

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

8/14/97
Date

* Attach letter of authorization if not currently on file.

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 [] 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.

Harold F. Kelly
Signature
(seal) *199*

12 August 1997
Date

* Attach any exception to certification statement.

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. High heating value (HHV) reported for heat content.	

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

Segment Description and Rate: Segment 1 of 5

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: 0.241	5. Maximum Annual Rate: 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.	

Segment Description and Rate: Segment 2 of 5

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: 1.5	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 150	
10. Segment Comment (limit to 200 characters): Maximum percent sulfur based on small boiler BACT of 1.5% sulfur (<250 MMBtu/hr). 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 5

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 4 of 5

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 No.2	
2. Source Classification Code (SCC): 1-01-005-01	
3. SCC Units: 1,000 Gallons	
4. Maximum Hourly Rate: 1.78	5. Maximum Annual Rate: 15,629
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 High Heating Value (HHV) reported for maximum heat content of unit fuel will not increase emissions.	

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

Segment Description and Rate: Segment 5 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Electric Utility Boiler - Liquefied Petroleum Gas (LPG) - Propane	
2. Source Classification Code (SCC): 1-01-010-02	
3. SCC Units: Thousand Gallons Burned	
4. Maximum Hourly Rate: 2.74	5. Maximum Annual Rate: 24,005
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 91	
10. Segment Comment (limit to 200 characters): Million Btu per SCC Unit: 90.5 (rounded to 91). Reported for maximum heat input of unit. Fuel does not increase emissions.	

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):	

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
Propane	4.27	—	—	<0.8	—	21,190 BTU/lb 90,500 BTU/gal
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	2.5	0.32	0.05	18,400 BTU/lb 150,000 BTU/gal

^a At 60 degrees F.

^b Represented as lb/ft³. Based on heat capacities presented.

^c Represented as grains/100 ft³.

^d Atmospheric nitrogen.

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

Segment Description and Rate: Segment 1 of 5

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: 0.405	5. Maximum Annual Rate: 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.	

Segment Description and Rate: Segment 2 of 5

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 5

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 4 of 5

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 No.2	
2. Source Classification Code (SCC): 1-01-005-01	
3. SCC Units: 1,000 Gallons	
4. Maximum Hourly Rate: 3.01	5. Maximum Annual Rate: 26,375
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 High Heating Value (HHV) reported for maximum heat content of unit fuel will not increase emissions.	

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

Segment Description and Rate: Segment 5 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Electric Utility Boiler - Liquefied Petroleum Gas (LPG) - Propane	
2. Source Classification Code (SCC): 1-01-010-02	
3. SCC Units: Thousand Gallons Burned	
4. Maximum Hourly Rate: 4.61	5. Maximum Annual Rate: 40,364
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 91	
10. Segment Comment (limit to 200 characters): Million Btu per SCC Unit: 90.5 (rounded to 91). Reported for maximum heat input of unit. Fuel does not increase emissions.	

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):	

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
Propane	4.27	—	—	<0.8	—	21,190 BTU/lb 90,500 BTU/gal
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/ft³. Based on heat capacities presented.

^c Represented as grains/100 ft³.

^d Atmospheric nitrogen.

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

Segment Description and Rate: Segment 1 of 5

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: 0.665	5. Maximum Annual Rate: 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.	

Segment Description and Rate: Segment 2 of 5

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 to meet SO2 emission limit. 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 5

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: 4.757	5. Maximum Annual Rate: 41,671
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): 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 4 of 5

<p>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 No.2</p>	
<p>2. Source Classification Code (SCC): 1-01-005-01</p>	
<p>3. SCC Units: 1,000 Gallons</p>	
<p>4. Maximum Hourly Rate: 4.95</p>	<p>5. Maximum Annual Rate: 43,326</p>
<p>6. Estimated Annual Activity Factor:</p>	
<p>7. Maximum Percent Sulfur: 0.25</p>	<p>8. Maximum Percent Ash:</p>
<p>9. Million Btu per SCC Unit: 139</p>	
<p>10. Segment Comment (limit to 200 characters): Million Btu per SCC Unit: 138.5 High Heating Value (HHV) reported for maximum heat content of unit fuel will not increase emissions.</p>	

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

Segment Description and Rate: Segment 5 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Electric Utility Boiler - Liquefied Petroleum Gas (LPG) - Propane	
2. Source Classification Code (SCC): 1-01-010-02	
3. SCC Units: Thousand Gallons Burned	
4. Maximum Hourly Rate: 7.54	5. Maximum Annual Rate: 66,086
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 91	
10. Segment Comment (limit to 200 characters): Million Btu per SCC Unit: 90.5 (rounded to 91). Reported for maximum heat input of unit. Fuel does not increase emissions.	

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):	

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
Propane	4.27	—	—	<0.8	—	21,190 BTU/lb 90,500 BTU/gal
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	2.5	0.32	0.05	18,400 BTU/lb 150,000 BTU/gal

^a At 60 degrees F.

^b Represented as lb/ft³. Based on heat capacities presented.

^c Represented as grains/100 ft³.

^d Atmospheric nitrogen.

ATTACHMENT VB-EU4-L10
ALTERNATE METHODS OF OPERATION
Fossil Fuel Steam Generator Unit 4

Unit 4 is authorized under 60.43(c) to burn either natural gas or a combination of natural gas and No. 6 or No. 4 fuel oils that is not to exceed the SO₂ emission limit of 0.8 lb/MMBtu. The unit may also burn low-sulfur No. 4 fuel oil (0.7 percent sulfur, maximum). The unit may operate continuously (i.e., 8,760 hours per year).