unit Details

1. Initial Startup Date:	**1 Oct 1961**
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer:	Model Number:
4. Generator Nameplate Rating:	**13** MW
5. Incinerator Information: Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:		**202**	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr		tons/day
3. Maximum Process or Throughput Rate:			
4. Maximum Production Rate:			

5. Operating Capacity Comment (limit to 200 characters):

Maximum heat input based on natural gas firing. Maximum heat input for No.6 fuel oil firing is 140 mmBtu/hr. No.4 fuel oil may be used in place of No.6 fuel oil. No.2 fuel oil is used as ignitor fuel.

Emissions Unit Operating Schedule

1. Requested Maximum Operating Schedule:

24	hours/day	**7**	days/week
52	weeks/yr	**8,760**	hours/yr

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment VB-EU1-D1

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **EU-1 (Att. VB-FE-2)**	
2. Emission Point Type Code: [ ] 1 [x] 2 [ ] 3 [ ] 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **Stack shared with fossil fuel steam generator Unit 2 (ARMS ID 002).**	
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [x] V [ ] W	
6. Stack Height:	**200** feet
7. Exit Diameter:	**3.5** feet
8. Exit Temperature:	**289** °F

9. Actual Volumetric Flow Rate:	**60,883** acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: East (km): North (km):	
14. Emission Point Comment (limit to 200 characters): **Temperature and flow rate presented indicative of natural gas firing. For oil firing, temperature and flow rate are 327 °F and 61,407 acfm, respectively. Flow rate pertains to Unit 1 flow only.**	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):

   External Combustion Boiler, Electric Generation, Natural Gas, Boilers > 100 MMBtu/hr

2. Source Classification Code (SCC):

   1-01-006-01

3. SCC Units:

   Million Cubic Feet Burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
0.196	**1,716**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:

9. Million Btu per SCC Unit:

   1,030

10. Segment Comment (limit to 200 characters):

    1. High Heating Value (HHV) reported for heat content. 2. Maximum sulfur content: 1 grain/100 cubic ft

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **External Combustion Boilers, Electric Generation, Residual Oil, Grade 6 Oil; Normal Firing**	
2. Source Classification Code (SCC): **1-01-004-01**	
3. SCC Units: **1000 gallons burned**	
4. Maximum Hourly Rate: **0.933**	5. Maximum Annual Rate: **8,176**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **1.5**	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: **150**	
10. Segment Comment (limit to 200 characters): **High Heating Value (HHV) reported for heat content.**	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 3 of 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **External Combustion Boilers, Electric Generation, Distillate Oil, Grade No.4 Oil, Normal Firing**	
2. Source Classification Code (SCC): **1-01-005-04**	
3. SCC Units: **Thousand Gallons Burned**	
4. Maximum Hourly Rate: **0.972**	5. Maximum Annual Rate: **8,517**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **0.7**	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: **144**	
10. Segment Comment (limit to 200 characters): **1. High heating value (HHV) reported for heat content**	

Segment Description and Rate: Segment 4 of 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **External Combustion Boilers, Electric Generation, Distillate Oil, Grade No. 1 and 2**	
2. Source Classification Code (SCC): **1-01-005-01**	
3. SCC Units: **Thousand Gallons Burned (all liquid fuels)**	
4. Maximum Hourly Rate: **1.011**	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **0.25**	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: **139**	
10. Segment Comment (limit to 200 characters): **Million Btu per SCC Unit: 138.5. 1. High heating value (HHV) reported for heat content. 2. Used for startup as ignitor fuel.**	

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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			NS
NOx			NS
PM			EL
PM10			NS
SO2			EL
VOC			NS
H106			NS
HAPS			NS

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

Pollutant Detail Information:

1. Pollutant Emitted: **PM**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **42** lb/hour **83.8** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.3 lb/MMBtu** Reference: **See comment**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU1-H8. Emission Factor Reference: State Regulation/Soot Blowing.**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Max emis for No.6 fuel oil firing. Equiv avg emission factor based on a potential emission rate for normal operations--21hr/day & an allowable emission rate of 0.3lb/mmBtu for 3hr/day (soot blowing)**

Emissions Unit Information Section 1 of 6

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **RULE**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **1.5 % sulfur**	
4. Equivalent Allowable Emissions: **15.9** lb/hour	**69.5** tons/year
5. Method of Compliance (limit to 60 characters): **Annual operating report**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on BACT determination (Rule 62-296.406(3)).**	

B.

1. Basis for Allowable Emissions Code: **RULE**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.3 lb/MMBtu**	
4. Equivalent Allowable Emissions: **42** lb/hour	**23** tons/year
5. Method of Compliance (limit to 60 characters): **Best operating practice**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Limited periods of excess emissions pursuant to Rule 62-210.700, F.A.C.**	

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

Pollutant Detail Information:

1. Pollutant Emitted:. **SO2**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **228.3** lb/hour **1,000** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **1.5 % sulfur fuel** Reference: **Permit Condition**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU1-H8**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **1. Maximum emissions representative of No.6 fuel oil firing**

Emissions Unit Information Section 1 **of** 6

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **RULE**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **1.5 % sulfur**	
4. Equivalent Allowable Emissions:	**228.3** lb/hour **1,000** tons/year
5. Method of Compliance (limit to 60 characters): **Annual operating report**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. Based on BACT determination (Rule 62-296.406(3))**	

B.

1. Basis for Allowable Emissions Code:	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	
4. Equivalent Allowable Emissions:	lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 4

1.	Visible Emissions Subtype: **VE20**
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: **20** % Exceptional Conditions: **40** % Maximum Period of Excess Opacity Allowed: **2** min/hour
4.	Method of Compliance: **FDEP Method 9 Annual Compliance Test**
5.	Visible Emissions Comment (limit to 200 characters): **Allowable opacity basis: Rule 62-296.406(1), F.A.C. Alternative exceptional condition is 27% for one 6-minute period/hr.**

Visible Emissions Limitations: Visible Emissions Limitation 2 of 4

1.	Visible Emissions Subtype: **VE60**
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: **60** % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **24** min/hour
4.	Method of Compliance: **FDEP Method 9 Annual Compliance Test**
5.	Visible Emissions Comment (limit to 200 characters): **Allowable opacity basis: Rule 62-210.700(3). Max period of excess opacity allowed is limited to four 6-min periods during the 3-hr period of allowable excess emissions.**

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 3 of 4

1.	Visible Emissions Subtype: **VE99**
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **60** min/hour
4.	Method of Compliance: **Best operational practices**
5.	Visible Emissions Comment (limit to 200 characters): **Allowable opacity basis: Excess emissions for malfunction allowed for a period not to exceed 2 hrs in every 24-hr period per 62-210.700(1).**

Visible Emissions Limitations: Visible Emissions Limitation 4 of 4

1.	Visible Emissions Subtype: **VE99**
2.	Basis for Allowable Opacity: [X] Rule [.] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **60** min/hour
4.	Method of Compliance: **Best operation practices.**
5.	Visible Emissions Comment (limit to 200 characters): **Excess emissions allowed during startup and shutdown. Rule 62-210.700(2)**

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

Continuous Monitoring System Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] 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 the 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 the 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.

   [x] 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.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] 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 the source 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 the source 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 the emissions unit consumes increment.

[X] 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	[ ] E	[X] Unknown
	SO_2	[ ] C	[ ] E	[X] Unknown
	NO_2	[ ] C	[ ] E	[X] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			
	Baseline emissions not known.			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements for All Applications

1.	Process Flow Diagram	
	[X] Attached, Document ID: VB-EU1-L1	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[X] Attached, Document ID: VB-EU1-L2	
	[ ] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[ ] Not Applicable
	[X] Previously Submitted, Date: 6 Jul 1995	
6.	Procedures for Startup and Shutdown	
	[X] Attached, Document ID: VB-EU1-L6	[ ] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[ ] Attached, Document ID: _____	[X] Not Applicable
9.	Other Information Required by Rule or Statute	
	[ ] Attached, Document ID: _____	[X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation

[x] Attached, Document ID: VB-EU1-L10 [ ] Not Applicable

11. Alternative Modes of Operation (Emissions Trading)

[ ] Attached, Document ID: _____ [x] Not Applicable

12. Identification of Additional Applicable Requirements

[x] Attached, Document ID: VB-EU1-L12 [ ] Not Applicable

13. Compliance Assurance Monitoring Plan

[ ] Attached, Document ID: _____ [x] Not Applicable

14. Acid Rain Permit Application (Hard Copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: _____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID: _____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID: _____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID: _____

[x] Not Applicable

ATTACHMENT VB-EU1-D1

EMISSIONS UNIT REGULATIONS

ATTACHMENT VB-EU1-D1
Applicable Requirements Listing - Power Plants Acid Rain Units

EMISSION UNIT ID: Unit 1 - Vero Beach

FDEP Rules:
Stationary Sources-General:

62-210.700(1)	- All EU; Malfunction only for FFSG
62-210.700(2)	- Existing FFSG; startup/shut down
62-210.700(3)	- Existing FFSG; sootblowing/load change
62-210.700(4)	- All EUs; maintenance
62-210.700(6)	- All EUs;

Acid Rain:

62-214.430	- All Acid Rain Units (Compliance Options-if required)

Stationary Sources-Emission Standards:

62-296.406	- Small Boiler

Stationary Sources-Emission Monitoring (where stack test is required):

62-297.310(1)	- All Units (Test Runs-Mass Emission)
62-297.310(2)(b)	- All Units (Operating Rate; other than CTs; no CT)
62-297.310(3)	- All Units (Calculation of Emission)
62-297.310(4)(a)1.	- All Units (Applicable Test Procedures; Sampling time)
62-297.310(4)(b)	- All Units (Sample Volume)
62-297.310(4)(c)	- All Units (Required Flow Rate Range-PM/H2SO4/F)
62-297.310(4)(d)	- All Units (Calibration)
62-297.310(4)(e)	- All Units (EPA Method 5-only)
62-297.310(5)	- All Units (Determination of Process Variables)
62-297.310(6)(a)	- All Units (Permanent Test Facilities-general)
62-297.310(6)(c)	- All Units (Sampling Ports)
62-297.310(6)(d)	- All Units (Work Platforms)
62-297.310(6)(e)	- All Units (Access)
62-297.310(6)(f)	- All Units (Electrical Power)
62-297.310(6)(g)	- All Units (Equipment Support)
62-297.310(7)(a)2.	- FFSG excess emissions
62-297.310(7)(a)3.	- Permit Renewal Test Required
62-297.310(7)(a)4.b.	- Annual Test
62-297.310(7)(a)5.	- PM exemption if <400 hrs/yr
62-297.310(7)(a)9.	- FDEP Notification - 15 days
62-297.310(7)(c)	- Waiver of Compliance Tests (Fuel Sampling)
62-297.310(8)	- Test Reports

ATTACHMENT VB-EU1-H8

CALCULATION OF EMISSIONS

Table 1. Maximum Estimated Emissions for Emissions Limited Pollutants for Vero Beach Unit 1

VBUNIT1
03/17/96

Pollutant	Fuel Oil No. 6
Hours of Operation	8,760

Sulfur Dioxide (lb/hr) (oil) = Fuel sulfur content (Percent) / 100 x 2 (64 MW SO2/32 MW S) x Fuel Consumption (Fuel units/hr)

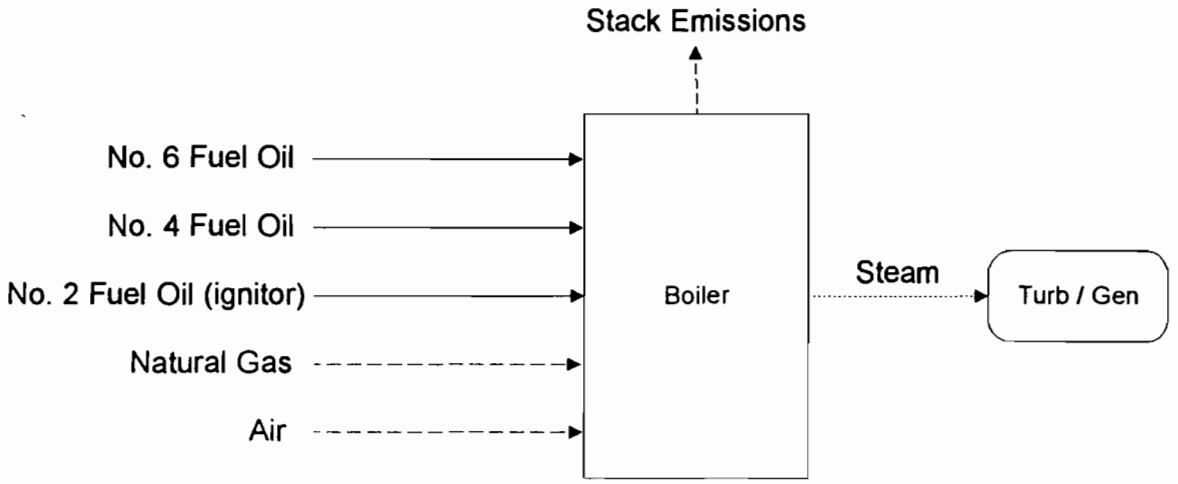
Basis	BACT
Sulfur content (percent)	1.5
Fuel consumption (lb/hr)	7,609
Emission rate (lb/hr)	228.3
(TPY)	1,000

Particulate Matter (lb/hr) (Oil)= EF [9.19 x sulfur content(%) + 3.22] lb/1000 gal x Fuel use (1,000 gal/hr) [normal operstions]
= 0.3 lb/MMBtu x HIR (MMBtu/hr) [soot blowing]

Basis- normal conditions	BACT (SO2)/AP-42
soot blowing	Rule 62-210-700 (3)
Normal Conditions	
Sulfur content	1.5
EF (lb/1,000 gal)	17.0
Fuel consumption (1,000 gal/hr)	0.9333
Emission rate (lb/hr)	15.9
(TPY)	69.5
Soot blowing	
EF (lb/MMBtu)	0.300
HIR (MMBtu/hr)	140.0
Hours of operation	1,095
Emission rate (lb/hr)	42.0
(TPY)	23.0
Annual (Normal/ Sootblowing)	
Hours of operation- normal operation	7,665
-sootblowing	1,095
Emission rate (lb/hr)- normal operation	15.9
-sootblowing	42.0
(TPY)	83.8

ATTACHMENT VB-EU1-L1

PROCESS FLOW DIAGRAM



Attachment VB-EU2-L1 City of Vero Beach Municipal Power Plant Facility Process Flow Diagram Vero Beach, Florida	Process Flow Legend: Solid / Liquid Gas Steam	Emission Unit: Boiler No. 1 Process Area: *Filename:* VBEU2L1.VSD *Latest Revision Date:* 5/27/96	KBN Engineering and Applied Sciences, Inc.

ATTACHMENT VB-EU1-L2

FUEL ANALYSIS OR SPECIFICATION

ATTACHMENT VB-EU1-L2

FUEL ANALYSIS OR SPECIFICATION

Fuel	Density (lb/gal)[a]	Moisture (%)	Maximum % Weight Content			Heat Capacity
			Sulfur	Nitrogen	Ash	
Natural Gas	0.045[b]	—	1[c]	0.43[d]	—	23,100 BTU/lb 1,030 Btu/ft^3
No. 2 Fuel Oil	7.1	0.01	0.25	0.02	<0.01	19,500 BTU/lb 138,500 Btu/gal
No. 4 Fuel Oil	7.6	0.05	0.7	0.18	<0.01	19,000 BTU/lb 144,000 Btu/gal
No. 6 Fuel Oil	8.15	0.20	1.5	0.32	0.05	18,400 BTU/lb 150,000 BTU/gal

[a] At 60 degrees F.
[b] Represented as lb/ft^3. Based on heat capacities presented.
[c] Represented as grains/100 ft^3.
[d] Atmospheric nitrogen.

ATTACHMENT VB-EU1-L6

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT VB-EU1-L6

PROCEDURES FOR STARTUP AND SHUTDOWN MINIMIZING EXCESS EMISSIONS

Startup of the fossil-fuel boilers begins when fuel (either natural gas or oil) is introduced into one or more burners within the boiler and lighted (commencement of combustion). Startup is complete and steady-state operation begins when the combustion process has stabilized and the megawatt load on the unit is stable.

Shutdown of the fossil-fuel boilers begins when unit megawatt load is decreased and continues until the final burner gun is removed from service and the final Induced-draft or Forced-draft fan is removed from service.

Countermeasures which may be taken in the event of excess emissions include, but are not limited to:

- proper excess air adjustments
- recognizing and removal of faulty burners
- fuel oil temperature adjustments
- proper and timely operation of boiler cleaning devices
- removal of the unit from system-dispatch mode
- reduction of unit megawatt load
- stopping and restarting of boiler cleaning devices
- lowering load rate
- pressure rate changes

Knowledge of the appropriate countermeasures to take under an excess emissions condition is a part of the routine operator training for the engineers who operate the boilers. In addition, plant operations and supervisory staff are periodically given training. Topics include current permit limits, maximum allowable duration of excess emissions, appropriate countermeasures for excess emissions, duty to notify, etc.

ATTACHMENT VB-EU1-L10

ALTERNATIVE METHODS OF OPERATION

ATTACHMENT VB-EU1-L10
ALTERNATE METHODS OF OPERATION
Fossil Fuel Steam Generator Unit 1

Unit 1 is permitted to burn either natural gas or No. 6 fuel oil with a sulfur content not to exceed 1.5 percent (by weight). Unit 1 can co-fire natural gas and fuel oil. The unit may operate continuously (i.e., 8,760 hours per year) on either fuel type. No. 2 fuel oil is used as ignitor fuel for initial startup of this unit. There is no permit condition which limits the use of No. 2 oil. Low sulfur No. 4 fuel oil may be used in place of No. 6 fuel oil.

ATTACHMENT VB-EU1-L12

IDENTIFICATION OF ADDITIONAL APPLICABLE REQUIREMENTS

ADDITIONAL APPLICABLE REQUIREMENTS

Applicable Requirements as defined in Rule 62-210.200(29) not identified in Section D of this emission unit section are included in this attachment of the application. Any air operation permit issued by the Department (or local program designee) and included in this attachment is provided for information purposes. The specific conditions of the operating permit are not Applicable Requirements as defined in Rule 62-210.200(29).

Florida Department of Environmental Regulation

Central District • 3319 Maguire Boulevard, Suite 232 • Orlando, Florida 32803-3767 • 407-894-7555

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary
Alex Alexander, Deputy Assistant Secretary

Permittee:
City of Vero Beach
Post Office Box 1389
Vero Beach, Florida 32961-1389

Attention: John V. Little,
City Manager

I. D. Number:
Permit/Certification
Number: A031-184320
Date of Issue:
Expiration Date: 12/25/95
County: Indian River
Latitude/Longitude:
27°37'52"N/80°22'33"W
UTM: 17-561.4 KmE; 3056.5 KmN
Project: Municipal Power Plant
Unit No. 1

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

The permittee can operate Possil Fuel Steam Generator Unit No. 1 fired with Natural Gas at a maximum heat input rate of 201.8 MMBTU/hour or No. 6 Fuel Oil at a maximum heat input rate of 140 MMBTU/hour.

This source is located at the Municipal Power Plant at 17th Street and Indian River Boulevard in Vero Beach, Indian River County, Florida.

General Conditions are attached to be distributed to the permittee only.

PERMITTEE:
City of Vero Beach

Attention: John V. Little
City Manager

I. D. Number:
Permit/Certification Number:
AO31-184320
Date of Issue:
Expiration Date: 12/25/95

GENERAL CONDITIONS:

16. No objectionable odors will be allowed, as per Rule 17-2.620(2), F.A.C.

17. All unconfined emissions of particulate matter generated at this site shall be adequately controlled. (Rule 17-2.610(3), F.A.C.) Area must be watered down should unconfined emissions occur.

18. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

SPECIFIC CONDITIONS:

OPERATING CONDITIONS

1. This source is permitted to operate 8760 hours/year.

2. This source will be fired with Natural Gas or new No. 6 Fuel Oil only.

3. The permitted heat input rates are as follows:

Unit No. 1 - No. 6 Fuel Oil - 140 MMBTU/hour
Natural Gas - 201.8 MMBTU/hour

EMISSION LIMITS

4. The emission limitation for this source is set forth in Rule 17-2.600(6), F.A.C., and the compliance test must be conducted in accordance with DER Method #9 (Rule 17-2.700(6)(a)9. F.A.C.).

5. Excess emission limits per Rule 17-2.250, F.A.C. shall apply.

COMPLIANCE TESTING

6. The source must be tested for visible emissions at yearly intervals from the date of August 1, 1990, in accordance with Rule 17-2.700(6)(b)9, (DER Method #9)F.A.C.

7. Testing of the source shall be conducted using No. 6 fuel oil and with the source operating within 90 to 100% of its rated capacity. Testing may be conducted at less than 90% of rated capacity; however, operation is then limited to the tested capacity with this limitation, operation at higher capacities is allowed for a cumulative total of no more than fifteen days for purposes of additional compliance testing to regain rated capacity in the permit, with prior notification to the department.

PERMITTEE:
City of Vero Beach

Attention: John V. Little
City Manager

I. D. Number:
Permit/Certification Number:
AO31-184320
Date of Issue:
Expiration Date: 12/25/95

8. This office (Florida Department of Environmental Regulation, Air Permitting, Orlando) shall be notified at least fifteen (15) days in advance of the compliance tests so that we can witness them (Rule 17-2.700(2)(a)5, F.A.C.).

9. The required test report shall be filed with the department as soon as practical but no later than 45 days after the last sampling run of each test is completed (Rule 17-2.700(7)(a),(b) and (c), F.A.C).

10. The type of fuel and the heat input to this source must be entered on the visible emission test report.

REPORTS

11. Each calendar year on or before March 1, submit for each source, an Annual Operations Report DER Form 17-1.202(6) for the preceding calendar year in accordance with Rule 17-4.14, F.A.C.

EXPIRATION DATE

12. An operation permit renewal must be submitted at least 60 days prior to the expiration date of this permit (Rule 17-4.09, F.A.C.).

ISSUED DEC 28 1990

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

A. Alexander
Deputy Assistant Secretary
3319 Maguire Boulevard
Suite 232
Orlando, Florida 32803

Florida Department of Environmental Regulation
Central District • 3319 Maguire Boulevard, Suite 232 • Orlando, Florida 32803-3767
Lawton Chiles, Governor
Carol M. Browner, Secretary

City of Vero Beach
Post Office Box 1389
Vero Beach, Florida 32961-1389

Attention: John V. Little, City Manager

Indian River County - AP
Municipal Power Plant - Unit No. 1
Permit No. AO31-184320
Change of Conditions

Dear Mr. Little:

The specific conditions are changed as follows:

Specific Condition #4

Add

4. BACT Determination by DER:

The amount of particulate and sulfur dioxide emissions from the boiler will be limited by the firing of natural gas or new No. 6 Fuel Oil containing 1.5 percent sulfur by weight. The term "new" means an oil which has been refined from crude oil and has not been used.

All other conditions remain the same.

This letter must be attached to your permit and becomes a part of that permit.

Sincerely,

C. M. Alexander, P.E.
Deputy Assistant Secretary

Date 2-14-91

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

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

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.

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

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Fossil Fuel Steam Generator Unit No.2**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown **002**		
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 (limit to 500 characters): **Unit exempt from Acid Rain rules (i.e., less than 25 MW).**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

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

Emissions Unit Details

1. Initial Startup Date:	**1 Jun 1964**
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer:	Model Number:
4. Generator Nameplate Rating:	**17** MW
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:	 °F seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:		**248**	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr		tons/day
3. Maximum Process or Throughput Rate:			
4. Maximum Production Rate:			
5. Operating Capacity Comment (limit to 200 characters): **Maximum heat input based on natural gas firing. Maximum heat input for residual oil firing is 243 mmBtu/hr. No.4 fuel oil may be used in place of residual oil.**			

Emissions Unit Operating Schedule

1. Requested Maximum Operating Schedule:

24	hours/day	**7**	days/week
52	weeks/yr	**8,760**	hours/yr

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment VB-EU2-D1

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **EU-2 (Att. VB-FE-2)**	
2. Emission Point Type Code: [ ]1 [x]2 [ ]3 [ ]4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **Stack shared with fossil fuel steam generator Unit 1.**	
5. Discharge Type Code: [ ]D [ ]F [ ]H [ ]P [ ]R [x]V [ ]W	
6. Stack Height:	**200** feet
7. Exit Diameter:	**3.5** feet
8. Exit Temperature:	**347** °F

9. Actual Volumetric Flow Rate:	**79,217** acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates:	
Zone: East (km):	North (km):

14. Emission Point Comment (limit to 200 characters):

Temperature and flow rate presented indicative of natural gas firing. For oil firing, temperture and flow rate are 322 °F and 71,651 acfm, respectively. Flow rate applicable to Unit 2 only.

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):

   External combustion boiler, Electric generation, Natural gas, Boilers > 100 MMBtu/hr

2. Source Classification Code (SCC):

   1-01-006-01

3. SCC Units:

   Million Cubic Feet Burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
0.241	**2,109**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:

9. Million Btu per SCC Unit:

   1,030

10. Segment Comment (limit to 200 characters):

    High Heating Value (HHV) reported for heat content. Max sulfur content: 1 grain/100 cubic ft. Propane also used as ignitor fuel when gas not available.

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **External combustion boilers, Electric generation, Residual oil, Grade 6 oil; normal firing**	
2. Source Classification Code (SCC): **1-01-004-01**	
3. SCC Units: **1000 gallons burned**	
4. Maximum Hourly Rate: **1.62**	5. Maximum Annual Rate: **14,191**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **2.5**	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: **150**	
10. Segment Comment (limit to 200 characters): **Maximum percent sulfur based on permitted SO2 emission rate of 2.75 lb/MMBtu. High Heating Value (HHV) is reported for heat content.**	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 3 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **External Combustion Boilers, Electric Generation, Grade No.4 Oil, Normal Firing**	
2. Source Classification Code (SCC): **1-01-005-04**	
3. SCC Units: **Thousand Gallons Burned**	
4. Maximum Hourly Rate: **1.688**	5. Maximum Annual Rate: **14,783**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **0.7**	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: **144**	
10. Segment Comment (limit to 200 characters): **High heating value (HHV) reported for heat content.**	

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			NS
NOx			NS
PM			EL
PM10			NS
SO2			EL
VOC			NS
H106			NS
HAPS			NS

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

Pollutant Detail Information:

1. Pollutant Emitted: **PM**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **72.9** lb/hour **133** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.125 lb/MMBtu** Reference: **State Regulation**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU2-H8**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **1. Maximum emissions based on No.6 fuel oil firing. 2. Equivalent average emission rate based on allowable emission rates of 0.1 lb/MMBtu for 21 hr/day and 0.3 lb/MMBtu for 3 hr/day (sootblowing).**

Emissions Unit Information Section 2 of 6
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **RULE**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.1 lb/MMBtu**	
4. Equivalent Allowable Emissions: **24.3** lb/hour	**106.4** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 5 or 17 quarterly or annual stack test**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. Rule 62-296.405(1)(b). 2. Applicable to normal, steady state operating conditions.**	

B.

1. Basis for Allowable Emissions Code: **RULE**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.3 lb/MMBtu**	
4. Equivalent Allowable Emissions: **72.9** lb/hour	**39.9** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 5 or 17 quarterly or annual stack test**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. Rule 62-210.700(3). 2. Applicable to sootblowing or load changing conditions. 3. Annual emissions based on amaximum 3 hr/day sootblowing or load changing.**	

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

Pollutant Detail Information:

1. Pollutant Emitted: **SO2**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **668.3** lb/hour **2,927** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **2.75 lb/mmBtu** Reference: **State Regulation**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See attachment VB-EU2-H8**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **1. Maximum emissions based on No. 6 fuel oil firing.**

Emissions Unit Information Section 2 of 6

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **Rule**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **2.75 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**668.3** lb/hour **2,927** tons/year
5. Method of Compliance (limit to 60 characters): **Monthly Fuel Analysis for months when fuel oil fired**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. Rule 62-296.405(1)(c)1.j.**	

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 5

1.	Visible Emissions Subtype: **VE20**
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: **20** % Exceptional Conditions: **40** % Maximum Period of Excess Opacity Allowed: **2** min/hour
4.	Method of Compliance: **FDEP Method 9, Annual VE Compliance Test(oil burned > 400 hr)**
5.	Visible Emissions Comment (limit to 200 characters): **Rule 62-296.405(1)(a), FAC-20% opacity steady state. Alter. except. cond.-27% opacity for 1-6 min/hr if city elects to conduct annual part. & VE tests.**

Visible Emissions Limitations: Visible Emissions Limitation 2 of 5

1.	Visible Emissions Subtype: **VE60**
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: **60** % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **24** min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters): **Rule 62-610.700(3), F.A.C., excess emissions for boiler cleaning, load change.**

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 3 of 5

1.	Visible Emissions Subtype: **VE99**
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **60** min/hour
4.	Method of Compliance: **Best operational practices**
5.	Visible Emissions Comment (limit to 200 characters): **Excess emissions for malfunction allowed for a period not to exceed 2 hrs in every 24-hr period, 62-210.700(1).**

Visible Emissions Limitations: Visible Emissions Limitation 4 of 5

1.	Visible Emissions Subtype: **VE99**
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **60** min/hour
4.	Method of Compliance: **Best operational practices**
5.	Visible Emissions Comment (limit to 200 characters): **Excess emissions allowed during startup/shutdown; Rule 62-210.700(2)**

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 5 of 5

1.	Visible Emissions Subtype: **VE40**
2.	Basis for Allowable Opacity: [x] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: **40** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance: **FDEP Method 9, quarterly compliance test (oil burned > 400 hr)**
5.	Visible Emissions Comment (limit to 200 characters): **Rule 62-296.405(1)(a), F.A.C. - 40% opacity steady state if city elects to conduct quarterly part. and VE tests.**

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

Continuous Monitoring System Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

[ ] 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 the 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 the 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.

[X] 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.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] 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 the source 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 the source 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 the emissions unit consumes increment.

[x] 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	[ ] E	[x] Unknown
	SO_2	[ ] C	[ ] E	[x] Unknown
	NO_2	[ ] C	[ ] E	[x] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			
	Baseline emissions not known.			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements for All Applications

1.	Process Flow Diagram	
	[X] Attached, Document ID: VB-EU2-L1	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[X] Attached, Document ID: VB-EU2-L2	
	[ ] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[ ] Not Applicable
	[X] Previously Submitted, Date: 6 May 1994	
6.	Procedures for Startup and Shutdown	
	[X] Attached, Document ID: VB-EU2-L6	[ ] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[ ] Attached, Document ID: _____	[X] Not Applicable
9.	Other Information Required by Rule or Statute	
	[ ] Attached, Document ID: _____	[X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation

[X] Attached, Document ID: VB-EU2-L10 [ ] Not Applicable

11. Alternative Modes of Operation (Emissions Trading)

[ ] Attached, Document ID: _____ [X] Not Applicable

12. Identification of Additional Applicable Requirements

[X] Attached, Document ID: VB-EU2-L12 [ ] Not Applicable

13. Compliance Assurance Monitoring Plan

[ ] Attached, Document ID: _____ [X] Not Applicable

14. Acid Rain Permit Application (Hard Copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: _____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID: _____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID: _____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID: _____

[X] Not Applicable

ATTACHMENT VB-EU2-D1

EMISSIONS UNIT REGULATIONS

ATTACHMENT VB-EU2-D1
Applicable Requirements Listing - Power Plants Acid Rain Units

EMISSION UNIT ID: Unit 2 - Vero Beach

FDEP Rules:
Stationary Sources-General:

62-210.700(1)	- All EU; Malfunction only for FFSG
62-210.700(2)	- Existing FFSG; startup/shut down
62-210.700(3)	- Existing FFSG; sootblowing/load change
62-210.700(4)	- All EUs; maintenance
62-210.700(6)	- All EUs;

Acid Rain:

62-214.430	- All Acid Rain Units (Compliance Options-if required)

Stationary Sources-Emission Standards:

62-296.406	- Small Boiler

Stationary Sources-Emission Monitoring (where stack test is required):

62-297.310(1)	- All Units (Test Runs-Mass Emission)
62-297.310(2)(b)	- All Units (Operating Rate; other than CTs; no CT)
62-297.310(3)	- All Units (Calculation of Emission)
62-297.310(4)(a)1.	- All Units (Applicable Test Procedures; Sampling time)
62-297.310(4)(b)	- All Units (Sample Volume)
62-297.310(4)(c)	- All Units (Required Flow Rate Range-PM/H2SO4/F)
62-297.310(4)(d)	- All Units (Calibration)
62-297.310(4)(e)	- All Units (EPA Method 5-only)
62-297.310(5)	- All Units (Determination of Process Variables)
62-297.310(6)(a)	- All Units (Permanent Test Facilities-general)
62-297.310(6)(c)	- All Units (Sampling Ports)
62-297.310(6)(d)	- All Units (Work Platforms)
62-297.310(6)(e)	- All Units (Access)
62-297.310(6)(f)	- All Units (Electrical Power)
62-297.310(6)(g)	- All Units (Equipment Support)
62-297.310(7)(a)2.	- FFSG excess emissions
62-297.310(7)(a)3.	- Permit Renewal Test Required
62-297.310(7)(a)4.b.	- Annual Test
62-297.310(7)(a)5.	- PM exemption if <400 hrs/yr
62-297.310(7)(a)9.	- FDEP Notification - 15 days
62-297.310(7)(c)	- Waiver of Compliance Tests (Fuel Sampling)
62-297.310(8)	- Test Reports

ATTACHMENT VB-EU2-H8

CALCULATION OF EMISSIONS

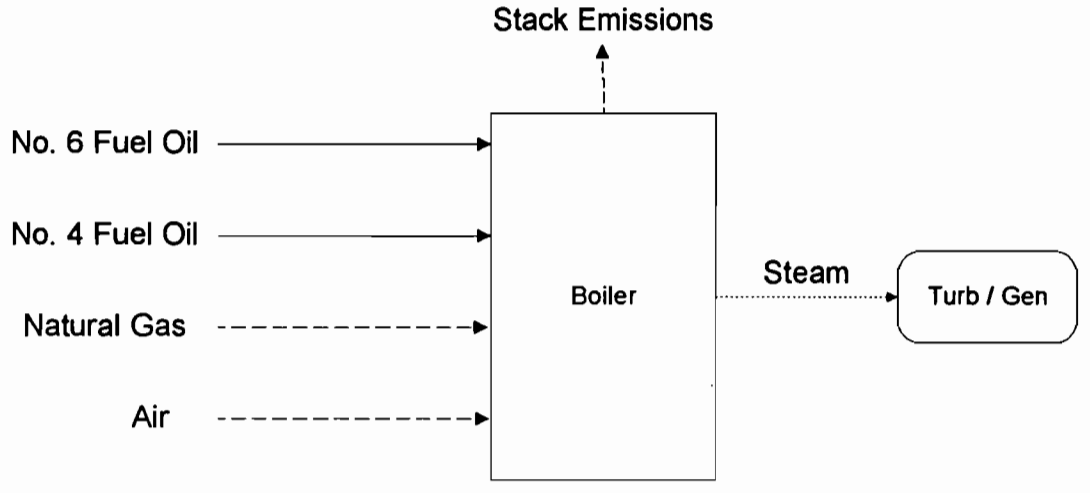
Table 1. Maximum Estimated Emissions for Emissions Limited Pollutants for Vero Beach Unit 2

VBUNIT2
03/17/96

Pollutant	Fuel Oil Residual Oil
Hours of Operation	8,760
Sulfur Dioxide (lb/hr) (Oil) = EF (lb/MMBtu) x Heat Input Rate (MMBtu/hr)	
Basis	Permit
EF (lb/MMBtu)	2.75
HIR (MMBtu/hr)	243.0
Emission rate (lb/hr)	668.3
(TPY)	2,927
Particulate Matter (lb/hr) (Oil)= EF (lb/MMBtu) x Heat Input Rate (MMBtu/hr)	
Basis	State Regulation
EF (lb/MMBtu) - normal operation	0.1
- soot blowing	0.3
HIR (MMBtu/hr)	243.0
Normal Operations	
EF (lb/MMBtu)	0.1
HIR (MMBtu/hr)	243.0
Emission rate (lb/hr)	24.3
(TPY)	106.4
Soot blowing	
EF (lb/MMBtu)	0.3
HIR (MMBtu/hr)	243.0
Hours of operation	1,095
Emission rate (lb/hr)	72.9
(TPY)	39.9
Annual (Normal/ Sootblowing)	
Hours of operation- normal operation	7,665
-sootblowing	1,095
Emission rate (lb/hr)- normal operation	24.3
-sootblowing	72.9
(TPY)	133.0

ATTACHMENT VB-EU2-L1

PROCESS FLOW DIAGRAM



Attachment VB-EU2-L1 City of Vero Beach Municipal Power Plant Process Flow Diagram Vero Beach, Florida	Process Flow Legend: Solid / Liquid ——→ Gas - - - →	Emission Unit: Boiler No. 2 Process Area: Facility *Filename:* VBEU2L1.VSD *Latest Revision Date:* 5/27/96	KBN Engineering and Applied Sciences, Inc.

ATTACHMENT VB-EU2-L2

FUEL ANALYSIS OR SPECIFICATION

ATTACHMENT VB-EU2-L2

FUEL ANALYSIS OR SPECIFICATION

Fuel	Density (lb/gal)[a]	Moisture (%)	Maximum % Weight Content			Heat Capacity
			Sulfur	Nitrogen	Ash	
Natural Gas	0.045[b]	—	1[c]	0.43[d]	—	23,100 BTU/lb 1,030 Btu/ft^3
No. 4 Fuel Oil	7.6	0.05	0.7	0.18	<0.01	19,000 BTU/lb 144,000 Btu/gal
No. 6 Fuel Oil	8.15	0.20	2.5	0.32	0.05	18,400 BTU/lb 150,000 BTU/gal

[a] At 60 degrees F.
[b] Represented as lb/ft^3. Based on heat capacities presented.
[c] Represented as grains/100 ft^3.
[d] Atmospheric nitrogen.

ATTACHMENT VB-EU2-L6

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT VB-EU2-L6

PROCEDURES FOR STARTUP AND SHUTDOWN MINIMIZING EXCESS EMISSIONS

Startup of the fossil-fuel boilers begins when fuel (either natural gas or oil) is introduced into one or more burners within the boiler and lighted (commencement of combustion). Startup is complete and steady-state operation begins when the combustion process has stabilized and the megawatt load on the unit is stable.

Shutdown of the fossil-fuel boilers begins when unit megawatt load is decreased and continues until the final burner gun is removed from service and the final Induced-draft or Forced-draft fan is removed from service.

Countermeasures which may be taken in the event of excess emissions include, but are not limited to:

- proper excess air adjustments
- recognizing and removal of faulty burners
- fuel oil temperature adjustments
- proper and timely operation of boiler cleaning devices
- removal of the unit from system-dispatch mode
- reduction of unit megawatt load
- stopping and restarting of boiler cleaning devices
- lowering load rate
- pressure rate changes

Knowledge of the appropriate countermeasures to take under an excess emissions condition is a part of the routine operator training for the engineers who operate the boilers. In addition, plant operations and supervisory staff are periodically given training. Topics include current permit limits, maximum allowable duration of excess emissions, appropriate countermeasures for excess emissions, duty to notify, etc.

ATTACHMENT VB-EU2-L10

ALTERNATIVE METHODS OF OPERATION

ATTACHMENT VB-EU2-L10
ALTERNATE METHODS OF OPERATION
Fossil Fuel Steam Generator Unit 2

Unit 2 is permitted to burn either natural gas or No. 6 fuel oil. Unit 2 can co-fire natural gas and fuel oil. The unit may operate continuously (i.e., 8,760 hours per year) on either fuel type. Natural gas and propane are used as ignitor fuel for initial startup of this unit. Low sulfur No. 4 fuel oil may be used in place of No. 6 fuel oil.

ATTACHMENT VB-EU2-L12

IDENTIFICATION OF ADDITIONAL APPLICABLE REQUIREMENTS

ADDITIONAL APPLICABLE REQUIREMENTS

Applicable Requirements as defined in Rule 62-210.200(29) not identified in Section D of this emission unit section are included in this attachment of the application. Any air operation permit issued by the Department (or local program designee) and included in this attachment is provided for information purposes. The specific conditions of the operating permit are not Applicable Requirements as defined in Rule 62-210.200(29).

Florida Department of
Environmental Protection

Lawton Chiles
Governor

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Virginia B. Wetherell
Secretary

Permittee:
City of Vero Beach
P. O. Box 1389
Vero Beach, FL 32961-1389

Attention: T.R. Nason,
Acting City Manager

Permit Number: AO31-226295
Date of Issue:
Expiration Date: May 30, 1998
County: Indian River
Latitude/Longitude:
27°37'52"N/80°22'33"W
UTM: 17-561.4 KmE; 3056.5 KmN
Project: Municipal Power Plant
Unit No. 2

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) Chapter 17. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

The permittee can operate fossil fuel steam generator unit no. 2.

This source is located at the Municipal Power Plant at 17th Street and Indian River Boulevard in Vero Beach, Indian River County, Florida.

General Conditions are attached to be distributed to the permittee only.

PERMITTEE:
City of Vero Beach

Attention: T.R. Nason, Acting City Manager

Permit Number: AO31-226295
Expiration Date: May 30, 1998

SPECIFIC CONDITIONS:

OPERATING CONDITIONS

1. Heat input Rate:

   The maximum permitted heat input rate for this source is 243 MMBtu/hr for residual oil or 248 MMBtu/hr for natural gas.

2. Permitted Fuels:

   This source shall be fired with residual oil or natural gas only.

3. Operating Hours:

   This source is permitted to operate continuously.

4. Source Emission Limiting Standards and Compliance Testing Requirements:

POLLUTANT	EMISSION (1) LIMITING STDS.	TESTING FREQUENCY (2) ANNUAL	QUARTERLY	OTHER	TEST (3) METHOD
Particulate Matter					
Steady State	0.1 lb/MMBtu	X(4)	X(4)	-	EPA METHOD 5 OR 17 (5)
Sootblowing or Load Changing	0.3 lb/MMBtu (6)	X	-	-	EPA METHOD 5 OR 17 (5)
Sulfur Dioxide	2.75 lb/MMBtu	-	-	X	Monthly (8) Fuel Analysis
Visible Emissions					
Steady State	40% Opacity	X(4)	-	-	DER Method 9
Sootblowing or Load Changing	60% Opacity for up up to 3 hrs in 24 hrs	X(6)	-	-	DER Method 9

SPECIFIC CONDITIONS:
(Continued)

Footnotes:

(1) FAC 17-210.700(3) and FAC 17-296.405(1)
(2) FAC 17-297.340
(3) FAC 17-297.330
(4) The source may elect to test particulates (steady-state) quarterly and to test visible emissions annually with a 40% opacity limit, or to test particulates (steady-state) and visible emissions annually with a 20% opacity limit. Annual Testing shall be conducted on or within 60 days before the date of August 1. If a quarterly schedule is selected, the source shall advise this office in writing of the quarterly test date schedule. For good cause, the permittee may request, and the Department may grant, an extension of a compliance test due date. The source should be tested during the early part of the 60 day period to avoid missing the test due date. Inadequate planning of testing does not constitute good cause for an extension of the compliance test due date.
(5) EPA Method 17 may be used only if the stack gas exit temperature is less than 375°F.
(6) FAC 17-210.700(3) allows up to 3 hours in a 24-hour period of excess emissions during sootblowing and loading changing operations. Excess emissions are authorized only if best operational practices to minimize emissions are adhered to, and the duration of excess emissions is minimized.
(7) An annual compliance test for particulate matter shall not be required if the source, in a federal fiscal year, did not burn fuel oil, other than during startup, for a total of more than 400 hours (Rule 17-297.340(e), F.A.C.).
(8) A monthly fuel oil analysis should be submitted only for the months in which oil has been fired in the unit. The Department must be advised quarterly of those months in which no oil is fired.

5. Compliance Testing Related Requirements:

(a) Notification - FAC 17-297.340(1)(i)

The Air Resources compliance section of this office shall be notified in writing at least fifteen (15) days in advance of the compliance tests (Rule 17-297.340(1)(i), F.A.C.).

(b) Conditions

Compliance testing shall be conducted while the source is firing No. 6 residual fuel oil at 90 to 100% of the maximum permitted heat input rate. Particulate and visible emissions tests shall be conducted under both sootblowing and non-sootblowing conditions and shall have at least eight hours of fuel oil burning without sootblowing immediately before

the test. However, the source can be tested using 100% natural gas, if in a federal fiscal year, fuel oil was not burned, other than during startup, for a total of more than 400 hours.

Testing may be conducted while firing No. 6 residual fuel oil at less than 90 percent of the maximum permitted rate, however, if so, subsequent source operation is limited to the average No. 6 residual fuel oil firing rate during the test. Once the unit is so limited, then operation at a higher No. 6 residual fuel oil firing rate is allowed only on the days to conduct additional compliance testing to regain the higher rates, not to exceed the maximum permitted rate, with prior notification to the Department. All required compliance tests shall be conducted concurrently. Operating at conditions during testing which do not reflect normal operating conditions may invalidate a test.

(c) Stack Sampling Facility - FAC 17-297.345

The stack sampling facility must comply with Rule 17-297.345, FAC.

(d) Report Submittal - FAC 17-297.570, FAC

A copy of the test results shall be submitted to the Department's Central District Office within 45 days after the last test run is completed. The test report shall provide the actual heat input rate. Each test report shall also include a fuel oil analysis from a representative sample of the fuel oil burned during the test and a calculation of the sulfur dioxide emission rate in pounds per MMBtu heat input and pounds per hour. Failure to submit any of the above information may invalidate the test.

6. Annual Operations Report (AOR):

On or before March 1 of each calendar year, a completed DEP Form 17-210.900(4), Annual Operation Report Form for Air Emissions Sources, based on data for the preceding calendar year, shall be submitted to the Department's Central District Office. The report shall provide sufficient detail to allow the Department to determine whether the emissions were properly computed.

7. Excess Emissions

(a) Events - Rule 17-210.700, FAC

Excess emissions resulting from start-up or shut-down are permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions is minimized.

SPECIFIC CONDITIONS:
(Continued)

Excess emissions resulting from malfunction are permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions is minimized but in no case exceeds two hours in any 24-hour period unless specifically authorized by the Department for longer duration. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction are prohibited.

(b) Notification - Rules 17.210.700(6) and 17-4.130, FAC

In the event the permittee is temporarily unable to comply with any of the conditions of the permit, the permittee shall immediately notify this office. Notification shall be conducted within 24 hours and be in accordance with General Condition (8) of this permit. In case of excess emissions resulting from malfunctions, a full written report on the malfunctions shall also be submitted in a quarterly report.

8. Objectional Odors - Rule 17-296.320(2), FAC

Objectional Odor Prohibited - No person shall cause, suffer, allow or permit the discharge air pollutants which cause or contribute to an objectionable odor.

9. Other Requirements - Rule 17-210.300, FAC

Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Rule 17-296 or 17-297, or any other requirements under federal, state, or local law. Future regulations may impact this facility. The permittee shall comply with any applicable future regulations when they become effective.

10. Operation Permit Renewal - Rules 17-4.050(2) and 17-4.090(1), FAC

An operation permit renewal must be submitted at least sixty days prior to the expiration date of this permit (Rule 17-4.090, FAC.).

PERMITTEE:
City of Vero Beach

Attention: T.R. Nason, Acting City Manager

Permit Number: AO31-226295
Expiration Date: May 30, 1998

SPECIFIC CONDITIONS:
(Continued)

ISSUED NOV 29 1993

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

cmc

A. Alexander, P.E.
District Director
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

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

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.

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

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Fossil Fuel Steam Generator Unit No.3**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown **003**		
3. Emissions Unit Status Code: **A**	4. Acid Rain Unit? [**X**] Yes [ ] No	5. Emissions Unit Major Group SIC Code: **49**
6. Emissions Unit Comment (limit to 500 characters):		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

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

Emissions Unit Details

1. Initial Startup Date:	**1 Sep 1971**
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer:	Model Number:
4. Generator Nameplate Rating:	**34** MW
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:	 °F seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:		**417**	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr		tons/day
3. Maximum Process or Throughput Rate:			
4. Maximum Production Rate:			

5. Operating Capacity Comment (limit to 200 characters):

Maximum heat input based on natural gas firing. Maximum heat input for residual oil firing is 410 mmBTU/hr. No.4 fuel oil may be used in place of No.6 fuel oil.

Emissions Unit Operating Schedule

1. Requested Maximum Operating Schedule:

24	hours/day	**7**	days/week
52	weeks/yr	**8,760**	hours/yr

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment VB-EU3-D1

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: EU-3 (Att. VB-FE-2)	
2. Emission Point Type Code: [x] 1 [ ] 2 [ ] 3 [ ] 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [x] V [ ] W	
6. Stack Height:	200 feet
7. Exit Diameter:	6 feet
8. Exit Temperature:	342 °F

9. Actual Volumetric Flow Rate:	**116,375** acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: East (km): North (km):	
14. Emission Point Comment (limit to 200 characters): **1. Temperature and flow rate presented indicative of natural gas firing. For oil firing, temperature and flow rate are 333°F and 110,935 acfm, respectively.**	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):

External Combustion Boiler, Electric Generation, Natural Gas, Boilers > 100 MMBtu/hr

2. Source Classification Code (SCC):

1-01-006-01

3. SCC Units:

Million cubic feet burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
0.405	**3,546**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:

9. Million Btu per SCC Unit:

1,030

10. Segment Comment (limit to 200 characters):

High Heating Value (HHV) reported for heat content. Max. sulfur content: 1 grain/100 cubic foot. Propane also used as ignitor fuel when gas not available.

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **External Combustion Boilers, Electric Generation, Grade 6 oil; Normal firing**	
2. Source Classification Code (SCC): **1-01-004-01**	
3. SCC Units: **1000 gallons burned**	
4. Maximum Hourly Rate: **2.733**	5. Maximum Annual Rate: **23,944**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **2.5**	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: **150**	
10. Segment Comment (limit to 200 characters): **Maximum percent sulfur based on permitted SO2 emission rate of 2.75 lb/MMBTU. High Heating Value (HHV) is reported for heat content.**	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 3 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **External Combustion Boilers, Electric Generation, Distillate Oil, Grade No.4, Normal.**	
2. Source Classification Code (SCC): **1-01-005-04**	
3. SCC Units: **1000 gallons burned**	
4. Maximum Hourly Rate: **2.847**	5. Maximum Annual Rate: **24,942**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **0.7**	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: **144**	
10. Segment Comment (limit to 200 characters): **High heating value (HHV) reported for heat content.**	

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			NS
NOx			NS
PM			EL
PM10			NS
SO2			EL
VOC			NS
H106			NS
HAPS			NS

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

Pollutant Detail Information:

1. Pollutant Emitted: **PM**

2. Total Percent Efficiency of Control: %

3. Potential Emissions: **130** lb/hour **224.5** tons/year

4. Synthetically Limited? [ ] Yes [**X**] No

5. Range of Estimated Fugitive/Other Emissions:

   [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr

6. Emission Factor: **0.125** **lb/mmBtu**

   Reference: **State Regulation**

7. Emissions Method Code:

   [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters):

   See Attachment VB-EU3-H8

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

   Max emissions representative of No. 6 fuel oil firing. Equivalent avg emission rate based on allowable emission rates of 0.1 lb/mmBtu for 21 hr/day and 0.3 lb/mmBtu for 3 hr/day (soot blowing)

Emissions Unit Information Section 3 of 6
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **Rule**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.1 lb/MMBtu**	
4. Equivalent Allowable Emissions: **41** lb/hour	**179.6** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 5 or 17 quarterly or annual stack test**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. Rule 62-296.405(1)(b) 2. Applicable to normal, steady state operating conditions.**	

B.

1. Basis for Allowable Emissions Code: **Rule**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.3 lb/MMBtu**	
4. Equivalent Allowable Emissions: **123** lb/hour	**67.3** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 5 or 17 quarterly or annual stack test**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. Rule 62-210.700(3) 2. Applicable to sootblowing or load changing conditions. 3. Annual emissions based on a maximum 3 hr/day sootblowing or load changing.**	

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

Pollutant Detail Information:

1. Pollutant Emitted: **SO2**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **1,127.5** lb/hour **4,938** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **2.75 lb/mmBtu** Reference: **State Regulation**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU3-H8**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **1. Maximum emissions representative of fuel oil firing.**

Emissions Unit Information Section 3 of 6
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **Rule**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **2.75 lb/mmBtu**	
4. Equivalent Allowable Emissions: **1,127.5** lb/hour	**4,938** tons/year
5. Method of Compliance (limit to 60 characters): **Monthly fuel analysis for months when fuel oil fired**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **(1) Rule 62-296.405(1)(c)1.j.**	

B.

1. Basis for Allowable Emissions Code:	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	
4. Equivalent Allowable Emissions: lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 3

1.	Visible Emissions Subtype: **VE20**
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: **20** % Exceptional Conditions: **40** % Maximum Period of Excess Opacity Allowed: **2** min/hour
4.	Method of Compliance: **FDEP Method 9 annual compliance test**
5.	Visible Emissions Comment (limit to 200 characters): **Rule 62-296.405(1)(a) F.A.C.-Steadystate. Alternative exceptional condition is 27 percent for one 6-min period/hr. If PM quarterly test is performed, 40 percent opacity allowed.**

Visible Emissions Limitations: Visible Emissions Limitation 2 of 3

1.	Visible Emissions Subtype: **VE60**
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: **60** % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **24** min/hour
4.	Method of Compliance: **FDEP Method 9 annual compliance test**
5.	Visible Emissions Comment (limit to 200 characters): **Allowable opacity basis: Rule 62-210.700(3). Max period of excess opacity allowed is limited to four 6-min periods during the 3-hr period of allowable excess emissions.**

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 3 of 3

1.	Visible Emissions Subtype: **VE99**
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **60** min/hour
4.	Method of Compliance: **Best operational practices**
5.	Visible Emissions Comment (limit to 200 characters): **Excess emissions for malfunctions allowed for a period not to exceed 2 hrs in every 24-hour period per 62-210.700(1).**

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 1 of 5

1. Parameter Code: VE	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: United Sciences, Inc. Model Number: 500C Serial Number: 0392167	
5. Installation Date: 15 Nov 1994	
6. Performance Specification Test Date: 29 Dec 1994	
7. Continuous Monitor Comment (limit to 200 characters): 1. 40CFR 75 (Acid Rain) requirement	

Continuous Monitoring System Continuous Monitor 2 of 5

1. Parameter Code: CO2	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Calf. Analytical Instruments Model Number: 3300A Serial Number: N3K4348T	
5. Installation Date: 15 Nov 1994	
6. Performance Specification Test Date: 07 Dec 1994	
7. Continuous Monitor Comment (limit to 200 characters): 1. 40CFR 75 (Acid Rain) Requirement	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 3 of 5

1. Parameter Code: EM	2. Pollutant(s): NOx
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Thermo Environmental Model Number: 42D Serial Number: 42D-48218-280	
5. Installation Date: 15 Nov 1994	
6. Performance Specification Test Date: 07 Dec 1994	
7. Continuous Monitor Comment (limit to 200 characters): 1. 40CFR 75 (Acid Rain) requirement	

Continuous Monitoring System Continuous Monitor 4 of 5

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: ITT Barton Floco Model Number: 382-0308-0004.A Serial Number: 5701	
5. Installation Date: 10 Apr 1995	
6. Performance Specification Test Date: 03 Feb 1995	
7. Continuous Monitor Comment (limit to 200 characters): 1. Fuel oil flow monitor. 2. 40CFR 75 (Acid Rain) requirement	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 5 of 5

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: **Rosemount** Model Number: **1151DP4E12B1** Serial Number: **1313563**	
5. Installation Date: **28 Feb 1991**	
6. Performance Specification Test Date: **23 Nov 1994**	
7. Continuous Monitor Comment (limit to 200 characters): **1. Natural gas flow monitor. 2. 40CFR 75 (Acid Rain) requirement.**	

Continuous Monitoring System Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] 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 the 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 the 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.

   [X] 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.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] 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 the source 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 the source 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 the emissions unit consumes increment.

[x] 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	[ ] E	[x] Unknown
	SO_2	[ ] C	[ ] E	[x] Unknown
	NO_2	[ ] C	[ ] E	[x] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			
	Baseline emissions not known.			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements for All Applications

1.	Process Flow Diagram	
	[X] Attached, Document ID: VB-EU3-L1	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[X] Attached, Document ID: VB-EU3-L2	
	[ ] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[X] Attached, Document ID: VB-EU3-L4	
	[ ] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[ ] Not Applicable
	[X] Previously Submitted, Date: 7 Jul 1995	
6.	Procedures for Startup and Shutdown	
	[X] Attached, Document ID: VB-EU3-L6	[ ] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[ ] Attached, Document ID: _____	[X] Not Applicable
9.	Other Information Required by Rule or Statute	
	[ ] Attached, Document ID: _____	[X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation

[X] Attached, Document ID: VB-EU3-L10 [ ] Not Applicable

11. Alternative Modes of Operation (Emissions Trading)

[ ] Attached, Document ID: _____ [X] Not Applicable

12. Identification of Additional Applicable Requirements

[X] Attached, Document ID: VB-EU3-L12 [ ] Not Applicable

13. Compliance Assurance Monitoring Plan

[ ] Attached, Document ID: _____ [X] Not Applicable

14. Acid Rain Permit Application (Hard Copy Required)

[X] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: VB-EU3-L14

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID: _____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID: _____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID: _____

[ ] Not Applicable

ATTACHMENT VB-EU3-D1

EMISSIONS UNIT REGULATIONS

ATTACHMENT VB-EU3-D1
Applicable Requirements Listing - Power Plants Acid Rain Units

EMISSION UNIT ID: Unit 3 - Vero Beach

FDEP Rules:

Air Pollution Control-General Provisions:

62-204.800(12) (State Only)	- Acid Rain Program
62-204.800(13) (State Only)	- Allowances
62-204.800(14) (State Only)	- Acid Rain Program Monitoring

Stationary Sources-General:

62-210.700(1)	- All EU; Malfunction only for FFGS
62-210.700(2)	- Existing FFSG; startup/shut down
62-210.700(3)	- Existing FFSG; sootblowing/load change
62-210.700(4)	- All EUs; maintenance
62-210.700(6)	- All EUs;

Acid Rain:

62-214.300	- All Acid Rain Units (Applicability)
62-214.320	- All Acid Rain Units (Application Shield)
62-214.330	- Compliance Options (if 214.430)
62-214.340	- Exemptions (new units, retired units)
62-214.350(2);(3);(6)	- All Acid Rain Units (Certification)
62-214.370	- All Acid Rain Units (Revisions; correction; potentially applicable if a need arises)
62-214.430	- All Acid Rain Units (Compliance Options-if required)

Stationary Sources-Emission Standards:

62-296.405(1)(a)	- FFSG; VE
62-296.405(1)(b)	- FFSG; PM
62-296.405(1)(c)1.j.	- FFSG; Oil-SO2 (general limit; see rule for others)
62-296.405(1)(e)	- FFSG; Test Methods
62-296.405(1)(f)1.a.(i)	- FFSG; Opacity CEMS exempted for oil/gas units
62-296.405(1)(f)1.b.	- FFSG; SO2 CEMS exempted for non-controlled units (oil/gas)

Stationary Sources-Emission Monitoring (where stack test is required):

62-297.310(1)	- All Units (Test Runs-Mass Emission)
62-297.310(2)(b)	- All Units (Operating Rate; other than CTs;no CT)
62-297.310(3)	- All Units (Calculation of Emission)
62-297.310(4)(a)1.	- All Units (Applicable Test Procedures;Sampling time)
62-297.310(4)(b)	- All Units (Sample Volume)
62-297.310(4)(c)	- All Units (Required Flow Rate Range-PM/H2SO4/F)
62-297.310(4)(d)	- All Units (Calibration)
62-297.310(4)(e)	- All Units (EPA Method 5-only)
62-297.310(5)	- All Units (Determination of Process Variables)
62-297.310(6)(a)	- All Units (Permanent Test Facilities-general)

62-297.310(6)(c) - All Units (Sampling Ports)
62-297.310(6)(d) - All Units (Work Platforms)
62-297.310(6)(e) - All Units (Access)
62-297.310(6)(f) - All Units (Electrical Power)
62-297.310(6)(g) - All Units (Equipment Support)
62-297.310(7)(a)2. - FFSG excess emissions
62-297.310(7)(a)3. - Permit Renewal Test Required
62-297.310(7)(a)4.b. - Annual Test
62-297.310(7)(a)5. - PM exemption if <400 hrs/yr
62-297.310(7)(a)9. - FDEP Notification - 15 days
62-297.310(7)(c) - Waiver of Compliance Tests (Fuel Sampling)
62-297.310(8) - Test Reports

Federal Rules:

Acid Rain-Permits:
40 CFR 72.9(a) - Permit Requirements
40 CFR 72.9(b) - Monitoring Requirements
40 CFR 72.9(c)(1)(i) - SO2 Allowances-hold allowances
40 CFR 72.9(c)(2) - SO2 Allowances-violation
40 CFR 72.9(c)(3)(iii) - SO2 Allowances-Phase II Units (listed)
40 CFR 72.9(c)(4) - SO2 Allowances-allowances held in ATS
40 CFR 72.9(c)(5) - SO2 Allowances-no deduction for 72.9(c)(1)(i)
40 CFR 72.9(e) - Excess Emission Requirements
40 CFR 72.9(f) - Recordkeeping and Reporting
40 CFR 72.9(g) - Liability
40 CFR 72.20(a) - Designated Representative; required
40 CFR 72.20(b) - Designated Representative; legally binding
40 CFR 72.20(c) - Designated Representative; certification requirements
40 CFR 72.21 - Submissions
40 CFR 72.22 - Alternate Designated Representative
40 CFR 72.23 - Changing representatives; owners
40 CFR 72.30(a) - Requirements to Apply (operate)
40 CFR 72.30(c) - Requirements to Apply (reapply before expiration)
40 CFR 72.30(d) - Requirements to Apply (submittal requirements)
40 CFR 72.32 - Permit Application Shield
40 CFR 72.40(a) - General; compliance plan
40 CFR 72.40(b) - General; multi-unit compliance options
40 CFR 72.40(c) - General; conditional approval
40 CFR 72.40(d) - General; termination of compliance options
40 CFR 72.51 - Permit Shield
40 CFR 72.90 - Annual Compliance Certification

Monitoring Part 75:
40 CFR 75.5 - Prohibitions
40 CFR 75.10(a)(1) - Primary Measurement; SO2; except 75.11&.16; Subpart D
40 CFR 75.10(a)(2) - Primary Measurement; NOx; except 75.12&.17; Subpart E
40 CFR 75.10(a)(3)(ii) - Primary Measurement; CO2; Appendix G

40 CFR 75.10(a)(4)	- Primary Measurement; Opacity; except 75.14&.18
40 CFR 75.10(b)	- Primary Measurement; Performance Requirements
40 CFR 75.10(c)	- Primary Measurement; Heat Input; Appendix F
40 CFR 75.10(d)(2)	- Primary Measurement; Hourly Operating ; Opacity; SO2
40 CFR 75.10(f)	- Primary Measurement; Minimum Measurement
40 CFR 75.10(g)	- Primary Measurement; Minimum Recording
40 CFR 75.11(d)(2)	- SO2 Monitoring; Gas- and Oil-fired units
40 CFR 75.11(e)	- SO2 Monitoring; Gaseous firing
40 CFR 75.12(a)	- NOx Monitoring; Coal; Non-peaking oil/gas units
40 CFR 75.12(b)	- NOx Monitoring; Determination of NOx emission rate; Appendix F
40 CFR 75.13(b)	- CO2 Monitoring; Appendix G
40 CFR 75.14(a)	- Opacity Monitoring; Coal and oil units
40 CFR 75.20(a)(5)	- Initial Certification Approval Process; Loss of Certification
40 CFR 75.20(b)	- Recertification Procedures (if recertification necessary)
40 CFR 75.20(c)	- Certification Procedures (if recertification necessary)
40 CFR 75.20(g)	- Exceptions to CEMS; oil/gas/diesel; Appendix D & E
40 CFR 75.21(a)	- QA/QC; CEMS
40 CFR 75.21(b)	- QA/QC; Opacity; Part 51 Appendix M
40 CFR 75.21(c)	- QA/QC; Calibration Gases
40 CFR 75.21(d)	- QA/QC; Notification of RATA
40 CFR 75.21(e)	- QA/QC; Audits
40 CFR 75.21(f)	- QA/QC; CEMS
40 CFR 75.22	- Reference Methods
40 CFR 75.24	- Out-of-Control Periods; CEMS
40 CFR 75.30(a)(1)	- General Missing Data Procedures; SO2
40 CFR 75.30(a)(2)	- General Missing Data Procedures; flow
40 CFR 75.30(a)(3)	- General Missing Data Procedures; NOx
40 CFR 75.30(a)(4)	- General Missing Data Procedures; SO2
40 CFR 75.30(d)	- General Missing Data Procedures; SO2
40 CFR 75.32	- Monitoring Data Availability for Missing Data
40 CFR 75.33	- Standard Missing Data Procedures
40 CFR 75.35	- Missing Data for SO2
40 CFR 75.36	- Missing Data for Heat Input
40 CFR 75.53	- Monitoring Plan ; revisions
40 CFR 75.54(a)	- Recordkeeping-general
40 CFR 75.54(b)	- Recordkeeping-operating parameter
40 CFR 75.54(c)	- Recordkeeping-SO2
40 CFR 75.54(d)	- Recordkeeping-NOx
40 CFR 75.54(e)	- Recordkeeping-CO2
40 CFR 75.54(f)	- Recordkeeping-Opacity
40 CFR 75.56	- Certification; QA/QC Provisions
40 CFR 75.55	- General Recordkeeping (Specific Situations)
40 CFR 75.60	- Reporting Requirements-General
40 CFR 75.61	- Reporting Requirements-Notification cert/recertification
40 CFR 75.62	- Reporting Requirements-Monitoring Plan
40 CFR 75.63	- Reporting Requirements-Certification/Recertification
40 CFR 75.64(a)	- Reporting Requirements-Quarterly reports; submission
40 CFR 75.64(b)	- Reporting Requirements-Quarterly reports; DR statement

40 CFR 75.64(c)	- Rep. Req.; Quarterly reports; Compliance Certification
40 CFR 75.64(d)	- Rep. Req.; Quarterly reports; Electronic format
40 CFR 75.65	- Opacity Reports
Appendix A	- Specfications and Test Procedures
Appendix B	- QA/QC Procedures
Appendix C	- Missing Data
Appendix D	- Optional SO2; Oil-/gas-fired units
Appendix F	- Conversion Procedures
Appendix G	- Determination of CO2 Emissions
Appendix H	- Traceability Protocol

Acid Rain Program-Excess Emissions (these are future requirements that may overlap with the term of the Title V permit):

40 CFR 77.3	- Offset Plans (future)
40 CFR 77.5(b)	- Deductions of Allowances (future)
40 CFR 77.6	- Excess Emissions Penalties (SO2 and NOx;future)

ATTACHMENT VB-EU3-H8

CALCULATION OF EMISSIONS

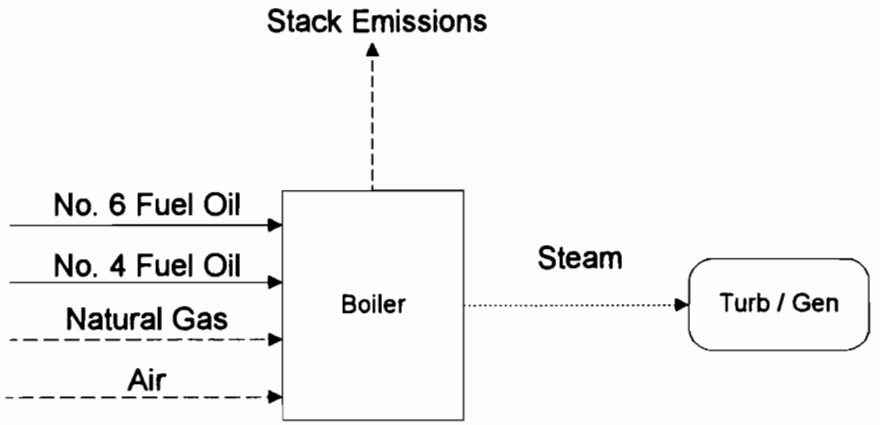
Table 1. Maximum Estimated Emissions for Emissions Limited Pollutants for Vero Beach Unit 3

VBUNIT3
03/17/96

Pollutant	Fuel Oil Residual Oil
Hours of Operation	8,760
Sulfur Dioxide (lb/hr) (Oil) = EF (lb/MMBtu) x Heat Input Rate (MMBtu/hr)	
Basis	Permit
EF (lb/MMBtu)	2.75
HIR (MMBtu/hr)	410.0
Sulfur content (gr/100 cf)	NA
Fuel consumptiom (100 cf/hr)	NA
Emission rate (lb/hr)	1127.5
(TPY)	4,938
Particulate Matter (lb/hr) (Oil)= EF (lb/MMBtu) x Heat Input Rate (MMBtu/hr)	
Basis	State Regulation
EF (lb/MMBtu) - normal operation	0.1
- soot blowing	0.3
HIR (MMBtu/hr)	410.0
Normal Operations	
EF (lb/MMBtu)	0.1
HIR (MMBtu/hr)	410.0
Emission rate (lb/hr)	41.0
(TPY)	179.6
Soot blowing	
EF (lb/MMBtu)	0.3
HIR (MMBtu/hr)	410.0
Hours of operation	1,095
Emission rate (lb/hr)	123.0
(TPY)	67.3
Annual (Normal/ Sootblowing)	
Hours of operation- normal operation	7,665
-sootblowing	1,095
Emission rate (lb/hr)- normal operation	41.0
-sootblowing	123.0
(TPY)	224.5

ATTACHMENT VB-EU3-L1

PROCESS FLOW DIAGRAM



Attachment VB-EU2-L1 City of Vero Beach Municipal Power Plant Facility Process Flow Diagram Vero Beach, Florida	Process Flow Legend: Solid / Liquid Gas Steam	Emission Unit: Boiler No. 3 Process Area: *Filename:* VBEU2L1.VSD *Latest Revision Date:* 6/4/96	KBN Engineering and Applied Sciences, Inc.

ATTACHMENT VB-EU3-L2

FUEL ANALYSIS OR SPECIFICATION

ATTACHMENT VB-EU3-L2

FUEL ANALYSIS OR SPECIFICATION

Fuel	Density (lb/gal)[a]	Moisture (%)	Maximum % Weight Content			Heat Capacity
			Sulfur	Nitrogen	Ash	
Natural Gas	0.045[b]	—	1[c]	0.43[d]	—	23,100 BTU/lb 1,030 Btu/ft^3
No. 4 Fuel Oil	7.6	0.05	0.7	0.18	<0.01	19,000 BTU/lb 144,000 Btu/gal
No. 6 Fuel Oil	8.15	0.20	1.5	0.32	0.05	18,400 BTU/lb 150,000 BTU/gal

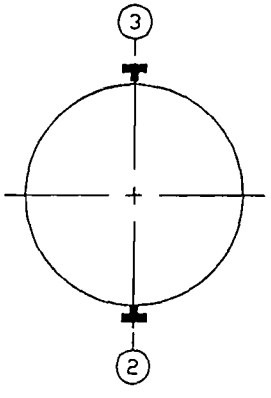
[a] At 60 degrees F.
[b] Represented as lb/ft^3. Based on heat capacities presented.
[c] Represented as grains/100 ft^3.
[d] Atmospheric nitrogen.

ATTACHMENT VB-EU3-L4

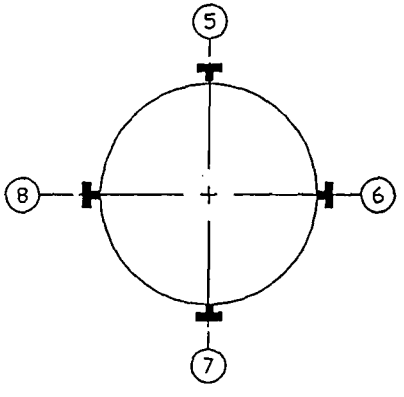
DESCRIPTION OF STACK SAMPLING FACILITIES

VERO BEACH MUNICIPAL, UNIT 3
ORIS: 000693
NADB BOILER ID: 3

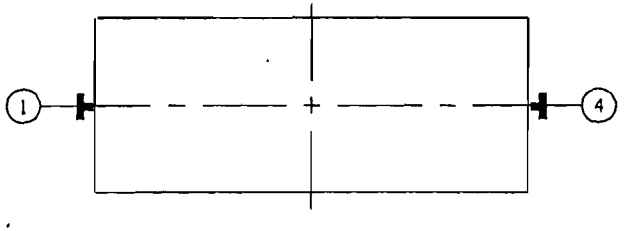
PORT NO.	PORT DESCRIPTION	FLANGE SIZE	REF ELEV	NEW OR EXISTING	EQUIV. DUCT DIA
1	CEM SAMPLE	4"	153'-10 7/8"	N	3
2	OPACITY	5"	176'-9"	E	2
3	OPACITY	5"	176'-9"	E	2
4	TEST	4"	153'-8 7/8"	E	3
5	TEST	4"	213'-0"	E	6
6	TEST	4"	213'-0"	E	6
7	TEST	4"	213'-0"	E	6
8	TEST	4"	213'-0"	E	6



PLAN AT PLATFORM
EL. 173' - 0"

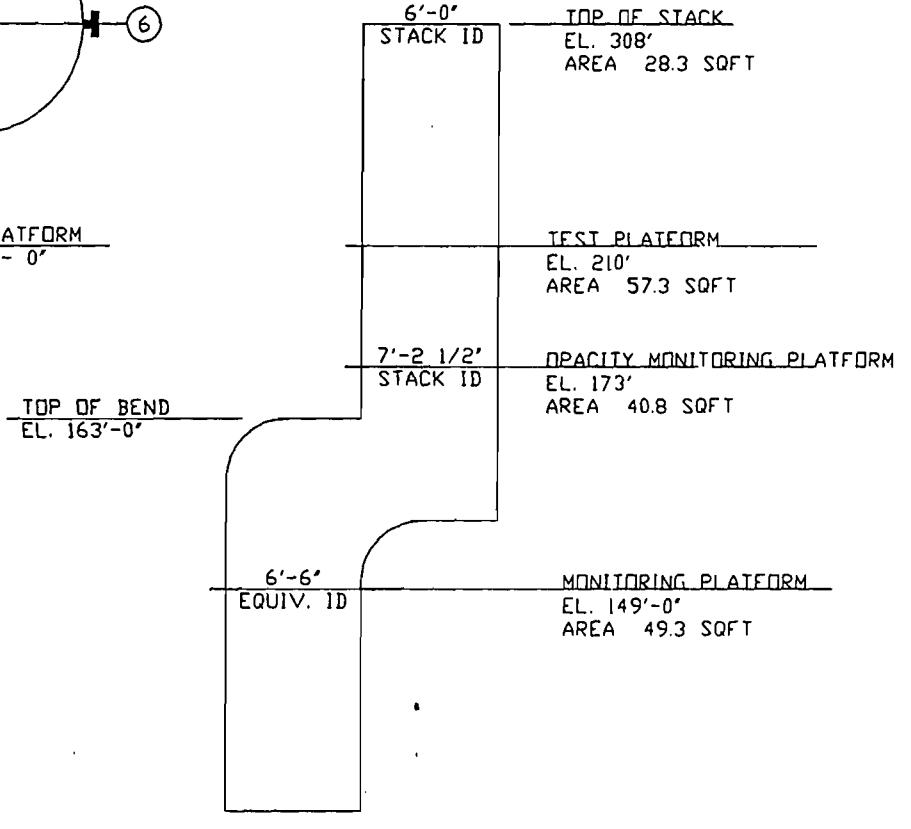


PLAN AT PLATFORM
EL. 210' - 0"



PLAN AT PLATFORM
EL. 149'-0"

NORTH



ATTACHMENT VB-EU3-L6

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT VB-EU3-L6

PROCEDURES FOR STARTUP AND SHUTDOWN MINIMIZING EXCESS EMISSIONS

Startup of the fossil-fuel boilers begins when fuel (either natural gas or oil) is introduced into one or more burners within the boiler and lighted (commencement of combustion). Startup is complete and steady-state operation begins when the combustion process has stabilized and the megawatt load on the unit is stable.

Shutdown of the fossil-fuel boilers begins when unit megawatt load is decreased and continues until the final burner gun is removed from service and the final Induced-draft or Forced-draft fan is removed from service.

Excess emissions may be detected during all modes of boiler operation by any one of several continuous emissions monitors. Continuous monitors are currently in place for NO_x and opacity. An audible and visual alarm are activated whenever permitted values for any of the above parameters are approached.

Countermeasures which may be taken in the event of excess emissions include, but are not limited to:

- proper excess air adjustments
- recognizing and removal of faulty burners
- fuel oil temperature adjustments
- proper and timely operation of boiler cleaning devices
- removal of the unit from system-dispatch mode
- reduction of unit megawatt load
- stopping and restarting of boiler cleaning devices
- lowering load rate
- pressure rate changes

Knowledge of the appropriate countermeasures to take under an excess emissions condition is a part of the routine operator training for the engineers who operate the boilers. In addition, plant operations and supervisory staff are periodically given training. Topics include current permit

limits, maximum allowable duration of excess emissions, appropriate countermeasures for excess emissions, duty to notify, etc.

ATTACHMENT VB-EU3-L10

ALTERNATIVE METHODS OF OPERATION

ATTACHMENT VB-EU3-L10
ALTERNATE METHODS OF OPERATION
Fossil Fuel Steam Generator Unit 3

Unit 3 is permitted to burn either natural gas or No. 6 fuel oil. Unit 3 can co-fire natural gas and fuel oil. The unit may operate continuously (i.e., 8,760 hours per year) on either fuel type. Natural gas and propane are used as ignitor fuel for initial startup of this unit. Low sulfur No. 4 fuel oil may be used in place of No. 6 fuel oil.

ATTACHMENT VB-EU3-L12

IDENTIFICATION OF ADDITIONAL APPLICABLE REQUIREMENTS

ADDITIONAL APPLICABLE REQUIREMENTS

Applicable Requirements as defined in Rule 62-210.200(29) not identified in Section D of this emission unit section are included in this attachment of the application. Any air operation permit issued by the Department (or local program designee) and included in this attachment is provided for information purposes. The specific conditions of the operating permit are not Applicable Requirements as defined in Rule 62-210.200(29).

Florida Department of
Environmental Protection

Lawton Chiles
Governor

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Virginia B. Wetherell
Secretary

Permittee:
City of Vero Beach
P. O. Box 1389
Vero Beach, FL 32961-1389

Attention: Tom Nason, City Manager

Permit Number: AO31-224290
Date of Issue:
Expiration Date: February 25, 1998
County: Indian River
Latitude/Longitude:
27°37'52"N/80°22'33"W
UTM: 17-561.4 KmE; 3056.5 KmN
Project: Municipal Power Plant
Unit No. 3

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) Chapter 17. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

The permittee may operate fossil fuel steam generator unit no. 3 equipped with low excess air burners.

This source is located at the Municipal Power Plant at 17th Street and Indian River Boulevard in Vero Beach, Indian River County, Florida.

General Conditions are attached to be distributed to the permittee only.

PERMITTEE:
City of Vero Beach

Attention: Tom Nason, City Manager

Permit Number: AO31-224290
Expiration Date: February 25, 1998

SPECIFIC CONDITIONS:

OPERATING CONDITIONS

1. Heat input Rate:

   The maximum permitted heat input rate for this source is 410 MMBtu/hr for residual oil or 417 MMBtu/hr for natural gas.

2. Permitted Fuels:

   This source shall be fired with residual oil or natural gas only.

3. Operating Hours:

   This source is permitted to operate continuously.

4. Source Emission Limiting Standards and Compliance Testing Requirements:

POLLUTANT	EMISSION (1) LIMITING STDS.	TESTING FREQUENCY (2) ANNUAL	QUARTERLY	OTHER	TEST (3) METHOD
Particulate Matter					
Steady State	0.1 lb/MMBtu	X(4)	X(4)	-	EPA METHOD 5 OR 17 (5)
Sootblowing or Load Changing	0.3 lb/MMBtu (6)	X	-	-	EPA METHOD 5 OR 17 (5)
Sulfur Dioxide	2.75 lb/MMBtu	-	-	X	Monthly Fuel Analysis (8)
Visible Emissions					
Steady State	40% Opacity	X(4)	-	-	DER Method 9
Sootblowing or Load Changing	60% Opacity for up up to 3 hrs in 24 hrs	X(6)	-	-	DER Method 9

SPECIFIC CONDITIONS:
(Continued)

Footnotes:

(1) FAC 17-210.700(3) and FAC 17-296.405(1)
(2) FAC 17-297.340
(3) FAC 17-297.330
(4) The source may elect to test particulates (steady-state) quarterly and to test visible emissions annually with a 40% opacity limit, or to test particulates (steady-state) and visible emissions annually with a 20% opacity limit. Annual Testing shall be conducted on or within 60 days before the date of August 1. If a quarterly schedule is selected, the source shall advise this office in writing of the quarterly test date schedule. For good cause, the permittee may request, and the Department may grant, an extension of a compliance test due date. The source should be tested during the early part of the 60 day period to avoid missing the test due date. Inadequate planning of testing does not constitute good cause for an extension of the compliance test due date.
(5) EPA Method 17 may be used only if the stack gas exit temperature is less than 375°F.
(6) FAC 17-210.700(3) allows up to 3 hours in a 24-hour period of excess emissions during sootblowing and loading changing operations. Excess emissions are authorized only if best operational practices to minimize emissions are adhered to, and the duration of excess emissions is minimized.
(7) An annual compliance test for particulate matter shall not be required if the source, in a federal fiscal year, did not burn fuel oil, other than during startup, for a total of more than 400 hours (Rule 17-297.340(e), F.A.C.).
(8) A monthly fuel oil analysis should be submitted only for the months in which oil has been fired in the unit. The Department must be advised quarterly of those months in which no oil is fired.

5. Compliance Testing Related Requirements:

(a) Notification - FAC 17-297.340(1)(i)

The Air Resources compliance section of this office shall be notified in writing at least fifteen (15) days in advance of the compliance tests (Rule 17-297.340(1)(i), F.A.C.).

(b) Conditions

Compliance testing shall be conducted while the source is firing No. 6 residual fuel oil at 90 to 100% of the maximum permitted heat input rate. Particulate and visible emissions tests shall be conducted under both sootblowing and non-sootblowing conditions and shall have at least

SPECIFIC CONDITIONS:
(Continued)

eight hours of fuel oil burning without sootblowing immediately before the test. However, the source can be tested using 100% natural gas, if in a federal fiscal year, fuel oil was not burned, other than during startup, for a total of more than 400 hours.

Testing may be conducted while firing No. 6 residual fuel oil at less than 90 percent of the maximum permitted rate, however, if so, subsequent source operation is limited to the average No. 6 residual fuel oil firing rate during the test. Once the unit is so limited, then operation at a higher No. 6 residual fuel oil firing rate is allowed only on the days to conduct additional compliance testing to regain the higher rates, not to exceed the maximum permitted rate, with prior notification to the Department. All required compliance tests shall be conducted concurrently. Operating at conditions during testing which do not reflect normal operating conditions may invalidate a test.

(c) Stack Sampling Facility - FAC 17-297.345

The stack sampling facility must comply with Rule 17-297.345, FAC.

(d) Report Submittal - FAC 17-297.570, FAC

A copy of the test results shall be submitted to the Department's Central District Office within 45 days after the last test run is completed. The test report shall provide the actual heat input rate. Each test report shall also include a fuel oil analysis from a representative sample of the fuel oil burned during the test and a calculation of the sulfur dioxide emission rate in pounds per MMBtu heat input and pounds per hour. Failure to submit any of the above information may invalidate the test.

6. Annual Operations Report (AOR):

On or before March 1 of each calendar year, a completed DEP Form 17-210.900(4), Annual Operation Report Form for Air Emissions Sources, based on data for the preceding calendar year, shall be submitted to the Department's Central District Office. The report shall provide sufficient detail to allow the Department to determine whether the emissions were properly computed.

7. Excess Emissions

(a) Events - Rule 17-210.700, FAC

Excess emissions resulting from start-up or shut-down are permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions is minimized.

SPECIFIC CONDITIONS:
(Continued)

Excess emissions resulting from malfunction are permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions is minimized but in no case exceeds two hours in any 24-hour period unless specifically authorized by the Department for longer duration. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction are prohibited.

(b) Notification - Rules 17.210.700(6) and 17-4.130, FAC

In the event the permittee is temporarily unable to comply with any of the conditions of the permit, the permittee shall immediately notify this office. Notification shall be conducted within 24 hours and be in accordance with General Condition (8) of this permit. In case of excess emissions resulting from malfunctions, a full written report on the malfunctions shall also be submitted in a quarterly report.

8. Objectional Odors - Rule 17-296.320(2), FAC

Objectional Odor Prohibited - No person shall cause, suffer, allow or permit the discharge air pollutants which cause or contribute to an objectionable odor.

9. Other Requirements - Rule 17-210.300, FAC

Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Rule 17-296 or 17-297, or any other requirements under federal, state, or local law. Future regulations may impact this facility. The permittee shall comply with any applicable future regulations when they become effective.

10. Operation Permit Renewal - Rules 17-4.050(2) and 17-4.090(1), FAC

An operation permit renewal must be submitted at least sixty days prior to the expiration date of this permit (Rule 17-4.090, FAC.).

PERMITTEE:
City of Vero Beach

Attention: Tom Nason, City Manager

Permit Number: AO31-224290
Expiration Date: February 25, 1998

SPECIFIC CONDITIONS:
(Continued)

ISSUED 11-2-93

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

cmc

A. Alexander, P.E.
District Director
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803

ATTACHMENT VB-EU3-L14

ACID RAIN PERMIT APPLICATION

Phase II Permit Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31 and Chapter 62-214, F.A.C.

This submission is: ☒ **New** ☐ **Revised**

STEP 1
Identify the source by plant name, State, and ORIS code from NADB

Plant Name ***City of Vero Beach Municipal Power Plant*** State ***FL*** ORIS Code ***693***

STEP 2
Enter the boiler ID# from NADB for each affected unit, and indicate whether a repowering plan is being submitted for the unit by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e

	Compliance Plan			
a	b	c	d	e
Boiler ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	Repowering Plan	New Units Commence Operation Date	New Units Monitor Certification Deadline
3	Yes	***No***		
4	Yes	***No***		
*****5***	Yes	***No***	***12/92***	***1/1/96***
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			

STEP 3
Check the box if the response in column c of Step 2 is "Yes" for any unit

☐ For each unit that will be repowered, the Repowering Extension Plan form is included and the Repowering Technology Petition form has been submitted or will be submitted by June 1, 1997.

Plant Name (from Step 1)
City of Vero Beach Municipal Power Plant

STEP 4
Read the standard requirements and certification, enter the name of the designated representative, and sign and date

Standard Requirements

Permit Requirements.

(1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
(i) Submit a complete Acid Rain part application (including a compliance plan) under 40 CFR part 72, Rules 62-214.320 and 330, F.A.C. in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain part application and issue or deny an Acid Rain permit;
(2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
(i) Operate the unit in compliance with a complete Acid Rain part application or a superseding Acid Rain part issued by the permitting authority; and
(ii) Have an Acid Rain Part.

Monitoring Requirements.

(1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75, and Rule 62-214.420, F.A.C.
(2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements.

(1) The owners and operators of each source and each Acid Rain unit at the source shall:
(i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
(3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
(i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
(ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1)(i) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

(1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
(2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
(i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
(ii) All emissions monitoring information, in accordance with 40 CFR part 75;
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

Plant Name (from Step 1)
City of Vero Beach Municipal Power Plant

Recordkeeping and Reporting Requirements (cont.)

(iv) Copies of all documents used to complete an Acid Rain part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability.

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
(5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
(7) Each violation of a provision of 40 CFR parts 72, 73, 75, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a unit can hold; *provided,* that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Certification

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name *Shuler W. Massey, Director of Power Resources*	
Signature Shuler W. Massey	Date 12-27-95

STEP 5 (optional)
Enter the source AIRS and FINDS identification numbers, if known

AIRS *0610029*
FINDS

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

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

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.

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

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Fossil Fuel Steam Generator Unit No.4**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown **004**		
3. Emissions Unit Status Code: **A**	4. Acid Rain Unit? [**X**] Yes [ ] No	5. Emissions Unit Major Group SIC Code: **49**
6. Emissions Unit Comment (limit to 500 characters):		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

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

Emissions Unit Details

1. Initial Startup Date:	1 Jun 1976
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer:	Model Number:
4. Generator Nameplate Rating:	56 MW
5. Incinerator Information:	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:		685	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr		tons/day
3. Maximum Process or Throughput Rate:			
4. Maximum Production Rate:			
5. Operating Capacity Comment (limit to 200 characters):			

Emissions Unit Operating Schedule

1. Requested Maximum Operating Schedule:

24	hours/day	7	days/week
52	weeks/yr	8,760	hours/yr

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment VB-EU4-D1

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: EU-4 (Att. VB-FE-2)	
2. Emission Point Type Code: [x] 1 [ ] 2 [ ] 3 [ ] 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [x] V [ ] W	
6. Stack Height:	200 feet
7. Exit Diameter:	7 feet
8. Exit Temperature:	283 °F

9. Actual Volumetric Flow Rate:	**179,475** acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: East (km): North (km):	
14. Emission Point Comment (limit to 200 characters): **Temperature and flow rate presented indicative of natural gas firing. For fuel oil, temperature and flow rate are 306 °F and 184,531 acfm, respectively.**	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):

External Combustion Boilers, Electric Generation, Natural Gas, Boilers > 100 MMBtu/hr

2. Source Classification Code (SCC):

1-01-006-01

3. SCC Units:

Million Cubic Feet Burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
0.665	**5,825**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:

9. Million Btu per SCC Unit:

1,030

10. Segment Comment (limit to 200 characters):

High Heating Value (HHV) reported for heat content. Max. sulfur content: 1 grain/100 cubic ft. Propane also used as ignitor fuel when gas not available.

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **External Combustion Boilers, Electric Generation, Residual oil, Grade 6 oil; Normal firing, Cofiring with gas**
2. Source Classification Code (SCC): **1-01-004-01**
3. SCC Units: **1000 gallons burned**

4. Maximum Hourly Rate: **1.461**	5. Maximum Annual Rate: **12,801**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **2.5**	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: **150**	

10. Segment Comment (limit to 200 characters): **No.6 Fuel oil to be fired in combination with natural gas at a rate not to exceed 32 percent of the total heat input. High Heating Value (HHV) reported for heat content.**

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 3 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):

   External Combustion Boilers, Electric Generation, Grade 4 oil; Normal Firing

2. Source Classification Code (SCC):

   1-01-005-04

3. SCC Units:

   1000 gallons burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
4.757	**41,671**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
0.7	

9. Million Btu per SCC Unit:

   144

10. Segment Comment (limit to 200 characters):

    No. 4 fuel oil permitted for use as a backup fuel to natural gas. High Heating Value (HHV) reported for heat content.

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			NS
NOx			EL
PM			EL
PM10			NS
SO2			EL
VOC			NS
H106			NS
HAPS			NS

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

Pollutant Detail Information:

1. Pollutant Emitted: **NOx**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **205.5** lb/hour **900.1** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.3 lb/MMBtu** Reference: **40CFR 60, Subpart D**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU4-H8**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Maximum emissions representative of No.4 fuel oil firing.**

Emissions Unit Information Section 4 of 6
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **RULE**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.3 lb/MMBtu**	
4. Equivalent Allowable Emissions: **205.5** lb/hour	**900.1** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 7, 7A, 7C, 7D, or 7E annual stack test**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **40 CFR 60 Subpart D NOX limit for liquid fossil fuel firing. Allowable emissions based on No. 4 fuel oil firing for 100 percent of heat input.**	

B.

1. Basis for Allowable Emissions Code: **RULE**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.2 lb/MMBtu**	
4. Equivalent Allowable Emissions: **137** lb/hour	**600.1** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 7, 7A, 7C, 7D, or 7E annual stack test**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. 40 CFR 60 Subpart D NOX limit for gaseous fossil fuel firing. Allowable emissions based on natural gas firing for 100 percent of heat input.**	

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

Pollutant Detail Information:

1. Pollutant Emitted: **PM**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **205.5** lb/hour **375** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.125 lb/MMBtu** Reference: **State Regulation**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU4E-H8**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Max emissions for No.4 fuel oil firing. Equiv avg emission factor based on allowable emission rates of 0.1 lb/mmBtu -- 21 hr/day and 0.3 lb/mmBtu -- 3 hr/day (sootblowing)**

Emissions Unit Information Section 4 of 6
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **Rule**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.1 lb/mmBtu**	
4. Equivalent Allowable Emissions: **68.5** lb/hour	**300** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 5 or 17 annual stack test**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. 40 CFR 60, Subpart D; Rule 62-296.405(1)(b) 2. Applicable to normal, steady state operating conditions**	

B.

1. Basis for Allowable Emissions Code: **Rule**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.3 lb/mmBtu**	
4. Equivalent Allowable Emissions: **205.5** lb/hour	**112.5** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 5 or 17 annual stack test**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. Rule 62-210.700(3) 2. Applicable to sootblowing or load changing conditions. 3. Annual emissions based on a maximum 3 hr/day sootblowing or load changing.**	

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

Pollutant Detail Information:

1. Pollutant Emitted: **SO2**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **548** lb/hour **2,400** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.8 lb/mmBtu** Reference: **40CFR 60, Subpart D**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU4-H8**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **1. Maximum emissions representative of combined fuel firing, or No.4 fuel oil firing.**

Emissions Unit Information Section 4 of 6

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **RULE**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.8 lb/mmBtu**	
4. Equivalent Allowable Emissions: **548** lb/hour	**2,400** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 6 ann. stack test-oil, fuel anal. <400 hr/yr oil**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **40 CFR 60 Subpart D. Allowable emisisons based on a maximum heat input rate of 685 MMBtu/hr.**	

B.

1. Basis for Allowable Emissions Code:	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	
4. Equivalent Allowable Emissions: lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 3

1.	Visible Emissions Subtype: **VE20**
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: **20.** % Exceptional Conditions: **27.** % Maximum Period of Excess Opacity Allowed: **6** min/hour
4.	Method of Compliance: **FDEP Method 9 annual compliance test**
5.	Visible Emissions Comment (limit to 200 characters): **1. Allowable opacity basis: 40CFR 60, Subpart D.**

Visible Emissions Limitations: Visible Emissions Limitation 2 of 3

1.	Visible Emissions Subtype: **VE60**
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: **60.** % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **24** min/hour
4.	Method of Compliance: **FDEP Method 9 annual compliance test**
5.	Visible Emissions Comment (limit to 200 characters): **Allowable opacity basis: Rule 62-210.700(3). Max period of excess opacity allowed is limited to four 6-min periods during the 3-hr period of allowable excess emissions.**

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 3 of 3

1.	Visible Emissions Subtype: **VE99**
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **60** min/hour
4.	Method of Compliance: **Best operational practices**
5.	Visible Emissions Comment (limit to 200 characters): **1. Allowable opacity basis: Excess emissions allowed for a period not to exceed 2 hours in every 24-hour period per 62-210.700(1).**

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 1 of 6

1. Parameter Code: VE	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: United Sciences Model Number: 500C Serial Number: 0392166	
5. Installation Date: 15 Nov 1994	
6. Performance Specification Test Date: 29 Dec 1994	
7. Continuous Monitor Comment (limit to 200 characters): 1. Part 75 (Acid Rain) requirement. 2. 40 CFR 60 (NSPS) Subpart D requirement.	

Continuous Monitoring System Continuous Monitor 2 of 6

1. Parameter Code: CO2	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Calif. Analytical Instruments Model Number: 3300A Serial Number: N3K4309T	
5. Installation Date: 15 Nov 1994	
6. Performance Specification Test Date: 08 Dec 1994	
7. Continuous Monitor Comment (limit to 200 characters): 1. Part 75 (Acid Rain) requirement. 2. 40 CFR 60 (NSPS) Subpart D requirement.	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 3 of 6

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: **ITT Barton** Model Number: **382-0308-0004.A** Serial Number: **5702**	
5. Installation Date: **15 Feb 1995**	
6. Performance Specification Test Date: **08 Feb 1994**	
7. Continuous Monitor Comment (limit to 200 characters): **Parameter Code: Fuel Oil Flow. Part 75 (Acid Rain) requirement**	

Continuous Monitoring System Continuous Monitor 4 of 6

1. Parameter Code: **EM**	2. Pollutant(s): **NOX**
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: **Advanced Pollution Instrum.** Model Number: **250** Serial Number: **035**	
5. Installation Date: **15 Nov 1994**	
6. Performance Specification Test Date: **08 Dec 1994**	
7. Continuous Monitor Comment (limit to 200 characters): **1. Part 75 (Acid Rain) requirement. 2. 40 CFR 60 (NSPS) Subpart D requirement.**	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 5 of 6

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: **Rosemount DP Transmitter** Model Number: **1151DP4E12B1** Serial Number: **1407910**	
5. Installation Date: **15 Dec 1991**	
6. Performance Specification Test Date: **17 Nov 1994**	
7. Continuous Monitor Comment (limit to 200 characters): **Parameter Code: Fuel Gas Flow. Part 75 (Acid Rain) requirement**	

Continuous Monitoring System Continuous Monitor 6 of 6

1. Parameter Code: **EM**	2. Pollutant(s): **SO2**
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: **Advanced Pollution Instrum.** Model Number: **150** Serial Number: **127**	
5. Installation Date: **15 Nov 1994**	
6. Performance Specification Test Date: **08 Dec 1994**	
7. Continuous Monitor Comment (limit to 200 characters): **40 CFR 60 (NSPS), Subpart D requirement.**	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] 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 the 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 the 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.

   [x] 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.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] 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 the source 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 the source 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 the emissions unit consumes increment.

[x] 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	[ ] E	[x] Unknown
	SO_2	[ ] C	[ ] E	[x] Unknown
	NO_2	[ ] C	[ ] E	[x] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			
	Baseline emissions not known.			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements for All Applications

1.	Process Flow Diagram	
	[X] Attached, Document ID: VB-EU4-L1	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[X] Attached, Document ID: VB-EU4-L2	
	[ ] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[X] Attached, Document ID: VB-EU4-L4	
	[ ] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[ ] Not Applicable
	[X] Previously Submitted, Date: 20 Jul 1995	
6.	Procedures for Startup and Shutdown	
	[X] Attached, Document ID: VB-EU4-L6	[ ] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[ ] Attached, Document ID: _____	[X] Not Applicable
9.	Other Information Required by Rule or Statute	
	[ ] Attached, Document ID: _____	[X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation

[x] Attached, Document ID: VB-EU4-L10 [ ] Not Applicable

11. Alternative Modes of Operation (Emissions Trading)

[ ] Attached, Document ID: _____ [x] Not Applicable

12. Identification of Additional Applicable Requirements

[x] Attached, Document ID: VB-EU4-L12 [ ] Not Applicable

13. Compliance Assurance Monitoring Plan

[ ] Attached, Document ID: _____ [x] Not Applicable

14. Acid Rain Permit Application (Hard Copy Required)

[x] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: VB-EU3-L14

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID: _____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID: _____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID: _____

[ ] Not Applicable

ATTACHMENT VB-EU4-D1

EMISSIONS UNIT REGULATIONS

ATTACHMENT VB-EU4-D1
Applicable Requirements Listing - Power Plants Acid Rain Units

EMISSION UNIT ID: Unit 4 - Vero Beach

FDEP Rules:

Air Pollution Control-General Provisions:

62-204.800(7)(b)1. (State Only)	- NSPS Subpart D
62-204.800(7)(d)(State Only)	- NSPS General Provisions
62-204.800(12) (State Only)	- Acid Rain Program
62-204.800(13) (State Only)	- Allowances
62-204.800(14) (State Only)	- Acid Rain Program Monitoring

Stationary Sources-General:

62-210.700(1)	- All EU; Malfunction/Startup/Shutdown
62-210.700(4)	- All EUs; maintenance
62-210.700(6)	- All EUs;

Acid Rain:

62-214.300	- All Acid Rain Units (Applicability)
62-214.320	- All Acid Rain Units (Application Shield)
62-214.330	- Compliance Options (if 214.430)
62-214.340	- Exemptions (new units, retired units)
62-214.350(2);(3);(6)	- All Acid Rain Units (Certification)
62-214.370	- All Acid Rain Units (Revisions; correction; potentially applicable if a need arises)
62-214.430	- All Acid Rain Units (Compliance Options-if required)

Stationary Sources-Emission Standards:

62-296.405(2)	- New Sources

Stationary Sources-Emission Monitoring (where stack test is required):

62-297.310(1)	- All Units (Test Runs-Mass Emission)
62-297.310(2)(b)	- All Units (Operating Rate; other than CTs;no CT)
62-297.310(3)	- All Units (Calculation of Emission)
62-297.310(4)(a)1.	- All Units (Applicable Test Procedures;Sampling time)
62-297.310(4)(b)	- All Units (Sample Volume)
62-297.310(4)(c)	- All Units (Required Flow Rate Range-PM/H2SO4/F)
62-297.310(4)(d)	- All Units (Calibration)
62-297.310(4)(e)	- All Units (EPA Method 5-only)
62-297.310(5)	- All Units (Determination of Process Variables)
62-297.310(6)(a)	- All Units (Permanent Test Facilities-general)
62-297.310(6)(c)	- All Units (Sampling Ports)
62-297.310(6)(d)	- All Units (Work Platforms)
62-297.310(6)(e)	- All Units (Access)
62-297.310(6)(f)	- All Units (Electrical Power)
62-297.310(6)(g)	- All Units (Equipment Support)
62-297.310(7)(a)2.	- FFSG excess emissions

62-297.310(7)(a)3.	- Permit Renewal Test Required
62-297.310(7)(a)4.b.	- Annual Test
62-297.310(7)(a)5.	- PM exemption if <400 hrs/yr
62-297.310(7)(a)9.	- FDEP Notification - 15 days
62-297.310(7)(c)	- Waiver of Compliance Tests (Fuel Sampling)
62-297.310(8)	- Test Reports

Federal Rules:

NSPS Subpart D:

40 CFR 60.42(a)(1)	- PM (0.1 lb/mmBtu)
40 CFR 60.42(a)(2)	- VE (20%;1-6min 27%)
40 CFR 60.43(a)(1)	- SO2; liquid fuel (0.8 lb/mmBtu)
40 CFR 60.43(c)	- SO2; compliance; allows gas co-firing
40 CFR 60.44(a)(1)	- NOx; gas (0.2 lb/mmBtu)
40 CFR 60.44(a)(2)	- NOx; oil (0.3 lb/mmBtu)
40 CFR 60.44(b)	- NOx; Simultaneous firing
40 CFR 60.45 (a)	- Monitoring; Requires CEMS; VE, SO2 & NOx
40 CFR 60.45(b)(1)	- Exempts CEMS for gas
40 CFR 60.45(b)(2)	- Exempts SO2 CEMS for non-FGD units
40 CFR 60.45(b)(3)	- Exempts CEMS when tests 70% of standard
40 CFR 60.45(b)(4)	- If no CEMS than no O2 or CO2 required
40 CFR 60.45(c)	- Performance Requirements for CEMS
40 CFR 60.45(e)	- Conversion Procedures for CEMS
40 CFR 60.45(g)(1)	- Excess Emission Reports-Opacity
40 CFR 60.45(g)(2)	- Excess Emission Reports-SO2
40 CFR 60.45(g)(3)	- Excess Emission Reports-NOx
40 CFR 60.46 (a)	- Test Methods for Performance tests
40 CFR 60.46 (b)	- Test Methods for PM, SO2 and NOx
40 CFR 60.46 (c)	- Fuel combinations

NSPS General Requirements:

40 CFR 60.7(b)	- Notification and Recordkeeping (startup /shutdown /malfunction)
40 CFR 60.7(f)	- Notification and Recordkeeping (maintain records-2 yrs)
40 CFR 60.8(c)	- Performance Tests (representative conditions)
40 CFR 60.8(e)	- Provide Stack Sampling Facilities
40 CFR 60.8(f)	- Test Runs
40 CFR 60.11(a)	- Compliance (ref. S. 60.8 or Subpart; other than opacity)
40 CFR 60.11(b)	- Compliance (opacity determined EPA Method 9)
40 CFR 60.11(c)	- Compliance (opacity; excludes startup/shutdown/malfunction)
40 CFR 60.11(d)	- Compliance (maintain air pollution control equip.)
40 CFR 60.11(e)(2)	- Compliance (opacity; ref. S. 60.8)
40 CFR 60.12	- Circumvention
40 CFR 60.13(a)	- Monitoring (Appendix B; CEMS not compliance method)
40 CFR 60.13(c)	- Monitoring (Opacity COMS)
40 CFR 60.13(d)(1)	- Monitoring (CEMS; span, drift, etc.)
40 CFR 60.13(d)(2)	- Monitoring (COMS; span, system check)

40 CFR 60.13(e)	- Monitoring (frequency of operation)
40 CFR 60.13(h)	- Monitoring (COMS; data requirements)

Acid Rain-Permits:

40 CFR 72.9(a)	- Permit Requirements
40 CFR 72.9(b)	- Monitoring Requirements
40 CFR 72.9(c)(1)(i)	- SO2 Allowances-hold allowances
40 CFR 72.9(c)(2)	- SO2 Allowances-violation
40 CFR 72.9(c)(3)(iii)	- SO2 Allowances-Phase II Units (listed)
40 CFR 72.9(c)(4)	- SO2 Allowances-allowances held in ATS
40 CFR 72.9(c)(5)	- SO2 Allowances-no deduction for 72.9(c)(1)(i)
40 CFR 72.9(e)	- Excess Emission Requirements
40 CFR 72.9(f)	- Recordkeeping and Reporting
40 CFR 72.9(g)	- Liability
40 CFR 72.20(a)	- Designated Representative; required
40 CFR 72.20(b)	- Designated Representative; legally binding
40 CFR 72.20(c)	- Designated Representative; certification requirements
40 CFR 72.21	- Submissions
40 CFR 72.22	- Alternate Designated Representative
40 CFR 72.23	- Changing representatives; owners
40 CFR 72.30(a)	- Requirements to Apply (operate)
40 CFR 72.30(c)	- Requirements to Apply (reapply before expiration)
40 CFR 72.30(d)	- Requirements to Apply (submittal requirements)
40 CFR 72.32	- Permit Application Shield
40 CFR 72.40(a)	- General; compliance plan
40 CFR 72.40(b)	- General; multi-unit compliance options
40 CFR 72.40(c)	- General; conditional approval
40 CFR 72.40(d)	- General; termination of compliance options
40 CFR 72.51	- Permit Shield
40 CFR 72.90	- Annual Compliance Certification

Monitoring Part 75: (does not include common & by-pass stacks)

40 CFR 75.5	- Prohibitions
40 CFR 75.10(a)(1)	- Primary Measurement; SO2; except 75.11&.16; Subpart D
40 CFR 75.10(a)(2)	- Primary Measurement; NOx; except 75.12&.17; Subpart E
40 CFR 75.10(a)(3)(ii)	- Primary Measurement; CO2; Appendix G
40 CFR 75.10(a)(4)	- Primary Measurement; Opacity; except 75.14&.18
40 CFR 75.10(b)	- Primary Measurement; Performance Requirements
40 CFR 75.10(c)	- Primary Measurement; Heat Input; Appendix F
40 CFR 75.10(d)(2)	- Primary Measurement; Hourly Operating ; Opacity; SO2
40 CFR 75.10(f)	- Primary Measurement; Minimum Measurement
40 CFR 75.10(g)	- Primary Measurement; Minimum Recording
40 CFR 75.11(d)(2)	- SO2 Monitoring; Gas- and Oil-fired units
40 CFR 75.11(e)	- SO2 Monitoring; Gaseous firing
40 CFR 75.12(a)	- NOx Monitoring; Coal; Non-peaking oil/gas units
40 CFR 75.12(b)	- NOx Monitoring; Determination of NOx emission rate; Appendix F
40 CFR 75.13(b)	- CO2 Monitoring; Appendix G
40 CFR 75.14(a)	- Opacity Monitoring; Coal and oil units

40 CFR 75.20(a)(5)	- Initial Certification Approval Process; Loss of Certification
40 CFR 75.20(b)	- Recertification Procedures (if recertification necessary)
40 CFR 75.20(c)	- Certification Procedures (if recertification necessary)
40 CFR 75.20(g)	- Exceptions to CEMS; oil/gas/diesel; Appendix D
40 CFR 75.21	- QA/QC; CEMS
40 CFR 75.21(b)	- QA/QC; Opacity; Part 51 Appendix M
40 CFR 75.21(c)	- QA/QC; Calibration Gases
40 CFR 75.21(d)	- QA/QC; Notification of RATA
40 CFR 75.21(e)	- QA/QC; Audits
40 CFR 75.21(f)	- QA/QC; CEMS
40 CFR 75.22	- Reference Methods
40 CFR 75.24	- Out-of-Control Periods; CEMS
40 CFR 75.30(a)(1)	- General Missing Data Procedures; SO2
40 CFR 75.30(a)(2)	- General Missing Data Procedures; flow
40 CFR 75.30(a)(3)	- General Missing Data Procedures; NOx
40 CFR 75.30(a)(4)	- General Missing Data Procedures; SO2
40 CFR 75.30(d)	- General Missing Data Procedures; SO2
40 CFR 75.32	- Monitoring Data Availability for Missing Data
40 CFR 75.33	- Standard Missing Data Procedures
40 CFR 75.35	- Missing Data for SO2
40 CFR 75.36	- Missing Data for Heat Input
40 CFR 75.53	- Monitoring Plan ; revisions
40 CFR 75.54(a)	- Recordkeeping-general
40 CFR 75.54(b)	- Recordkeeping-operating parameter
40 CFR 75.54(c)	- Recordkeeping-SO2
40 CFR 75.54(d)	- Recordkeeping-NOx
40 CFR 75.54(e)	- Recordkeeping-CO2
40 CFR 75.54(f)	- Recordkeeping-Opacity
40 CFR 75.56	- Certification; QA/QC Provisions
40 CFR 75.55	- General Recordkeeping (Specific Situations)
40 CFR 75.60	- Reporting Requirements-General
40 CFR 75.61	- Reporting Requirements-Notification cert/recertification
40 CFR 75.62	- Reporting Requirements-Monitoring Plan !!submitted!!
40 CFR 75.63	- Reporting Requirements-Certification/Recertification
40 CFR 75.64(a)	- Reporting Requirements-Quarterly reports; submission
40 CFR 75.64(b)	- Reporting Requirements-Quarterly reports; DR statement
40 CFR 75.64(c)	- Rep. Req.; Quarterly reports; Compliance Certification
40 CFR 75.64(d)	- Rep. Req.; Quarterly reports; Electronic format
40 CFR 75.65	- Opacity Reports
Appendix A	- Specifications and Test Procedures
Appendix B	- QA/QC Procedures
Appendix C	- Missing Data
Appendix D	- Optional SO2; Oil-/gas-fired units
Appendix F	- Conversion Procedures
Appendix G	- Determination of CO2 emissions
Appendix H	- Traceability Protocol

Acid Rain Program-Excess Emissions (these are future requirements that may overlap with the term of the Title V permit):

Appendix G	- Determination of CO2 emissions
Appendix H	- Traceability Protocol

Acid Rain Program-Excess Emissions (these are future requirements that may overlap with the term of the Title V permit):

40 CFR 77.3	- Offset Plans (future)
40 CFR 77.5(b)	- Deductions of Allowances (future)
40 CFR 77.6	- Excess Emissions Penalties (SO2 and NOx;future)

ATTACHMENT VB-EU4-H8

CALCULATION OF EMISSIONS

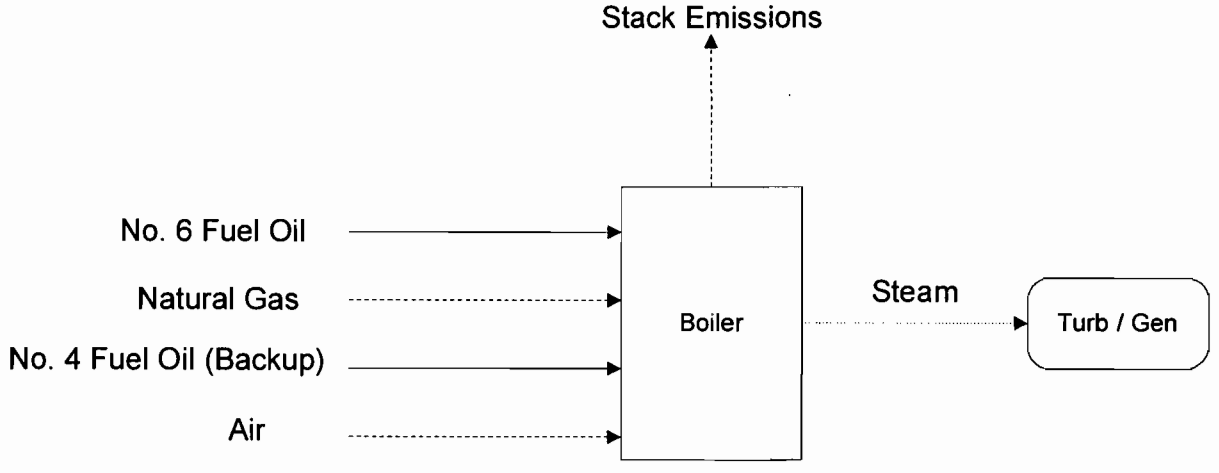
Table 1. Maximum Estimated Emissions for Emissions Limited Pollutants for Vero Beach Unit 4

VBUNIT4
03/17/96

Data	Combined			
	No. 6 Fuel Oil	Natural Gas	Total	Natural Gas
Hours of Operation	8,760	8,760	8,760	8,760
Sulfur Dioxide (lb/hr) (Oil) = EF (lb/MMBtu) x Heat Input Rate (MMBtu/hr)				
Sulfur Dioxide (lb/hr) (Gas) = Fuel sulfur content (gr/100 cf) / 7000 (gr/lb) x 2 (64 MW SO2/32 MW S) x Fuel Consumption (Fuel units/hr)				
Basis	Permit	1 gr S/100 cf	Permit	
EF (lb/MMBtu)	2.49	NA	0.8	
HIR (MMBtu/hr)	219.2	NA	685.0	
Sulfur content (gr/100 cf)	NA	1	NA	
Fuel consumptiom (100 cf/hr)	NA	4,522.3	NA	
lb/hr	545.8	1.29	548.0	
TPY	2,391	5.7	2,400	
Particulate Matter (lb/hr) (Oil)= EF (lb/MMBtu) x Heat Input Rate (MMBtu/hr)				
Basis	State Regulation			
EF (lb/MMBtu) - normal operation	0.1			
- soot blowing	0.3			
HIR (MMBtu/hr)	219.2			
Normal Operations				
EF (lb/MMBtu)	0.1			
HIR (MMBtu/hr)	219.2			
Emission rate (lb/hr)	21.9			
(TPY)	96.0			
Soot blowing				
EF (lb/MMBtu)	0.3			
HIR (MMBtu/hr)	219.2			
Hours of operation	1,095			
Emission rate (lb/hr)	65.8			
(TPY)	36.0			
Annual (Normal/ Sootblowing)				
Hours of operation- normal operation	7,665			
-sootblowing	1,095			
Emission rate (lb/hr)- normal operation	21.9			
-sootblowing	65.8			
(TPY)	120.0			
Nitrogen Oxides (lb/hr)= EF (lb/MMBtu) x Heat Input Rate (MMBtu/hr)				
Basis	Permit	Permit		Permit
EF (lb/MMBtu)	0.30	0.20		0.20
HIR (MMBtu/hr)	219.2	465.8		685.0
lb/hr	65.8	93.2	158.9	137.0
TPY	288.0	408.0	696.1	600.1

ATTACHMENT VB-EU4-L1

PROCESS FLOW DIAGRAM



Attachment VB-EU4-L1 City of Vero Beach Municipal Power Plant Facility Process Flow Diagram Vero Beach, Florida	Process Flow Legend: Solid / Liquid Gas Steam	Emission Unit: Boiler No. 4 Process Area: *Filename:* VBEU4L1.VSD *Latest Revision Date:* 5/26/96	KBN Engineering and Applied Sciences, Inc.

ATTACHMENT VB-EU4-L2

FUEL ANALYSIS OR SPECIFICATION

ATTACHMENT VB-EU4-L2

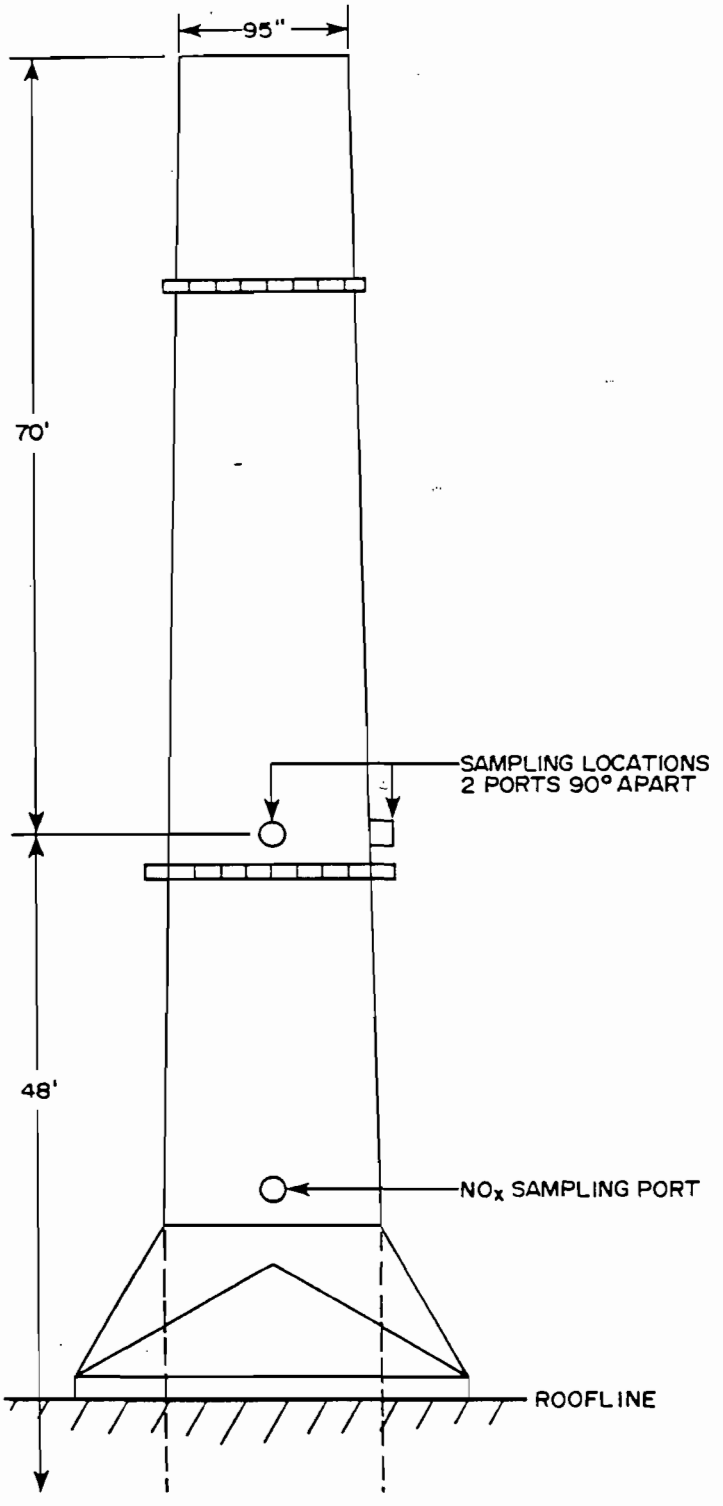
FUEL ANALYSIS OR SPECIFICATION

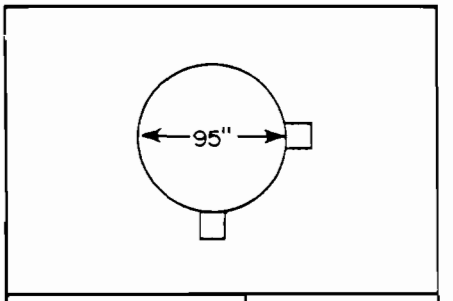
Fuel	Density (lb/gal)[a]	Moisture (%)	Maximum % Weight Content			Heat Capacity
			Sulfur	Nitrogen	Ash	
Natural Gas	0.045[b]	—	1[c]	0.43[d]	—	23,100 BTU/lb 1,030 Btu/ft^3
No. 4 Fuel Oil	7.6	0.05	0.7	0.18	<0.01	19,000 BTU/lb 144,000 Btu/gal
No. 6 Fuel Oil	8.15	0.20	2.5	0.32	0.05	18,400 BTU/lb 150,000 BTU/gal

[a] At 60 degrees F.
[b] Represented as lb/ft^3. Based on heat capacities presented.
[c] Represented as grains/100 ft^3.
[d] Atmospheric nitrogen.

ATTACHMENT VB-EU4-L4

DESCRIPTION OF STACK SAMPLING FACILITIES





TRAVERSE POINT NUMBER	INCHES INSIDE STACK WALL
1	2.5
2	7.8
3	13.9
4	21.5
5	32.5
6	62.5
7	73.5
8	81.1
9	87.2
10	92.5

FIGURE 1.
OUTLET STACK SCHEMATIC
UNIT 4
VERO BEACH MUNICIPAL UTILITIES
VERO BEACH, FLORIDA

AIR CONSULTING
and ENGINEERING

ATTACHMENT VB-EU4-L6

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT VB-EU4-L6

PROCEDURES FOR STARTUP AND SHUTDOWN MINIMIZING EXCESS EMISSIONS

Startup of the fossil-fuel boiler begins when fuel (either natural gas or oil) is introduced into one or more burners within the boiler and lighted (commencement of combustion). Startup is complete and steady-state operation begins when the combustion process has stabilized and the megawatt load on the unit is stable.

Shutdown of the fossil-fuel boilers begins when unit megawatt load is decreased and continues until the final burner gun is removed from service and the final Induced-draft or Forced-draft fan is removed from service.

Excess emissions may be detected for Boiler No. 4 during all modes of boiler operation by any one of several continuous emissions monitors. Continuous monitors are currently in place for NO_x, opacity, and SO_2. An audible and visual alarm is activated whenever permitted values for any of the above parameters are approached.

Countermeasures which may be taken in the event of excess emissions include, but are not limited to:

- proper excess air adjustments
- recognizing and removal of faulty burners
- fuel oil temperature adjustments
- proper and timely operation of boiler cleaning devices
- removal of the unit from system-dispatch mode
- reduction of unit megawatt load
- stopping and restarting of boiler cleaning devices
- lowering load rate
- pressure rate changes

Knowledge of the appropriate countermeasures to take under an excess emissions condition is a part of the routine operator training for the engineers who operate the boilers. In addition, plant operations and supervisory staff are periodically given training. Topics include current permit

limits, maximum allowable duration of excess emissions, appropriate countermeasures for excess emissions, duty to notify, etc.

ATTACHMENT VB-EU4-L10

ALTERNATIVE METHODS OF OPERATION

ATTACHMENT VB-EU4-L10

ALTERNATE METHODS OF OPERATION

Fossil Fuel Steam Generator Unit 4

Unit 4 is permitted to burn either natural gas or a combination of natural gas and No. 6 or No. 4 fuel oils that is not to exceed 32 percent of the total heat input. The unit may also burn low-sulfur No. 4 fuel oil (0.7 percent sulfur, maximum) as a backup fuel to natural gas. The unit may operate continuously (i.e., 8,760 hours per year) on natural gas or No. 4 fuel oil, and a maximum of 32 percent capacity (32 percent of total heat input) on fuel oil (No. 4 or No. 6) when fired in conjunction with natural gas. Natural gas and propane are used as ignitor fuel for initial startup of this unit.

ATTACHMENT VB-EU4-L12

IDENTIFICATION OF ADDITIONAL APPLICABLE REQUIREMENTS

ADDITIONAL APPLICABLE REQUIREMENTS

Applicable Requirements as defined in Rule 62-210.200(29) not identified in Section D of this emission unit section are included in this attachment of the application. Any air operation permit issued by the Department (or local program designee) and included in this attachment is provided for information purposes. The specific conditions of the operating permit are not Applicable Requirements as defined in Rule 62-210.200(29).

UNIT 4

CONSTRUCTION

ST/ PERMIT RIDA

DEPARTMENT . AND WATER

POLLUTION CONTROL

CONSTRUCTION PERMIT

FOR City of Vero Beach
City Hall
Vero Beach, Fla. 32960

PERMIT NO. AC31-2182 DATE 10-11-73

PURSUANT TO THE PROVISION OF SECTION 403.061 (16) OF CHAPTER 403, FLORIDA STATUTES AND CHAPTER 17-4, FLORIDA ADMINISTRATIVE CODE, THIS PERMIT IS ISSUED TO H. Bach Nielson, City Manager

FOR THE CONSTRUCTION OF THE FOLLOWING:
steam electric generating unit #4 burning nat. gas or #4 fuel oil producing 655,000 kwh/day

LOCATED AT: 17th St. & Indian River, Vero Beach, Indian River County UTM: 7561400E, 3057200N

IN ACCORDANCE WITH THE APPLICATION DATED 5-3-73* AND IN CONFORMITY WITH THE STATEMENTS AND SUPPORTING DATA ENTERED THEREIN, ALL OF WHICH ARE FILED WITH THE DEPARTMENT AND ARE CONSIDERED A PART OF THIS PERMIT.

THIS PERMIT SHALL BE EFFECTIVE FROM THE DATE OF ITS ISSUANCE UNTIL 11-1-75 AND SHALL BE SUBJECT TO ALL APPLICABLE LAWS OF THE STATE AND THE RULES AND REGULATIONS OF THE DEPARTMENT.

C. Medeiros RUSH
C. Medeiros
for Regional Engineer

DAVID H. SCOTT, CHIEF
BUREAU OF PERMITTING

VINCENT D. PATTON
EXECUTIVE DIRECTOR

*and DPC Board approval at Public Hearing 7-25-73 in Tampa, FLA.

FORM 1-J

DK

Florida Department of
Environmental Protection

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

Permittee:
City of Vero Beach
P. O. Box 1389
Vero Beach, FL 32961-1389

Attention: T.R. Nason,
City Manager

Permit Number: AO31-229058
Date of Issue:
Expiration Date: June 30, 1998
County: Indian River
Latitude/Longitude:
27°37'52"N/80°22'33"W
UTM: 17-561.4 KmE; 3056.5 KmN
Project: Municipal Power Plant
Unit No. 4

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) Chapter 17. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

The permittee may operate a Foster-Wheeler, Model SD35S, fossil fuel steam generator unit no. 4.

This source is located at the Municipal Power Plant at 17th Street and Indian River Boulevard in Vero Beach, Indian River County, Florida.

General Conditions are attached to be distributed to the permittee only.

PERMITTEE:
City of Vero Beach

Attention: T.R. Nason, City Manager

Permit Number: AO31-229058
Expiration Date: June 30, 1998

SPECIFIC CONDITIONS:

OPERATING CONDITIONS

1. Heat input Rate:

   The maximum permitted heat input rate for this source is 685 MMBtu/hr.

2. Permitted Fuels:

   This source shall be fired with natural gas, a combination of natural gas and no. 6 fuel oil that is not to exceed 32% of the total heat input, or low sulfur no. 4 fuel oil used as a backup fuel.

   annual basis?

3. Operating Hours:

   This source is permitted to operate continuously.

4. Source Emission Limiting Standards and Compliance Testing Requirements:

   The source is subject to Rule 17-296.800 (NSPS, Subpart D), F.A.C.

PERMITTEE:
City of Vero Beach

Attention: T.R. Nason, City Manager

Permit Number: AO31-229058
Expiration Date: June 30, 1998

SPECIFIC CONDITIONS:
(Continued)

POLLUTANT	EMISSION LIMITING STDS.	TESTING FREQUENCY ANNUAL	QUARTERLY	OTHER	TEST METHOD
Particulate Matter					
Steady State	0.1 lb/MMBtu	X	-	-	EPA METHOD 5 OR 17(1)
Sootblowing or Load Changing	0.3 lb/MMBtu	X	-	-	EPA METHOD 5 OR 17 (1)
Sulfur Dioxide	0.80 lb/MMBtu	X	-	-	EPA Method 6
Visible Emissions					
Steady State	20% Opacity except up to 27% opacity for not more than 6 minutes per hour	X	-	-	DER Method 9
Sootblowing or Load Changing	60% Opacity for up up to 3 hrs in 24 hrs, with up to four 6-minute periods of up to 100% if unit has an operational opacity CEM (2)	X	-	-	DER Method 9
Nitrogen Oxide	*	X	-	-	EPA Method 7, 7A, 7C, 7D, or 7E

* $\frac{X(0.2) + Y(0.3)}{X + Y}$ lb/MMBTU; where X = percentage of total heat input derived from gaseous fuel and Y = percentage of total heat input derived from fuel oil.

Footnotes:

(1) EPA Method 17 may be used only if the stack gas exit temperature is less than 375°F.

SPECIFIC CONDITIONS:
(Continued)

(2) FAC 17-210.700(3) allows up to 3 hours in a 24-hour period of excess emissions during sootblowing and loading changing operations. Excess emissions are authorized only if best operational practices to minimize emissions are adhered to, and the duration of excess emissions is minimized.

(3) The source must be compliance tested by the permittee for particulates, sulfur dioxide, nitrogen oxides, and visible emisssions on an annual basis on, or within 60 days before the date of August 1. For good cause, the permittee may request, and the Department may grant, an extension of a compliance test due date. The source should be tested during the early part of the 60 day period to avoid missing the test due date. Inadequate planning of testing does not constitute good cause for an extension of the compliance test due date.

(4) An annual compliance test for particulate matter shall not be required if the source, in a federal fiscal year, did not burn fuel oil, other than during startup, for a total of more than 400 hours (Rule 17-297.340(e), F.A.C.). Annual compliance with the SO2 limit can be demonstrated by a fuel oil analysis of the fuel oil fired for less than 400 hours/year. If no fuel oil was fired in the federal fiscal year, the SO2 compliance test is not required.

(5) EPA Method 3A may be utilized to determine oxygen and carbon dioxide concentrations.

5. Compliance Testing Related Requirements:

(a) Notification - FAC 17-297.340(1)(i)

The Air Resources compliance section of this office shall be notified in writing at least fifteen (15) days in advance of the compliance tests (Rule 17-297.340(1)(i), F.A.C.).

(b) Conditions

Compliance testing shall be conducted while being fired by a combination of 68% natural gas and 32% no. 6 residual fuel oil at 90 to 100% of the maximum permitted heat input rate. Particulate and visible emissions tests shall be conducted under both sootblowing and non-sootblowing conditions and shall have at least eight hours of fuel oil burning without sootblowing immediately before the test.

Testing may be conducted at less than 90 percent of the maximum permitted rate, however, if so, subsequent source operation is limited to the average heat input rate during the test. Once the unit is so limited, then operation at a higher heat input rate is allowed only on the days to conduct additional compliance testing to regain the higher

SPECIFIC CONDITIONS:
(Continued)

rates, not to exceed the maximum permitted rate, with prior notification to the Department. All required compliance tests shall be conducted concurrently. Operating at conditions during testing which do not reflect normal operating conditions may invalidate a test.

The source can be tested using 100% natural gas, if in a federal fiscal year, fuel oil was not burned, other than during startup, for a total of more than 400 hours.

(c) Stack Sampling Facility - FAC 17-297.345

The stack sampling facility must comply with Rule 17-297.345, FAC.

(d) Report Submittal - FAC 17-297.570, FAC

A copy of the test results shall be submitted to the Department's Central District Office within 45 days after the last test run is completed. The test report shall provide the actual heat input rate.

6. Annual Operations Report (AOR):

On or before March 1 of each calendar year, a completed DEP Form 17-210.900(4), Annual Operation Report Form for Air Emissions Sources, based on data for the preceding calendar year, shall be submitted to the Department's Central District Office. The report shall provide sufficient detail to allow the Department to determine whether the emissions were properly computed.

7. Excess Emissions

(a) Events - Rule 17-210.700, FAC

Excess emissions resulting from start-up or shut-down are permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions is minimized.

Excess emissions resulting from malfunction are permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions is minimized but in no case exceeds two hours in any 24-hour period unless specifically authorized by the Department for longer duration.

Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction are prohibited.

PERMITTEE:
City of Vero Beach

Attention: T.R. Nason, City Manager

Permit Number: AO31-229058
Expiration Date: June 30, 1998

SPECIFIC CONDITIONS:
(Continued)

(b) Notification - Rules 17.210.700(6) and 17-4.130, FAC

In the event the permittee is temporarily unable to comply with any of the conditions of the permit, the permittee shall immediately notify this office. Notification shall be conducted within 24 hours and be in accordance with General Condition (8) of this permit. In case of excess emissions resulting from malfunctions, a full written report on themalfunctions shall also be submitted in a quarterly report.

8. Continuous Emission Monitoring

The Continuous Emission Monitors shall be operated and maintained at all times in accordance with the provisions of 40 CFR 60.45, NSPS, Subpart D. A copy of the excess emissions reports shall be sent to both the FDEP Bureau of Air Quality Management in Tallahassee and the Central District Office.

9. Objectional Odors - Rule 17-296.320(2), FAC

Objectional Odor Prohibited - No person shall cause, suffer, allow or permit the discharge air pollutants which cause or contribute to an objectionable odor.

10. Other Requirements - Rule 17-210.300, FAC

Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Rule 17-296 or 17-297, or any other requirements under federal, state, or local law. Future regulations may impact this facility. The permittee shall comply with any applicable future regulations when they become effective.

11. Operation Permit Renewal - Rules 17-4.050(2) and 17-4.090(1), FAC

An operation permit renewal must be submitted at least sixty days prior to the expiration date of this permit (Rule 17-4.090, FAC.).

ISSUED 10-13-93

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

cmc

A. Alexander, P.E., District Director
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

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

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.

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

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Combined Cycle Gas Turbine Unit No.5**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown **005**		
3. Emissions Unit Status Code: **A**	4. Acid Rain Unit? [**X**] Yes [ ] No	5. Emissions Unit Major Group SIC Code: **49**
6. Emissions Unit Comment (limit to 500 characters): **1. Generator nameplate rating at ISO conditions.**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):

Dry low-NOX combustors

2. Control Device or Method Code: **25**

B.

1. Description (limit to 200 characters):

Water injection (oil firing only)

2. Control Device or Method Code: **28**

C.

1. Description (limit to 200 characters):

2. Control Device or Method Code:

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

Emissions Unit Details

1. Initial Startup Date:	**1 Dec 1992**
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer:	**General Electric** Model Number: **PG 6541(B),Frame6**
4. Generator Nameplate Rating:	**38** MW
5. Incinerator Information: Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:		**455**	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr		tons/day
3. Maximum Process or Throughput Rate:			
4. Maximum Production Rate:			

5. Operating Capacity Comment (limit to 200 characters):

Maximum heat input rates based on ISO conditions. Maximum heat input based on No. 2 fuel oil firing (base load). Maximum heat input for natural gas firing is 414 mmBtu/hr (base load).

Emissions Unit Operating Schedule

1. Requested Maximum Operating Schedule:

24	hours/day	**7**	days/week
52	weeks/yr	**8,760**	hours/yr

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment VB-EU5-D1

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **EU-5 (Att. VB-FE-2)**	
2. Emission Point Type Code: [ ] 1 [ ] 2 [x] 3 [ ] 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **Combustion turbine has a bypass stack which is used when the unit operates in simple cycle mode.**	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [x] V [ ] W	
6. Stack Height:	**125** feet
7. Exit Diameter:	**11** feet
8. Exit Temperature:	**290** °F

9. Actual Volumetric Flow Rate:	**362,840** acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: East (km): North (km):	
14. Emission Point Comment (limit to 200 characters):	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Internal Combustion Engines, Electric Generation, Natural gas, Turbine**	
2. Source Classification Code (SCC): **2-01-002-01**	
3. SCC Units: **million cubic feet burned**	
4. Maximum Hourly Rate: **0.44**	5. Maximum Annual Rate: **3,858**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: **940**	
10. Segment Comment (limit to 200 characters): **1. Heating value based on lower heating value (LHV). 2. Maximum annual rate based on natural gas firing for 8760 hr/yr. 3. Fuel use based on ISO conditions.**	

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Internal Combustion Engines, Electric Generation, Distillate oil (Diesel), Turbine**
2. Source Classification Code (SCC): **2-01-001-01**
3. SCC Units: **1000 gallons burned**

4. Maximum Hourly Rate: **3.482**	5. Maximum Annual Rate: **10,000**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **0.25**	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	

10. Segment Comment (limit to 200 characters): **Million Btu per SCC Unit: 130.64. Heating value based on lower heating value (LHV). Max annual rate based on fuel oil firing at 33 % annual capacity factor. Fuel use based on ISO conditions**

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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			EL
PB			EL
NOX	025	028	EL
PM			EL
PM10			EL
SO2			EL
VOC			EL
SAM			EL
H021			EL
H114			EL
H106			NS
HAPS			NS

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

Pollutant Detail Information:

1. Pollutant Emitted: **CO**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **19.6** lb/hour **42.1** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.0226 lb/MMBtu (oil)** Reference: **Permit limit**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU5-H8. 1. CO emission limit for gas is 0.0224 lb/MMBtu. 2. Maximum emissions, lb/hr based on maximum oil-firing rate supplemented with gas-firing. 3. Maximum annual emissions representative of natural gas and fuel oil firing at rates not to exceed 67% and 33% of the annual capacity factor, respectively.**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 5 of 6

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **Other**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.0224 lb/mmBtu**	
4. Equivalent Allowable Emissions:	**9.3** lb/hour **40.6** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10 (initial), annual operating report**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. BACT determination, gas firing at 414 MMBtu/hr**	

B.

1. Basis for Allowable Emissions Code: **Other**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.0226 lb/mmBtu**	
4. Equivalent Allowable Emissions:	**10.3** lb/hour **14.9** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10 (initial), annual operating report**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. BACT determination, No. 2 fuel oil firing at 455 MMBtu/hr at 33 percent annual capacity factor.**	

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

Pollutant Detail Information:

1. Pollutant Emitted: **PB**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **0.013** lb/hour **0.018** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.000028** **lb/MMBtu** Reference: **Permit Condition**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU5-H8**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Maximum emissions, lb/hr, based on maximum oil-firing rate. Maximum annual emissions representative of No. 2 fuel oil firing at 33 percent capacity factor.**

Emissions Unit Information Section 5 of 6

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **Other**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.000028 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**0.013** lb/hour **0.018** tons/year
5. Method of Compliance (limit to 60 characters): **No. 2 fuel oil firing, annual operating report**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. Established by applicant in construction permit application. 2. Applicable to No. 2 fuel oil firing at 33 percent capacity factor.**	

B.

1. Basis for Allowable Emissions Code:	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	
4. Equivalent Allowable Emissions:	lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

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

Pollutant Detail Information:

1. Pollutant Emitted: **NOX**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **123** lb/hour **243.7** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **42 ppmvd (oil)** Reference: **Permit condition**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU5-H8. 1. Emission factor basis: at 15% O2. 2. Emission limit for gas is 25 ppmvd at 15% O2. 3. Maximum emissions, lb/hr, based on maximum oil-firing rate supplemented with gas-firing. 4. Maximum annual emissions representative of natural gas and fuel oil firing not to exceed 67 and 33 percent of the annual capacity factor, respectively.**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 5 of 6

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **Other**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **25 ppmvd at 15% O2**	
4. Equivalent Allowable Emissions: **44.3** lb/hour	**194** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 20, annual stack test**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. BACT determination, gas firing.**	

B.

1. Basis for Allowable Emissions Code: **Other**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **42 ppmvd at 15% O2**	
4. Equivalent Allowable Emissions: **79** lb/hour	**114.2** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 20, annual stack test**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. BACT determination, No. 2 fuel oil firing. 2. Annual emissions based on No. 2 fuel oil firing at 33 percent capacity factor.**	

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

Pollutant Detail Information:

1. Pollutant Emitted: **PM**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **13.9** lb/hour **23.7** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.025 lb/MMBtu (oil)** Reference: **Permit condition**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU5-H8. 1. Emission limit for gas is 0.006 lb/MMBtu. 2. Maximum emissions, lb/hr, based on maximum oil-firing rate supplemented with gas-firing. 3. Maximum annual emissions representative of natural gas and fuel oil firing not to exceed 67 and 33 percent of the annual capacity factor, respectively.**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 5 of 6

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **Other**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.006 lb/mmBtu**	
4. Equivalent Allowable Emissions: **2.5** lb/hour	**10.9** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 5 or 17, annual stack test (oil only)**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. BACT determination, gas firing**	

B.

1. Basis for Allowable Emissions Code: **Other**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.025 lb/mmBtu**	
4. Equivalent Allowable Emissions: **11.4** lb/hour	**16.4** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 5 or 17, annual stack test (oil only)**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. BACT determination, No. 2 fuel oil firing at 33 percent capacity factor.**	

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

Pollutant Detail Information:

1. Pollutant Emitted: **PM10**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **13.9** lb/hour **23.7** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.025 lb/MMBtu (oil)** Reference: **Permit condition**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU5-H8. 1. Emission limit for gas is 0.006 lb/MMBtu. 2. Maximum emissions, lb/hr, based on maximum oil-firing rate supplemented with gas-firing. 3. Maximum annual emissions representative of natural gas and fuel oil firing not to exceed 67 and 33 percent of the annual capacity factor, respectively.**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 5 of 6
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **Other**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.006 LB/MMBtu**	
4. Equivalent Allowable Emissions: **2.5** lb/hour	**10.9** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 5 or 17, annual stack test (oil only)**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. BACT determination, gas firing**	

B.

1. Basis for Allowable Emissions Code: **Other**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.025 lb/MMBtu**	
4. Equivalent Allowable Emissions: **11.4** lb/hour	**16.4** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 5 or 17, annual stack test (oil only)**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. BACT determination, No. 2 fuel oil firing at 33 percent capacity factor.**	

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

Pollutant Detail Information:

1. Pollutant Emitted: **SO2**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **123** lb/hour **178.2** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.25 %S fuel** Reference: **Permit condition**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU5-H8. 1. Maximum sulfur content for fuel oil. 2. Maximum sulfur content for natural gas is 1 grain/100 cf. 3. Maximum emissions, lb/hr, based on maximum oil-firing rate supplemented with gas-firing. 4. Maximum annual emissions representative of natural gas and fuel oil firing not to exceed 67 and 33 percent of the annual capacity factor, respectively.**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 5 of 6

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **Other**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.25 %sulfur fuel**	
4. Equivalent Allowable Emissions:	**122.6** lb/hour **177.3** tons/year
5. Method of Compliance (limit to 60 characters): **Natural gas is primary fuel and 0.25%sulfur No.2 fuel oil**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. BACT determination, No. 2 fuel oil firing at 33 percent capacity factor.**	

B.

1. Basis for Allowable Emissions Code:	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	
4. Equivalent Allowable Emissions:	lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

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

Pollutant Detail Information:

1. Pollutant Emitted: **VOC**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **9.8** lb/hour **21** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.0113 lb/MMBtu (oil)** Reference: **Permit condition**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU5-H8. 1. Emission limit for gas is 0.0112 lb/MmBtu. 2. Maximum emissions, lb/hr, based on maximum oil-firing rate supplemented with gas-firing. 3. Maximum annual emissions representative of natural gas and fuel oil firing at rates not to exceed 67 and 33 percent of the annual capacity factor, respectively.**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 5 of 6
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **Other**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.012 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**4.6** lb/hour **20.3** tons/year
5. Method of Compliance (limit to 60 characters): **Natural gas firing, annual operating report**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. BACT determination for gas firing**	

B.

1. Basis for Allowable Emissions Code: **Other**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.013 lb/mmBtu**	
4. Equivalent Allowable Emissions:	**5.1** lb/hour **7.4** tons/year
5. Method of Compliance (limit to 60 characters): **No. 2 fuel oil firing, 0.25% Sulfur maximum**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. BACT determination, No. 2 fuel oil firing at 33 percent capacity factor.**	

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

Pollutant Detail Information:

1. Pollutant Emitted: **SAM**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **3.7** lb/hour **5.33** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.0081 lb/MMBtu (oil)** Reference: **Permit condition**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU5-H8. 1. Maximum emissions, lb/hr, based on maximum oil-firing rate. 2. Maximum annual emissions based on natural gas and fuel oil firing not to exceed 67 and 33 percent of the annual capacity factor, respectively.**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 5 of 6

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **Other**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.0081 lb/mmBtu**	
4. Equivalent Allowable Emissions:	**3.7** lb/hour **5.33** tons/year
5. Method of Compliance (limit to 60 characters): **Natural gas or No.2 fuel oil firing max 0.25%sulfur, Annunal**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. BACT determination, No. 2 fuel oil firing at 33 percent capacity factor.**	

B.

1. Basis for Allowable Emissions Code:	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	
4. Equivalent Allowable Emissions:	lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

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

Pollutant Detail Information:

1. Pollutant Emitted: **H021**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **0.0011** lb/hour **0.0016** tons/year
4. Synthetically Limited? [ ] Yes [**x**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.000003 lb/MMBtu** Reference: **Permit Condition**
7. Emissions Method Code: [**x**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU5-H8**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Emission Factor: 0.0000025 lb/MMBtu. Maximum emissions, lb/hr, based on maximum oil-firing rate. Maximum annual emissions representative of No. 2 fuel oil firing at 33 percent capacity factor.**

Emissions Unit Information Section 5 of 6

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **Other**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **See comment 3.**	
4. Equivalent Allowable Emissions: **0.0011** lb/hour	**0.0016** tons/year
5. Method of Compliance (limit to 60 characters): **EMTIC Interim Test Method (initial test for oil only)**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. BACT determination, No. 2 fuel oil firing. 2. Alternative test methods include Method 104, fuel sample analyses Methods 7090 or 7091, or sample extraction Method 3040. 3. 2.5x10^-6 lb/MMBtu.**	

B.

1. Basis for Allowable Emissions Code:	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	
4. Equivalent Allowable Emissions: lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

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

Pollutant Detail Information:

1. Pollutant Emitted: **H114**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **0.0014** lb/hour **0.002** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.000003 lb/MMBtu** Reference: **Permit condition**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment VB-EU5-H8**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Maximum emissions, lb/hr, based on maximum oil-firing rate. Maximum annual emissions representative of No. 2 fuel oil firing at 33 percent capacity factor.**

Emissions Unit Information Section 5 of 6

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **Other**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.000003 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**0.0014** lb/hour **0.002** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 101 (initial test, oil only)**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **1. Established by applicant in Construction permit application. (2) Alternative test methods include fuel sampling analysis using methods acceptable to the Department.**	

B.

1. Basis for Allowable Emissions Code:	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	
4. Equivalent Allowable Emissions:	lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 1

1.	Visible Emissions Subtype: VE10
2.	Basis for Allowable Opacity: [ ] Rule [X] Other
3.	Requested Allowable Opacity Normal Conditions: 10. % Exceptional Conditions: 100 % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance: FDEP Method 9 annual compliance test
5.	Visible Emissions Comment (limit to 200 characters): Permit condition

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 1 of 6

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: **Rosemount** Model Number: **1151DP4E22B2** Serial Number: **1321980**	
5. Installation Date: **01 Jun 1992**	
6. Performance Specification Test Date: **23 Nov 1994**	
7. Continuous Monitor Comment (limit to 200 characters): **Fuel gas flow, 40 CFR 75 (Acid Rain). 2. Permit requirement.**	

Continuous Monitoring System Continuous Monitor 2 of 6

1. Parameter Code: **EM**	2. Pollutant(s): **NOX**
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: **Advanced Pollution Instru.** Model Number: **250** Serial Number: **034**	
5. Installation Date: **01 Nov 1994**	
6. Performance Specification Test Date: **14 Nov 1994**	
7. Continuous Monitor Comment (limit to 200 characters): **40CFR 75 (Acid Rain) and construction permit requirement.**	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 3 of 6

1. Parameter Code: O2	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Graseby STI Model Number: 0802 Serial Number: 1360	
5. Installation Date: 01 Nov 1994	
6. Performance Specification Test Date: 14 Nov 1994	
7. Continuous Monitor Comment (limit to 200 characters): 40CFR 75 (Acid Rain) requirement (used as diluent gas)	

Continuous Monitoring System Continuous Monitor 4 of 6

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: ITT Barton Floco Model Number: 382-0308-0004.A Serial Number: 5704	
5. Installation Date: 22 Mar 1995	
6. Performance Specification Test Date: 03 Feb 1995	
7. Continuous Monitor Comment (limit to 200 characters): Fuel gas flow, 40 CFR 75 (Acid Rain). 2. Permit requirement.	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 5 of 6

1. Parameter Code: **WTF**	2. Pollutant(s):
3. CMS Requirement: [**X**] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: **Hoffer Flow Controls , Inc** Model Number: **HTM-12-2-MT6** Serial Number: **48719**	
5. Installation Date: **01 Jan 1994**	
6. Performance Specification Test Date: **01 Jan 1994**	
7. Continuous Monitor Comment (limit to 200 characters): **Water Flow Monitoring.**	

Continuous Monitoring System Continuous Monitor 6 of 6

1. Parameter Code: **WTF**	2. Pollutant(s):
3. CMS Requirement: [**X**] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: **Roper Pump Company** Model Number: **Type 11** Serial Number: **G138556**	
5. Installation Date: **01 Jan 1994**	
6. Performance Specification Test Date: **01 Jan 1994**	
7. Continuous Monitor Comment (limit to 200 characters): **Fuel Flow Monitoring.**	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [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 the 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 the 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.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[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 the source 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 the source 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 the 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	[X] C	[ ] E	[ ] Unknown
	SO_2	[X] C	[ ] E	[ ] Unknown
	NO_2	[X] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements for All Applications

1.	Process Flow Diagram	
	[X] Attached, Document ID: VB-EU5-L1	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[X] Attached, Document ID: VB-EU5-L2	
	[ ] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[X] Attached, Document ID: VB-EU5-L4	
	[ ] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[ ] Not Applicable
	[X] Previously Submitted, Date: 8 Jun 1996	
6.	Procedures for Startup and Shutdown	
	[X] Attached, Document ID: VB-EU5-L6	[ ] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[ ] Attached, Document ID: _____	[X] Not Applicable
9.	Other Information Required by Rule or Statute	
	[ ] Attached, Document ID: _____	[X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation

[X] Attached, Document ID: VB-EU5-L10 [ ] Not Applicable

11. Alternative Modes of Operation (Emissions Trading)

[ ] Attached, Document ID: _____ [X] Not Applicable

12. Identification of Additional Applicable Requirements

[X] Attached, Document ID: VB-EU5-L12 [ ] Not Applicable

13. Compliance Assurance Monitoring Plan

[ ] Attached, Document ID: _____ [X] Not Applicable

14. Acid Rain Permit Application (Hard Copy Required)

[X] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: VB-EU3-L14

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID: _____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID: _____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID: _____

[ ] Not Applicable

ATTACHMENT VB-EU5-D1

APPLICABLE REQUIREMENTS LISTING

ATTACHMENT VB-EU5-D1
Applicable Requirements Listing - Power Plants Acid Rain Units

EMISSION UNIT ID: Unit 5 - Vero Beach

FDEP Rules:

Air Pollution Control-General Provisions:

62-204.800(7)(b)37. (State Only)	- NSPS Subpart GG
62-204.800(7)(d)(State Only)	- NSPS General Provisions
62-204.800(12) (State Only)	- Acid Rain Program
62-204.800(13) (State Only)	- Allowances
62-204.800(14) (State Only)	- Acid Rain Program Monitoring

Stationary Sources-General:

62-210.650	- Circumvention; EUs with control device
62-210.700(1)	- All EU; Malfunction/Startup/Shutdown
62-210.700(4)	- All EUs; maintenance
62-210.700(6)	- All EUs;

Acid Rain:

62-214.300	- All Acid Rain Units (Applicability)
62-214.320	- All Acid Rain Units (Application Shield)
62-214.330	- Compliance Options (if 214.430)
62-214.340	- Exemptions (new units, retired units)
62-214.350(2);(3);(6)	- All Acid Rain Units (Certification)
62-214.370	- All Acid Rain Units (Revisions; correction; potentially applicable if a need arises)
62-214.430	- All Acid Rain Units (Compliance Options-if required)

Stationary Sources-Emission Monitoring (where stack test is required):

62-297.310(1)	- All Units (Test Runs-Mass Emission)
62-297.310(2)(a)	- All Units (Operating Rate)
62-297.310(3)	- All Units (Calculation of Emission)
62-297.310(4)(a)1.	- All Units (Applicable Test Procedures;Sampling time)
62-297.310(4)(b)	- All Units (Sample Volume)
62-297.310(4)(c)	- All Units (Required Flow Rate Range-PM/H2SO4/F)
62-297.310(4)(d)	- All Units (Calibration)
62-297.310(4)(e)	- All Units (EPA Method 5-only)
62-297.310(5)	- All Units (Determination of Process Variables)
62-297.310(6)(a)	- All Units (Permanent Test Facilities-general)
62-297.310(6)(c)	- All Units (Sampling Ports)
62-297.310(6)(d)	- All Units (Work Platforms)
62-297.310(6)(e)	- All Units (Access)
62-297.310(6)(f)	- All Units (Electrical Power)
62-297.310(6)(g)	- All Units (Equipment Support)
62-297.310(7)(a)3.	- Permit Renewal Test Required
62-297.310(7)(a)4.b.	- Annual Test

62-297.310(7)(a)5.	- PM exemption if <400 hrs/yr
62-297.310(7)(a)9.	- FDEP Notification - 15 days
62-297.310(7)(c)	- Waiver of Compliance Tests (Fuel Sampling)
62-297.310(8)	- Test Reports

Federal Rules:

NSPS Subpart GG:

40 CFR 60.332(a)(1)	- NOx for Electric Utility CTs
40 CFR 60.333	- SO2 limits
40 CFR 60.334	- Monitoring of Operations
40 CFR 60.335	- Test Methods

NSPS General Requirements:

40 CFR 60.7(b)	- Notification and Recordkeeping (startup/shutdown/malfunction)
40 CFR 60.7(f)	- Notification and Recordkeeping (maintain records-2 yrs)
40 CFR 60.8(c)	- Performance Tests (representative conditions)
40 CFR 60.8(e)	- Provide Stack Sampling Facilities
40 CFR 60.8(f)	- Test Runs
40 CFR 60.11(a)	- Compliance (ref. S. 60.8 or Subpart; other than opacity)
40 CFR 60.11(d)	- Compliance (maintain air pollution control equip.)
40 CFR 60.12	- Circumvention
40 CFR 60.13(a)	- Monitoring (Appendix B; only not compliance method)
40 CFR 60.13(d)(1)	- Monitoring (CEMS; span, drift, etc.)
40 CFR 60.13(e)	- Monitoring (frequency of operation)

Acid Rain-Permits: (Important: generally does not include Phase I requirements/or NOx)

40 CFR 72.9(a)	- Permit Requirements
40 CFR 72.9(b)	- Monitoring Requirements
40 CFR 72.9(c)(1)	- SO2 Allowances-hold allowances
40 CFR 72.9(c)(2)	- SO2 Allowances-violation
40 CFR 72.9(c)(3)(iv)	- SO2 Allowances- other utility units not listed
40 CFR 72.9(c)(4)	- SO2 Allowances-allowances held in ATS
40 CFR 72.9(c)(5)	- SO2 Allowances-no deduction for 72.9(c)(1)(i)
40 CFR 72.9(e)	- Excess Emission Requirements
40 CFR 72.9(f)	- Recordkeeping and Reporting
40 CFR 72.9(g)	- Liability
40 CFR 72.20(a)	- Designated Representative; required
40 CFR 72.20(b)	- Designated Representative; legally binding
40 CFR 72.20(c)	- Designated Representative; certification requirements
40 CFR 72.21	- Submissions
40 CFR 72.22	- Alternate Designated Representative
40 CFR 72.23	- Changing representatives; owners
40 CFR 72.30(a)	- Requirements to Apply (operate)
40 CFR 72.30(c)	- Requirements to Apply (reapply before expiration)
40 CFR 72.30(d)	- Requirements to Apply (submittal requirements)
40 CFR 72.32	- Permit Application Shield

40 CFR 72.40(a)	- General; compliance plan
40 CFR 72.40(b)	- General; multi-unit compliance options
40 CFR 72.40(c)	- General; conditional approval
40 CFR 72.40(d)	- General; termination of compliance options
40 CFR 72.51	- Permit Shield
40 CFR 72.90	- Annual Compliance Certification

Monitoring Part 75: (does not include common & by-pass stacks)

40 CFR 75.5	- Prohibitions
40 CFR 75.10(a)(2)	- Primary Measurement; NOx; except 75.12&.17; Subpart E
40 CFR 75.10(a)(3)(ii)	- Primary Measurement; CO2; Appendix G
40 CFR 75.10(b)	- Primary Measurement; Performance Requirements
40 CFR 75.10(c)	- Primary Measurement; Heat Input; Appendix F
40 CFR 75.10(f)	- Primary Measurement; Minimum Measurement
40 CFR 75.10(g)	- Primary Measurement; Minimum Recording
40 CFR 75.11(c)	- SO2 Monitoring; No flow monitor
40 CFR 75.11(d)	- SO2 Monitoring; Gas- and Oil-fired units
40 CFR 75.11(e)	- SO2 Monitoring; Gaseous firing
40 CFR 75.12(a)	- NOx Monitoring; Coal; Non-peaking oil/gas units
40 CFR 75.12(b)	- NOx Monitoring; Determination of NOx emission rate; Appendix F
40 CFR 75.13(b)	- CO2 Monitoring; Appendix G
40 CFR 75.14(c)	- Opacity Monitoring; Gas units; exemption
40 CFR 75.20(a)(5)	- Initial Certification Approval Process; Loss of Certification
40 CFR 75.20(e)	- Certification Peaking/by-pass
40 CFR 75.20(f)	- Alternate Monitoring system
40 CFR 75.20(g)	- Exceptions to CEMS; oil/gas/diesel; Appendix D
40 CFR 75.21(a)	- QA/QC; CEMS; Appendix B
40 CFR 75.21(b)	- QA/QC; Opacity; Part 51 Appendix M
40 CFR 75.21(c)	- QA/QC; Calibration Gases
40 CFR 75.21(d)	- QA/QC; Notification of RATA
40 CFR 75.21(e)	- QA/QC; Audits
40 CFR 75.21(f)	- QA/QC; CEMS
40 CFR 75.22	- Reference Methods
40 CFR 75.24	- Out-of-Control Periods; CEMS
40 CFR 75.30(a)(3)	- General Missing Data Procedures; NOx
40 CFR 75.32	- Monitoring Data Availability for Missing Data
40 CFR 75.33	- Standard Missing Data Procedures
40 CFR 75.36	- Missing Data for Heat Input
40 CFR 75.53	- Monitoring Plan ; revisions
40 CFR 75.54(a)	- Recordkeeping-general
40 CFR 75.54(b)	- Recordkeeping-operating parameter
40 CFR 75.54(d)	- Recordkeeping-NOx
40 CFR 75.56	- Certification; QA/QC Provisions
40 CFR 75.55	- General Recordkeeping (Specific Situations)
40 CFR 75.60	- Reporting Requirements-General
40 CFR 75.61	- Reporting Requirements-Notification cert/recertification
40 CFR 75.62	- Reporting Requirements-Monitoring Plan
40 CFR 75.63	- Reporting Requirements-Certification/Recertification

40 CFR 75.64(a)	- Reporting Requirements-Quarterly reports; submission
40 CFR 75.64(b)	- Reporting Requirements-Quarterly reports; DR statement
40 CFR 75.64(c)	- Rep. Req.; Quarterly reports; Compliance Certification
40 CFR 75.64(d)	- Rep. Req.; Quarterly reports; Electronic format
Appendix A	- Specfications and Test Procedures
Appendix B	- QA/QC Procedures
Appendix C	- Missing Data
Appendix D	- Optional SO2; Oil-/gas-fired units
Appendix F	- Conversion Procedures
Appendix G	- Determination of CO2 emissions
Appendix H	- Traceability Protocol

Acid Rain Program-Excess Emissions (these are future requirements that may overlap with the term of the Title V permit):

40 CFR 77.3	- Offset Plans (future)
40 CFR 77.5(b)	- Deductions of Allowances (future)
40 CFR 77.6	- Excess Emissions Penalties (SO2 and NOx;future)

ATTACHMENT VB-EU5-H8

Table 1. Maximum Estimated Emissions for Emissions Limited Pollutants for Vero Beach Unit 5, Simple/Combined Cycle

VBUNIT5
03/17/96

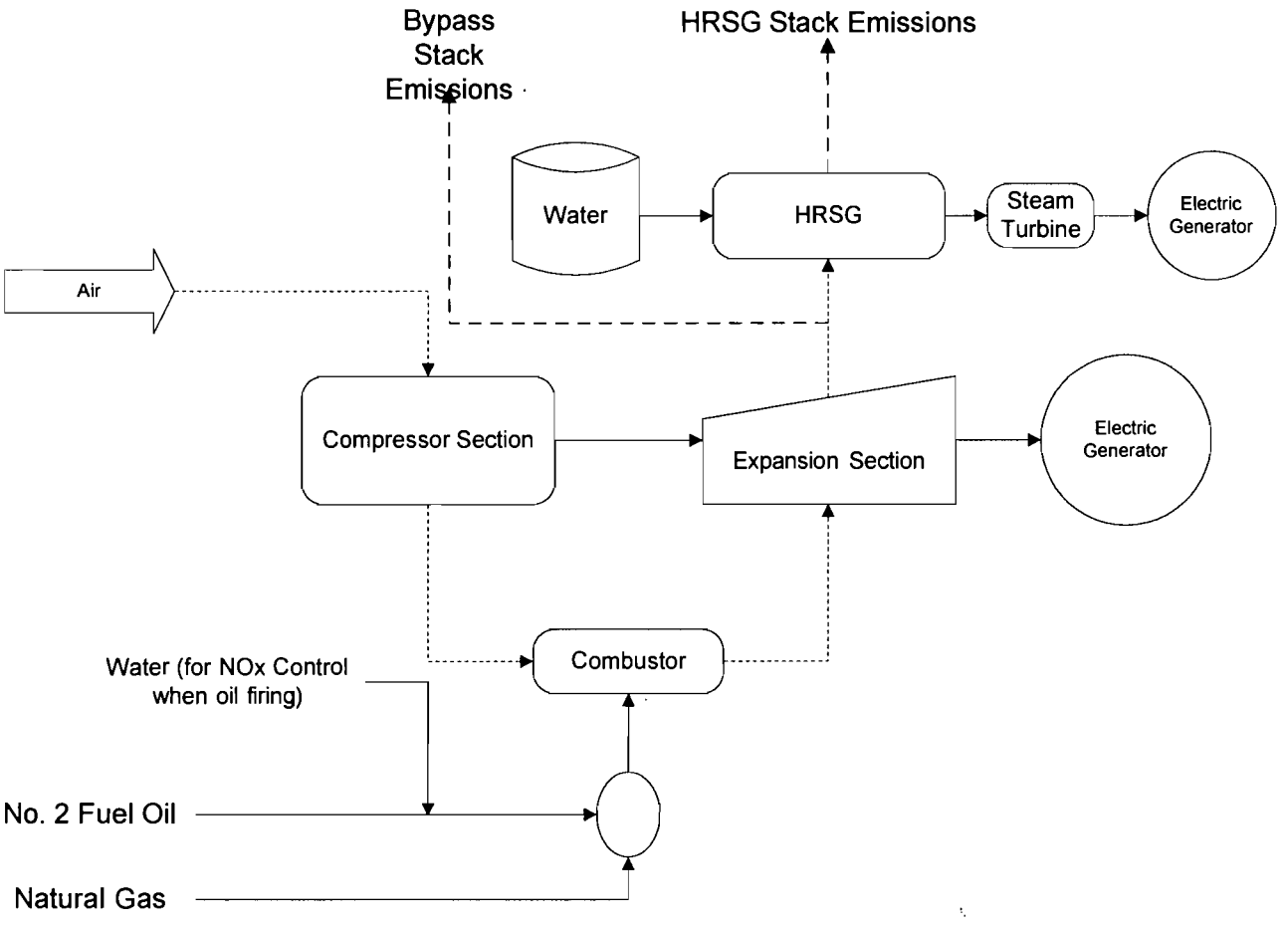
Pollutant/Units	Combined: No. 2 Fuel Oil	Combined: Natural Gas	Combined: Total	Natural Gas
Hours of Operation	8,760	8,760		8,760
Annual Capacity Factor (%)	33	67		100
Sulfur Dioxide (lb/hr) (oil) = Fuel sulfur content (Percent) / 100 x 2 (64 MW SO2/32 MW S) x Fuel Consumption (Fuel units/hr)				
Sulfur Dioxide (lb/hr) (gas) = Fuel sulfur content (gr/ 100 cf) / 7,000 x 2 (64 MW SO2/32 MW S) x Fuel Consumption (Fuel units/hr)				
Basis	Permit	1 gr S/100 cf		1 gr S/100 cf
Sulfur content (%)	0.25	NA		NA
Fuel Usage (lb/hr)	24,728	NA		NA
Sulfur content (gr/100 cf)	NA	1		1
Fuel Usage (100 cf/hr)	NA	4,404.3		4,404.3
lb/hr	123.6	1.3	124.9	1.3
TPY	178.7	3.7	182.4	5.5
Particulate Matter (lb/hr) = EF (lb/MMBtu) x Heat Input Rate (MMBtu/hr)				
Basis	Permit	Permit		Permit
EF (lb/MMBtu)	0.025	0.006		0.006
HIR (MMBtu/hr)	455	414		414
lb/hr	11.4	2.5	13.9	2.5
TPY	16.4	7.3	23.7	10.9
Particulate Matter (PM-10)(lb/hr) = EF (lb/MMBtu) x Heat Input Rate (MMBtu/hr)				
Basis	Permit	Permit		Permit
EF (lb/MMBtu)	0.025	0.006		0.006
HIR (MMBtu/hr)	455	414		414
lb/hr	11.4	2.5	13.9	2.5
TPY	16.4	7.3	23.7	10.9
Nitrogen Oxides (lb/hr) = NOx(ppm) x {[20.9 x (1 - Moisture(%)/100)] - Oxygen(%)} x 2116.8 x Volume flow (acfm) x 46 (mole. wgt NOx) x 60 min/hr ÷ [1545 x (CT temp.(°F) + 460°F) x 5.9 x 1,000,000 (ppm)]				
Basis (1)	Permit	Permit		Permit
Basis, ppmvd @15% O2	42.0	25.0		25.0
Moisture (%)	8.05	9.70		9.70
Oxygen (%)	13.10	13.16		13.16
Volume Flow (acfm)	702,135	707,780		707,780
Temperature (°F)	1,003	1,003		1,003
lb/hr	79.0	44.3	123.3	44.3
TPY	114.2	130.0	244.2	194.0
Carbon Monoxide (lb/hr) = CO (lb/MMBtu) x Heat Input Rate (MMBtu/hr)				
Basis (1)	Permit	Permit		Permit
Emission Rate Basis, lb/MMBtu	0.0226	0.0224		0.0224
HIR (MMBtu/hr)	455	414		414
lb/hr	10.3	9.3	19.6	9.3
TPY	14.9	27.2	42.1	40.6
Volatile Organic Compounds (lb/hr) = VOC (lb/MMBtu) x Heat Input Rate (MMBtu/hr)				
Basis (1)	Permit	Permit		Permit
Emission Rate Basis, lb/MMBtu	0.0113	0.0112		0.0112
HIR (MMBtu/hr)	455	414		414
lb/hr	5.1	4.6	9.8	4.6
TPY	7.4	13.6	21.0	20.3
Lead (lb/hr) = Lead (lb/MMBtu) x Heat Input Rate (MMBtu/hr)				
Basis (1)	Permit	NA		NA
Emission Rate Basis, lb/MMBtu	2.8E-05	NA		NA
HIR (MMBtu/hr)	455	NA		NA
lb/hr	0.013	NA	0.013	NA
TPY	0.018	NA	0.018	NA
Sulfuric Acid Mist (lb/hr) = Sulfuric Acid Mist EF (lb/MMBtu) x Heat Input Rate (MMBtu/hr)				
Basis	Permit	NA		NA
Emission Rate Basis, lb/MMBtu	0.0081	NA		NA
HIR (MMBtu/hr)	455	NA		NA
lb/hr	3.7	NA		NA
TPY	5.33	NA		NA

Source: City of Vero Beach, 1996.

Note: Universal gas constant = 1,545 ft-lb(force)/°R;
Atmospheric pressure = 2,116.8 lb(force)/ft²
ppmvd= parts per million, volume dry.
O2= oxygen

ATTACHMENT VB-EU5-L1

PROCESS FLOW DIAGRAM



Attachment VB-EU5-L1 City of Vero Beach Municipal Power Plant Process Flow Diagram Vero Beach, FL	**Process Flow Legend** Solid/Liquid ——→ Gas - - - - → Steam ..... →	Emission Unit: COMBINED CYCLE UNIT 5 Filename: VEROBCH.VSD Date: 03/18/96	KBN **Engineering and Applied Sciences, Inc.**

ATTACHMENT VB-EU5-L2

FUEL ANALYSIS OR SPECIFICATION

ATTACHMENT VB-EU5-L2

FUEL ANALYSIS OR SPECIFICATION

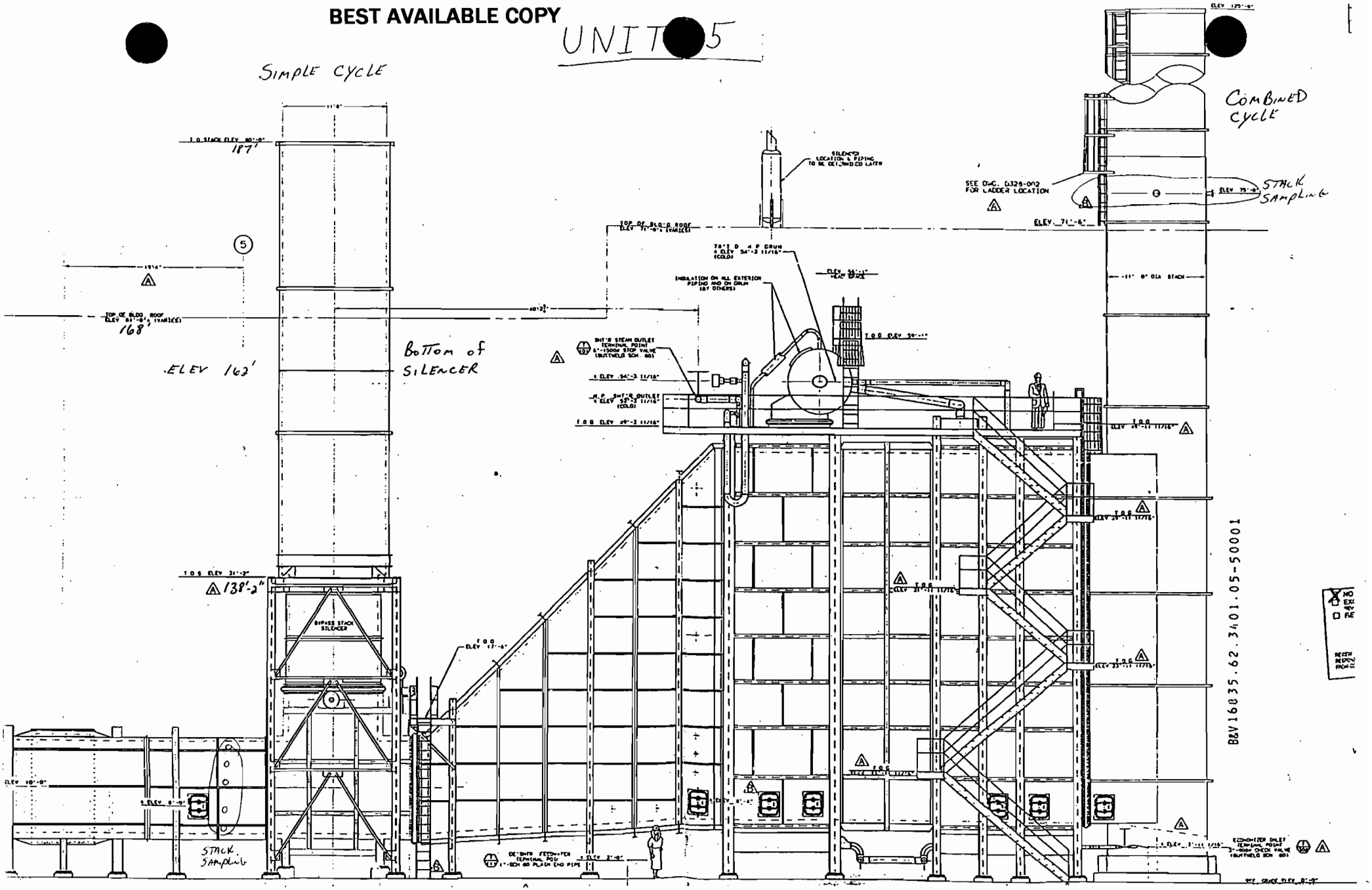
Fuel	Density (lb/gal)[a]	Moisture (%)	Maximum % Weight Content			Heat Capacity
			Sulfur	Nitrogen	Ash	
Natural Gas	0.045[b]	—	1[c]	0.43[d]	—	23,100 BTU/lb 1,030 Btu/ft^3
No. 2 Fuel Oil	7.1	0.01	0.25	0.02	<0.01	19,500 BTU/lb 138,500 Btu/gal

[a] At 60 degrees F.
[b] Represented as lb/ft^3. Based on heat capacities presented.
[c] Represented as grains/100 ft^3.
[d] Atmospheric nitrogen.

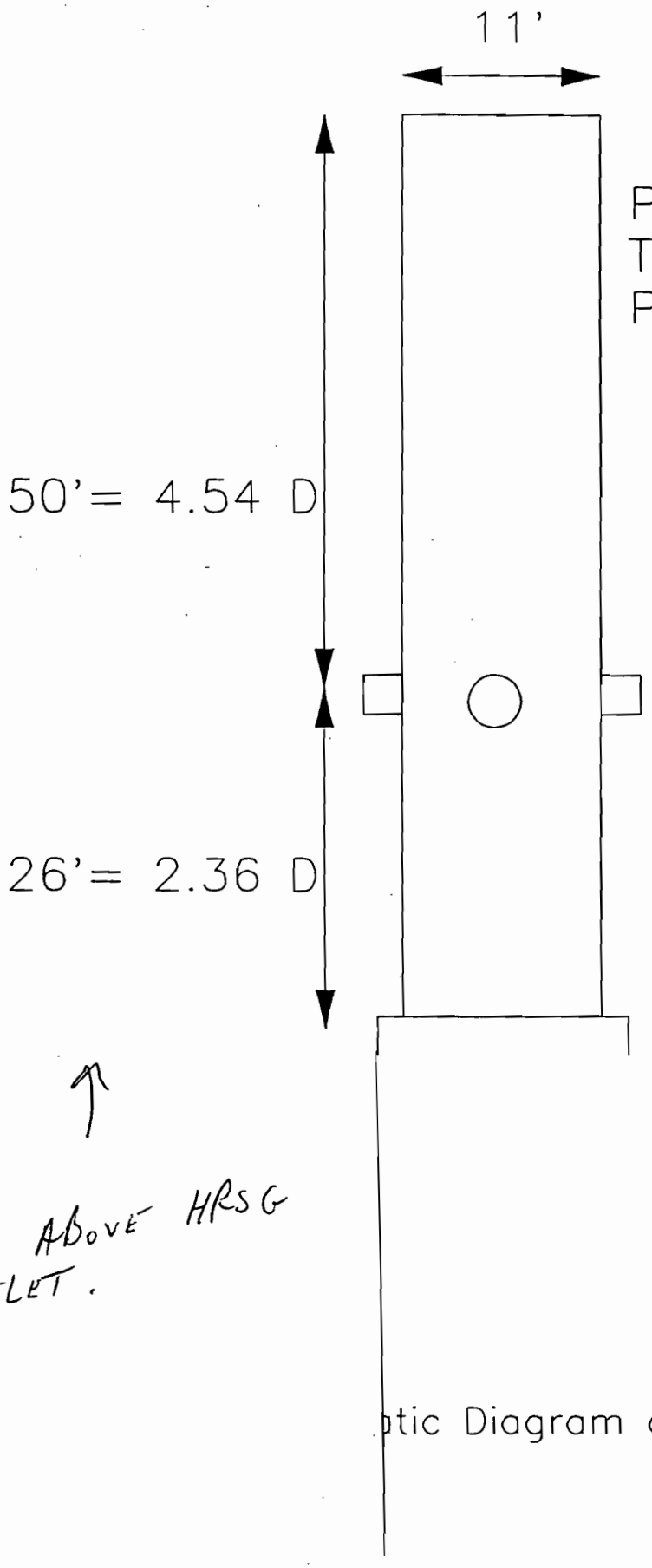
ATTACHMENT VB-EU5-L4

DESCRIPTION OF STACK SAMPLING FACILITIES

BEST AVAILABLE COPY



UNIT 5
COMBINED CYCLE
STACK



Particulate Traverse Point	Location (inches)
1	2.77
2	8.84
3	15.58
4	23.36
5	33.00
6	46.99

26' ABOVE HRSG OUTLET.

tic Diagram of Sampling Location

ATTACHMENT VB-EU5-L6

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT VB-EU5-L6

PROCEDURES FOR STARTUP AND SHUTDOWN MINIMIZING EXCESS EMISSIONS

Startup of the gas turbine begins with a start command initiated in the Mark V Computer. Fuel selection is also made during the start command. The fuel is introduced into the combustion chamber and ignited. The gas turbine is equipped with Dry Low NO_x (DLN) Combustors. During the startup process the DLN Combustors will go through four different firing stages to achieve its' steady state, the first is the primary followed by lean-lean, secondary and finally steady state premix.

Shutdown begins when the stop command is executed on the Mark V Computer. At this time, the unit begins a scheduled controlled shutdown. When the unit reaches approximately 18 percent speed, the fuel reference valve closes and the unit coasts down to zero speed.

Excess emissions are kept to a minimum during natural gas firing by operating the gas turbine in the steady state premix mode. When burning liquid fuel, emissions are minimized with the use of a water injection system. Countermeasures taken during periods of high excess emissions include the following: reduction of unit load, removal of the unit from service, resetting the steady state premix mode if necessary. Continuous monitors are currently in place for NO_x emissions. Audible and visual alarms notify the operator when the CT has exceeded the permit limits for NO_x.

Knowledge of the appropriate countermeasures to take during periods of excess emissions are part of the operators training. Training includes, current permit limits and conditions, countermeasures to be taken during excess emissions, and proper notification process when excess emissions have occurred.

ATTACHMENT VB-EU5-L10

ALTERNATIVE METHODS OF OPERATION

ATTACHMENT VB-EU5-L10
ALTERNATE METHODS OF OPERATION
Combined Cycle Unit 5

Unit 5 is permitted to burn either natural gas or No. 2 diesel fuel. Natural gas may be burned continuously in the unit (i.e., 8,760 hr/yr). No. 2 diesel fuel may be fired at a rate not to exceed 33 percent annual capacity factor.

ATTACHMENT VB-EU5-L12

IDENTIFICATION OF ADDITIONAL APPLICABLE REQUIREMENTS

REQUEST TO CHANGE CONDITIONS THAT ARE OBSOLETE AND OUTDATED

This request is to revise or remove from the Title V permit, several conditions of the FDEP issued PSD/air construction permit (AC31-253502; PSD-FL-152B) that are obsolete and outdated. This request is made pursuant to FDEP's Guidance on Implementation of Existing Permit Conditions Into Title V Permits (DARM-PER/V-14; February 8, 1996).

Specific Condition 2: Delete Emissions Limits for Sulfuric Acid Mist, Beryllium, Lead and Mercury as Applicable Requirements. The limits for beryllium, lead and mercury are requested to be deleted based on FDEP guidance dated May 19, 1995 (DARM-PER/GEN-18). The guidance states that mass emission limitations for metals should not be included in the permit. The only compliance requirement for this unit in the construction permit was to determine the concentrations of Be and Hg in the distillate fuel oil during the initial compliance test. Since oil is a secondary fuel (limited to 33 percent annual capacity factor) and metal concentrations are expected to be non-detectable, the emission limits for Be, Pb and Hg should be omitted from the Title V permit. It should be noted that only the emissions for beryllium would trigger PSD review. Therefore, the BACT requirement can be listed as distillate fuel oil as provided by the FDEP May 19, 1995 guidance. The production limit on the amount of distillate fuel and the current knowledge of information on trace parameters in that fuel, indicate that emissions limits for these parameters are no longer necessary.

The emission limits for sulfuric acid mist should not be included in the Title V permit, since emissions of this pollutant did not trigger PSD review and there is a requirement to use fuel oil with a maximum sulfur content of 0.25 percent). There is also no requirement for testing this pollutant and the requirement for fuel analyses would provide assurance that the sulfur limit would be met. Therefore the emission limit for sulfuric acid mist is requested not to be included in the Title V permit.

Specific Condition 16: Among other things, this condition requires the City to maintain and operate the Unit 5 CEMS in accordance with 40 CFR 60, Appendices B and F "<u>or 40 CFR 75 if adopted and applicable</u>." In light of the fact that the Department has adopted 40 CFR 75 and that it is applicable to Unit 5, the City requests that the references to 40 CFR 60, Appendices B and F <u>not</u> be included in the Title V permit. This will avoid confusion by making it clear that the city will follow the QA/QC requirements of 40 CFR 75 rather than those set forth in the appendices to 40 CFR 60.

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT AMENDMENT

In the matter of an
Application for Permit Amendment by:

DEP File No. AC 31-253502
PSD-FL-152B
Indian River County

Mr. Mike Siefert
City of Vero Beach
100 - 17th Street
Post Office Box 1389
Vero Beach, Florida 32961-1389

Enclosed is amended permit No. AC 31-253502, PSD-FL-152B, to incorporate permit changes to reflect the installation of new dry low-NOx combustors. This permit amendment is issued pursuant to Section 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 14 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this **NOTICE OF PERMIT AMENDMENT** and all copies were mailed by certified mail before the close of business on 9-27-95 to the listed persons.

Clerk Stamp
FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Lynn Jobes 9-27-95
Clerk Date

Copies furnished to:
T. R. Nason, CVB
Gary Perko, HGSS
Charles Collins, CD
Jewell Harper, EPA
John Bunyak, NPS

Final Determination

Vero Beach Municipal Power Plant
Power Plant Unit 5
Indian River County, Florida

Construction Permit No.
AC 31-253502
PSD-FL-152B

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

September 21, 1995

Final Determination

Vero Beach Municipal Power Plant
Power Plant Unit 5

AC 31-253502
PSD-FL-152B

The City of Vero Beach's request for permit modifications at its facility in Vero Beach, Indian River County, Florida, has been reviewed by the Bureau of Air Regulation in Tallahassee. The Notice of Intent to Issue was distributed on August 4, 1995. Copies of the evaluation were available for inspection at the Department's offices in Orlando and Tallahassee.

Comments were submitted Mr. Gary V. Perko, Esq., on behalf of the City of Vero Beach. The Bureau has considered Mr. Perko's comments and has agreed on the changes he requested. In addition, the changes that were pointed out were the changes that were being made in this permitting action; however, the transposition of some of the changes did not happen in the proposed permit for some reason. Specific Condition No. 7 will be changed as follows:

A. <u>Specific Condition No. 7.</u>:

From: The permitted materials and utilization rates for the combined cycle gas turbine shall not exceed the values as follows:

- Maximum No. 2 fuel oil consumption shall not exceed 3,390 gals/hr.
- Maximum No. 2 fuel oil consumption shall not exceed 7,500,000 gals/yr.
- Maximum annual firing using No. 2 fuel oil shall not exceed 25% of the annual capacity factor.
- Maximum annual simple cycle operation shall not exceed 25% of the annual capacity factor.
- Maximum sulfur (S) content in the fuel oil shall not exceed 0.25 percent, by weight.
- Maximum heat input shall not exceed 414 MMBtu/hr (gas) or 438 MMBtu/hr (oil), based on 101.3 kilopascals pressure, 288° Kelvin and 60% relative humidity (ISO standard day conditions), and lower heating value of the fuel fired.

To: The permitted materials and utilization rates for the combined cycle gas turbine shall not exceed the values as follows:

- Maximum No. 2 fuel oil consumption shall not exceed 3,482 gals/hr.

- Maximum **annual** No. 2 fuel oil consumption shall not exceed **10,000,000** gals/yr.
- Maximum annual firing using No. 2 fuel oil shall not exceed **33%** of the annual capacity factor.
- Maximum sulfur (S) content in the fuel oil shall not exceed 0.25 percent, by weight.
- Maximum heat input shall not exceed 414 MMBtu/hr (gas) or 455 MMBtu/hr (oil), based on 101.3 kilopascals pressure, 288° Kelvin and 60% relative humidity (ISO standard day conditions), and lower heating value of the fuel fired.

B. Attachments to be incorporated:

o Mr. Gary V. Perko's letter with attachment received August 18, 1995.
o Mr. Shuler W. Massey's letter with enclosure dated August 28, 1995.

It is recommended that the proposed construction permit/amended federal construction permit, No. AC 31-253502/PSD-FL-152B, be issued with the above changes made.

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

PERMITTEE:
Vero Beach Municipal Power Plant
Post Office Box 1389
Vero Beach, Florida 32961

APIS No: 30ORL310005
Permit Number: AC31-253502/PSD-FL-152B
Expiration Date: August 15, 1996
County: Indian River
Latitude/Longitude: 27°37'59"N 80°22'41"W
Project: Modification of Power Plant Unit 5: 60 MW Combined Cycle Gas Turbine

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, 62-212, 62-275, 62-296, and 62-297, Florida Administrative Code (F.A.C.). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department of Environmental Protection (Department) and specifically described as follows:

For authorization to increase the allowable sulfur dioxide (SO_2) emissions from the existing 60 MW combined cycle gas turbine located at the Vero Beach Municipal Power Plant in Vero Beach, Indian River County, Florida. The increase is due to the installation of dry low-NO_x burners and an increase in the potential fuel oil consumption rate. The UTM coordinates are 561.385 km East and 3056.538 km North.

The Specific Conditions contained in air construction permits, Nos. AC 31-184928/PSD-FL-152, and an associated letter amendment to construction permits, Nos. AC 31-184928A/PSD-FL-152A, are superceded by this permit's Specific Conditions for only the changes that are bolded. The original BACT determination does not require revision.

Attachments are listed below:

1. Construction permits, Nos. AC 31-184928/PSD-FL-152, and revised BACT issued June 28, 1991.
2. Mr. Howard L. Rhodes's letter amendment dated March 27, 1995.
3. Mr. Peter C. Cunningham's letter with Attachments dated and received May 16, 1995.
4. **Mr. C. H. Fancy's letter with attachments dated August 4, 1995.**
5. **Mr. Gary V. Perko's letter with attachment received August 18, 1995.**
6. **Mr. Shuler W. Massey's letter with enclosure dated August 28, 1995.**

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.

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

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of

GENERAL CONDITIONS:

credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

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

a. a description of and cause of non-compliance; and,

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

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by F.S. or Department rules.

GENERAL CONDITIONS:

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

(X) Determination of Best Available Control Technology (BACT): AC 31-184928
(X) Determination of Prevention of Significant Deterioration (PSD): PSD-FL-152
(X) Compliance with New Source Performance Standards (NSPS): 40 CFR 60, Subpart GG

14. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and,
- the results of such analyses.

SPECIFIC CONDITIONS:

1. The permittee shall maintain the construction required duct modules for the potential installation of a selective catalytic reduction (SCR) system.

2. The Department acknowledges that the permittee installed dry low-NO_x combustors. Based on the compliance test results, the maximum allowable emissions from Unit 5 shall not exceed the emission limitations listed in the new Table 5, which replaces Tables 1 thru 4. In the event a SCR system is required to be installed, the emission limitations shall be established at the time of installation by stack test results and through a revised determination of BACT. If a SCR system is installed, it may be bypassed during simple cycle operation.

3. Unless the Department has determined other concentrations are required to protect public health and safety, predicted ambient reference concentrations (ARC) of the following pollutants shall not be exceeded:

	Ambient Reference Concentrations ug/m^3		
Pollutant	8 hrs	24 hrs	Annual
Beryllium	0.02	0.005	0.0004
Lead	1.5	0.36	0.09
Inorganic mercury compounds, all forms of vapor, as Hg	--	--	0.3

4. Visible emissions shall not exceed 10% opacity.

5. This source/emissions unit is allowed to operate continuously (8760 hours per year).

6. This source/emissions unit is allowed to use either natural gas or No. 2 fuel oil.

7. The permitted materials and utilization rates for the combined cycle gas turbine shall not exceed the values as follows:

- Maximum No. 2 fuel oil consumption shall not exceed 3,482 gals/hr.
- Maximum annual No. 2 fuel oil consumption shall not exceed 10,000,000 gals/yr.
- Maximum annual firing using No. 2 fuel oil shall not exceed 33% of the annual capacity factor.
- Maximum sulfur (S) content in the fuel oil shall not exceed 0.25 percent, by weight.

SPECIFIC CONDITIONS:

- Maximum heat input shall not exceed 414 MMBtu/hr (gas) or 455 MMBtu/hr (oil), based on 101.3 kilopascals pressure, 288° Kelvin and 60% relative humidity (ISO standard day conditions), and lower heating value of the fuel fired.

8. Any change in the method of operation, equipment or operating hours shall be submitted to the Department's Bureau of Air Regulation office and Central District office.

9. Any other operating parameters established during compliance testing and/or inspection that will ensure the proper operation of this facility shall be included in the operating permit.

10. Initial (I) compliance tests shall be performed on each CT using both fuels. In accordance with Specific Condition No. 14, annual (A) compliance tests shall be performed on each CT with the fuel(s) used for more than 400 hours in the preceding 12-month period. Tests shall be conducted using EPA referenced methods in accordance with the November 2, 1989 version of 40 CFR 60, Appendix A, and 40 CFR 61, Appendix B; and, the solid waste regulations SW 846:

a. 5 or 17 for PM (I, A, for oil only)

b. 10 for CO (I)

c. 9 for VE (I, A)

d. 20 for NO_x (I, A)

e. Trace elements of Beryllium (Be) shall be tested (I, for oil only) using EMTIC Interim Test Method. As an alternative, Method 104 may be used; or Be may be determined from fuel sample analysis using either Method 7090 or 7091, and sample extraction using Method 3040 as described in the EPA solid waste regulations SW 846.

f. Mercury (Hg) shall be tested using EPA Method 101 (40 CFR 61, Appendix B) (I, for oil only) or fuel sampling analysis using methods acceptable to the Department.

g. 25A for VOC (I; no VOC stack test is required provided that the CO stack test demonstrates compliance with the allowable CO limit).

Note: Other DEP approved methods may be used for compliance testing after prior Departmental approval is received in writing.

SPECIFIC CONDITIONS:

11. Method 5 must be used to determine the initial compliance status of this unit. Thereafter, the opacity emissions test may be used unless 10% opacity is exceeded.

12. Compliance with the SO_2 emission limit can also be determined by calculations based on fuel analysis using ASTM D2880-71 for the sulfur content of liquid fuels and ASTM D1072-80, D3031-81, D4084-82 or D3246-81 for sulfur content of gaseous fuels.

13. During performance tests, to determine compliance with the NSPS NO_X standard, measured NO_X emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following equation:

$$NO_X = (NO_{XO}) \times (P_r/P_o)^{0.5} \times e^{19(Ho - 0.00633)} \times (288°K/T_a)^{1.53}$$

where:

NO_X = emission rate of NO_X at 15 percent O_2 and ISO standard ambient conditions, volume percent.

NO_{XO} = observed/measured NO_X concentration at 15 percent O_2, ppmv.

P_r = reference combustor inlet absolute pressure at 101.3 kilopascals (1 atmosphere) ambient pressure, mm Hg.

P_o = observed/measured combustor inlet absolute pressure at test ambient pressure, mm Hg.

H_o = observed/specific humidity of ambient air, g H_2O/g air, at test.

e = transcendental constant, 2.718.

T_a = ambient temperature, °K, at test.

14. Test results will be the average of 3 valid runs. The Central District will be notified at least 15 days in writing in advance of any subsequent compliance test. Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 95-100 percent of the maximum heat input rate allowed by permit, corrected for the average ambient air temperature during the test, with 100 percent capacity represented by a curve depicting heat input v. ambient temperature. If it is impracticable to test at permitted capacity, the source/ emissions unit may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the heat input v. ambient temperature curve downward by an increment equal to

SPECIFIC CONDITIONS:

the difference between the maximum permitted heat input (corrected for ambient temperature) and 105 percent of the value reached during the last compliance test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of conducting an additional compliance test to regain the permitted capacity. Compliance test results shall be submitted to the Department's Central District office no later than 45 days after completion.

15. After the installation of low NO_X combustors or SCR, the permittee shall determine compliance with the NO_X standards in accordance with Specific Conditions Nos. 10 and 13.

16. A continuous monitoring system shall be installed to monitor and record the fuel consumption. Continuous monitoring shall also be installed, operated, and maintained in accordance with 40 CFR 60, Appendix F, or 40 CFR 75, if adopted and applicable, for the combined cycle unit to monitor nitrogen oxides emissions.

a. Each continuous emission monitoring system (CEMS) shall meet performance specifications of 40 CFR 60, Appendix B, or 40 CFR 75, if adopted and applicable.

b. CEMS data shall be recorded and reported in accordance with Chapter 17-2 (now Chapter 62-297), F.A.C., and 40 CFR 60. The record shall include periods of startup, shutdown and malfunction.

c. A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation or any other preventable upset conditions or preventable equipment breakdown shall not be considered malfunctions.

d. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation and operation of all CEMS.

e. For purposes of reports required under this permit, excess emissions are defined as any one (1) hour period during which the average emissions of all readings collected during a continuous 60-minute period exceed the applicable emission limits in Table 5 referenced in Specific Condition No. 2. Quarterly excess emissions reports, in accordance with the July 1, 1992 edition of 40 CFR 60.7 and 40 CFR 60.13, shall be submitted to the Department's Central District office. The continuous

SPECIFIC CONDITIONS:

emission monitor system (CEM) shall be in compliance with 40 CFR 60, Appendix F - Quality Assurance Procedure, and 40 CFR 60, Appendix B - Performance Specification 2 or the applicable provisions of 40 CFR 75, if adopted. EPA Method 7E or equivalent (requires Department approval in writing) shall be used for the Determination of Nitrogen Oxide Emissions.

17. Sulfur, nitrogen content and lower heating value of the fuel oil being fired in the gas turbine shall be recorded daily. The records of fuel oil usage will be kept by the company for a five-year period and available for any regulatory agency's inspection.

18. This source/**emissions unit** shall comply with all applicable provisions of Chapter 403, F.S., and Chapters 17-2 and 17-4 **(now Chapters 62-210 thru 62-297 and 62-4, respectively)**, F.A.C.

19. This source/emissions unit shall comply with all requirements of 40 CFR 60, Subpart GG, and F.A.C. Rule 62-296.800, standards of performance for Stationary Gas Turbines. Excess emissions shall be reported as measured by the continuous emission monitoring system pursuant to 40 CFR 60.334(c).

20. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements and regulations (F.A.C. Rule 62-2.210(1)).

21. This source/**emissions unit** shall comply with F.A.C. Rule 62-2.700 **(now Chapters 62-296 and 62-297)**, Stationary Point Source Emission Test Procedure.

22. Pursuant to Rule 62-210.370(3), F.A.C., Air Operating Report (AOR), the permittee is required to submit an AOR on the actual operating rate and emissions from the facility for the previous year's operation. The AOR shall include, but is not limited to, the following: sulfur and nitrogen contents, by weight, and lower heating value of the fuel oil being fired, annual fuel consumption (fuel oil and natural gas), hours of operation per fuel usage (singly fired and co-fired), actual air pollutant emissions, etc. The AOR shall be sent to the Department's Central District office by March 1 of each year and represents the previous calendar year's operation.

23. The Specific Conditions contained in air construction permits, Nos. AC 31-184928/PSD-FL-152, and associated letter amendment to construction permits, Nos. AC 31-184928A/PSD-FL-152A, are superceded by this permit's Specific Conditions for only the changes that are printed in bold type.

SPECIFIC CONDITIONS:

24. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. (Rule 62-4.090, F.A.C.)

25. **If Florida is granted interim or full approval for the Title V operation permit program prior to December 1, 1995, this condition is negated.** An application for an operation permit must be submitted to the Department's Central District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the permittee shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit. (Rules 62-4.055 and 62-4.220, F.A.C.)

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Howard L. Rhodes, Director
Division of Air Resources Management

CITY OF VERO BEACH MUNICIPAL POWER PLANT UNIT 5 (AC31-253502/PSD-FL-152B)

Table 5 (New: replaces Tables 1 thru 4)
ALLOWABLE EMISSION LIMITS

Pollutant	Standards: Gas Firing	Standards: No. 2 Fuel Oil Firing	Gas Turbine and HRSG Tons Per Year (a)(b)	Basis
NO_x(c)	25 ppmvd at 15% oxygen on a dry basis	42 ppmvd at 15% oxygen on a dry basis	243.7	BACT
SO_2	Natural gas as fuel	0.25% S by weight	178.2	BACT
PM	0.006 lbs/MMBtu	0.025 lbs/MMBtu	23.7	BACT
VOC	0.0112 lbs/MMBtu	0.0113 lbs/MMBtu	21.0	BACT
CO	0.0224 lbs/MMBtu	0.0226 lbs/MMBtu	42.1	BACT
Mercury (Hg)		3.0×10^{-6} lbs/MMBtu	0.0019	Est. by Appl.
Lead (Pb)		2.8×10^{-5} lbs/MMBtu	0.018	Est. by Appl.
Beryllium (Be)		2.5×10^{-6} lbs/MMBtu	0.0016	BACT
Sulfuric Acid Mist	Natural gas as fuel	8.1×10^{-3} lbs/MMBtu	5.3	BACT

(a) Tons per year figures based on 67 percent capacity factor for natural gas firing; 33 percent capacity factor for No. 2 fuel oil firing. Maximum sulfur content of the No. 2 fuel oil shall not exceed 0.25%, by weight.

(b) Based on following heat input rates while firing: Natural Gas - 414 MMBtu/hr; and, Fuel Oil - 455 MMBtu/hr.

(c) The following equation shall be used to determine the emission limit applicable during co-firing of natural gas and No. 2 fuel oil:

$$\text{Emission limit} = \frac{(A1 \times A2) + (B1 \times B2)}{A2 + B2}$$

Where:
A1 = Emission Stand for Natural Gas Firing
A2 = Heat Input of Natural Gas
B1 = Emission Standard for No. 2 Fuel Oil Firing
B2 = Heat Input of No. 2 Fuel Oil

ATTACHMENTS

City of Vero Beach

100 - 17th STREET - P. O. BOX 1389
VERO BEACH, FLORIDA - 32961-1389
Telephone: (407) 567-5151
Fax: (407) 569-5981

MUNICIPAL POWER PLANT

August 28, 1995

Mr. Clair H. Fancy. P.E.
Bureau of Air Regulation
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Unit 5 Construction Permit AC31-253502; PSD-FL-152B

Mr. Fancy:

Please find enclosed, a copy of the Notice of Intent to Issue Permit for the Unit 5 Combustion Turbine, which was published in the August 25, 1995, issue of the Press Journal, the City's local newspaper.

If you have any questions regarding this matter, please contact Mike Siefert at (407) 562-7231.

Sincerely,

Shuler W. Massey
Director of Power Resources

SWM/ms

Mail Certified No. Z 115 133 075

cc:	Mike Siefert	CVB
	T. R. Nason	CVB
	Gary Perko	HGSS
	Charles Collins	FDEP Central District

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL PROTECTION
NOTICE OF INTENT TO ISSUE PERMIT
AC 31-253502
PSD-FL-152B

The Department of Environmental Protection (Department) gives notice of its intent to issue a permit to Vero Beach Municipal Power Plant, Post Office Box 1389, Vero Beach, FL 32961, for a modification to Unit 5, which is an existing 60 MW combined cycle gas turbine. The existing facility is located in Indian River County, Florida. A determination of Best Available Control Technology was required in the original permitting activity, issued June 28, 1991, and will not be revised. The modification is associated with the installation of dry low-NOx burners for NOx emissions control and the resultant increases in fuel oil consumption, heat input while on fuel oil, and emissions of SO^2. SINCE THE REquested changes are a modification, (i.e., emission related and federally enforceable), issuance of a new state construction permit/amended federal construction permit is deemed necessary. For the SO^2 EMISSIONS IMPACT, THE PROPOSED LEVEL W A S evaluated by modeling during the original permitting activity and is acceptable. The Department is issuing this Intent to Issue for the reasons stated above and in the transmittal letter.

Any person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under section 120.57, F.S.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the request have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

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

Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Department of Environmental Protection
Central District
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767

Any person may send written comments on the proposed action to Mr. Bruce Mitchell at the Department's Tallahassee address. All comments received within 14 days of the publication of this notice will be considered in the Department's final determination.

Aug. 25, 1995 1227875

HOPPING GREEN SAMS & SMITH
PROFESSIONAL ASSOCIATION
ATTORNEYS AND COUNSELORS
123 SOUTH CALHOUN STREET
POST OFFICE BOX 6526
TALLAHASSEE, FLORIDA 32314
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KAREN M. PETERSON
MICHAEL P. PETROVICH
DOUGLAS S. ROBERTS
LISA K. RUSHTON
R. SCOTT RUTH
JULIE R. STEINMEYER

OF COUNSEL
CARLOS ALVAREZ
W. ROBERT FOKES

August 18, 1995

RECEIVED
AUG 18 1995
Bureau of
Air Regulation

BY HAND DELIVERY

Mr. Bruce Mitchell
Bureau of Air Regulation
Department of Environmental Protection
111 South Magnolia Street, Suite 29
Tallahassee, Florida 32399-2400

RE: Vero Beach Municipal Power Plant, Unit 5
Construction Permit Issuance/Amendment
Permit No. AC 31-253502, PSD-FL-152B

Dear Mr. Mitchell:

I am writing on behalf of the City of Vero Beach regarding the above-referenced permit which the Department (re)issued by letter dated August 4, 1995. As discussed by telephone, most of the changes to the original permit discussed in the Department's letter are consistent with our letter of May 16, 1995, and are, therefore, acceptable to the City of Vero Beach. Unfortunately, due to apparent typographical errors, some of the agreed-upon changes were not made in the attached permit. In that regard, Specific Condition 7 should read as follows (bolded items indicate agreed-upon changes that were not made in the attached permit):

The permitted materials and utilization rates for the combined cycle gas turbine shall not exceed the values as follows:

- Maximum No. 2 fuel oil consumption shall not exceed 3,482 gals/hr.
- Maximum annual No. 2 fuel oil consumption shall not exceed **10,000,000** gals/yr.
- Maximum annual firing using No. 2 fuel oil shall not exceedy 33% of the annual capacity factor.
- Maximum sulfur (S) content in the fuel oil shall not exceed 0.25 percent, by weight.
- Maximum heat input shall not exceed 414 MMBtu/hr (gas) or 455 MMBtu/hr (oil), based on 101.3 kilopasacals presure, 288° Kelvin and 60% relative humidity (ISO standard day conditions), and lower heating value of the fuel fired.

In addition, the permit attached to the Department's letter fail to include minor revisions to certain annual emission limits which are necessitated by the new oil-firing capacity factor limit of 33% (rather than 25% in the original permit). The correct annual emission limits as indicated in the attached table, which was provided with our letter of May 16, 1995.

As discussed by telephone, the City is prepared to accept the new (reissued) permit once the typographical errors noted above. Your consideration in this matter is very much appreciated. If you any questions, please do not hesitate to call.

Sincerely,

HOPPING GREEN SAMS & SMITH, P.A.

By: Gary V. Perko

Attorneys for CITY OF VERO BEACH

cc: Peter Cunningham (HGSS)
Mike Siefert (CVB)

TABLE A
ALLOWABLE EMISSION LIMITS

Pollutant	Standards: Gas Firing	Standards: No. 2 Fuel Oil Firing	Gas Turbine and HRSG Tons Per Year[a][b]	Basis
NOx[c]	25 ppmvd at 15% oxygen on a dry basis	42 ppmvd at 15% oxygen on a dry basis	239	BACT
SO_2	Natural gas as fuel	0.25 percent S by weight	178.2	BACT
PM	0.006 lb/MMBtu	0.025 lb/MMBtu	23.7	BACT
VOC	0.0112 lb/MMBtu	0.0113 lb/MMBtu	21.0	BACT
CO	0.0224 lb/MMBtu	0.0226 lb/MMBtu	45.0	BACT
Mercury (Hg)		3.0×10^{-6} lbs/MMBtu	0.002	Est. by Appl.
Lead (Pb)		2.8×10^{-5} lbs/MMBtu	0.018	Est. by Appl.
Beryllium (be)		2.5×10^{-6} lbs/MMBtu	0.0016	BACT
Sulfuric Acid Mist	Natural gas as fuel	8.1×10^{-3} lbs/MMBtu	5.33	BACT

(a) Tons per year figures based on 67 percent capacity factor for gas-firing; 33 percent capacity factor for oil firing.

(b) Based on following heat input rates:
Based Load (gas): 414 MMBtu/hr
Base Load (oil): 455 MMBtu/hr

(c) The following equation shall be used to determine the emission limit applicable during co-firing of natural gas and No. 2 fuel oil:

$$\text{Emission limit} = \frac{(A1 \times A2) + (B1 \times B2)}{A2 + B2}$$

Where:
A1 = Emission Stand for Natural Gas Firing
A2 = Heat Input of Natural Gas
B1 = Emission Standard for No. 2 Fuel Oil Firing
B2 = Heat Input of No. 2 Fuel Oil

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

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

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

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

[X] 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:

[ ] 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).

[X] 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.

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

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Facility-Wide Fugitive Emissions**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [X] Unknown		
3. Emissions Unit Status Code: **A**	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code:
6. Emissions Unit Comment (limit to 500 characters): **See Attachment VB-E06-B6**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):

Petroleum Product Storage -- Fugitive Emissions (Storage).

2. Source Classification Code (SCC):

4-03-888-01

3. SCC Units:

Thousand gallons stored

4. Maximum Hourly Rate:	5. Maximum Annual Rate:

6. Estimated Annual Activity Factor:

5,019

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:

9. Million Btu per SCC Unit:

10. Segment Comment (limit to 200 characters):

Segment refers to combined storage capacity of various petroleum product storage tanks contained in emission unit at time of permit appl. submittal. See Attachment VB-E06-B6.

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Petroleum Product Storage -- Fugitive Emissions (Throughput)**
2. Source Classification Code (SCC): **4-03-999-99**
3. SCC Units: **Thousand gallons throughput**

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor: **131,350**	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	

10. Segment Comment (limit to 200 characters): **Segment refers to combined maximum throughput of various petroleum products for emission units at time of permit appl. submittal. See Attachment VB-E06-B6.**

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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] 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 the 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 the 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.

   [X] 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.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] 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 the source 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 the source 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 the emissions unit consumes increment.

[X] 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	[ ] E	[X] Unknown
	SO_2	[ ] C	[ ] E	[X] Unknown
	NO_2	[ ] C	[ ] E	[X] Unknown
4.	Baseline Emissions:			
	PM	0 lb/hour	0 tons/year	
	SO_2	0 lb/hour	0 tons/year	
	NO_2		0 tons/year	
5.	PSD Comment (limit to 200 characters):			
	Baseline emissions not known.			

ATTACHMENT VB-EU6-B6

EMISSIONS UNIT COMMENT

TRIVIAL ACTIVITIES

There are trivial activities at the facility that are identified as examples of, but are not limited to, the trivial activities identified by the Division of Air Resources Management's (DARM's) guidance. For example, these activities include plant maintenance and upkeep activities (e.g., ground-keeping, general repairs, cleaning, painting, welding, paving parking lots), office, equipment operations, steam vents and safety relief valves. It is understood that such activities do not have to be included in with the Title V Application. The trivial activities identified herein are consistent, in terms of amounts of emissions and types, with those activities listed in DARM's guidance.

NOTIFICATION OF TEMPORARY EXEMPTIONS

Pursuant to Rule 62-210.300(3)(b)1., notice is herein provide that the emissions units listed below are not subject to a permit issued by the Department of Environmental Protection and are exempt from permitting until a final determination is made under the Title V permitting requirements (Rule 62-213 F.A.C.). These units would not have triggered review under Rules 62-212.400 or 62-212.500 or any new source performance standard listed in Rule 62-204.800 F.A.C. Pursuant to Rule 62-210.300(3)(b)1., F.A.C., the City authorizes the Department to inspect these emission units at the Department's discretion.

Attachment VB-E06-B6
General Emissions Unit Information for Unregulated Emissions Unit

Table 1. City of Vero Beach, Municipal Power Plant, Unregulated Emissions Unit

Area	Emission Unit Description	Status
Power Plant Unit 1	Lube oil tank/ vent	UR
	Vapor extractor (roof top vent)	UR
Power Plant Unit 2	Lube oil tank/ vent	UR
	Vapor extractor (roof top vent)	UR
Power Plant Unit 3	Lube oil tank/ vent	UR
	Vapor extractor (roof top vent)	UR
Power Plant Unit 4	Lube oil tank/ vent	UR
	Vapor extractor (roof top vent)	UR
Power Plant Unit 5 (Combustion turbine)	Lube oil vent with demister	UR
	Startup generator/diesel engine	ER
	Diesel Tank	UR
Laboratory	Solvent use and hoods	ER
Fuel Storage	Tank No. 1/ No. 4 fuel oil (1,560,000 gal. capacity)	UR
	Tank No. 2/ No. 6 (Bunker C) fuel oil (3,108,000 gal. capacity)	UR
	Tank No. 3/ Diesel fuel oil (350,000 gal. capacity)	UR
	Diesel Tank- Vehicles (500 gal.)	UR
	Gasoline Tank- Vehicles (500 gal.)	UR
Cooling Tower	Potable/ reuse cooling water	UR

Attachment VB-E06-B6
General Emissions Unit Information for Unregulated Emissions Unit

Table 1. City of Vero Beach, Municipal Power Plant, Unregulated Emissions Unit

Area	Emission Unit Description	Status
Wastewater Treatment Plant	Reclaimed water storage tank (5,000,000 gal.)	UR
	Reclaimed water storage tank (3,000,000 gal.)	UR
	Sewer headworks	UR

Note: UR= Unregulated; ER= Exempt by Rule 62-210.300(3)(a).

Attachment VB-E06-B6
General Emissions Unit Information

Table 2. City of Vero Beach, Municipal Power Plant, Petroleum Product Storage and Throughput Operations

Tank ID	Storage Product	Storage Tank Size (gallons)	Potential Annual Throughput (gallons)
1	No. 4 fuel oil	1,560,000	43,426,000
2	No. 6 fuel oil	3,108,000	58,220,000
3	No. 2 fuel oil	350,000	29,696,000
V-GAS	Gasoline (vehicle)	500	2,500
V-DIES	Diesel (vehicle)	500	2,500
	TOTAL	5,019,000	131,347,000

Note: Non-vehicular tank throughput based on power plant units operating at 100 percent capacity.