

Time Accountly: 47

Walt Disney World Co.

3-27-89 8:04-8:43 Kern RRM

3-28-89 9:10-9:23 Draft RRM  
Cover letter

10:20-12:08 Cover Letter & mail change out RM

AC 48-156346

48

50

158650

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1.  Show to whom delivered, date, and addressee's address. (Extra charge) 2.  Restricted Delivery (Extra charge)

3. Article Addressed to: Armando Rodriguez Walt Disney World Company P.O. Box 10,000 Lake Buena Vista, FL 32830-1000	4. Article Number P 274 007 613 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature - Address X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X <i>Armando Rodriguez</i>	
7. Date of Delivery 3-30-89	

PS Form 3811, Mar. 1988 \* U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

P 274 007 613

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

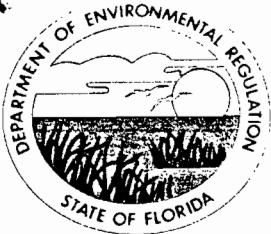
(See Reverse)

U.S.G.P.O. 1985-480-794

PS Form 3800, June 1985

Mailed to Armando Rodriguez Walt Disney World Company P.O. Box 10,000 Lake Buena Vista, FL 32830-1000	
Postage	\$ 1.00
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date mailed: 3/28/89 permits: AC 48-156346, -156348, -156350 & -158650	

File Copy



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400  
Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

## STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF PERMITS

Mr. Armando Rodriguez  
Walt Disney World Company  
P. O. Box 10,000  
Lake Buena Vista, Florida 32830-1000

March 28, 1989

Enclosed are construction permits Nos. AC 48-156346, -156348, -156350, and -158650 for Walt Disney World to construct eleven new sources at the existing Disney Complex in Orange County, Florida. These permits are issued pursuant to Section 403, Florida Statutes.

Any party to these permits has the right to seek judicial review of the permits pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date these permits are filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality Management

Copies furnished to:

- C. Collins, CF District
- T. Davis, P.E., H/ESE
- E. Crowell, WDW
- L. James, WDW
- Pradeep Raval 3-28-89 ASH

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 3-28-89.

FILING AND ACKNOWLEDGEMENT  
FILED, on this date, pursuant to  
§120.52(9), Florida Statutes, with  
the designated Department Clerk,  
receipt of which is hereby  
acknowledged.

Martha J. Wise      3-28-89  
Clerk                                      Date

Final Determination

Walt Disney World Company  
Lake Buena Vista, Orange County, Florida

Permit Numbers:

AC 48-156346, Golf Course Paint Booth  
AC 48-156348, Caribbean Paint Booth  
AC 48-156350, Laundry Boilers-1  
AC 48-158650, Laundry Boiler-2

Florida Department of Environmental Regulation  
Bureau of Air Quality Management  
Central Air Permitting

March 24, 1989

## Final Determination

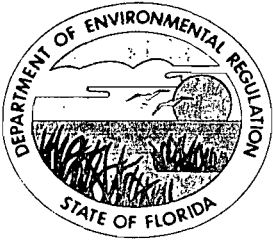
Walt Disney World's applications for permits for the construction of eleven new sources at their existing complex in Orange County, Florida, have been reviewed by the Bureau of Air Quality Management. Comments were received in response to the Public Notice which was published in the Orlando Sentinel on February 15, 1989.

Comments were received on March 9, 1989, from Armando Rodriguez requesting that manufacturer's specifications be accepted as an alternative to compliance testing using EPA Method 24 (specific condition No. 6b in the paint booth permits). The DER is in agreement with this request.

The Department will correct Specific Condition No. 11 in the boiler permits by replacing the words "raw materials" with "fuel", to make it appropriate.

DER will also clarify the specific conditions requiring compliance testing to reflect that the tests will be required initially and annually.

The final action of the Department will be to issue the permits as proposed with amended Specific Condition 6 in permit Nos. AC 48-156346 and AC 48-156348; and amended Specific Condition Nos. 7 and 11 in permit Nos. AC 48-156350 and AC 48-158650.



## Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

**PERMITTEE:**

Walt Disney World Co.  
Post Office Bbx 10,000  
Lake Buena Vista, FL 32830

Permit Number: AC 48-156346  
Expiration Date: Dec. 1, 1989  
County: Orange  
Latitude/Longitude: 28°24'05"N  
81°35'12"W

Project: Golf Course Paint  
Spray Booth, WDW-29

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of a paint spray booth, Binks Model SSF-510-30-50-TRB using Andreae type paint arrestors to control particulates in the exhaust. The booth will be located near the Disney Inn, part of the Disney complex in Orange County, Florida.

The UTM coordinates of this facility are Zone 17, 443.5 km East and 3144.2 km North.

The source shall be in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Walt Disney's application package received October 25, 1988.
2. DER's letter dated November 23, 1988.
3. Preliminary Determination dated January 25, 1989.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156346  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefor caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156346  
Expiration Date: Dec. 1, 1989

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.



PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156346  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- ( ) Determination of Best Available Control Technology (BACT)
- ( ) Determination of Prevention of Significant Deterioration (PSD)
- ( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156346  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

**SPECIFIC CONDITIONS:**

1. The Golf Course Paint Spray Booth shall operate for no more than 4160 hours annually (16 hrs/5 days/52 weeks).

2. The maximum material utilization rates are as stated in the application for the specific coatings and solvents which are to be used.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156346  
Expiration Date: Dec. 1, 1989

SPECIFIC CONDITIONS:

3. The maximum allowable emissions shall not exceed:

Pollutant	Emissions	
	lbs/hr	TPY
VOC	2.10	1.45
PM/PM <sub>10</sub>	0.17	0.12

Visible Emissions shall not exceed 20% opacity. Under normal operations, no visible emissions are expected.

Note: The annual emissions account for the intermittent spraying of paint, while the hourly emissions are based on continuous spraying. The material utilization rates in Specific Condition No. 2 reflect the same basis.

4. The permittee shall comply with F.A.C. Rule 17-2.620(1)(a), whereby no person shall 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. To comply, procedures to minimize pollutant emissions should include but shall not be limited to the following:

- a) tightly cover or close all VOC containers when they are not in use,
- b) tightly cover, where possible, all open troughs, basins, baths, tanks, etc., when they are not in use,
- c) maintain all piping, valves, fittings, etc., in good operating condition,
- d) prevent excessive air turbulence across exposed VOC's,
- e) immediately confine and clean up VOC spills and make certain wastes are placed in closed containers for reuse, recycling or proper disposal, and
- f) maintain a monthly accounting of each VOC based on beginning and ending inventories, deliveries, shipments, etc.

5. No objectionable odors shall be allowed, in accordance with F.A.C. Rule 17-2.620.

PERMITTEE:  
Walt Disney World Co.

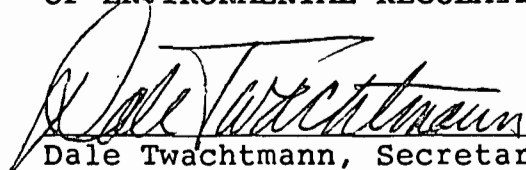
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Expiration Date: Dec. 1, 1989

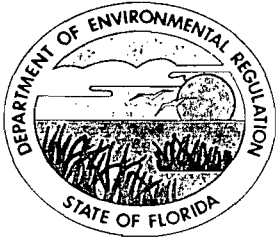
SPECIFIC CONDITIONS:

6. Initial and annual compliance tests shall be conducted in accordance with the 1987 version of 40 CFR 60, Appendix A, using:
  - a. EPA Method 9 for visible emissions
  - b. EPA Method 24 for VOC, or manufacturers specifications and material balance.
7. A minimum of 15 days prior notification of the compliance tests shall be given to DER's Central Florida District office. The compliance test results shall be submitted to the district office within 45 days of test completion.
8. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the BAQM prior to 60 days before the expiration of the permit (F.A.C. 17-4.090).
9. An application for an operation permit must be submitted to the Central Florida District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. 17-4.220).
10. Any change in the method of operation, raw materials, equipment or operating hours shall be submitted to DER's Central Florida District office for approval.

Issued this 24 day  
of March, 1989

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Dale Twachtmann, Secretary



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

**PERMITTEE:**

Walt Disney World Co.  
Post Office Box 10,000  
Lake Buena Vista, FL 32830

Permit Number: AC 48-156348  
Expiration Date: Dec. 1, 1989  
County: Orange  
Latitude/Longitude: 28°24'05"N  
81°35'12"W

Project: Caribbean Beach  
Resort Paint Spray Booth,  
WDW-32

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of a paint spray booth, JBI Booth Model No. DB-1210-5 using Andreae type paint arrestors to control particulates in the exhaust. The booth will be located near the Caribbean Beach Resort, part of the Disney complex in Orange County, Florida.

The UTM coordinates of this facility are Zone 17, 443.5 km East and 3144.2 km North.

The source shall be in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Walt Disney's application package received October 25, 1988.
2. DER's letter dated November 23, 1988.
3. Preliminary Determination dated January 25, 1989.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156348  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefor caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156348  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156348  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- ( ) Determination of Best Available Control Technology (BACT)
- ( ) Determination of Prevention of Significant Deterioration (PSD)
- ( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.



PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156348  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the date(s) analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

**SPECIFIC CONDITIONS:**

1. The Caribbean Beach Resort Paint Spray Booth shall operate for no more than 4160 hours annually (16 hrs/5 days/52 weeks).
2. The maximum material utilization rates are as stated in the application for the specific coatings and solvents which are to be used.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156348  
Expiration Date: Dec. 1, 1989

SPECIFIC CONDITIONS:

3. The maximum allowable emissions shall not exceed:

<u>Pollutant</u>	<u>Emissions</u>	
	<u>lbs/hr</u>	<u>TPY</u>
VOC	7.88	5.46
PM/PM <sub>10</sub>	0.61	0.42

Visible Emissions shall not exceed 20% opacity. Under normal operations, no visible emissions are expected.

Note: The annual emissions account for the intermittent spraying of paint, while the hourly emissions are based on continuous spraying. The material utilization rates in Specific Condition No. 2 reflect the same basis.

4. The permittee shall comply with F.A.C. Rule 17-2.620(1)(a), whereby no person shall 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. To comply, procedures to minimize pollutant emissions should include but shall not be limited to the following:

- a) tightly cover or close all VOC containers when they are not in use,
- b) tightly cover, where possible, all open troughs, basins, baths, tanks, etc., when they are not in use,
- c) maintain all piping, valves, fittings, etc., in good operating condition,
- d) prevent excessive air turbulence across exposed VOC's,
- e) immediately confine and clean up VOC spills and make certain wastes are placed in closed containers for reuse, recycling or proper disposal, and
- f) maintain a monthly accounting of each VOC based on beginning and ending inventories, deliveries, shipments, etc.

5. No objectionable odors shall be allowed, in accordance with F.A.C. Rule 17-2.620.

PERMITTEE:  
Walt Disney World Co.

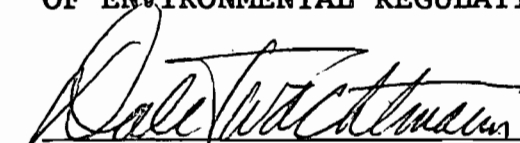
Permit Number: AC 48-156348  
Expiration Date: Dec. 1, 1989

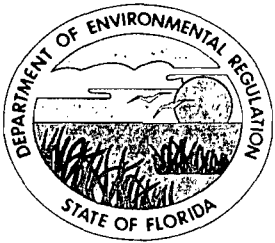
**SPECIFIC CONDITIONS:**

6. Initial and annual compliance tests shall be conducted in accordance with the 1987 version of 40 CFR 60, Appendix A, using:
  - a. EPA Method 9 for visible emissions
  - b. EPA Method 24 for VOC, or manufacturers specifications and material balance.
7. A minimum of 15 days prior notification of the compliance tests shall be given to DER's Central Florida District office. The compliance test results shall be submitted to the district office within 45 days of test completion.
8. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the BAQM prior to 60 days before the expiration of the permit (F.A.C. 17-4.090).
9. An application for an operation permit must be submitted to the Central Florida District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. 17-4.220).
10. Any change in the method of operation, raw materials, equipment or operating hours shall be submitted to DER's Central Florida District office for approval.

Issued this 24 day  
of March, 1989

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Dale Twachtmann, Secretary



## Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

### PERMITTEE:

Walt Disney World Co.  
Post Office Bdx 10,000  
Lake Buena Vista, FL 32830

Permit Number: AC 48-156350  
Expiration Date: Dec. 1, 1989  
County: Orange  
Latitude/Longitude: 28°24'05"N  
81°35'12"W  
Project: Laundry Boilers No. 1,  
2, and 3, LBB-1

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of three natural gas-fired boilers to provide steam to an existing laundry facility. Boilers 1, 2, and 3 are York-Shipley Steam Boilers of 300HP, 300HP and 350HP, respectively, firing a total of 39,600 CFH of natural gas and exhausting through a common stack. The boilers are located in the North Service Area in the Walt Disney complex, Orange County, Florida.

The UTM coordinates of this facility are Zone 17, 443.5 km East and 3144.2 km North.

The source shall be in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Walt Disney's application package received October 25, 1988.
2. DER's letter dated November 23, 1988.
3. Preliminary Determination dated January 25, 1989.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156350  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefor caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156350  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156350  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156350  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

**SPECIFIC CONDITIONS:**

1. Boilers 1, 2, and 3 may operate continuously, i.e., 8760 hours per year.

2. Only natural gas shall be fired in the boilers.

3. The maximum heat input to the boilers 1, 2, and 3 shall not exceed a combined total of 39.6 MMBtu/hr.



PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156350  
Expiration Date: Dec. 1, 1989

SPECIFIC CONDITIONS:

4. The maximum allowable emissions from all the three boilers combined for inventory purposes are as follows:

Pollutant	Emissions	
	lbs/hr	TPY
PM/PM <sub>10</sub>	0.20	0.87
SO <sub>2</sub>	0.02	0.10
NOx	3.96	17.35
CO	0.79	3.47
VOC	0.21	0.92

5. Visible emissions shall not exceed 5% opacity.

6. Good combustion practices shall be implemented at all times as control measures for the pollutants emitted as products of combustion.

7. Initial and annual compliance tests shall be conducted using EPA Method 9, for visible emissions, in accordance with the 1987 version of 40 CFR 60, Appendix A.

8. A minimum of 15 days prior notification of the compliance tests shall be given to DER's Central Florida District office. The compliance test results shall be submitted to the district office within 45 days of test completion.

9. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the BAQM prior to 60 days before the expiration of the permit (F.A.C. 17-4.090).

10. An application for an operation permit must be submitted to the Central Florida District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. 17-4.220).

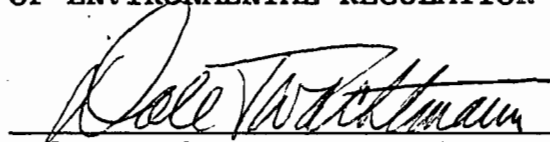
11. Any change in the method of operation, fuels, equipment or operating hours shall be submitted to DER's Central Florida District office for approval.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156350  
Expiration Date: Dec. 1, 1989

Issued this 24 day  
of March, 1989

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Dale Twachtmann, Secretary



## Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

### PERMITTEE:

Walt Disney World Co.  
Post Office Box 10,000  
Lake Buena Vista, FL 32830

Permit Number: AC 48-158650  
Expiration Date: Dec. 1, 1989  
County: Orange  
Latitude/Longitude: 28°24'05"N  
81°35'12"W

Project: Laundry Boiler #4,  
LBB-2

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of a Fulton natural gas fired boiler to provide steam to an existing laundry facility. The natural gas firing capacity of the boiler is 7,734 CFH. The boiler will be located in the North Service Area in the Walt Disney complex, Orange County, Florida.

The UTM coordinates of this facility are Zone 17, 443.5 km East and 3144.2 km North.

The source shall be in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Walt Disney's application package received October 25, 1988.
2. DER's letter dated November 23, 1988.
3. Preliminary Determination dated January 25, 1989.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-158650  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefor caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-158650  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-158650  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT)
- ( ) Determination of Prevention of Significant Deterioration (PSD)
- ( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-158650  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

**SPECIFIC CONDITIONS:**

1. Boiler No. 4 may operate continuously, i.e., 8760 hours per year.

2. Only natural gas shall be fired in the boiler.

3. The maximum heat input to the boiler No. 4 shall not exceed 7.8 MMBtu/hr.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-158650  
Expiration Date: Dec. 1, 1989

SPECIFIC CONDITIONS:

4. The maximum allowable emissions for boiler No. 4 for inventory purposes are as follows:

Pollutant	Emissions	
	lbs/hr	TPY
PM/PM <sub>10</sub>	0.04	0.17
SO <sub>2</sub>	0.01	0.02
NO <sub>x</sub>	0.77	3.39
CO	0.15	0.68
VOC	0.04	0.18

5. Visible emissions shall not exceed 5% opacity.

6. Good combustion practices shall be implemented at all times as control measures for the pollutants emitted as products of combustion.

7. Initial and annual compliance tests shall be conducted using EPA Method 9, for visible emissions, in accordance with the 1987 version of 40 CFR 60, Appendix A.

8. A minimum of 15 days prior notification of the compliance tests shall be given to DER's Central Florida District office. The compliance test results shall be submitted to the district office within 45 days of test completion.

9. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the BAQM prior to 60 days before the expiration of the permit (F.A.C. 17-4.090).

10. An application for an operation permit must be submitted to the Central Florida District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. 17-4.220).

11. Any change in the method of operation, fuels, equipment or operating hours shall be submitted to DER's Central Florida District office for approval.

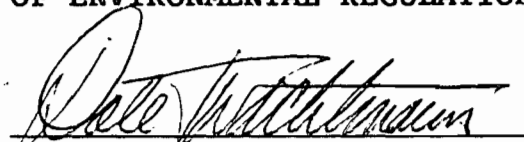


PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-158650  
Expiration Date: Dec. 1, 1989

Issued this 24 day  
of March, 1989

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
\_\_\_\_\_  
Dale Twachtmann, Secretary

Best Available Control Technology (BACT) Determination  
Walt Disney World Company  
Orange County

The applicant proposes to permit four natural gas fired boilers at two existing laundry operations. Boilers No. 1, 2 and 3, manufactured by York-Shipley, are exhausted through a common stack identified as LDB-1. Boiler No. 4 is manufactured by Fulton and identified as LDB-2. The maximum heat inputs to units 1, 2, 3, and 4 will be 12.5, 12.5, 14.6 and 7.7 MMBtu/hr, respectively. The boilers will be located within the Walt Disney complex in Orange County, Florida.

This BACT determination is required for the sources as set forth in the Florida Administrative Code Rule 17-2.600(6) - Emission Limiting and Performance Standards.

BACT Determination Required by the Applicant:

Particulate and sulfur dioxide emissions to be controlled by firing of natural gas.

Review of Group Members:

The determination was based upon comments received from the Stationary Source Control Section.

BACT Determination by DER:

The amount of particulate and sulfur dioxide emissions emitted from the boilers will be limited by the firing of natural gas.

BACT Determination Rationale:

Sulfur in fuel is a primary air pollution concern, in that most of the fuel sulfur becomes SO<sub>2</sub>, and particulate emissions from fuel burning are related to the sulfur content. The firing of natural gas generates a minimal amount of particulates and SO<sub>2</sub> and is therefore deemed as BACT for the above referenced boilers.

Details of the Analysis may be Obtained by Contacting:

Barry Andrews, P.E., BACT Coordinator  
Department of Environmental Regulation  
Bureau of Air Quality Management  
2600 Blainstone Road  
Tallahassee, Florida 32399-2400

Walt Disney World Company  
Page Two

Recommended by:

CH Fancy

C. H. Fancy, P.E.  
Deputy Bureau Chief, BAQM

24 March, 1989  
Date

Approved by:

Dale Twachtman

Dale Twachtman, Secretary

24 March, 1989  
Date



State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

# Interoffice Memorandum

TO: Dale Twachtmann

*fx* FROM: Steve Smallwood *Smallwood*

DATE: March 24, 1989

SUBJ: Approval of Walt Disney Construction Permits Nos:  
AC 48-156346, -156348, -156350, and -158650

Attached for your approval and signature are permits prepared by Central Air Permitting for the above mentioned company to construct eleven sources at the Disney complex in Orange County, Florida.

Comments received during the public notice period have been addressed in the Final Determination.

Day 90, after which these permits will be issued by default, is April 29, 1989.

I recommend your approval and signature.

SS/PR/s

attachments

Check Sheet

Company Name: Walt Disney World Company  
Permit Number: AC98-156346,-348,-350  
PSD Number: \_\_\_\_\_  
Permit Engineer: \_\_\_\_\_

**Application:**

- Initial Application
- Incompleteness Letters
- Responses
- Waiver of Department Action
- Department Response
- Other

**Cross References:**

- AD 98-118224
- 
- 

**Intent:**

- Intent to Issue
- Notice of Intent to Issue
- Technical Evaluation
- BACT or LAER Determination
- Unsigned Permit
- Correspondence with:
  - EPA
  - Park Services
  - Other
- Proof of Publication
  - Petitions - (Related to extensions, hearings, etc.)
  - Waiver of Department Action
  - Other

**Final**

**Determination:**

- Final Determination
- Signed Permit
- BACT or LAER Determination
- Other

**Post Permit Correspondence:**

- Extensions/Amendments/Modifications
- Other

In the folder labeled as follows there are documents, listed below, which were not reproduced in this electronic file. That folder can be found in one of the file drawers labeled Supplementary Documents Drawer. Folders in that drawer are arranged alphabetically, then by permit number.

**Folder Name:** Walt Disney World Company

**Permit(s) Numbered:**

AC	48	-	156346
AC	48	-	156348
AC	48	-	156350

Period during  
which document  
was received:

Detailed Description

Period during which document was received:		Detailed Description
APPLICATION OCTOBER 1988	1.	32"×36" BLUEPRINT: FIGURE P-1 AERIAL PHOTOGRAPH; T24S, R27E, SEC 2, SE 1/4; WDW-4, LDB-1, LDB-2
	2.	32"×36" BLUEPRINT: FIGURE P-2 AERIAL PHOTOGRAPH; T24S, R27E, SEC 15, NE 1/4; WDW-29
	3.	32"×36" BLUEPRINT: FIGURE P-3 AERIAL PHOTOGRAPH; T24S, R28E, SEC 20, SE 1/4; WDW-30
	4.	32"×36" BLUEPRINT: FIGURE P-4 AERIAL PHOTOGRAPH; T24S, R28E, SEC 31, NE 1/4; WDW-32, CBB-1
	5.	32"×36" BLUEPRINT: FIGURE P-5 AERIAL PHOTOGRAPH; T24S, R28E, SEC 29, SE 1/4; TLB-1, TLB-2, TLB-3, TLB-4



Walt Disney World Design & Engineering

January 18, 1990

RECEIVED  
JAN 24 1990  
DEB

Mr. C. H. Fancy, P.E.  
Bureau of Air Regulation  
State of Florida  
Department of Environmental Regulation  
2600 Blirstone Road  
Tallahassee, Florida 32399-2400

SUBJECT: D.E.R. File No. 8C48-166499

Dear Mr. Fancy:

This letter constitutes a request for extension of the aforementioned number for construction of the EPCOT Marina paint spray booth, and subsequent required testing prior to expiration of the permit.

Present scheduling creates a need for a minimum six month extension. I appreciate your assistance in granting this extension.

Thank you for your attention to this matter. If you should have any questions, please don't hesitate to contact me.

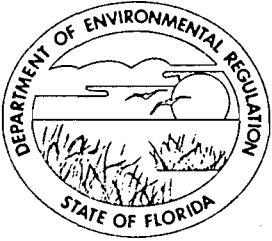
Sincerely,

Robert D. Beaver, P.E.  
Chief Civil Engineer

RDB/ac

cc:  
Mr. Bill Thomas, F.D.E.R.  
Dale Unthank  
Armando Rodriquez

cc: P. Raval  
C. Collins, C. Dist  
CHF/SKP



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary  
Alex Alexander, Deputy Assistant Secretary

July 5, 1989

OCD-AP-89-0519

Walt Disney World Co.  
Post Office Box 10,000  
Lake Buena Vista, Florida 32830-1000

Attention: Armando Rodriguez, Manager  
Environmental Control

Orange County - AP  
Walt Disney World Co.  
Unpermitted Air Pollution Sources

RECEIVED

JUL 12 1989

DER-BAQM

Dear Mr. Rodriguez:

In response to your May 22, 1989 letter, the Plastic Blast-Media Booth located at Regency Industrial Park, which is a minor facility, warrants an application to construct an air pollution source.

The other sources, located at a major facility, appear to also warrant applications with the possible exception of the Ventilated Mixing Station and the Downdraft Grinding Benches. Additional information should be submitted which clarifies whether the Toluene Diisocyanate is truly non-volatile. The Downdraft Grinding Benches may be exempt per Rule 17-2.210(3)(i), F.A.C. Please clarify.

Regarding the sources located at a major facility, please submit the applications to the Central Air Permitting staff in Tallahassee.

If you have any questions, please call John Turner at 407-894-7555 or write to me at the above address.

Sincerely,

*Charles M. Collins*

Charles M. Collins, P.E.  
Program Administrator  
Air Resource Management

CMC:jtj *jtj*

✓ cc: Bill Thomas



DEPARTMENT OF ENVIRONMENTAL REGULATION

<b>ROUTING AND TRANSMITTAL SLIP</b>	ACTION NO
	ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)	Initial
<i>Bill Thomas, PE III</i>	Date
2.	Initial
<i>PGM BAQM</i>	Date
3.	Initial
<i>CAPS</i>	Date
4.	Initial
<i>Room 3066 TT Tall</i>	Date

REMARKS:

*Pradeep, OK, H*  
*FYI -*  
*Patty*

**RECEIVED**  
 JUL 12 1989

*Patty, DER-DATM*  
*FYI - Our agents*  
*are making sure we don't*  
*run out of things to do!*  
*BT*

INFORMATION	
<input type="checkbox"/>	Review & Return
<input type="checkbox"/>	Review & File
<input type="checkbox"/>	Initial & Forward
DISPOSITION	
<input type="checkbox"/>	Review & Respond
<input type="checkbox"/>	Prepare Response
<input type="checkbox"/>	For My Signature
<input type="checkbox"/>	For Your Signature
<input type="checkbox"/>	Let's Discuss
<input type="checkbox"/>	Set Up Meeting
<input type="checkbox"/>	Investigate & Report
<input type="checkbox"/>	Initial & Forward
<input type="checkbox"/>	Distribute
<input type="checkbox"/>	Concurrence
<input type="checkbox"/>	For Processing
<input type="checkbox"/>	Initial & Return

FROM: *John Turner, Eng III*  
*Air Program*  
*Central District*

DATE *7-11-89*  
 PHONE



WALT DISNEY World Co.

PM  
3-7-89  
Orlando, FL

*file copy*

RECEIVED

MAR 9 1989

March 3, 1989

DER-BAQIV

Mr. William A. Thomas, P.E.  
Florida Department of Environmental  
Regulation  
Bureau of Air Quality  
2600 Blair Stone Road  
Tallahassee, FL 32301

RE: Walt Disney World Co. Permit #'s  
AC48-156346 and AC48-156348

Dear Mr. Thomas:

Specific Condition 6 in the above referenced permits  
reads as follows:

- 6. Compliance shall be determined in accordance with the 1987 version of 40 CFR 60, Appendix A, using:
  - a. EPA Method 9 for visible emissions
  - b. EPA Method 24 for VOC.

Previous permits issued have included a provision allowing the use of manufacturer's specifications to determine compliance with VOC emission limits. (reference permit #A048-118224)

Therefore, Walt Disney World Co. requests that Specific Condition 6b be amended to read:

- 6. b. EPA Method 24 or Manufacturer's specifications for VOC.

Should you require any further information, please call me at (407)824-6962.

Sincerely,

*Armando Rodriguez*

Armando Rodriguez  
Manager  
Environmental Control

/ko

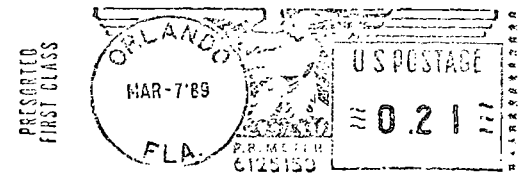
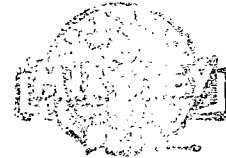
cc: C. Collins, DER  
Central Florida District

*copied: P. Raval  
CHF/BT*

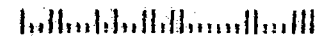


Walt Disney World Co.

P.O. Box 10,000  
Lake Buena Vista, Florida 32830-1000



Mr. William A. Thomas, P.E.  
Florida Department of Environmental  
Regulation  
Bureau of Air Quality  
2600 Blair Stone Road  
Tallahassee, FL 32301



Certified Mail P 034566910

3-2-89

Orlando, FL

*file copy*



WALT DISNEY World Co.

RECEIVED

MAR 6 1989

DER-BAQM

March 1, 1989

Mr. William A. Thomas, P.E.  
Florida Department of Environmental  
Regulation  
Bureau of Air Quality Management  
2600 Blair Stone Road  
Tallahassee, FL 32301

RE: Walt Disney World Co. Permit #'s  
AC48-156346, -156348, -156350, -158650

Dear Mr. Thomas:

Attached is proof of publication of the Notice of Intent to Issue for the above referenced permits.

The notice appeared in the Orlando Sentinel on February 15, 1989; however, I received it on February 27, 1989.

Should you require any further information, please call me at (407)824-6962.

Sincerely,

Armando Rodriguez  
Manager  
Environmental Control

/ko  
Attachment

cc: Al Trbovich, Hunter/ESE

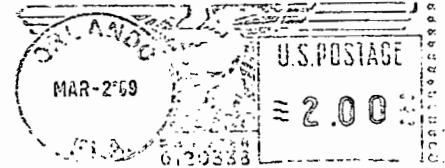
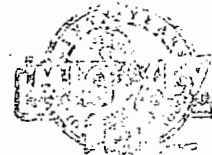
*copied: P. Raul  
C. Collins, CF Dist.*



Walt Disney World Co.

P.O. Box 10,000  
Lake Buena Vista, Florida 32830-1000

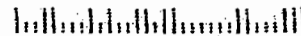
RECEIVED  
MAR 6 1989



RETURN RECEIPT REQUESTED



Mr. William A. Thomas, P.E.  
Florida Dept. of Environmental Regulation  
Bureau of Air Quality Management  
2600 Blair Stone Road  
Tallahassee, FL 32301



**The Orlando Sentinel**

Published Daily  
Orlando, Orange County, Florida

RECEIVED

MAR 6 1989

ADVERTISING CHARGE \$147.75

State of Florida ) ss.  
COUNTY OF ORANGE

DER - BAQM

Before the undersigned authority personally appeared \_\_\_\_\_

Sylvia Hazy \_\_\_\_\_, who on oath says that

she is the Legal Advertising Representative of the Orlando Sentinel, a Daily newspaper published at Orlando, in Orange County, Florida; that the attached copy of advertisement, being a Notice of Intent to Issue in the matter of

Permit to Walt Disney World

\_\_\_\_\_ in the \_\_\_\_\_ Court,

was published in said newspaper in the issues of \_\_\_\_\_

February 15, 1989

Affiant further says that the said Orlando Sentinel is a newspaper published at Orlando, in said Orange County, Florida, and that the said newspaper has heretofore been continuously published in said Orange County, Florida, each Week Day and has been entered as second-class mail matter at the post office in Orlando, in said Orange County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

*Sylvia Hazy*

(Sworn to and subscribed before me this 15 th \_\_\_\_\_ day

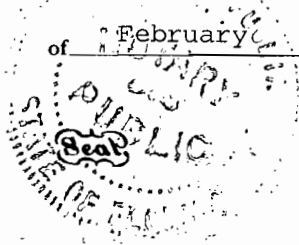
of February \_\_\_\_\_ A.D., 19 89

*Nancy A. Pugliese*

NOTARY PUBLIC, State of Florida at Large

My Commission Expires May 25, 1991

Bonded By AMERICAN PIONEER CASUALTY INS. CO. FORM NO. AD-262



STATE OF FLORIDA  
DEPARTMENT OF  
ENVIRONMENTAL  
REGULATION

NOTICE OF INTENT TO ISSUE

The Department of Environmental Regulation, hereby gives notice of its intent to issue permits to Walt Disney World Company, P.O. Box 10,000, Lake Buena Vista, Florida 32830-1000, to construct eleven sources. The sources to be permitted include two paint booths and four boilers. Two carpenter shops and five water heaters are exempt from permit requirements. The project will be located at the Walt Disney World Complex in Orange County, Florida. The Department is issuing this intent to issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A Statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A Statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday except legal holidays, at: Department of Environmental Regulation, Bureau of Air Quality Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, Dept. of Environmental Regulation, Central Florida District Office, 3319 Maguire Blvd., Suite 232, Orlando, Florida 32803-3767

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

CL-055 Feb. 15, 1989

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1.  Show to whom delivered, date, and addressee's address.    2.  Restricted Delivery (Extra charge)

<p>3. Article Addressed to:</p> <p>Mr. Armando Rodriguez Walt Disney World Company P. O. Box 10,000 Lake Buena Vista, FL 32830-1000</p>	<p>4. Article Number</p> <p>P 274 007 568</p> <p>Type of Service:</p> <p><input type="checkbox"/> Registered                      <input type="checkbox"/> Insured</p> <p><input checked="" type="checkbox"/> Certified                              <input type="checkbox"/> COD</p> <p><input type="checkbox"/> Express Mail                      <input type="checkbox"/> Return Receipt for Merchandise</p> <p>Always obtain signature of addressee or agent and <u>DATE DELIVERED</u>.</p>
<p>5. Signature - Address</p> <p>X</p>	<p>8. Addressee's Address (ONLY if requested and fee paid)</p>
<p>6. Signature - Agent</p> <p>X</p>	
<p>7. Date of Delivery</p> <p>2-1-89</p>	

PS Form 3811, Mar. 1988

\* U.S.G.P.O. 1988-212-865

DOMESTIC RETURN RECEIPT

P 274 007 568

**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL  
(See Reverse)

\* U.S.G.P.O. 1985-480-794

PS Form 3800, June 1985

Sent to	
Mr. Armando Rodriguez, WDW	
Street and No.	
P. O. Box 10,000	
P.O. State and ZIP Code	
Lake Buena Vista, FL 32830-	
Postage	\$ 1000
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	
Mailed: 1-30-89	
Permit: AC 48-156346, -48, -50	
-158650	



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

January 25, 1989

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

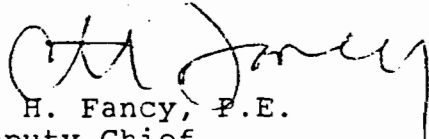
Mr. Armando Rodriguez  
Walt Disney World Company  
P. O. Box 10,000  
Lake Buena Vista, FL 32830-1000

Dear Mr. Rodriguez:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permits for Walt Disney World to construct eleven new sources described in the application at the Disney Complex in Orange County, Florida.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Bill Thomas of the Bureau of Air Quality Management.

Sincerely,

  
C. H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality  
Management

CHF/ks

Attachments

cc: C. Collins, CF District  
A. Trbovich, ESE  
E. Crowell, WDW  
L. James, WDW



BEFORE THE STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of  
Application for Permits by:

Walt Disney World Company  
Post Office Box 10,000  
Lake Buena Vista, FL 32830-1000

DER File Nos. AC 48-156346  
AC 48-156348  
AC 48-156350  
AC 48-158650

---

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue permits (copies attached) for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Walt Disney World Company applied on October 25, 1988, to the Department of Environmental Regulation for permits to construct eleven sources at the Disney Complex in Orange County, Florida.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that air construction permits is required for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permits. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department, at the address specified within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permits.

The Department will issue the permits with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

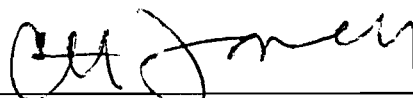
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the applicant have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office in General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such

person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



---

C. H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality  
Management

Copies furnished to:

C. Collins, CF District  
A. Trbovich, ESE  
E. Crowell, WDW  
L. James, WDW

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on January 30, 1989.

FILING AND ACKNOWLEDGEMENT  
FILED, on this date, pursuant to  
§120.52(9), Florida Statutes, with  
the designated Department Clerk,  
receipt of which is hereby  
acknowledged.

Martha Elise January 30, 1989  
Clerk Date

State of Florida  
Department of Environmental Regulation  
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Walt Disney World Company, P. O. Box 10,000, Lake Buena Vista, Florida 32830-1000, to construct eleven sources. The sources to be permitted include two paint booths and four boilers. Two carpenter shops and five water heaters are exempt from permit requirements. The project will be located at the Walt Disney World complex in Orange County, Florida. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2500 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

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- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
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Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Regulation  
Bureau of Air Quality Management  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Dept. of Environmental Regulation  
Central Florida District Office  
3319 Maguire Blvd., Suite 232  
Orlando, Florida 32803-3767

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

Technical Evaluation  
and  
Preliminary Determination

Walt Disney World Company  
Lake Buena Vista, Orange County, Florida

Permit Numbers:

AC 48-156346, Golf Course Paint Booth  
AC 48-156348, Caribbean Paint Booth  
AC 48-156350, Laundry Boilers-1  
AC 48-158650, Laundry Boiler-2

Florida Department of Environmental Regulation  
Bureau of Air Quality Management  
Central Air Permitting

January 25, 1989

I. Application

A. Applicant

Walt Disney World Company  
Post Office Box 10,000  
Lake Buena Vista, Florida 32830

B. Project and Location

The applicant proposes to construct eleven sources at the Walt Disney World Complex in Lake Buena Vista, Orange County, Florida. The following sources will emit particulate matter (PM), nitrogen oxides (NOx), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), and volatile organic compounds (VOCs):

1. WDW-4, NSA Cool Room Carpenter Shop
2. WDW-29, Golf Course Paint Spray Booth
3. WDW-30, Buena Vista Villages Carpenter Shop
4. WDW-32, Caribbean Beach Resort Paint Spray Booth
5. CBB-1, Caribbean Beach Resort Service Building Boiler
6. LDB-1, Laundry Boilers Nos. 1, 2, and 3
7. LDB-2, Laundry Boiler No. 4
8. TLB-1, Typhoon Lagoon North River Heater
9. TLB-2, Typhoon Lagoon South River Heater
10. TLB-3, Typhoon Lagoon North Wave Pool Heater
11. TLB-4, Typhoon Lagoon South Wave Pool Heater

The UTM coordinates of this facility are Zone 17, 443.5 km East and 3144.2 km North.

C. Facility Category

The Walt Disney complex as a whole is a minor facility in accordance with Rule 17-2.100 of the Florida Administrative Code (F.A.C.). The Disney complex can be further classified in accordance with the Standard Industrial Classification (SIC) Code as follows (see List 1 attached).

1. Industry No. 7011, Hotels and Motels
2. Industry No. 7218, Industrial Launderies
3. Industry No. 7812, Motion Picture and Video Tape Production
4. Industry No. 7996, Amusement Parks

The sources are individually classified in accordance with the NEDS Source Classification Code (SCC) as follows:

1. WDW-4, Carpenter Shop: 3-07-030-97, Sanding & Planing Operations



2. WDW-29, Paint Booth: 4-02-005-10, Enamel  
Paint Booth: 4-02-001-10, Solvent Based Paint
3. WDW-30, Carpenter Shop: 3-07-030-97, Sanding & Planing  
Operations
4. WDW-32, Paint Booth: 4-02-005-10, Enamel  
4-02-004-10, Lacquer
5. CBB-1, Boiler: 1-03-006-03, Natural Gas Boiler (NGB)
6. LBB-1, 3 Boilers: 1-03-006-02, NGB
7. LBB-2, Boiler: 1-03-006-03, NGB
8. TLB-1, Heater: " "
9. TLB-2, Heater: " "
10. TLB-3, Heater: " "
11. TLB-4, Heater: " "

Walt Disney's application was received on October 25, 1988, and was deemed complete on December 12, 1988.

## II. Project Description

The eleven sources include: two carpenter shops which do sanding/planing/assembling of woodwork; two paint booths where miscellaneous items are spray painted; two sets of boilers which provide steam for laundry operations; and five boilers that heat up water at the hotels and the Typhoon Lagoon.

Particulate emissions from the two carpenter shops will be controlled by cyclone collectors. Particulate emissions from the two paint booths will be controlled by Andraee type paint arrestors. The natural gas fired boilers/heaters will not have any add-on controls.

## III. Rule Applicability

The proposed project will emit the pollutants PM/PM<sub>10</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub>, and VOCs, and is subject to a preconstruction review in accordance with Chapters 17-2 and 17-4 of the Florida Administrative Code (F.A.C.) and Chapter 403 of the Florida Statutes.

At the Disney complex, each of the four (SIC) facilities are minor in accordance with F.A.C. Rule 17-2.100. The following sources are exempt from permit requirement in accordance with F.A.C. Rule 17-2.210(3): the two carpenter shops (WDW-4, WDW-30) which use belt sanders of less than five square feet of sanding surface; the Caribbean Resort boiler (CBB-1), and the four typhoon lagoon heaters (TLB-1, 2, 3, and 4) which total less than 30 MMBtu/hr heat input in their respective facilities.

Walt Disney complex is located in Orange and Osceola Counties. All the projects being evaluated are located in Orange County, an area designated as Air Maintenance Area for ozone and attainment for the other criteria pollutants, in accordance with F.A.C. Rules 17-2.460 and 17-2.420, respectively.

The proposed project is not subject to Prevention of Significant Deterioration (PSD) Review Requirements because it will be a minor modification to a minor facility in accordance with F.A.C. Rule 17-2.500(2)(d)3.

The proposed project is not subject to Nonattainment Area Review because it will be a minor modification to a minor facility in accordance with F.A.C. Rule 17-2.510(2)(d)3.

The proposed project is subject to F.A.C. Rule 17-2.520, sources not subject to PSD or Nonattainment Requirements.

The laundry boilers LBB 1 and 2 are subject to F.A.C. Rule 17-2.600, Fossil Fuel Steam Generator with less than 250 MMBtu/hr heat input, which limits visible emissions (VE) to 20% opacity and requires a Best Available Control Technology (BACT) determination for PM and SO<sub>2</sub>, in accordance with F.A.C. Rule 17-2.630.

The paint booths WDW 29 and WDW 32 are subject to F.A.C. Rule 17-2.620, General Pollutant Emission Limiting Standards, prohibiting objectionable odors and requiring good work practices to reduce emissions.

The proposed project is subject to compliance testing and reporting requirements in accordance with F.A.C. Rule 17-2.700. Compliance tests for the paint booths will be conducted using EPA Method 24, while the VE for the boilers will be determined using EPA Method 9, both in accordance with 1987 version of 40 CFR 60 Appendix A.

#### IV. Source Impact Analysis

##### A. Emission Limitations

The following are the estimated annual emissions for the four sources requiring permitting:

Source Name	Source Number	PM/PM <sub>10</sub>	Emission Rate (TPY)			
			SO <sub>2</sub>	NO <sub>x</sub>	CO	VOCs
Golf Course Paint Spray Booth	WDW-29	0.12	--	--	--	1.45
Caribbean Beach Resort P. S. B.	WDW-32	0.42	--	--	--	5.46
Laundry Boilers #1, #2, #3	LBB-1	0.867	0.104	17.345	3.469	0.919
Laundry Boiler #4	LBB-2	0.169	0.020	3.387	0.677	0.180

Visible emissions will be limited to 5% opacity. This limit is expected to provide the required reasonable assurance that the source is operating properly.

##### B. Air Quality Impact Analysis

The technical evaluation of this project determined that ambient air modeling or monitoring would not be required to provide reasonable that Florida's air quality standards will not be violated.

#### IV. Conclusion

Based on the information provided by the applicant, the Department has reasonable assurance that the eleven sources at Walt Disney Complex as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.



List 1

DISNEY COMPLEX - SIC CLASSIFICATION

1. Industry No. 7011: Hotels and Motels
- |                            |                   |                  |
|----------------------------|-------------------|------------------|
| LBVCV Paint Spray Booth #1 | WDW-27            | LBVCV*           |
| LBVCV Paint Spray Booth #2 | WDW-28            | LBVCV            |
| Golf Course PSB*           | WDW-29            | Disney Inn       |
| LBVCV Carpenter Shop       | WDW-30            | LBVCV            |
| Caribbean Beach Resort PSB | WDW-32            | Caribbean BR*    |
| Service Bldg. Boiler       | CBB-1             | Caribbean BR     |
| Grand Floridian Boilers    | GFB-1 thru GFB-19 | Grand Fla. Hotel |

\*LBVCV: Lake Buena Vista Community Village

\*PSB: Paint Spray Booths

\*BR: Beach Resort

2. Industry No. 7218: Industrial Launderers

Dry Cleaning Plant	DCP-1	North Service Area*
Laundry Boilers (#1, #2, #3)	LBB-1	NSA
Laundry Boiler (#4)	LBB-2	NSA

\*NSA: North Service Area

3. Industry No. 7812: Motion Picture and Video Production

Studio Craft PSB	WDW-21	Studio Tours
Studio Craft Carpenter Shop	WDW-22	Studio Tours
Studio Tours Boilers	STB-1 thru STB-8	Studio Tours

4. Industry No. 7996: Amusement Parks

Staff Shop Spray Booth #1	WDW-1	NSA
Staff Shop Spray Booth #2	WDW-2	NSA

Water Wash Plastisol Booth #1	WDW-3	NSA
Cool Room Carpenter Shop	WDW-4	NSA
Metalizing Spray Booth	WDW-5	NSA
Lofting Bldg. PSB	WDW-6	NSA
Sawdust Collector Baghouse	WDW-7	NSA
Paint Shop Spray Booth #1	WDW-8	NSA
Paint Shop Spray Booth #2	WDW-9	NSA
Paint Shop Spray Booth #3	WDW-10	NSA
Paint Shop Spray Booth #4	WDW-11	NSA
Paint Shop Spray Booth #5	WDW-12	NSA
Sandblasting Chamber	WDW-13	NSA
Character Head Spray Box	WDW-17	NSA
Artists' Preparation Shop	WDW-20	NSA
Entertainment Support PSB	WDW-23	Magic Kingdom
EPCOT PSB #1	WDW-24	EPCOT Center
EPCOT PSB #2	WDW-25	EPCOT Center
Buena Vista Construction PSB	WDW-26	BV Construction Co.
River and Pool Heaters	TLB-1 thru TLB-4	Typhoon Lagoon

Note: Walt Disney sources outside of the Disney Complex are as follows:

Regency Industrial Park Paint PSB #1	RIP-1	Regency Industrial Park, Orlando
Regency Industrial Park Paint PSB #2	RIP-2	RIP
Regency Industrial Park Paint PSB #3	RIP-3	RIP
Regency Industrial Park Paint PSB #4	RIP-4	RIP

Best Available Control Technology (BACT) Determination  
Walt Disney World Company  
Orange County

The applicant proposes to permit four natural gas fired boilers at two existing laundry operations. Boilers No. 1, 2 and 3, manufactured by York-Shipley, are exhausted through a common stack identified as LDB-1. Boiler No. 4 is manufactured by Fulton and identified as LDB-2. The maximum heat inputs to units 1, 2, 3 and 4 will be 12.5, 12.5, 14.6 and 7.7 MMBTU/hr, respectively. The boilers will be located within the Walt Disney complex in Orange County, Florida.

This BACT determination is required for the source as set forth in the Florida Administrative Code Rule 17-2.600(6) - Emission Limiting and Performance Standards.

BACT Determination Requested by the Applicant:

Particulate and sulfur dioxide emissions to be controlled by firing of natural gas.

Review of Group Members:

The determination was based upon comments received from the Stationary Source Control Section.

BACT Determination by DER:

The amount of particulate and sulfur dioxide emissions emitted from the boilers will be limited by the firing of natural gas.

BACT Determination Rationale:

Sulfur in fuel is a primary air pollution concern, in that most of the fuel sulfur becomes SO<sub>2</sub>, and particulate emissions from fuel burning are related to the sulfur content. The firing of natural gas generates a minimal amount of particulates and SO<sub>2</sub> and is therefore deemed as BACT for the above referenced boilers.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E., BACT Coordinator  
Department of Environmental Regulation  
Bureau of Air Quality Management  
2600 Blairstone Road  
Tallahassee, Florida 32399-2400

Walt Disney World Company  
Page Two

Recommended by:

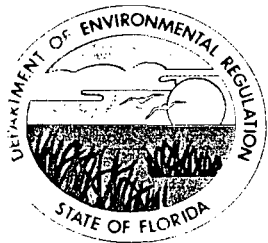
\_\_\_\_\_  
C. H. Fancy, P.E.  
Deputy Bureau Chief, BAQM

\_\_\_\_\_ 1989  
Date

Approved by:

\_\_\_\_\_  
Dale Twachtman, Secretary

\_\_\_\_\_ 1989  
Date



## Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

### PERMITTEE:

Walt Disney World Co.  
Post Office Box 10,000  
Lake Buena Vista, FL 32830

Permit Number: AC 48-156346

Expiration Date: Dec. 1, 1989

County: Orange

Latitude/Longitude: 28°24'05"N  
81°35'12"W

Project: Golf Course Paint  
Spray Booth, WDW-29

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of a paint spray booth, Binks Model SSF-510-30-50-TRB using Andreae type paint arrestors to control particulates in the exhaust. The booth will be located near the Disney Inn, part of the Disney complex in Orange County, Florida.

The UTM coordinates of this facility are Zone 17, 443.5 km East and 3144.2 km North.

The source shall be in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Walt Disney's application package received October 25, 1988.
2. DER's letter dated November 23, 1988.
3. Preliminary Determination dated January 25, 1989.



**PERMITTEE:**  
Walt Disney World Co.

**Permit Number:** AC 48-156346  
**Expiration Date:** Dec. 1, 1989

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefor caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156346  
Expiration Date: Dec. 1, 1989

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156346  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- ( ) Determination of Best Available Control Technology (BACT)
- ( ) Determination of Prevention of Significant Deterioration (PSD)
- ( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156346  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

**SPECIFIC CONDITIONS:**

1. The Golf Course Paint Spray Booth shall operate for no more than 4160 hours annually (16 hrs/5 days/52 weeks).

2. The maximum material utilization rates are as stated in the application for the specific coatings and solvents which are to be used.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156346  
Expiration Date: Dec. 1, 1989

SPECIFIC CONDITIONS:

3. The maximum allowable emissions shall not exceed:

Pollutant	Emissions	
	lbs/hr	TPY
VOC	2.10	1.45
PM/PM <sub>10</sub>	0.17	0.12

Visible Emissions shall not exceed 20% opacity. Under normal operations, no visible emissions are expected.

Note: The annual emissions account for the intermittent spraying of paint, while the hourly emissions are based on continuous spraying. The material utilization rates in Specific Condition No. 2 reflect the same basis.

4. The permittee shall comply with F.A.C. Rule 17-2.620(1)(a), whereby no person shall 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. To comply, procedures to minimize pollutant emissions should include but shall not be limited to the following:

- a) tightly cover or close all VOC containers when they are not in use,
- b) tightly cover, where possible, all open troughs, basins, baths, tanks, etc., when they are not in use,
- c) maintain all piping, valves, fittings, etc., in good operating condition,
- d) prevent excessive air turbulence across exposed VOC's,
- e) immediately confine and clean up VOC spills and make certain wastes are placed in closed containers for reuse, recycling or proper disposal, and
- f) maintain a monthly accounting of each VOC based on beginning and ending inventories, deliveries, shipments, etc.

5. No objectionable odors shall be allowed, in accordance with F.A.C. Rule 17-2.620.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156346  
Expiration Date: Dec. 1, 1989

**SPECIFIC CONDITIONS:**

6. Compliance shall be determined in accordance with the 1987 version 40 CFR 60, Appendix A, using:

- a. EPA Method 9 for visible emissions
- b. EPA Method 24 for VOC

7. A minimum of 15 days prior notification of the compliance tests shall be given to DER's Central Florida District office. The compliance test results shall be submitted to the district office within 45 days of test completion.

8. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the BAQM prior to 60 days before the expiration of the permit (F.A.C. 17-4.090).

9. An application for an operation permit must be submitted to the Central Florida District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. 17-4.220).

10. Any change in the method of operation, raw materials, equipment or operating hours shall be submitted to DER's Central Florida District office for approval.

Issued this \_\_\_\_\_ day  
of \_\_\_\_\_, 1989

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

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Dale Twachtman, Secretary



## Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

**PERMITTEE:**  
Walt Disney World Co.  
Post Office Box 10,000  
Lake Buena Vista, FL 32830

Permit Number: AC 48-156348  
Expiration Date: Dec. 1, 1989  
County: Orange  
Latitude/Longitude: 28°24'05"N  
81°35'12"W

Project: Caribbean Beach  
Resort Paint Spray Booth,  
WDW-32

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of a paint spray booth, JBI Booth Model No. DB-1210-5 using Andreae type paint arrestors to control particulates in the exhaust. The booth will be located near the Caribbean Beach Resort, part of the Disney complex in Orange County, Florida.

The UTM coordinates of this facility are Zone 17, 443.5 km East and 3144.2 km North.

The source shall be in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Walt Disney's application package received October 25, 1988.
2. DER's letter dated November 23, 1988.
3. Preliminary Determination dated January 25, 1989.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156348  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefor caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.



PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156348  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156348  
Expiration Date: Dec. 1, 1989

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- ( ) Determination of Best Available Control Technology (BACT)
- ( ) Determination of Prevention of Significant Deterioration (PSD)
- ( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156348  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the date(s) analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

**SPECIFIC CONDITIONS:**

1. The Caribbean Beach Resort Paint Spray Booth shall operate for no more than 4160 hours annually (16 hrs/5 days/52 weeks).
2. The maximum material utilization rates are as stated in the application for the specific coatings and solvents which are to be used.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156348  
Expiration Date: Dec. 1, 1989

SPECIFIC CONDITIONS:

3. The maximum allowable emissions shall not exceed:

<u>Pollutant</u>	<u>Emissions</u>	
	<u>lbs/hr</u>	<u>TPY</u>
VOC	7.88	5.46
PM/PM <sub>10</sub>	0.61	0.42

Visible Emissions shall not exceed 20% opacity. Under normal operations, no visible emissions are expected.

Note: The annual emissions account for the intermittent spraying of paint, while the hourly emissions are based on continuous spraying. The material utilization rates in Specific Condition No. 2 reflect the same basis.

4. The permittee shall comply with F.A.C. Rule 17-2.620(1)(a), whereby no person shall 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. To comply, procedures to minimize pollutant emissions should include but shall not be limited to the following:

- a) tightly cover or close all VOC containers when they are not in use,
- b) tightly cover, where possible, all open troughs, basins, baths, tanks, etc., when they are not in use,
- c) maintain all piping, valves, fittings, etc., in good operating condition,
- d) prevent excessive air turbulence across exposed VOC's,
- e) immediately confine and clean up VOC spills and make certain wastes are placed in closed containers for reuse, recycling or proper disposal, and
- f) maintain a monthly accounting of each VOC based on beginning and ending inventories, deliveries, shipments, etc.

5. No objectionable odors shall be allowed, in accordance with F.A.C. Rule 17-2.620.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156348  
Expiration Date: Dec. 1, 1989

SPECIFIC CONDITIONS:

6. Compliance shall be determined in accordance with the 1987 version 40 CFR 60, Appendix A, using:

- a. EPA Method 9 for visible emissions
- b. EPA Method 24 for VOC

7. A minimum of 15 days prior notification of the compliance tests shall be given to DER's Central Florida District office. The compliance test results shall be submitted to the district office within 45 days of test completion.

8. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the BAQM prior to 60 days before the expiration of the permit (F.A.C. 17-4.090).

9. An application for an operation permit must be submitted to the Central Florida District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. 17-4.220).

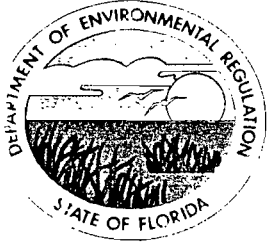
10. Any change in the method of operation, raw materials, equipment or operating hours shall be submitted to DER's Central Florida District office for approval.

Issued this \_\_\_\_\_ day  
of \_\_\_\_\_, 1989

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

---

Dale Twachtman, Secretary



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

## PERMITTEE:

Walt Disney World Co.  
Post Office Box 10,000  
Lake Buena Vista, FL 32830

Permit Number: AC 48-156350

Expiration Date: Dec. 1, 1989

County: Orange

Latitude/Longitude: 28°24'05"N  
81°35'12"W

Project: Laundry Boilers No. 1,  
2, and 3, LBB-1

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of three natural gas-fired boilers to provide steam to an existing laundry facility. Boilers 1, 2, and 3 are York-Shipley Steam Boilers of 300HP, 300HP and 350HP, respectively, firing a total of 39,600 CFH of natural gas and exhausting through a common stack. The boilers are located in the North Service Area in the Walt Disney complex, Orange County, Florida.

The UTM coordinates of this facility are Zone 17, 443.5 km East and 3144.2 km North.

The source shall be in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Walt Disney's application package received October 25, 1988.
2. DER's letter dated November 23, 1988.
3. Preliminary Determination dated January 25, 1989.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156350  
Expiration Date: Dec. 1, 1989

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefor caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156350  
Expiration Date: Dec. 1, 1989

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.



PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156350  
Expiration Date: Dec. 1, 1989

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

**PERMITTEE:**  
Walt Disney World Co.

Permit Number: AC 48-156350  
Expiration Date: Dec. 1, 1989

**GENERAL CONDITIONS:**

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the date(s) analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

**SPECIFIC CONDITIONS:**

1. Boilers 1, 2, and 3 may operate continuously, i.e., 8760 hours per year.
2. Only natural gas shall be fired in the boilers.
3. The maximum heat input to the boilers 1, 2, and 3 shall not exceed a combined total of 39.6 MMBtu/hr.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156350  
Expiration Date: Dec. 1, 1989

SPECIFIC CONDITIONS:

4. The maximum allowable emissions from all the three boilers combined for inventory purposes are as follows:

Pollutant	Emissions	
	lbs/hr	TPY
PM/PM <sub>10</sub>	0.2	0.87
SO <sub>2</sub>	0.02	0.10
NO <sub>x</sub>	3.96	17.35
CO	0.79	3.47
VOC	0.21	0.92

5. Visible emissions shall not exceed 5% opacity.

6. Good combustion practices shall be implemented at all times as control measures for the pollutants emitted as products of combustion.

7. Compliance shall be determined by EPA Method 9, for visible emissions, in accordance with the 1987 version of 40 CFR 60, Appendix A.

8. A minimum of 15 days prior notification of the compliance tests shall be given to DER's Central Florida District office. The compliance test results shall be submitted to the district office within 45 days of test completion.

9. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the BAQM prior to 60 days before the expiration of the permit (F.A.C. 17-4.090).

10. An application for an operation permit must be submitted to the Central Florida District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. 17-4.220).

11. Any change in the method of operation, raw materials, equipment or operating hours shall be submitted to DER's Central Florida District office for approval.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-156350  
Expiration Date: Dec. 1, 1989

Issued this \_\_\_\_\_ day  
of \_\_\_\_\_, 1989

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

---

Dale Twachtman, Secretary



## Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

**PERMITTEE:**

Walt Disney World Co.  
Post Office Box 10,000  
Lake Buena Vista, FL 32830

Permit Number: AC 48-158650  
Expiration Date: Dec. 1, 1989  
County: Orange  
Latitude/Longitude: 28°24'05"N  
81°35'12"W

Project: Laundry Boiler #4,  
LBB-2

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of a Fulton natural gas fired boiler to provide steam to an existing laundry facility. The natural gas firing capacity of the boiler is 7,734 CFH. The boiler will be located in the North Service Area in the Walt Disney complex, Orange County, Florida.

The UTM coordinates of this facility are Zone 17, 443.5 km East and 3144.2 km North.

The source shall be in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Walt Disney's application package received October 25, 1988.
2. DER's letter dated November 23, 1988.
3. Preliminary Determination dated January 25, 1989.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-158650  
Expiration Date: Dec. 1, 1989

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefor caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-158650  
Expiration Date: Dec. 1, 1989

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-158650  
Expiration Date: Dec. 1, 1989

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

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12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Compliance with New Source Performance Standards

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- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.



**PERMITTEE:**  
Walt Disney World Co.

**Permit Number:** AC 48-158650  
**Expiration Date:** Dec. 1, 1989

**GENERAL CONDITIONS:**

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the date(s) analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

**SPECIFIC CONDITIONS:**

1. Boiler No. 4 may operate continuously, i.e., 8760 hours per year.
2. Only natural gas shall be fired in the boiler.
3. The maximum heat input to the boiler No. 4 shall not exceed 7.8 MMBtu/hr.

PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-158650  
Expiration Date: Dec. 1, 1989

SPECIFIC CONDITIONS:

4. The maximum allowable emissions for boiler No. 4 for inventory purposes are as follows:

Pollutant	Emissions	
	lbs/hr	TPY
PM/PM <sub>10</sub>	0.039	0.169
SO <sub>2</sub>	0.005	0.020
NOx	0.773	3.387
CO	0.152	0.677
VOC	0.041	0.180

5. Visible emissions shall not exceed 5% opacity.

6. Good combustion practices shall be implemented at all times as control measures for the pollutants emitted as products of combustion.

7. Compliance shall be determined by EPA Method 9, for visible emissions, in accordance with the 1987 version of 40 CFR 60, Appendix A.

8. A minimum of 15 days prior notification of the compliance tests shall be given to DER's Central Florida District office. The compliance test results shall be submitted to the district office within 45 days of test completion.

9. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the BAQM prior to 60 days before the expiration of the permit (F.A.C. 17-4.090).

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PERMITTEE:  
Walt Disney World Co.

Permit Number: AC 48-158650  
Expiration Date: Dec. 1, 1989

Issued this \_\_\_\_\_ day  
of \_\_\_\_\_, 1989

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

---

Dale Twachtmann, Secretary

ATTACHMENTS AVAILABLE UPON REQUEST



WALT DISNEY World Co.

RECEIVED  
DER - MAIL ROOM  
1988 DEC 12 AM 11:15

December 8, 1988

Mr. C.H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality Management  
Florida Department of  
Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

1031

Re: Review of Air Permit Applications for 11 Sources  
Permit Nos. AC 48-156346, 348, 350

Dear Mr. Fancy:

Per your letter of November 23, 1988, to Armando Rodriguez, enclosed is a check for \$200.00. We have now remitted the total \$800 permit processing fee in the subject matter.

Sincerely,

Robert H. Penn  
Director - Environmental Affairs

RHP:brm

cc: Chuck Collina, CF District  
Ted Crowell  
Lauren James  
Armando Rodriguez  
Al Trbovich, ESE



Date 12/05/88

Check No. 285278

Amount of Check

Pay The Sum Of \*\*\*\*\*200 DOLLARS AND 00 CENTS

\$\*\*\*\*\*200.00

To The Order Of

DEPT OF ENVIR REGULATION  
2600 BLAIR STONE RD  
TALLAHASSEE FL 32399

Walt Disney World Co.  
Lake Buena Vista, Florida

By *William A. Penn*

Sun Bank, N.A.  
Downtown Office  
Orlando, Florida 32802



Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

1031

Re: Review of Air Permit Applications for 11 Sources  
Permit Nos. AC 48-156346, 348, 350

Dear Mr. Fancy:

Per your letter of November 23, 1988, to Armando Rodriguez, enclosed is a check for \$200.00. We have now remitted the total \$800 permit processing fee in the subject matter.

Sincerely,

*Robert H. Penn*

Robert H. Penn  
Director - Environmental Affairs

RHP:brm

cc: Chuck Collina, CF District  
Ted Crowell  
Lauren James  
Armando Rodriguez  
Al Trbovich, ESE

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.  
 Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1.  Show to whom delivered, date, and addressee's address. (Extra charge)  
 2.  Restricted Delivery (Extra charge)

3. Article Addressed to:  Mr. Armando Rodriguez Walt Disney World Co. P. O. Box 10,000 Lake Buena Vista, FL 32830-1000	4. Article Number P 274 007 522  Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise  Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature — Address X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature — Agent X	
7. Date of Delivery 11-25-88	

PS Form 3811, Mar. 1988 \* U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

P 274 007 522

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
 NOT FOR INTERNATIONAL MAIL

(See Reverse)

\* U.S.G.P.O. 1985-480-794

Sent to Mr. Armando Rodriguez, WDW	
Street and No. P.O. Box 10,000	
P.O., State and ZIP Code Lake Buena Vista, FL 32830-	
Postage	\$ 1000
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date Mailed: 11-23-88 Permit: AC 48-156346, -48, 50	

PS Form 3800, June 1985



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

November 23, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Armando Rodriguez  
Walt Disney World Co.  
Post Office Box 10,000  
Lake Buena Vista, Florida 32830-1000

Dear Mr. Rodriguez:

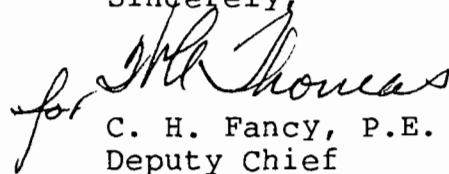
Re: Review of Air Permit Applications for 11 Sources  
Permit Nos. AC 48-156346, 348, 350.

The Department has reviewed the above referenced application package received on October 25, 1988.

On the basis of information received from Mr. Trbovich of ESE concerning emissions of various sources at Walt Disney World, the Department has evaluated the permit processing fee to be \$800. Since you have submitted \$600 already, please submit an additional \$200.

If you have any questions please call Pradeep Raval at (904)488-1344 or write to me at the above address.

Sincerely,

*for* 

C. H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality  
Management

CHF/PR/s

cc: C. Collins, CF District  
A. Trbovich, ESE  
E. Crowell, WDW  
L. James, WDW



**WALT DISNEY WORLD  
SHOP FACILITIES AND BOILERS  
AIR PERMIT APPLICATIONS**

**Prepared for:**

**Walt Disney World Co.  
Lake Buena Vista, Florida**

**Prepared by:**

**Environmental Science and Engineering, Inc.  
Gainesville, Florida**

**ESE No. 89-107-0100-2110**

**OCTOBER 1988**

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APPENDICES

APPENDIX A--APPLICATIONS TO CONSTRUCT AIR POLLUTION SOURCES

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1 0 INTRODUCTION

Hunter Environmental Services, Inc./ESE (Hunter/ESE) has been retained by Walt Disney World Co. (WDW) to prepare air quality construction permit applications for several shop facilities' emission sources of particulate matter and volatile organic compounds (VOCs). In addition, air quality construction permit applications for several boilers have been prepared. These new sources are located at various sites on WDW's Lake Buena Vista complex, including the North Service Area, Disney Inn, Typhoon Lagoon, Caribbean Beach Resort and Lake Buena Vista Community Villages. These new sources will result in an increase in emissions of 1.796 tons per year (TPY) of particulate matter, 0.145 TPY of sulfur dioxide, 24.306 TPY of nitrogen oxides, 4.863 TPY of carbon monoxide and 8.199 TPY of VOCs. A summary of these new emissions sources is provided in the following sections. Additional detail is provided in the attached air quality construction permit application forms (see Appendix A). A separate form has been prepared for each individual source.

## 2.0 BACKGROUND

WDW operates a large entertainment complex near Lake Buena Vista, Florida. In support of this operation, a number of maintenance and construction support shops are located at the entertainment complex and in nearby Orlando, Florida. In 1986, WDW obtained Permits Number A048-118224 and A048-098907 to operate six paint spray booths, a carpenter shop, and a sandblasting booth at the Lake Buena Vista site. A third permit (A048-80042) has been granted to operate a paint spray booth in the Regency Industrial Park in Orlando. Since issuance of these permits, WDW has recognized a need for additional paint spray booths and other support facilities. In addition, a February 1988 facilities review conducted by Hunter/ESE identified several emission sources inadvertently overlooked in the 1986 permitting effort. As a result of this effort, on June 6, 1988, permit applications were submitted for 15 new emission points within the WDW entertainment property. Permit applications for three emission points in the Regency Industrial Park also were submitted as were eight permit applications for boilers at the Studio Tours Facilities. This application package includes permit applications for 11 additional sources, including two existing sources that were previously overlooked and nine newly planned sources. The sources include two paint spray booths, two carpenter shops, six independent boilers, and three boilers sharing one stack. A separate application for each emission source is included in Appendix A. A technical summary of this package is provided in Section 3.0.

### 3.0 TECHNICAL SUMMARY

WDW is applying for construction permits for 11 new air emission sources. A summary of these sources is provided in Table 3-1. A listing of all WDW air emission sources is provided in Table 3-2. The new emission sources at WDW are in five general areas, as shown in Figure 3-1. As noted previously, two of the permit applications are for existing sources that were inadvertently overlooked in the previous permitting effort. Other permit applications are for emission sources either planned or under construction. No unpermitted emission sources are operating currently. Table 3-2 identifies the specific status of each emission source.

Of the 11 emission sources being permitted as part of this effort, two sources are paint spray booths, two sources are dust collectors, and seven sources are boilers. Many of the sources are similar in design and use, but there are enough differences in location and construction to make individual permit applications appropriate. Therefore, technical details regarding the size and mechanical features of each source and the type and quantity of material utilized in each source are provided in the individual applications. However, procedures for minimizing and reporting emissions for these sources can be generalized. To minimize VOC emissions, WDW will implement the following guidelines for the new facilities.

1. Tightly cover or close all VOC containers when not in use.
2. Tightly cover, where possible, all open troughs, basins, baths, tanks, and similar equipment when not in use.
3. Maintain all piping, valves, fittings, and similar equipment in good operating condition.
4. Prevent excessive air turbulence across exposed VOCs.
5. Immediately confine and clean up VOC spills and ensure wastes are placed in closed containers for reuse, recycling, or proper disposal.

Table 3-1. Walt Disney World Company - Emission Sources Included in this Application Package

Source Name	Source Number	General Area Location	Emission Rate (TPY)				
			Particulate Matter	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOCs
Cool Room Carpenter Shop	WDW-4	North Service Area	0.02	--	--	--	--
Golf Course Paint Spray Booth	WDW-29	Disney Inn	0.12	--	--	--	1.45
Lake Buena Vista Community Village Carpenter Shop	WDW-30	Lake Buena Vista Community Village	0.02	--	--	--	--
Caribbean Beach Resort Paint Spray Booth	WDW-32	Caribbean Beach Resort	0.42	--	--	--	5.46
Caribbean Beach Resort Service Building Boiler	CBB-1	Caribbean Beach Resort	0.026	0.003	0.526	0.105	0.028
Laundry Boilers #1,#2,#3	LBB-1	North Service Area	0.867	0.104	17.345	3.469	0.919
Laundry Boiler #4	LBB-2	North Service Area	0.169	0.020	3.387	0.677	0.180
North River Heater	TLB-1	Typhoon Lagoon	0.033	0.004	0.657	0.131	0.035
South River Heater	TLB-2	Typhoon Lagoon	0.033	0.004	0.657	0.131	0.035
North Wave Pool Heater	TLB-3	Typhoon Lagoon	0.044	0.005	0.867	0.175	0.046
South Wave Pool Heater	TLB-4	Typhoon Lagoon	0.044	0.005	0.867	0.175	0.046
Total increase from all sources in this application package--			1.796	0.145	24.306	4.863	8.199

Source: Hunter/ESE, 1988.

3-2

Table 3-2. Walt Disney World Co. - Air Emission Source Listing

Source Name	Source Number	General Area Location	Physical Status	Permit Status
Staff Shop Spray Booth #1	WDW-1	North Service Area	Operating	A048-118224
Staff Shop Spray Booth #2	WDW-2	North Service Area	Operating	A048-118224
Water Wash Plastisol Booth #1	WDW-3	North Service Area	Operating	A048-118224
Cool Room Carpenter Shop	WDW-4	North Service Area	Existing	Application Included
Metalizing Spray Booth	WDW-5	North Service Area	Existing, Not Operating	
Lofting Building Paint Spray Booth	WDW-6	North Service Area	Planned	Application Submitted 6/9/88
Sawdust Collector Baghouse	WDW-7	North Service Area	Operating	A048-098907
Paint Shop Spray Booth #1	WDW-8	North Service Area	Operating	A048-118224
Paint Shop Spray Booth #2	WDW-9	North Service Area	Operating	A048-118224
Paint Shop Spray Booth #3	WDW-10	North Service Area	Operating	A048-118224
Paint Shop Spray Booth #4	WDW-11	North Service Area	Existing, Not Operating	Application Submitted 6/9/88
Paint Shop Spray Booth #5	WDW-12	North Service Area	Existing, Not Operating	Application Submitted 6/9/88
Sandblasting Chamber	WDW-13	North Service Area	Operating	A048-098907

3-3



Table 3-2. Walt Disney World Co. - Air Emission Source Listing (Page 2 of 4)

Source Name	Source Number	General Area Location	Physical Status	Permit Status
Reserved	WDW-14	--	Planned	--
Reserved	WDW-15	--	Planned	--
Reserved	WDW-16	--	Planned	--
Character Head Paint Spray Box	WDW-17	North Service Area	Existing, Not Operating	Application Submitted 6/9/88
Character Head Paint Spray Booth	WDW-18	North Service Area	Planned	--
Reserved	WDW-19	--	Planned	--
Artists' Preparation Shop	WDW-20	North Service Area	Existing, Not Operating	Application Submitted 6/9/88
Studio Craft Paint Spray Booth	WDW-21	Studio Tours	Under Construction	Application Submitted 6/9/88
Studio Craft Carpenter Shop	WDW-22	Studio Tours	Under Construction	Application Submitted 6/9/88
Entertainment Support Paint Spray Booth	WDW-23	Magic Kingdom	Existing, Not Operating	Application Submitted 6/9/88
EPCOT Paint Spray Booth #1	WDW-24	EPCOT Center	Existing, Not Operating	Application Submitted 6/9/88
EPCOT Paint Spray Booth #2	WDW-25	EPCOT Center	Existing, Not Operating	Application Submitted 6/9/88

Table 3-2. Walt Disney World Co. - Air Emission Source Listing (Page 3 of 4)

Source Name	Source Number	General Area Location	Physical Status	Permit Status
Buena Vista Construction Paint Spray Booth	WDW-26	Buena Vista Construction Co.	Under Construction	Application Submitted 6/9/88
Lake Buena Vista Community Village Paint Spray Booth #1	WDW-27	Lake Buena Vista Community Village	Existing, Not Operating	Application Submitted 6/9/88
Lake Buena Vista Community Village Paint Spray Booth #2	WDW-28	Lake Buena Vista Community Village	Planned	Application Submitted 6/9/88
Golf Course Paint Spray Booth	WDW-29	Disney Inn	Existing, Not Operating	Application Included
Lake Buena Vista Community Village Carpenter Shop	WDW-30	Lake Buena Vista Community Village	Planned	Application Included
Reserved	WDW-31	--	--	--
Caribbean Beach Resort Paint Spray Booth	WDW-32	Caribbean Beach Resort	Under Construction	Application Included
Regency Industrial Park Paint Spray Booth #1	RIP-1	Regency Industrial Park	Operating	A048-80042
Regency Industrial Park Paint Spray Booth #2	RIP-2	Regency Industrial Park	Existing, Not Operating	Application Submitted 6/9/88
Regency Industrial Park Paint Spray Booth #3	RIP-3	Regency Industrial Park	Existing, Not Operating	Application Submitted 6/9/88
Regency Industrial Park Paint Spray Booth #4	RIP-4	Regency Industrial Park	Existing, Not Operating	Application Submitted 6/9/88

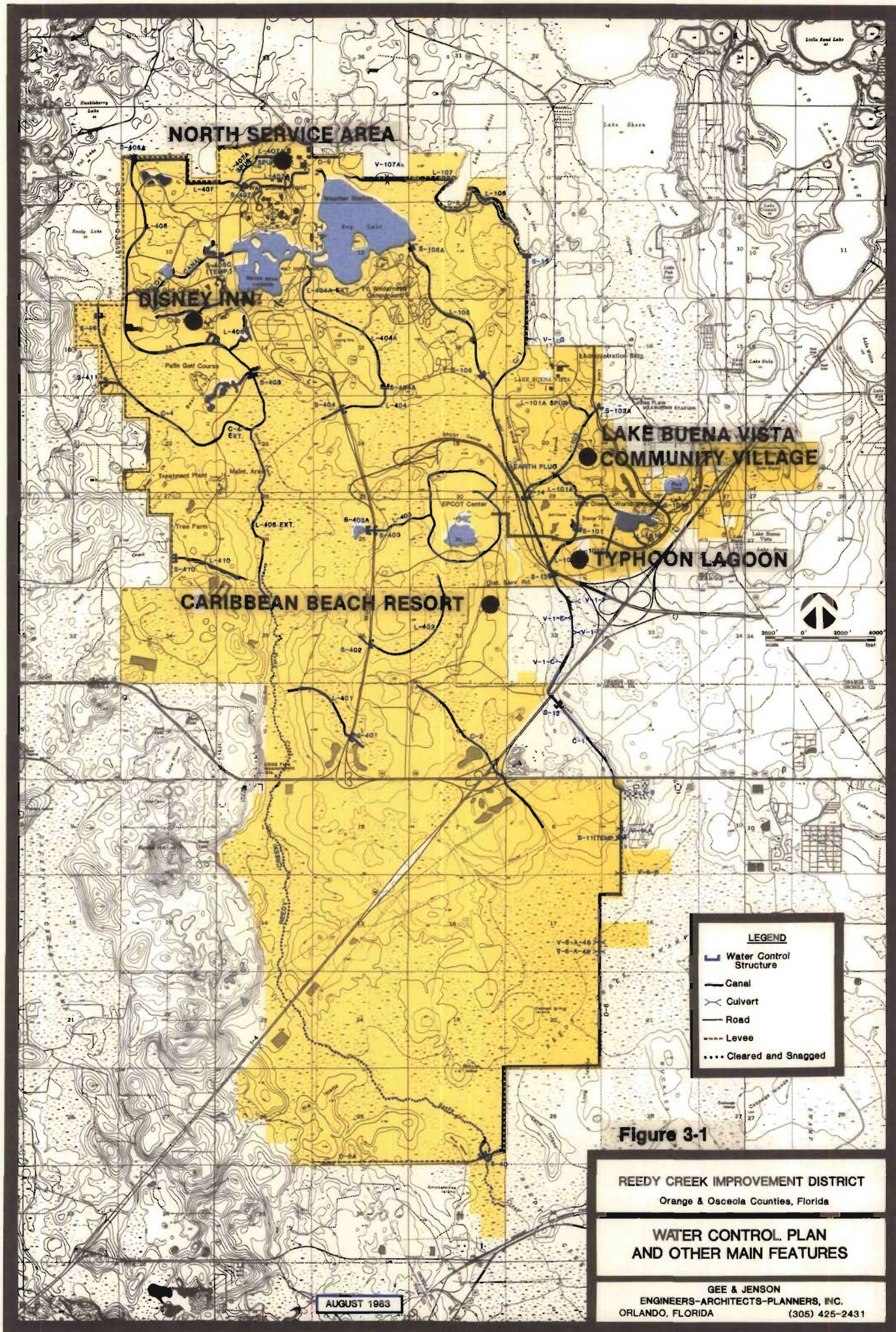
Table 3-2. Walt Disney World Co. - Air Emission Source Listing (Page 4 of 4)

Source Name	Source Number	General Area Location	Physical Status	Permit Status
Grand Floridian Boilers	GFB-1 through GFB-19	Grand Floridian Hotel	Operating	Construction Permit Issued 6/28/88
Studio Tours Boilers	STB-1 through STB-8	Studio Tours	Planned	Application Submitted 6/9/88
Dry Cleaning Plant	DCP-1	North Service Area	Operating	A048-74144; Renewal Submitted 10/12/88
Laundry Boilers*	LBB-1 and LBB-2	North Service Area	Operating	Application Included
River and Pool Heaters	TLB-1 through TLB-4	Typhoon Lagoon	Planned	Application Included
Service Building Boiler	CBB-1	Caribbean Beach Resort	Planned	Application Included

\* Note: These sources were previously exempt under 17-2.210(3)(a). The recent addition of new WDW facilities negates this exemption.

Source: Hunter/ESE, 1988.







6. Paint upper stories of buildings with water-based latex paints where practical.
7. Continue disciplinary actions to encourage recovery of all solvents and unused paints for disposal through the hazardous waste program.
8. Specify low-solvent or water-based coatings where practical.

These procedures are similar to the procedures approved in Permit Number A048-118224 and represent the lowest achievable emission rate.

Daily use records of all non-water-based coatings and solvents will be maintained individually for each paint spray booth and box. These records will be consolidated into quarterly reports for each emission source and will be submitted to the Florida Department of Environmental Regulation (FDER). This program is followed for the existing sources and will be extended to the new sources.

#### 4.0 EMISSION CALCULATIONS

All emission calculations are included in the individual permit applications.

APPENDIX A--APPLICATIONS TO CONSTRUCT AIR POLLUTION SOURCES

TABLE OF CONTENTS

Letters of Authorization

WDW-4	NSA Cool Room Carpenter Shop
WDW-29	Golf Course Paint Spray Booth
WDW-30	Buena Vista Villages Carpenter Shop
WDW-32	Caribbean Beach Resort Paint Spray Booth
CBB-1	Caribbean Beach Resort Service Building Boiler
LDB-1	Laundry Boilers #1, #2, and #3
LDB-2	Laundry Boiler #4
TLB-1	Typhoon Lagoon North River Heater
TLB-2	Typhoon Lagoon South River Heater
TLB-3	Typhoon Lagoon North Wave Pool Heater
TLB-4	Typhoon Lagoon South Wave Pool Heater



WALT DISNEY World Co.

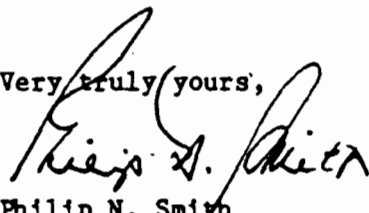
June 7, 1988

Mr. Edward B. Crowell  
Vice President  
Walt Disney World Co.  
P.O. Box 10,000  
Lake Buena Vista, FL 32830

Dear Ted:

This is to confirm that you have been authorized by Walt Disney World Co. to sign applications for air emission permits on behalf of the Company.

Very truly yours,

  
Philip N. Smith  
Secretary

PNS/B:brm





LAKE BUENA VISTA COMMUNITIES, INC.  
LAKE BUENA VISTA COMMUNITIES, INC.

A subsidiary of Walt Disney Productions

June 7, 1988

Mr. Lauren H. James  
Director  
Lake Buena Vista Communities, Inc.  
P.O. Box 10,000  
Lake Buena Vista, FL 32830

Dear Lauren:

This is to confirm that you have been authorized by Lake Buena Vista Communities, Inc. to sign applications for air emission permits on behalf of the Company.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Philip N. Smith".

Philip N. Smith  
Secretary

PNS/B:brm

## DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

## APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Carpenter Shop  New<sup>1</sup>  Existing<sup>1</sup>

APPLICATION TYPE:  Construction  Operation  Modification

COMPANY NAME: Walt Disney World Co. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime  
Cool Room Carpenter  
Kila No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Shop/ Cyclone

SOURCE LOCATION: Street Facilities Way City Bay Lake

UTM: East 443512 North 3144219

Latitude 28 ° 25 ' 32 "N Longitude 81 ° 34 ' 36 "W

APPLICANT NAME AND TITLE: Walt Disney World Co.

APPLICANT ADDRESS: P. O. Box 10,000, Lake Buena Vista, Florida 32830

## SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

## A. APPLICANT

I am the undersigned owner or authorized representative\* of Walt Disney World Co.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: Edward B. Crowell

Edward B. Crowell, V.P., Facilities Support  
Name and Title (Please Type)

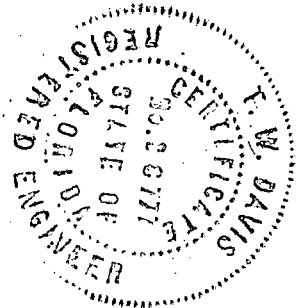
Date: 10/20/88 Telephone No. (407)828-2100

## B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

<sup>1</sup> See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Thomas W. Davis

Thomas W. Davis  
Name (Please Type)

Hunter/Environmental Science and Engineering  
Company Name (Please Type)

P. O. Box 1703, Gainesville, FL 32602  
Mailing Address (Please Type)

Florida Registration No. 36777 Date: 10/13/88 Telephone No. (904)332-3318

**SECTION II: GENERAL PROJECT INFORMATION**

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Installation of a carpenter shop with a sawdust collection cyclone. Carpenter Shop  
will be utilized to manufacture custom equipment and accessories needed in various  
entertainment areas.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction October 1988 Completion of Construction December 1988

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Approximately \$1,000.00

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

None

Requested permitted equipment operating time: hrs/day 16 ; days/wk 5 ; wks/yr 52 ;  
if power plant, hrs/yr \_\_\_\_\_ ; if seasonal, describe: \_\_\_\_\_

F. If this is a new source or major modification, answer the following questions.  
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO
  - a. If yes, has "offset" been applied? \_\_\_\_\_
  - b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_
  - c. If yes, list non-attainment pollutants. \_\_\_\_\_
2. Does best available control technology (BACT) apply to this source? NO  
If yes, see Section VI.
3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. NO
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? NO
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? NO

- H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? NO
- a. If yes, for what pollutants? \_\_\_\_\_
  - b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

**A. Raw Materials and Chemicals Used in your Process, if applicable:**

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Spruce (solid)	Particulate	100	See Note 1, Attachment A	
Fir (plywood)	Particulate	100		
Glass fiber reinforced polyester resin	Particulate	100		
Glass fiber reinforced epoxy resin.	Particulate	100		

**B. Process Rate, if applicable: (See Section V, Item 1)**

1. Total Process Input Rate (lbs/hr): N/A

2. Product Weight (lbs/hr): N/A

**C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)**

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Rule 17-2	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Particulate	0.008	0.02			3494	1.75	
	See Note 2, Attachment A, for calculations						

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

**A. Raw Materials and Chemicals Used in your Process, if applicable:**

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Kydex (ABS)	Particulate	100		

**B. Process Rate, if applicable: (See Section V, Item 1)**

1. Total Process Input Rate (lbs/hr): \_\_\_\_\_

2. Product Weight (lbs/hr): \_\_\_\_\_

**C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)**

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Rule 17-2	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Cyclone	Particulate	99%	N/A	Manufacturer's specification

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
N/A			

\*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average \_\_\_\_\_ N/A \_\_\_\_\_ Maximum \_\_\_\_\_ N/A \_\_\_\_\_

G. Indicate liquid or solid wastes generated and method of disposal.

Sawdust is disposed of in an approved solid waste landfill.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 20 ft. Stack Diameter: 3.5 ft.  
 Gas Flow Rate: ACFM 8,400 DSCFM Gas Exit Temperature: Ambient °F.  
 Water Vapor Content: Ambient % Velocity: 14.6 FPS

SECTION IV: INCINERATOR INFORMATION

NOT APPLICABLE

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr incinerated							
Uncontrolled (lbs/hr)							

Description of Waste \_\_\_\_\_  
 Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_  
 Approximate Number of Hours of Operation per day \_\_\_\_\_ day/wk \_\_\_\_\_ wks/yr. \_\_\_\_\_  
 Manufacturer \_\_\_\_\_  
 Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ Stack Temp. \_\_\_\_\_  
 Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM<sup>o</sup> Velocity: \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  
 Other (specify) \_\_\_\_\_



Brief description of operating characteristics of control devices: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

**SECTION V: SUPPLEMENTAL REQUIREMENTS**

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]  
  
To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

NOT APPLICABLE

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- B. Has EPA declared the best available control technology for this class of sources (if yes, attach copy)

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- C. What emission levels do you propose as best available control technology?

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- D. Describe the existing control and treatment technology (if any).

1. Control Device/System:

2. Operating Principles:

3. Efficiency:\*

4. Capital Costs:

\*Explain method of determining



j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:<sup>1</sup>

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:<sup>2</sup>

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate:<sup>1</sup>

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate:<sup>1</sup>

10. Reason for selection and description of systems:

<sup>1</sup>Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

**SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION**

NOT APPLICABLE

**A. Company Monitored Data**

1. \_\_\_\_\_ no. sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sub>2</sub>\* \_\_\_\_\_ Wind spd/dir

Period of Monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).



ATTACHMENT A

WDW-4

Note 1 - This carpenter shop produces approximately 0.84 lbs/hr of sawdust for every operating hour. The material breakdown is presented below.

Material	Density (Ument) (lbs/ft <sup>3</sup> )	Weight of Sawdust (lbs/hr)	Percent of Total Sawdust Produced
Spruce (solid)	30	0.31	37
Fir (Plywood)	32	0.32	38
Glass fiber reinforced polyester resin	N/A	0.13	15
Glass fiber reinforced epoxy resin	N/A	0.04	5
Kydex (ABS)	N/A	0.04	5

Note 2 - Particulate Emission Calculation

Sawdust produced - 0.84 lbs/hr

Cyclone efficiency - 99%

Operating hours - 80 hrs/week, 52 weeks/year

$$\begin{aligned} \text{Emission} &= 0.84 \text{ lbs/hr} \times (1.00 - 0.99) \times 80 \text{ hrs/week} \times 52 \text{ weeks/year} \\ &= 34.9 \text{ lbs/year} \end{aligned}$$

**ROHM AND HAAS COMPANY**

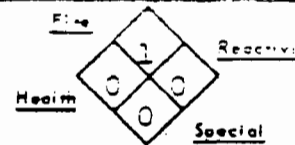
EMPLOYEE HEALTH PROTECTION DEPT.  
INDEPENDENCE MALL WEST  
PHILADELPHIA, PA. 19105

EMERGENCY PHONE:  
215-992-3000 (ROHM AND HAAS)  
800-424-9300 (CHEMTREC)



HAZARD RATING:

- 4 = EXTREME
- 3 = HIGH
- 2 = MODERATE
- 1 = SLIGHT
- 0 = NO HAZARD



**MATERIAL SAFETY DATA SHEET RECEIVED**

FREIGHT CLASSIFICATION: MAY 18 1980

MATERIAL: <u>Not Kept</u> <del>KYDEX SHEET</del>	CODE: 4-2111	FREIGHT CLASSIFICATION: MAY 18 1980
FORMULA:	CHEMICAL NAME & SYNONYMS: ACRYLIC-PVC POLYMER	

I. HAZARDOUS COMPONENTS:

COMPONENT	WEIGHT %	TWA/TLV
ACRYLIC PVC POLYMER SHEET (no health hazard)	100	not estab.

II. PHYSICAL DATA:

APPEARANCE - ODOR - PH. White or vary colored sheet, no odor.	BOILING POINT (°F) NA
VAPOR PRESSURE 68°F (MM MERCURY) NA	VAPOR DENSITY (AIR = 1) NA
MELTING OR FREEZING POINT (°F) NA	EVAPORATION RATE (BUTYL ACETATE = 1) NA
SPECIFIC GRAVITY (WATER = 1) 1.35	PERCENT VOLATILE (BY WEIGHT) NA
SOLUBILITY IN WATER negligible	

III. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT °F (METHOD USED) NA	LOWER EXPLOSION LIMIT NA %	UPPER EXPLOSION LIMIT NA %
AUTO IGNITION TEMPERATURE (°F) Flame Inhibiting	DUST -	MINIMUM EXPLOSION CONCENTRATIONS (OZ/CU FT.)
		ENERGY TO IGNITE (MILLIJOULES):

EXTINGUISHING MEDIA:

FOAM   
  "ALCONOL" FOAM   
  CO<sub>2</sub>   
  DRY CHEMICAL   
  WATER FOG   
  OTHER water

SPECIAL FIRE FIGHTING PROCEDURES:  
Wear MESA/NIOSH approved self contained breathing apparatus (schedule #13).

UNUSUAL FIRE & EXPLOSION HAZARDS:  
Avoid breathing noxious and/or acrid fumes.

IV. HEALTH HAZARD DATA:  
RECOMMENDED HEALTH GUIDE TWA (MAXIMUM TIME WEIGHTED AVERAGE CONCENTRATION FOR AN 8 HOUR WORK PERIOD)  
None established.

EFFECTS OF OVEREXPOSURE:  
None known under normal operating conditions.

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: None under normal operating conditions.

EYE AND SKIN CONTACT: None under normal operating conditions.

INGESTION: None under normal operating conditions.



REACTIVITY DATA

STABILITY:  STABLE  UNSTABLE

CONDITIONS TO AVOID:

HAZARDOUS DECOMPOSITION PRODUCTS:

Acrylic monomers, oxides of carbon and hydrogen chloride gas.

POLYMERIZATION:

MAY OCCUR  WILL NOT OCCUR

CONDITIONS TO AVOID:

COMPATIBILITY (MATERIALS TO AVOID):

WATER  OTHER

SPILL OR LEAK PROCEDURE:

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

NA

WASTE DISPOSAL METHODS:

Landfill according to local, state and federal regulations.

SPECIAL PROTECTION INFORMATION:

VENTILATION:

Mechanical ventilation to provide clean workroom air during forming operations.

RESPIRATORY PROTECTION (SPECIFY TYPE):

None required with adequate ventilation during forming operations.

PROTECTIVE GLOVES:

Latex gloves.

EYE PROTECTION: Spectacles with sideshields during sawing (ANSI Z87.1, 1968).

OTHER PROTECTIVE EQUIPMENT:

STORAGE AND LABELING:

STORAGE	INDOOR: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	HEATED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	REFRIGERATED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	OUTDOOR: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
---------	---	---	---	--

STORAGE TEMPERATURE (°F):

MAX:

MIN:

REMARKS:

Store in dry place-avoid excessive heat.

- = NOT APPLICABLE
- = CEILING VALUE

PRECAUTIONARY LABELING: (RHM AND HAS IS GUIDED BY REGULATIONS OF OSHA, EPA, FDA, AND DOT FOR LABELING HAZARDOUS MATERIALS.)

107-99

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

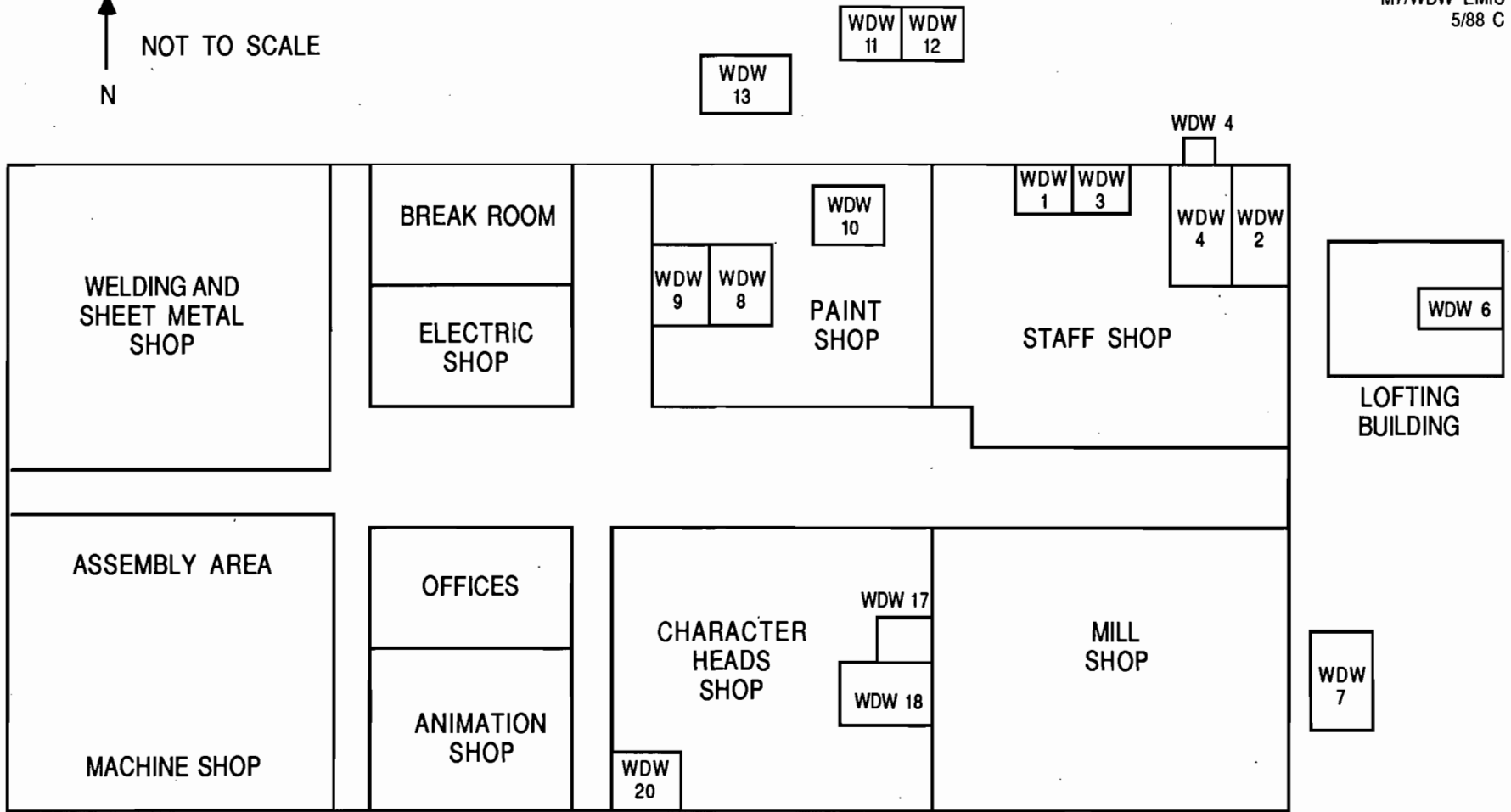
VENDOR ASSUMES NO RESPONSIBILITY FOR INJURY TO VENDEE OR THIRD PERSON PROXIMATELY CAUSED BY THE MATERIAL IF REASONABLE SAFETY PROCEDURES ARE NOT ADHERED TO AS STIPULATED IN THE DATA SHEET. ADDITIONALLY, VENDOR ASSUMES NO RESPONSIBILITY FOR INJURY TO VENDEE OR THIRD PERSONS PROXIMATELY CAUSED BY ABNORMAL USE OF THE MATERIAL EVEN IF REASONABLE SAFETY PROCEDURES ARE FOLLOWED. FURTHERMORE, VENDEE ASSUMES THE RISK IN HIS USE OF THE MATERIAL.

CODE 4-2111

5219

DATE 7/76

↑  
N  
NOT TO SCALE



KEY:  
WDW EMISSION SOURCE

**NORTH SERVICE AREA EMISSION SOURCE LOCATIONS**

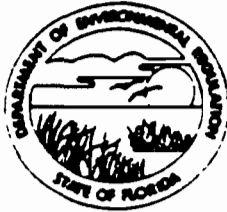
SOURCES: WDW, 1988; ESE, 1988.

**ENVIRONMENTAL SCIENCE  
AND ENGINEERING, INC.**



## DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

## APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Paint Spray Booth  New<sup>1</sup>  Existing<sup>1</sup>  
 APPLICATION TYPE:  Construction  Operation  Modification  
 COMPANY NAME: Walt Disney World Co. COUNTY: Orange  
 Identify the specific emission point source(s) addressed in this application (i.e. Lime  
 Golf Course  
 Kila No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Paint Spray Booth  
 SOURCE LOCATION: Street Magnolia Palm Drive City Bay Lake  
 UTM: East 441843 North 3141651  
 Latitude 28° 24' 05" N Longitude 81° 35' 12" W  
 APPLICANT NAME AND TITLE: Walt Disney World Co.  
 APPLICANT ADDRESS: P. O. Box 10,000, Lake Buena Vista, Florida 32830

## SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

## A. APPLICANT

I am the undersigned owner or authorized representative\* of Walt Disney World Co.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: L.H. James

Lauren H. James, Dir., Lake Buena Vista Communities  
Name and Title (Please Type) Inc.

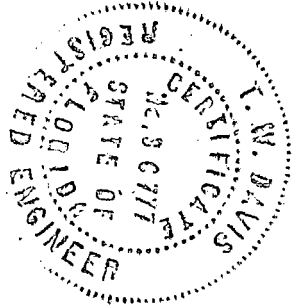
Date: 10/21/88 Telephone No. (407)934-7256

## B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

<sup>1</sup> See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Thomas W. Davis

Thomas W. Davis  
Name (Please Type)

Hunter/Environmental Science and Engineering  
Company Name (Please Type)

P. O. Box 1703, Gainesville, FL 32602  
Mailing Address (Please Type)

Florida Registration No. 36777 Date: 10/13/88 Telephone No. (904) 332-3318

**SECTION II: GENERAL PROJECT INFORMATION**

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Installation of paint spray booth, Binks Model SSF-510-30-50-TRB.  
Booth to be used for spray coating a variety of objects, principally golf carts.

B. Schedule of project covered in this application (Construction Permit Application Only)  
Start of Construction October 1988 Completion of Construction November 1988

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)  
Approximately \$1,000.00

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.  
None

Requested permitted equipment operating time: hrs/day 16 ; days/wk 5 ; wks/yr 52 ;  
if power plant, hrs/yr \_\_\_\_\_ ; if seasonal, describe: \_\_\_\_\_

F. If this is a new source or major modification, answer the following questions.  
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO
  - a. If yes, has "offset" been applied? \_\_\_\_\_
  - b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_
  - c. If yes, list non-attainment pollutants. \_\_\_\_\_
2. Does best available control technology (BACT) apply to this source? NO  
If yes, see Section VI.
3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. NO
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? NO
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? NO

- H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? NO
- a. If yes, for what pollutants? \_\_\_\_\_
  - b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

Note: No RACT guidelines exist for the variety of objects being painted. Specifically, Rule 17-2.650(1)(F)14., F.A.C., Surface Coating of Miscellaneous Parts and Products is not applicable.

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

**A. Raw Materials and Chemicals Used in your Process, if applicable:**

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Ameri-Flint	VOC	60	0.52	
Reducer	VOC	100	0.04	
Mineral Spirits	VOC	100	0.04	
Alkyd Enamel	VOC	59	0.52	

**B. Process Rate, if applicable: (See Section V, Item 1)**

1. Total Process Input Rate (lbs/hr): N/A

2. Product Weight (lbs/hr): N/A

**C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)**

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Rule 17-2	Allowable Emission <sup>3</sup> lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
VOC	2.10	1.45			2,907	1.45	
Particulate	0.17	0.12			4,659	2.32	

<sup>1</sup>See Section V, Item 2. See Attachment A for calculations.

<sup>2</sup>Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Binks Booth Model SSF-510-30-50-TRB	Particulate	95%	N/A	Manufacturer's Specification
with Andrae-type paint arrestors for exhaust	Contains 16 filters each for a total filter area of 45 ft <sup>2</sup>		20" x 20"	

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
N/A			

\*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average \_\_\_\_\_ N/A \_\_\_\_\_ Maximum \_\_\_\_\_ N/A \_\_\_\_\_

G. Indicate liquid or solid waste generated and method of disposal.

Liquid waste paint and solvents will be collected and disposed of through Walt Disney World Co.'s hazardous waste handling system.



M. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 16 ft. Stack Diameter: 2 ft.  
 Gas Flow Rate: ACFM 6,300 DSCFM Gas Exit Temperature: Ambient °F.  
 Water Vapor Content: Ambient % Velocity: 33.44 FPS

SECTION IV: INCINERATOR INFORMATION

NOT APPLICABLE

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr incinerated							
Uncontrolled (lbs/hr)							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ day/wk \_\_\_\_\_ wks/yr. \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity: \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  
 Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 5, 7, 8, and 10 in Section V must be included where applicable.

#### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]  
To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

NOT APPLICABLE

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- B. Has EPA declared the best available control technology for this class of sources (if yes, attach copy)

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- C. What emission levels do you propose as best available control technology?

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- D. Describe the existing control and treatment technology (if any).

1. Control Device/System:

2. Operating Principles:

3. Efficiency:\*

4. Capital Costs:

\*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft.
- b. Diameter: ft.
- c. Flow Rate: ACFM
- d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:<sup>1</sup>
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:<sup>1</sup>
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:<sup>1</sup>

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:<sup>2</sup>

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

10. Reason for selection and description of systems:

<sup>1</sup>Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

NOT APPLICABLE SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. \_\_\_\_\_ no. sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sub>2</sub> \_\_\_\_\_ Wind spd/dir

Period of Monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).



## ATTACHMENT A

## WDW-29

## (1) Basic Equation for VOC Emission Calculation

$$E = \sum_{i=1}^{n-1} U_i \times V_i \times 80 \text{ hrs/week} \times 52 \text{ weeks/year}$$

where:  $U_i$  = utilization rate of material  $i$   
 $V_i$  = percent VOC of material  $i$  (by weight if available,  
 otherwise, by volume)  
 $n$  = the number of different materials sprayed in this  
 emission source

## (2) Calibrations

Substance  $i = 1$ , Ameri-Flint

$$E_1 = 0.52 \text{ lbs/hr} \times 0.60 \times 80 \text{ hrs/week} \times 52 \text{ weeks/year}$$

$$= 1,297.9 \text{ lbs/year}$$

Substance  $i = 2$ , Reducer

$$E_2 = 0.04 \text{ lbs/hr} \times 1.00 \times 80 \text{ hrs/week} \times 52 \text{ weeks/year}$$

$$= 166.4 \text{ lbs/year}$$

Substance  $i = 3$ , Mineral Spirits

$$E_3 = 0.04 \text{ lbs/hr} \times 1.00 \times 80 \text{ hrs/week} \times 52 \text{ weeks/year}$$

$$= 166.4 \text{ lbs/year}$$

Substance  $i = 4$ , Alkyd Enamel

$$E_4 = 0.52 \text{ lbs/hr} \times 0.59 \times 80 \text{ hrs/week} \times 52 \text{ weeks/year}$$

$$= 1,276.3 \text{ lbs/year}$$

Total Emission  $E$  (Potential and Actual)

$$E = \sum_{i=1}^4 E_i = 1,297.9 \text{ lbs/year} + 166.4 \text{ lbs/year} + 166.4 \text{ lbs/year}$$

$$+ 1,276.3 \text{ lbs/year}$$

$$= 2,907.0 \text{ lbs/year} = 1.45 \text{ tons/year}$$

Maximum Emission  $E_m$

$$E_m = 2,907.0 \text{ lbs/year} \div 80 \text{ hrs/week} \div 52 \text{ weeks/year} \times 3$$

$$= 2.10 \text{ lbs/hr}$$



**BEST AVAILABLE COPY**  
**MATERIAL SAFETY DATA SHEET**  
**FOR COATINGS, RESINS AND RELATED MATERIALS**

AMERICAN LACQUER & SOLVENTS COMPANY  
 2601 E. HENRY AVENUE  
 TAMPA, FLORIDA 33610

DATE OF PREPARATION:  
 1/22/87

EMERGENCY TELEPHONE NO.:

SIGNATURE OF PREPARER:

*H. J. Clem*

INFORMATION TELEPHONE NO.: 813-236-5594

**SECTION I - PRODUCT IDENTIFICATION**

PRODUCT NUMBER: (119) 302, 306, 310, 311, 312, 313, 316, 321, 325, 326, 335, 342, 353, 355  
 358, 359, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 373, 374  
 375, 379, 381, 382, 383

PRODUCT CLASS: ~~WORKING~~

PRODUCT NAME: ~~HER-FLY~~

**SECTION II - HAZARDOUS INGREDIENTS**

INGREDIENT	CAS NUMBER	PERCENT	OCCUPATIONAL EXPOSURE LIMITS		VAPOR PRESSURE
			TLV	PEL	
TOLUOL	108-88-3	< 20	100		36.7mm@30°C
METHYL ETHYL KETONE	64742-95-6	< 10	200		71.2mm@20°C
LOL	1330-20-7	< 20	100		10.0mm@28°C
ETHYL ACETATE	141-78-6	< 7	400		86.0mm@20°C
PM ACETATE	108-65-6	< 15	NE		3.7mm@20°C

**SECTION III - PHYSICAL DATA**

BOILING RANGE 75-150°C VAPOR DENSITY  HEAVIER  LIGHTER THAN AIR  
 EVAPORATION RATE  FASTER  SLOWER THAN ETHER 52-60% VOLATILE WT. WT/GAL 8.2-9

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

FLAMMABILITY CLASSIFICATION LB OSHA \_\_\_\_\_ FLASH POINT LEL  
 DOT \_\_\_\_\_ 22°F T.O.C. 1.1

EXTINGUISHING MEDIA:

FOAM  ALCOHOL  CO2  WATER FOG  OTHER

UNUSUAL FIRE AND EXPLOSION HAZARDS: KEEP CONTAINER TIGHTLY CLOSED. AVOID HEAT, OPEN FLAMES, STATIC ELECTRICITY. ELECTRICAL EQUIPMENT AND SPARKS. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT. APPLICATION TO HOT SURFACES REQUIRES SPECIAL PRECAUTIONS. DURING EMERGENCY SITUATION, OVER-EXPOSURE TO DECOMPOSITION PRODUCTS MAY CAUSE A HEALTH HAZARD WITH NO SYMPTOMS IMMEDIATELY APPARENT. OBTAIN MEDICAL ATTENTION.

SPECIAL FIRE FIGHTING PROCEDURES: FULL PROTECTIVE EQUIPMENT INCLUDING SELF-CONTAINED BREATHING APPARATUS SHOULD BE USED - WATER SPRAY MAY BE INEFFECTIVE. IF WATER IS USED, FOG NOZZLES ARE PREFERRED. WATER MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILDUP AND POSSIBLE AUTOIGNITION.

SECTION VI - REACTIVITY DATA

STABILITY             UNSTABLE             STABLE

HAZARDOUS POLYMERIZATION             MAY OCCUR             WILL NOT OCCUR

HAZARDOUS DECOMPOSITION PRODUCTS:  Unknown other than CO<sub>2</sub> and possibly CO and Smoke.

CONDITIONS TO AVOID:    Heat, open flames, electrical and static discharges.

INCOMPATIBILITY (MATERIALS TO AVOID):    Strong Acids, Alkalies and Oxidizers.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

VENTILATE AREA. REMOVE ALL POSSIBLE SOURCES OF IGNITION. AVOID PROLONGED BREATHING OF VAPORS. CONFIN SPILL WITH INERT ABSORBENT AND CLEAN UP WITH SPARK PROOF TOOLS. WEAR PROTECTIVE EQUIPMENT DURING CLEAN UP.

WASTE DISPOSAL: Incinerate in an approved incinerator or dispose of in an approved chemical dumpsite in accordance with Local, State and Federal Regulations by approved contractors.

SECTION VIII - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: Use NIOSH/MSHA approved Chemical/Mechanical type filter system to remove a combination of particles, gas & vapor. Use air line if necessary.

VENTILATION:        Use adequate ventilation in volume and pattern to keep LEL and TLV's in Section II below recommended level to produce explosion or fire. General mechanical ventilation should comply with OSHA 1910.94.

PROTECTIVE GLOVES: Use rubber gloves.

EYE PROTECTION: Safety glasses or goggles with splash guards or side shields.

OTHER PROTECTIVE EQUIPMENT: Prevent prolonged skin contact to contaminated clothing.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in a cool dry area away from sources of ignition. When storing large quantities, store in building designed and protected against flammable liquids. Use static lines when mixing and transferring material. Do not allow material to free fall more than five (5) inches.

OTHER PRECAUTIONS: "FOR INDUSTRIAL USE ONLY" Do not take internally. If ingested, DO NOT INDUCE VOMITING. Consult a physician. Do not flame cut, weld, or braze on coated metal without a NIOSH/MSHA approved respirator.

The information contained herein is based on technical data which we believe to be reliable, however, since the conditions under which this information may be applied are beyond our control, we can assume no liability for results of its application. This information should be used only by persons having sufficient technical skill to make informed judgements regarding its application.

**SECTION V - HEALTH HAZARD DATA**

PRIMARY ROUTE(S) OF ENTRY:     DERMAL             INHALATION             INGESTION

**EMERGENCY AND FIRST AID PROCEDURE**

<b>EYE CONTACT</b>	If this product comes in contact with the eyes, flush with large quantities of water for at least 15 minutes and seek immediate medical attention.
<b>SKIN CONTACT</b>	If this product comes in contact with the skin, wash with soap and large quantities of water and seek medical attention if irritation from contact persists.
<b>INHALATION</b>	If breathing difficulties, headaches, dizziness, or lightheadedness occur when working in areas with high vapor concentrations, victim should seek air free of vapors. If victim experiences continued breathing difficulties, administer oxygen until medical assistance can be rendered. If breathing stops, begin artificial respiration and seek medical attention.
<b>INGESTION</b>	If this product is swallowed, <b>DO NOT INDUCE VOMITING.</b> Seek immediate medical advice and/or attention.

**PHYSIOLOGICAL EFFECTS AND HEALTH INFORMATION**

<b>EYE EFFECTS</b>	This product may be an eye irritant. Tearing and redness may occur.
<b>SKIN EFFECTS</b>	This product may cause skin irritation upon prolonged or repeated contact.
<b>SYSTEMIC EFFECTS</b>	<p><b>VARIOUS STUDIES HAVE SHOWN A POSSIBLE ASSOCIATION WITH EXPOSURE TO THIS PRODUCT AND THE FOLLOWING:</b></p> <p>Respiratory tract irritation.</p> <p>Central nervous system depression in high concentrations.</p> <p>Nausea and vomiting.</p> <p><b>NOTE: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OVER-EXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.</b></p> <p>SOLVENT MAY CAUSE KIDNEY OR LIVER DAMAGE.</p>

**BEST AVAILABLE COPY**  
**MATERIAL SAFETY DATA SHEET**

(Approved by U.S. Department of Labor "Essentially Similar" to Form LSB-005-4)

NPVLA 6-7.

CATALOG 2151

**Section I**

**MANUFACTURER'S NAME**  
 Devoe & Reynolds Company

**STREET ADDRESS**  
 4000 Dupont Circle

**CITY, STATE, AND ZIP CODE**  
 Louisville, Kentucky 40207

**EMERGENCY TELEPHONE NO.**  
 502-897-9861

**CHEMICAL NAME AND SYNONYMS**  
 N. A. (Paint)

**CHEMICAL FAMILY**  
 Alkyd Resin Flat Wall Paint

**TRADE NAME**  
 Velour® Flat Alkyd Enamel, Medium Tint Base

**FORMULA**  
 N. A.

**Section II - HAZARDOUS INGREDIENTS**

PAINTS, PRESERVATIVES, & SOLVENTS

INGREDIENTS	%	TLV (Units)	SOLVENTS	%	TLV (Units)
			Mineral Spirits	35	500
			ADDITIVES		
			OTHERS		
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)

**Section III - PHYSICAL DATA**

BOILING POINT (°F.)	310-410	SPECIFIC GRAVITY (M <sub>2</sub> O=1)	1.31
VAPOR PRESSURE (mm Hg.)	3	PERCENT VOLATILE BY VOLUME (%)	58.7
DENSITY (AIR=1)	3.9	EVAPORATION RATE (Bu. Acetate=1)	0.16
SOLUBILITY IN WATER	Negligible		
APPEARANCE AND ODOR	White Paint with mineral spirits odor		

**Section IV - FIRE AND EXPLOSION HAZARD DATA**

**FLASH POINT (METHOD USED):** 105° (Tag Closed Cup)

**EXTINGUISHING MEDIA:** Carbon Dioxide, Dry Chemical or Foam

**SPECIAL FIRE FIGHTING PROCEDURES:** None

**FLAMMABLE LIMITS:** Lc: 1.1, Ue: 6.0

**Section V - HEALTH HAZARD DATA**

THRESHOLD LIMIT VALUE  
Refer to Section II.

EFFECTS OF OVEREXPOSURE  
Prolonged breathing of concentrated vapors may cause headache, drowsiness, dizzy feeling, nausea, vomiting and irritation of respiratory tract.

AGENCY AND FIRST AID PROCEDURES

Inhalation - Remove to fresh air; keep quiet, warm and lying flat; consult physician if discomfort persists.

**Section VI - REACTIVITY DATA**

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Avoid heat, sparks and fire

INCOMPATIBILITY (Materials to avoid)

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS CHARACTERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	Avoid storing paint-soaked rags in open containers as spontaneous combustion may occur

**Section VII - SPILL OR LEAK PROCEDURES**

ACTIONS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED  
Check immediate area to remove any potential ignition sources. Soak up spill on sawdust or other absorbent solid and store in a closed, metal container until this waste can be properly disposed.

DISPOSAL METHOD  
by in a landfill.

**Section VIII - SPECIAL PROTECTION INFORMATION**

WORK AREA PROTECTION (Specify type)  
supply mask if working in a warm, unventilated, confined area.

RESPIRATORY PROTECTION	LOCAL EXHAUST	Acceptable if vapor concentrations are maintained below LEL & TLV levels.	SPECIAL
	MECHANICAL (General)		OTHER

PROTECTIVE GLOVES required  
EYE PROTECTION Safety goggles helpful, especially for spray application.

ADDITIONAL PROTECTIVE EQUIPMENT

**Section IX - SPECIAL PRECAUTIONS**

ACTIONS TO BE TAKEN IN HANDLING AND STORING  
Keep away from high temperature sources and eliminate all ignition sources such as flame, sparks and resistance heating wires in storage area.

ADDITIONAL PRECAUTIONS  
Promptly dispose of rags or other combustible adsorbents used to clean up spills. Store paint-soaked rags temporarily, if necessary, in closed, metal containers to prevent spontaneous combustion.

## DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

## APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Carpenter Shop  New<sup>1</sup>  Existing<sup>1</sup>

APPLICATION TYPE:  Construction  Operation  Modification

COMPANY NAME: Lake Buena Vista Communities, Inc. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime  
Buena Vista Villages  
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Carpenter Shop

SOURCE LOCATION: Street 1851 Community Drive City Lake Buena Vista

UTM: East 448313 North 3139506

Latitude 28° 22' 57" N Longitude 81° 31' 34" W

APPLICANT NAME AND TITLE: Lake Buena Vista Communities, Inc.

APPLICANT ADDRESS: P. O. Box 10,000, Lake Buena Vista, Florida 32830

## SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

## A. APPLICANT

I am the undersigned owner or authorized representative\* of Lake Buena Vista Communities, Inc.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: Lauren H. James  
Lauren H. James, Dir., Lake Buena Vista Communities, Inc.  
Name and Title (Please Type)

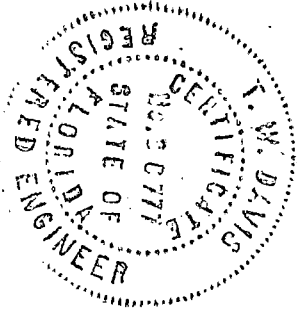
Date: 10/21/88 Telephone No. (407) 934-7256

## B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

<sup>1</sup> See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Thomas W. Davis

Thomas W. Davis  
Name (Please Type)

Hunter/Environmental Science and Engineering  
Company Name (Please Type)

P. O. Box 1703, Gainesville, FL 32602  
Mailing Address (Please Type)

Florida Registration No. 36777 Date: 10/13/88 Telephone No. (904)332-3318

**SECTION II: GENERAL PROJECT INFORMATION**

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Installation of carpenter shop with sawdust collection cyclone, Stern Model CVA 3620 D dust collector. Carpenter shop will be used to manufacture custom equipment and accessories.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction October 1988 Completion of Construction December 1988

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Approximately \$7,000.00

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

None

Requested permitted equipment operating time: hrs/day 16 ; days/wk 5 ; wks/yr 52 ;  
if power plant, hrs/yr \_\_\_\_\_ ; if seasonal, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

F. If this is a new source or major modification, answer the following questions.  
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO
  - a. If yes, has "offset" been applied? \_\_\_\_\_
  - b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_
  - c. If yes, list non-attainment pollutants. \_\_\_\_\_
2. Does best available control technology (BACT) apply to this source?  
If yes, see Section VI. NO
3. Does the State "Prevention of Significant Deterioration" (PSD)  
requirement apply to this source? If yes, see Sections VI and VII. NO
4. Do "Standards of Performance for New Stationary Sources" (NSPS)  
apply to this source? NO
5. Do "National Emission Standards for Hazardous Air Pollutants"  
(NESHAP) apply to this source? NO

- H. Do "Reasonably Available Control Technology" (RACT) requirements apply  
to this source? NO
- a. If yes, for what pollutants? \_\_\_\_\_
  - b. If yes, in addition to the information required in this form,  
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-  
cation for any answer of "No" that might be considered questionable.



**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

**A. Raw Materials and Chemicals Used in your Process, if applicable:**

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Wood (Solid spruce, fir plywood, miscellaneous hardwoods and pines)	Particulate	100		

**B. Process Rate, if applicable: (See Section V, Item 1)**

1. Total Process Input Rate (lbs/hr): N/A
2. Product Weight (lbs/hr): N/A

**C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)**

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Rule 17-2	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Particulates	0.01	0.02			4,160	2.08	

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Stern Model CVA	Particulate	99%	N/A	Manufacturer's specification
3620 B Cyclone Dust Collector				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
N/A			

\*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average \_\_\_\_\_ Maximum \_\_\_\_\_

G. Indicate liquid or solid wastes generated and method of disposal.

Sawdust is disposed of in an approved solid waste landfill.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 12 ft. Stack Diameter: 1.33 ft.  
 Gas Flow Rate: ACFM 6,000 DSCFM Gas Exit Temperature: Ambient °F.  
 Water Vapor Content: Ambient % Velocity: 75.38 FPS

SECTION IV: INCINERATOR INFORMATION

NOT APPLICABLE

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ day/wk \_\_\_\_\_ wks/yr. \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity: \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  
 Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

**SECTION V: SUPPLEMENTAL REQUIREMENTS**

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]  
  
To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

NOT APPLICABLE

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- C. What emission levels do you propose as best available control technology?

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- D. Describe the existing control and treatment technology (if any).

1. Control Device/System:

2. Operating Principles:

3. Efficiency:\*

4. Capital Costs:

\*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height:

ft.

b. Diameter:

ft.

c. Flow Rate:

ACFM

d. Temperature:

°F.

e. Velocity:

FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

f. Describe the control technology selected:

1. Control Device:

2. Efficiency:<sup>1</sup>

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:<sup>2</sup>

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate:<sup>1</sup>

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate:<sup>1</sup>

10. Reason for selection and description of systems:

<sup>1</sup>Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

**SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION**

NOT APPLICABLE

**A. Company Monitored Data**

1. \_\_\_\_\_ no. sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sub>2</sub>\* \_\_\_\_\_ Wind spd/dir

Period of Monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

Other data recorded \_\_\_\_\_

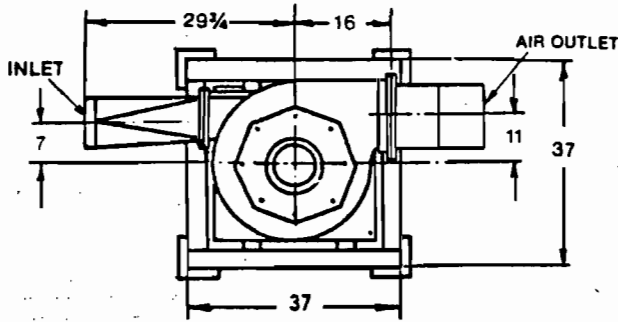
Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).

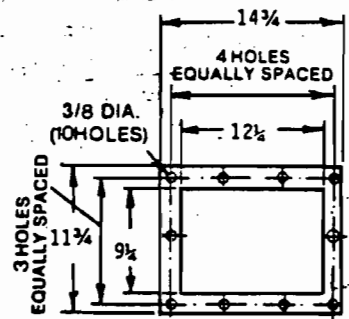




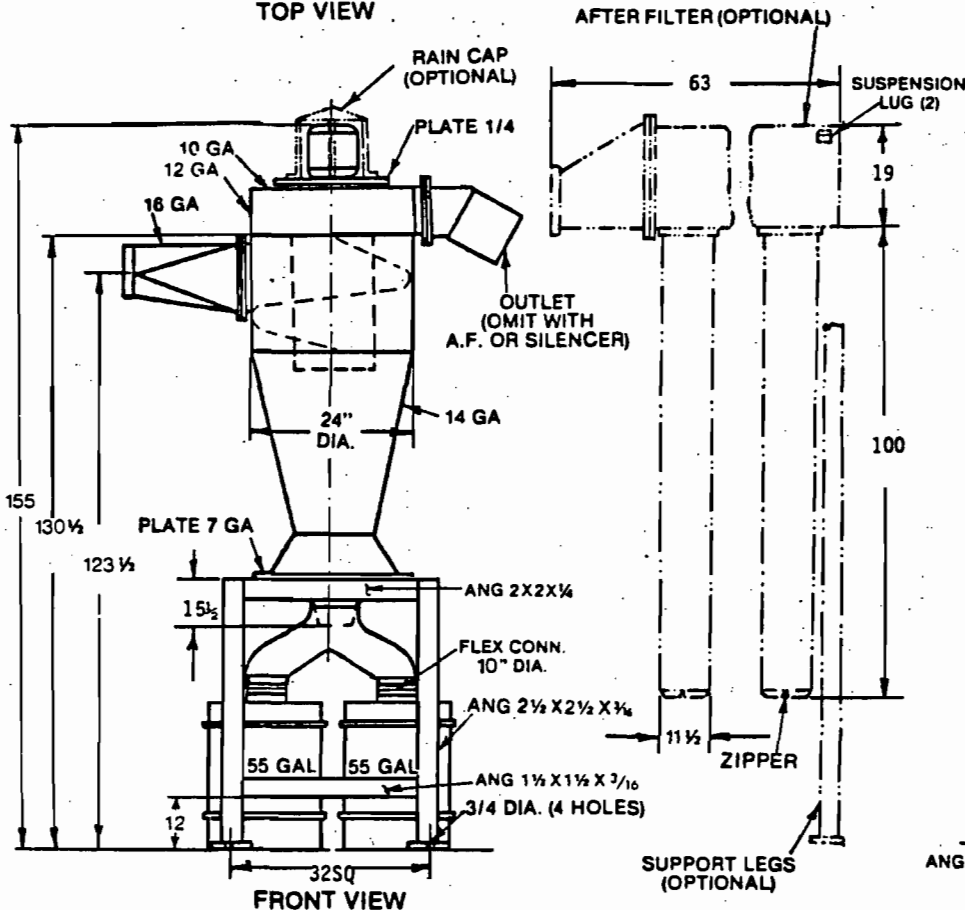
JCB NO.



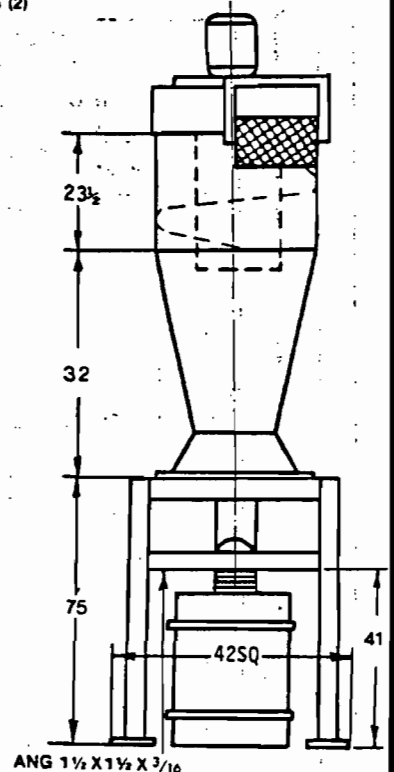
TOP VIEW



BLOWER FLANGE



FRONT VIEW



SIDE VIEW

MULTIPLE RATING TABLES

MODEL CYA 2407				MODEL				MODEL			
7 1/2 HP	CFM.	EXT. SP.	INLET VEL.	HP	CFM.	EXT. SP.	INLET VEL.	HP	CFM.	EXT. SP.	INLET VEL.
	1950	12.2	3577								
INLET 10" DIA	2460	10.2	4514	INLET "DIA				INLET "DIA			
	3500	5.5	6422								

SPECIFICATION

1. MOTOR: 3450 RPM, 230/460V, 3 PH, 60 HZ, TEFC
2. STD. FINISH: EXTERIOR RED OXIDE PRIMER & ONE COAT GRAY ENAMEL
3. SHIPPING WEIGHT 750 LBS.

NOTES

1. 6" CLEARANCE REQ. ABOVE MOTOR
2. INLET CAN BE ROTATED AT 90° INCREMENTS IN FIELD.
3. OUTLET CAN BE ROTATED AT 45° INCREMENTS IN FIELD.
4. THIS DRAWING NOT CERTIFIED FOR CONSTRUCTION PURPOSES UNLESS SIGNED BY STERNVENT ENG. DEPT.

OPTIONS

1. AFTER FILTER 150 SQ. FT.\*
2. SILENCER
3. RAINCAP
4. SINGLE PHASE TO 7.5 HP
5. SPECIAL PAINT
6. 12" DIAMETER AIR OUTLET

\*Additional filter area may be required for some applications. Dust drawer, hopper & enclosure available.

CERTIFIED \_\_\_\_\_ DATE \_\_\_\_\_



**STERNVENT CO. INC.**  
BROOKLYN, N.Y. 11231

SPECIFICATION DRAWING  
MODEL CYA 2407  
CYCLONE DUST COLLECTOR

DWN V.5  
29.01.82

STYLE A

REV B

DRWG NO 2404

MODIFICATION'S:

WALT DISNEY WORLD VILLAGE  
CARPENTER SHOP DUST CONTROL

COLLECTION CHART

ITEM	DESCRIPTION	CFM	DUCT
1	Cut Off Saw	350	4"
2	Band Saw	250	3"
3	Spindel Saw	550	5"
4	Jointer	650	6"
5	Radial Arm Saw	350	4"
6	18" Planer	775	6"
7	16" Disc Sander	550	5"
8	Shaper	550	5"
9	10" Table Saw	550	5"
10	16" Table Saw	550	5"
11	24" Planer	1100	7"
12	1" Band Saw	350	4"
13	Reclaimer	350	4"
		<hr/>	
	TOTAL	6925	

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Paint Spray Booth  New<sup>1</sup>  Existing<sup>1</sup>  
APPLICATION TYPE:  Construction  Operation  Modification  
COMPANY NAME: Walt Disney World Co. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime  
Caribbean Beach Resort  
Kila No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Paint Spray Booth

SOURCE LOCATION: Street Cayman Way and Lake Buena Vista Drive City Lake Buena Vista  
UTM: East 444313 North 3137578  
Latitude 28 ° 21 ' 55 "N Longitude 81 ° 32 ' 49 "W

APPLICANT NAME AND TITLE: Walt Disney World Co.  
APPLICANT ADDRESS: P. O. Box 10,000, Lake Buena Vista, Florida 32830

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Walt Disney World Co.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: *L. H. James*  
Lauren H. James, Dir., Lake Buena Vista Communities, Inc.  
Name and Title (Please Type)

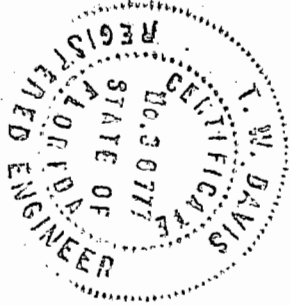
Date: 10/21/88 Telephone No. (407) 934-7256

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

<sup>1</sup> See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Thomas W. Davis

Thomas W. Davis  
Name (Please Type)

Hunter/Environmental Science and Engineering  
Company Name (Please Type)

P. O. Box 1703, Gainesville, FL 32602  
Mailing Address (Please Type)

Florida Registration No. 36777 Date: 10/13/88 Telephone No. (904)332-3318

**SECTION II: GENERAL PROJECT INFORMATION**

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Installation of paint spray booth, JBI Model DB-1210-5.  
Booth to be used for spray coating a variety of miscellaneous objects, including  
furniture and trash cans.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction October 1988 Completion of Construction December 1988

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Approximately \$1,000.00

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

None

Requested permitted equipment operating time: hrs/day 16 ; days/wk 5 ; wks/yr 52 ;  
if power plant, hrs/yr \_\_\_\_\_ ; if seasonal, describe: \_\_\_\_\_

F. If this is a new source or major modification, answer the following questions.  
(Yes or No)

- 1. Is this source in a non-attainment area for a particular pollutant? NO
  - a. If yes, has "offset" been applied? \_\_\_\_\_
  - b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_
  - c. If yes, list non-attainment pollutants. \_\_\_\_\_
- 2. Does best available control technology (BACT) apply to this source? NO  
If yes, see Section VI.
- 3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. NO
- 4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? NO
- 5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? NO

- H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? NO
- a. If yes, for what pollutants? \_\_\_\_\_
  - b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

Note: No RACT guidelines exist for the variety of objects being painted. Specifically, Rule 17-2.650(1)(F)14., F.A.C., Surface Coating of Miscellaneous Parts and Products is not applicable.

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

**A. Raw Materials and Chemicals Used in your Process, if applicable:**

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Alkyd Enamel	VOC	59	3.17	
Lacquer	VOC	85	0.89	

**B. Process Rate, if applicable: (See Section V, Item 1)**

1. Total Process Input Rate (lbs/hr): N/A
2. Product Weight (lbs/hr): N/A

**C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)**

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Rule 17-2	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
VOC	7.88	5.46			10,927	5.46	
Particulate	0.61	0.42			16,890	8.45	

<sup>1</sup>See Section V, Item 2. See Attachment A for calculations.

<sup>2</sup>Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
JBI Booth Model DB-1210-5	Particulate	95%	N/A	Manufacturer's specification
with Andraea type paint arrestors for exhaust	Contains 16 filters each 20" x 20" for a total filter area of		45 ft <sup>2</sup>	

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
N/A			

\*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average \_\_\_\_\_ N/A \_\_\_\_\_ Maximum \_\_\_\_\_ N/A \_\_\_\_\_

G. Indicate liquid or solid wastes generated and method of disposal.

Liquid waste paint will be collected and disposed of through Walt Disney World Co.'s  
azardous waste handling system.



H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 25 ft. Stack Diameter: 2.83 ft.  
 Gas Flow Rate: ACFM 5,000 DSCFM Gas Exit Temperature: Ambient °F.  
 Water Vapor Contents: Ambient % Velocity: 13.3 FPS

SECTION IV: INCINERATOR INFORMATION

NOT APPLICABLE

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ day/wk \_\_\_\_\_ wks/yr. \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity: \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  
 Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

#### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]  
To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

NOT APPLICABLE

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- C. What emission levels do you propose as best available control technology?

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- D. Describe the existing control and treatment technology (if any).

1. Control Device/System:

2. Operating Principles:

3. Efficiency:\*

4. Capital Costs:

\*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height:

ft.

b. Diameter:

ft.

c. Flow Rate:

ACFM

d. Temperature:

°F.

e. Velocity:

FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:<sup>1</sup>

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:<sup>2</sup>

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate:<sup>1</sup>

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate:<sup>1</sup>

10. Reason for selection and description of systems:

<sup>1</sup>Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

NOT APPLICABLE SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. \_\_\_\_\_ no. sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sub>2</sub> \_\_\_\_\_ Wind spd/dir

Period of Monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).



## ATTACHMENT A

## WDW-32

## (1) Basic Equation for VOC Emission Calculation

$$E = \sum_{i=1}^{n=i} U_i \times V_i \times 80 \text{ hrs/week} \times 52 \text{ weeks/year}$$

where:  $U_i$  = utilization rate of material  $i$   
 $V_i$  = percent VOC of material  $i$  (by weight if available,  
 otherwise, by volume)  
 $n$  = the number of different materials sprayed in this  
 emission source

## (2) Calculations

Substance  $i = 1$ , Alkyd Enamel

$$\begin{aligned} E_1 &= 3.17 \text{ lbs/hr} \times 0.59 \times 80 \text{ hrs/week} \times 52 \text{ weeks/year} \\ &= 7,780 \text{ lbs/year} \end{aligned}$$

Substance  $i = 2$ , Lacquer

$$\begin{aligned} E_2 &= 0.89 \text{ lbs/hr} \times 0.85 \times 80 \text{ hrs/week} \times 52 \text{ weeks/year} \\ &= 3,147 \text{ lbs/year} \end{aligned}$$

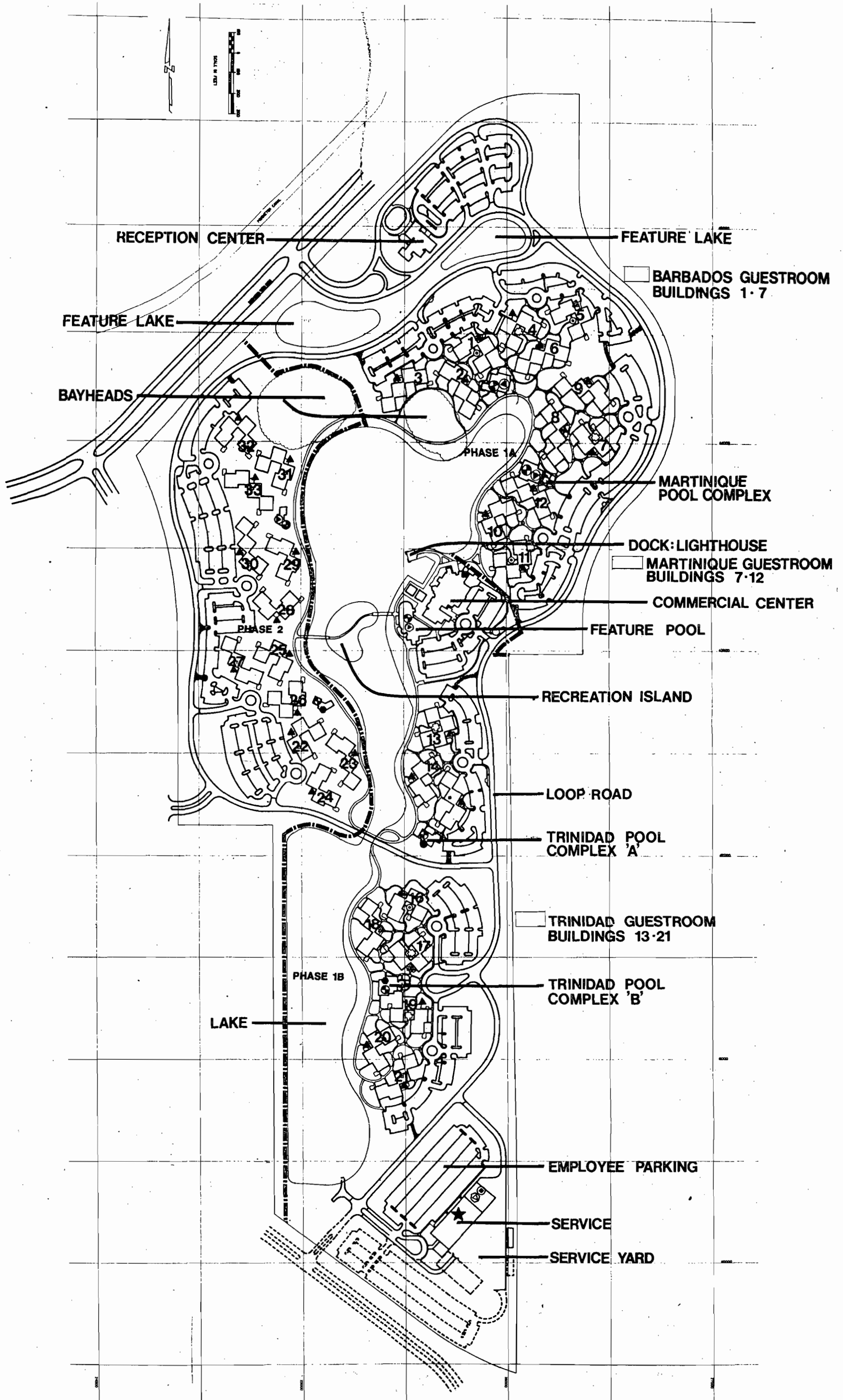
Total Emission  $E$  (Potential and Actual)

$$\begin{aligned} E &= \sum_{i=1}^2 E_i = 7,780 \text{ lbs/year} + 3,147 \text{ lbs/year} \\ &= 10,927 \text{ lbs/year} \div 5.46 \text{ tons/year} \end{aligned}$$

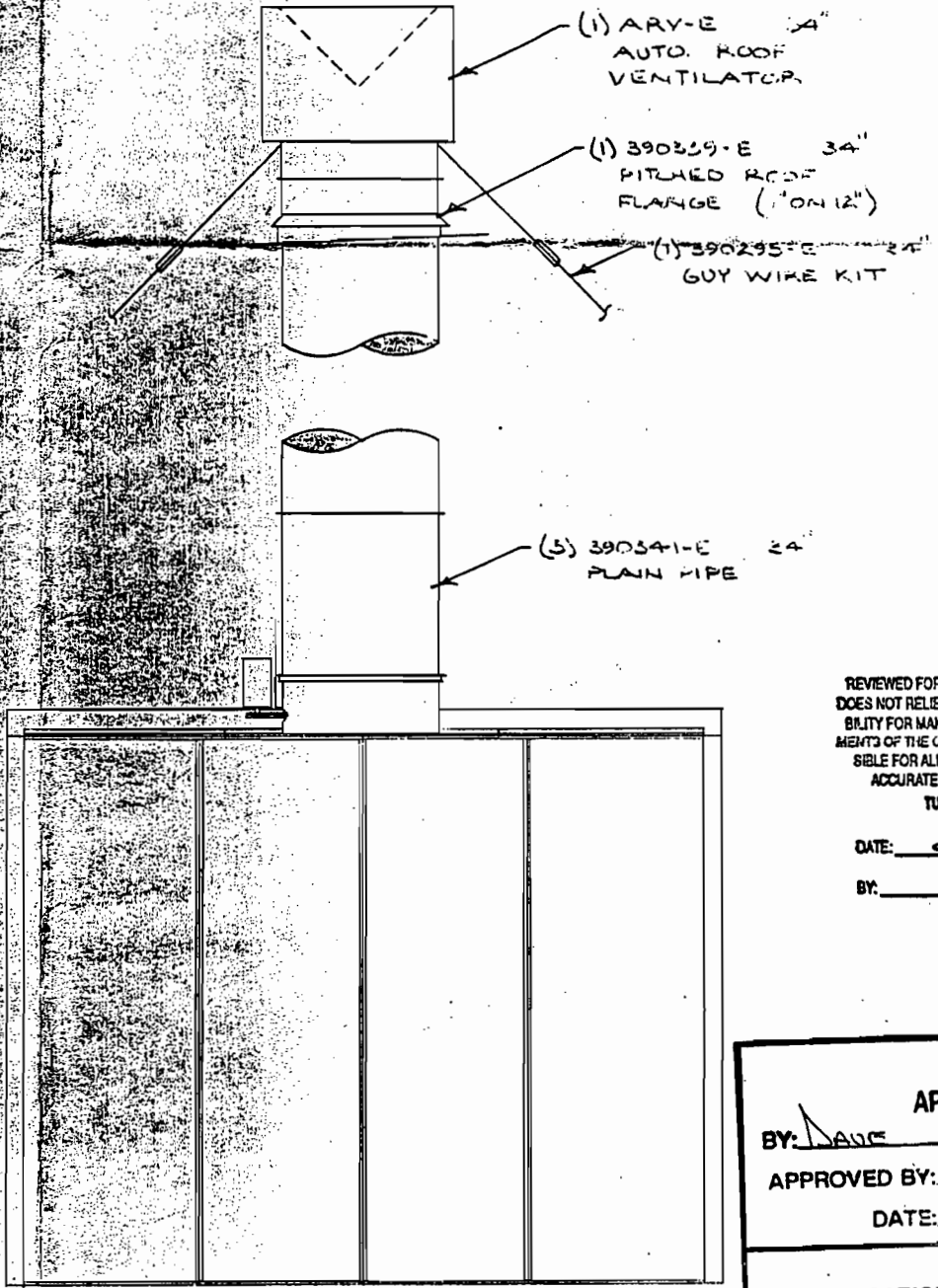
Maximum Emission  $E_m$

$$\begin{aligned} E_m &= 10,927 \text{ lbs/year} \div 80 \text{ hrs/week} \div 52 \text{ weeks/year} \times 3 \\ &= 7.88 \text{ lbs/hr} \end{aligned}$$





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TURNER  
MAY 31 1988  
RECEIVED

REVIEWED FOR GENERAL ACCEPTANCE ONLY. THIS REVIEW DOES NOT RELIEVE THE SUBCONTRACTOR OF THE RESPONSIBILITY FOR MAKING THE WORK CONFORM TO THE REQUIREMENTS OF THE CONTRACT. THE SUBCONTRACTOR IS RESPONSIBLE FOR ALL DIMENSIONS, CORRECT FABRICATION AND ACCURATE FIT WITH THE WORK OF OTHER TRADES.  
TURNER CONSTRUCTION COMPANY

DATE: 5/31/88  
BY: GR

J.B.I. INC.  
APPROVAL PRINT  
BY: DAVE DATE: 5/26/88  
APPROVED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

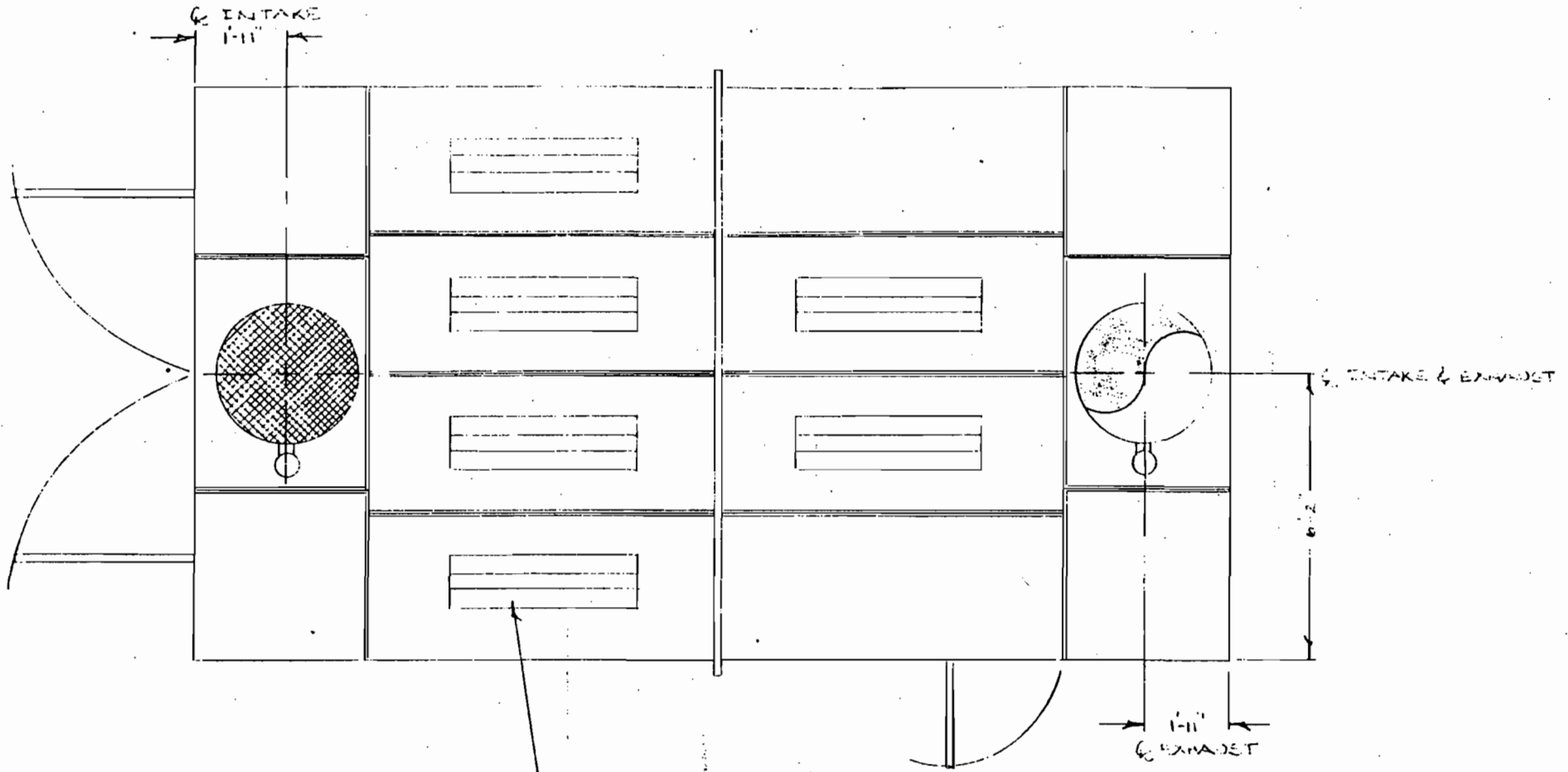
**IMPORTANT:**  
FABRICATION WILL NOT START UNTIL  
6-8 WEEKS AFTER PRINT IS RETURNED.

BACK ELEVATION

5/24/88

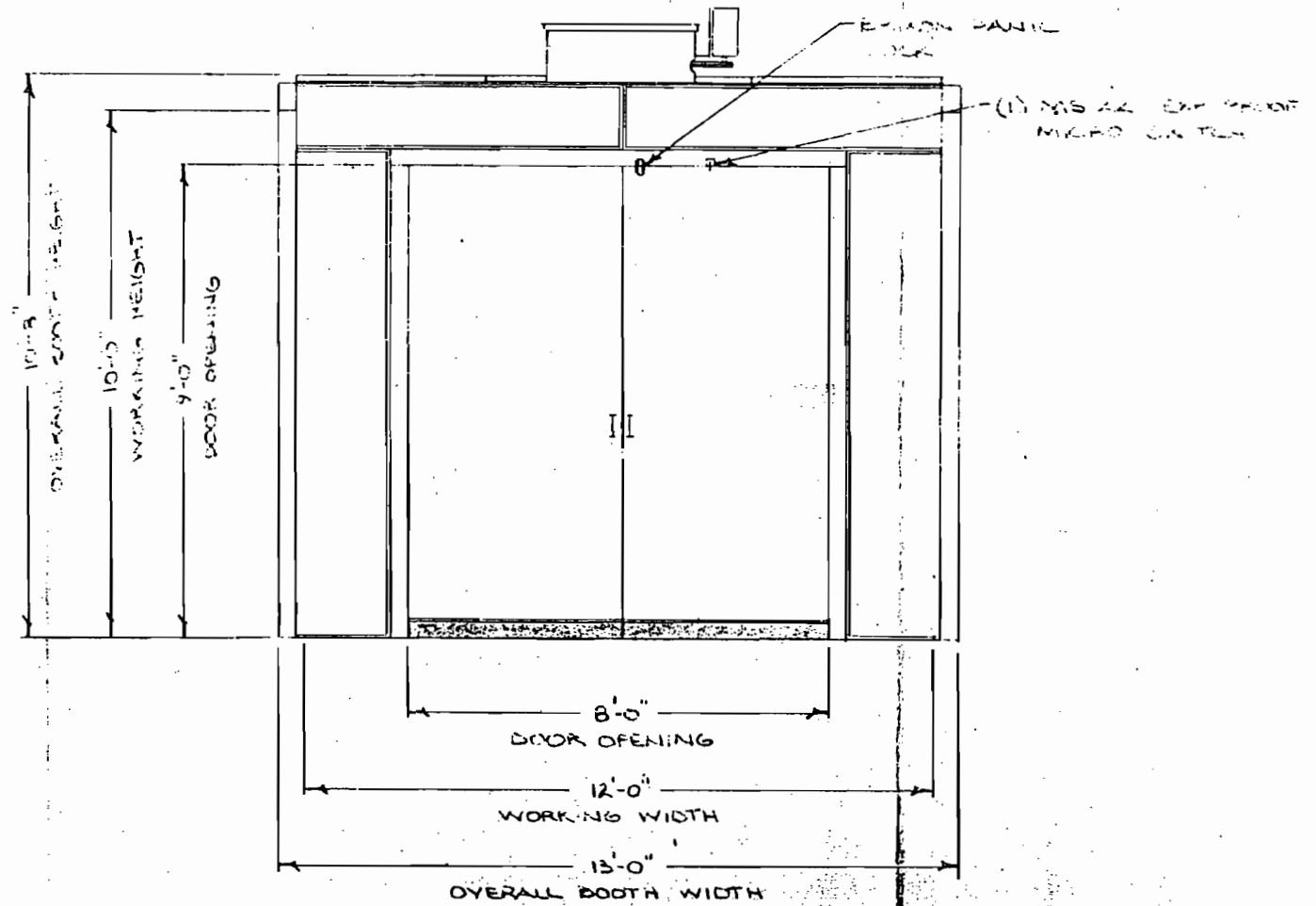
**JBI**  
SPRAY BOOTHS AND SYSTEMS  
OSSAHO, WI  
THIS DRAWING IS THE PROPERTY OF J. B. I. INC. AND IS NOT TO BE LOANED, COPIED, OR DUPLICATED IN ANY MANNER WITHOUT PERMISSION

FOR			
TURNER CONSTRUCTION			
TITLE			
DB-1210-S			
DRAWN	SCALE	SHEET	DRAWING NUMBER
<u>[Signature]</u>	$\frac{3}{8}'' = 1'-0''$	1 OF	110738
APP'D.	DATE		
	5-26-88		



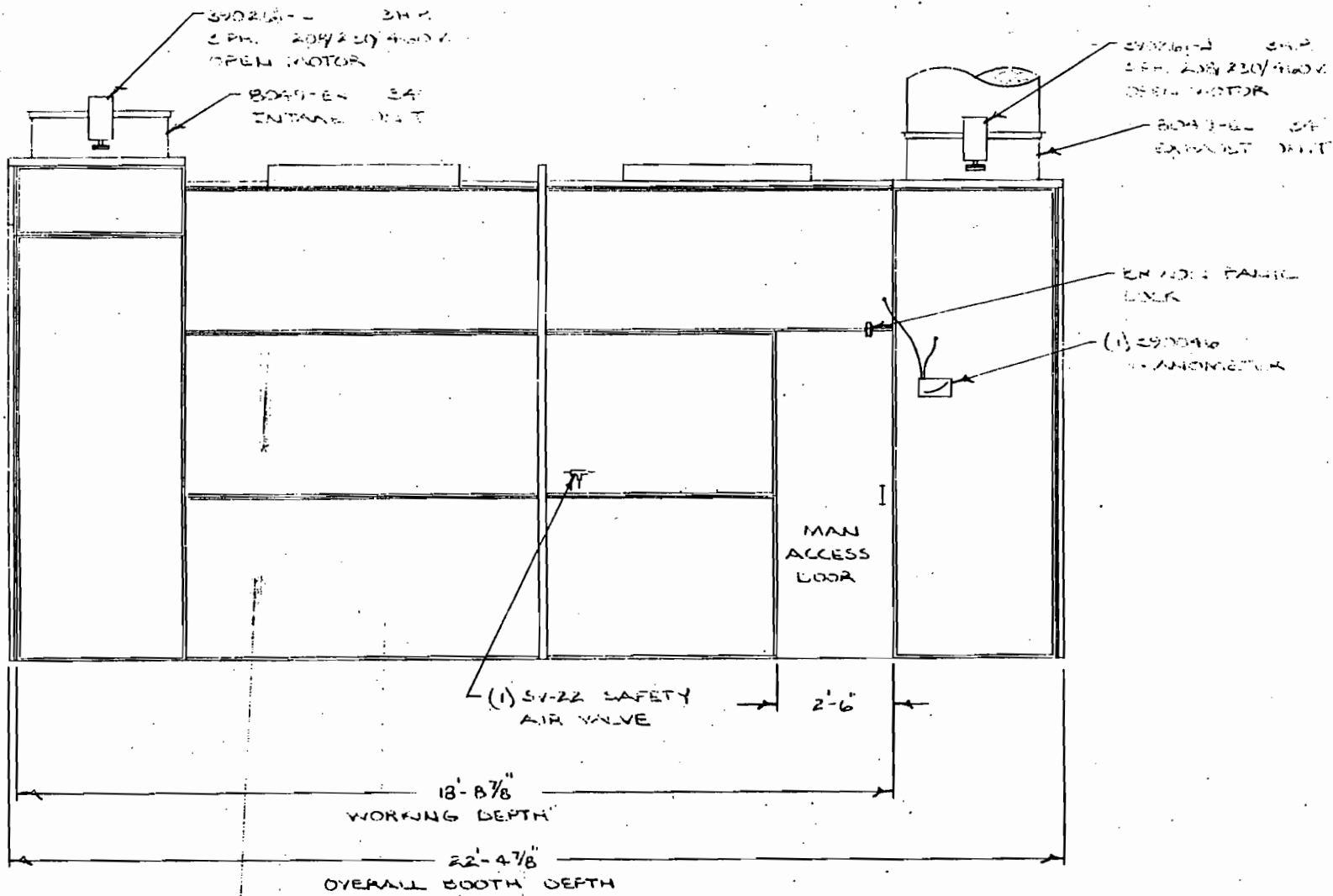
(10) 390240 48" ATJSE  
CLASS I, DIV. II 110V.  
FLUORESCENT LIGHT  
FIXTURES (LESS TUBES)

PLAN VIEW



FRONT ELEVATION

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SIDE ELEVATION

REDRAWN 5/23/88

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**MATERIAL SAFETY DATA SHEET**  
 (Approved by U.S. Department of Labor "Essentially Similar" to Form LSB-00S-4)

NPVLA 6-70

CATALOG 2151

**Section I**

**MANUFACTURER'S NAME**  
 Devoe & Reynolds Company

**STREET ADDRESS**  
 4000 Dupont Circle

**CITY, STATE, AND ZIP CODE**  
 Louisville, Kentucky 40207

**EMERGENCY TELEPHONE NO.**  
 502-897-9861

<b>CHEMICAL NAME AND SYNONYMS</b> N. A. (Paint)	<b>TRADE NAME</b> Velour® Flat Alkyd Enamel, Medium Tint Base
<b>CHEMICAL FAMILY</b> Alkyd Resin Flat Wall Paint	<b>FORMULA</b> N. A.

**Section II - HAZARDOUS INGREDIENTS**

PAINTS, PRESERVATIVES, & SOLVENTS

INGREDIENTS	%	TLV (Units)	SOLVENTS	%	TLV (Units)
			Mineral Spirits	35	500
			ADDITIVES		
			OTHERS		
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)

**Section III - PHYSICAL DATA**

BOILING POINT (°F.)	310-410	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.31
VAPOR PRESSURE (mm Hg.)	3	PERCENT VOLATILE BY VOLUME (%)	58.7
DENSITY (AIR=1)	3.9	EVAPORATION RATE (Bu. Acetate=1)	0.16
SOLUBILITY IN WATER	Negligible		
APPEARANCE AND ODOR	White Paint with mineral spirits odor		

**Section IV - FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT (METHOD USED)	FLAMMABLE LIMITS	Lo.	Hi.
105° (Tag Closed Cup)		1.1	6.0
SMOTHERING MEDIA			
Carbon Dioxide, Dry Chemical or Foam			
SPECIAL FIRE FIGHTING PROCEDURES			
None			

THRESHOLD LIMIT VALUE  
Refer to Section II.

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EFFECTS OF OVEREXPOSURE  
Prolonged breathing of concentrated vapors may cause headache, drowsiness, dizzy feeling, nausea, vomiting and irritation of respiratory tract.

EMERGENCY AND FIRST AID PROCEDURES  
Inhalation - Remove to fresh air; keep quiet, warm and lying flat; consult physician if discomfort persists.

Section VI - REACTIVITY DATA

REACTIVITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Avoid heat, sparks and fire

DECOMPOSITION PRODUCTS  
None

SPONTANEOUS OXIDIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	Avoid storing paint-soaked rags in open containers as spontaneous combustion may occur

Section VII - SPILL OR LEAK PROCEDURES

TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED  
Check immediate area to remove any potential ignition sources. Soak up spill on sawdust or other absorbent solid and store in a closed, metal container until this waste can be properly disposed.

DISPOSAL METHOD  
by in a landfill.

Section VIII - SPECIAL PROTECTION INFORMATION

WORK PROTECTION (Specify type)  
supply mask if working in a warm, unventilated, confined area.

RESPIRATORY PROTECTION	LOCAL EXHAUST	Acceptable if vapor concentrations are maintained below LEL & TLV levels.	SPECIAL
	MECHANICAL (General)		OTHER

PROTECTIVE GLOVES  
required

EYE PROTECTION Safety goggles helpful, especially for spray application.

ADDITIONAL PROTECTIVE EQUIPMENT

Section IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING  
Keep away from high temperature sources and eliminate all ignition sources such as flame, sparks and resistance heating wires in storage area.

ADDITIONAL PRECAUTIONS  
Promptly dispose of rags or other combustible adsorbents used to clean up spills. Store paint-soaked rags temporarily, if necessary, in closed, metal containers to prevent spontaneous combustion.







## Section V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE SEE HAZARDOUS INGREDIENTS SECTION II

## EFFECTS OF OVEREXPOSURE

In a confined area vapors in high concentration are anesthetic.  
 ACUTE Irritant to skin and upper respiratory system. Overexposure may result in lightheadedness and staggering gait.

## CHRONIC

## EMERGENCY AND FIRST AID PROCEDURES

Remove from exposure. Restore breathing. Keep warm and quiet. If contact with eyes is made, flush with copious quantities of water for 15 minutes. For skin contact, wash affected area with water. Remove contaminated clothing and wash before reuse.

## Section VI - REACTIVITY DATA

STABILITY  UNSTABLE  STABLE

CONDITIONS TO AVOID

INCOMPATIBILITY: Materials to avoid:

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen

HAZARDOUS POLYMERIZATION  MAY OCCUR  WILL NOT OCCUR

CONDITIONS TO AVOID

## Section VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

## Section VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

If engineering and administrative controls of air contaminants are not feasible, use respiratory devices approved by NIOSH/MESA for protection against spray mist and vapors.

VENTILATION

Local exhaust preferable. Mechanical (general) exhaust acceptable. Special ventilation required to keep below TLV and LEL.

PROTECTIVE GLOVES

Required for prolonged or repeated contact.

EYE PROTECTION

Safety spectacles with unperforated sideshields.

OTHER PROTECTIVE EQUIPMENT

## Section IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

DOT STORAGE CATEGORY Contents are flammable. Keep away from heat, sparks, and open flame.

OTHER PRECAUTIONS  
 1B During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition. Harmful or fatal if swallowed. If swallowed do not induce vomiting. Call physician at once. Avoid breathing vapor and spray mist. Use only with adequate ventilation. Avoid contact with skin and eyes. Wash hands after using. If spilled on clothes, remove clothing and launder before reusing. Keep container closed when not in use. Do not transfer contents to other containers for storage. Do not take internally. Keep out of the reach of children. Consult NFPA Code. Use approved Bonding and Grounding procedures.

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Natural Gas Fired Boiler  New<sup>1</sup>  Existing<sup>1</sup>

APPLICATION TYPE:  Construction  Operation  Modification

COMPANY NAME: Walt Disney World Co. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime  
Caribbean Beach Resort  
Kila No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Service Building Boiler

SOURCE LOCATION: Street Cayman Way and Lake Buena Vista Drive City Lake Buena Vista

UTM: East 444313 North 2137578

Latitude 28° 21' 55" N Longitude 81° 32' 49" W

APPLICANT NAME AND TITLE: Walt Disney World Co.

APPLICANT ADDRESS: P. O. Box 10,000, Lake Buena Vista, Florida 32830

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Walt Disney World Co.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: *Lauren H. James*

Lauren H. James, Dir., Lake Buena Vista Communities  
Name and Title (Please type)

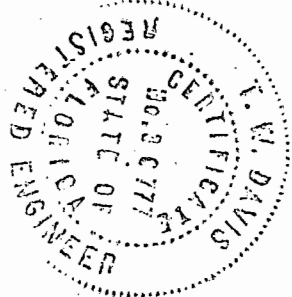
Date: 10/21/88 Telephone No. (407)934-7256

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

<sup>1</sup> See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Thomas W. Davis

Thomas W. Davis  
Name (Please Type)

Hunter/Environmental Science and Engineering  
Company Name (Please Type)

P. O. Box 1703, Gainesville, FL 32602  
Mailing Address (Please Type)

Florida Registration No. 36777 Date: 10/13/88 Telephone No. (904)332-3318

**SECTION II: GENERAL PROJECT INFORMATION**

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Installation of a hot water boiler (PVI Model 1500-2 NV 250TP) to provide space heat and domestic hot water to the Caribbean Beach Resort Service Building. The boiler will be natural gas fired. No pollution control equipment will be installed.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction October 1988 Completion of Construction December 1988

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

None

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

None

Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;  
if power plant, hrs/yr \_\_\_\_\_ ; if seasonal, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

F. If this is a new source or major modification, answer the following questions.  
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO
  - a. If yes, has "offset" been applied? \_\_\_\_\_
  - b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_
  - c. If yes, list non-attainment pollutants. \_\_\_\_\_
2. Does best available control technology (BACT) apply to this source? NO  
If yes, see Section VI.
3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. NO
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? NO
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? NO

- H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? NO
- a. If yes, for what pollutants? \_\_\_\_\_
  - b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

**A. Raw Materials and Chemicals Used in your Process, if applicable**

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
N/A				

**B. Process Rate, if applicable: (See Section V, Item 1)**

1. Total Process Input Rate (lbs/hr): N/A

2. Product Weight (lbs/hr): N/A

**C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)**

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Rule 17-2	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
SO <sub>2</sub>	0.0007	0.003			0.0007	0.003	
PM	0.006	0.026			0.006	0.026	
NO <sub>x</sub>	0.120	0.526			0.120	0.526	
CO	0.024	0.105			0.024	0.105	
VOC	0.006	0.028			0.006	0.028	

<sup>1</sup>See Section V, Item 2. See Table 1 for emission factors.

<sup>2</sup>Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
None				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	1,200 Ft <sup>3</sup> /hr	1,200 ft <sup>3</sup> /hr	1,200,000 Btu/hr

\*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average 50% Maximum 50%

G. Indicate liquid or solid wastes generated and method of disposal.

None

**H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):**

Stack Height: 25 ft. Stack Diameter: 1 ft.  
 Gas Flow Rate: ACFM 270 DSCFM Gas Exit Temperature: 250 °F.  
 Water Vapor Content: N/A % Velocity: 2.9 FPS

**SECTION IV: INCINERATOR INFORMATION**

NOT APPLICABLE

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lb/hr)							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lb/hr) \_\_\_\_\_ Design Capacity (lb/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ day/wk \_\_\_\_\_ wks/yr. \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity: \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  
 Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

#### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]  
To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.



9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI, BEST AVAILABLE CONTROL TECHNOLOGY**

NOT APPLICABLE

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

- B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

- C. What emission levels do you propose as best available control technology?

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

- D. Describe the existing control and treatment technology (if any).

1. Control Device/System:

2. Operating Principles:

3. Efficiency:\*

4. Capital Costs:

\*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft.
- b. Diameter: ft.
- c. Flow Rate: ACFM
- d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:<sup>1</sup>
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:<sup>1</sup>
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:<sup>1</sup>

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:<sup>2</sup>

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

10. Reason for selection and description of systems:

<sup>1</sup>Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

NOT APPLICABLE

A. Company Monitored Data

1. \_\_\_\_\_ no. sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sub>2</sub>+ \_\_\_\_\_ Wind spd/dir

Period of Monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

- a. Was instrumentation EPA referenced or its equivalent?  Yes  No
- b. Was instrumentation calibrated in accordance with Department procedures?  
 Yes  No  Unknown

B. Meteorological Data Used for Air Quality Modeling

- 1. \_\_\_\_\_ Year(s) of data from \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year
- 2. Surface data obtained from (location) \_\_\_\_\_
- 3. Upper air (mixing height) data obtained from (location) \_\_\_\_\_
- 4. Stability wind rose (STAR) data obtained from (location) \_\_\_\_\_

C. Computer Models Used

- 1. \_\_\_\_\_ Modified? If yes, attach description.
- 2. \_\_\_\_\_ Modified? If yes, attach description.
- 3. \_\_\_\_\_ Modified? If yes, attach description.
- 4. \_\_\_\_\_ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO <sup>2</sup>	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

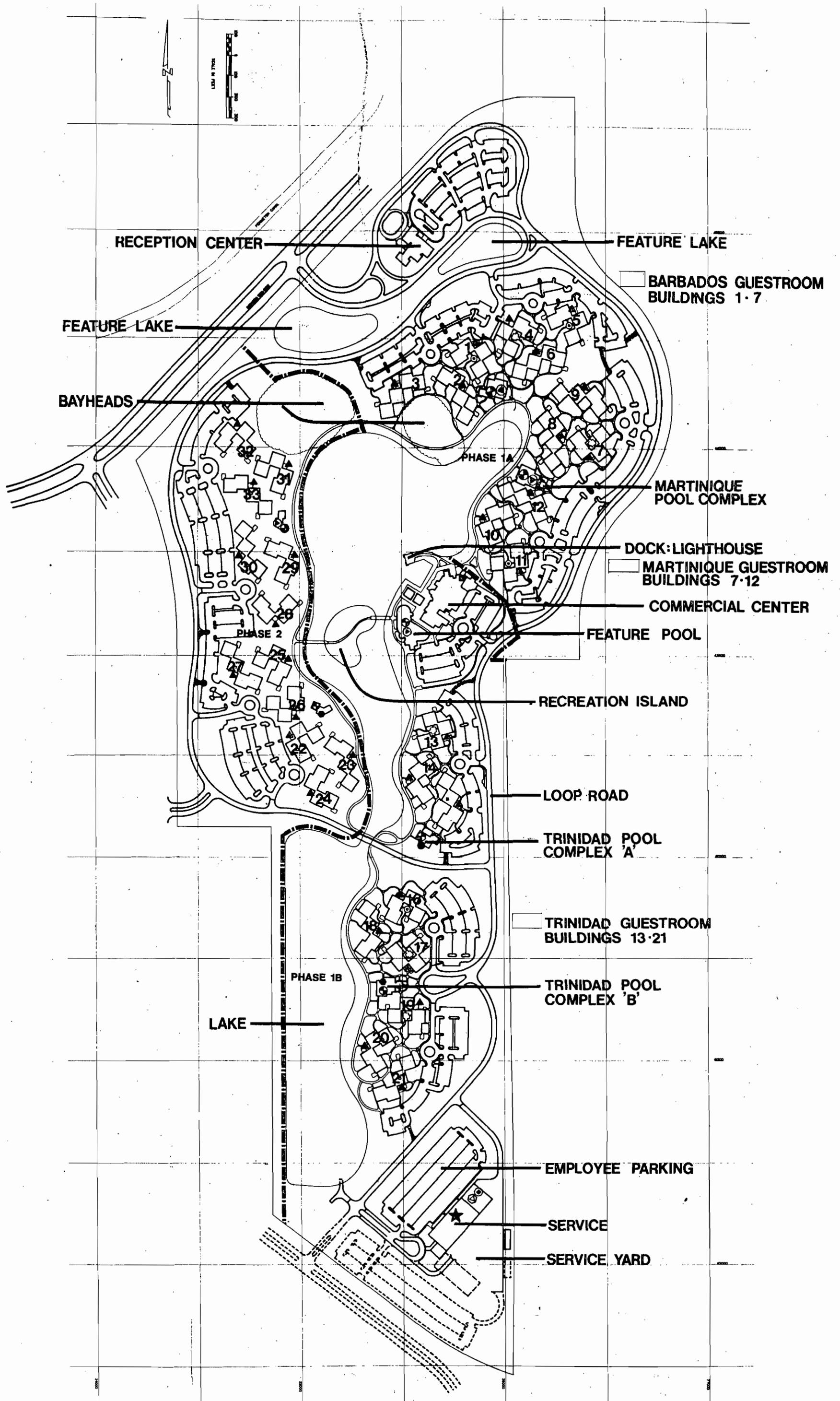
H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

Table 1. Summary of Emission Factors for Domestic and Commercial Boilers

Pollutant	Emission Factor
Sulfur Dioxide	0.6 lb/10 <sup>6</sup> ft <sup>3</sup>
Particulate Matter	5.0 lb/10 <sup>6</sup> ft <sup>3</sup>
Nitrogen Oxides	100 lb/10 <sup>6</sup> ft <sup>3</sup>
Carbon Monoxide	20 lb/10 <sup>6</sup> ft <sup>3</sup>
Volatile Organic Compounds	5.3 lb/10 <sup>6</sup> ft <sup>3</sup>

Note: ft<sup>3</sup> - cubic feet.

Source: U. S. Environmental Protection Agency, 1986.  
Compilation of Air Pollutant Emission Factors, Volume I:  
Stationary Point and Area Sources, with Supplement A. Research  
Triangle Park, North Carolina.



# SUPERTANK™ PACKAGED WATER HEATER NICKELSHIELD® TURBOPOWER® GAS

## STANDARD EQUIPMENT

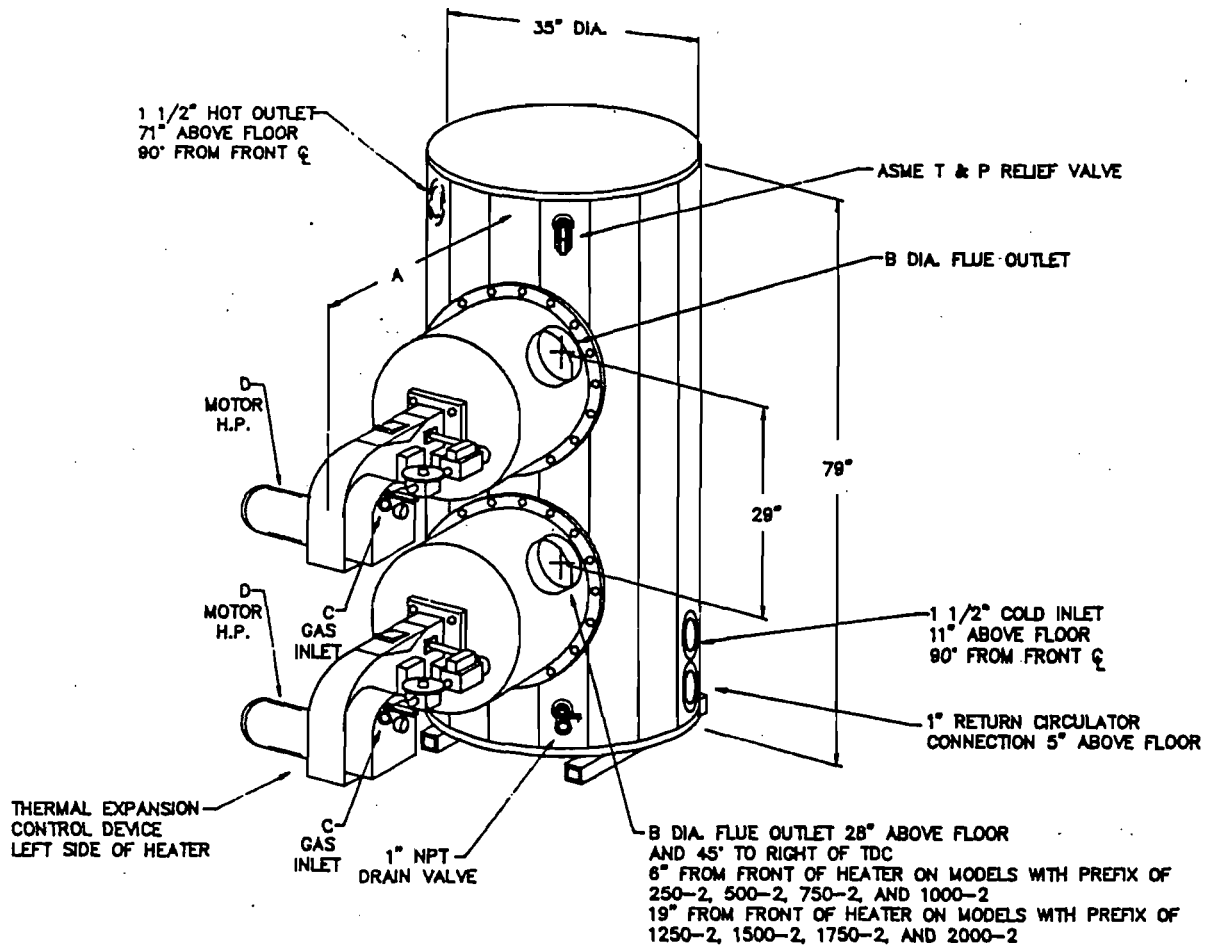
- NICKELSHIELD® tank lining
- Twenty year NICKELSHIELD® tank warranty  
All labor and freight paid on tank failure †
- Three year warranty on TURBOPOWER® Module
- One year cost free service policy on parts
- GUARANTEED fuel-to-water efficiency of 83% \*
- FIREPOWER® burner
- TURBOPOWER® combustion chamber covered with pure copper
- Solid copper fire tubes
- Solid state electronic flame monitoring  
Direct spark ignition - 100,000 Btu thru 400,000 Btu
- Solid state electronic flame safeguard  
Prepurge - 500,000 Btu thru 2,500,000 Btu
- Solid state electronic programmed flame safeguard  
Prepurge and postpurge - 2,800,000 Btu thru 3,200,000 Btu
- Thermal expansion control valve
- Upper and lower operating thermostats
- Temperature limiting device
- ASME rated temperature and pressure relief valve
- Drain valve - 1" ball-type
- 23" minimum diameter manway
- Heavy density fiberglass insulation
- Baked enamel steel segmented jacket
- STRATA-BAFFLE
- Factory authorized start-up
- Meets ASHRAE 90 standards
- ASME stamped - 190 psi test pressure
- National Board registered - 125 psi working pressure
- UL/ULC listed for use with Type B Vent
- \* Fuel-to-water efficiency combines  
Thermal efficiency and standby heat loss

†See complete warranty for details



# SUPER TANK™ SERIES V 250 PACKAGED WATER HEATER DUAL MODULE TURBOPOWER® GAS

PHYSICAL CHARACTERISTICS										
NICKELSHIELD® MODEL NUMBER	POLYSHIELD™ MODEL NUMBER	Btu/hr INPUT	GALLONS STORAGE	REC. RATE GPH 40°F-120°F	A	B	C	D TOTAL	E MOTOR AMPS TOTAL (115V)	APPROX. SHIPPING WEIGHT
250-2 NV 250 TP	250-2 PV 250 TP	200,000	250	250	22"	3"	3/4"	1/2	14	1310#
500-2 NV 250 TP	500-2 PV 250 TP	400,000	250	500	22"	4"	3/4"	1/2	14	1320#
750-2 NV 250 TP	750-2 PV 250 TP	600,000	250	750	22"	4"	3/4"	1/2	14	1340#
1000-2 NV 250 TP	1000-2 PV 250 TP	800,000	250	1000	22"	5"	3/4"	1/2	14	1360#
1250-2 NV 250 TP	1250-2 PV 250 TP	1,000,000	250	1250	44"	5"	1"	2/3	16	1550#
<del>1500-2 NV 250 TP</del>	<del>1500-2 PV 250 TP</del>	<del>1,200,000</del>	<del>250</del>	<del>1500</del>	<del>44"</del>	<del>6"</del>	<del>1"</del>	<del>1 1/2</del>	<del>28</del>	<del>1700#</del>
1750-2 NV 250 TP	1750-2 PV 250 TP	1,400,000	250	1750	44"	6"	1"	1 1/2	28	1700#
2000-2 NV 250 TP	2000-2 PV 250 TP	1,600,000	250	2000	44"	8"	1"	1 1/2	28	1720#



- SEE EQUIPMENT LISTING FOR STANDARD & OPTIONAL ACCESSORIES.
- GAS INLET FLOW PRESSURE MUST BE: 8" W.C. MINIMUM TO 1 1/2" W.C. MAXIMUM.  
FOR GAS PRESSURES OUTSIDE THIS RANGE CONTACT FACTORY.
- MOTOR VOLTAGES ARE: LESS THAN 3/4 H.P. - 115VAC, 1 PH., 60 HZ;  
3/4 H.P. - 115/230VAC, 1 PH., 60 HZ.

U.S. PATENT NUMBER  
4,465,024

GALLONS STORAGE EXCLUDE DISPLACEMENT OF HEATING SURFACE

OTHER PATENTS APPLIED FOR

PV 5060 1-26-87

**PVI INDUSTRIES INC.**  
P.O. BOX 7124  
FORT WORTH, TEXAS 76111

## DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

## APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Natural Gas Fired Boilers  New<sup>1</sup>  Existing<sup>1</sup>  
APPLICATION TYPE:  Construction  Operation  Modification  
COMPANY NAME: Walt Disney World Co. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Line  
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Laundry Boilers #1,  
#2 and #3

SOURCE LOCATION: Street Facilities Way City Bay Lake  
UTM: East 443650 North 3144460  
Latitude 28° 25' 36" N Longitude 81° 34' 29" W

APPLICANT NAME AND TITLE: Walt Disney World Co.

APPLICANT ADDRESS: P. O. Box 10,000, Lake Buena Vista, Florida 32830

## SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

## A. APPLICANT

I am the undersigned owner or authorized representative\* of Walt Disney World Co.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: Edward B. Crowell

Edward B. Crowell, V.P., Facilities Support  
Name and Title (Please Type)

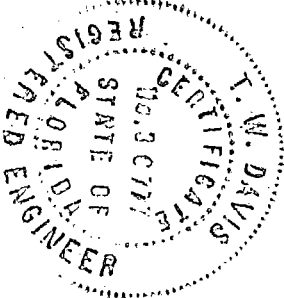
Date: 10/20/88 Telephone No. (407)828-2100

## B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

<sup>1</sup> See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Thomas W. Davis

Thomas W. Davis  
Name (Please Type)

Hunter/Environmental Science and Engineering  
Company Name (Please Type)

P. O. Box 1703, Gainesville, FL 32602  
Mailing Address (Please Type)

Florida Registration No. 3677 Date: 10/13/88 Telephone No. (904)332-3318

**SECTION II: GENERAL PROJECT INFORMATION**

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Installation of three natural gas fired boilers to provide steam to a laundry facility.  
These facilities exist and were previously exempt from permitting under 17-2.210(3)(a).  
The boilers share a common stack. No pollution control equipment will be installed.

B. Schedule of project covered in this application (Construction Permit Application Only)  
Start of Construction September 1988 Completion of Construction December 1988

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)  
None

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.  
None

Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;  
if power plant, hrs/yr \_\_\_\_\_ ; if seasonal, describe: \_\_\_\_\_

F. If this is a new source or major modification, answer the following questions.  
(Yes or No)

- 1. Is this source in a non-attainment area for a particular pollutant? NO
  - a. If yes, has "offset" been applied? \_\_\_\_\_
  - b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_
  - c. If yes, list non-attainment pollutants. \_\_\_\_\_
- 2. Does best available control technology (BACT) apply to this source?  
If yes, see Section VI. NO
- 3. Does the State "Prevention of Significant Deterioration" (PSD)  
requirement apply to this source? If yes, see Sections VI and VII. NO
- 4. Do "Standards of Performance for New Stationary Sources" (NSPS)  
apply to this source? NO
- 5. Do "National Emission Standards for Hazardous Air Pollutants"  
(NESHAP) apply to this source? NO

- H. Do "Reasonably Available Control Technology" (RACT) requirements apply  
to this source? NO
- a. If yes, for what pollutants? \_\_\_\_\_
  - b. If yes, in addition to the information required in this form,  
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-  
cation for any answer of "No" that might be considered questionable.

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

**A. Raw Materials and Chemicals Used in your Process, if applicable:**

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
N/A				

**B. Process Rate, if applicable: (See Section V, Item 1)**

1. Total Process Input Rate (lbs/hr): N/A
2. Product Weight (lbs/hr): \_\_\_\_\_

**C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)**

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Rule 17-2	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
SO <sub>2</sub>	0.024	0.104			0.024	0.104	
PM	0.198	0.867			0.198	0.867	
NO <sub>x</sub>	3.960	17.345			3.960	17.345	
CO	0.792	3.469			0.792	3.469	
VOC	0.210	0.919			0.210	0.919	

<sup>1</sup>See Section V, Item 2. See Tables 1 and 2 for calculation details.

<sup>2</sup>Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
None				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	39,600 ft <sup>3</sup> /hr	39,600 ft <sup>3</sup> /hr	39,600,000 Btu/hr

\*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average \_\_\_\_\_ 0% Maximum \_\_\_\_\_ 0%

G. Indicate liquid or solid wastes generated and method of disposal.

None

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 30 ft. Stack Diameter: 3 ft.  
 Gas Flow Rate: ACFM 15,000 DSCFM Gas Exit Temperature: 400 °F.  
 Water Vapor Content: N/A % Velocity: 35.4 FPS

SECTION IV: INCINERATOR INFORMATION

NOT APPLICABLE

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr incinerated							
Uncontrolled (lbs/hr)							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ day/wk \_\_\_\_\_ wks/yr. \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity: \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  
 Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

**SECTION V: SUPPLEMENTAL REQUIREMENTS**

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]  
  
To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.



9. The appropriate application fee in accordance with Rule 17-4.15. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

NOT APPLICABLE

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes  No

Contaminant

Rate or Concentration


- B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes  No

Contaminant

Rate or Concentration


- C. What emission levels do you propose as best available control technology?

Contaminant

Rate or Concentration


- D. Describe the existing control and treatment technology (if any).

1. Control Device/System:

2. Operating Principles:

3. Efficiency:\*

4. Capital Costs:

\*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height:

ft.

b. Diameter:

ft.

c. Flow Rate:

ACFM

d. Temperature:

°F.

e. Velocity:

FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:<sup>1</sup>

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:<sup>2</sup>

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

10. Reason for selection and description of systems:

<sup>1</sup>Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

NOT APPLICABLE

A. Company Monitored Data

1. \_\_\_\_\_ no. sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sub>2</sub> \_\_\_\_\_ Wind spd/dir

Period of Monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month dsy year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).



Table 1. Summary of Emissions from the North Service Area Laundry Boilers\*

Source	Identification Number	Rate (cfh)	Emissions (TPY)				
			SO <sub>2</sub>	PM	NO <sub>x</sub>	CO	VOC
Boiler #1 - York-Shipley Steam Boiler (300 HP)	--	12,500	--	--	--	--	--
Boiler #2 - York-Shipley Steam Boiler (300 HP)	--	12,500	--	--	--	--	--
Boiler #3 - York-Shipley Steam Boiler (350 HP)	--	14,600	--	--	--	--	--
Sub Total	LDB-1	39,600	0.104	0.867	17.345	3.469	0.919
Boiler #4 - Fulton Hot Oil Boiler	LDB-2	7,734	0.020	0.169	3.387	0.677	0.180

\* Based on operating 8,760 hours/year

Note: cfh - cubic feet per hour  
CO - carbon monoxide  
NO<sub>x</sub> - nitrogen oxides  
PM - particulate matter  
SO<sub>2</sub> - sulfur dioxide  
TPY - tons per year  
VOC - volatile organic compounds

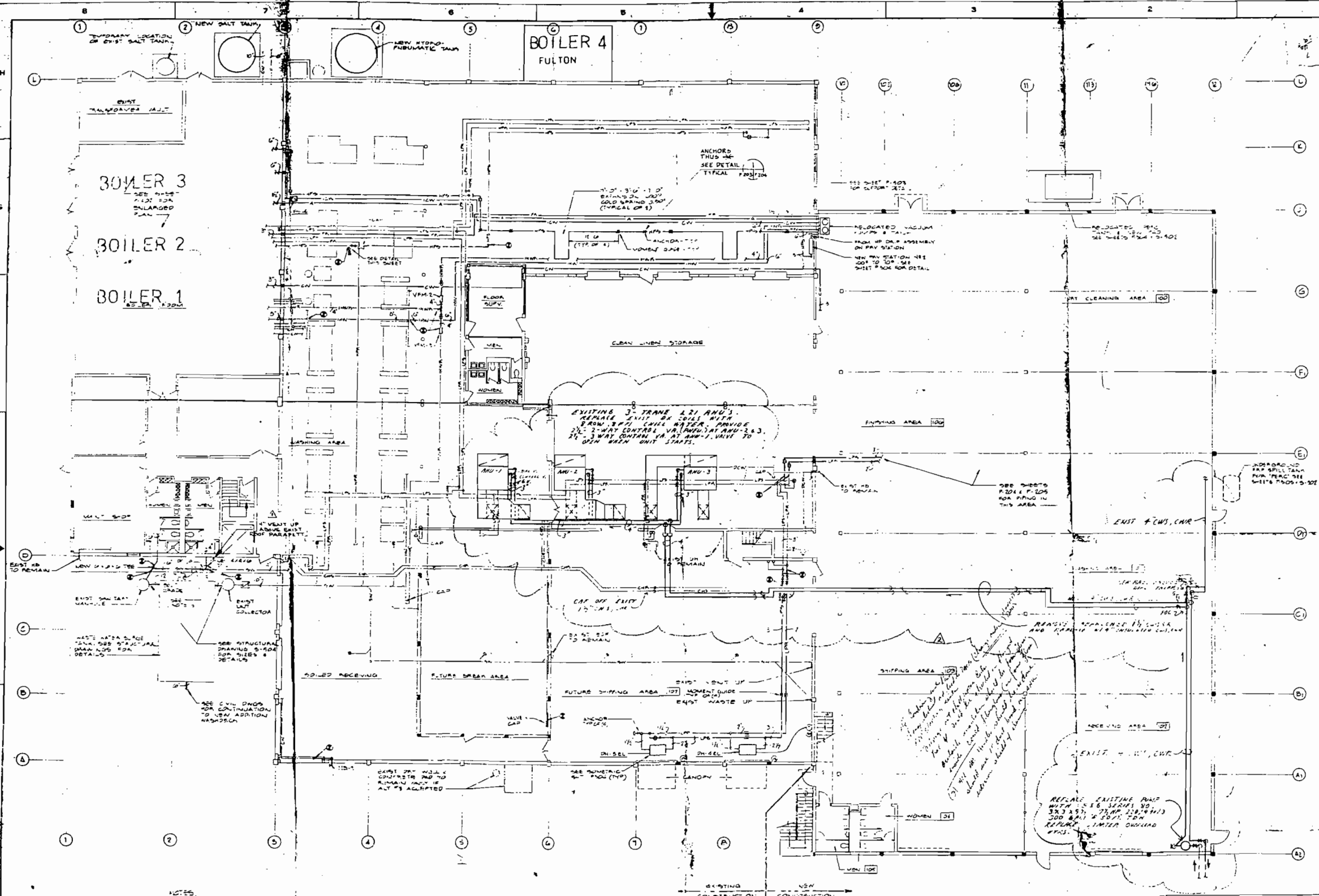
Source: ESE, 1988.

Table 2. Summary of Emission Factors for Domestic and Commercial Boilers

Pollutant	Emission Factor
Sulfur Dioxide	0.6 lb/10 <sup>6</sup> ft <sup>3</sup>
Particulate Matter	5.0 lb/10 <sup>6</sup> ft <sup>3</sup>
Nitrogen Oxides	100 lb/10 <sup>6</sup> ft <sup>3</sup>
Carbon Monoxide	20 lb/10 <sup>6</sup> ft <sup>3</sup>
Volatile Organic Compounds	5.3 lb/10 <sup>6</sup> ft <sup>3</sup>

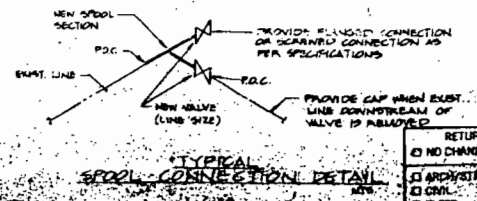
Note: ft<sup>3</sup> - cubic feet.

Source: U. S. Environmental Protection Agency, 1986.  
Compilation of Air Pollutant Emission Factors, Volume I:  
Stationary Point and Area Sources, with Supplement A. Research  
Triangle Park, North Carolina.



NOTES:  
 1. ALL PIPES SHOWN ON THIS SHEET ARE IN FIRST FLOOR CEILING SPACE UNLESS OTHERWISE NOTED.  
 2. PROVIDE 2" MIN. CLEARANCE FROM EXISTING CONDITION.  
 3. NEW WASTE LINE LOCATION SHALL BE DESIGNATED TO CLEAR WASTE WATER SURGE TANK SHEETING, TERRAZO, ETC.  
 4. SEE SHEET P. 102 & P. 103 FOR DETAILS OF GUIDES, ANCHORS, AND SUPPORTS OF STEAM PIPING.

FLOOR PLAN  
 18' 11" x 18' 11"



RETURN TO AS-BUILT DEPT.	NO CHANGES
ADD/DELETE	CHANGES
REMOVE	REVISIONS
DATE	DATE

**KEY PLAN**

**PROJECT**

Walt Disney World Co.  
 FACILITIES DIVISION  
 Engineering  
 NORTH SERVICE AREA  
 LAUNDRY EXPANSION  
 FLOOR PLAN

PROJECT NO.	100-100-100-100
DATE	10/10/10
DESIGNED BY	JOHNNY JOHNSON
CHECKED BY	BILL MACK
SCALE	AS SHOWN
PROJECT NO.	100-100-100-100
DATE	10/10/10
DESIGNED BY	JOHNNY JOHNSON
CHECKED BY	BILL MACK
SCALE	AS SHOWN
PROJECT NO.	100-100-100-100
DATE	10/10/10
DESIGNED BY	JOHNNY JOHNSON
CHECKED BY	BILL MACK
SCALE	AS SHOWN



## DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

## APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Natural Gas Fired Boiler  New<sup>1</sup>  Existing<sup>1</sup>

APPLICATION TYPE:  Construction  Operation  Modification

COMPANY NAME: Walt Disney World Co. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime

Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Laundry Boiler #4

SOURCE LOCATION: Street Facilities Way City Bay Lake

UTM: East 443650 North 3144460

Latitude 28° 25' 36" N Longitude 81° 34' 29" W

APPLICANT NAME AND TITLE: Walt Disney World Co.

APPLICANT ADDRESS: P. O. Box 10,000, Lake Buena Vista, Florida 32830

## SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

## A. APPLICANT

I am the undersigned owner or authorized representative\* of Walt Disney World Co.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: Edward B. Crowell

Edward B. Crowell, V.P., Facilities Support  
Name and Title (Please Type)

Date: 10/20/88 Telephone No. (407)828-2100

## B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

<sup>1</sup> See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Thomas W. Davis

Thomas W. Davis  
Name (Please Type)

Hunter/Environmental Science and Engineering  
Company Name (Please Type)

P. O. Box 1703, Gainesville, FL 32602  
Mailing Address (Please Type)

Florida Registration No. 36777 Date: 10/13/88 Telephone No. (904)332-3318

**SECTION II: GENERAL PROJECT INFORMATION**

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Installation of one natural gas fired boiler to provide steam to a laundry facility.  
This boiler exists and was previously exempt from permitting under 17-2.210(3)(a). No  
pollution control equipment will be installed.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction September 1988 Completion of Construction December 1988

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

None

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

None

Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;  
if power plant, hrs/yr \_\_\_\_\_ ; if seasonal, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

F. If this is a new source or major modification, answer the following questions.  
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO  
a. If yes, has "offset" been applied? \_\_\_\_\_  
b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_  
c. If yes, list non-attainment pollutants. \_\_\_\_\_

2. Does best available control technology (BACT) apply to this source? NO  
If yes, see Section VI.

3. Does the State "Prevention of Significant Deterioration" (PSD)  
requirement apply to this source? If yes, see Sections VI and VII. NO

4. Do "Standards of Performance for New Stationary Sources" (NSPS)  
apply to this source? NO

5. Do "National Emission Standards for Hazardous Air Pollutants"  
(NESHAP) apply to this source? NO

H. Do "Reasonably Available Control Technology" (RACT) requirements apply  
to this source? NO

a. If yes, for what pollutants? \_\_\_\_\_

b. If yes, in addition to the information required in this form,  
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-  
cation for any answer of "No" that might be considered questionable.

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

**A. Raw Materials and Chemicals Used in your Process, if applicable:**

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
N/A				

**B. Process Rate, if applicable: (See Section V, Item 1)**

1. Total Process Input Rate (lbs/hr): N/A

2. Product Weight (lbs/hr): N/A

**C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)**

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Rule 17-2	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
SO <sub>2</sub>	0.005	0.020			0.005	0.020	
PM	0.039	0.169			0.039	0.169	
NO <sub>x</sub>	0.773	3.387			0.773	3.387	
CO	0.152	0.677			0.152	0.677	
VOC	0.041	0.180			0.041	0.180	

<sup>1</sup>See Section V, Item 2. See Tables 1 and 2 for calculation details.

<sup>2</sup>Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
None				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	7,734 ft <sup>3</sup> /hr	7,734 ft <sup>3</sup> /hr	7,734,000 Btu/hr

\*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average \_\_\_\_\_ 0% Maximum \_\_\_\_\_ 0%

G. Indicate liquid or solid wastes generated and method of disposal.

None \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

M. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 30 ft. Stack Diameter: 1.17 ft.  
 Gas Flow Rate: ACFM 3,000 DSCFM Gas Exit Temperature: 400 °F.  
 Water Vapor Content: N/A % Velocity: 46.5 FPS

SECTION IV: INCINERATOR INFORMATION

NOT APPLICABLE

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ day/wk \_\_\_\_\_ wks/yr. \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity: \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  
 Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

#### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]  
To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

- 9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
- 10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

NOT APPLICABLE

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes  No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes  No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

- |                           |                          |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:*           | 4. Capital Costs:        |

\*Explain method of determining



5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height:

ft.

b. Diameter:

ft.

c. Flow Rate:

ACFM

d. Temperature:

°F.

e. Velocity:

FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:<sup>1</sup>

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:<sup>2</sup>

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

10. Reason for selection and description of systems:

<sup>1</sup>Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

NOT APPLICABLE

A. Company Monitored Data

1. \_\_\_\_\_ no. sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sub>2</sub> \_\_\_\_\_ Wind spd/dir

Period of Monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

- a. Was instrumentation EPA referenced or its equivalent?  Yes  No
- b. Was instrumentation calibrated in accordance with Department procedures?  
 Yes  No  Unknown

B. Meteorological Data Used for Air Quality Modeling

- 1. \_\_\_\_\_ Year(s) of data from \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year
- 2. Surface data obtained from (location) \_\_\_\_\_
- 3. Upper air (mixing height) data obtained from (location) \_\_\_\_\_
- 4. Stability wind rose (STAR) data obtained from (location) \_\_\_\_\_

C. Computer Models Used

- 1. \_\_\_\_\_ Modified? If yes, attach description.
- 2. \_\_\_\_\_ Modified? If yes, attach description.
- 3. \_\_\_\_\_ Modified? If yes, attach description.
- 4. \_\_\_\_\_ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO <sup>2</sup>	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

Table 1. Summary of Emissions from the North Service Area Laundry Boilers\*

Source	Identification Number	Rate (cfh)	Emissions (TPY)				
			SO <sub>2</sub>	PM	NO <sub>x</sub>	CO	VOC
Boiler #1 - York-Shipley Steam Boiler (300 HP)	--	12,500	--	--	--	--	--
Boiler #2 - York-Shipley Steam Boiler (300 HP)	--	12,500	--	--	--	--	--
Boiler #3 - York-Shipley Steam Boiler (350 HP)	--	14,600	--	--	--	--	--
Sub Total	LDB-1	39,600	0.104	0.867	17.345	3.469	0.919
Boiler #4 - Fulton Hot Oil Boiler	LDB-2	7,734	0.020	0.169	3.387	0.677	0.180

\* Based on operating 8,760 hours/year

Note: cfh - cubic feet per hour  
CO - carbon monoxide  
NO<sub>x</sub> - nitrogen oxides  
PM - particulate matter  
SO<sub>2</sub> - sulfur dioxide  
TPY - tons per year  
VOC - volatile organic compounds

Source: ESE, 1988.

Table 2. Summary of Emission Factors for Domestic and Commercial Boilers

Pollutant	Emission Factor
Sulfur Dioxide	0.6 lb/10 <sup>6</sup> ft <sup>3</sup>
Particulate Matter	5.0 lb/10 <sup>6</sup> ft <sup>3</sup>
Nitrogen Oxides	100 lb/10 <sup>6</sup> ft <sup>3</sup>
Carbon Monoxide	20 lb/10 <sup>6</sup> ft <sup>3</sup>
Volatile Organic Compounds	5.3 lb/10 <sup>6</sup> ft <sup>3</sup>

Note: ft<sup>3</sup> - cubic feet.

Source: U. S. Environmental Protection Agency, 1986.  
Compilation of Air Pollutant Emission Factors, Volume I:  
Stationary Point and Area Sources, with Supplement A. Research  
Triangle Park, North Carolina.



## DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

## APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Natural Gas Fired Water Heater  New<sup>1</sup>  Existing<sup>1</sup>APPLICATION TYPE:  Construction  Operation  ModificationCOMPANY NAME: Walt Disney World Co. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime

Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) North River HeaterSOURCE LOCATION: Street Buena Vista Drive City Lake Buena VistaUTM: East 448193 North 3137578Latitude 28 ° 21 ' 55 "N Longitude 81 ° 31 ' 39 "WAPPLICANT NAME AND TITLE: Walt Disney World Co.APPLICANT ADDRESS: P. O. Box 10,000, Lake Buena Vista, Florida 32830

## SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

## A. APPLICANT

I am the undersigned owner or authorized representative\* of Walt Disney World Co.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: Lauren H. James

Lauren H. James, Dir., Lake Buena Vista Communities,  
Name and Title (Please Type) Inc.

Date: 10/21/88 Telephone No. (407) 934-7256

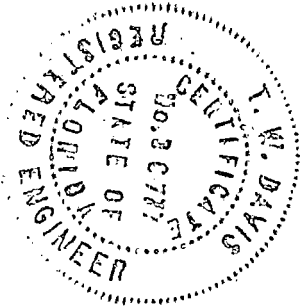
## B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

<sup>1</sup> See Florida Administrative Code Rule 17-2.100(57) and (104)



the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Thomas W. Davis

Thomas W. Davis  
Name (Please Type)

Hunter/Environmental Science and Engineering  
Company Name (Please Type)

P. O. Box 1703, Gainesville, FL 32602  
Mailing Address (Please Type)

Florida Registration No. 36777 Date: 10/13/88 Telephone No. (904) 332-3318

**SECTION II: GENERAL PROJECT INFORMATION**

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Installation of a hot water boiler (Rite Boiler Model 150) to provide hot water to the Typhoon Lagoon River. The boiler will be natural gas fired. No pollution control equipment will be installed.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction February 1989 Completion of Construction May 1989

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

None

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

None

Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

if power plant, hrs/yr \_\_\_\_\_; if seasonal, describe: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

F. If this is a new source or major modification, answer the following questions.  
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO

a. If yes, has "offset" been applied? \_\_\_\_\_

b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_

c. If yes, list non-attainment pollutants. \_\_\_\_\_

2. Does best available control technology (BACT) apply to this source? NO  
If yes, see Section VI.

3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. NO

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? NO

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? NO

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? NO

a. If yes, for what pollutants? \_\_\_\_\_

b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

**A. Raw Materials and Chemicals Used in your Process, if applicable:**

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
N/A				

**B. Process Rate, if applicable: (See Section V, Item 1)**

1. Total Process Input Rate (lbs/hr): N/A

2. Product Weight (lbs/hr): N/A

**C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)**

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission Rate per Rule 17-2	Allowable Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
SO <sub>2</sub>	0.0009	0.004			0.0009	0.004	
PM	0.008	0.033			0.008	0.033	
NO <sub>x</sub>	0.15	0.657			0.15	0.657	
CO	0.030	0.131			0.030	0.131	
VOC	0.008	0.035			0.008	0.035	

<sup>1</sup>See Section V, Item 2. See Tables 1 and 2 for calculation detail.

<sup>2</sup>Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
None				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	1,500 ft <sup>3</sup> /hr	1,500 ft <sup>3</sup> /hr	1,500,000 Btu/hr

\*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average \_\_\_\_\_ 0% Maximum \_\_\_\_\_ 0%

G. Indicate liquid or solid wastes generated and method of disposal.

None

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 8 ft. Stack Diameter: 1.3 ft.  
 Gas Flow Rate: ACFM 300 DSCFM Gas Exit Temperature: 250 °F.  
 Water Vapor Content: N/A % Velocity: 3.8 FPS

SECTION IV: INCINERATOR INFORMATION

NOT APPLICABLE

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ day/wk \_\_\_\_\_ wks/yr. \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity: \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  
 Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

#### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
  - To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

NOT APPLICABLE

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- B. Has EPA declared the best available control technology for this class of sources (if yes, attach copy)

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- C. What emission levels do you propose as best available control technology?

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- D. Describe the existing control and treatment technology (if any).

1. Control Device/System:

2. Operating Principles:

3. Efficiency:\*

4. Capital Costs:

\*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height:

ft.

b. Diameter:

ft.

c. Flow Rate:

ACFM

d. Temperature:

°F.

e. Velocity:

FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.



j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:<sup>1</sup>

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:<sup>2</sup>

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

10. Reason for selection and description of systems:

<sup>1</sup>Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

**SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION**

NOT APPLICABLE

**A. Company Monitored Data**

1. \_\_\_\_\_ no. sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sub>2</sub>+ \_\_\_\_\_ Wind spd/dir

Period of Monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).



Table 1. Summary of Emissions from Water Heating Facilities at Typhoon Lagoon

Source	Identification Number	Rate (cfh)	Emissions (TPY)				
			SO <sub>2</sub>	PM	NO <sub>x</sub>	CO	VOC
North River Heater	TLB-1	1,500	0.004	0.033	0.657	0.131	0.035
South River Heater	TLB-2	1,500	0.004	0.033	0.657	0.131	0.035
North Wave Pool Heater	TLB-3	2,000	0.005	0.044	0.876	0.175	0.046
South Wave Pool Heater	TLB-4	2,000	0.005	0.044	0.876	0.175	0.046

\* Based on operating 8,760 hours/year

Note: cfh - cubic feet per hour  
 CO - carbon monoxide  
 NO<sub>x</sub> - nitrogen oxides  
 PM - particulate matter  
 SO<sub>2</sub> - sulfur dioxide  
 TPY - tons per year  
 VOC - volatile organic compounds

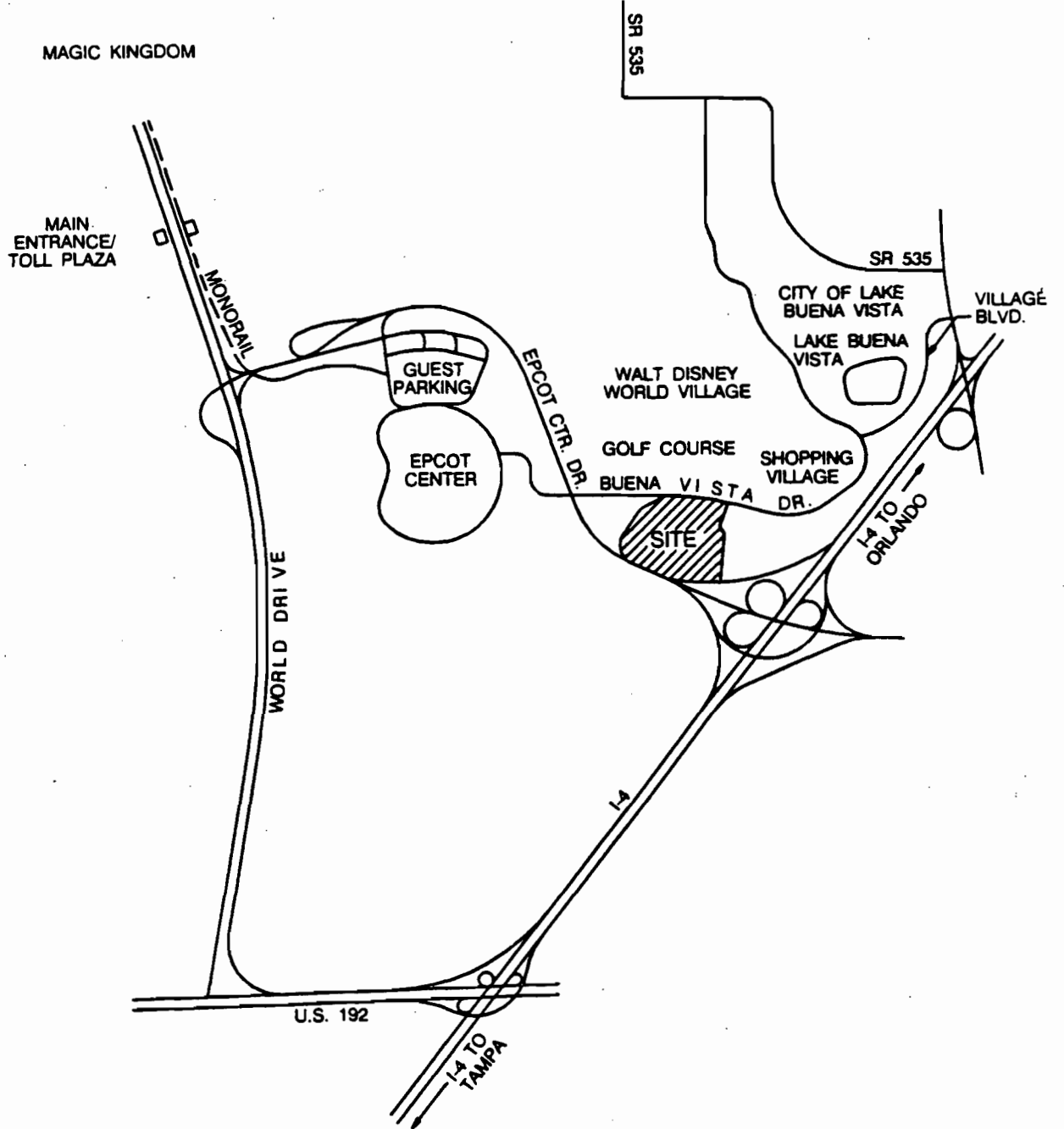
Source: ESE, 1988.

Table 2. Summary of Emission Factors for Domestic and Commercial Boilers

Pollutant	Emission Factor
Sulfur Dioxide	0.6 lb/10 <sup>6</sup> ft <sup>3</sup>
Particulate Matter	5.0 lb/10 <sup>6</sup> ft <sup>3</sup>
Nitrogen Oxides	100 lb/10 <sup>6</sup> ft <sup>3</sup>
Carbon Monoxide	20 lb/10 <sup>6</sup> ft <sup>3</sup>
Volatile Organic Compounds	5.3 lb/10 <sup>6</sup> ft <sup>3</sup>

Note: ft<sup>3</sup> - cubic feet.

Source: U. S. Environmental Protection Agency, 1986.  
Compilation of Air Pollutant Emission Factors, Volume I:  
Stationary Point and Area Sources, with Supplement A. Research  
Triangle Park, North Carolina.

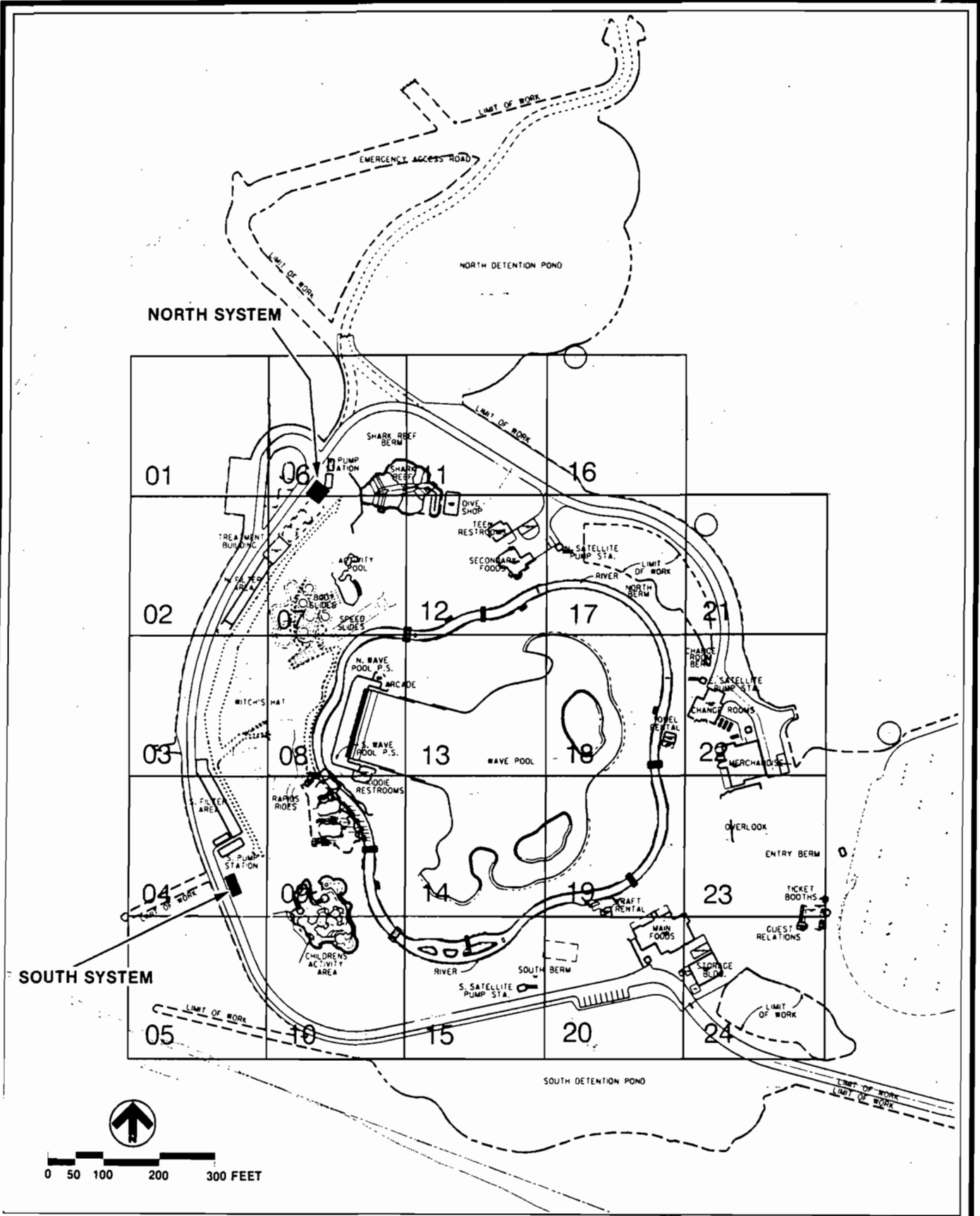


NO SCALE



TYPHOON LAGOON AREA MAP

ENVIRONMENTAL SCIENCE  
AND ENGINEERING, INC.

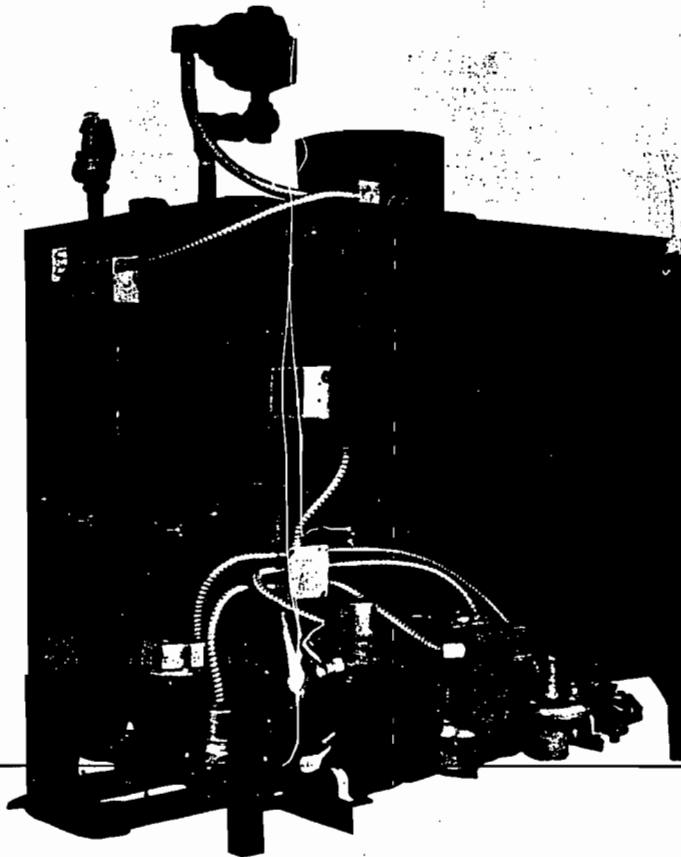


**TYPHOON LAGOON SITE PLAN**

**ENVIRONMENTAL SCIENCE  
AND ENGINEERING, INC.**

# Rite

BOILERS



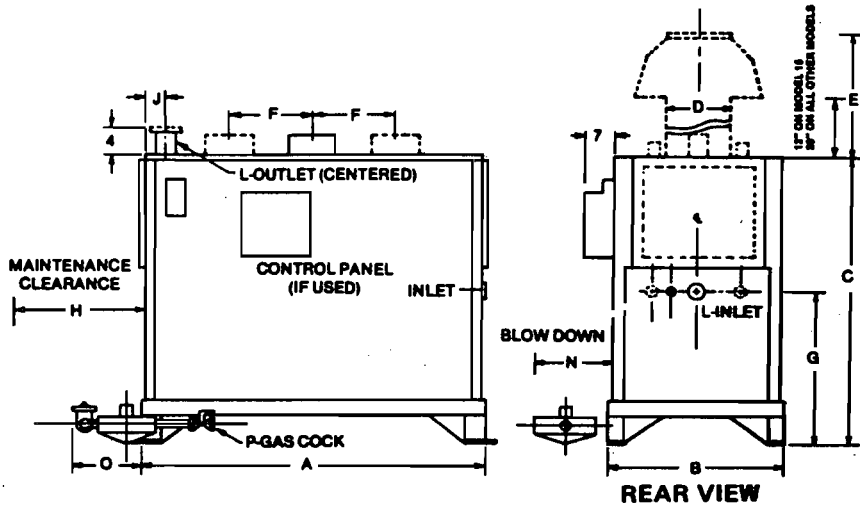
**WATER HEATING BOILER  
LOW PRESSURE  
ATMOSPHERIC NATURAL GAS FIRED**

A.I.A. File No. 30-C-1  
A.I.A. File No. 29-D-2

RITE ENGINEERING & MANUFACTURING CORPORATION  
9441 WASHBURN ROAD / DOWNEY / CALIFORNIA 90242  
TELEPHONE (213) 852-2125



# WATER-ATMOSPHERIC GAS



"B" Dimension	Blow Down Size
26	1
32	1-1/4
42	1-1/2
51 & larger	2

## DIMENSIONS

NOTE: Over 4" all dimensions are flanged

MODEL	A	B	C	D	E	F	G	H	J	L	N	O	P
48	40	26	48	9	31	0	26	32	2-1/2	2	10	10	1
55	45	26	48	10	32	0	26	37	2-1/2	2	10	10	1
63	50	26	48	10	32	0	26	42	2-1/2	2	10	10	1
76	58	26	48	11	33	0	26	50	2-1/2	2	10	10	1
A90	68	26	48	12	34	0	26	60	2-1/2	2	10	10	1-1/4
85	46	32	52	12	34	0	26	36	2-5/8	3	12	18	1
90	46	32	52	12	34	0	26	36	2-5/8	3	12	18	1-1/4
106	52	32	52	14	36	0	26	42	2-5/8	3	12	18	1-1/4
120	58	32	52	14	36	0	26	48	2-5/8	3	12	18	1-1/4
135	64	32	52	16	38	0	26	54	2-5/8	3	12	18	1-1/4
150	70	32	52	16	38	0	26	60	2-5/8	3	12	18	1-1/2
A150	55	42	57	16	38	0	26	42	3-1/2	4	14	20	1-1/2
165	76	32	52	16	38	0	26	66	2-5/8	3	12	18	1-1/2
A165	59	42	57	16	38	0	26	48	3-1/2	4	14	20	1-1/2
180	82	32	52	2-12	34	18	26	72	2-5/8	3	12	18	1-1/2
A180	65	42	57	2-12	34	13	26	52	3-1/2	4	14	20	1-1/2
200	90	32	52	2-14	36	20	26	80	2-5/8	3	12	18	1-1/2
A200	69	42	57	2-14	36	15	26	56	3-1/2	4	14	20	2
225	73	42	57	2-14	36	15	26	60	3-1/2	4	16	24	2
250	79	42	57	2-14	36	16	26	66	3-1/2	4	16	24	2
275	85	42	57	2-16	38	18	26	72	3-1/2	4	16	24	2
300	91	42	57	2-16	38	19	26	78	3-1/2	4	16	24	2-1/2
325	97	42	57	2-16	38	21	26	84	3-1/2	4	16	24	2-1/2
350	103	42	57	2-18	40	23	26	90	3-1/2	4	16	24	2-1/2
375	109	42	57	2-18	40	24	26	96	3-1/2	4	16	24	2-1/2
400	115	42	57	2-18		25	26	102	3-1/2	4	16	24	2
A400	79	63	63	22		0	28	55	4-3/4	2-4	14	24	2
425	121	42	57	2-18		27	26	108	3-1/2	4	16	24	2
450	127	42	57	2-20		28	26	114	3-1/2	4	16	24	2
A450	87	63	63	24		0	28	65	4-3/4	2-4	14	24	2
475	133	42	57	2-20		30	26	120	3-1/2	4	16	24	2
500	139	42	57	2-20		31	26	126	3-1/2	4	16	24	2
A500	95	63	63	26		0	28	72	4-3/4	2-4	14	24	2
550	109	51	62	2-20		23	26	96	3-1/2	4	16	28	2
A550	102	63	63	26		0	28	80	4-3/4	2-4	14	28	2
600	118	51	62	2-22		25	26	105	3-1/2	4	16	28	2
A600	109	63	63	2-20		23	28	85	4-3/4	2-4	14	28	2
A650	129	51	62	2-22		28	26	114	4	5	16	28	2
650	117	63	63	2-22		24	28	92	4-3/4	2-4	14	28	2
A700	138	51	62	2-22		30	26	123	4	5	16	28	2
700	124	63	63	2-22		26	28	100	4-3/4	2-4	14	28	2
A750	147	51	62	2-24		32	26	132	4	5	16	28	2
750	132	63	63	2-24		28	28	108	4-3/4	2-4	14	28	2
840	115	77	63	2-24		23	27	87	5	2-5	14	28	2-1/2
940	128	77	63	2-24		26	27	100	5	2-5	14	28	2-1/2
1050	140	77	63	2-26		29	27	111	5	2-5	14	28	2-1/2
1150	152	77	63	2-26		32	27	123	5	2-5	14	28	2-1/2
1250	164	77	63	2-26		35	27	135	5	2-5	14	28	2-1/2

BAROMETRIC DAMPERS STANDARD

# RITE BOILERS - U.L. LISTED THRU MOD. 840

## STANDARD EQUIPMENT

- LIFTING LUGS
- OPERATING CONTROL
- FULLY WIRED - 120/1/60
- FACTORY FIRE TESTED
- FIRING SYSTEM: MODELS 48-200 ON OFF  
A150-A200, 225-1250 LOW HIGH LOW
- CONTROL SYSTEM: ALL MODELS E02 SYSTEM  
(ELECTRONIC INTERMITTENT PILOT, AUTOMATIC  
RELIGHT, 100% SHUT OFF)
- DRILLED PORT ATMOSPHERIC BURNERS
- MAIN GAS COCK
- PILOT GAS COCK
- GAS PRESSURE REGULATOR
- DRAFT DIVERTER(S) OR BAROMETER DAMPER(S)
- LOW WATER CUT OFF
- RELIEF VALVE (ASME)
- HIGH LIMIT CONTROL
- PRESSURE - TEMPERATURE GAUGE
- AIR ELIMINATION FITTING (IF SPECIFIED)
- 30 PSI
- DUAL GAS VALVES - IN SERIES

## OPTION EQUIPMENT (EXTRA COST)

- HI LO FIRE MOD 48-200
- MANUAL RESET GAS VALVE
- AUXILIARY LOW WATER CUT OFF
- LOW WATER CUT-OFF FEEDER COMB.
- ID FAN WITH DRAFT PROVING SWITCH
- IRI CONTROLS
- FM CONTROLS
- INDIRECT INTERNAL HEAT EXCHANGER;  
STRAIGHT THRU COPPER TUBES (LIME-LITE)
- EXTERNAL HEAT EXCHANGER MOUNTED ON  
BOILER W/PUMP AND TEMP. CONTROLLER
- E03 SYSTEM (ELECTRONIC CONTINUOUS PILOT,  
AUTOMATIC RELIGHT, 100% SHUT OFF)  
RECOMMENDED FOR HEAVY GASES
- RITE LITE PANEL
- TATTLE TALE PANEL
- STACK SUPPORT
- MODULATION
- COPPER TUBES
- 125 PSI
- HINGED HEAD PLATES OR DAVITS
- INSULATED HEAD PLATES
- ANODES
- EXPANSION TANKS
- FLUE GAS THERM.
- HAND HOLES
- GAS STRAINER
- LEAK TEST COCK

## GENERAL DATA

MODEL	Input BTU/HR x1000	Output BTU/HR x1000	H.P.	G.P.M. 20° F Rise	G.P.H. 100° F Rise	Water Content Gallons	Surface Heating Sq. Ft.	Shipping Wt.
48	480	384	11.5	38	465	20.5	49	1060
55	550	440	13.2	44	535	22.3	56	1260
63	630	508	15.1	51	615	24.0	63	1360
78	780	608	18.2	61	740	27.0	75	1500
A90	900	720	21.5	72	875	30.5	89	1700
85	850	680	20.3	69	830	40.0	88	1700
90	900	720	21.5	72	875	40.0	88	1700
105	1050	840	25.1	84	1015	43.0	101	1830
120	1200	960	28.8	97	1165	47.0	115	1960
135	1350	1080	32.2	110	1315	50.0	131	2100
150	1500	1200	35.8	120	1460	54.0	145	2220
A150	1500	1200	35.8	120	1460	71.0	160	2330
165	1650	1320	39.4	135	1600	57.0	159	2350
A165	1650	1320	39.4	135	1600	75.0	168	2500
180	1800	1440	43.0	145	1750	61.0	174	2450
A180	1800	1440	43.0	145	1750	79.0	190	2580
200	2000	1600	47.8	160	1950	66.0	192	2650
A200	2000	1600	47.8	160	1950	83.0	205	2800
225	2250	1800	53.8	180	2190	89.0	230	3100
250	2500	2000	59.7	200	2430	94.0	252	3300
275	2750	2200	65.7	220	2670	100.0	273	3500
300	3000	2400	71.8	240	2920	105.0	295	3740
325	3250	2600	77.7	265	3160	111.0	318	3950
350	3500	2800	83.6	285	3400	116.0	340	4180
375	3750	3000	89.6	305	3650	122.0	362	4400
400	4000	3200	95.5	325	3900	127.0	383	4620
A400	4000	3200	95.5	325	3900	160.0	390	4800
425	4250	3400	101.5	345	4140	133.0	405	4840
450	4500	3600	107.5	365	4380	139.0	428	5060
A450	4500	3600	107.5	365	4380	180.0	440	5250
475	4750	3800	113.5	385	4630	145.0	450	5280
500	5000	4000	119.5	405	4870	151.0	473	5500
A500	5000	4000	119.5	405	4870	195.0	485	5700
550	5500	4400	131.5	445	5370	190.0	525	6000
A550	5500	4400	131.5	445	5370	215.0	535	6150
600	6000	4800	143.5	485	5850	213.0	574	6500
A600	6000	4800	143.5	485	5850	235.0	584	6600
A650	6500	5200	155.0	520	6250	240.0	622	6900
650	6500	5200	155.0	520	6250	250.0	632	7100
A700	7000	5600	167.0	560	6720	255.0	670	7400
700	7000	5600	167.0	560	6720	275.0	680	7600
A750	7500	6000	180.0	600	7200	290.0	730	8075
750	7500	6000	180.0	600	7200	270.0	722	7900
840	8400	6700	200.0	650	7800	320.0	800	8500
940	9400	7500	225.0	770	9270	345.0	900	9100
1050	10500	8400	250.0	810	9740	370.0	1000	9750
1150	11500	9200	275.0	850	10210	390.0	1100	10400

## DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

## APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Natural Gas Fired Water Heater  New<sup>1</sup>  Existing<sup>1</sup>

APPLICATION TYPE:  Construction  Operation  Modification

COMPANY NAME: Walt Disney World Co. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime

Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) South River Heater

SOURCE LOCATION: Street Buena Vista Drive City Lake Buena Vista

UTM: East 448193 North 3137578

Latitude 28° 21' 55" N Longitude 81° 31' 39" W

APPLICANT NAME AND TITLE: Walt Disney World Co.

APPLICANT ADDRESS: P. O. Box 10,000, Lake Buena Vista, Florida 32830

## SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

## A. APPLICANT

I am the undersigned owner or authorized representative\* of Walt Disney World Co.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: L. H. James

Lauren H. James, Dir., Lake Buena Vista Communities  
Name and Title (Please Type) Inc.

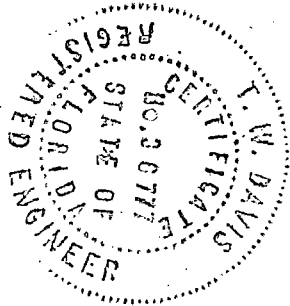
Date: 10/21/88 Telephone No. (407)934-7256

## B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

<sup>1</sup> See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Thomas W. Davis  
 \_\_\_\_\_  
 Thomas W Davis  
 \_\_\_\_\_  
 Name (Please Type)  
 \_\_\_\_\_  
 Hunter/Environmental Science and Engineering  
 \_\_\_\_\_  
 Company Name (Please Type)  
 \_\_\_\_\_  
 P. O. Box 1703, Gainesville, FL 32602  
 \_\_\_\_\_  
 Mailing Address (Please Type)

Florida Registration No. 36777 Date: 10/13/88 Telephone No. (904)332-3318

**SECTION II: GENERAL PROJECT INFORMATION**

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Installation of a hot water boiler (Rite Boiler Model 150) to provide hot water to the Typhoon Lagoon River. The boiler will be natural gas fired. No pollution control equipment will be installed.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction February 1989 Completion of Construction May 1989

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

None

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

None

Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;  
if power plant, hrs/yr \_\_\_\_\_ ; if seasonal, describe: \_\_\_\_\_

F. If this is a new source or major modification, answer the following questions.  
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO
    - a. If yes, has "offset" been applied? \_\_\_\_\_
    - b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_
    - c. If yes, list non-attainment pollutants. \_\_\_\_\_
  2. Does best available control technology (BACT) apply to this source?  
If yes, see Section VI. NO
  3. Does the State "Prevention of Significant Deterioration" (PSD)  
requirement apply to this source? If yes, see Sections VI and VII. NO
  4. Do "Standards of Performance for New Stationary Sources" (NSPS)  
apply to this source? NO
  5. Do "National Emission Standards for Hazardous Air Pollutants"  
(NESHAP) apply to this source? NO
- H. Do "Reasonably Available Control Technology" (RACT) requirements apply  
to this source? NO
- a. If yes, for what pollutants? \_\_\_\_\_
  - b. If yes, in addition to the information required in this form,  
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-  
cation for any answer of "No" that might be considered questionable.

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

**A. Raw Materials and Chemicals Used in your Process, if applicable:**

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
N/A				

**B. Process Rate, if applicable: (See Section V, Item 1)**

1. Total Process Input Rate (lbs/hr): N/A

2. Product Weight (lbs/hr): N/A

**C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)**

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Rule 17-2	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
SO <sub>2</sub>	0.0009	0.004			0.0009	0.004	
PM	0.008	0.033			0.008	0.033	
NO <sub>x</sub>	0.15	0.657			0.15	0.657	
CO	0.030	0.131			0.030	0.131	
VOC	0.008	0.035			0.008	0.035	

<sup>1</sup>See Section V, Item 2. See Tables 1 and 2 for calculation detail.

<sup>2</sup>Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
None				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	1,500 ft <sup>3</sup> /hr	1,500 ft <sup>3</sup> /hr	1,500,000 Btu/hr

\*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average \_\_\_\_\_ % Maximum \_\_\_\_\_ %

G. Indicate liquid or solid wastes generated and method of disposal.

None \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**M. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):**

Stack Height: 8 ft. Stack Diameter: 1.3 ft.  
 Gas Flow Rate: ACFM 300 DSCFM Gas Exit Temperature: 250 °F.  
 Water Vapor Content: N/A % Velocity: 3.8 FPS

**SECTION IV: INCINERATOR INFORMATION**

NOT APPLICABLE

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr incinerated							
Uncontrolled (lbs/hr)							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ day/wk \_\_\_\_\_ wks/yr. \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity: \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  
 Other (specify) \_\_\_\_\_



Brief description of operating characteristics of control devices: \_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

#### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]  

To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

NOT APPLICABLE

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- B. Has EPA declared the best available control technology for this class of sources (if yes, attach copy)

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- C. What emission levels do you propose as best available control technology?

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- D. Describe the existing control and treatment technology (if any).

1. Control Device/System:

2. Operating Principles:

3. Efficiency:\*

4. Capital Costs:

\*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft.
- b. Diameter: ft.
- c. Flow Rate: ACFM
- d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:<sup>1</sup>
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:<sup>1</sup>
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:<sup>1</sup>

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:<sup>2</sup>

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

- (5) Environmental Managers:
- (6) Telephone No.:
- (7) Emissions:<sup>1</sup>

Contaminant	Rate or Concentration

- (8) Process Rate:<sup>1</sup>
- b. (1) Company:
- (2) Mailing Address:
- (3) City: (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:<sup>1</sup>

Contaminant	Rate or Concentration

- (8) Process Rate:<sup>1</sup>
- 10. Reason for selection and description of systems:

<sup>1</sup>Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

**SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION**

NOT APPLICABLE

**A. Company Monitored Data**

1. \_\_\_\_\_ no. sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sub>2</sub>\* \_\_\_\_\_ Wind spd/dir  
 Period of Monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

- a. Was instrumentation EPA referenced or its equivalent?  Yes  No
- b. Was instrumentation calibrated in accordance with Department procedures?  
 Yes  No  Unknown

B. Meteorological Data Used for Air Quality Modeling

- 1. \_\_\_\_\_ Year(s) of data from \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year
- 2. Surface data obtained from (location) \_\_\_\_\_
- 3. Upper air (mixing height) data obtained from (location) \_\_\_\_\_
- 4. Stability wind rose (STAR) data obtained from (location) \_\_\_\_\_

C. Computer Models Used

- 1. \_\_\_\_\_ Modified? If yes, attach description.
- 2. \_\_\_\_\_ Modified? If yes, attach description.
- 3. \_\_\_\_\_ Modified? If yes, attach description.
- 4. \_\_\_\_\_ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO <sup>2</sup>	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

Table 1. Summary of Emissions from Water Heating Facilities at Typhoon Lagoon

Source	Identification Number	Rate (cfh)	Emissions (TPY)				
			SO <sub>2</sub>	PM	NO <sub>x</sub>	CO	VOC
North River Heater	TLB-1	1,500	0.004	0.033	0.657	0.131	0.035
South River Heater	TLB-2	1,500	0.004	0.033	0.657	0.131	0.035
North Wave Pool Heater	TLB-3	2,000	0.005	0.044	0.876	0.175	0.046
South Wave Pool Heater	TLB-4	2,000	0.005	0.044	0.876	0.175	0.046

\* Based on operating 8,760 hours/year

Note: cfh - cubic feet per hour  
 CO - carbon monoxide  
 NO<sub>x</sub> - nitrogen oxides  
 PM - particulate matter  
 SO<sub>2</sub> - sulfur dioxide  
 TPY - tons per year  
 VOC - volatile organic compounds

Source: ESE, 1988.

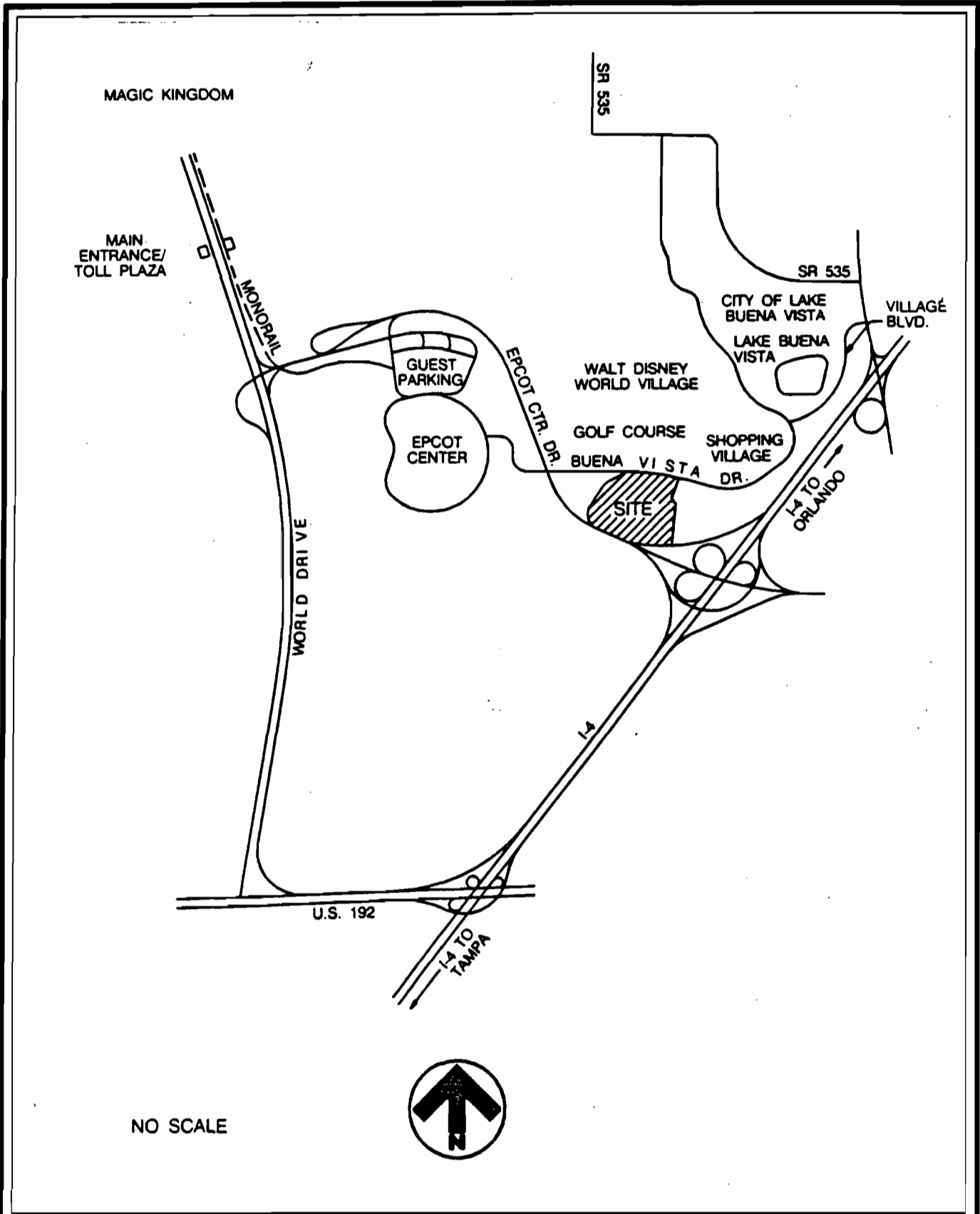
Table 2. Summary of Emission Factors for Domestic and Commercial Boilers

Pollutant	Emission Factor
Sulfur Dioxide	0.6 lb/10 <sup>6</sup> ft <sup>3</sup>
Particulate Matter	5.0 lb/10 <sup>6</sup> ft <sup>3</sup>
Nitrogen Oxides	100 lb/10 <sup>6</sup> ft <sup>3</sup>
Carbon Monoxide	20 lb/10 <sup>6</sup> ft <sup>3</sup>
Volatile Organic Compounds	5.3 lb/10 <sup>6</sup> ft <sup>3</sup>

Note: ft<sup>3</sup> - cubic feet.

Source: U. S. Environmental Protection Agency, 1986.  
Compilation of Air Pollutant Emission Factors, Volume I:  
Stationary Point and Area Sources, with Supplement A. Research  
Triangle Park, North Carolina.

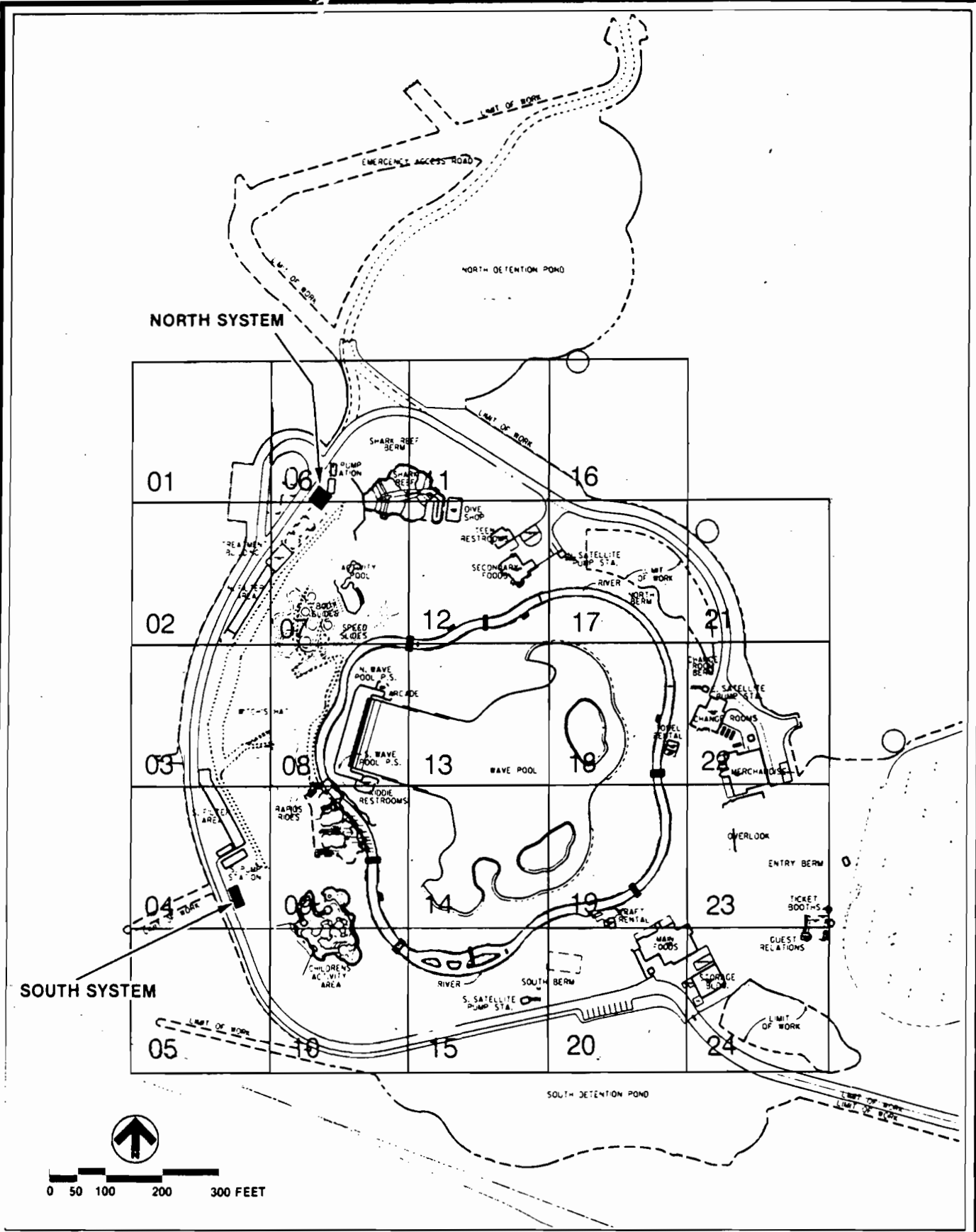




NO SCALE

TYPHOON LAGOON AREA MAP

ENVIRONMENTAL SCIENCE  
AND ENGINEERING, INC.



SOUTH SYSTEM

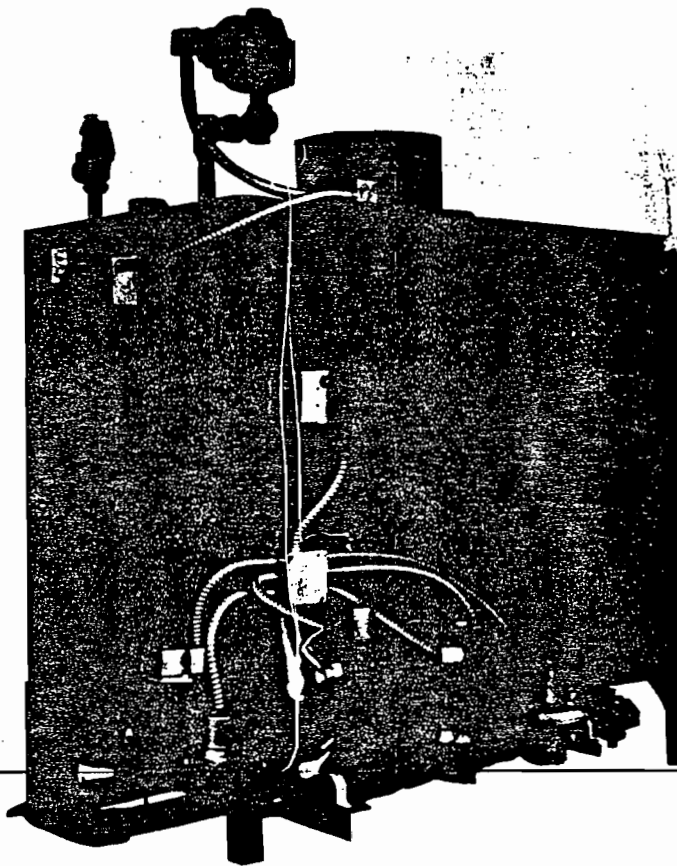
NORTH SYSTEM



TYPHOON LAGOON SITE PLAN

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

# Rite BOILERS



WATER HEATING BOILER  
LOW PRESSURE  
ATMOSPHERIC NATURAL GAS FIRED

A.I.A. File No. 30-C-1  
A.I.A. File No. 29-D-2

# RITE BOILERS - U.L. LISTED THRU MOD. 840

## OPTION EQUIPMENT (EXTRA COST)

### STANDARD EQUIPMENT

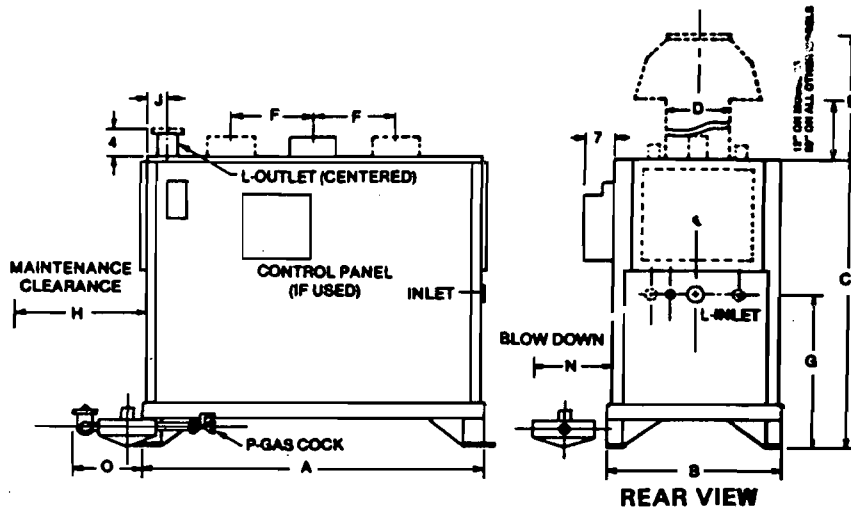
- LIFTING LUGS
- OPERATING CONTROL
- FULLY WIRED - 120/1/60
- FACTORY FIRE TESTED
- FIRING SYSTEM: MODELS 48-200 ON OFF  
A150-A200, 225-1250 LOW HIGH LOW
- CONTROL SYSTEM: ALL MODELS E02 SYSTEM  
(ELECTRONIC INTERMITTENT PILOT, AUTOMATIC RELIGHT, 100% SHUT OFF)
- DRILLED PORT ATMOSPHERIC BURNERS
- MAIN GAS COCK
- PILOT GAS COCK
- GAS PRESSURE REGULATOR
- DRAFT DIVERTER(S) OR BAROMETER DAMPER(S)
- LOW WATER CUT OFF
- RELIEF VALVE (ASME)
- HIGH LIMIT CONTROL
- PRESSURE - TEMPERATURE GAUGE
- AIR ELIMINATION FITTING (IF SPECIFIED)
- 30 PSI
- DUAL GAS VALVES - IN SERIES

- HI LO FIRE MOD 48-200
- MANUAL RESET GAS VALVE
- AUXILIARY LOW WATER CUT OFF
- LOW WATER CUT-OFF FEEDER COMB.
- ID FAN WITH DRAFT PROVING SWITCH
- IRI CONTROLS
- FM CONTROLS
- INDIRECT INTERNAL HEAT EXCHANGER:  
STRAIGHT THRU COPPER TUBES (LIME-LITE)
- EXTERNAL HEAT EXCHANGER MOUNTED ON  
BOILER W/PUMP AND TEMP. CONTROLLER
- E03 SYSTEM (ELECTRONIC CONTINUOUS PILOT,  
AUTOMATIC RELIGHT, 100% SHUT OFF)  
RECOMMENDED FOR HEAVY GASES
- RITE LITE PANEL
- TATTLE TALE PANEL
- STACK SUPPORT
- MODULATION
- COPPER TUBES
- 125 PSI
- HINGED HEAD PLATES OR DAVITS
- INSULATED HEAD PLATES
- ANODES
- EXPANSION TANKS
- FLUE GAS THERM.
- HAND HOLES
- GAS STRAINER
- LEAK TEST COCK

## GENERAL DATA

MODEL	Input BTU/HR x1000	Output BTU/HR x1000	H.P.	G.P.M. 20° F Rise	G.P.H. 100° F Rise	Water Content Gallons	Surface Heating Sq. Ft.	Shipping Wt.
48	480	384	11.5	38	465	20.5	49	1060
55	550	440	13.2	44	535	22.3	56	1260
63	630	508	15.1	51	615	24.6	63	1360
76	760	608	18.2	61	740	27.0	75	1500
A90	900	720	21.5	72	875	30.5	89	1700
85	850	680	20.3	68	830	40.0	88	1700
90	900	720	21.5	72	875	40.0	88	1700
108	1050	840	25.1	84	1015	43.0	101	1830
120	1200	960	28.8	97	1165	47.0	115	1960
135	1350	1080	32.2	110	1315	50.0	131	2100
150	1500	1200	35.8	120	1460	54.0	145	2220
A150	1500	1200	35.8	120	1460	71.0	160	2330
165	1650	1320	39.4	135	1600	57.0	159	2350
A165	1650	1320	39.4	135	1600	75.0	168	2500
180	1800	1440	43.0	145	1750	61.0	174	2450
A180	1800	1440	43.0	145	1750	79.0	190	2680
200	2000	1600	47.8	160	1950	66.0	192	2650
A200	2000	1600	47.8	160	1950	83.0	206	2900
225	2250	1800	53.8	180	2190	89.0	230	3100
250	2500	2000	59.7	200	2430	94.0	262	3370
275	2750	2200	65.7	220	2670	100.0	273	3520
300	3000	2400	71.8	240	2920	105.0	296	3740
325	3250	2600	77.7	265	3160	111.0	318	3950
350	3500	2800	83.6	285	3400	116.0	340	4190
375	3750	3000	89.6	305	3650	122.0	362	4400
400	4000	3200	95.6	325	3900	127.0	383	4620
A400	4000	3200	95.6	325	3900	160.0	390	4800
425	4250	3400	101.5	345	4140	133.0	406	4840
450	4500	3600	107.5	365	4380	139.0	428	5060
A450	4500	3600	107.5	365	4380	180.0	440	5250
475	4750	3800	113.5	385	4630	145.0	450	5280
500	5000	4000	119.5	405	4870	151.0	473	5500
A500	5000	4000	119.5	405	4870	195.0	488	5700
550	5500	4400	131.5	445	5370	190.0	526	6000
A550	5500	4400	131.5	445	5370	215.0	535	6150
600	6000	4800	143.5	485	5850	213.0	574	6510
A600	6000	4800	143.5	485	5850	235.0	584	6620
A650	6500	5200	155.0	520	6250	240.0	622	6900
650	6500	5200	155.0	520	6250	250.0	632	7100
A700	7000	5600	167.0	560	6720	255.0	670	7400
700	7000	5600	167.0	560	6720	275.0	680	7600
A750	7500	6000	180.0	600	7200	270.0	722	7900
750	7500	6000	180.0	600	7200	290.0	730	8075
840	8400	6700	200.0	660	7800	320.0	800	8500
840	8400	7500	225.0	770	9270	345.0	900	9100
1050	10500	8400	250.0	810	9740	370.0	1000	9750
1150	11500	9200	275.0	870	10700	390.0	1050	10200

# WATER-ATMOSPHERIC GAS



"B" Dimension	Blow Down Size
26	1
32	1-1/4
42	1-1/2
51 & larger	2

## DIMENSIONS

NOTE: Over 4" all dimensions are flanged

MODEL	A	B	C	D	E	F	G	H	J	L	N	O	P
48	40	26	48	9	31	0	26	32	2-1/2	2	10	10	1
55	45	26	48	10	32	0	26	37	2-1/2	2	10	10	1
63	50	26	48	10	32	0	26	42	2-1/2	2	10	10	1
78	58	26	48	11	33	0	26	50	2-1/2	2	10	10	1
A90	68	26	48	12	34	0	26	60	2-1/2	2	10	10	1-1/4
85	46	32	52	12	34	0	26	36	2-5/8	3	12	18	1
90	46	32	52	12	34	0	26	36	2-5/8	3	12	18	1-1/4
105	52	32	52	14	36	0	26	42	2-5/8	3	12	18	1-1/4
120	58	32	52	14	36	0	26	48	2-5/8	3	12	18	1-1/4
135	64	32	52	16	38	0	26	54	2-5/8	3	12	18	1-1/4
150	70	32	52	16	38	0	26	60	2-5/8	3	12	18	1-1/2
A150	55	42	57	16	38	0	26	42	3-1/2	4	14	20	1-1/2
165	78	32	52	16	38	0	26	66	2-5/8	3	12	18	1-1/2
A165	59	42	57	16	38	0	26	46	3-1/2	4	14	20	1-1/2
180	82	32	52	2-12	34	18	26	72	2-5/8	3	12	18	1-1/2
A180	65	42	57	2-12	34	13	26	52	3-1/2	4	14	20	1-1/2
200	90	32	52	2-14	36	20	26	80	2-5/8	3	12	18	1-1/2
A200	69	42	57	2-14	36	15	26	56	3-1/2	4	14	20	2
225	73	42	57	2-14	36	15	26	60	3-1/2	4	16	24	2
250	79	42	57	2-14	36	16	26	66	3-1/2	4	16	24	2
275	85	42	57	2-16	38	18	26	72	3-1/2	4	16	24	2
300	91	42	57	2-16	38	19	26	78	3-1/2	4	16	24	2-1/2
325	97	42	57	2-16	38	21	26	84	3-1/2	4	16	24	2-1/2
350	103	42	57	2-18	40	23	26	90	3-1/2	4	16	24	2-1/2
375	109	42	57	2-18	40	24	26	96	3-1/2	4	16	24	2-1/2
400	115	42	57	2-18		25	26	102	3-1/2	4	16	24	2
A400	79	63	63	22		0	28	55	4-3/4	2-4	14	24	2
425	124	42	57	2-18		27	26	108	3-1/2	4	16	24	2
450	127	42	57	2-20		28	26	114	3-1/2	4	16	24	2
A450	87	63	63	24		0	28	65	4-3/4	2-4	14	24	2
475	133	42	57	2-20		30	26	120	3-1/2	4	16	24	2
500	139	42	57	2-20		31	26	126	3-1/2	4	16	24	2
A500	95	63	63	26		0	28	72	4-3/4	2-4	14	24	2
550	109	51	62	2-20		23	26	96	3-1/2	4	16	28	2
A550	102	63	63	26		0	28	80	4-3/4	2-4	14	28	2
600	118	51	62	2-22		25	26	105	3-1/2	4	16	28	2
A600	109	63	63	2-20		23	28	85	4-3/4	2-4	14	28	2
A650	129	51	62	2-22		28	26	114	4	5	16	28	2
650	117	63	63	2-22		24	28	92	4-3/4	2-4	14	28	2
A700	138	51	62	2-22		30	26	123	4	5	16	28	2
700	124	63	63	2-22		26	28	100	4-3/4	2-4	14	28	2
A750	147	51	62	2-24		32	26	132	4	5	16	28	2
750	132	63	63	2-24		28	28	108	4-3/4	2-4	14	28	2
840	115	77	63	2-24		23	27	87	5	2-5	14	28	2-1/2
940	128	77	63	2-24		26	27	100	5	2-5	14	28	2-1/2
1050	140	77	63	2-26		29	27	111	5	2-5	14	28	2-1/2
1150	152	77	63	2-26		32	27	123	5	2-5	14	28	2-1/2
1250	164	77	63	2-26		35	27	135	5	2-5	14	28	2-1/2

BAROMETRIC DAMPERS STANDARD

## DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

## APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Natural Gas Fired Water Heater  New<sup>1</sup> [ ] Existing<sup>1</sup>

APPLICATION TYPE:  Construction [ ] Operation [ ] Modification

COMPANY NAME: Walt Disney World Co. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime  
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) North Wave Pool Heater

SOURCE LOCATION: Street Buena Vista Drive City Lake Buena Vista

UTM: East 448193 North 3137578

Latitude 28° 21' 55" N Longitude 81° 31' 39" W

APPLICANT NAME AND TITLE: Walt Disney World Co.

APPLICANT ADDRESS: P. O. Box 10,000, Lake Buena Vista, Florida 32830

## SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

## A. APPLICANT

I am the undersigned owner or authorized representative\* of Walt Disney World Co.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: Lauren H. James

Lauren H. James, Dir., Lake Buena Vista Communities, Inc.  
Name and Title (Please Type)

Date: 10/21/88 Telephone No. (407) 934-7256

## B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

<sup>1</sup> See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Thomas W. Davis

Thomas W. Davis  
Name (Please Type)

Hunter/Environmental Science and Engineering  
Company Name (Please Type)

P. O. Box 1703, Gainesville, FL 32602  
Mailing Address (Please Type)

Florida Registration No. 36777 Date: 10/13/88 Telephone No. (904)332-3318

**SECTION II: GENERAL PROJECT INFORMATION**

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Installation of a hot water boiler (Rite Boiler Model 200) to provide hot water to the Typhoon Lagoon Wave Pool. The boiler will be natural gas fired. No pollution control equipment will be installed.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction February 1989 Completion of Construction May 1989

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

None

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

None

Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;  
if power plant, hrs/yr \_\_\_\_\_ ; if seasonal, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

F. If this is a new source or major modification, answer the following questions.  
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO  
a. If yes, has "offset" been applied? \_\_\_\_\_  
b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_  
c. If yes, list non-attainment pollutants. \_\_\_\_\_
2. Does best available control technology (BACT) apply to this source? NO  
If yes, see Section VI.
3. Does the State "Prevention of Significant Deterioration" (PSD)  
requirement apply to this source? If yes, see Sections VI and VII. NO
4. Do "Standards of Performance for New Stationary Sources" (NSPS)  
apply to this source? NO
5. Do "National Emission Standards for Hazardous Air Pollutants"  
(NESHAP) apply to this source? NO
- H. Do "Reasonably Available Control Technology" (RACT) requirements apply  
to this source? NO  
a. If yes, for what pollutants? \_\_\_\_\_  
b. If yes, in addition to the information required in this form,  
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-  
cation for any answer of "No" that might be considered questionable.



**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

**A. Raw Materials and Chemicals Used in your Process, if applicable:**

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
N/A				

**B. Process Rate, if applicable: (See Section V, Item 1)**

1. Total Process Input Rate (lbs/hr): N/A

2. Product Weight (lbs/hr): N/A

**C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)**

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Rule 17-2	Allowable Emission <sup>3</sup> lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
SO <sub>2</sub>	0.001	0.005			0.001	0.005	
PM	0.010	0.044			0.010	0.044	
NO <sub>x</sub>	0.200	0.876			0.200	0.876	
CO	0.040	0.175			0.040	0.175	
VOC	0.011	0.046			0.011	0.046	

<sup>1</sup>See Section V, Item 2. See Tables 1 and 2 for calculation detail.

<sup>2</sup>Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
None				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	2,000 ft <sup>3</sup> /hr	2,000 ft <sup>3</sup> /hr	2,000,000 Btu/hr

\*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average \_\_\_\_\_ 0% \_\_\_\_\_ Maximum \_\_\_\_\_ 0% \_\_\_\_\_

G. Indicate liquid or solid wastes generated and method of disposal.

None

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 8 ft. Stack Diameter: 1.3 ft.  
 Gas Flow Rate: ACFM 400 DSCFM Gas Exit Temperature: 250 °F.  
 Water Vapor Content: N/A % Velocity: 5.0 FPS

SECTION IV: INCINERATOR INFORMATION

NOT APPLICABLE

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr incinerated							
Uncontrolled (lbs/hr)							

Description of Waste \_\_\_\_\_  
 Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_  
 Approximate Number of Hours of Operation per day \_\_\_\_\_ day/wk \_\_\_\_\_ wks/yr. \_\_\_\_\_  
 Manufacturer \_\_\_\_\_  
 Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ Stack Temp. \_\_\_\_\_  
 Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity: \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  
 Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

#### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]  
To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

NOT APPLICABLE

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- C. What emission levels do you propose as best available control technology?

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- D. Describe the existing control and treatment technology (if any).

1. Control Device/System:

2. Operating Principles:

3. Efficiency:\*

4. Capital Costs:

\*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft.    b. Diameter: ft.
- c. Flow Rate: ACFM    d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Device: b. Operating Principles:
- c. Efficiency:<sup>1</sup> d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:<sup>2</sup> h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device: b. Operating Principles:
- c. Efficiency:<sup>1</sup> d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:<sup>2</sup> h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:<sup>1</sup>

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:<sup>2</sup>

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

((2) Mailing Address:

((3) City:

((4) State:

<sup>1</sup> Explain method of determining efficiency.

<sup>2</sup> Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate:<sup>1</sup>

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate:<sup>1</sup>

10. Reason for selection and description of systems:

<sup>1</sup>Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

NOT APPLICABLE

A. Company Monitored Data

1. \_\_\_\_\_ no. sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sub>2</sub> \_\_\_\_\_ Wind spd/dir

Period of Monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).



2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?  
[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. \_\_\_\_\_ Year(s) of data from \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

2. Surface data obtained from (location) \_\_\_\_\_

3. Upper air (mixing height) data obtained from (location) \_\_\_\_\_

4. Stability wind rose (STAR) data obtained from (location) \_\_\_\_\_

C. Computer Models Used

1. \_\_\_\_\_ Modified? If yes, attach description.

2. \_\_\_\_\_ Modified? If yes, attach description.

3. \_\_\_\_\_ Modified? If yes, attach description.

4. \_\_\_\_\_ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO <sup>2</sup>	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

Table 1. Summary of Emissions from Water Heating Facilities at Typhoon Lagoon

Source	Identification Number	Rate (cfh)	Emissions (TPY)				
			SO <sub>2</sub>	PM	NO <sub>x</sub>	CO	VOC
North River Heater	TLB-1	1,500	0.004	0.033	0.657	0.131	0.035
South River Heater	TLB-2	1,500	0.004	0.033	0.657	0.131	0.035
North Wave Pool Heater	TLB-3	2,000	0.005	0.044	0.876	0.175	0.046
South Wave Pool Heater	TLB-4	2,000	0.005	0.044	0.876	0.175	0.046

\* Based on operating 8,760 hours/year

Note: cfh - cubic feet per hour  
 CO - carbon monoxide  
 NO<sub>x</sub> - nitrogen oxides  
 PM - particulate matter  
 SO<sub>2</sub> - sulfur dioxide  
 TPY - tons per year  
 VOC - volatile organic compounds

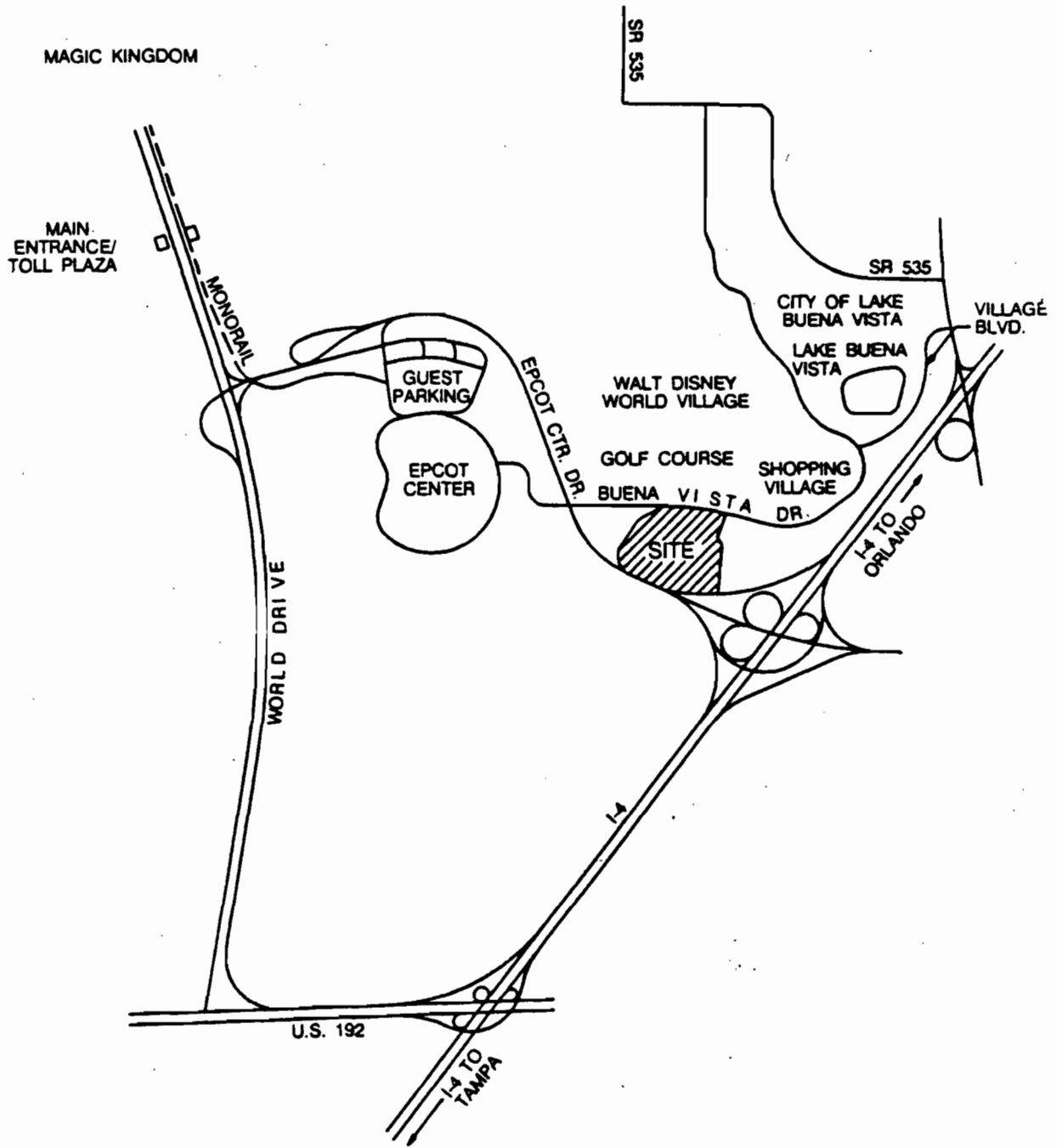
Source: ESE, 1988.

Table 2. Summary of Emission Factors for Domestic and Commercial Boilers

Pollutant	Emission Factor
Sulfur Dioxide	0.6 lb/10 <sup>6</sup> ft <sup>3</sup>
Particulate Matter	5.0 lb/10 <sup>6</sup> ft <sup>3</sup>
Nitrogen Oxides	100 lb/10 <sup>6</sup> ft <sup>3</sup>
Carbon Monoxide	20 lb/10 <sup>6</sup> ft <sup>3</sup>
Volatile Organic Compounds	5.3 lb/10 <sup>6</sup> ft <sup>3</sup>

Note: ft<sup>3</sup> - cubic feet.

Source: U. S. Environmental Protection Agency, 1986.  
Compilation of Air Pollutant Emission Factors, Volume I:  
Stationary Point and Area Sources, with Supplement A. Research  
Triangle Park, North Carolina.

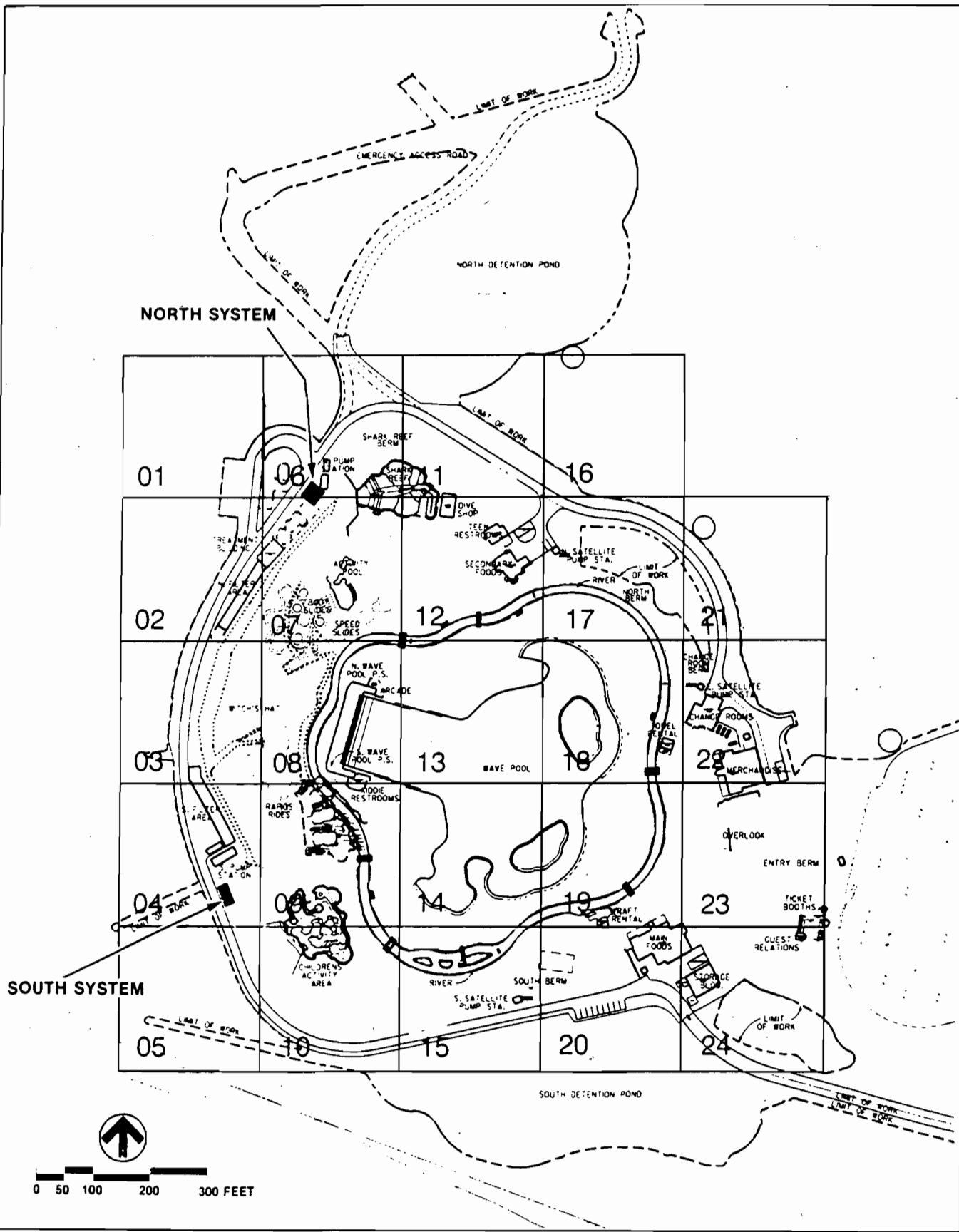


NO SCALE



TYPHOON LAGOON AREA MAP

ENVIRONMENTAL SCIENCE  
AND ENGINEERING, INC.

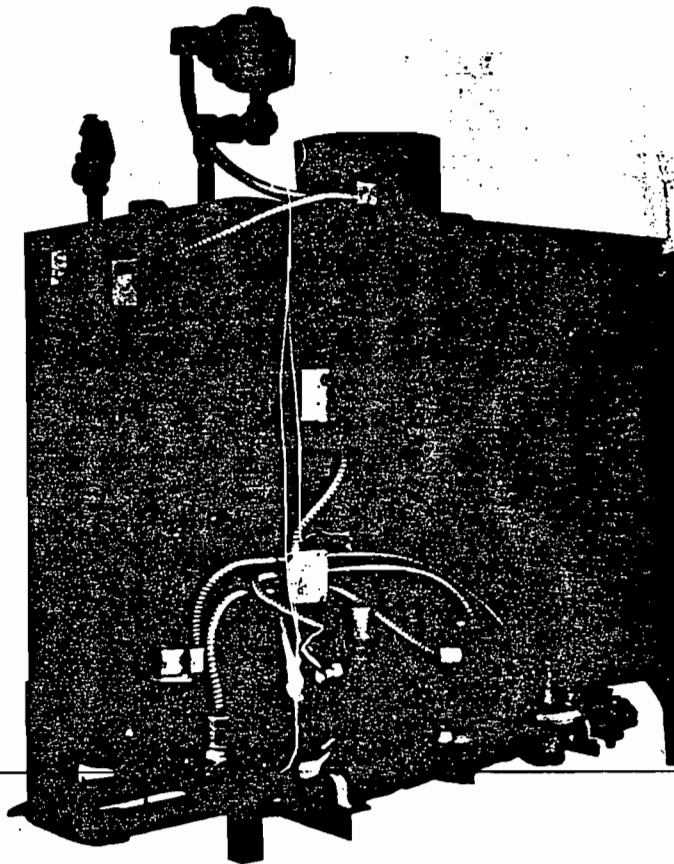


TYPHOON LAGOON SITE PLAN

ENVIRONMENTAL SCIENCE  
AND ENGINEERING, INC.

BEST AVAILABLE COPY

# Rite BOILERS



WATER HEATING BOILER  
LOW PRESSURE  
ATMOSPHERIC NATURAL GAS FIRED

A.I.A. File No. 30-C-1  
A.I.A. File No. 29-D-2

RITE ENGINEERING & MANUFACTURING CORPORATION  
9441 WASHBURN ROAD / DOWNEY / CALIFORNIA 90242  
TELEPHONE (310) 662-2125

# RITE BOILERS - U.L. LISTED THRU MOD. 840

## OPTION EQUIPMENT (EXTRA COST)

### STANDARD EQUIPMENT

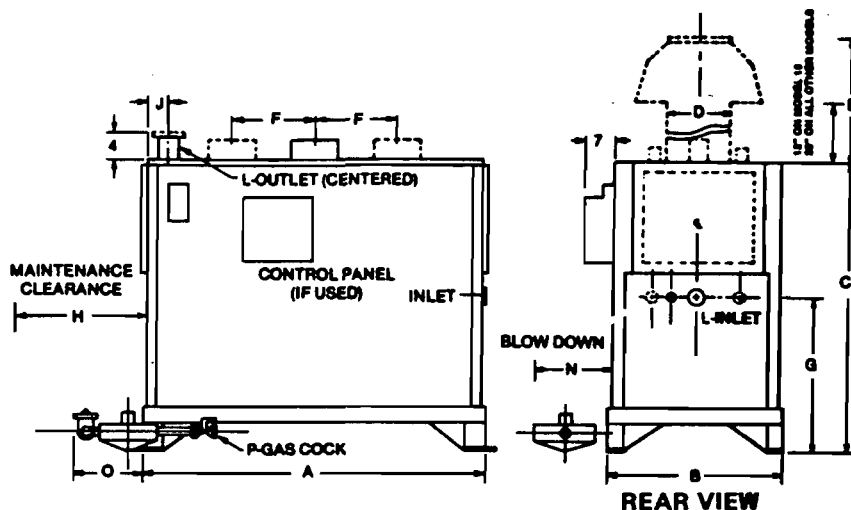
- LIFTING LUGS
- OPERATING CONTROL
- FULLY WIRED - 120/1/60
- FACTORY FIRE TESTED
- FIRING SYSTEM: MODELS 48-200 ON OFF  
A150-A200, 225-1250 LOW HIGH LOW
- CONTROL SYSTEM: ALL MODELS E02 SYSTEM  
(ELECTRONIC INTERMITTENT PILOT, AUTOMATIC  
RELIGHT, 100% SHUT OFF)
- DRILLED PORT ATMOSPHERIC BURNERS
- MAIN GAS COCK
- PILOT GAS COCK
- GAS PRESSURE REGULATOR
- DRAFT DIVERTER(S) OR BAROMETER DAMPER(S)
- LOW WATER CUT OFF
- RELIEF VALVE (ASME)
- HIGH LIMIT CONTROL
- PRESSURE - TEMPERATURE GAUGE
- AIR ELIMINATION FITTING (IF SPECIFIED)
- 30 PSI
- DUAL GAS VALVES - IN SERIES

- HI LO FIRE MOD 48-200
- MANUAL RESET GAS VALVE
- AUXILIARY LOW WATER CUT OFF
- LOW WATER CUT-OFF FEEDER COMB.
- ID FAN WITH DRAFT PROVING SWITCH
- IRI CONTROLS
- FM CONTROLS
- INDIRECT INTERNAL HEAT EXCHANGER;  
STRAIGHT THRU COPPER TUBES (LIME-LITE)
- EXTERNAL HEAT EXCHANGER MOUNTED ON  
BOILER W/PUMP AND TEMP. CONTROLLER
- E03 SYSTEM (ELECTRONIC CONTINUOUS PILOT,  
AUTOMATIC RELIGHT, 100% SHUT OFF)  
RECOMMENDED FOR HEAVY GASES
- RITE LITE PANEL
- TATTLE TALE PANEL
- STACK SUPPORT
- MODULATION
- COPPER TUBES
- 125 PSI
- HINGED HEAD PLATES OR DAVITS
- INSULATED HEAD PLATES
- ANODES
- EXPANSION TANKS
- FLUE GAS THERM.
- HAND HOLES
- GAS STRAINER
- LEAK TEST COCK

## GENERAL DATA

MODEL	Input BTU/HR x1000	Output BTU/HR x1000	H.P.	G.P.M. 20° F Rise	G.P.H. 100° F Rise	Water Content Gallons	Surface Heating Sq. Ft.	Shipping Wt.
48	480	384	11.5	38	465	20.5	49	1060
55	550	440	13.2	44	535	22.3	56	1280
63	630	506	16.1	51	615	24.0	63	1360
76	780	608	18.2	61	740	27.0	75	1500
A90	900	720	21.5	72	875	30.5	89	1700
85	850	680	20.3	68	830	40.0	88	1700
90	900	720	21.5	72	875	40.0	88	1700
105	1050	840	25.1	84	1015	43.0	101	1830
120	1200	960	28.6	97	1165	47.0	115	1960
135	1350	1080	32.2	110	1315	50.0	131	2100
150	1500	1200	35.8	120	1460	54.0	145	2220
A150	1500	1200	35.8	120	1460	71.0	180	2330
165	1650	1320	39.4	135	1600	57.0	159	2350
A165	1650	1320	39.4	135	1600	75.0	168	2500
180	1800	1440	43.0	145	1750	61.0	174	2450
A180	1800	1440	43.0	145	1750	79.0	190	2680
200	2000	1600	47.8	160	1950	66.0	192	2650
A200	2000	1600	47.8	160	1950	83.0	206	2800
225	2250	1800	53.8	180	2190	89.0	230	3100
250	2500	2000	59.7	200	2430	94.0	252	3370
275	2750	2200	65.7	220	2670	100.0	273	3520
300	3000	2400	71.8	240	2920	105.0	296	3740
325	3250	2600	77.7	265	3160	111.0	318	3950
350	3500	2800	83.6	285	3400	116.0	340	4130
375	3750	3000	89.6	305	3650	122.0	362	4400
400	4000	3200	95.6	325	3900	127.0	383	4620
A400	4000	3200	95.6	325	3900	160.0	390	4800
425	4250	3400	101.5	345	4140	133.0	405	4840
450	4500	3600	107.5	365	4380	139.0	428	5060
A450	4500	3600	107.5	365	4380	180.0	440	5250
475	4750	3800	113.5	385	4630	145.0	450	5280
500	5000	4000	119.5	405	4870	151.0	473	5500
A500	5000	4000	119.5	405	4870	195.0	488	5700
550	5500	4400	131.5	445	5370	190.0	528	6000
A550	5500	4400	131.5	445	5370	215.0	535	6150
600	6000	4800	143.5	485	5850	213.0	574	6500
A600	6000	4800	143.5	485	5850	235.0	584	6620
650	6500	5200	155.0	520	6250	240.0	622	6900
A650	6500	5200	155.0	520	6250	250.0	632	7100
700	7000	5600	167.0	560	6720	255.0	670	7400
A700	7000	5600	167.0	560	6720	275.0	680	7600
750	7500	6000	180.0	600	7200	270.0	722	7900
A750	7500	6000	180.0	600	7200	290.0	730	8075
840	8400	6700	200.0	650	7800	320.0	800	8500
940	9400	7500	225.0	770	9200	345.0	900	9100
1050	10500	8400	250.0	810	9740	370.0	1000	9750
1150	11500	9200	275.0	850	10280	370.0	1000	9750

# WATER-ATMOSPHERIC GAS



## DIMENSIONS

NOTE: Over 4" all dimensions are flanged

MODEL	A	B	C	D	E	F	G	H	J	L	N	O	P
48	40	26	48	9	31	0	26	32	2-1/2	2	10	10	1
55	45	26	48	10	32	0	26	37	2-1/2	2	10	10	1
63	50	26	48	10	32	0	26	42	2-1/2	2	10	10	1
76	58	26	48	11	33	0	26	60	2-1/2	2	10	10	1
A90	68	26	48	12	34	0	26	60	2-1/2	2	10	10	1-1/4
85	46	32	52	12	34	0	26	36	2-5/8	3	12	18	1
90	46	32	52	12	34	0	26	36	2-5/8	3	12	18	1-1/4
106	52	32	52	14	36	0	26	42	2-5/8	3	12	18	1-1/4
120	58	32	52	14	36	0	26	48	2-5/8	3	12	18	1-1/4
136	64	32	52	16	38	0	26	54	2-5/8	3	12	18	1-1/4
150	70	32	52	16	38	0	26	60	2-5/8	3	12	18	1-1/2
A150	56	42	57	16	38	0	26	42	3-1/2	4	14	20	1-1/2
165	76	32	52	16	38	0	26	66	2-5/8	3	12	18	1-1/2
A165	59	42	57	16	38	0	26	46	3-1/2	4	14	20	1-1/2
180	82	32	52	2-12	34	18	26	72	2-5/8	3	12	18	1-1/2
A180	66	42	57	2-12	34	13	26	52	3-1/2	4	14	20	1-1/2
200	90	32	52	2-14	36	20	26	80	2-5/8	3	12	18	1-1/2
A200	69	42	57	2-14	36	15	26	56	3-1/2	4	14	20	2
225	73	42	57	2-14	36	15	26	60	3-1/2	4	16	24	2
250	79	42	57	2-14	36	16	26	66	3-1/2	4	16	24	2
275	85	42	57	2-16	38	18	26	72	3-1/2	4	16	24	2
300	91	42	57	2-16	38	19	26	78	3-1/2	4	16	24	2-1/2
325	97	42	57	2-16	38	21	26	84	3-1/2	4	16	24	2-1/2
350	103	42	57	2-18	40	23	26	90	3-1/2	4	16	24	2-1/2
375	109	42	57	2-18	40	24	26	96	3-1/2	4	16	24	2-1/2
400	115	42	57	2-18	40	25	26	102	3-1/2	4	16	24	2
A400	79	63	63	22	0	0	28	56	4-3/4	2-4	14	24	2
425	121	42	57	2-18	40	27	26	108	3-1/2	4	16	24	2
450	127	42	57	2-20	40	28	26	114	3-1/2	4	16	24	2
A450	87	63	63	24	0	0	28	66	4-3/4	2-4	14	24	2
475	133	42	57	2-20	40	30	26	120	3-1/2	4	16	24	2
500	139	42	57	2-20	40	31	26	126	3-1/2	4	16	24	2
A500	95	63	63	26	0	0	28	72	4-3/4	2-4	14	24	2
550	109	51	62	2-20	40	23	26	96	3-1/2	4	16	24	2
A550	102	63	63	26	0	0	28	80	4-3/4	2-4	14	24	2
600	118	51	62	2-22	40	25	26	106	3-1/2	4	16	24	2
A600	109	63	63	2-20	40	23	26	86	4-3/4	2-4	14	24	2
A650	129	51	62	2-22	40	28	26	114	4	5	16	24	2
650	117	63	63	2-22	40	24	26	92	4-3/4	2-4	14	24	2
A700	138	51	62	2-22	40	30	26	123	4	5	16	24	2
700	124	63	63	2-22	40	26	26	100	4-3/4	2-4	14	24	2
A750	147	51	62	2-24	40	32	26	132	4	5	16	24	2
750	132	63	63	2-24	40	28	26	108	4-3/4	2-4	14	24	2
840	115	77	63	2-24	40	23	27	87	5	2-5	14	24	2-1/2
940	128	77	63	2-24	40	26	27	100	5	2-5	14	24	2-1/2
1050	140	77	63	2-26	40	29	27	111	5	2-5	14	24	2-1/2
1150	152	77	63	2-26	40	32	27	123	5	2-5	14	24	2-1/2
1250	164	77	63	2-26	40	35	27	135	5	2-5	14	24	2-1/2

BAROMETRIC DAMPERS STANDARD



## DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

## APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Natural Gas Fired Water Heater  New<sup>1</sup>  Existing<sup>1</sup>  
APPLICATION TYPE:  Construction  Operation  Modification  
COMPANY NAME: Walt Disney World Co. COUNTY: Orange

Identify the specific emission point source(s) addressed in this application (i.e. Lime

Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) South Wave Pool Heater

SOURCE LOCATION: Street Buena Vista Drive City Lake Buena Vista

UTM: East 448193 North 3137578

Latitude 28° 21' 55" N Longitude 81° 31' 39" W

APPLICANT NAME AND TITLE: Walt Disney World Co.

APPLICANT ADDRESS: P. O. Box 10,000, Lake Buena Vista, Florida 32830

## SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

## A. APPLICANT

I am the undersigned owner or authorized representative\* of Walt Disney World Co.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: Lauren H. James

Lauren H. James, Dir., Lake Buena Vista Communities  
Name and Title (Please Type)

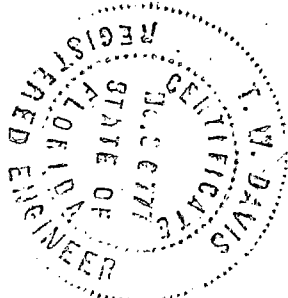
Date: 10/21/88 Telephone No. (407)934-7256

## B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

<sup>1</sup> See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Thomas W. Davis

Thomas W. Davis  
Name (Please Type)

Hunter/Environmental Science and Engineering  
Company Name (Please Type)

P. O. Box 1703, Gainesville, FL 32602  
Mailing Address (Please Type)

Florida Registration No. 36777 Date: 10/13/88 Telephone No. (904)332-3318

**SECTION II: GENERAL PROJECT INFORMATION**

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Installation of a hot water boiler (Rite Boiler Model 200) to provide hot water to the Typhoon Lagoon Wave Pool. The boiler will be natural gas fired. No pollution control equipment will be installed.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction February 1989 Completion of Construction May 1989

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

None

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

None

Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;  
if power plant, hrs/yr \_\_\_\_\_ ; if seasonal, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

F. If this is a new source or major modification, answer the following questions.  
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO
    - a. If yes, has "offset" been applied? \_\_\_\_\_
    - b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_
    - c. If yes, list non-attainment pollutants. \_\_\_\_\_
  2. Does best available control technology (BACT) apply to this source?  
If yes, see Section VI. NO
  3. Does the State "Prevention of Significant Deterioration" (PSD)  
requirement apply to this source? If yes, see Sections VI and VII. NO
  4. Do "Standards of Performance for New Stationary Sources" (NSPS)  
apply to this source? NO
  5. Do "National Emission Standards for Hazardous Air Pollutants"  
(NESHAP) apply to this source? NO
- H. Do "Reasonably Available Control Technology" (RACT) requirements apply  
to this source? NO
- a. If yes, for what pollutants? \_\_\_\_\_
  - b. If yes, in addition to the information required in this form,  
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-  
cation for any answer of "No" that might be considered questionable.

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

**A. Raw Materials and Chemicals Used in your Process, if applicable:**

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
N/A				

**B. Process Rate, if applicable: (See Section V, Item 1)**

1. Total Process Input Rate (lbs/hr): N/A

2. Product Weight (lbs/hr): N/A

**C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)**

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Rule 17-2	Allowable Emission <sup>3</sup> lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
SO <sub>2</sub>	0.001	0.005			0.001	0.005	
PM	0.010	0.044			0.010	0.044	
NO <sub>x</sub>	0.200	0.876			0.200	0.876	
CO	0.040	0.175			0.040	0.175	
VOC	0.011	0.046			0.011	0.046	

<sup>1</sup>See Section V, Item 2. See Table 1 and 2 for calculation detail.

<sup>2</sup>Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
None				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	2,000 ft <sup>3</sup> /hr	2,000 ft <sup>3</sup> /hr	2,000,000 Btu/hr

\*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average \_\_\_\_\_ 0% \_\_\_\_\_ Maximum \_\_\_\_\_ 0% \_\_\_\_\_

G. Indicate liquid or solid wastes generated and method of disposal.

None

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 8 ft. Stack Diameter: 1.3 ft.  
 Gas Flow Rate: ACFM 400 DSCFM Gas Exit Temperature: 250 °F.  
 Water Vapor Content: N/A % Velocity: 5.0 FPS

SECTION IV: INCINERATOR INFORMATION

NOT APPLICABLE

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr incinerated							
Uncontrolled (lbs/hr)							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ day/wk \_\_\_\_\_ wks/yr. \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity: \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  
 Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 5, 7, 8, and 10 in Section V must be included where applicable.

#### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]  
To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

NOT APPLICABLE

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes  No

Contaminant

Rate or Concentration

_____	_____
_____	_____
_____	_____
_____	_____

B. Has EPA declared the best available control technology for this class of sources (if yes, attach copy)

Yes  No

Contaminant

Rate or Concentration

_____	_____
_____	_____
_____	_____
_____	_____

C. What emission levels do you propose as best available control technology?

Contaminant

Rate or Concentration

_____	_____
_____	_____
_____	_____
_____	_____

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:

2. Operating Principles:

3. Efficiency:\*

4. Capital Costs:

\*Explain method of determining



5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft.
- b. Diameter: ft.
- c. Flow Rate: ACFM
- d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:<sup>1</sup>
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:<sup>1</sup>
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:<sup>1</sup>

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:<sup>2</sup>

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

10. Reason for selection and description of systems:

<sup>1</sup>Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

NOT APPLICABLE

A. Company Monitored Data

1. \_\_\_\_\_ no. sites \_\_\_\_\_ TSP ( ) SO<sub>2</sub>+ \_\_\_\_\_ Wind spd/dir

Period of Monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

- a. Was instrumentation EPA referenced or its equivalent?  Yes  No
- b. Was instrumentation calibrated in accordance with Department procedures?  
 Yes  No  Unknown

B. Meteorological Data Used for Air Quality Modeling

1. \_\_\_\_\_ Year(s) of data from \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year
2. Surface data obtained from (location) \_\_\_\_\_
3. Upper air (mixing height) data obtained from (location) \_\_\_\_\_
4. Stability wind rose (STAR) data obtained from (location) \_\_\_\_\_

C. Computer Models Used

1. \_\_\_\_\_ Modified? If yes, attach description.
2. \_\_\_\_\_ Modified? If yes, attach description.
3. \_\_\_\_\_ Modified? If yes, attach description.
4. \_\_\_\_\_ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO <sup>2</sup>	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

Table 1. Summary of Emissions from Water Heating Facilities at Typhoon Lagoon

Source	Identification Number	Rate (cfh)	Emissions (TPY)				
			SO <sub>2</sub>	PM	NO <sub>x</sub>	CO	VOC
North River Heater	TLB-1	1,500	0.004	0.033	0.657	0.131	0.035
South River Heater	TLB-2	1,500	0.004	0.033	0.657	0.131	0.035
North Wave Pool Heater	TLB-3	2,000	0.005	0.044	0.876	0.175	0.046
South Wave Pool Heater	TLB-4	2,000	0.005	0.044	0.876	0.175	0.046

\* Based on operating 8,760 hours/year

Note: cfh - cubic feet per hour  
 CO - carbon monoxide  
 NO<sub>x</sub> - nitrogen oxides  
 PM - particulate matter  
 SO<sub>2</sub> - sulfur dioxide  
 TPY - tons per year  
 VOC - volatile organic compounds

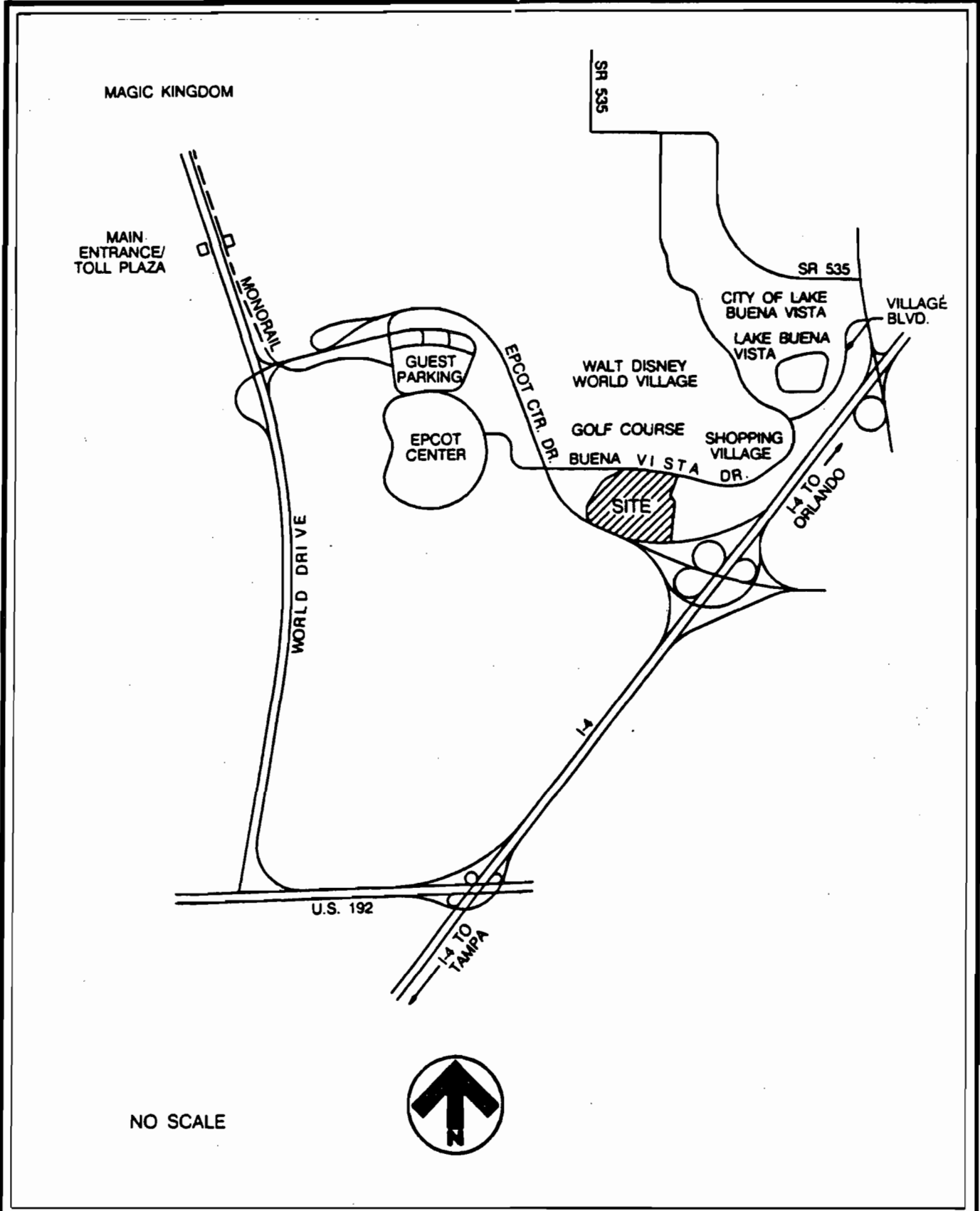
Source: ESE, 1988.

Table 2. Summary of Emission Factors for Domestic and Commercial Boilers

Pollutant	Emission Factor
Sulfur Dioxide	0.6 lb/10 <sup>6</sup> ft <sup>3</sup>
Particulate Matter	5.0 lb/10 <sup>6</sup> ft <sup>3</sup>
Nitrogen Oxides	100 lb/10 <sup>6</sup> ft <sup>3</sup>
Carbon Monoxide	20 lb/10 <sup>6</sup> ft <sup>3</sup>
Volatile Organic Compounds	5.3 lb/10 <sup>6</sup> ft <sup>3</sup>

Note: ft<sup>3</sup> - cubic feet.

Source: U. S. Environmental Protection Agency, 1986.  
Compilation of Air Pollutant Emission Factors, Volume I:  
Stationary Point and Area Sources, with Supplement A. Research  
Triangle Park, North Carolina.



NO SCALE

TYPHOON LAGOON AREA MAP

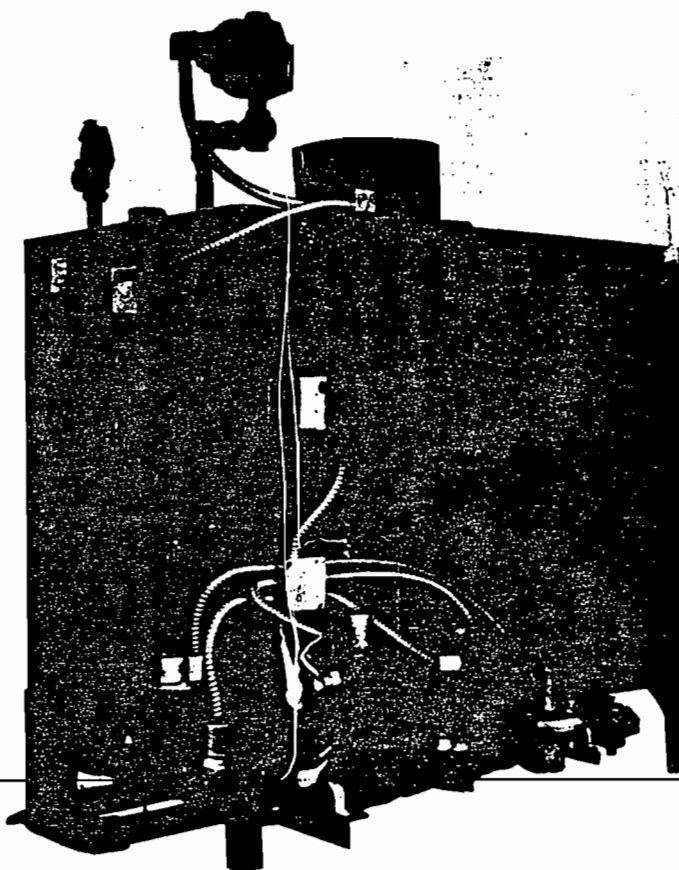
ENVIRONMENTAL SCIENCE  
AND ENGINEERING, INC.





BEST AVAILABLE COPY

# Rite BOILERS



**WATER HEATING BOILER  
LOW PRESSURE  
ATMOSPHERIC NATURAL GAS FIRED**

A.I.A. File No. 30-C-1  
A.I.A. File No. 29-D-2

RITE ENGINEERING & MANUFACTURING CORPORATION  
9441 WASHBURN ROAD / DOWNEY / CALIFORNIA 90242  
TELEPHONE (213) 862-2125

# RITE BOILERS - U.L. LISTED THRU MOD. 840

## OPTION EQUIPMENT (EXTRA COST)

### STANDARD EQUIPMENT

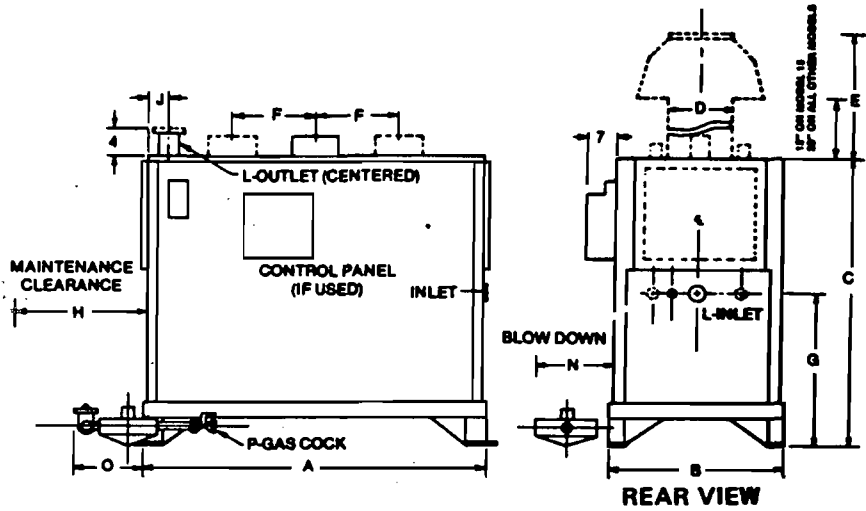
- LIFTING LUGS
- OPERATING CONTROL
- FULLY WIRED - 120/1/60
- FACTORY FIRE TESTED
- FIRING SYSTEM: MODELS 48-200 ON OFF  
A150-A200, 225-1250 LOW HIGH LOW
- CONTROL SYSTEM: ALL MODELS E02 SYSTEM  
(ELECTRONIC INTERMITTENT PILOT, AUTOMATIC  
RELIGHT, 100% SHUT OFF)
- DRILLED PORT ATMOSPHERIC BURNERS
- MAIN GAS COCK
- PILOT GAS COCK
- GAS PRESSURE REGULATOR
- DRAFT DIVERTER(S) OR BAROMETER DAMPER(S)
- LOW WATER CUT OFF
- RELIEF VALVE (ASME)
- HIGH LIMIT CONTROL
- PRESSURE - TEMPERATURE GAUGE
- AIR ELIMINATION FITTING (IF SPECIFIED)
- 30 PSI
- DUAL GAS VALVES - IN SERIES

- HI LO FIRE MOD 48-200
- MANUAL RESET GAS VALVE
- AUXILIARY LOW WATER CUT OFF
- LOW WATER CUT-OFF FEEDER COMB.
- ID FAN WITH DRAFT PROVING SWITCH
- IRI CONTROLS
- FM CONTROLS
- INDIRECT INTERNAL HEAT EXCHANGER;  
STRAIGHT THRU COPPER TUBES (LIME-LITE)
- EXTERNAL HEAT EXCHANGER MOUNTED ON  
BOILER W/PUMP AND TEMP. CONTROLLER
- E03 SYSTEM (ELECTRONIC CONTINUOUS PILOT,  
AUTOMATIC RELIGHT, 100% SHUT OFF)  
RECOMMENDED FOR HEAVY GASES
- RITE LITE PANEL
- TATTLE TALE PANEL
- STACK SUPPORT
- MODULATION
- COPPER TUBES
- 125 PSI
- HINGED HEAD PLATES OR DAVITS
- INSULATED HEAD PLATES
- ANODES
- EXPANSION TANKS
- FLUE GAS THERM.
- HAND HOLES
- GAS STRAINER
- LEAK TEST COCK

### GENERAL DATA

MODEL	Input BTU/HR x1000	Output BTU/HR x1000	H.P.	G.P.M. 20° F Rise	G.P.H. 100° F Rise	Water Content Gallons	Surface Heating Sq. Ft.	Shipping Wt.
48	480	384	11.5	38	465	20.5	49	1060
55	550	440	13.2	44	535	22.3	56	1260
63	630	506	15.1	51	615	24.0	63	1360
78	760	608	18.2	61	740	27.0	75	1500
A90	900	720	21.5	72	875	30.5	89	1700
85	850	680	20.3	69	830	40.0	88	1700
90	900	720	21.5	72	875	40.0	89	1700
108	1050	840	25.1	84	1015	43.0	101	1830
120	1200	960	28.6	97	1185	47.0	115	1960
135	1350	1080	32.2	110	1315	50.0	131	2100
150	1500	1200	35.8	120	1480	54.0	145	2220
A150	1500	1200	35.8	120	1480	71.0	160	2330
168	1660	1320	39.4	135	1600	57.0	159	2350
A168	1650	1320	39.4	135	1600	75.0	168	2500
180	1800	1440	43.0	145	1750	61.0	174	2450
A180	1800	1440	43.0	145	1750	79.0	190	2580
200	2000	1600	47.8	160	1950	66.0	192	2550
A200	2000	1600	47.8	160	1950	83.0	205	2700
225	2250	1800	53.8	180	2190	89.0	230	3100
250	2500	2000	59.7	200	2430	94.0	252	3370
275	2750	2200	65.7	220	2670	100.0	273	3520
300	3000	2400	71.8	240	2920	105.0	295	3740
325	3250	2600	77.7	265	3180	111.0	318	3950
350	3500	2800	83.6	285	3400	116.0	340	4130
375	3750	3000	89.6	305	3650	122.0	362	4400
400	4000	3200	95.6	325	3900	127.0	383	4620
A400	4000	3200	95.6	325	3900	160.0	390	4800
425	4250	3400	101.5	345	4140	133.0	405	4840
450	4500	3600	107.5	365	4380	139.0	428	5060
A450	4500	3600	107.5	365	4380	180.0	440	5250
475	4750	3800	113.5	385	4630	145.0	450	5280
500	5000	4000	119.5	405	4870	151.0	473	5500
A500	5000	4000	119.5	405	4870	195.0	486	5700
550	5500	4400	131.5	445	5370	190.0	528	6000
A550	5500	4400	131.5	445	5370	215.0	535	6150
600	6000	4800	143.5	485	5850	213.0	574	6500
A600	6000	4800	143.5	485	5850	235.0	584	6620
A650	6500	5200	155.0	520	6250	240.0	622	6900
650	6500	5200	155.0	520	6250	250.0	632	7100
A700	7000	5600	167.0	560	6720	255.0	670	7400
700	7000	5600	167.0	560	6720	275.0	680	7600
A750	7500	6000	180.0	600	7200	270.0	722	7900
750	7500	6000	180.0	600	7200	290.0	730	8075
840	8400	6700	200.0	650	7800	320.0	800	8500
940	9400	7500	225.0	770	8270	345.0	900	9100
1050	10500	8400	250.0	810	9740	370.0	1000	9750
1150	11500	9200	275.0	850	10200	370.0	1000	9750

# WATER-ATMOSPHERIC GAS



"B" Dimension	Blow Down Size
26	1
32	1-1/4
42	1-1/2
51 & larger	2

## DIMENSIONS

NOTE: Over 4" all dimensions are flanged

MODEL	A	B	C	D	E	F	G	H	J	L	N	O	P
48	40	26	48	9	31	0	26	32	2-1/2	2	10	10	1
55	45	26	48	10	32	0	26	37	2-1/2	2	10	10	1
63	50	26	48	10	32	0	26	42	2-1/2	2	10	10	1
79	58	26	48	11	33	0	26	50	2-1/2	2	10	10	1
A90	68	26	48	12	34	0	26	60	2-1/2	2	10	10	1-1/4
85	46	32	52	12	34	0	26	36	2-5/8	3	12	18	1
90	46	32	52	12	34	0	26	36	2-5/8	3	12	18	1-1/4
105	52	32	52	14	36	0	26	42	2-5/8	3	12	18	1-1/4
120	58	32	52	14	36	0	26	48	2-5/8	3	12	18	1-1/4
135	64	32	52	16	38	0	26	54	2-5/8	3	12	18	1-1/4
150	70	32	52	16	38	0	26	60	2-5/8	3	12	18	1-1/2
A150	55	42	57	16	38	0	26	42	3-1/2	4	14	20	1-1/2
165	76	32	52	16	38	0	26	66	2-5/8	3	12	18	1-1/2
A165	59	42	57	16	38	0	26	46	3-1/2	4	14	20	1-1/2
180	82	32	52	2-12	34	18	26	72	2-5/8	3	12	18	1-1/2
A180	65	42	57	2-12	34	13	26	52	3-1/2	4	14	20	1-1/2
200	90	32	52	2-14	36	20	26	80	2-5/8	3	12	18	1-1/2
A200	69	42	57	2-14	36	15	26	56	3-1/2	4	14	20	2
225	73	42	57	2-14	36	15	26	60	3-1/2	4	16	24	2
250	79	42	57	2-14	36	16	26	66	3-1/2	4	16	24	2
275	85	42	57	2-16	38	18	26	72	3-1/2	4	16	24	2
300	91	42	57	2-16	38	19	26	78	3-1/2	4	16	24	2-1/2
325	97	42	57	2-16	38	21	26	84	3-1/2	4	16	24	2-1/2
350	103	42	57	2-18	40	23	26	90	3-1/2	4	16	24	2-1/2
375	109	42	57	2-18	40	24	26	96	3-1/2	4	16	24	2-1/2
400	115	42	57	2-18	25	26	102	3-1/2	4	16	24	2	
A400	79	63	63	22	0	28	55	4-3/4	2-4	14	24	2	
425	121	42	57	2-18	27	26	108	3-1/2	4	16	24	2	
450	127	42	57	2-20	28	26	114	3-1/2	4	16	24	2	
A450	87	63	63	24	0	28	65	4-3/4	2-4	14	24	2	
475	133	42	57	2-20	30	26	120	3-1/2	4	16	24	2	
500	139	42	57	2-20	31	26	126	3-1/2	4	16	24	2	
A500	95	63	63	26	0	28	72	4-3/4	2-4	14	24	2	
550	109	51	62	2-20	23	26	96	3-1/2	4	16	28	2	
A550	102	63	63	26	0	28	80	4-3/4	2-4	14	28	2	
600	118	51	62	2-22	25	26	105	3-1/2	4	16	28	2	
A600	109	63	63	2-20	23	28	85	4-3/4	2-4	14	28	2	
A650	129	51	62	2-22	28	26	114	4	5	16	28	2	
650	117	63	63	2-22	24	28	92	4-3/4	2-4	14	28	2	
A700	138	51	62	2-22	30	26	123	4	5	16	28	2	
700	124	63	63	2-22	28	28	100	4-3/4	2-4	14	28	2	
A750	147	51	62	2-24	32	26	132	4	5	16	28	2	
750	132	63	63	2-24	28	28	108	4-3/4	2-4	14	28	2	
840	115	77	63	2-24	23	27	87	5	2-5	14	28	2-1/2	
940	128	77	63	2-24	26	27	100	5	2-5	14	28	2-1/2	
1050	140	77	63	2-26	29	27	111	5	2-5	14	28	2-1/2	
1150	152	77	63	2-26	32	27	123	5	2-5	14	28	2-1/2	
1250	164	77	63	2-26	35	27	135	5	2-5	14	28	2-1/2	

BAROMETRIC DAMPERS STANDARD