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**TITLE V PERMIT RENEWAL  
APPLICATION**

BUREAU OF AIR REGULATION

**WALT DISNEY WORLD CO.**

**JULY 5, 2002**

0950111-021-AV

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**Owner/Authorized Representative or Responsible Official**

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

Name : Lee Schmutde  
Title : Vice President

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

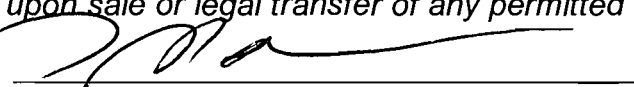
Organization/Firm : Walt Disney World Co.  
Street Address : PO Box 10,000  
City : Lake Buena Vista  
State : FL Zip Code : 32830-1000

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

Telephone : (407)828-1723 Fax : (407)828-4311

4. Owner/Authorized Representative or Responsible Official Statement :

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

  
Signature

6/27/02  
Date

\* Attach letter of authorization if not currently on file.

I. Part 2 - 1

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

**Application Processing Fee**

Check one :

[ ] Attached - Amount : \$0.00 [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 : Richard A. Bumar, Jr. Registration Number : 55375
2. Professional Engineer Mailing Address :  Organization/Firm : Walt Disney World Co. Street Address : PO Box 10,000 City : Lake Buena Vista State : FL Zip Code : 32830-1000
3. Professional Engineer Telephone Numbers : Telephone : (407)828-3847 Fax : (407)828-3876

4. Professional Engineer 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 pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

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

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

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

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

*Richard Anthony Bunker*

Signature

*7/5/02*

Date

Attach any exception to certification statement.

NO. 55375

I. Part 6 - 1

DEP Form No. 62-210-900(1) - Form

Effective 03-21-96

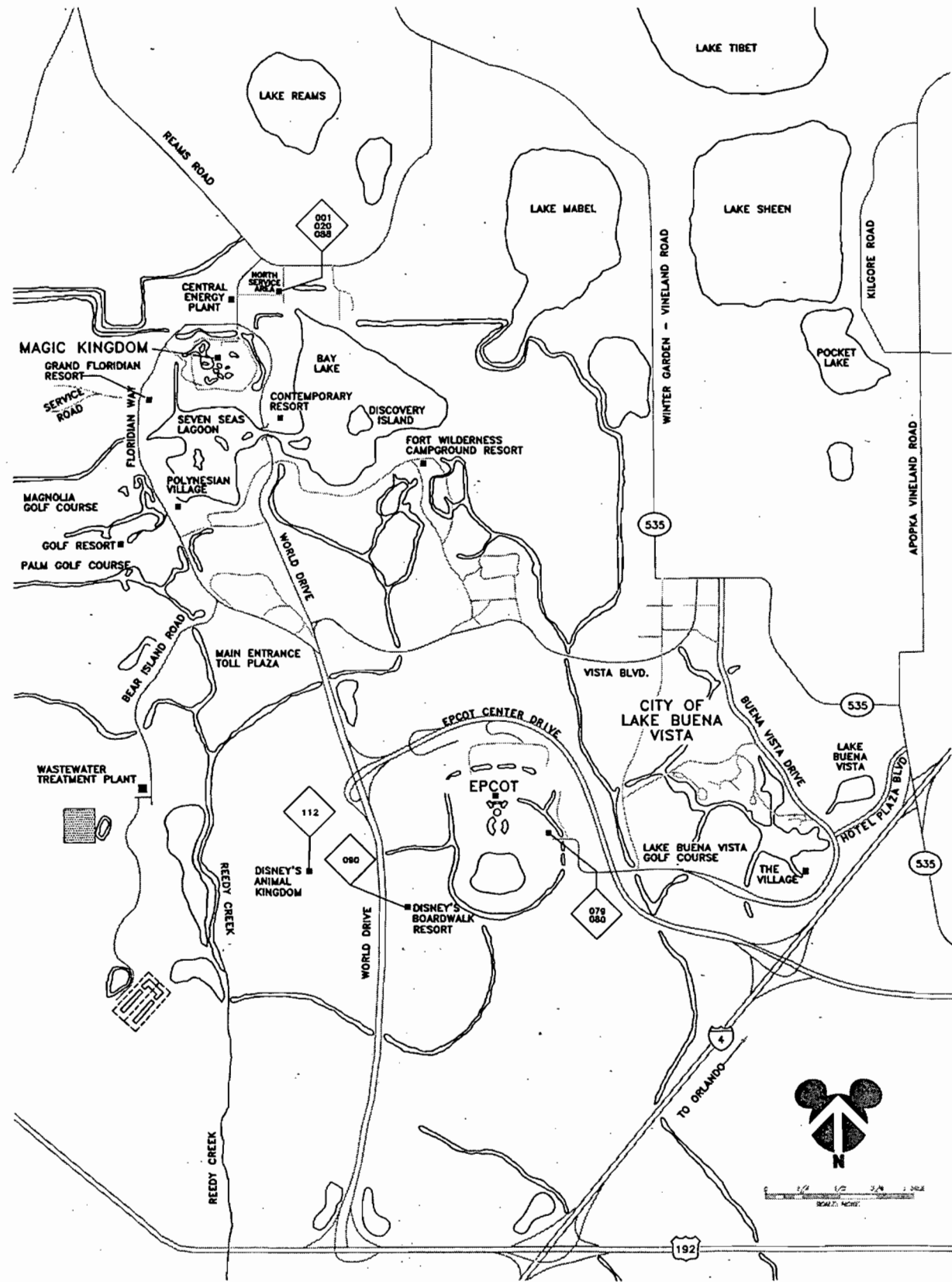
PROFESSIONAL ENGINEER

STATE OF FLORIDA

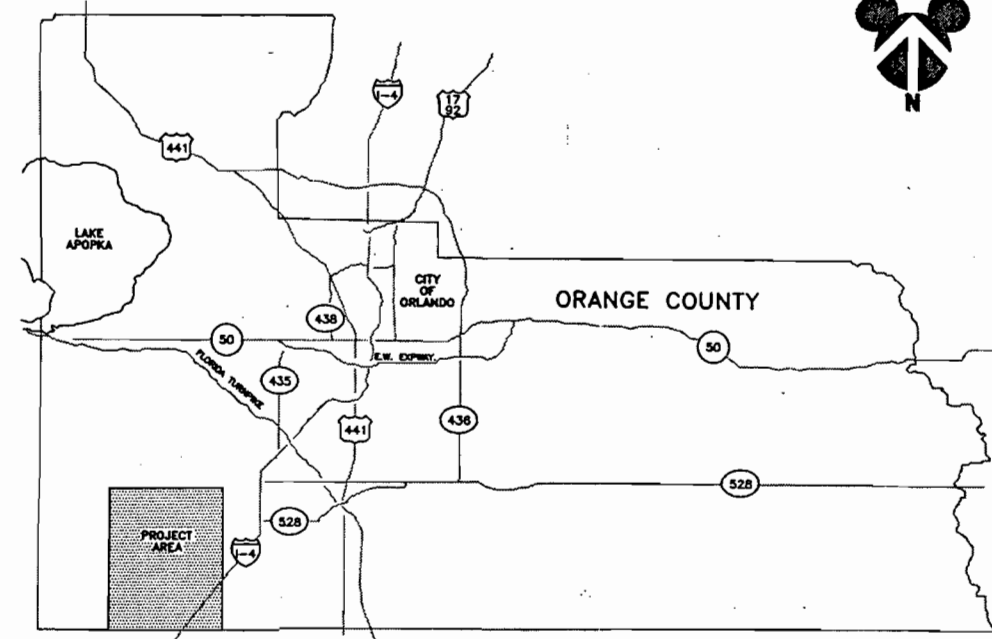
SEAL

**ATTACHMENT A**

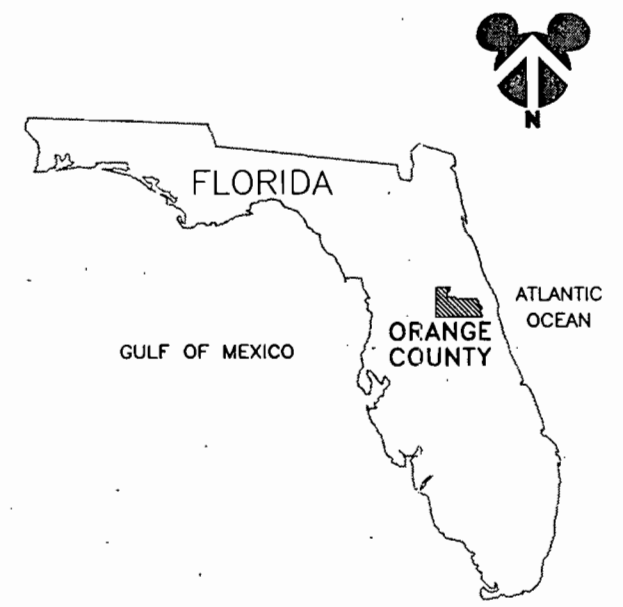
**AREA MAP SHOWING FACILITY LOCATIONS**



SITE LOCATION MAP



VICINITY MAP



LOCATION MAP

AREA MAP SHOWING FACILITY LOCATION

**ATTACHMENT B**  
**FACILITY PLOT PLANS**



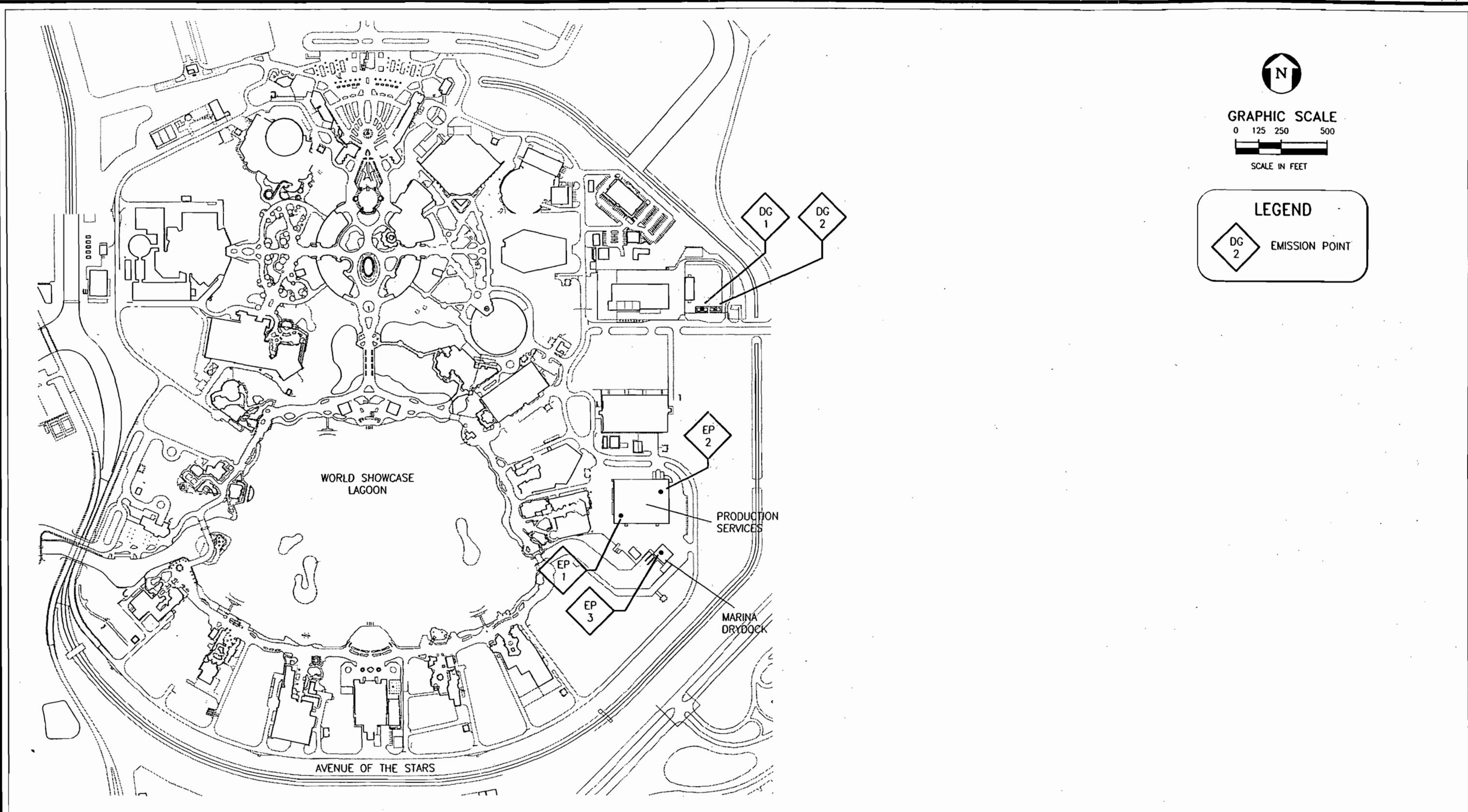
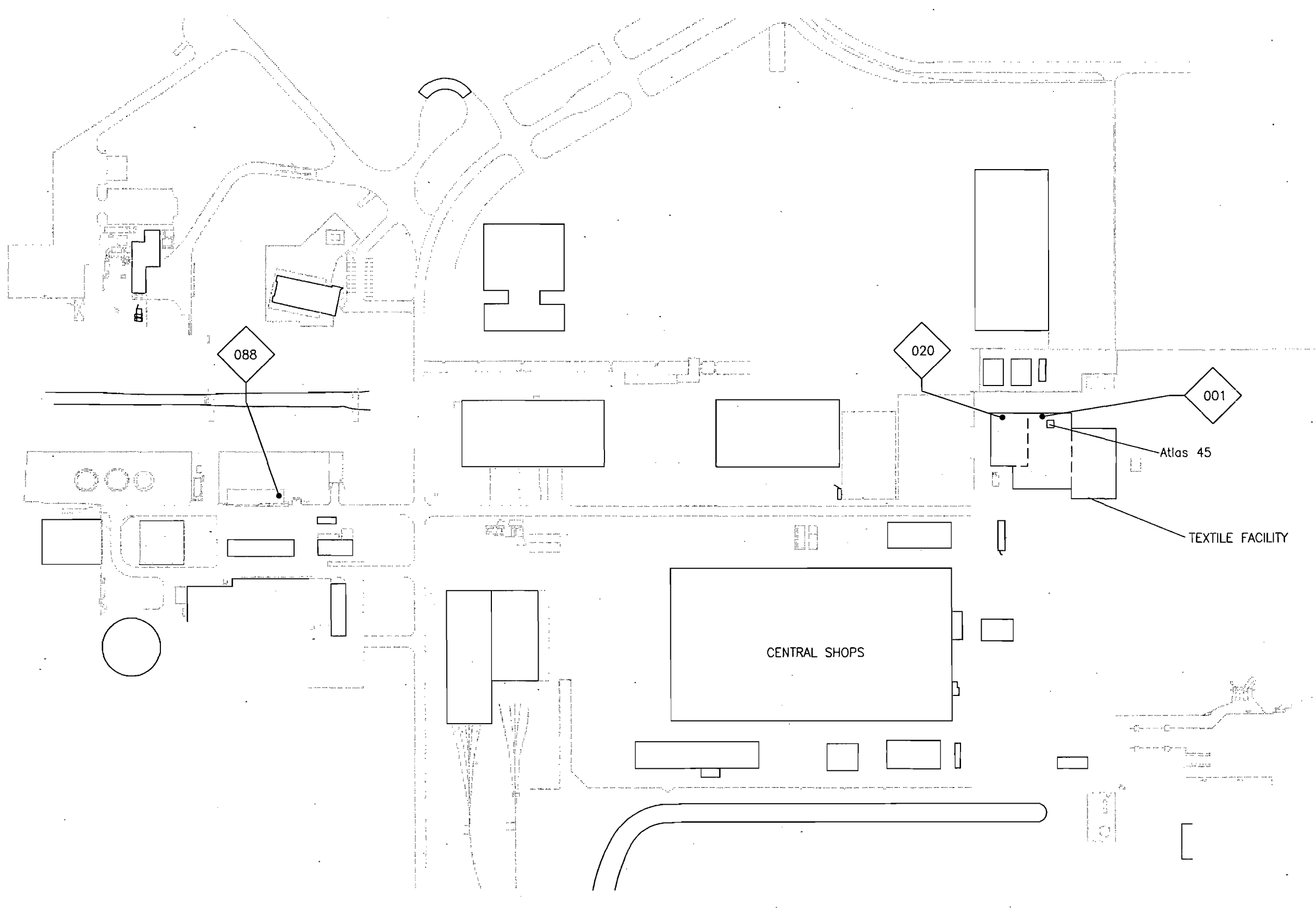


FIGURE II.D.2.10.  
 WALT DISNEY WORLD RESORT COMPLEX EMISSION SOURCE LOCATION  
 EPCOT CENTER

Source: WDW Co., 1995. ECT, 1995.





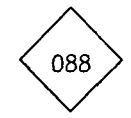
GRAPHIC SCALE

0 62.5 125 250



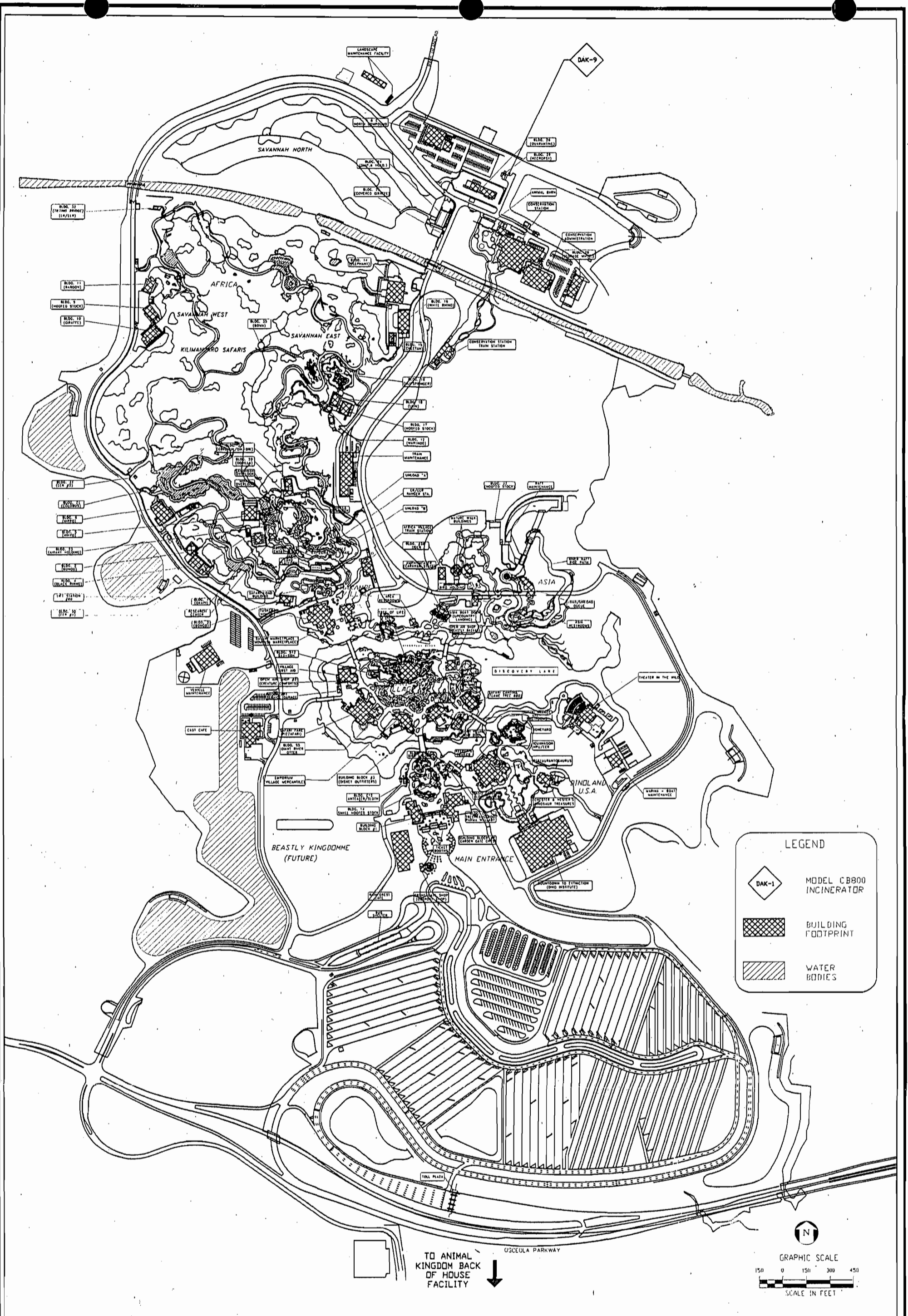
SCALE IN FEET

LEGEND



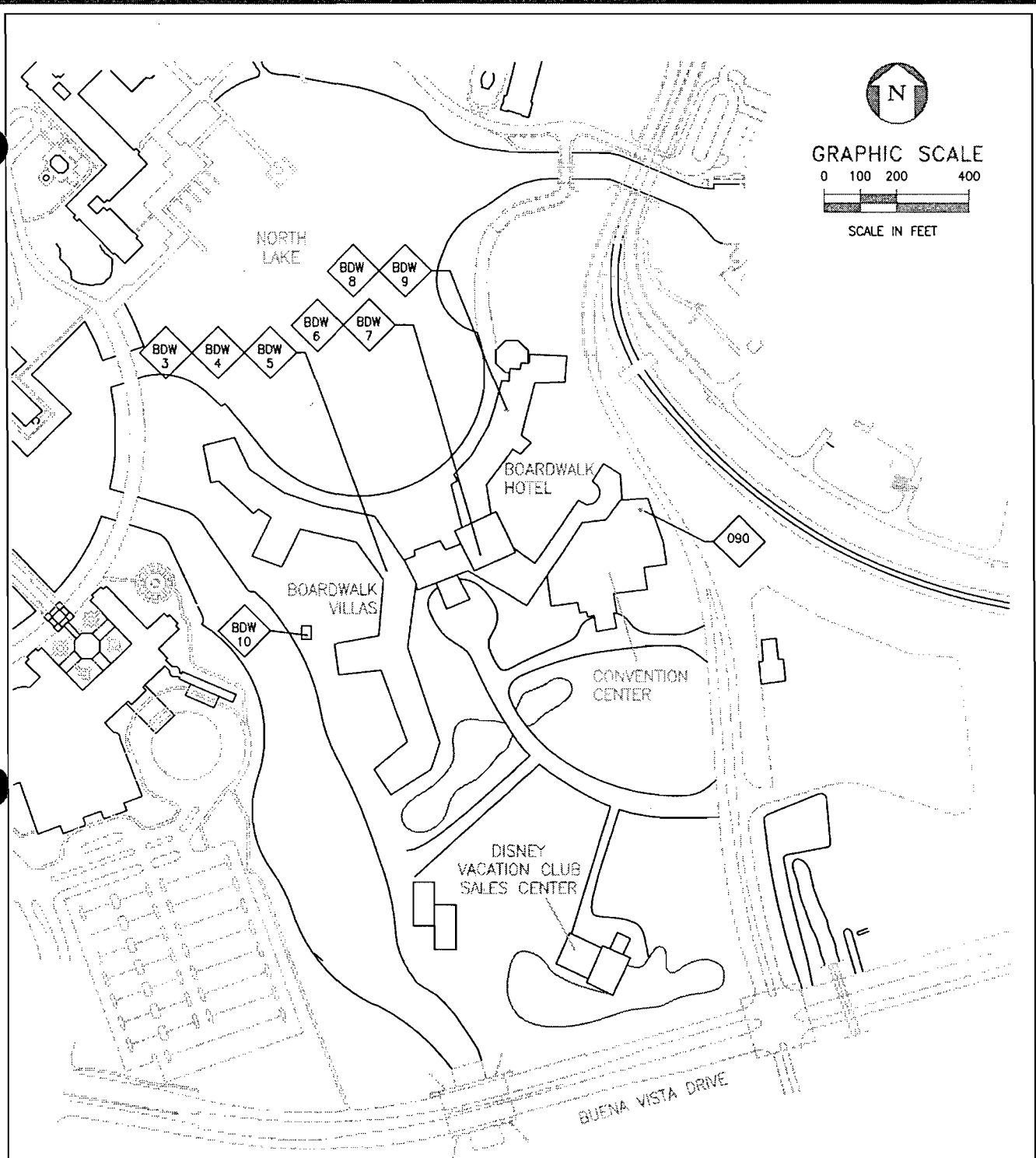
EMISSION POINT

PLOT PLAN  
WALT DISNEY WORLD CO. NORTH SERVICE AREA



ATTACHMENT B  
 FACILITY PLOT PLAN  
 DISNEY'S ANIMAL KINGDOM- ANIMAL CARCASS INCINERATOR



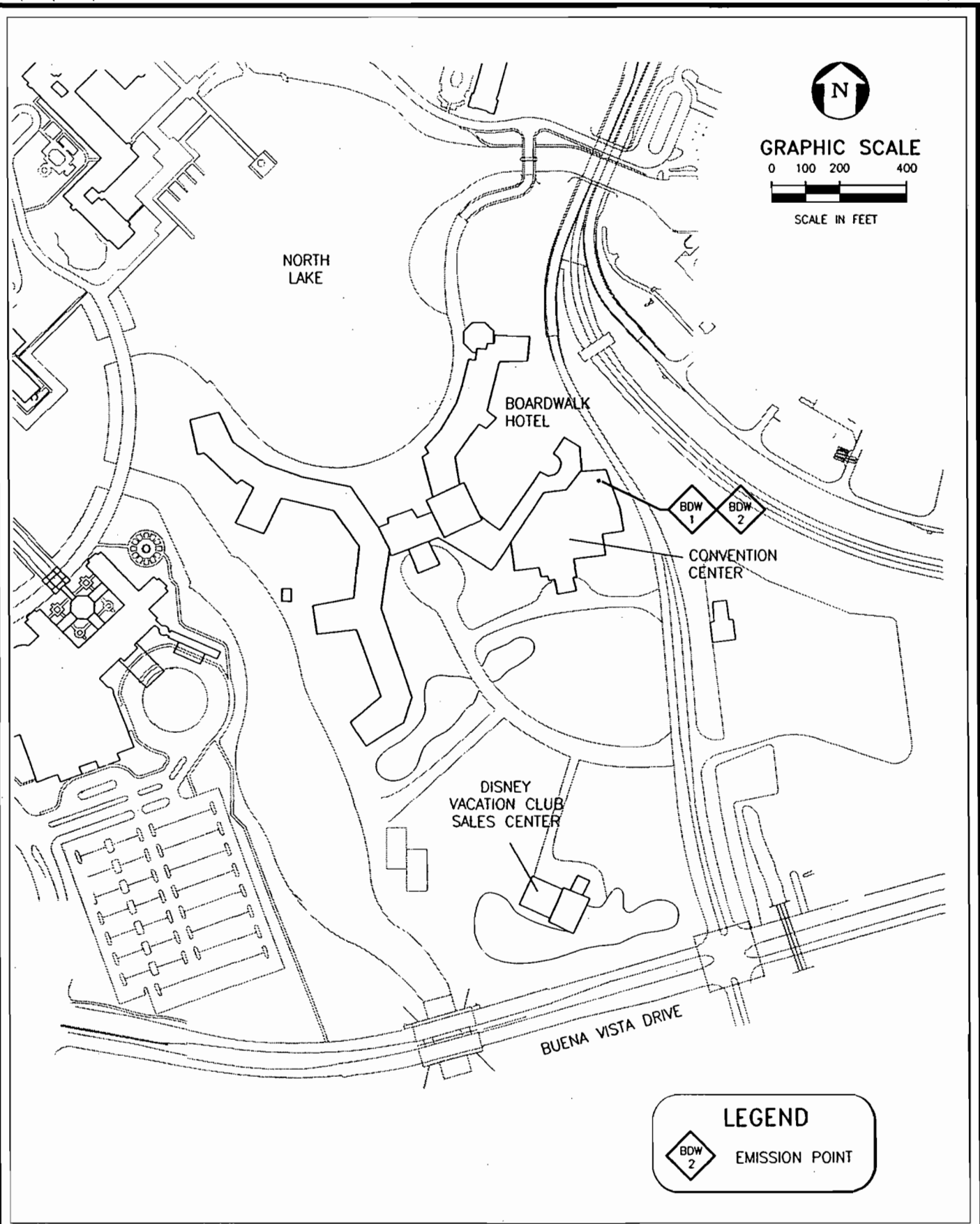


**LEGEND**

 EMISSION POINT

WALT DISNEY WORLD RESORT COMPLEX  
 EMISSION SOURCE LOCATION  
 DISNEY'S BOARDWALK RESORT





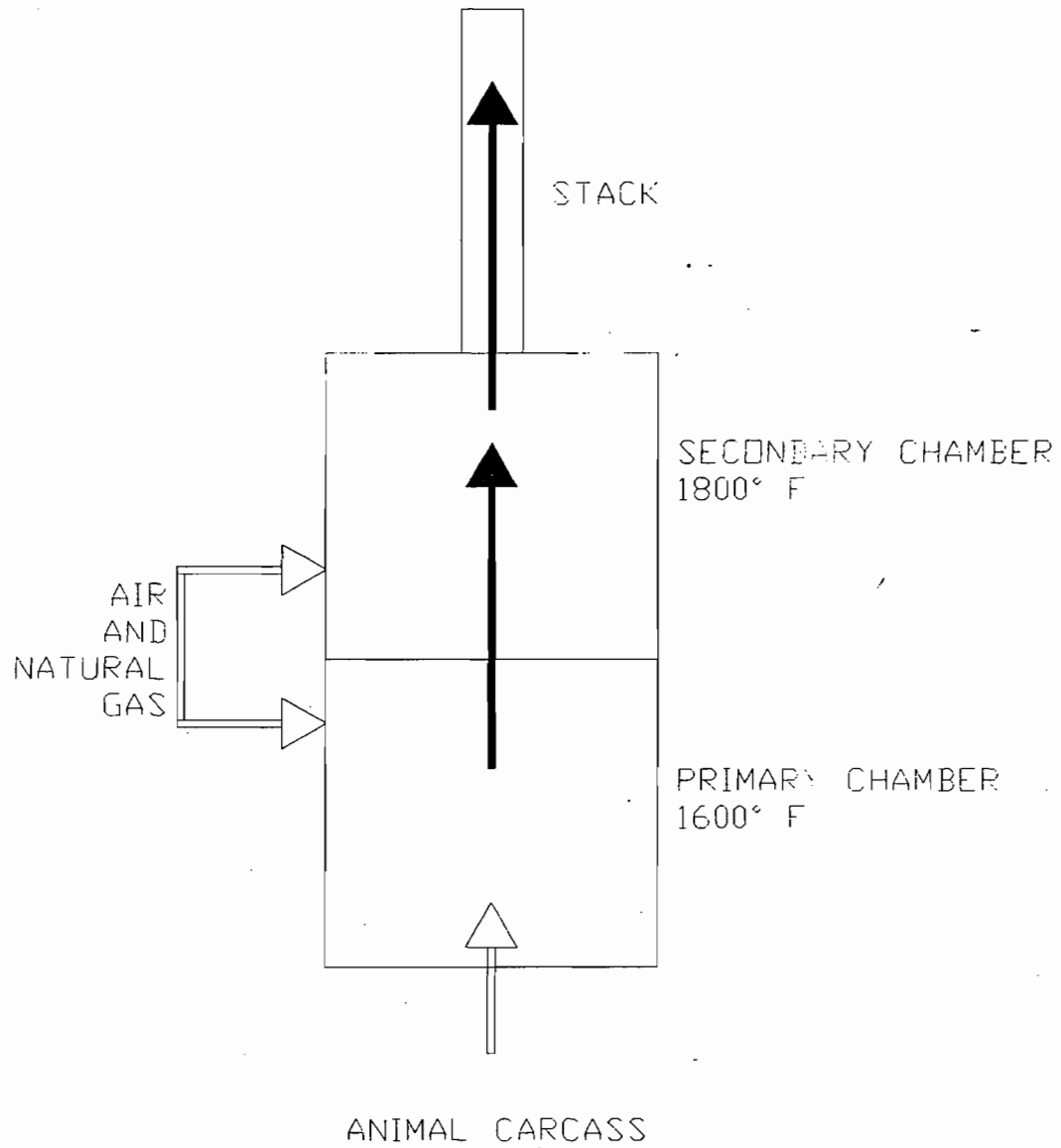
**FIGURE I.D.2.6.**  
**WALT DISNEY WORLD RESORT COMPLEX**  
**EMISSION SOURCE LOCATION**  
**DISNEY'S BOARDWALK RESORT**

Source: WDW Co., Inc., 1995. ECT, 1995.



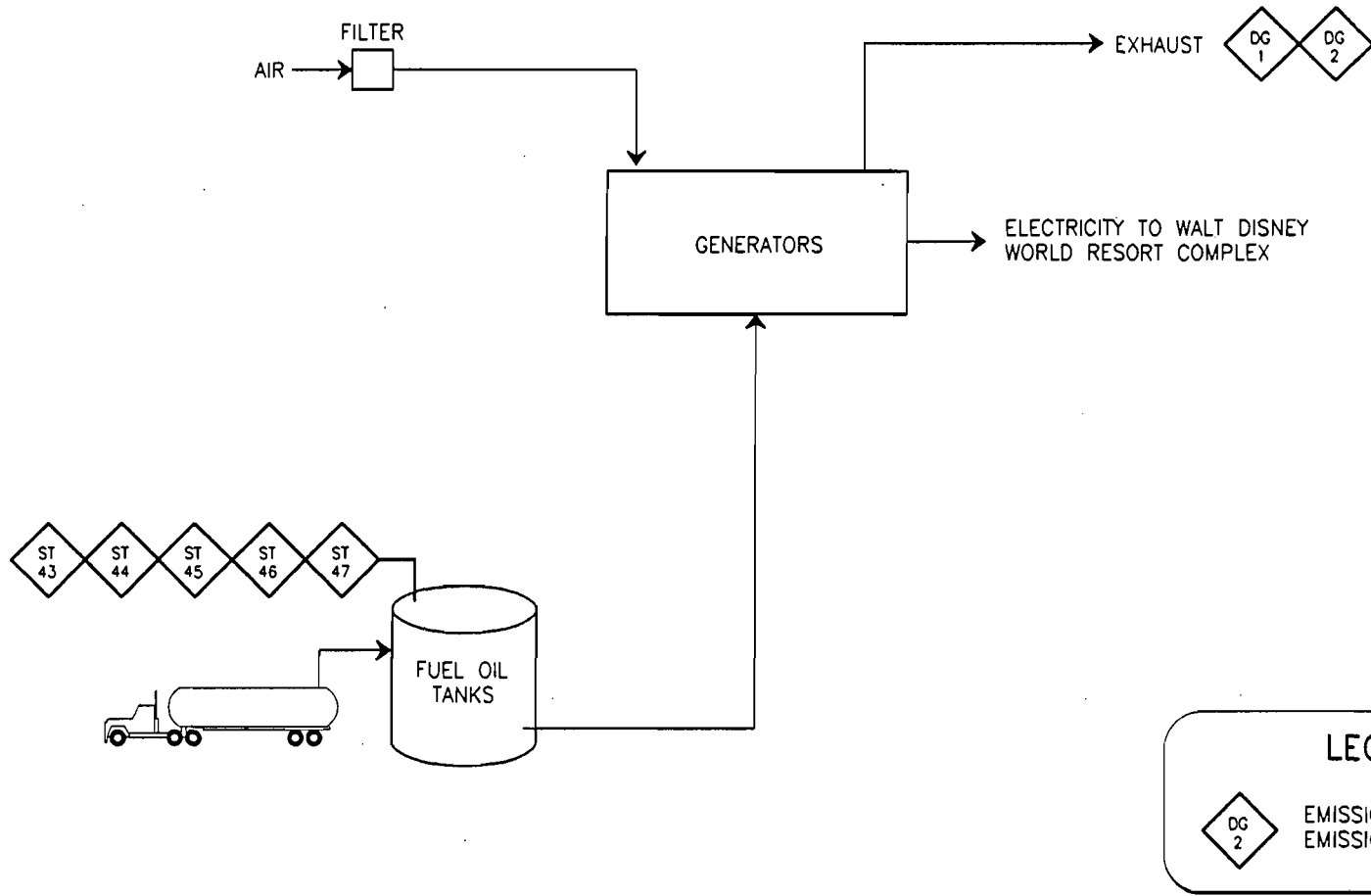
**ATTACHMENT C**

**PROCESS FLOW DIAGRAMS**



ATTACHMENT C  
PROCESS FLOW DIAGRAM  
DISNEY'S ANIMAL KINGDOM- ANIMAL  
CARCASS INCINERATOR

Walt  Disney World Co.



**LEGEND**


 EMISSION POINT AND EMISSION POINT NUMBER

FIGURE II.D.3.2.

WALT DISNEY WORLD RESORT COMPLEX: PROCESS SCHEMATIC DIAGRAM  
EPCOT CENTER DIESEL-FIRED ELECTRICAL GENERATORS (TYPICAL)

Source: ECT, 1996.





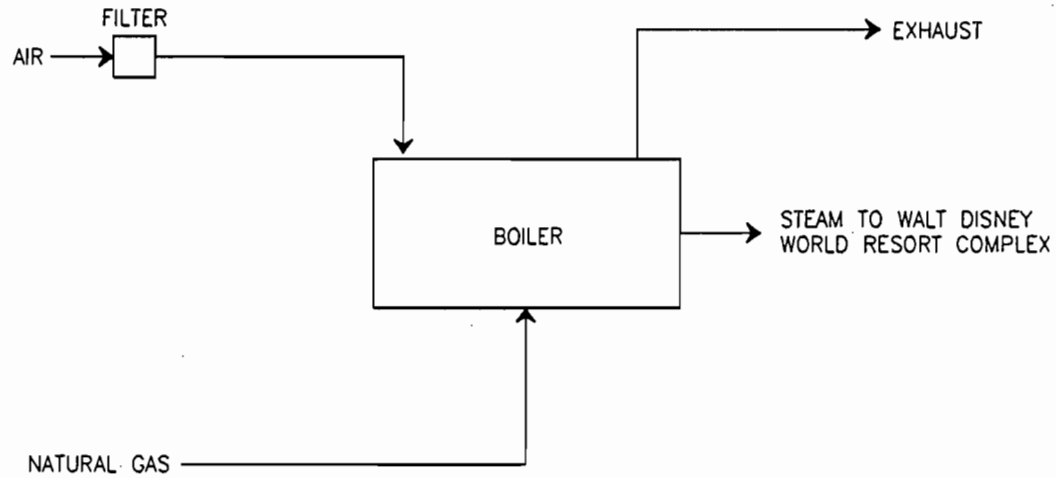


FIGURE II.D.3.3.

WALT DISNEY WORLD RESORT COMPLEX: PROCESS SCHEMATIC DIAGRAM  
STEAM BOILER (TYPICAL)

Source: ECT, 1996.



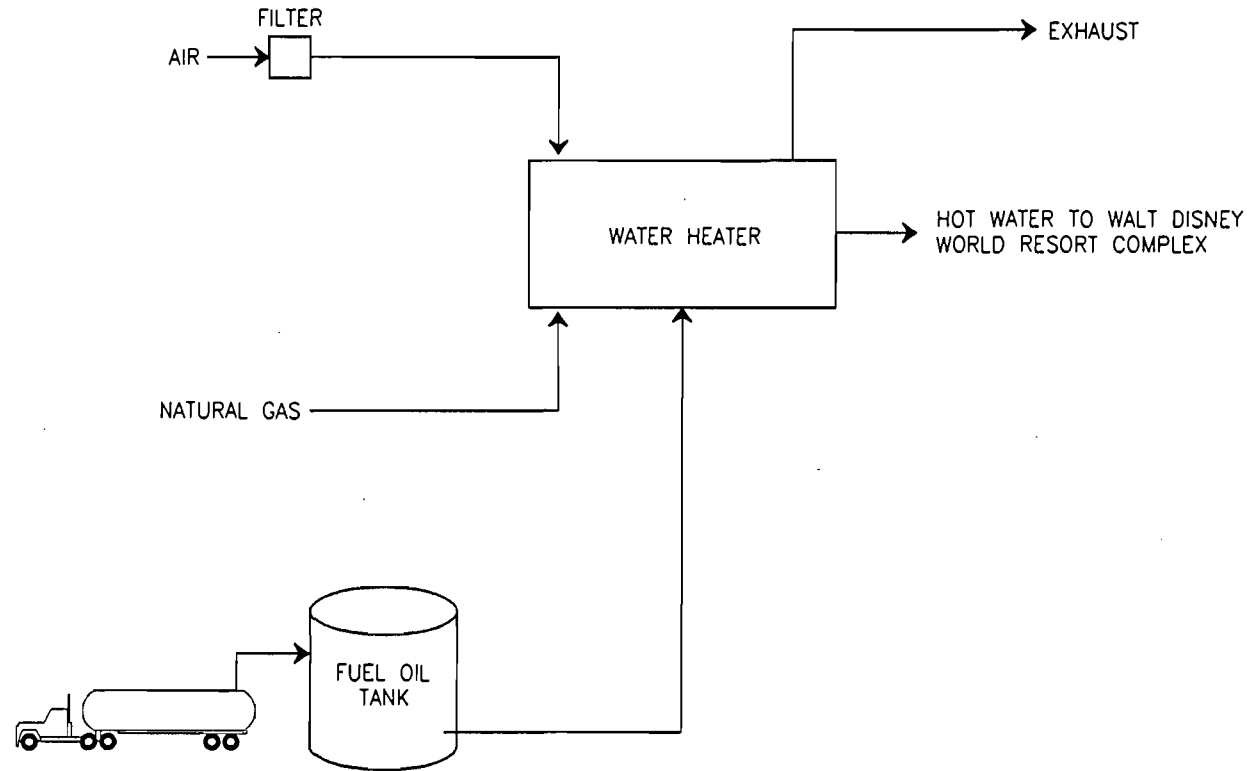


FIGURE II.D.3.4.

WALT DISNEY WORLD RESORT COMPLEX: PROCESS SCHEMATIC DIAGRAM  
NATURAL GAS AND NO. 2 FUEL OIL-FIRED WATER HEATER (TYPICAL)

Source: ECT, 1996.



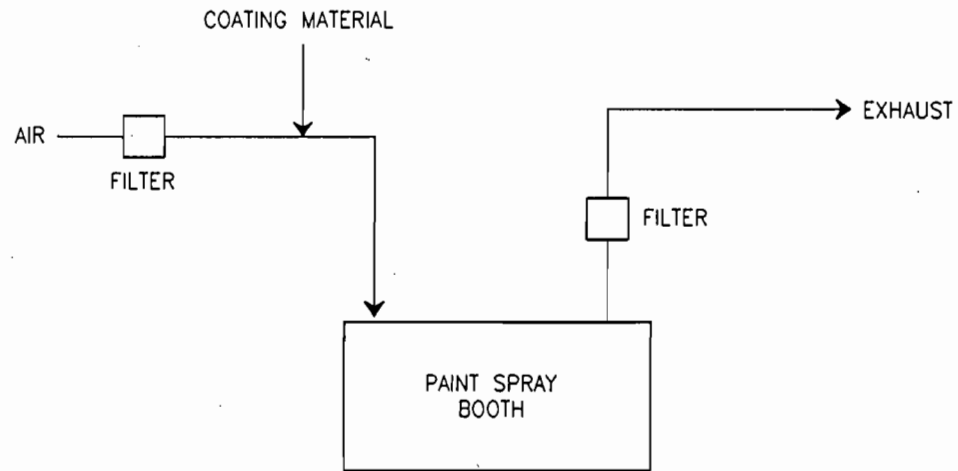


FIGURE II.D.3.5.

WALT DISNEY WORLD RESORT COMPLEX: PROCESS SCHEMATIC DIAGRAM  
PAINT SPRAY BOOTH (TYPICAL)

Source: ECT, 1996.



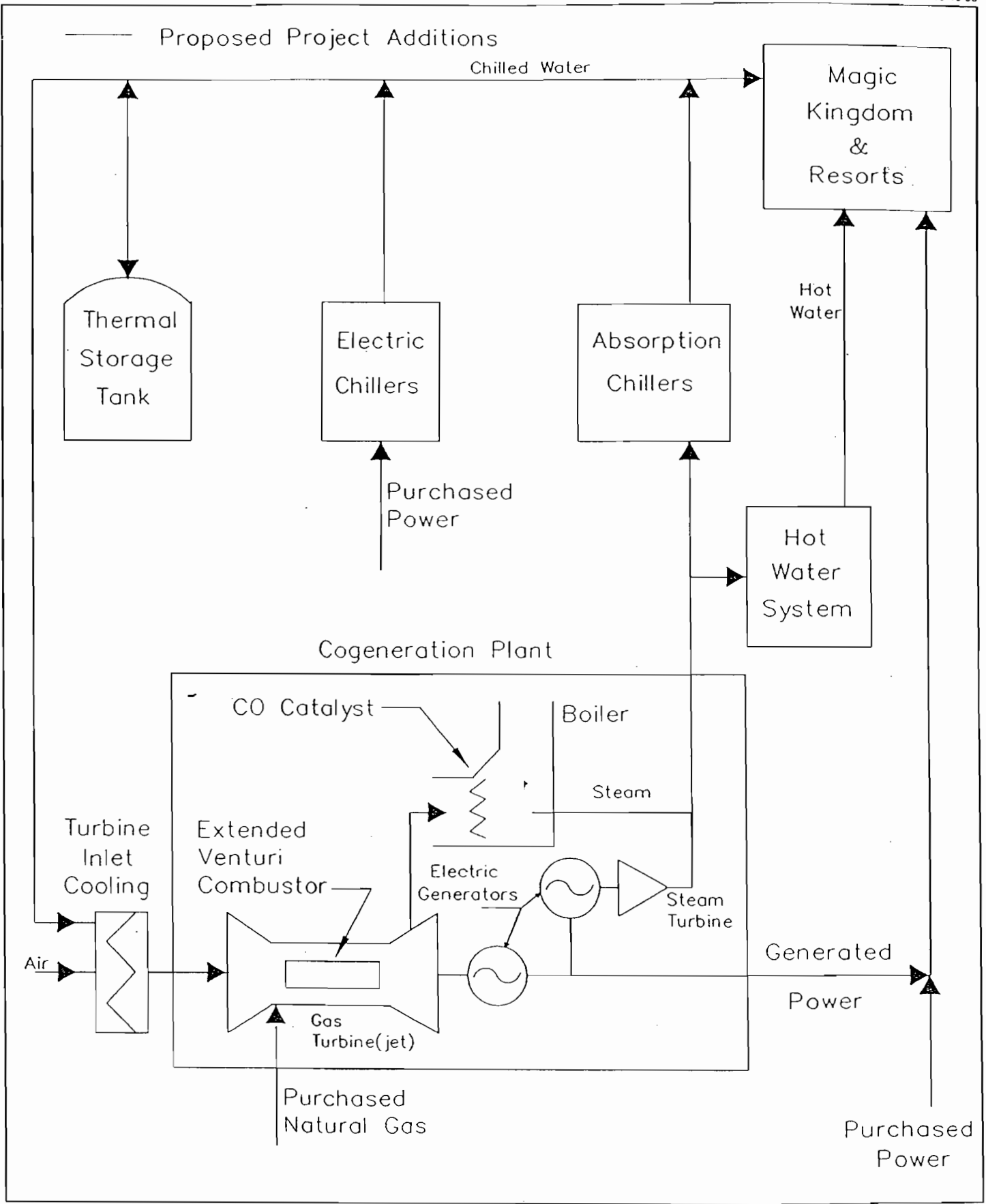
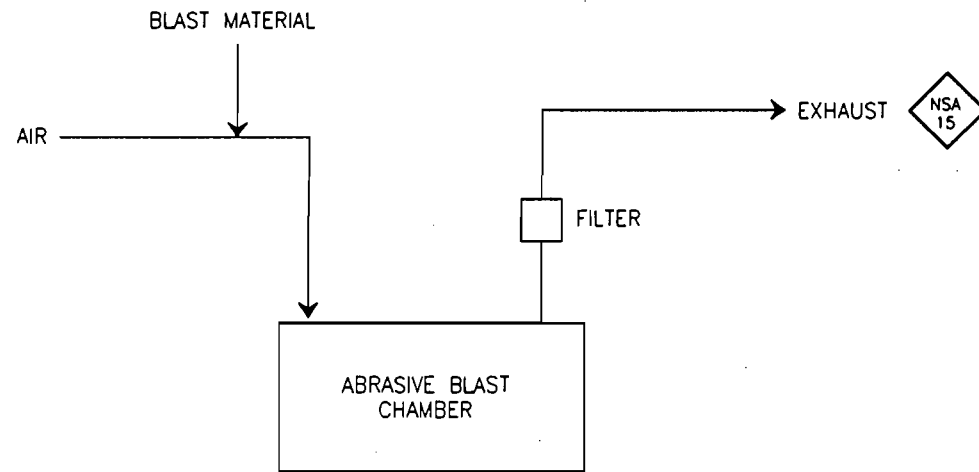


Figure 4  
Process Flow Diagram for the RCID Energy Plant  
Combustion Turbine Extended Venturi Combustor Modification





**LEGEND**


 EMISSION POINT AND EMISSION POINT NUMBER

FIGURE I.I.D.3.6.

WALT DISNEY WORLD RESORT COMPLEX: PROCESS SCHEMATIC DIAGRAM  
ABRASIVE BLAST CHAMBER

Source: ECT, 1996.





**ATTACHMENT D**

**PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER**

## PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

During operations, the following techniques will be used to prevent unconfined particulate matter emissions on an as needed basis:

- Chemical or water application to:
  - Unpaved roads.
  - Unpaved yard areas.
  - Storage piles.
- Paving and maintenance of roads, parking areas, and yards.
- Landscaping and planting of vegetation.
- Confining abrasive blasting, where possible.
- Other techniques, as necessary.



**ATTACHMENT E**

**FUGITIVE EMISSIONS IDENTIFICATION**

## IDENTIFICATION OF FUGITIVE EMISSIONS

Fugitive emissions will be released from the construction landfill road, the composting operation, and firework displays.

No other significant fugitive emissions are expected.

**ATTACHMENT F**

**LIST OF PROPOSED EXEMPT ACTIVITIES**

Table II.D.7. Proposed Exempt Activities (Page 1 of 2)

Source Unit Type	Basis
Applications of fungicides, herbicides, and pesticides	Meets §62-213.430(c)(b), F.A.C., criteria
Battery charging	Meets §62-213.430(c)(b), F.A.C., criteria
Blueprint reproduction	Meets §62-213.430(c)(b), F.A.C., criteria
Brazing, soldering and welding	§62-210.300(3)(a)16, F.A.C.
Campfires	§62-256.700(3), F.A.C.
Compressed air systems, including air compressors and driers	Meets §62-213.430(c)(b), F.A.C., criteria
Degasifiers	Meets §62-213.430(c)(b), F.A.C., criteria
Electric drying oven, no air pollutant emission expected	§62-210.300, F.A.C.
Equipment used exclusively for space heating	§62-210.300(3)(a)4, F.A.C.
Equipment used exclusively to sand and shape wood or plastic	§62-210.300(3)(a)11, F.A.C.
Fireplaces	Meets §62-213.430(c)(b), F.A.C., criteria
Fresh water cooling towers	Meets §62-213.430(c)(b), F.A.C., criteria
Generator venting	Meets §62-213.430(c)(b), F.A.C., criteria
HVAC and chiller units (see Attachment II.D.8 for a list of equipment containing 50 lb or more of refrigerant)	Meets §62-213.430(c)(b), F.A.C., criteria
Inorganic substance storage tanks >550 gallons	Meets §62-213.430(c)(b), F.A.C., criteria
Kitchen exhaust	Meets §62-213.430(c)(b), F.A.C., criteria
Laboratory hood vents	§62-210.300(a)15, F.A.C.
Latex injection	Meets §62-213.430(c)(b), F.A.C., criteria
Laundry dryers	§62-210.300(3)(a)17, F.A.C.
Lube oil tank vents	Meets §62-213.430(c)(b), F.A.C., criteria
Lube oil vents associated with rotating equipment	Meets §62-213.430(c)(b), F.A.C., criteria
Maintenance activity associated with transformers, switches, switchgear processing (including cleaning, changing, and venting)	Meets §62-213.430(c)(b), F.A.C., criteria
Natural gas gate and compression station, including odorant addition equipment	Meets §62-213.430(c)(b), F.A.C., criteria
Natural gas system maintenance	Meets §62-213.430(c)(b), F.A.C., criteria

Table II.D.7. Proposed Exempt Activities (Page 2 of 2)

Source Unit Type	Basis
Office equipment and office ventilation	Meets §62-213.430(c)(b), F.A.C., criteria
Oil and organic solvent storage tanks >550 gallons	Meets §62-213.430(c)(b), F.A.C., criteria
Oil truck unloading equipment	Meets §62-213.430(c)(b), F.A.C., criteria
Oil/Water separators	Meets §62-213.430(c)(b), F.A.C., criteria
Parts cleaning and degreasing stations	Meets §62-213.430(c)(b), F.A.C., criteria
Pool heaters <1,000,000 Btu/hr maximum gross heat output, each	§62-210.300(3)(a)4, F.A.C.
Portable kerosene space heaters	§62-210.300(a)12, F.A.C.
Recycling operations, including sorting, compacting, and baling	Meets §62-213.430(c)(b), F.A.C., criteria
Refrigeration systems	Meets §62-213.430(c)(b), F.A.C., criteria
Routine maintenance and repair activities, except painting	Meets §62-213.430(c)(b), F.A.C., criteria
Sewer line vents	Meets §62-213.430(c)(b), F.A.C., criteria
Sewage treatment facilities	Meets §62-213.430(c)(b), F.A.C., criteria
Silk screening	Meets §62-213.430(c)(b), F.A.C., criteria
Smokehouse	Meets §62-213.430(c)(b), F.A.C., criteria
Special effects	§62-4.040(1)(b), F.A.C.
Stack test sampling equipment	Meets §62-213.430(c)(b), F.A.C., criteria
Storage of material in sealed containers	Meets §62-213.430(c)(b), F.A.C., criteria
Storage tanks <550 gallons	Meets §62-213.430(c)(b), F.A.C., criteria
Tiki torches	Meets §62-213.430(c)(b), F.A.C., criteria
Turbine vapor extractor	Meets §62-213.430(c)(b), F.A.C., criteria
Water heaters used for comfort heating, <1,000,000 Btu/hr maximum gross heat output, each	§62-210.300(a)4, F.A.C.

Source: ECT, 1996.

**ATTACHMENT G**

**LIST OF EQUIPMENT/ACTIVITIES REGULATED UNDER TITLE VI**

**DOCUMENT II.D.8  
LIST OF EQUIPMENT REGULATED UNDER TITLE VI**

---

Equipment

---

Buena Vista Construction Company

None

Disney Vacation Club Resort

None

Disney Village Marketplace

Chiller 1  
Chiller 2  
Ice Makers

Disney-MGM Studios Theme Park

Chiller 1  
Chiller 2  
Ice Makers

Disney's All-Star Resorts

Chillers  
Ice Makers

Disney's Blizzard Beach

Chiller 1  
Chiller 2  
Ice Makers

Disney's Boardwalk

Chiller 1  
Chiller 2  
Ice Makers

**DOCUMENT II.D.8**  
**LIST OF EQUIPMENT REGULATED UNDER TITLE VI**  
(Continued, Page 2 of 4)

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Equipment

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Disney's Caribbean Beach Resort

Chiller  
Ice Makers

Disney's Contemporary Resort

Chiller  
Ice Makers

Disney's Dixie Landings and Port Orleans Resorts

Chiller 1  
Chiller 2  
Chiller 3  
Chiller 4  
Chiller 5  
Ice Makers

Disney's Grand Floridian Beach Resort

Chiller 1  
Chiller 2  
Ice Makers

Disney's Polynesian Resort

Ice Makers

Disney's Wilderness Lodge

Chiller 2  
Ice Makers



**DOCUMENT II.D.8**  
**LIST OF EQUIPMENT REGULATED UNDER TITLE VI**  
(Continued, Page 3 of 4)

---

Equipment

---

Disney's Yacht and Beach Club

Chiller 1  
AC 1  
AC 2  
Ice Makers

EPCOT Center

Chiller 1  
Chiller 2  
Chiller 3  
Chiller 4  
Ice Makers

Lake Buena Vista Community Village

Chiller 1  
Ice Makers

Administration

Team Disney:  
Chiller 1  
Chiller 2

Purchasing:  
Chiller

DC-3:  
Chiller  
AC  
Ice Maker

DC-6:  
AC

Vista United:  
Chiller

**DOCUMENT II.D.8**  
**LIST OF EQUIPMENT REGULATED UNDER TITLE VI**  
(Continued, Page 4 of 4)

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Equipment

---

Magic Kingdom

Chiller  
Ice Makers

North Service Area

Central Energy Plant:  
Chiller 1  
Chiller 2  
Chiller 3  
Chiller 4  
Fire Protection 1  
Fire Protection 2  
Fire Protection 3

South Service Area

None

Typhoon Lagoon

Chiller 1  
Chiller 2  
Ice Makers

---

**ATTACHMENT H**

**COMPLIANCE REPORT AND PLAN  
COMPLIANCE CERTIFICATION**

102



# Department of Environmental Protection

## Division of Air Resources Management

### STATEMENT OF COMPLIANCE - TITLE V SOURCE

Facility Owner/Company Name: Walt Disney World Co.

Site Name: Walt Disney World Resort County: Orange

Title V Air Operation Permit No.: 0950111-018-AV

REPORTING PERIOD	REPORT DEADLINE*
January through June of 2001 (year)	N/A

\*See Rule 62-213.440(3)(a)2, F.A.C.

#### COMPLIANCE STATEMENT (Check only one of the following three options)

A. This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part, and there were no reportable incidents of deviations from applicable requirements associated with any malfunction or breakdown of process, fuel burning or emission control equipment, or monitoring systems during the reporting period identified above.

B. This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part; however, there were one or more reportable incidents of deviations from applicable requirements associated with malfunctions or breakdowns of process, fuel burning or emission control equipment, or monitoring systems during the reporting period identified above, which were reported to the Department. For each incident of deviation, the following information is included:

1. Date of report previously submitted identifying the incident of deviation.
2. Description of the incident.

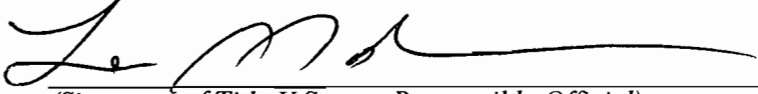
C. This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part, EXCEPT those identified in the pages attached to this report. For each item of noncompliance, the following information is included:

1. Emissions unit identification number.
2. Specific permit condition number.
3. Description of the requirement of the permit condition.
4. Basis for the determination of noncompliance (for monitored parameters, indicate whether monitoring was continuous, i.e., recorded at least every 15 minutes, or intermittent).
5. Beginning and ending dates of periods of noncompliance.
6. Identification of the probable cause of noncompliance and description of corrective action or preventative measures implemented.
7. Dates of any reports previously submitted identifying this incident of noncompliance.

# STATEMENT OF COMPLIANCE - TITLE V SOURCE

## RESPONSIBLE OFFICIAL CERTIFICATION

I, the undersigned, am the responsible official as defined in Chapter 62-210.200, F.A.C., of the Title V source for which this document is being submitted. With respect to all matters other than Acid Rain program requirements, I hereby certify, based on the information and belief formed after reasonable inquiry, that the statements made and data contained in this document are true, accurate, and complete.



(Signature of Title V Source Responsible Official)

6/27/02

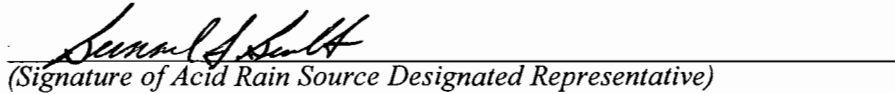
(Date)

Name: Lee Schmutde

Title: Vice President

## DESIGNATED REPRESENTATIVE CERTIFICATION (only applicable to Acid Rain source)

I, the undersigned, 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.



(Signature of Acid Rain Source Designated Representative)

7-5-02

(Date)

Name: Bernie Budnik

Title: Mgr., Energy Plants  
Alt. Designated Rep.

{Note: Attachments, if required, are created by the responsible official or the designated representative, as appropriate, and should consist of the information specified and any supporting records. Additional information may also be attached by the responsible official or designated representative when elaboration is required for clarity. This report is to be submitted to both the compliance authority (DEP district or local air program) and the U.S. EPA (U.S. EPA Region 4, Air and EPCRA Enforcement Branch, 61 Forsyth Street, Atlanta GA 30303).}

The following document lists the specific conditions of the Walt Disney World Co. Title V permit. Each condition is listed in a table with a column following indicating whether the facility has maintained compliance (C) or noncompliance (NC). Following each condition is also a column briefly explaining the source of the proof of compliance.

Facility-wide Conditions.	C	NC	Comments
<b>The following conditions apply facility-wide:</b>			
1. <u>APPENDIX TV-3, TITLE V CONDITIONS</u> , is a part of this permit.	X		
2. <u>General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited.</u> No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.; AC48-151472; AC48-151504; AC48-151506; AC48-151507; AC48-151509; AC48-151510; AC48-156346; AC48-166499; AC48-179648; AC48-179649; AC48-205018; AC48-243981; and, AO48-183381]	X		-no objectionable odors were reported
3. <u>General Particulate Emission Limiting Standards. General Visible Emissions Standard.</u> Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. [Rules 62-296.320(4)(b)1. & 4., F.A.C.]	X		-all VE were within applicable standards
4. <u>Prevention of Accidental Releases (Section 112(r) of CAA).</u> If required by 40 CFR 68, the permittee shall submit to the implementing agency: a. a risk management plan (RMP) when, and if, such requirement becomes applicable; and, b. certification forms and/or RMPs according to the promulgated rule schedule. [40 CFR 68]	X		
5. <u>Unregulated Emissions Units and/or Activities.</u> Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit. [Rule 62-213.440(1), F.A.C.]	X		
6. <u>Insignificant Emissions Units and/or Activities.</u> Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit. [Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]	X		
7. <u>General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions.</u> The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1)(a), F.A.C.]	X		
8. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility during operations include: chemical or water application to unpaved roads, unpaved yard areas, and storage piles; paving and maintenance of roads, parking areas and plant grounds; landscaping and planting of vegetation; confining abrasive blasting where possible; and other techniques, as necessary. Also, for the solid waste disposal area, wetting agents shall be applied. [Rule 62-296.320(4)(c)2., F.A.C]	X		-PM control utilized when applicable
9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one. [Rule 62-213.440, F.A.C.]	X		

<p>10. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Central District office at the following address:                  Department of Environmental Protection                  Central District Office                  3319 Maguire Boulevard, Suite 232                  Orlando, Florida 32803-3767                  Telephone: 407/894-7555                  Fax: 407/897-2966</p>	<p>X</p>		
<p>11. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:                  United States Environmental Protection Agency                  Region 4                  Air, Pesticides &amp; Toxics Management Division                  Operating Permits Section                  61 Forsyth Street                  Atlanta, Georgia 30303                  Telephone: 404/562-9099 Fax: 404/562-9095</p>	<p>X</p>		

**Section III. Emissions Units.****Subsection A. This section addresses the following emissions unit.**

<u>E.U. ID No.</u>	<u>Brief Description</u>			
-088	Combined Cycle Combustion Turbine with Natural Gas-Fired Heat Recovery Steam Generator <b>The following specific conditions apply to the emissions unit listed above:</b> [Permitting note: Unless stated so, the following conditions apply to both the CT and HRSG.]			
<b>Essential Potential to Emit (PTE) Parameters General</b>		<b>C</b>	<b>NC</b>	<b>Comments</b>
A.0.	This emissions unit is currently authorized to operate under the conditions of the attached permit 0950111-005-AV. After the modifications authorized by AC permit 0950111-005-AV (also attached) have been completed and the testing and reporting requirements contained in 40 CFR 60.8 have been satisfied, the following operating conditions will apply: [Rule 62-213.440, F.A.C.; and, 40 CFR 60.8.]	X		Satisfied as of June 15, 1998
A.1.	<u>Definitions.</u> For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee. [40 CFR 60.2; Rule 62-204.800(7)(a), F.A.C.]	N/A		
A.2.	<u>Circumvention.</u> No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12]	X		
A.3.	<u>Modifications.</u> Except as provided under 40 CFR 60.14(e) and (f), any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 11 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere. [40 CFR 60.14(a)]	X		
<b>Essential Potential to Emit (PTE) Parameters</b>				
A.4.	<u>Permitted Capacity.</u> The maximum heat input to the Combustion Turbine (CT) and the duct burner, combined, shall not exceed 450 MMBtu/hr (normal duct burner heat input rate of 23 MMBtu/hr). When the CT is not in operation, the duct burner heat input rate shall not exceed 198 MMBtu/hr. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; 40 CFR 60.332(b); PSD-FL-014 & PSD-FL-014(A); and, 0950111-005-AV]	X		-CMS -389 MMBtu/hr max heat input rate
A.5.	<u>Emissions Unit Operating Rate Limitation After Testing.</u> See specific condition A.48. [Rule 62-297.310(2), F.A.C.]	X		-CMS
A.6.	<u>Methods of Operation - Fuels.</u> a. Natural gas shall be the primary fuel fired in the CT. New No. 2 distillate fuel oil may be fired as "back-up" fuel in the CT, only. Only natural gas shall be fired in the duct burner. The burning of other fuels requires review, public notice, and approval through the preconstruction process (Chapters 62-210 and 62-212, F.A.C.). b. New No. 2 distillate fuel oil can be used as a backup fuel in the CT, only, for a maximum of 336 hours per year. [Rule 62-213.410, F.A.C.; and, 0950111-005-AV]	X		-CMS -No oil burned
A.7.	<u>Hours of Operation.</u> This emissions unit may operate continuously, i.e., 8760 hours per year. [Rule 62-210.200(PTE), F.A.C.; 0950111-005-AV; and, PSD-FL-123]	X		-CMS



<b>Emission Limitations and Standards</b>			
A.8. <u>Nitrogen Oxides</u> . Nitrogen oxides emissions, expressed as NO <sub>x</sub> , shall not exceed 82 ppm by volume at 15 percent oxygen and on a dry basis (132 lbs/hr) during conditions of peak loading (based on 40°F), or 68 ppm by volume at 15 percent oxygen and on a dry basis (100 lbs/hr) for a 12-month rolling average, or 17 tons per year, while burning new No. 2 distillate fuel oil. The 12-month rolling average emissions will be calculated using hourly averages during the month and then using consecutive monthly averages to obtain an annual average. The Department may alter this averaging method after due consideration of alternative compliance plans. [0950111-005-AV]	X		-No oil burned
A.9. <u>Nitrogen Oxides</u> . Nitrogen oxides emissions, expressed as NOX, shall not exceed 74 ppm by volume at 15 percent oxygen and on a dry basis (112 lbs/hr) during conditions of peak loading (based on 40°F), or 58 ppm by volume at 15 percent oxygen and on a dry basis (77 lbs/hr) for a 12-month rolling average, or 280 tons per year, while burning natural gas. The 12-month rolling average emissions will be calculated using hourly averages of the combustion turbine and duct burner combined during the month and then using consecutive monthly averages to obtain an annual average. The Department may alter this averaging method after due consideration of alternative compliance plans. The duct burner NOX emissions shall not exceed 4.6 lbs/hr at 23 MMBtu/hr heat input (corresponding to 0.20 lb/MMBtu) or 40 lbs/hr at 198 MMBtu/hr heat input (corresponding to 0.20 lb/MMBtu). The nitrogen oxides emissions standard apply at all times including periods of startup, shutdown, or malfunction. [40 CFR 60.44b(a)(4), (h) & (i); and, 0950111-005-AV]	X		-CMS -166 tpy
A.10. <u>Nitrogen Oxides</u> . Nitrogen oxides from the CT shall be controlled by water injection at a minimum of 0.6/1.0 water-to-fuel ratio (Reedy Creek Improvement District (RCID) will provide data from compliance tests in order to allow the Department to set a final water injection-to-fuel ratio in order to optimize pollution control and meet the permitted emission limits.). [0950111-005-AV]	X		-CMS -Annual Emissions Testing
A.11. <u>Sulfur Dioxide</u> . Sulfur dioxide emissions shall not exceed 58 ppm by volume at 15 percent oxygen and on a dry basis. The maximum allowed sulfur dioxide emissions shall not exceed 118 lbs/hr nor 20 tons per year, while burning new No. 2 distillate fuel oil. [40 CFR 60.333(a); and, 0950111-005-AV]	X		-no oil burned
A.12. <u>Sulfur Dioxide</u> . The maximum allowed sulfur dioxide emissions shall not exceed 1.2 lbs/hr nor 5.1 tons per year, while burning natural gas. [0950111-005-AV]	X		-Custom fuel monitoring report -AOR
A.13. <u>Sulfur Dioxide - Sulfur Content</u> . The sulfur content of the fuel oil fired by the stationary gas turbine may be used to determine compliance with 40 CFR 60.333(a). Under such circumstances, the permittee shall not fire in any stationary gas turbine any fuel which contains a sulfur content in excess of 0.4 percent, by weight. [40 CFR 60.333(b); and, 0950111-005-AV]	X		-Fuel analysis -no oil burned
A.14. <u>Particulate Matter</u> . Particulate matter shall not exceed 9 lbs/hr or 2 tons per year, while burning new No. 2 distillate fuel oil. [0950111-005-AV]	X		-no oil burned
A.15. <u>Particulate Matter</u> . Particulate matter shall not exceed 0.8 lbs/hr or 3.5 tons per year, while burning natural gas. [0950111-005-AV]	X		-AOR -2.08 tpy
A.16. <u>Carbon Monoxide</u> . Carbon monoxide emissions shall not exceed 24 lbs/hr or 4 tons per year, while burning new No. 2 distillate fuel oil. [0950111-005-AV]	X		-no oil burned
A.17. <u>Carbon Monoxide</u> . Carbon monoxide emissions shall not exceed 25 lbs/hr or 110 tons per year, while burning natural gas. [0950111-005-AV]	X		-Annual emissions test -AOR -3.23 tpy
A.18. <u>Volatile Organic Compounds (VOCs)</u> . VOC emissions shall not exceed 6 lbs/hr or 1 ton per year, while burning new No. 2 distillate fuel oil. [0950111-005-AV]	X		-no oil burned
A.19. <u>Volatile Organic Compounds (VOCs)</u> . VOC emissions shall not exceed 6 lbs/hr or 26 tons per year, while burning natural gas. [0950111-005-AV]	X		-AOR -0.0 tpy
A.20. <u>Visible Emissions</u> . Visible emissions shall not exceed 10 percent opacity while burning new No. 2 distillate fuel oil. [0950111-005-AV]	X		-no oil burned

A.21. <u>Visible Emissions</u> . Visible emissions shall not exceed 5 percent opacity while burning natural gas. [0950111-005-AV]	X		-see A.52.
<b>Excess Emissions</b>			
A.22. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]	X		-Quarterly Excess Emissions Reports
A.23. 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 shall be prohibited. [Rule 62-210.700(4), F.A.C.]	X		
A.24. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [40 CFR 60.11(d)]	X		
A.25. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows: (1). <i>Nitrogen oxides</i> . Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with 40 CFR 60.332 by the performance test required in 40 CFR 60. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, and gas turbine load during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a). [40 CFR 60.334(c)(1)]	X		-CMS -Quarterly Excess Emissions Reports
<b>Monitoring of Operations</b>			
A.26. At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [40 CFR 60.11(d)]	X		
A.27. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG, and using water injection to control NOx emissions shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within $\pm 5.0$ percent and shall be approved by the Administrator. [40 CFR 60.334(a)]	X		-CMS

<p>A.28. The following custom fuel monitoring schedule shall be used at this facility:</p> <p><b>Custom Fuel Monitoring Schedule for Natural Gas</b></p> <p>1) Monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel being fired in the gas turbine (CT).</p> <p>2) Sulfur Monitoring:</p> <p>a) Analysis for sulfur content of the natural gas 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 approved methods are ASTM D1072-80, ASTM D3030-81, ASTM D3246-83, and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2), or the latest edition(s).</p> <p>b) Effective the date of this custom schedule, sulfur monitoring shall be conducted at least once per calendar quarter. Sulfur analyses results shall be reported in units of grains of sulfur per 100 cubic feet of natural gas and shall be submitted with the quarterly excess emissions report required by 40 CFR 60.7. (EPA's letter dated June 15, 1994).</p> <p>c) The sulfur content of the fuel shall also be expressed as maximum sulfur dioxide emissions (lb/hr) and shall be consistent with the limits specified in Specific Condition 5 of permit AC48-137740 (see specific conditions A.11 &amp; A.12. of this permit).</p> <p>d) Should any sulfur analysis as required in items 2(b), above, indicate noncompliance with 40 CFR 60.333, the owner or operator shall notify the Department of such excess emissions and the custom schedule shall be re-examined. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.</p> <p>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.</p> <p>4) Records of sample analysis and fuel supply pertinent to this custom schedule 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.</p> <p><b>Custom Fuel Monitoring Schedule for Liquid Fuel</b></p> <p>(1) Sulfur and nitrogen content of the liquid fuel: Upon delivery of the fuel, a sample shall be randomly taken from one compartment of each truck and composited for analysis (for verification of the vendor data) by a third party laboratory using, ASTM Method D-3228 for nitrogen analysis, and ASTM Method D-4294 for sulfur analysis. [40 CFR 60.334(b)(2); and, 0950111-005-AV]</p>	<p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p>		<p>-Custom fuel monitoring report</p> <p>-Custom fuel monitoring report</p> <p>N/A</p> <p>N/A</p> <p>-On file</p> <p>-Fuel analysis performed</p>
<p>A.29. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:</p> <p>(1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.</p> <p>(2) If the turbine is supplied its fuel without intermediate bulk storage, the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with 40 CFR 60.334(b). [40 CFR 60.334(b)(1) &amp; (2)]</p>	<p>X</p> <p>X</p>		<p>-Fuel analysis performed</p> <p>-N/A</p>
<p>A.30. The owner or operator of an affected facility (HRSG) which is subject to the nitrogen oxides standards of 40 CFR 60.44b(a)(4) is not required to install or operate a continuous monitoring system to measure nitrogen oxides emissions. See specific condition A.9. [40 CFR 60.48b(h)]</p>	<p>X</p>		

<p>A.31. <u>Determination of Process Variables.</u></p> <p>(a) <u>Required Equipment.</u> The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.</p> <p>(b) <u>Accuracy of Equipment.</u> Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]</p>	X		-Fuel monitoring -CMS
<p><b>Continuous Monitoring Requirements</b></p>			
<p>A.32. For the purposes of 40 CFR 60.13, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, Appendix F of 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987. [40 CFR 60.13(a)]</p>	X		
<p>A.33. All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. For CMS other than opacity, 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of CMS breakdowns, repairs, calibration checks, and zero span adjustments shall not be included in the data averages computed under this paragraph. [40 CFR 60.13(f) and 60.13(h)]</p>	X		
<p><b>Test Methods and Procedures</b></p>			
<p>A.34. Subsequent to the initial test, annual stack testing for CO emissions at full capacity load conditions shall be performed according to an annual test protocol developed jointly by RCID and FDEP. This protocol will specify the test methods and procedures to be used during the annual compliance testing. Using the established procedures of this protocol as a guide, simultaneous testing full capacity load conditions shall be conducted for CO, NO<sub>x</sub> and VE. EPA Method 10 shall be used for CO, EPA Methods 7e or 20 shall be used for NO<sub>x</sub> and EPA Method 9 shall be used for VE. Testing at other loads will not be necessary if the unit is shown to be in compliance with the applicable emission standards for NO<sub>x</sub> and CO. The test methods shall be in accordance with Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A. [40 CFR 60.44b(a); Rules 62-213.440 and 62-297.401, F.A.C.; and, 0950111-005-AV]</p>	X		
<p>A.35. <u>Nitrogen Oxides.</u> To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Department to determine the nitrogen content of the fuel being fired. [40 CFR 60.335(a)]</p>	X		

<p>A.36. <u>Nitrogen Oxides</u>. The owner or operator shall determine compliance with the nitrogen oxides NSPS standard in 40 CFR 60.332 as follows: The nitrogen oxides emission rate (NO<sub>x</sub>) shall be computed for each run using the following equation:</p> $NO_x = (NO_{xO}) (Pr/Po)^{0.5} e^{19(Ho-0.00633)} (288^\circ K/Ta)^{1.53}$ <p>where: NO<sub>x</sub> = emission rate of NO<sub>x</sub> at 15 percent O<sub>2</sub> and ISO standard ambient conditions, volume percent. NO<sub>xO</sub> = observed NO<sub>x</sub> concentration, ppm by volume. P<sub>r</sub> = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg. P<sub>o</sub> = observed combustor inlet absolute pressure at test, mm Hg. H<sub>o</sub> = observed humidity of ambient air, g H<sub>2</sub>O/g air. e = transcendental constant, 2.718. T<sub>a</sub> = ambient temperature, °K. [40 CFR 60.335(c)(1)]</p>	X		
<p>A.37. The monitoring device of 40 CFR 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the permitted NO<sub>x</sub> standard at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer. [40 CFR 60.335(c)(2)]</p>	X		
<p>A.38. <u>Nitrogen Oxides and Sulfur Dioxide</u>. The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 and 60.333(a) as follows: (3). EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen. The NO<sub>x</sub> emissions shall be determined at each of the load conditions specified in 40 CFR 60.335(c)(2). [40 CFR 60.335(c)(3)]</p>	X		-Annual emissions testing
<p>A.39. <u>Sulfur Dioxide - Sulfur Content</u>. The owner or operator shall determine compliance with the sulfur content standard of 0.4 percent, by weight, as follows: ASTM D 2880-96 (which includes ASTM D 4294), or the latest edition, shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94, D 3246-92, or the latest edition, shall be used for the sulfur content of gaseous fuels (incorporated by reference-see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator. [40 CFR 60.335(d) and 60.17]</p>	X		-ASTM D4294-oil analysis -ASTM D 4084-94- gas analysis
<p>A.40. <u>Nitrogen and Sulfur Contents</u>. To meet the requirements of 40 CFR 60.334(b), the owner or operator shall use the methods specified in 40 CFR 60.335(a) and 40 CFR 60.335(d) of 40 CFR 60.335 to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency. [40 CFR 60.335(e)]</p>	X		-fuel analysis performed
<p>A.41. <u>Carbon Monoxide</u>. EPA Method 10 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the carbon monoxide standards in specific conditions <b>A.16.</b> &amp; <b>A.17.</b></p>	X		-Annual emissions testing
<p>A.42. <u>Visible Emissions</u>. EPA Method 9 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the visible emissions standard in specific conditions <b>A.20.</b> &amp; <b>A.21.</b> [Rule 62-297.401, F.A.C.; and, 40 CFR 60, Appendix A]</p>	X		-Annual emissions testing
<p>A.43. <u>Opacity</u>. Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard. [40 CFR 60.11(a)]</p>	X		

<p>A.44. Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)]</p>	X		
<p>A.45. The owner or operator shall provide, or cause to be provided, stack sampling and performance testing facilities as follows:  (1) Sampling ports adequate for test methods applicable to such facilities.  (2) Safe sampling platform(s).  (3) Safe access to sampling platform(s).  (4) Utilities for sampling and testing equipment. [40 CFR 60.8(e)(1), (2), (3) &amp; (4); and, 0950111-005-AV]</p>	X		
<p>A.46. <u>Required Stack Sampling Facilities</u>. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]</p>	X		
<p>A.47. <u>Required Number of Test Runs</u>. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards. [Rule 62-297.310(1), F.A.C.]</p>	X		
<p>A.48. <u>Operating Rate During Testing</u>. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rules 62-297.310(2) &amp; (2)(a), F.A.C.]</p>	X		-Most recent emissions test limited heat input to 428 MMBtu/hr
<p>A.49. <u>Calculation of Emission Rate</u>. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]</p>	X		



<p>A.51. <u>Frequency of Compliance Tests</u>. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.</p> <p>(a) <u>General Compliance Testing</u>.</p> <p>3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:</p> <ul style="list-style-type: none"> <li>a. Did not operate; or,</li> <li>b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.</li> </ul> <p>4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:</p> <ul style="list-style-type: none"> <li>a. Visible emissions, if there is an applicable standard;</li> <li>b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and</li> <li>c. Each NESHAP pollutant, if there is an applicable emission standard.</li> </ul> <p>8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.</p> <p>9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.</p> <p>(b) <u>Special Compliance Tests</u>. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.</p> <p>(c) <u>Waiver of Compliance Test Requirements</u>. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. [Rule 62-297.310(7), F.A.C.; and, SIP approved]</p>	<p>X</p>		<p>-Annual emissions test report</p>
<p>A.52. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:</p> <ul style="list-style-type: none"> <li>a. only gaseous fuel(s); or</li> <li>b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or,</li> <li>c. only liquid fuel(s) for less than 400 hours per year. [Rule 62-297.310(7)(a)4., F.A.C.]</li> </ul>	<p>X</p>		<p>-gaseous fuel(s) burned exclusively</p>



<b>Recordkeeping and Reporting Requirements</b>			
A.53. To determine compliance with the oil firing heat input limitation, the permittee shall maintain daily records of fuel oil consumption and hourly usage for the turbine and the average heating value for the fuel oil. Average fuel oil heating rate shall be the calendar year annual average higher heating value of #2 fuel oil purchased for the permittee's bulk fuel oil storage facility. All records shall be maintained for a minimum of five (5) years after the date of each record and shall be made available to representatives of the Department upon request. [Rule 62-213.440, F.A.C.]	X		-no oil burned
A.54. The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows: (4) A notification of any <u>physical or operational change</u> to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice. [40 CFR 60.7(a)(4)]	X		N/A
A.55. The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]	X		-Quarterly excess emissions report
A.56. The owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information: (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period. (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted. (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments. (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report. [40 CFR 60.7(c)(1), (2), (3), and (4)]	X		-Quarterly excess emissions report

<p>A.57. The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.</p> <p>(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.</p> <p>(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted. [40 CFR 60.7(d)(1) and (2)]</p>	X	-Quarterly excess emissions report
<p>A.58. (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:</p> <p>(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;</p> <p>(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and,</p> <p>(iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2). The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.</p> <p>(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) &amp; (e)(2). [40 CFR 60.7(e)(1)]</p>	X	-Quarterly excess emissions report
<p>A.59. The owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least 5 (five) years following the date of such measurements, maintenance, reports, and records. [40 CFR 60.7(f); Rule 62-213.440(1)(b)2.b., F.A.C.]</p>	X	-records on file

<p>A.60. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]</p>	X		-Quarterly excess emissions report
<p>A.61. <u>Test Reports.</u></p> <p>(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.</p> <p>(b) 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.</p> <p>(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA Method 9 test, shall provide the following information:</p> <ol style="list-style-type: none"> <li>1. The type, location, and designation of the emissions unit tested.</li> <li>2. The facility at which the emissions unit is located.</li> <li>3. The owner or operator of the emissions unit.</li> <li>4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.</li> <li>5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.</li> <li>6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.</li> <li>7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.</li> <li>8. The date, starting time and duration of each sampling run.</li> <li>9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.</li> <li>10. The number of points sampled and configuration and location of the sampling plane.</li> <li>11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.</li> <li>12. The type, manufacturer and configuration of the sampling equipment used.</li> <li>13. Data related to the required calibration of the test equipment.</li> <li>14. Data on the identification, processing and weights of all filters used.</li> <li>15. Data on the types and amounts of any chemical solutions used.</li> <li>16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test</li> </ol>	X		-Annual emissions test report
<ol style="list-style-type: none"> <li>17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.</li> <li>18. All measured and calculated data required to be determined by each applicable test procedure for each run.</li> <li>19. The detailed calculations for one run that relate the collected data to the calculated emission rate.</li> <li>20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.</li> <li>21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge. [Rules 62-213.440 and 62-297.310(8), F.A.C.]</li> </ol>			

A.62. Reports under 40 CFR 60.7(c) are required for periods of NO <sub>x</sub> excess emissions, which are defined in specific condition A.25. [40 CFR 60.334(c)(1)]	X		-Quarterly excess emissions report
A.63. Submit a quarterly report for each emissions unit for the following within 30 days at the end of each quarter: a. Total hours of operation. b. Per 40 CFR 60.334(c)(1) for NO <sub>x</sub> , any one hour period in which the water to fuel ratio falls below 0.6/1.0 or the value determined during the latest compliance tests of modification 0950111-005-AV, whichever is the larger numerical fraction. [Rule 62-213.400, F.A.C.; and, 0950111-005-AV]	X		-Quarterly excess emissions report
A.64. <u>HRSG</u> . The owner or operator of an affected facility (HRSG) subject to the nitrogen oxides standards under 40 CFR 60.44b shall maintain records of the following information for each steam generating unit operating day: (1) Calendar date. [40 CFR 60.49b(g)(1)]	X		-CMS

**Section III. Emissions Units.****Subsection B. This section addresses the following emissions units.**

<u>E.U./Facility I.D.</u>	<u>Brief Description</u>	<u>Manufacturer</u>	<u>Model</u>
<i>North Service Area</i>			
-020 (LBB-1a)	Laundry Boiler #1	York-Shipley	300HP
-021 (LBB-1b)	Laundry Boiler #2	York-Shipley	300HP
-022 (LBB-1c)	Laundry Boiler #3	York-Shipley	350HP
-023 (LBB-2)	Laundry Boiler #4		
<i>Construction Landfill</i>			
-089 (CL-1)	Diesel Electric Generator #1	Coleman/Cummings	4BG
-089 (CL-2)	Diesel Electric Generator #2	Coleman/Kubota	CK05-15M/V1902-B61
<i>Disney's Boardwalk Resort</i>			
-090 (BDW-1)	Boiler	Cleaver Brooks	CBE-700-250
-090 (BDW-2)	Boiler	Cleaver Brooks	CBE-700-250

The following specific conditions apply to the emissions units listed above:

**Essential Potential to Emit (PTE) Parameters**

B.1. Permitted Capacity. The maximum operation rates are as follows:

<u>E.U./Facility I.D.</u>	<u>Brief Description</u>	<u>Permitted Capacity</u>	C	NC	Comments
<i>North Service Area</i>		<b><u>MMBtu/hr Heat Input</u></b>			
-020 (LBB-1a)	Laundry Boiler #1	39.6 (total: #1, #2 & #3)	X		
-021 (LBB-1b)	Laundry Boiler #2	39.6 (total: #1, #2 & #3)	X		
-022 (LBB-1c)	Laundry Boiler #3	39.6 (total: #1, #2 & #3)	X		
<i>Construction Landfill</i>		<b><u>MMBtu/hr Heat Input</u></b>			
-089 (CL-1)	Diesel Electric Generator #1	0.155	X		
-089 (CL-2)	Diesel Electric Generator #2	0.057	X		
<i>Disney's Boardwalk Resort</i>		<b><u>MMBtu/hr Heat Input</u></b>			
-090 (BDW-1)	Boiler	10.46	X		
-090 (BDW-2)	Boiler	10.46	X		

	C	NC	Comments
B.2. <u>Emissions Unit Operating Rate Limitation After Testing</u> . See specific condition B.11. [Rule 62-297.310(2), F.A.C.; and, 0950111-005-AV]	X		
B.3. <u>Methods of Operation - Fuels</u> . a. For the North Service Area Laundry and Disney's Boardwalk Resort boilers, the only fuel allowed to be fired is natural gas. b. For the Construction Landfill diesel electric generators, the only fuel allowed to be fired is new No. 2 distillate fuel oil. [Rules 62-296.406(2) & (3), F.A.C.; AC48-271849; and, 0950111-005-AV]	X		
B.4. <u>Hours of Operation</u> . The emissions units may operate continuously, i.e., 8760 hours/year. [Rule 62-210.200(PTE), F.A.C.; and, 0950111-005-AV]	X		
<b>Emission Limitations and Standards</b>			
B.5. <u>Visible Emissions</u> . See specific condition B.10. a. Visible emissions from the diesel electric generators shall be less than 20% opacity. b. Visible emissions from each laundry boiler shall not exceed 5% opacity. c. Visible emissions from each Boardwalk Resort boiler shall not exceed 20% opacity, except for one 6-minute period per hour during which opacity shall not exceed 27%. [Rules 62-296.406(1) and 62-296.320(4)(b)1., F.A.C.; AC48-271849; and, 0950111-005-AV]	X		-Visible emissions below 20 % opacity
B.6. <u>Particulate Matter and Sulfur Dioxide</u> . From the steam boilers, particulate matter and sulfur dioxide emissions shall be controlled by the firing of natural gas or propane. [Rule 62-296.406(2) & (3), F.A.C.; and, 0950111-005-AV]	X		-Only natural gas and propane were burned
<b>Excess Emissions</b>			
B.7. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]	X		N/A
B.8. 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 shall be prohibited. [Rule 62-210.700(4), F.A.C.]	X		N/A
<b>Monitoring of Operations</b>			
B.9. <u>Determination of Process Variables</u> . (a) <u>Required Equipment</u> . The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. (b) <u>Accuracy of Equipment</u> . Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]	X		-Fuel meters and/or hour meters are installed as deemed appropriate
<b>Test Methods and Procedures</b>			
B.10. <u>Visible emissions</u> . See specific condition B.5. a. For the laundry boilers, the diesel electric generators, and the Boardwalk Resort boilers, the test method shall be EPA Method 9, in accordance with Chapter 62-297, F.A.C. b. The visible emissions shall be conducted for 60-minutes for each boiler. c. The visible emissions shall be conducted for 30-minutes for the diesel electric generators. [Rules 62-213.440, 62-296.320(4)(b)4., and 62-297.401, F.A.C.; and, 0950111-005-AV]	X		-test performed for diesel generator

<p><b>B.11. <u>Operating Rate During Testing.</u></b> Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.  [Rules 62-297.310(2) &amp; (2)(b), F.A.C.]</p>	X		-test performed for diesel generator
<p><b>B.12. <u>Applicable Test Procedures.</u></b>  <b>(a) <u>Required Sampling Time.</u></b>  2. <b>Opacity Compliance Tests.</b> When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:  c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.  [Rule 62-297.310(4)(a)2.c., F.A.C.]</p>	X		-test performed for diesel generator

<p><b>B.13. Frequency of Compliance Tests.</b> The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.</p> <p>(a) <u>General Compliance Testing.</u></p> <p>3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:</p> <p>a. Did not operate; or</p> <p>b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.</p> <p>4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:</p> <p>a. Visible emissions, if there is an applicable standard (see specific condition <b>B.14.</b>);</p> <p>9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.</p> <p>(b) <u>Special Compliance Tests.</u> When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.</p> <p>(c) <u>Waiver of Compliance Test Requirements.</u> If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. [Rule 62-297.310(7), F.A.C.; and, SIP approved]</p>	<p>X</p>		<p>-test performed for diesel generator</p>
<p><b>B.14.</b> By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning (see specific condition <b>B.13.(a)4.a.</b>):</p> <p>a. only gaseous fuel(s); or</p> <p>b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or</p> <p>c. only liquid fuel(s) for less than 400 hours per year. [Rule 62-297.310(7)(a)4., F.A.C.]</p>	<p>X</p>		<p>-test performed for diesel generator</p>
<p><b>Record keeping and Reporting Requirements</b></p>			
<p><b>B.15.</b> In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]</p>	<p>X</p>		<p>-Gaseous fuel was burned exclusively no tests were performed, except for diesel generator</p>



<p>B.16. <u>Test Reports.</u></p> <p>(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.</p> <p>(b) 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 62-297.310(8), F.A.C.]</p>	X		-See B.15.
<p>B.17. For each emissions unit, the permittee shall maintain a monthly log of the hours operated and the amount of fuel fired. [Rules 62-4.070 and 62-213.440, F.A.C.; and, 0950111-005-AV]</p>	X		-Hours of operation and fuel usage are logged as maximum capacity x continuous operational hours where no meters are installed
<p>B.18. The type of fuel and the heat input to each emissions unit shall be included on the visible emissions test report. [Rule 62-213.440, F.A.C.; and, 0950111-005-AV]</p>	X		-See B.15.
<p>B.19. The owner or operator of each affected emissions unit (laundry boilers) shall record and maintain records of the amounts of natural gas combusted during each day. The records shall be retained for a period of at least five years following the date of such record. [40 CFR 60.48c(g) &amp; (h); and, Rule 62-213.440, F.A.C.]</p>	X		-Logs are maintained -records on file

**Subsection C. This section addresses the following emissions units.**

<b>E.U./Facility I.D.</b>	<b>Brief Description</b>	<b>Manufacturer</b>	<b>Model</b>
<i>EPCOT Central Energy Plant</i>			
-079 (EPCOT DG-1)	Diesel Electric Generator #1 (2.5 MW)	Stewart & Stevenson	S-20-645-E4B
-080 (EPCOT DG-2)	Diesel Electric Generator #2 (2.5 MW)	Stewart & Stevenson	S-20-645-E4B

**The following specific conditions apply to the emissions units listed above:**

<b>Essential Potential to Emit (PTE) Parameters</b>	<b>C</b>	<b>NC</b>	<b>Comments</b>
C.1. <u>Permitted Capacity</u> . The maximum operation rates are as follows: <i>Reedy Creek Improvement District</i>			
			<b>Permitted Capacity megawatts/hr</b>
<b>E.U./Facility I.D.</b> <b>Brief Description</b>			
-079 (EPCOT DG-1) Diesel Electric Generator #1 (2.5 MW)	X		2.5
-080 (EPCOT DG-2) Diesel Electric Generator #2 (2.5 MW)	X		2.5
[Rule 62-210.200(PTE), F.A.C.; and, 0950111-005-AV]			
C.2. <u>Emissions Unit Operating Rate Limitation After Testing</u> . See specific condition C.18. [Rule 62-297.310(2), F.A.C.]	X		-tested above 90% capacity
C.3. <u>Methods of Operation - Fuels</u> . The only fuel allowed to be fired is new No. 2 distillate fuel oil. [Rule 62-213.410, F.A.C.; and, 0950111-005-AV]	X		-limited by design
C.4. <u>Hours of Operation</u> . Each emissions unit is allowed to operate 1900 hrs/yr. [Rule 62-210.200(PTE), F.A.C.; and, 0950111-005-AV]	X		-Per AOR: 223/277 hrs
<b>Emission Limitations and Standards</b>			
C.5. <u>Visible Emissions</u> .			
a. Visible emissions from the diesel electric generators shall be less than 20 percent opacity. [Rule 62-296.320(4)(b)1., F.A.C.; and, 0950111-016-AC]	X		-Annual emissions tests -opacity < 20%
C.6. The emissions from each diesel electric generator shall not exceed the following:			
<b>Pollutant</b>			
		<b>Allowables lbs./hr</b>	<b>Allowables TPY</b>
Particulate Matter	X	10.0	9.5
Sulfur Dioxide	X	14.5	14.0
Nitrogen Oxides	X	126.0	126.0
Carbon Monoxide	X	2.9	2.8
Volatile Organic Compounds [0950111-005-AV]	X	2.1	2.0
C.7. <u>Sulfur Dioxide - Sulfur Content</u> . The sulfur content of the new No. 2 distillate fuel oil shall not exceed 0.5%, by weight. Firing low sulfur fuel oil negates the need to conduct any SO <sub>2</sub> mass tests. See specific conditions C.11. and C.15. [0950111-005-AV]	X		-Fuel analysis: 0.04 % sulfur
<b>Excess Emissions</b>			
C.8. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]	X		N/A
C.9. 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 shall be prohibited. [Rule 62-210.700(4), F.A.C.]	X		N/A

<b>Monitoring of Operations</b>			
C.10. <u>Determination of Process Variables.</u> (a) <u>Required Equipment.</u> The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. (b) <u>Accuracy of Equipment.</u> Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]	X		-Fuel is metered  -Meter calibrated annually
C.11. <u>Monitoring - Fuel Oil.</u> The fuel oil shall be analyzed each time fuel oil is transferred to the storage tank. In lieu of conducting sampling and analysis at the time of each delivery of new fuel oil, the permittee can accept a fuel oil analysis from the vendor upon each delivery and the records shall be retained for a minimum of 5 years. See specific conditions C.7. and C.15. [Rule 62-213.440, F.A.C.; and, 0950111-005-AV]	X		-Vendor supplied fuel analysis
<b>Test Methods and Procedures</b>			
C.12. <u>Visible emissions.</u> a. For the diesel electric generators, the test method shall be EPA Method 9 in accordance with Chapter 62-297, F.A.C. [Rules 62-296.320(4)(b)4. and 62-297.401, F.A.C.; and, 0950111-005-AV]	X		-Annual VE test performed by method 9
C.13. <u>Particulate Matter.</u> EPA Method 5 shall be used to demonstrate compliance with particulate matter emissions limit in accordance with Chapter 62-297, F.A.C., if the visible emissions are equal to or greater than 20% opacity. If a test is required, then a visible emissions test shall be conducted concurrently with each particulate matter emissions test. [Rule 62-297.401, F.A.C.; and, 0950111-005-AV]	X		-Less than 20% opacity
C.14. <u>Nitrogen Oxides (NO<sub>x</sub>).</u> Annually, EPA Method 20 shall be used to demonstrate compliance with the NO <sub>x</sub> emissions limit in accordance with Chapter 62-297, F.A.C. A visible emissions test shall be conducted concurrently with each NO <sub>x</sub> emissions test. [Rule 62-297.401, F.A.C.; and, 0950111-005-AV]	X		-Annual tests by method 20
C.15. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition. See specific conditions C.7. and C.11. [Rules 62-213.440 and 62-297.440, F.A.C.; and, 0950111-005-AV]	X		-Method ASTM D4294 -Vendor supplied data
C.16. <u>Carbon Monoxide.</u> The firing of low sulfur fuel oil and proper operation of the emissions units negates the need to conduct a mass emissions test for carbon monoxide. [Rule 62-297.310(7), F.A.C.; and, 0950111-005-AV]	X		-low sulfur fuel burned
C.17. <u>Volatile Organic Compounds.</u> The firing of low sulfur fuel oil and proper operation of the emissions units negates the need to conduct a mass emissions test for volatile organic compounds. [Rule 62-297.310(7), F.A.C.; and, 0950111-005-AV]	X		-low sulfur fuel burned
C.18. <u>Operating Rate During Testing.</u> Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rules 62-297.310(2) & (2)(b), F.A.C.]	X		-fired at greater than or equal to 90% capacity during testing
C.19. <u>Calculation of Emission Rate.</u> The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]	X		-annual emissions test report

<p><b>C.20. Applicable Test Procedures.</b></p> <p>(a) <u>Required Sampling Time.</u></p> <p>1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.</p> <p>2. <b>Opacity Compliance Tests.</b> When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:</p> <p>c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.</p> <p>(b) <u>Minimum Sample Volume.</u> Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.</p> <p>(c) <u>Required Flow Rate Range.</u> For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.</p> <p>(d) <u>Calibration of Sampling Equipment.</u> Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached).</p> <p>(e) <u>Allowed Modification to EPA Method 5.</u> When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]</p>	<p>X</p>		<p>-Annual emissions test reports</p> <p>-method 5 N/A</p>
<p><b>C.21. Required Stack Sampling Facilities.</b> When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]</p>	<p>X</p>		
<p><b>C.22. Frequency of Compliance Tests.</b> The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.</p> <p>(a) <u>General Compliance Testing.</u></p> <p>2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid fuel for more than 400 hours other than during startup.</p> <p>3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:</p> <p>a. Did not operate; or</p> <p>b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.</p>	<p>N/A</p> <p>X</p>		<p>-no soot blowing occurred</p>

<p>4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:</p> <p>a. Visible emissions, if there is an applicable standard;</p> <p>b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and</p> <p>c. Each NESHAP pollutant, if there is an applicable emission standard.</p> <p>5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid fuel, other than during startup, for a total of more than 400 hours.</p> <p>9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.</p> <p>(b) <u>Special Compliance Tests</u>. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department</p> <p>(c) <u>Waiver of Compliance Test Requirements</u>. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. [Rule 62-297.310(7), F.A.C.; and, SIP approved]</p>	<p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p>		<p>-Annual emissions tests</p> <p>N/A</p> <p>N/A</p>
<p>C.23. Annual and permit renewal compliance testing for particulate matter emissions is not required for these emissions units while burning only liquid fuel(s) for less than 400 hours per year. See specific conditions C.22.(a)3., 4., &amp; 5. [Rules 62-297.310(7)(a)3. &amp; 5., F.A.C.; and, ASP Number 97-B-01.]</p>	<p>X</p>		<p>N/A</p>
<p><b>Record keeping and Reporting Requirements</b></p>			
<p>C.24. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]</p>	<p>X</p>		<p>N/A</p>

<p>C.25. <u>Test Reports.</u>                  (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.                  (b) 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.                  (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA Method 9 test, shall provide the following information:</p> <ol style="list-style-type: none"> <li>1. The type, location, and designation of the emissions unit tested.</li> <li>2. The facility at which the emissions unit is located.</li> <li>3. The owner or operator of the emissions unit.</li> <li>4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.</li> <li>5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.</li> <li>6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.</li> <li>7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.</li> <li>8. The date, starting time and duration of each sampling run.</li> <li>9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.</li> <li>10. The number of points sampled and configuration and location of the sampling plane.</li> <li>11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.</li> <li>12. The type, manufacturer and configuration of the sampling equipment used.</li> <li>13. Data related to the required calibration of the test equipment.</li> <li>14. Data on the identification, processing and weights of all filters used.</li> <li>15. Data on the types and amounts of any chemical solutions used.</li> <li>16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.</li> <li>17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.</li> <li>18. All measured and calculated data required to be determined by each applicable test procedure for each run.</li> <li>19. The detailed calculations for one run that relate the collected data to the calculated emission rate.</li> <li>20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.</li> <li>21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge. [Rule 62-297.310(8), F.A.C.]</li> </ol>	X	-Annual compliance tests reports submitted properly
<p>C.26. For each emissions unit, the permittee shall maintain a log of the hours operated and the amount of fuel fired. [Rules 62-4.070 and 62-213.440, F.A.C.]</p>	X	-records on file
<p>C.27. The amount of fuel fired and the megawatt output from each emissions unit shall be included on the visible emissions test report. [Rule 62-213.440, F.A.C.; and, 0950111-016-AC]</p>	X	-Annual test report

**Subsection D. This section addresses the following emissions unit.**

<u>E.U./Facility I.D.</u>	<u>Brief Description</u>	<u>Manufacturer</u>		
<i>North Service Area Dry Cleaning Plant</i>				
-001 (LDC-1)	Dry Cleaning Unit #1	Multimatic Machine		
-002 (LDC-2)	Dry Cleaning Unit #2	Multimatic Machine		
-003 (LDC-3)	Dry Cleaning Unit #3	Multimatic Machine		
<b>The following specific conditions apply to the emissions units listed above:</b>		<b>C</b>	<b>NC</b>	<b>Comments</b>
<b>General</b>				
<b>Standards</b>				
D.1. The permittee of each existing dry cleaning system shall comply with either 40 CFR 63.322(a)(1) or (a)(2). (1) Route the air-perchloroethylene gas-vapor stream contained within each dry cleaning machine through a refrigerated condenser or an equivalent control device. (2) Route the air-perchloroethylene gas-vapor stream contained within each dry cleaning machine through a carbon adsorber installed in the dry cleaning machine prior to September 22, 1993. [40 CFR 63.322(a)(1) & (2)]		X		Refrigerated condenser and carbon adsorption is utilized
D.2. The permittee shall close the door of each dry cleaning machine immediately after transferring articles to or from the machine, and shall keep the door closed at all other times. [40 CFR 63.322(c)]		X		-per SOP
D.3. The permittee of each dry cleaning system shall operate and maintain the system according to the manufacturers' specifications and recommendations. [40 CFR 63.322(d)]		X		
D.4. Each refrigerated condenser used for the purposes of complying with 40 CFR 63.322(a) or (b) and installed on a dry-to-dry machine, dryer, or reclaimer: (1) Shall be operated to not vent or release the air-perchloroethylene gas-vapor stream contained within the dry cleaning machine to the atmosphere while the dry cleaning machine drum is rotating; (2) Shall be monitored according to 40 CFR 63.323(a)(1); and (3) Shall be operated with a diverter valve, which prevents air drawn into the dry cleaning machine when the door of the machine is open from passing through the refrigerated condenser. [40 CFR 63.322(e)(1), (2), & (3)]		X		-monitoring records on file
D.5. Each refrigerated condenser used for the purpose of complying with 40 CFR 63.322(a) and installed on a washer: (1) Shall be operated to not vent the air-perchloroethylene gas-vapor contained within the washer to the atmosphere until the washer door is opened; (2) Shall be monitored according to 40 CFR 63.323(a)(2). [40 CFR 63.322(f)(1) & (2)]		X		-monitoring records on file
D.6. Each carbon adsorber used for the purposes of complying with 40 CFR 63.322(a) or (b): (1) Shall not be bypassed to vent or release any air-perchloroethylene gas-vapor stream to the atmosphere at any time; and (2) Shall be monitored according to the applicable requirements in 40 CFR 63.323(b) or (c). [40 CFR 63-322(g)(1) & (2)]		X		-monitoring records on file
D.7. (j) The permittee of an affected facility shall store all perchloroethylene and wastes that contain perchloroethylene in solvent tanks or solvent containers with no perceptible leaks. [40 CFR 63.322(j)]		X		-leak check records on file

<p>D.8. The permittee of a dry cleaning system shall inspect the following components weekly for perceptible leaks while the dry cleaning system is operating:</p> <ol style="list-style-type: none"> <li>(1) Hose and pipe connections, fittings, couplings, and valves;</li> <li>(2) Door gaskets and seatings;</li> <li>(3) Filter gaskets and seatings;</li> <li>(4) Pumps;</li> <li>(5) Solvent tanks and containers;</li> <li>(6) Water separators;</li> <li>(7) Muck cookers;</li> <li>(8) Stills;</li> <li>(9) Exhaust dampers;</li> <li>(10) Diverter valves; and</li> <li>(11) Cartridge filter housings. [40 CFR 63.322(k)(1) thru (11)]</li> </ol>	X		<p>-Leak checks are performed weekly - records on file</p>
<p>D.9. The permittee of a dry cleaning system shall repair all perceptible leaks detected under 40 CFR 63.322(k) within 24 hours. If repair parts must be ordered, either a written or verbal order for those parts shall be initiated within 2 working days of detecting such a leak. Such repair parts shall be installed within 5 working days after receipt. [40 CFR 63.322(m)]</p>	X		<p>-Repair logs -records on file</p>
<p>D.10. If parameter values monitored under 40 CFR 63.322(e), (f), or (g), do not meet the values specified in 40 CFR 63.323(a), (b), or (c), adjustments or repairs shall be made to the dry cleaning system or control device to meet those values. If repair parts must be ordered, either a written or verbal order for such parts shall be initiated within 2 working days of detecting such a parameter value. Such repair parts shall be installed within 5 working days after receipt. [40 CFR 63.322(n)]</p>	X		<p>-Repair/parts request sheets -records on file</p>
<b>Test Methods and Monitoring</b>			
<p>D.11. When a refrigerated condenser is used to comply with 40 CFR 63.322(a)(1) or (b)(1):</p> <ol style="list-style-type: none"> <li>(1) The permittee shall measure the temperature of the air-perchloroethylene gas-vapor stream on the outlet side of the refrigerated condenser on a dry-to-dry machine, dryer, or reclaimer weekly with a temperature sensor to determine if it is equal to or less than 7.2° C (45° F). The temperature sensor shall be used according to the manufacturer's instructions and shall be designed to measure a temperature of 7.2° C (45° F) to an accuracy of <math>\pm 1.1^{\circ} \text{C}</math> (<math>\pm 2^{\circ} \text{F}</math>).</li> <li>(2) The permittee shall calculate the difference between the temperature of the air-perchloroethylene gas-vapor stream entering the refrigerated condenser on a washer and the temperature of the air-perchloroethylene gas-vapor stream exiting the refrigerated condenser on the washer weekly to determine that the difference is greater than or equal to 11.1° C (20° F) <ol style="list-style-type: none"> <li>(i) Measurements of the inlet and outlet streams shall be made with a temperature sensor. Each temperature sensor shall be used according to the manufacturer's instructions, and designed to measure at least a temperature range from 0° C (32° F) to 48.9° C (120° F) to an accuracy of <math>\pm 1.1^{\circ} \text{C}</math> (<math>\pm 2^{\circ} \text{F}</math>).</li> <li>(ii) The difference between the inlet and outlet temperatures shall be calculated weekly from the measured values. [40 CFR 63-323(a)(1) &amp; (2)]</li> </ol> </li> </ol>	X		<p>-records on file</p>



<p>D.12. When a carbon adsorber is used to comply with 40 CFR 63.322(a)(2) or exhaust is passed through a carbon adsorber immediately upon machine door opening to comply with 40 CFR 63.322(b)(3), the permittee shall measure the concentration of perchloroethylene in the exhaust of the carbon adsorber weekly with a colorimetric detector tube, while the dry cleaning machine is venting to that carbon adsorber at the end of the last dry cleaning cycle prior to desorption of that carbon adsorber to determine that the perchloroethylene concentration in the exhaust is equal to or less than 100 parts per million by volume. The permittee shall:</p> <ol style="list-style-type: none"> <li>(1) Use a colorimetric detector tube designed to measure a concentration of 100 parts per million by volume of perchloroethylene in air to an accuracy of <math>\pm 25</math> parts per million by volume; and</li> <li>(2) Use the colorimetric detector tube according to the manufacturer's instructions; and</li> <li>(3) Provide a sampling port for monitoring within the exhaust outlet of the carbon adsorber that is easily accessible and located at least 8 stack or duct diameters downstream from any flow disturbance such as a bend, expansion, contraction, or outlet; downstream from no other inlet; and 2 stack or duct diameters upstream from any flow disturbance such as a bend, expansion, contraction, inlet, or outlet. [40 CFR 63.323(b)(1), (2) &amp; (3)]</li> </ol>	X		-test records on file
<p>D.13. If the air-perchloroethylene gas-vapor stream is passed through a carbon adsorber prior to machine door opening to comply with § 63.322(b)(3), the permittee of an affected facility shall measure the concentration of perchloroethylene in the dry cleaning machine drum at the end of the dry cleaning cycle weekly with a colorimetric detector tube to determine that the perchloroethylene concentration is equal to or less than 300 parts per million by volume. The permittee shall:</p> <ol style="list-style-type: none"> <li>(1) Use a colorimetric detector tube designed to measure a concentration of 300 parts per million by volume of perchloroethylene in air to an accuracy of <math>\pm 75</math> parts per million by volume; and</li> <li>(2) Use the colorimetric detector tube according to the manufacturer's instructions; and</li> <li>(3) Conduct the weekly monitoring by inserting the colorimetric detector tube into the open space above the articles at the rear of the dry cleaning machine drum immediately upon opening the dry cleaning machine door. [40 CFR 63.323(c)(1), (2) &amp; (3)]</li> </ol>	X		-test records on file
<p>D.14. When calculating yearly perchloroethylene consumption for the purpose of demonstrating applicability according to 40 CFR 63.320, the permittee shall perform the following calculation on the first day of every month:</p> <ol style="list-style-type: none"> <li>(1) Sum the volume of all perchloroethylene purchases made in each of the previous 12 months, as recorded in the log described in 40 CFR 63.324(d)(1).</li> <li>(2) If no perchloroethylene purchases were made in a given month, then the perchloroethylene consumption for that month is zero gallons.</li> <li>(3) The total sum calculated in 40 CFR 63.323(d) is the yearly perchloroethylene consumption at the facility. [40 CFR 63.323(d)(1), (2) &amp; (3)]</li> </ol>	X		-records on file

<b>Recordkeeping and Reporting Requirements</b>		
<p>D.15. Each permittee of a dry cleaning facility shall submit an initial report signed by a responsible official before a notary public certifying that the information provided in the initial report is accurate and true to the Permitting authority within 90 calendar days after September 22, 1993, which includes the following:</p> <ol style="list-style-type: none"> <li>(1) The name and address of the permittee;</li> <li>(2) The address (that is, physical location) of the dry cleaning facility;</li> <li>(3) A brief description of the type of each dry cleaning machine at the dry cleaning facility;</li> <li>(4) Documentation as described in 40 CFR 63.323(d) of the yearly perchloroethylene consumption at the dry cleaning facility for the previous year to demonstrate applicability according to § 63.320; or an estimation of perchloroethylene consumption for the previous year to estimate applicability with 40 CFR 63.320; and</li> <li>(5) A description of the type of control device(s) that will be used to achieve compliance with 40 CFR 63.322(a) or (b) and whether the control device(s) is currently in use or will be purchased.</li> <li>(6) Documentation to demonstrate to the Permitting authority's satisfaction that each room enclosure used to meet the requirements of 40 CFR 63.322(a)(3) meets the requirements of 40 CFR 63.322(a)(3)(i) and (ii). [40 CFR 63-324(a)(1) thru (6)]</li> </ol>	X	-Submitted in 1993
<p>D.16. Each permittee of a dry cleaning facility shall submit a statement signed by a responsible official in the presence of a notary public to the Permitting authority by registered letter on or before the 30th day following the compliance dates specified in 40 CFR 63.320(b) or (c), certifying the following:</p> <ol style="list-style-type: none"> <li>(1) The yearly perchloroethylene solvent consumption limit based upon the yearly solvent consumption calculated according to 40 CFR 63.323(d);</li> <li>(2) Whether or not they are in compliance with each applicable requirement of 40 CFR 63.322; and</li> <li>(3) All information contained in the statement is accurate and true. [40 CFR 63.324(b)(1), (2) &amp; (3)]</li> </ol>	X	-Submitted in 1994
<p>D.17. Each permittee of a dry cleaning facility shall keep receipts of perchloroethylene purchases and a log of the following information and maintain such information on site and show it upon request for a period of 5 years:</p> <ol style="list-style-type: none"> <li>(1) The volume of perchloroethylene purchased each month by the dry cleaning facility as recorded from perchloroethylene purchases; if no perchloroethylene is purchased during a given month then the permittee would enter zero gallons into the log;</li> <li>(2) The calculation and result of the yearly perchloroethylene consumption determined on the first day of each month as specified in 40 CFR 63.323(d);</li> <li>(3) The dates when the dry cleaning system components are inspected for perceptible leaks, as specified in 40 CFR 63.322(k) or (l), and the name or location of dry cleaning system components where perceptible leaks are detected;</li> <li>(4) The dates of repair and records of written or verbal orders for repair parts to demonstrate compliance with 40 CFR 63.322(m) and (n);</li> <li>(5) The date and temperature sensor monitoring results, as specified in 40 CFR 63.323 if a refrigerated condenser is used to comply with 40 CFR 63.322(a) or (b); and</li> <li>(6) The date and colorimetric detector tube monitoring results, as specified in 40 CFR 63.323, if a carbon adsorber is used to comply with 40 CFR 63.322(a)(2) or (b)(3). [40 CFR 63.324(d)(1) thru (6)]</li> </ol>	X	-records on file
<p>D.18. Each permittee of a dry cleaning facility shall retain onsite a copy of the design specifications and the operating manuals for each dry cleaning system and each emission control device located at the dry cleaning facility. [40 CFR 63.324(e)]</p>	X	-copies on-site

**Subsection E. This section addresses the following emissions units.**

<b>E.U./Facility I.D.</b>	<b>Brief Description</b>	<b>Manufacturer</b>	<b>Model</b>
<i>EPCOT Central Energy Plant</i> -xxx/DAK-1	Disney's Animal Kingdom Animal Crematory	Crawford	CD800

**The following specific conditions apply to the emissions units listed above:**

<b>Essential Potential to Emit (PTE) Parameters</b>	<b>C</b>	<b>NC</b>	<b>Comments</b>
<b>E.1. Permitted Capacity.</b> a. The emissions unit's processing capacity shall not exceed 800 lbs per four-hour period (equivalent to 200 lbs/hr); and, b. The emissions unit's maximum heat input shall not exceed 3.0 MMBtu/hr while firing only natural gas. [Rules 62-4.070, 62-4.160(2), 62-296.401(1), and 62-297.310(2)(b), F.A.C.]	X X		
<b>E.2. Emissions Unit Operating Rate Limitation After Testing.</b> See specific condition <b>E.28.</b> [Rule 62-297.310(2), F.A.C.]	X		-tested above 90% capacity
<b>E.3. Hours of operation.</b> The emissions unit is allowed to operate continuously, i.e., 8760 hours per year. [Rule 62-21.200, Definitions - Potential to Emit (PTE), F.A.C.]	X		-limited by design
<b>E.4. Methods of Operation - Fuels.</b> The only fuel authorized to be burned is natural gas. [Rules 62-4.160(2) and 62-210.200 (PTE), F.A.C.]	X		-Per AOR: 634 hrs
<b>Emission Limitations and Standards</b>			
<b>E.5. Visible emissions.</b> No visible emissions (5 percent opacity) except that visible emissions not exceeding 20 percent opacity are allowed for up to three minutes in any one-hour period. [Rule 62-296.401(1)(a), F.A.C.]	X		-Annual emissions tests -opacity < 20%
<b>E.6. Particulate matter.</b> Particulate matter emissions shall not exceed 0.080 grains per dry standard cubic foot of flue gas, corrected to 7% O <sub>2</sub> . [Rule 62-296.401(6)(a), F.A.C.]			
<b>E.7. Carbon monoxide.</b> Carbon monoxide (CO) emissions shall not exceed 100 parts per million by volume (ppmv), dry basis, corrected to 7% O <sub>2</sub> on an hourly average basis. [Rule 62-296.401(6)(b), F.A.C.]	X		-Emissions testing in 1998
<b>E.8. Operation Residence Time and Temperature(s).</b> The design of the secondary chamber combustion zone shall be such that it has a minimum residence time of 1.0 seconds at 1800 degrees Fahrenheit (°F). The actual operating temperature of the secondary chamber combustion zone shall be no less than 1600 °F throughout the combustion process in the primary chamber. Cremation in the primary chamber shall not begin unless the secondary chamber combustion zone temperature is equal to or greater than 1600 °F. [Rule 62-296.401(6)(c), F.A.C.]			
<b>Excess Emissions</b>			
<b>E.9. Excess emissions</b> resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]	X		N/A
<b>E.10. Excess emissions</b> 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 shall be prohibited. [Rule 62-210.700(4), F.A.C.]	X		N/A

<b>Operations</b>		
E.11. This emissions unit is permitted to incinerate only dead animals and, if applicable, the bedding and the remains associated with the animals placed in leak-proof containers. Containers may contain up to 0.5 percent by weight chlorinated plastics. Plastic bags used for the incineration of animals shall be nonchlorinated and no less than 3 mils thick. If containers are incinerated, documentation from the manufacturers certifying that they are composed of 0.5 percent or less by weight chlorinated plastics must be kept on-file at the site for the duration of their use and for at least five years after their use. This documentation must also be submitted with any application for renewal air operation permit. [Rules 62-213.440 and 296.401(6)(e), F.A.C.]	X	-Fuel is metered  -Meter calibrated annually
E.12. This emissions unit is <u>not</u> permitted to cremate dead animals which were used for medical or commercial experimentation. No other material, including biomedical waste* as defined in Rule 62-210.200, F.A.C. (see below), shall be incinerated. * " <b>Biomedical Waste</b> ": Any solid waste or liquid waste which may present a threat of infection to humans, including nonliquid tissue, body parts, blood, blood products, and body fluids from humans and other primates; laboratory and veterinary wastes which contain human disease-causing agents; and, discarded sharps. The following are also included: (a) Used absorbent materials saturated with blood, blood products, body fluids, or excretions or secretions contaminated with visible blood; and, absorbent materials saturated with blood or blood products that have dried. (b) Non-absorbent, disposable devices that have been contaminated with blood, body fluids, or secretions or excretions visibly contaminated with blood, but have not been treated by a method listed in Section 381.0098, F.S., or a method approved pursuant to Rule 64E-16, F.A.C. [Rules 62-296.401(6)(f) and 62-210.200, F.A.C.]	X	-Vendor supplied fuel analysis
<b>Training</b>		
E.13. Operators of the incinerator shall be trained by the equipment manufacturer's representatives or an equivalent state-approved organization. The content of the training program shall be submitted to the Department of Environmental Protection's Bureau of Air Regulation for approval. [Rule 62-296.401(6)(g), F.A.C.]	X	
E.14. The content of the training program shall be submitted to the Department for approval through the permitting process and shall meet, at a minimum, the criteria applicable to cremation set forth in the EPA Medical Waste Incinerator Operator Training Program Course Handbook, EPA 453/B-93-018, and Instructor's Guide, EPA 453/B-93-019. [Rule 62-296.401(6)(g)1., F.A.C.]	X	
E.15. A copy of the training certificate for each operator having satisfactorily completed the Department-approved training program must be submitted to the Department within 15 days of training. The owner of any new crematory units shall submit copies of the operator certificates within 15 days after completion of the initial compliance test pursuant to the unit's construction permit. [Rule 62-296.401(6)(g)2., F.A.C.]	X	
E.16. An operator's certificate must be kept on file at the facility for the duration of the operator's employment and for an additional five years after termination of employment. [Rules 62-213.440 and 62-296.401(6)(g)3., F.A.C.]	X	
<b>Monitoring of Operations</b>		
E.17. <u>Determination of Process Variables</u> . (a) <u>Required Equipment</u> . The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. (b) <u>Accuracy of Equipment</u> . Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]	X	
<b>Test Methods and Procedures</b>		
	X	

E.18. The incinerator must be tested in its normal operating mode. In order for the permittee to be allowed to incinerate bedding, bags, or containers, these items shall be incinerated in normal amounts along with the animal remains during the compliance test burns. An incinerator which burns only animal remains during the compliance tests shall be permitted to incinerate only animal remains until a test determines compliance while incinerating bedding, bags, or containers along with the animal remains. [Rule 62-4.070(3), F.A.C.]	X		
E.19. <u>Visible Emissions</u> . The permittee shall have an initial and formal compliance test for visible emissions conducted during each federal fiscal year (October 1 - September 30). [Rules 62-296.401(6)(j)1. and 62-297.310(7)(a)4.a., F.A.C.]	X		-test performed
E.20. <u>Visible Emissions</u> . Compliance with the visible emissions limitation shall be determined by using DEP Method 9, incorporated in Chapter 62-297, F.A.C. [Rules 62-296.401(6)(h)1. and 62-297.401(9)(c), F.A.C.]	X		
E.21. <u>Visible Emissions</u> . The required minimum period of observation for an opacity compliance test shall be sixty (60) minutes. The opacity test observation period shall begin when incineration begins in the primary chamber. [Rule 62-297.310(4)(a)2., F.A.C.]	X		
E.22. <u>Particulate Matter, Carbon Monoxide, and Oxygen</u> . The permittee shall have an initial compliance test for particulate matter, carbon monoxide, and oxygen; after that, a compliance test shall be conducted prior to renewing the operation permit. [Rules 62-296.401(6)(j)2. and 62-297.310(7)(a)3., F.A.C.]	X		
E.23. <u>Particulate Matter</u> . Compliance with the particulate matter emission limitation shall be determined by using EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. [Rule 62-296.401(6)(h)4., F.A.C.]	X		
E.24. <u>Carbon Monoxide</u> . Compliance with the carbon monoxide emission limitation shall be determined by using EPA Method 10, incorporated and adopted by reference in Chapter 62-297, F.A.C. [Rule 62-296.401(6)(h)2., F.A.C.]	X		N/A
E.25. <u>Oxygen</u> . The oxygen concentration shall be determined by using EPA Method 3, incorporated and adopted by reference in Chapter 62-297, F.A.C. [Rule 62-296.401(6)(h)3., F.A.C.]	<u>X</u>		
E.26. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.401(6)(h)5., F.A.C.]	<u>X</u>		
E.27. <u>Required Number of Test Runs</u> . For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards. [Rule 62-297.310(1), F.A.C.]	<u>X</u>		
E.28. <u>Operating Rate During Testing</u> . Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rules 62-297.310(2) & (2)(a), F.A.C.]	<u>X</u>		

<p>E.29. <u>Calculation of Emission Rate.</u> The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]</p>			
<p>E.30. <u>Applicable Test Procedures.</u>                  (a) <u>Required Sampling Time.</u>                  1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.                  2. <u>Opacity Compliance Tests.</u> When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:                      c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.                  (b) <u>Minimum Sample Volume.</u> Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.                  (d) <u>Calibration of Sampling Equipment.</u> Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached). [Rule 62-297.310(4), F.A.C.]</p>			
<p>E.31. <u>Required Stack Sampling Facilities.</u> When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]</p>			

<p>E.32. <u>Frequency of Compliance Tests.</u> The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.</p> <p>(a) <u>General Compliance Testing.</u></p> <p>3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:</p> <ul style="list-style-type: none"> <li>a. Did not operate; or,</li> <li>b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.</li> </ul> <p>4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:</p> <ul style="list-style-type: none"> <li>a. Visible emissions, if there is an applicable standard;</li> <li>b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to 100 tons per year or more of any other regulated air pollutant</li> </ul> <p>9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.</p> <p>(b) <u>Special Compliance Tests.</u> When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.</p> <p>(c) <u>Waiver of Compliance Test Requirements.</u> If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.                  [Rule 62-297.310(7), F.A.C.; and, SIP approved]</p>			
<p>E.33. <u>Compliance Demonstration.</u> Compliance with the carbon monoxide and particulate emission standards may be demonstrated by submission of a test report for an identical (same make, model, and permitted capacity) crematory unit operating in compliance with a valid Department air permit and tested pursuant to that permit. The test data in the test report must be less than five years old and may or may not be obtained from the unit that is being permitted. [Rule 62-296.401(6)(k), F.A.C.]</p>			
<p><b>Continuous Emissions Monitoring Requirements</b></p>			

<p>E.34. Continuous Emissions Monitoring Requirements. The permittee shall install, operate, and maintain on the animal crematory continuous monitors to record temperature at the point or beyond where 1.0 second gas retention time is obtained in the secondary combustion zone in accordance with the manufacturer's instructions. A complete file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; and adjustments, preventive maintenance, and corrective maintenance performed on these systems or devices, shall be recorded in a permanent legible form available for inspection. Combustion temperature monitoring documentation shall include operator name, operator indication of when cremation in the primary chamber begins, date, time, and temperature markings. The file shall be retained for at least five years following the recording of such measurements, reports, and records. [Rules 62-213.440 and 62-296.401(6)(l), F.A.C.]</p>			
<p><b>Record keeping and Reporting</b></p>			
<p>E.35. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]</p>	<p>X</p>		<p>N/A</p>



<p><b>E.36. Test Reports.</b></p> <p>(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.</p> <p>(b) 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.</p> <p>(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a <i>minimum</i>, the test report, other than for an EPA Method 9 test, shall provide the following information:</p> <ol style="list-style-type: none"> <li>1. The type, location, and designation of the emissions unit tested.</li> <li>2. The facility at which the emissions unit is located.</li> <li>3. The owner or operator of the emissions unit.</li> <li>4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.</li> <li>5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.</li> <li>6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.</li> <li>7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.</li> <li>8. The date, starting time and duration of each sampling run.</li> <li>9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.</li> <li>10. The number of points sampled and configuration and location of the sampling plane.</li> <li>11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.</li> <li>12. The type, manufacturer and configuration of the sampling equipment used.</li> <li>13. Data related to the required calibration of the test equipment.</li> <li>14. Data on the identification, processing and weights of all filters used.</li> <li>15. Data on the types and amounts of any chemical solutions used.</li> <li>16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.</li> <li>17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.</li> <li>18. All measured and calculated data required to be determined by each applicable test procedure for each run.</li> <li>19. The detailed calculations for one run that relate the collected data to the calculated emission rate.</li> <li>20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.</li> <li>21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge. [Rule 62-297.310(8), F.A.C.]</li> </ol>	<p>X</p>	<p>-Annual compliance tests reports submitted properly</p>
--	----------	--

**Section IV. This section is the Acid Rain Part.**

**Operated by: Walt Disney World Co.**  
**ORIS code: 7294: Reedy Creek Combined Cycle**

**Subsection A. This subsection addresses Acid Rain, Phase II.**

The emissions unit listed below is regulated under Acid Rain Part, Phase II.

**E.U.**

**ID No. Description**  
 -088 Combined Cycle Combustion Turbine with a Heat Recovery Steam Generator

	C	NC	Comments
A.1. The Phase II permit application(s) submitted for this facility, as approved by the Department, are a part of this permit. The owners and operators of these Phase II acid rain unit(s) must comply with the standard requirements and special provisions set forth in the application(s) listed below: a. DEP Form No. 62-210.900(1)(a), dated 07/01/95. [Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]	X		-CEMS Quarterly reports
A.2. Sulfur dioxide (SO <sub>2</sub> ) allowance allocations requirements for each Acid Rain unit are as follows:	X		N/A

<u>E.U. ID No.</u>	<u>EPA ID</u>	<u>Year</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
-088*	32432	SO <sub>2</sub> allowances, under Table 2 or 3 of 40 CFR Part 73	18* rule**	18* rule**	18* rule**

\* The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 or 3 of 40 CFR 73.

\*\* "Rule" denotes that the preceding allocation will be proposed in the upcoming Acid Rain Division rulemaking change. These allowances are unadjusted basis allowances only, unless noted.

A.3. <u>Emission Allowances.</u> Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act. 1. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C. 2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program. 3. Allowances shall be accounted for under the Federal Acid Rain Program. [Rule 62-213.440(1)(c), F.A.C.]	X		N/A
A.4. <u>Statement of Compliance.</u> The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year. {See condition 52., APPENDIX TV-1, TITLE V CONDITIONS} [Rule 62-214.420(11), F.A.C.]	X		
A.5. Comments, notes, and justifications: For Title IV purposes, Mr. Willard K. Smith, Reedy Creek Energy Services, Inc., has become the new Designated Representative, and Mr. Virgil J. Farling, Reedy Creek Energy Services, Inc., has become the new Alternate Designated Representative.	X		

**ATTACHMENT I**

**DESCRIPTION OF DRY CLEANING CONTROL EQUIPMENT**

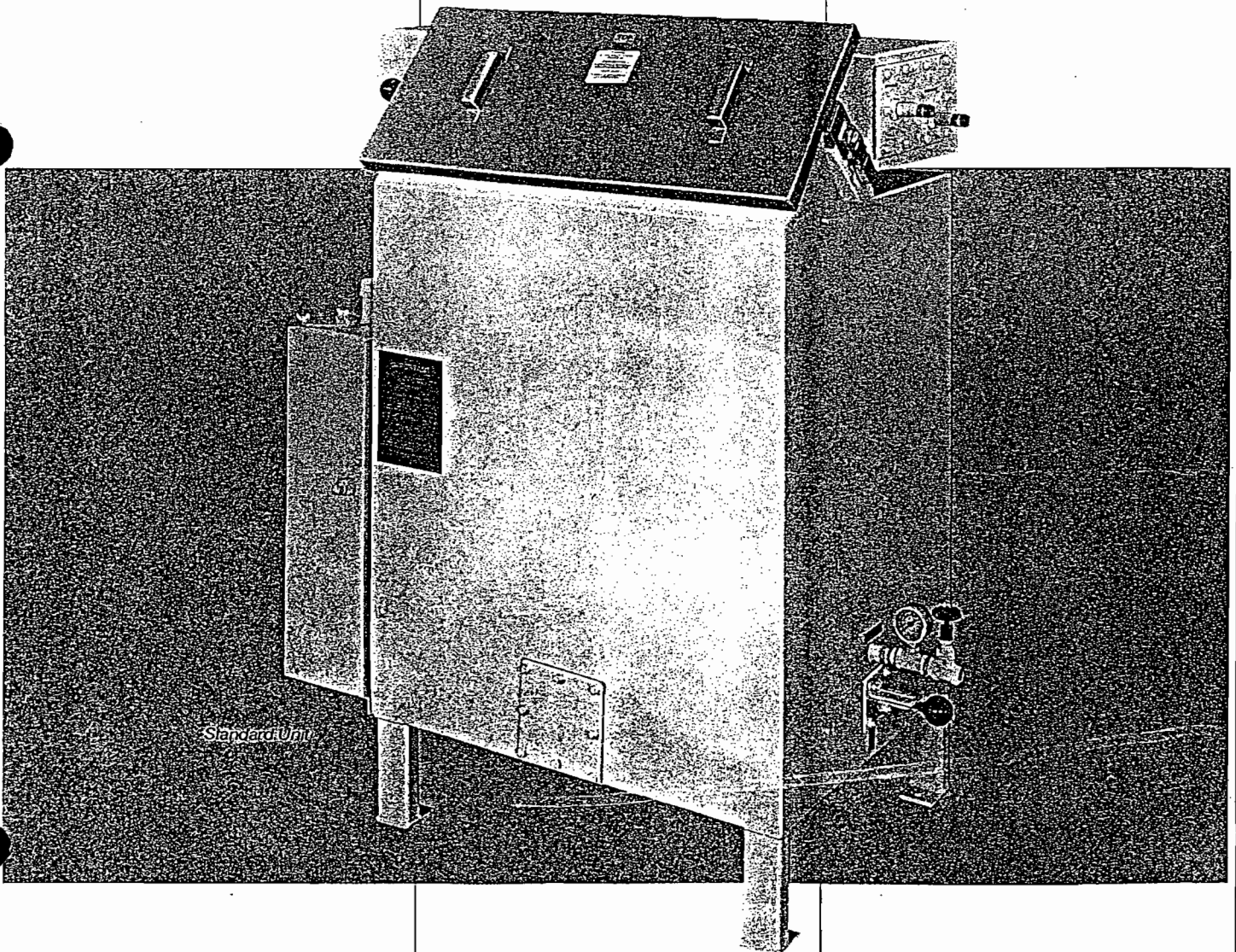
# American Professional Vapor Adsorber

An add-on unit that can increase your perc mileage significantly

Professional Vapor Adsorber II is an add-on unit, designed to increase the perc mileage of your base drycleaning machine. With it, initially, you can save up to four gallons of perc for every 1,000 pounds drycleaned. This is perc that would normally escape into the atmosphere. Then, to extend the mileage even more, the unit features a large opening and large, easy-to-remove door so that you can strip (cook-out) eight Puritan type

cartridges or two halves of either Kleenrite or Filter King cartridges during regular regeneration time. Result: up to an *additional* four gallons of perc can be reclaimed, representing another substantial savings for you.

It also should be noted that Vapor Adsorber II brings perc emissions down to less than 100 parts per million, a level now required by many governmental entities and pending in others at this time.



### Designed for dry-to-dry and transfer machines

Vapor Adsorber II works with any manufacturer's dry-to-dry or transfer type machine.

It also can be applied successfully to larger capacity drycleaners, but this is entirely dependent on the exhaust air volume of the machine. This must be known before a determination can be made.

### Impressive features in every area

Check these features which, in total, make our Professional Vapor Adsorber II the best adsorber buy on the market today.

- 4-gallon capacity (with one hour regeneration time)
- All stainless steel construction
- Minimum floor space—only 27.5" x 43" (699 mm x 1092 mm)
- Built-in condenser—increases effective bed working capacity.

- Handles 1,000-1,200 pounds of dry-cleaning without regeneration
- Bonus perc mileage—by enabling you to cook-out "spent" cartridges
- Operates with both dry-to-dry and transfer machines of all makes
- Compact dimensions—43" wide by 27.5" deep x 51 1/4" high (1092 mm x 699 mm x 1295 mm)
- Modest weight—475 lbs. (216 kgs) crated for shipping

### Optional components recommended for transfer machines

Several specially designed components, available at extra cost, are recommended to maintain operating efficiency when Vapor Adsorber II is used with transfer type drycleaning machines.

These include:

*Lint Filter*—required with transfer machines where the air is not filtered or no lint system is provided.

*380 cfm Booster Fan and Control*—required for transfer machines that do not have sufficient exhaust air volume to force

perc vapors through the carbon bed. Also required when optional floor pick-up component is applied.

*Floor Pick-up*—Literally sucks up "scavenger" perc fumes at floor level when extracted load is being moved from transfer machines to the drying tumbler. Vapor Adsorber II's pick-up component has a built-in valve to resist any possible back flow of perc fumes.

An Ultra Series product by

# American

American Laundry Machinery Inc.  
5050 Section Avenue, Cincinnati, Ohio 45212

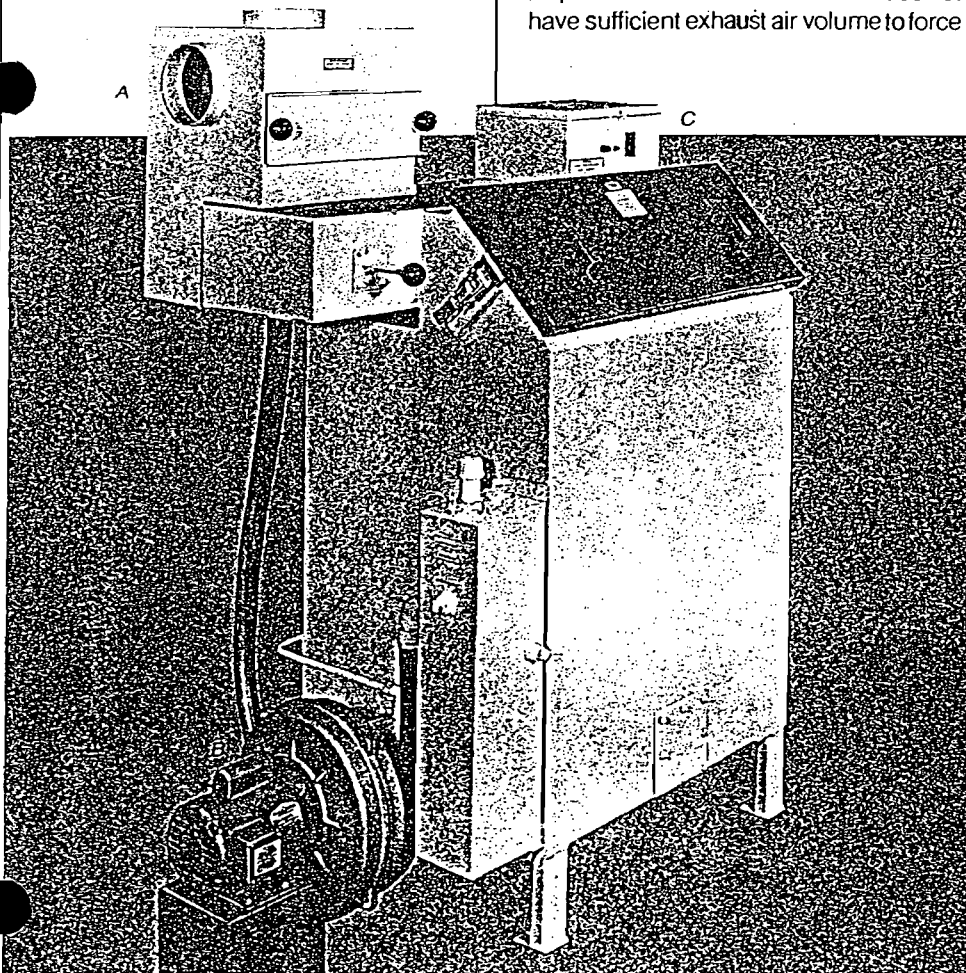
513-731-5500

Machinery is subject to manufacturer's standard warranty.

Accuracy of illustration and description of equipment shown herein applies to product as manufactured at time of publication.

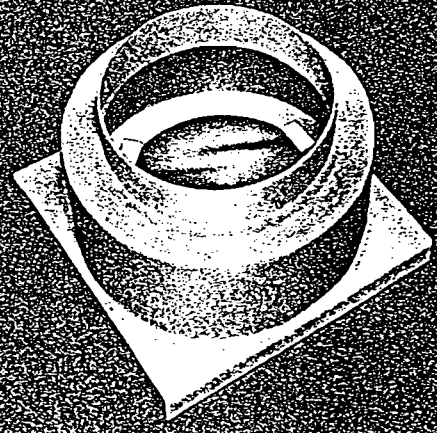
Printed in U.S.A.

PC 212 ALM 825



*American Vapor Adsorber II with optional components (A) Lint Filter (B) 380 cfm Booster Fan and (C) Booster Fan Control*

*Booster Floor Pick-up*



**ATTACHMENT J**

**DESCRIPTION OF CCCT CONTROL EQUIPMENT**

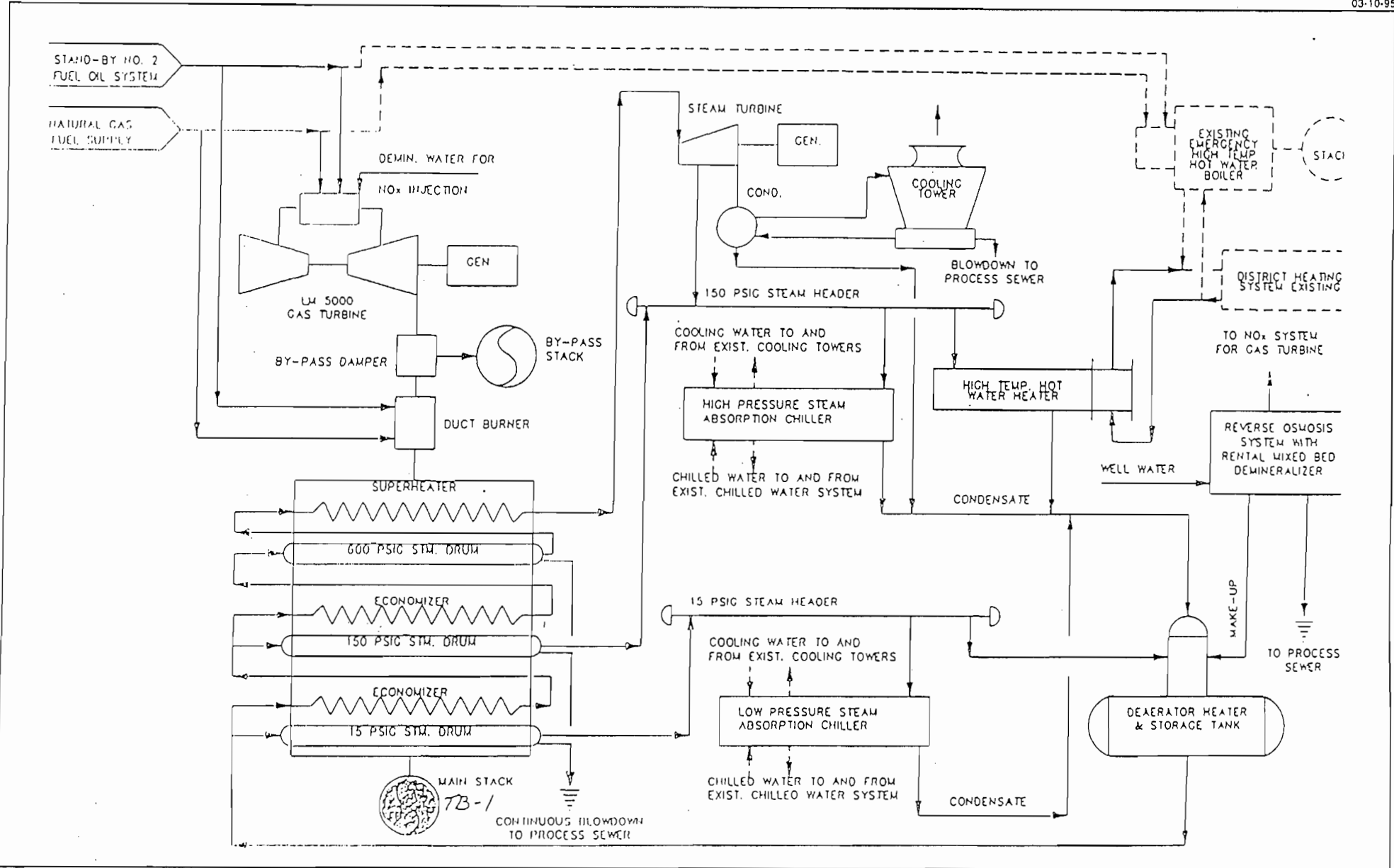


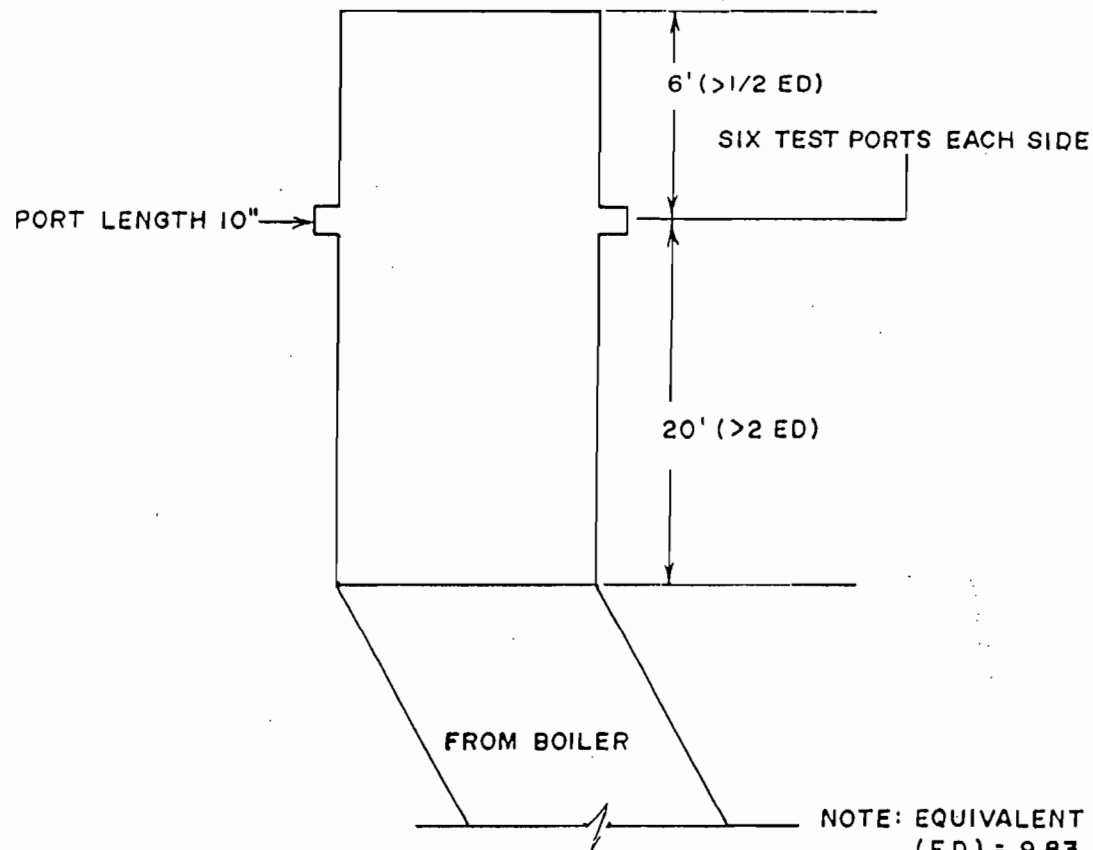
Figure 3  
Process Flow Diagram for the RCID Central Energy Plant—North Service Area



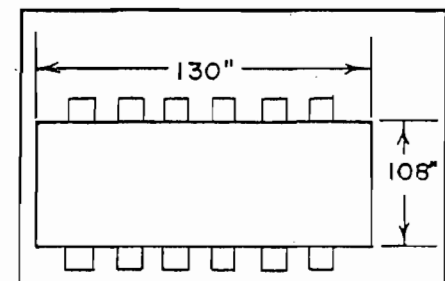
**ATTACHMENT K**

**DESCRIPTION OF CCCT STACK SAMPLING FACILITIES**





NOTE: EQUIVALENT DIAMETER (ED) = 9.83 FT.



TRAVERSE POINT NUMBER	INCHES INSIDE STACK WALL
1	5.4
2	16.2
3	27.0
4	37.8
5	48.6
6	59.4
7	70.2
8	81.0
9	91.8
10	102.6

NOTE: NOT TO SCALE

FIGURE 1.  
 SAMPLING POINT LOCATION  
 COMBINED CYCLE GAS TURBINE EXHAUST  
 REEDY CREEK IMPROVEMENT DISTRICT  
 LAKE BUENAVISTA, FLORIDA

AIR CONSULTING  
 and  
 ENGINEERING

**ATTACHMENT L**

**PROCEDURES FOR CCCT STARTUP AND SHUTDOWN**

## NORMAL STARTUP AND SHUTDOWN PROCEDURES FOR THE COMBUSTION TURBINE

### STARTUP

Operator resets all trips/alarm conditions on the Woodward Governor control system (Woodward) and verifies a ready to start status.

Operator initiates a start through the Woodward.

The hydraulic starter will turn the combustion turbine(CT) to a speed of approximately 1200 rpms.

Fuel valves open and the ignitors engage.

Upon successful ignition the Woodward will increase CT speed to 7000 rpms and begin a 5 minute warm-up period.

Upon conclusion of the warm-up period the Woodward will increase CT speed to obtain 3600 rpms on the power turbine.

The Operator will place the synchronizing knob to GEN AUTO.

After synchronization of the generator and the distribution system, the breaker closes.

The Operator then manually increases generation to approximately 11 MW.

The Woodward automatically begins water injection (at approx. 8-10 MW) into the combustion section at a rate of approximately 0.50 water to fuel ratio. At this point the operator manually increases the w/f ratio to 0.55 or greater.

The CT is held at approximately 11MW while the heat recovery steam generator is warmed up and dry superheated steam is established for use in the steam turbine.

After the steam turbine is warmed up and the steam turbine breaker is synchronized and closed the CT, is increased to T-44 control.

The Operator again verifies the w/f ratio is at 0.55 or greater, then places the Woodward Governor control in remote to allow for control through the Forney Distributed Control System.

### SHUTDOWN

The Operator places the Woodward Governor control in local and initiates a stop command to the CT.

Speed of the CT decreases and at approximately 8-10 MWs the water injection stops.

The CT breaker opens at zero MWs and speed continues to decrease until the fuel and ignition system is deactivated.

The hydraulic starter engages to spin the CT for a 20 minute cool down cycle.

**ATTACHMENT M**

**ALTERNATE METHODS OF CCCT OPERATIONS**

Alternative Methods of Operation

A. Combustion Turbine (CT) and Duct Burners (DB)  
North Service Area (Central Energy Plant)

Method No.	Equipment	Fuel Type	Heat Input Range (MMBtu/hr)	Maximum Operating Hours		
				(Hrs/Dy)	(Dys/Wk)	(Hrs/Yr)
1	CT + DB	Natural Gas	0 - 450.0	24	7	8,760
2	CT	Natural Gas	0 - 427.0	24	7	8,760
3	CT	No. 2 Oil	0 - 427.0	24	7	336
4	DB	Natural Gas	0 - 198.0	24	7	*

\* 10 percent capacity factor:

$$[\text{Heat Input (\%)} / 100] * (\text{Annual Operating Hours}) \leq 876 \text{ hrs/yr}$$

where:

$$\text{Heat Input (\%)} = \frac{[\text{Average actual annual heat input (MMBtu/hr)}]}{[\text{Maximum heat input (MMBtu/hr)}]} * 100$$

$$\text{Maximum Heat Input} = 198 \text{ MMBtu/hr}$$

**ATTACHMENT N**

**COMPLIANCE ASSURANCE MONITORING PLAN FOR CCCT**

## CAM Plan – CCCT with HRSG

Reedy Creek Improvement District (RCID) has two methods of controlling or reducing major pollutants in its Cogeneration Plant, which could be considered control devices.

Nitrous Oxides (NO<sub>x</sub>) are controlled or reduced by means of water injection into the combustor section of the gas turbine. The water-to-fuel ratio necessary to meet the permit conditions is established or verified annually through compliance testing. The average hourly water-to-fuel ratio is monitored by a continuous monitoring system (CMS). The CMS is designed to meet the requirements of 40 CFR Part 60, and is subject to the requisite quarterly reporting of excess emissions and CMS downtime. This CMS meets or exceeds the requirements of 40 CFR Part 64, Compliance Assurance Monitoring (CAM).

Carbon Monoxide (CO) is controlled or reduced by the use of a catalytic oxidation system. The chemical reaction between oxygen and carbon monoxide, which is enhanced by the catalyst (stainless steel foil coated with calcined alumina with platinum metal), begins at 300 degrees F and above to form carbon dioxide and requires no control instruments. Within minutes of gas turbine startup and even before power generation can begin the catalyst is experiencing close to 500 degrees F and removal efficiencies of over 90%.

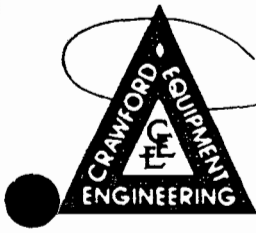
Due to the simplicity of design the only maintenance required is an annual inspection of the upstream face of the catalyst to look for signs of fouling. In addition a test plug from the catalyst is removed annually and analyzed by the catalyst manufacturer to determine the health and life expectancy of the catalyst system. Operation is very simple where only common sense guidelines are all that need be considered. These guidelines include no alternative fuels other than natural gas and light fuel oils, and excursions above design temperature (1250 degrees F) and pressure (3.0 inches of water column) are to be avoided. The system automatically alarms in the occupied control room if the design temperature or pressure is exceeded. If an excursion were to occur operations personnel would immediately take steps to return the system to within design criteria.

In summary, the gas turbine normal exhaust temperatures are well above 300 degrees F and the simplicity the catalyst design minimizes operation and maintenance requirements.

**ATTACHMENT O**

**DETAILED DESCRIPTION OF CONTROL EQUIPMENT FOR ANIMAL CREMATORY**





# Crawford EQUIPMENT & ENGINEERING CO.

P. O. BOX 593243 • 436 W. LANDSTREET ROAD • ORLANDO, FLA. 32859 • (407) 851-0993

JIM CRAWFORD  
PRESIDENT

October 20, 1997

Mr. Rich Bumar  
Walt Disney World  
Environmental Affairs  
P.O. Box 10000  
Lake Buena Vista, FL 32830-1000

Re: Model CB800 Incinerator Permit - Wild Animal Kingdom

Dear Mr. Bumar:

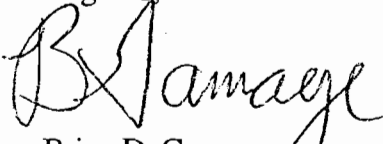
I have been instructed by Mr. Armando Rodrigez to provide you with the enclosed information so that you may complete and submit the required environmental permit application to the state.

In addition to the enclosed product specification, the information presented below will also assist you in the completion of the application.

Primary Chamber Burners:	Quantity 1 1,500,000 BTU/HR Max. 750,000 BTU/HR Average Usage
Secondary Chamber Burners:	Quantity 1 1,500,000 BTU/HR Max. 1,250,000 BTU/HR Average Usage
Flow Rate:	4500 ACFM @ 1800°F
Retention Time:	1 plus seconds @ 1800°F
Expected Emissions:	TSP = .05 gr/DSCF corrected to 7% Oxygen CO = 25 PPM Opacity = 0%

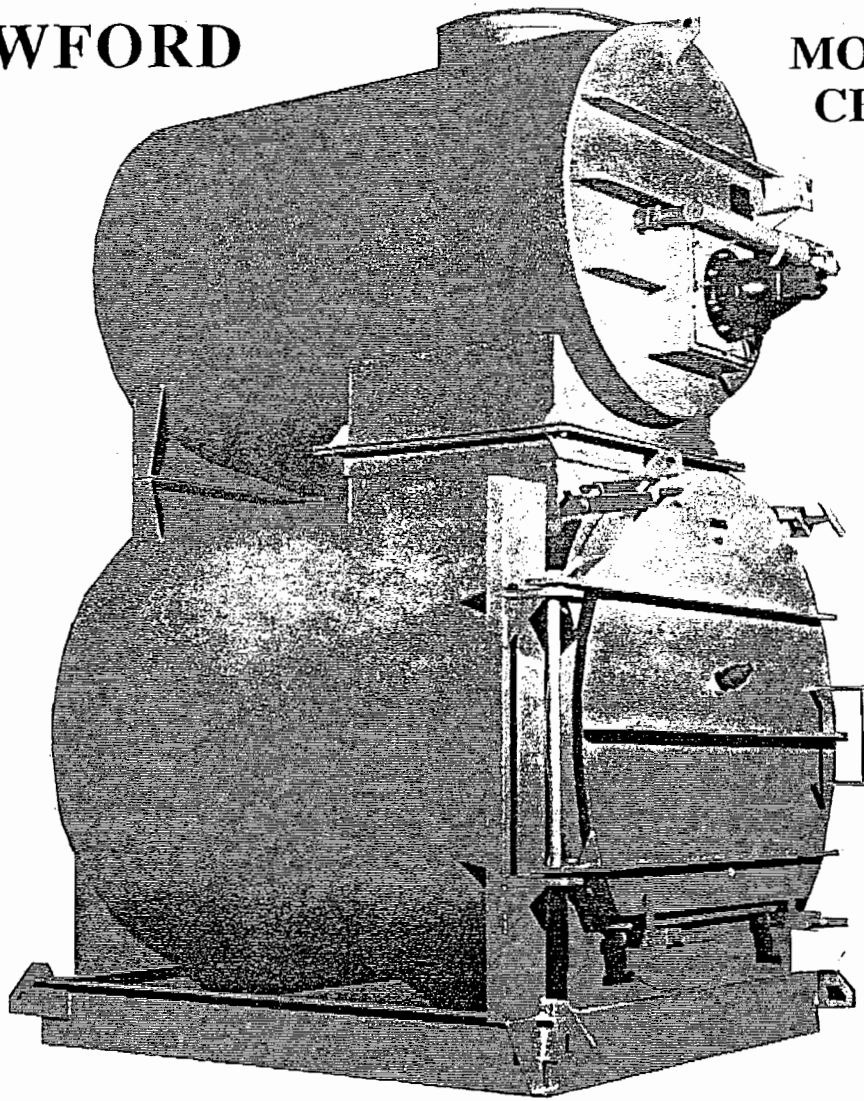
Should you require additional information, please contact Mr. Steve Atkinson at 407-851-0993 ext. 229 or I can be reached at the same number, ext. 228.

Regards,

  
Brian D. Gamage  
Dir. Sales/Marketing

# CRAWFORD

# MODEL CB800



**OVERVIEW:** The Crawford model CB800 is a "batch" loading incineration system designed to process pathological (animal carcasses) as well as the plastics and various materials found in "redbag" veterinary/medical waste streams, while complying with today's most stringent standards imposed by local, state and federal environmental agencies. Utilizing a unique multiple chamber, negative pressure and controlled excess-air design, the CB800 will accept and completely process a 800 lb. load in a four hour cycle, which allows for multiple burn cycles each day. With over 81 cubic ft. of primary chamber volume the most practical application of the CB800 is to perform communal or mass disposals, however individual or private cremations can also be easily accomplished in this system.

**FUEL:** Type: Natural or Propane  
Pressure: 7" - 9" W.C. 9" - 11" W.C.  
Flow: 4,000,000 BTU/HR

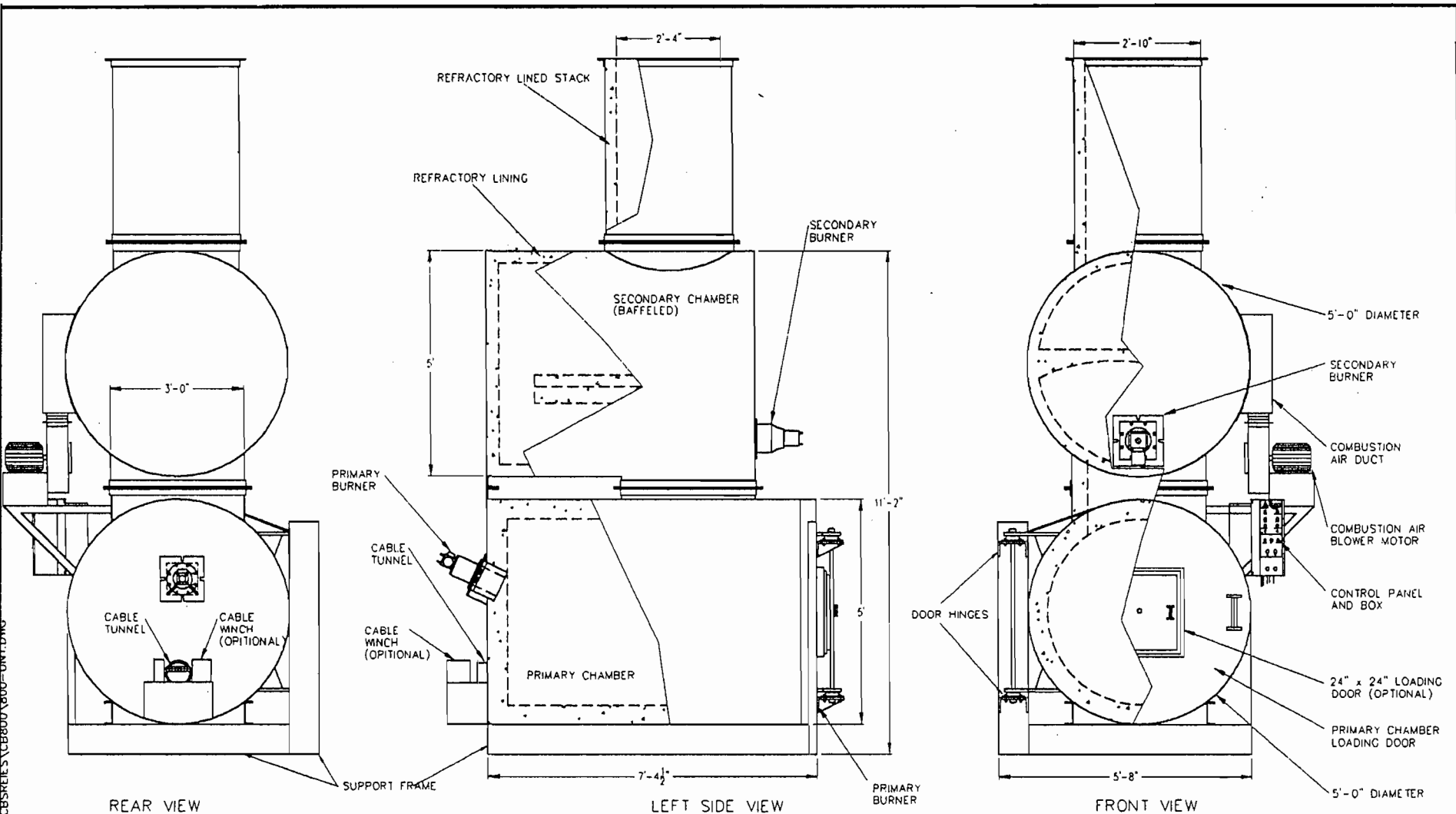
**ELECTRICAL:** One 230/460 V, 30 / 15 AMP, 3Ø (1Ø available)  
One 115V, 10 AMP, 1Ø

**PLACEMENT:** Outside or Inside

**DIMENSIONS:** 7'6" wide, 9'7" long, 11'6" tall (nominal)

**PAD SIZE:** 12'0" wide x 18'0" long (recommended)

**FEATURES:** In excess of 1 second secondary chamber residence time @ 1800°F  
Refractory lined, high temperature exhaust stack (rise to 18'6" from floor)  
Fully automatic, PLC based controls, Low loading threshold



REAR VIEW

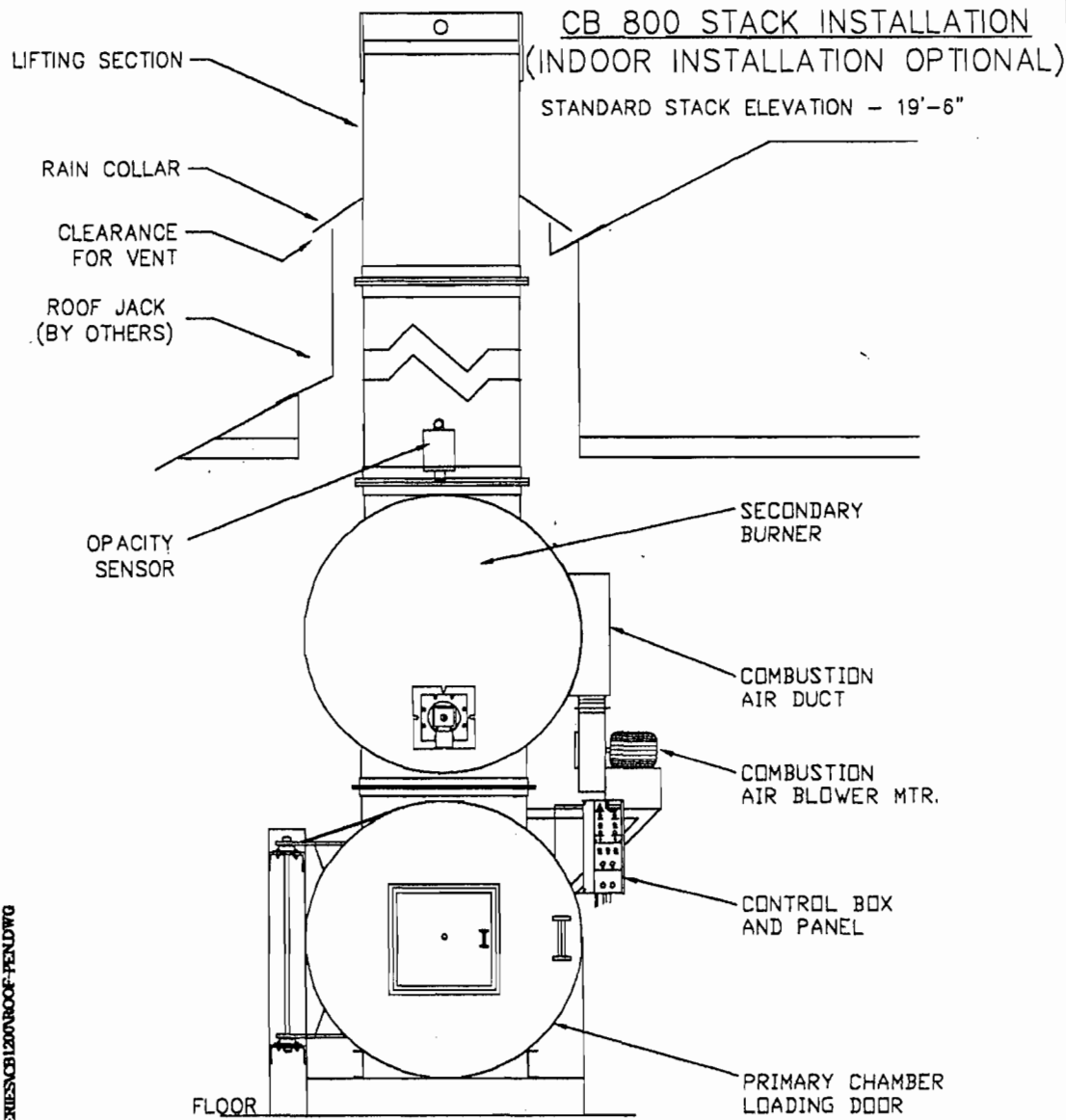
NOTES:  
 WEIGHT: APPROX 20,000 LBS  
 STACK: TWO (2) 4' SECTIONS @ 900 Lbs. EACH  
 UTILITIES: ONE (1) 2" LINE 2.5 MM BTU/HR FLOW  
 7"-9" N.G. PRESSURE  
 9"-11" L.P. PRESSURE  
 ONE (1) 115 V 10 OR 30 15 AMPS  
 ONE (1) 230/460 V 30/15 AMPS  
 PRIMARY CHAMBER: 81.76 CU FT  
 SECONDARY CHAMBER: 85.15 CU FT

DIMENSIONS GIVEN DO NOT INCLUDE EXTERIOR COMPONENTS (BURNERS, DOORS, ETC)



DRFTM	DATE
T. JONES	11-25-96
CHECKED	DATE
M.S.	11-26-96
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<b>CRAWFORD</b> EQUIPMENT & ENGINEERING CO. 428 W. LANESVILLE ROAD, CRAWFORD, IL 62535 (618) 811-2299			
CRAWFORD MODEL CB-800 BATCH BURN INCINERATOR SYSTEM			
DWG NAME	JOB NAME	SCALE	DWG. NO.
MULTI-VIEW	CB-800	N.T.S.	1 OF 2



**FRONT VIEW**

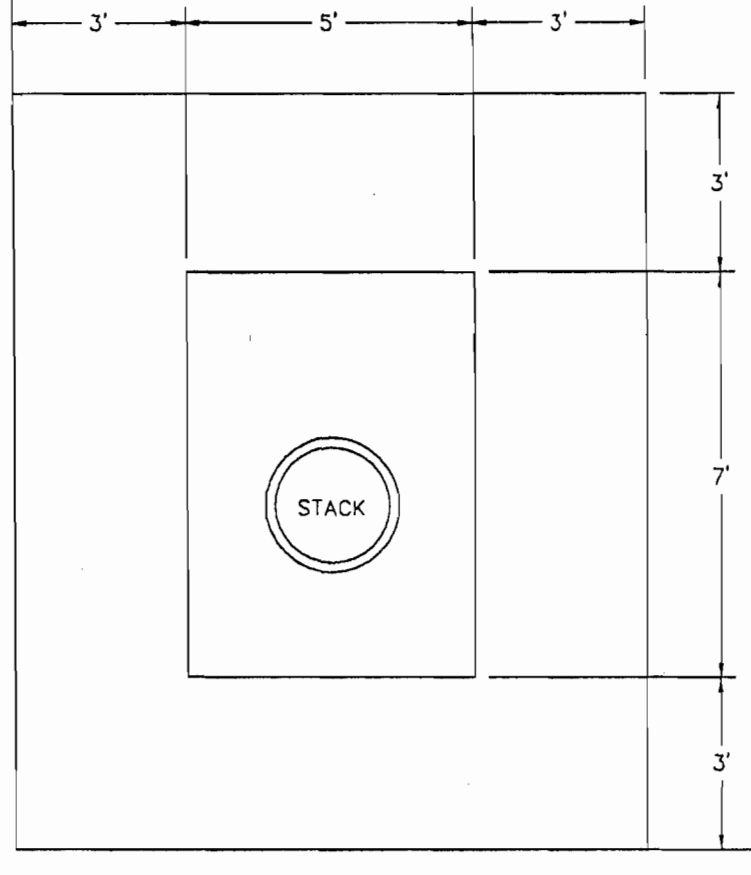
SLAB - NONCOMBUSTIBLE - LOAD BEARING TO SUPPORT 20,000 LBS.

CONSULT LOCAL BUILDING CODES AND ORDINANCES FOR ANY RESTRICTIONS WHICH MAY APPLY.

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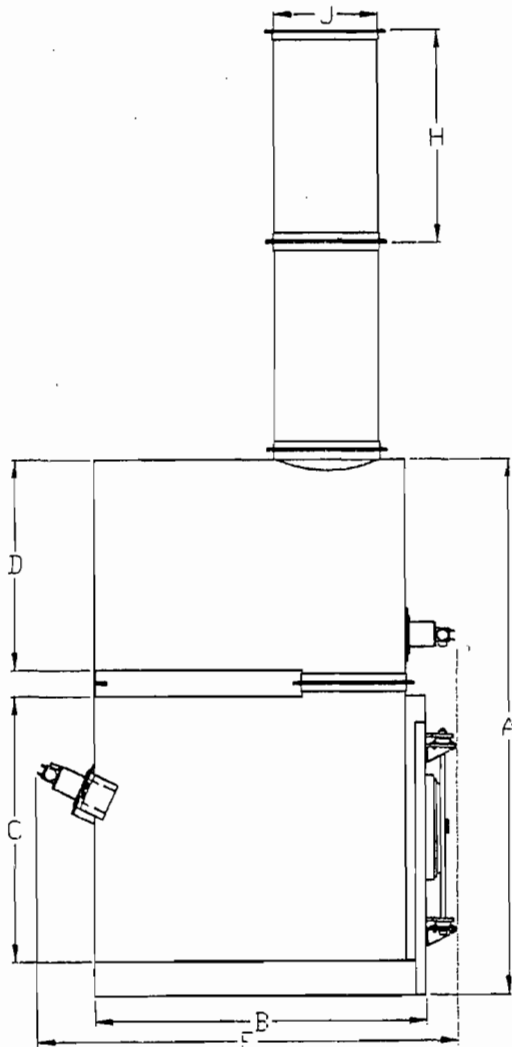
**MANUFACTURERS RECOMMENDED CLEARANCES:**

SIDES.....36"  
 REAR.....36"  
 TOP.....18"  
 STACK.....8"

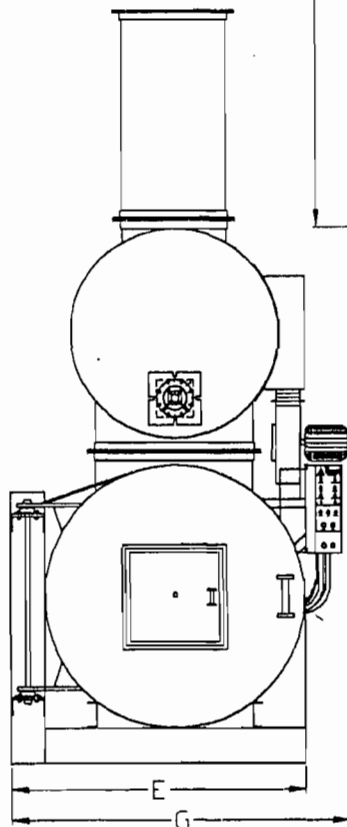


CRAWFORD EQUIPMENT & ENGINEERING CO. 1200 ROOF PEN DWG

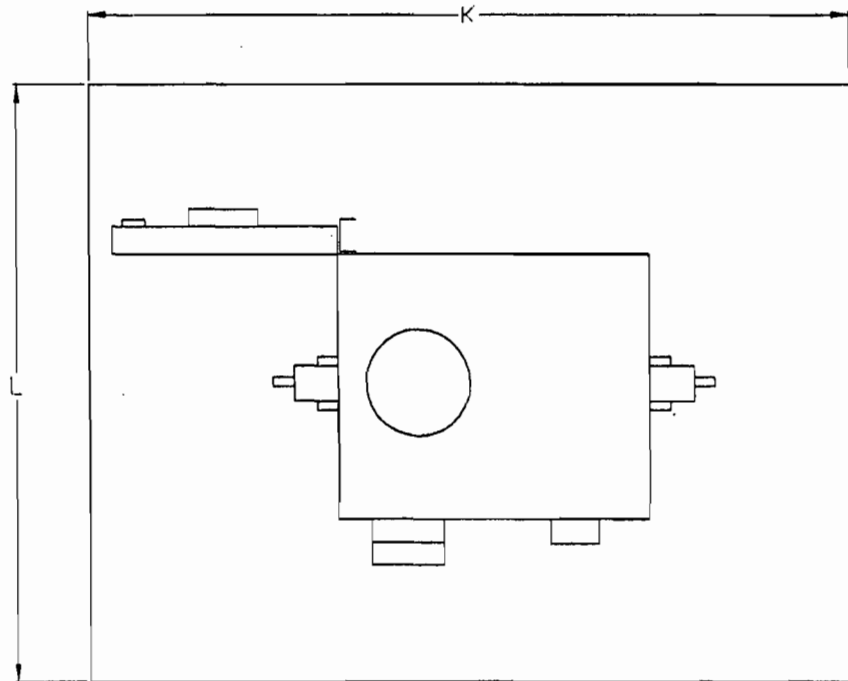
	DWTM. T. JONES DATE 11-29-95	<b>CRAWFORD</b> <b>EQUIPMENT &amp; ENGINEERING CO.</b> <small>4811 W. LANDSHAM ROAD ORLANDO, FL. 32835 (407) 851-3553</small>
	CHECKED M.S. DATE 11-29-95	
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DWG NAME <b>ROOF PENE.</b>	JOB NAME <b>CB 800</b>	SCALE <b>N.T.S.</b>
DWG. NO. <b>2</b>	SHEET <b>2 OF 2</b>	REV.



LEFT SIDE VIEW



FRONT VIEW



SLAB DIMENSIONS

DIMENSIONS	MODELS			
	CB 200	CB 400	CB 800	CB 1200
A	9'-0"	10'-0"	11'-0"	11'-0"
B	5'-0"	6'-0"	7'-0"	10'-0"
C	4'-0"	5'-0"	5'-0"	5'-0"
D	4'-0"	4'-0"	5'-0"	5'-0"
E	4'-10"	5'-10"	5'-10"	5'-10"
F	8'-0"	9'-0"	10'-0"	13'-0"
G	6'-6"	7'-6"	7'-6"	7'-6"
H	4'-0"	4'-0"	4'-0"	4'-0"
J	2'-0"	2'-0"	2'-0"	2'-0"
K SLAB	15'-0"	17'-0"	18'-0"	21'-0"
L SLAB	12'-6"	13'-6"	13'-6"	13'-6"
CHAMBER VOLUME	32 CF.	69 CF.	82 CF.	122 CF.
UNIT WEIGHT	10,000	14,000	20,000	24,000

	DRY IN I. JONES CHECKED M.S.	DATE 5-5-97 DATE 5-5-97	<b>CRAWFORD</b> <b>EQUIPMENT &amp; ENGINEERING CO.</b> <small>436 W. LAND STREET ROAD ORLANDO, FL 32835 (407) 851-0993</small>		
	THIS DRAWING IS THE PROPERTY OF CRAWFORD. REPRODUCTIONS ARE RELEASED SOLELY FOR DISTRIBUTION, MAINTENANCE OR PURCHASING PURPOSES ONLY. RELEASE OF DRAWINGS TO OTHERS DOES NOT ALLOW INCLUDING IN ANY WAY.			<b>CRAWFORD CB-SERIES</b> <b>BATCH BURN INCINERATOR SYSTEM</b>	
	DIM. NAME DIMEN. IN°O.	JOB NAME CB 400	SCALE N.T.S.	DWG. NO. 1	REV.

C:\P13\ADWG5\ADWG5.P13\G05E.P13\G05E.DWG

## Attachment E

### Input Values

Standard Temperature, C	25 °C
Standard Temperature (T <sub>std</sub> ) =	298 K
Actual Temperature, F	1800 °F
Actual Temperature, K (T):	1255 K
Actual flue gas O <sub>2</sub> content**	16%
Ambient air O <sub>2</sub> content	21%

$$7\% \text{ Oxygen content correction factor (OCF)} = \frac{\text{ambient air O}_2 \text{ content} - \text{corrected value (7\%)}}{\text{ambient air O}_2 \text{ content} - \text{measured stack O}_2 \text{ content}}$$

$$7\% \text{ Oxygen content correction factor (OCF)} = \frac{20.9 - 7}{20.9 - 16} = 2.83673$$

This factor is used to determine actual pollutant mass flow rate:

Oxygen content correction factor (OCF) = (20.9-7)/(20.9-16) =	2.837
Flue gas moisture content, by volume** (MC):	8%
actual air flow rate (V) :	4500 acfm
Hours/year	8760 hours
Maximum heat input (HI):	3 MMBtu/hr
Fuel heat value (HV):	1000 Btu/ft <sup>3</sup>
Incinerator fuel usage = HI • 1,000,000 ÷ HV :	0.003 MM ft <sup>3</sup> /hr

### CO Emissions

$$PV = nRT, \text{ rearranging, } \frac{n}{V} = \frac{P}{RT}, \text{ and, } n = \frac{\text{Mass pollutant, M}}{\text{Molecular weight, MW}}$$

$$\text{substituting, } \frac{M}{V \cdot \text{MW}} = \frac{P}{RT}, \text{ so, } \frac{M}{V} = \frac{P \cdot \text{MW}}{RT},$$

$$\text{allowing for concentration in ppm, } \frac{M}{V} = \frac{P \cdot \text{MW} \cdot \text{ppm}}{RT \cdot 10^6}, \text{ and}$$

$$\text{Pollutant mass flow rate} = M = \frac{P \cdot \text{MW} \cdot \text{ppm} \cdot V}{RT \cdot 10^6}$$

molar weight of CO (MW):	28 lb/lb-mol
Ideal gas constant (R):	1.314 atm-ft <sup>3</sup> /lbmol-K
Pressure (P):	1 atm
Reported CO concentration* =	25 ppm, DSCF @ 7% O <sub>2</sub>
Measured pollutant concentration at stack at actual conditions (ppm) = 25*/OCF =	8.8 ppm
Allowable pollutant concentration @ 7% Oxygen, ref 62-296.401(6), F.A.C.:	100 ppm, DSCF @ 7% O <sub>2</sub>
Flow corrected for moisture (MCF) = V • (1-MC) = 4500 • (1-0.08) =	4140 ft <sup>3</sup> /min
Moisture corrected flow to standard temp = MCF • (T <sub>std</sub> /T) = 4140 • (298/1255) =	983 DSCFM

Allowable pollutant mass flow = P • MW • ppm • V / (R • T • 10 <sup>6</sup> ) = 1 • 28 • 100 • 983 / (1.314 • 298 • 10 <sup>6</sup> ) =	0.00703 lb/min
Allowable pollutant mass flow corrected to measured exhaust oxygen level = .00703 / 2.837 =	0.002 lb/min
Oxygen corrected Allowable pollutant mass flow, in lb/hr = 0.00248 • 60 =	0.149 lb/hr
Annual allowable emissions = 0.149 • 8760 / 2000 =	0.651 tons/yr

Potential pollutant mass flow = P • MW • ppm • V / (R • T • 10 <sup>6</sup> ) = 1 • 28 • 8.8 • 983 / (1.314 • 298 • 10 <sup>6</sup> ) =	0.00062 lb/min
potential pollutant mass flow rate, in lb/hr = .00062 • 60 =	0.0372 lb/hr
Potential annual emissions = 0.0404 lb/hr • 8760 hr/yr • 60 min/hour =	326 lb/yr
Potential annual emissions, in tpy = 354 lb/yr • 1 ton/2000 lb =	0.16 tpy

\*\*Reported by manufacturer

Attachment E

**PM/PM10 Emissions**

Allowable pollutant concentration @ 7% Oxygen, ref 62-296.401(6), F.A.C.:	0.08 gr/DSCF
Measured pollutant concentration @ 7% Oxygen = .05*/OCF	0.0176 gr/SCF
Flow corrected for moisture (MCF) = V • (1-MC)	4140 ft <sup>3</sup> /min
Moisture corrected flow to standard temp = MCF • (T <sub>std</sub> /T) =	983 DSCFM
Allowable pollutant mass flow = .08 • 983 ÷ 7000 gr/lb =	0.0112 lb/min
Allowable pollutant mass flow corrected for oxygen = .0112/2.837 =	0.004 lb/min
Oxygen corrected Allowable pollutant mass flow = .004 • 60 =	0.238 lb/hr
Annual allowable emissions = 0.238 • 8760/2000 =	1.041 tons/yr
potential pollutant mass flow rate = .0176 • 983 ÷ 7000gr/lb =	0.0025 lb/min
potential pollutant mass flow rate = .0025 • 60 =	0.1485 lb/hr
Potential annual emissions = 1.485 • 8760 =	1301 lb/yr
Potential annual emissions = 1.485 • 8760/2000 =	0.65 tons/yr

\*These values are reported in the cover letter from Crawford Equipment & Engineering Co. and can be found in Attachment D.

**NOx Emissions**

AP-42 Emissions factor	100 lb /MM ft <sup>3</sup> burned
Hourly emissions = emissions factor • fuel usage =	0.30 lb/hr
Annual emissions = hourly emissions • annual hours ÷ 2000 lb/ton =	1.31 tons/yr

**SO2 Emissions**

AP-42 Emissions factor	0.6 lb /MM ft <sup>3</sup> burned
Hourly emissions = emissions factor • fuel usage =	0.00180 lb/hr
Annual emissions = hourly emissions • annual hours ÷ 2000 lb/ton =	0.00788 tons/yr

**CO Emissions**

AP-42 Emissions factor	5.8 lb /MM ft <sup>3</sup> burned
Hourly emissions = emissions factor • fuel usage =	0.0174 lb/hr
Annual emissions = hourly emissions • annual hours ÷ 2000 lb/ton =	0.076 tons/yr

**Table 1.4-1. EMISSION FACTORS FOR SULFUR DIOXIDE (SO<sub>2</sub>), NITROGEN OXIDES (NO<sub>x</sub>), AND CARBON MONOXIDE (CO) FROM NATURAL GAS COMBUSTION<sup>a</sup>**

Combustor Type (Size, 10 <sup>6</sup> Btu/hr Heat Input) (SCC)	SO <sub>2</sub> <sup>b</sup>		NO <sub>x</sub> <sup>c</sup>		CO <sup>d</sup>		N <sub>2</sub> O <sup>e</sup>	
	Emission Factor (lb/10 <sup>6</sup> ft <sup>3</sup> )	EMISSION FACTOR RATING	Emission Factor (lb/10 <sup>6</sup> ft <sup>3</sup> )	EMISSION FACTOR RATING	Emission Factor (lb/10 <sup>6</sup> ft <sup>3</sup> )	EMISSION FACTOR RATING	Emission Factor (lb/10 <sup>6</sup> ft <sup>3</sup> )	EMISSION FACTOR RATING
<b>Utility/large Industrial Boilers (&gt;100)</b> (1-01-006-01, 1-01-006-04)								
Uncontrolled	0.6	A	550 <sup>f</sup>	A	40	A	2.2	C
Controlled - Low NO <sub>x</sub> burners	0.6	A	79	D	ND	NA	0.64	E
Controlled - Flue gas recirculation	0.6	A	53	D	ND	NA	NA	NA
<b>Small Industrial Boilers (10 - 100)</b> (1-02-006-02)								
Uncontrolled	0.6	A	140	A	35	A	2.2 <sup>g</sup>	E
Controlled - Low NO <sub>x</sub> burners	0.6	A	83	D	61	D	0.64 <sup>g</sup>	E
Controlled - Flue gas recirculation	0.6	A	30	C	34	C	NA	NA
<b>Commercial Boilers (0.3 - &lt;10)</b> (1-03-006-03)								
Uncontrolled	0.6	A	100	B	21	C	2.2 <sup>g</sup>	E
Controlled - Low NO <sub>x</sub> burners	0.6	A	17	C	15	C	0.64 <sup>g</sup>	E
Controlled - Flue gas recirculation	0.6	A	36	D	ND	NA	NA	NA
<b>Residential Furnaces (&lt;0.3)</b> (No SCC)								
Uncontrolled	0.6	A	94	B	40	B	NA	NA

<sup>a</sup> Units are lb of pollutant/10<sup>6</sup> cubic feet natural gas fired. To convert from lb/10<sup>6</sup> ft<sup>3</sup> to kg/10<sup>6</sup> m<sup>3</sup>, multiply by 16.0. Based on an average natural gas fired higher heating value of 1000 Btu/scf. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. SCC = Source Classification Code. ND = no data. NA = not applicable.

<sup>b</sup> References 13-14. Based on average sulfur content of natural gas, 2000 gr/10<sup>6</sup> scf.

<sup>c</sup> References 12-13,15-19. Expressed as NO<sub>2</sub>.

<sup>d</sup> References 5,12-13,17-18,20-21.

<sup>e</sup> References 6-7.

<sup>f</sup> For tangentially fired units, use 275 lb/10<sup>6</sup> ft<sup>3</sup>. Note: This number was originally developed for AP-42 based on limited data. No additional data are available to refine this number.

<sup>g</sup> No data; based on the factors for utility boilers.



Table 1.4-3. EMISSION FACTORS FOR CARBON DIOXIDE (CO<sub>2</sub>) AND TOTAL ORGANIC COMPOUNDS (TOC) FROM NATURAL GAS COMBUSTION<sup>a</sup>

Combustor Type (Size, 10 <sup>6</sup> Btu/hr Heat Input) (SCC)	CO <sub>2</sub> <sup>b</sup>		TOC <sup>c</sup>	
	Emission Factor (lb/10 <sup>6</sup> ft <sup>3</sup> )	EMISSION FACTOR RATING	Emission Factor (lb/10 <sup>6</sup> ft <sup>3</sup> )	EMISSION FACTOR RATING
Utility/large industrial boilers (>100) (1-01-006-01, 1-01-006-04)	1.2 E+05	B	1.7 <sup>d</sup>	C
Small industrial boilers (10 - 100) (1-02-006-02)	1.2 E+05	B	5.8 <sup>e</sup>	C
Commercial boilers (0.3 - <10) (1-03-006-03)	1.2 E+05	B	5.8	C
Residential furnaces (No SCC)	1.2 E+05	B	11	D

<sup>a</sup>All factors represent uncontrolled emissions. Units are lb of pollutant/10<sup>6</sup> cubic feet. To convert from lb/10<sup>6</sup> ft<sup>3</sup> to kg/10<sup>6</sup> m<sup>3</sup>, multiply by 16.0. Based on an average natural gas higher heating value of 1000 Btu/scf. The emission factors in this table may be converted to other natural gas heating values by multiplying the given factor by the ratio of the specified heating value to this average heating value. SCC = Source Classification Code. ND = no data. NA = not applicable.

<sup>b</sup>References 8,15,27-29.

<sup>c</sup>References 5,13,15,30.

<sup>d</sup>Reference 30: methane comprises 17% of organic compounds.

<sup>e</sup>Reference 30: methane comprises 52% of organic compounds.