Time Accountij: 47

Walt Disney World Co.
3-27-89 8104-8143 Keron RAM
3-28-89 4110-9123 Drast RAM

10120-12:08 Court Mail Letter & out AM

AC 48-156346

48

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) (Extra charge)		
3. Article Addressed to: Armando Rodriguez Walt Disney World Company P.O. Box 10,000	4. Article Number P 274 007 613 Type of Service: Registered Insured Certified COD	
Lake Buena Vista, FL 32830-1000	Express Mail Return Receipt for Merchandise Always obtain signature of addressee or agent and DATE DELIVERED.	
5. Signature Address X 6. Signature Agent X 7. Date of Delivery	8. Addressee's Address (ONLY if requested and fee paid)	
70 F 2011 14 1000 + 11 0 0 0 0 4000 040	DOMESTIC DETUDN DECEIRT	

P 274 007 613

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL

	(See Reverse)		
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480	Walt_Disney_World_	Company	
	protanbox 10,000		
≄ U.S.讼.P.O. 1983-480-794	Lake Buena Wista,		
U.S.G	Postage	s 1000	
‡	Certified Fee		
	Special Delivery Fee		
	Restricted Delivery Fee		
10	Return Receipt showing to whom and Date Delivered		
Form 3800, June 1985	Return Receipt showing to whom, Date, and Address of Delivery		
Jun,	TOTAL Postage and Fees	S	
800	Postmark or Date		
E 3	mailed: 3/28/89		
For	permits: AC 48-1563	46,-156348,	
S	- 156350	& -158650	



Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2000 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

Pradeeg Rowal 3-28-89 ASIL

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.

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 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.
- Preliminary Determination dated January 25, 1989.

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.

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.

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.

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 monitoring information (including all calibration maintenance records all original strip and 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 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.

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

SPECIFIC CONDITIONS:

The maximum allowable emissions shall not exceed:

Pollutant	Emissions	
	lbs/hr	TPY
vôc	.2.10	1.45
PM/PM ₁₀	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 to 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.

Permit Number: AC 48-156346
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:

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

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.

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.

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.

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 monitoring information (including all calibration maintenance records and all original strip recordings for continuous instrumentation), monitoring copies of all reports required by this permit, and records 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.

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

SPECIFIC CONDITIONS:

3. The maximum allowable emissions shall not exceed:

Pollutant	Emiss	ions
	lbs/hr	TPY
VÕC	7.88	5.46
PM/PM ₁₀	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 to 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,
- 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.

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 ZA 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 48-156350 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.

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.

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.

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:
 - (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.

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 monitoring information (including all calibration maintenance all original strip records and recordings for instrumentation), continuous monitoring 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 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.

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:

	Emissions	
Pollutant	lbs/hr	TPY
554 (554	0.00	0.05
PM/PM ₁₀	0.20	0.87
SO ₂	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.

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

Issued this A da

, 1969

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 Dale Twachtmann, Secretary

Bob Martinez, Governor

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:

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

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.

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;
 - 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.

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.

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 monitoring information (including all calibration maintenance records and all original strip 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.

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:

Emi		ssions	
Pollutant	lbs/hr	TPY	
PM/PM ₁₀	0.04	0.17	
so ₂	0.01	0.02	
NOx	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.

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

Issued this

day 1989

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

pale 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_2 , 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_2 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:

GA OF 1

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

24 march, 1989

Date

Approved by:

Dale Twachtmann, 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

★ FROM:

: Steve 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

Con	npany Name: Watt Disney World Company
	nit Number: 156 346, -348, -350
	Number: nit Engineer:
1 011	mt Engineer.
	Initial Application Incompleteness Letters Responses Waiver of Department Action Department Response Other
Inte	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
Fina I	Determination: Final Determination Signed Permit BACD or LAER Determination Other
Post	t 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 <u>Supplementary Documents Drawer</u>. Folders in that drawer are arranged alphabetically, then by permit number.

Folder Name: Walt Disney World Company

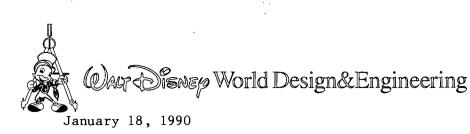
Permit(s) Numbered:

AC	48	1	156346
AC	48	1	156348
AC	48	1	156350

Period during which document

was received: Detailed Description

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





Mr. C. H. Fancy, P.E. Bureau of Air Regulation State of Florida Department of Environmental Regulation 2600 Blairstone 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.

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

RDB/ac

cc:

Mr. Bill Thomas, F.D.E.R.

Dale Unthank

Armando Rodriquez

C. Colleno, C. Vist 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 1 2 1989

DER-BAOM

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.

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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, P.E. Program Administrator Air Resource Management

ROUTING AND	ACTION N	10
TRANSMITTAL SLIP	ACTION E	DUE DATE
1. TO: (NAME, OFFICE, LOGATION)		Initial
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2.		Initial
PG-M BARDIN		Date
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CAPS		Date
4.		Initial
Room 3066 /T/	ell	Date
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Mi Program	PHONE	

WALT DISNEP World Co.

3-7-49

Orlando, FL RECEIVED

March 3, 1989

DER - BAON

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

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:

EPA Method 9 for visible emissions a.

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:

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

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

> Sincerely, mando Kolizuez.

Armando Rodriquez

Manager

Environmental Control

/ko

C. Collins, DER

Central Florida District

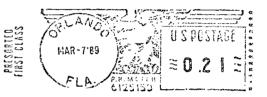
P.O. Box 10,000 / Lake Buena Vista, Florida 32830-1000

Part of the Magic of The WAY DISNEY Company



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 Maul P034566910 3-2-89 Orlando, FL

file copy



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

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

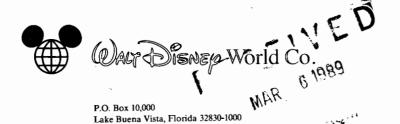
Manager

Environmental Control

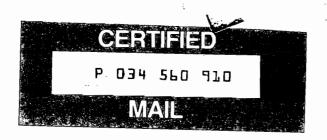
/ko Attachment

cc: Al Trbovich, Hunter/ESE

copied: P. Roual C. Collins, CF Dist.







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

hallanddallallanadhaill

The Orlando Sentinel

RECEIVED

Published Daily Orlando, Orange County, Florida 6 1989

ADVERTISING CHARGE \$147.75

State of Florida ! COUNTY OF ORANGE

DER - BAOM

Before the undersigned authority personally appeared	
Sylvia Hazy	, who on oath says that
she is the Legal Advertising Representative of the Orland	o Sentinel, a Daily newspaper
published at Orlando, in Orange County, Florida; tha	t the attached copy of ad-
vertisement, being a Notice of Intent to Iss	ue 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 secondclass 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.

15 th Sworn to and subscribed before me this

NOTARY PUBLIC, State of Florida at Langery Public My Commission Expires May 25, 1991

Bonder By AMERICAN PIONEER CASTIALTY INS. CFORM NO. AD-262

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

NOTICE OF INTENT TO ISSUE The Department of Environmental Regulation, hereby gives mental Regulation, hereby gives notice of its intent to issue permits to Watt Disney World Company, P.O. Box 10,000, Lake Buena Vista, Florida 32830-1000, to construct eleven sources. The Sources to be permitted in the sources of the sources of the sources. mitted include two paint booths and four boilers. Two carpenter shops and five water heaters are exempt from permit require ments. 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 ad ministrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the informa-tion 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 fil-ing. Failure to file a petition with-in 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

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

(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 admin istrative hearing process is designed to formulate agency ac tion. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be af fected 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 (re-ceived) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Fai lure 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, 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 addres's. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination. Feb.15,1989 CL-055

SENDER: Complete items 1 and 2 when additional 3 and 4. Put your address in the "RETURN TO" Space on the reverence of from being returned to you. The return receipt fee will provide to and the date of delivery. For additional fees the following for fees and check box(es) for additional service(s) reques 1. Show to whom delivered, date, and addressee's addressee	rse side. Failure to do this will prevent this provide you the name of the person delivered a services are available. Consult postmaster ted.
3. Article Addressed to: Mr. Armando Rodriguez	4. Article Number P 274 007 568 Type of Service:
Walt Disney World Company P. O. Box 10,000 Lake Buena Vista, FL 32830-1000	Registered Insured COD Express Mail Return Receipt for Merchandise
	Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature - Address	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature – Agent	
7. Date of Delivery	
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)

80-794	Sent to Mr. Armando Rodrig	uez, WDW	
985-4	Street and No. P. O. Box 10,000		
≠ U.S.G.P.O. 1985-480-794	P.O., State and ZIP Code Lake Buena Vista,	FL 32830-	-
J.S.G	Postage	s 100	00
#	Certified Fee		
	Special*Delivery Fee		
	Restricted Delivery Fee		
	Return Receipt showing to whom and Date Delivered		
1986	Return Receipt showing to whom, Date, and Address of Delivery		
June	TOTAL Postage and Fees	S	
3800,	Postmark or Date	•	
PS Form 3800, June 1985	Mailed: 1-30-89 Permit: AC 48-15634 -15865		-50



Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Fiorida 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,

Deputy Chief

Bureau of Air Quality

Management

CHF/ks

Attachments

_ _ _ . . .

C. Collins, CF District A. Trbovich, ESE

E. Crowell, WDW

E. CIOWELL, 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. 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 newspaper of general circulation in the area affected" 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 administrative proceeding (hearing) in accordance with Section must Florida Statutes. The petition contain information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassea, 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 Accordingly, to formulate agency action. 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

18 1 3 . . . Sep.

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 $\frac{30,1989}{}$.

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.

tha Mise

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 Euena 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 Florida Statutes. The petition must contain 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;

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

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 (SO₂), 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 Laundriers
- 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 Andreae 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_{10} , CO, NOx, SO₂, 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_2 , 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 ₁₀	Emiss SO <u>2</u>	ion Rate NOx	CO (TPY)	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 Mote	٦.	Industry	No.	7011:	Hotels	and	Motel
---------------------------------------	----	----------	-----	-------	--------	-----	-------

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 Cle	eaning 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_2 , 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_2 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 Recommended by:

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

1989

Date

Approved by:

Dale Twachtmann, Secretary

1989

Date

Walt Disney World Company

Page Two



Florida Department of Environmental Regulation

Twin Towers Office Bidg. ● 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 48-156346 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.

Expiration Date: Dec. 1, 1989

GENERAL CONDITIONS:

The terms, conditions, requirements, limitations, 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.

Permit Number: AC 48-156346

- 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.
- 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.
- 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.

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.

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.

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

SPECIFIC CONDITIONS:

3. The maximum allowable emissions shall not exceed:

	Emissions			
<u>Pollutant</u>	lbs/hr_	TPY		
VOC	2.10	1.45		
PM/PM ₁₀	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.

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.

Issu	ed	this	 day
of _			 1989

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

Dale Twachtmann, Secretary



Florida Department of Environmental Regulation

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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, $443.5~\mathrm{km}$ East and $3144.2~\mathrm{km}$ 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:

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

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: Permit Number: AC 48-156348
Walt Disney World Co. 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.

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.

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 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.

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

SPECIFIC CONDITIONS:

3. The maximum allowable emissions shall not exceed:

	Emiss	ions
Pollutant	lbs/hr	TPY
VOC	7.88	5.46
PM/PM ₁₀	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,
- 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.

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

SPECIFIC CONDITIONS:

- 6. Compliance shall be determined in accordance with the 1987 version 40 CFk 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
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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

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, Grange 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.

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.

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

GENERAL CONDITIONS:

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.

- 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, oroperations 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.

- 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.

一篇基础的标准表面 14. 产品出版推广

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 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.

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 maintenance records and all original strip monitoring instrumentation), recordings for continuous 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.

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:

•	Emissions	
Pollutant	lbs/hr	TPY
PM/PM ₁₀	0.2	0.87
SO ₂	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. 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.

PERM.	TTEE:		
Walt	Disney	World	Co.

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

Issued this of	
STATE OF FLORIDA OF ENVIRONMENTAL	

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:

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

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

GENERAL CONDITIONS:

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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.

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.

THE PROPERTY OF THE PARTY.

PERMITTEE: Walt Disney World Co.

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

GENERAL CONDITIONS:

12

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.

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 maintenance records and all original strip 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 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.

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:

	Emissions	
Pollutant	lbs/hr	TPY
PM/PM ₁₀	0.039	0.169
SO ₂	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).
- 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.

PERM	TTEE:		
Walt	Disney	World	Co.

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

Issued this of	day _, 1989
STATE OF FLORIDA OF ENVIRONMENTAL	
Dale Twachtmann,	Secretary

ATTACHMENTS AVAILABLE UPON REQUEST

DER - MAIL ROOM

1988 DEC 12 MI 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

Kobert H.Pe

Director - Environmental Affairs

RHP: brm

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

63-215 631

Date 12/05/88

Check No. 2852/8

Pay The Sum Of

************* DOLLARS AND OD CENTS

\$++++++200.00

Amount of Check

To The Order Of

DEPT OF ENVIR REGULATION 2600 BLAIR STONE RD TALLAHASSEE FL 32399

Sun Bank, N.A. Downtown Office Orlando, Florida 32802 Walt Disney World Co. Lake Buena Vista, Florida

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

best H.Pe

RHP: brm

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

SENDER: Complete items 1 and 2 when additional 3 and 4. Put your address in the "RETURN TO" Space on the rever card from being returned to you. The return receipt fee will pi to and the date of delivery. For additional fees the following for fees and check box(es) for additional service(s) request 1. Show to whom delivered, date, and addressee's ad (Extra charge)	se side. Failure to do this will prevent this rovide you the name of the person delivered services are available. Consult postmaster ted.
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: Registered Insured Certified COD Express Mail Return Receipt for Merchandise Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature Address X 6. Signature Agent X 7. Date of Delivery PS Form 3811, Mar. 1988 * U.S.G.P.O. 1988-212-	8. Addressee's Address (ONLY if requested and fee paid)

P 274 007 522

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

30-794	Sentio Armando Rodrigo	uez, WDW		
985-46	Street and No. P.O. Box 10,000			
☆ U.S.G.P.O. 1985-480-794	P.O. State and ZIP Code Lake Buena Vista, FL 32830-			
U.S.G	Postage	s 1000)	
*	Certilied Fee			
	Special Delivery Fee	,		
	Restricted Delivery Fee			
	Return Receipt showing to whom and Date Delivered			
198	Return Receipt showing to whom, Date, and Address of Delivery			
Jun,	TOTAL Postage and Fees	S		
800	Postmark or Date			
PS Form 3800, June 1985	Mailed: 11-23-88 Permit: AC 48-15634	46 , - 48 , 50)	



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.

Sinderely

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

MODPERAR.1/WDWAPAFM.1 10/07/88

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APPENDIX A--APPLICATIONS TO CONSTRUCT AIR POLLUTION SOURCES

MODPERAR.1/WDWAPAFM.2 10/07/88

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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 ll 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.
- 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

			Emission Rate (TPY)			TPY)		
Source Name	Source Number	General Area Location	Particulate Matter	sø ₂	NØ _x	CØ	V@Cs	
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 Commmunity 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 so	urces in t	his application package-	- 1.796	0.145	24.306	4.863	8.199	

Source: Hunter/ESE, 1988.

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

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)

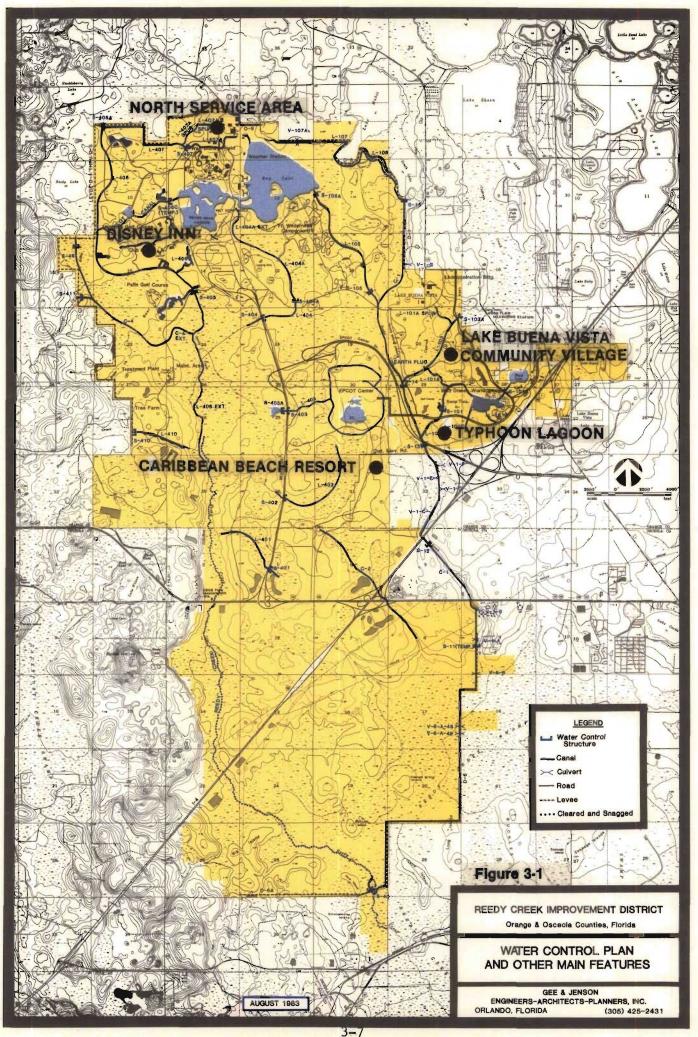
Source Name	Source Number	General Area Location	Physical Status	Permit Status
Buena Vista Construction Paint Spray Booth	WDW-26	Buena Vista Construction Co.	Under Construction	Application Submitted 6/9/88
Lake Buena Vista Community Village Paint Spray Booth #1	WDW-27	Lake Buena Vista Community Village	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 Resport	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



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



COM DEFINE BUY RELAKE BUSINA CETA FLORICA (LESS LAY EI BUENA MISTA COMMICNITIES (N.C.)

4 subsidiary of Wat Dishel, 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 ruly yours

Philip N. Smith

Secretary

PNS/B:brm

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



808 GRAHAM GOVERNOR VICTORIA J. TSCHINKEL SECRETARY

APPLICATION	TO	OPERATE/CONSTRUCT	AIR	POLLUTION	SOURCES
-------------	----	-------------------	-----	-----------	---------

SOURCE TYPE: Carpenter Shop	[X] New ¹ [] Existing ¹
APPLICATION TYPE: [X] Construction [] Operation [] Modification
COMPANY NAME: Walt Disney World Co.	COUNTY: Orange
•	ource(s) addressed in this application (i.e. Lime Cool Room Carpenter ing Unit No. 2, Gas Fired) Shop/ Cyclone
SOURCE LOCATION: Street Facilities	Way City Bay Lake
UTM: East 44351	2 North 3144219
Latitude 28 • 25 APPLICANT NAME AND TITLE: Walt Disney	
APPLICANT ADDRESS: P. O. Box 10,000, La	
	MENTS BY APPLICANT AND ENGINEER
I agree to maintain and operate facilities in such a manner as to Statutes, and all the rules and regalso understand that a permit, if and I will promptly notify the depressablishment. *Attach letter of authorization	Edward B. Crowell, V.P., Facilities Support Name and Title (Please Type) Date: 10 Complete Apple 100 Chapter 403. Date: 120 BB Telephone No. (407)828-2100
B. PROFESSIONAL ENGINEER REGISTERED IN	FLORIDA (where required by Chapter 471, P.S.)
been designed/examined by me and principles applicable to the treats	ering features of this pollution control project have found to be in conformity with modern engineering ment and disposal of pollutants characterized in the console assurance, in my professional judgment, that
l See Florida Administrative Code Rule	17-2.100(57) and (104)
DER Form 17-1.202(1) Effective October 31, 1982	Page 1 of 12

pollution sources.	The ac
BECIS	Signed Morns W. Duris
So Con A	Thomas W. Davis
70	Name (Please Type)
m = 0 = 0	Hunter/Environmental Science and Engineering
	Company Name (Please Type)
Was a second second	P. 0. Box 1703, Gainesville, FL 32602
** CARAGRAMAN CONTRACTOR	Mailing Address (Please Type)
ida Registration No. 36777	7 Date: 10 13 88 Telephone No. (904) 332-3318
SECTIO	N II: GENERAL PROJECT INFORMATION
necessary. Installation of a carpenter	shop with a sawdust collection cyclone. Carpenter Shop
	the man a taken control of the contr
	ure custom equipment and accessories needed in various
vill be utilized to manufact	<u> </u>
vill be utilized to manufact	<u> </u>
will be utilized to manufact entertainment areas. Schedule of project covered	ure custom equipment and accessories needed in various
cill be utilized to manufact entertainment areas. Sichedule of project covered start of Construction Octo	ure custom equipment and accessories needed in various in this application (Construction Permit Application Only
chedule of project covered start of Construction Octo costs of pollution control sor individual components/uninformation on actual costs ermit.)	in this application (Construction Permit Application Uniber 1988 Completion of Construction December 1988 Bystem(s): (Note: Show breakdown of estimated costs only nits of the project serving pollution control purposes.
cill be utilized to manufact entertainment areas. schedule of project covered start of Construction Octo costs of pollution control start individual components/uninformation on actual costs ermit.)	in this application (Construction Permit Application Uniber 1988 Completion of Construction December 1988 Bystem(s): (Note: Show breakdown of estimated costs only nits of the project serving pollution control purposes.
rill be utilized to manufact entertainment areas. Schedule of project covered start of Construction Octo Costs of pollution control start individual components/uninformation on actual costs	in this application (Construction Permit Application Uniber 1988 Completion of Construction December 1988 Bystem(s): (Note: Show breakdown of estimated costs only nits of the project serving pollution control purposes.
chedule of project covered text of Construction Octo cats of pollution control sor individual components/un nformation on actual costs ermit.)	in this application (Construction Permit Application Onlober 1988 Completion of Construction December 1988 Bystem(s): (Note: Show breakdown of estimated costs onloits of the project serving pollution control purposes.

Page 2 of 12

8.

DER Form 17-1.202(1) Effective October 31, 1982

f this is a new source or major modification, answer the following quest Yes or No)	ions.
. Is this source in a non-attainment area for a perticular 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.	<u> </u>
. Does best available control technology (BACT) apply to this source? If yes, see Section VI.	NO
. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yea, see Sections VI and VII.	NO
Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?	NO
Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?	NO
o "Ressonably Available Control Technology" (RACT) requirements apply o this source?	NO
a. If yes, for what pollutants?	

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)

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

Description	Contami	inants % Wt	Utilization Rate - lbs/hr	Relate to Flow Diagram
Spruce (solid)	Particulate	100.	See Note 1, Att	achment A
Fir (plywood)	Particulate	100		
Glass fiber reinfo	orced			
polyester resin	Partículate	100		
Glass fiber reinfo	orced			
epoxy resin	Particulate	100		

R .	Process	8 - + -	i /	applicable:	(500	Section V	11.00	1.1
J .	L LOC 622	TACE.	T L	SODITCEOIG:	(386	Secriou A'	1 [6 2	11

1.	Total Process Input Rate	(1be/hr):_	N/A	
2.	Product Weight (lbs/hr):	N/A		

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

Name of Contaminant	Eniss	ionl	Allowed ² Emission Rate per	Allowable ³ Emission	Poteni Emis		Relate to Flow
	Meximum lbs/hr	Actual T/yr	Rule 17-2	lbe/hr	lbs/yr	T/yr	Diagram
Particulate	0.008	0.02			3494	1.75	
	See No	ote 2, At	tachment A, f	or calculation	s		

¹See Section V, Item 2.

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

Calculated from operating rate and applicable standard.

Emission, if source operated without control (See Section V, Item 3).

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

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

	Contami	nents	Utilization		
Description	Туре	S Wt	Rate - lbs/hr	Relate to Flow Diagram	
Kydex (ABS)	Particulate	100			

5.	Process Rate,	if applicable:	(See Section V, Item 1)	
				And the second second

1.	Total Process Input Rate	(lbe/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	Esiss	Emission ¹		Allowed ^Z Emission Alloweble ³ Rate per Emission		Potential ⁴ Emission		
Contaminant	Mexicus lbs/hr	Actual T/yr	Rule 17-2	lbe/hr	lbs/yr	T/yr	to Flow Diagram	
	_				II.			
			Ī		_			

¹See Section V, Item 2.

Reference applicable emission standarde and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (I) - G.1 pounde per million BTU heat input)

³Celculated from operating rate and applicable standard.

AEmission, 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)	Baeis for Efficiency (Section V Item 5)
Cyclone	Particulate	99%	N/A	Manuf <u>acturer'</u>
				specification
			· · · · · · · · · · · · · · · · · · ·	

E. Fuels

	Consump	tion•	**
Type (8e Specific)	avg/hr	eax./hr	Maximum Heat Input (MMBTU/hr)
N/A			
			*

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

Percent Sulfur:		Percent Ash:	
Density:	lbs/gel	Typical Percent Nitrogen:	
lest Capacity:	8TU/16		BTU/ga:
ther Fuel Contaminants (which	ch may cause air p	ollution):	

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

Sawdust is disposed of in an approved solid waste landfill.

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Annual Average _____N/A

)ht:	20		ft. Si	ack Diamete	P1	3.5
es Flow R	late:	ACFM	8,400	_DSCFM G	e Exit Temp	erature:	Ambient •
ater Vapo	r Content:	Ambi	.ent	\$ V	locity:	14.6	<u> </u>
NOT	APPLICABLE	SECT	IGN IV:	INCINERATO	OR INFORMATI	ON	
Type of Waste					Type IV (Patholog- ical)		Type VI (Solid By-prod.
Actual lb/hr inciner- ated						-	
Uncon- trolled (lbe/hr)				,			
otal Weig							hr)
a nu factur	er			Model	No		
a nu factur	er		Heat R	oleaso	Fuel		Temperature (°F)
a nu factur	er	Volume	Heat R	oleaso	Fuel		Temperature
enufactur ete Const	ructed	Volume	Heat R	oleaso	Fuel		Temperature
enufactur ete Const Primery C	ructed	Volume (ft) ³	Heat R	olease /hr)	Fuel Type	BTU/hr	Temperature (*F)
enufactur ete Const Primery C Secondary tack Heig	ructedhamber	Volume (ft) ³	Heat R (BTU,	olease /hr)	Fuel Type	BTU/hr Stack T	Temperature (°F)
enufactur ete Const Primary C Secondary tack Heights Flow R If 50 or 6	ructedhamberht:ht:	Volume (ft) ³ ft. S	Heat R (BTU, Stack Diam ACFM	elease /hr)	Fuel Type DSCFMo t the emiss	BTU/hr Stack T	Temperature

iny effluent other th	an that emitted from th	ie stack (scrubber wate
	•	any effluent other than that emitted from th

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 air-borne 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 $1/2^n \times 11^n$ 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 englication fee in	a cordance with Rule 17-4.05. The check should be
•	made payable to the Department of E	
10.		permit, attach a Certificate of Completion of Con- rce was conmatructed as shown in the construction
A.	NOT APPLICABLE	AVAILABLE CONTROL TECHNOLOGY w stationary sources pursuant to 40 C.F.R. Part 60
	[] Yes [] No	
	Contaminent	Rate or Concentration
	· · · · · · · · · · · · · · · · · · ·	·
8.	Has EPA declared the best available yes, attach copy)	control technology for this class of sources (If
	[] Yes [] No	
	Contaminant	Rate or Concentration
<u> </u>	What emission levels do you propose	as best available control technology?
	Contaminant	Rate or Concentration
	·	<u> </u>
0.	Describe the existing control and tr	reatment technology (if any).
	1. Control Device/System:	2. Operating Principles:
	3. Efficiency:*	4. Capital Costs:
*Exp	plain method of determining	•

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DER Form 17-1.202(1) Effective November 30, 1982 5. Useful Life: 6. Operating Costs: 7. Energy: 8. Maintenance Cost: 9. Emissions: Rate or Concentration Contaminant 10. Stack Parameters a. Height: ft. Diameter: ft. b. ٩F. ACFM d. c. Flow Rate: Temperature: Velocity: FPS Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary). 1. Control Device: b. Operating Principles: c. Efficiency: I Capital Cost: d. Useful Life: Operating Cost: f. g. Energy: 2 h. Maintenance Cost: Availability of construction materials and process chemicals: Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 2. Control Device: Operating Principles: c. Efficiency: 1 d. Capital Cost: Useful Life: Operating Cost: g. Energy: 2 h. Maintenance Cost: Availability of construction materials and process chemicals: ¹Explain method of determining efficiency. ²Energy to be reported in units of electrical power - KWH design rate. DER Form 17-1.202(1) Effective November 30, 1982 Page 9 of 12

Applicability to manufacturing processes: 1. Ability to construct with control device, install in available space, and operate k. within proposed levels: 3. Operating Principles: . Control Device: b: Efficiency: 1 Capital Cost: c. Useful Life: f. Operating Coet: Energy: 2 Maintenance Cost: q. i. Availability of construction materials and process chemicals: j. Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 4. Control Device: Operating Principles: **a** . Efficiency: 1 Capital Coats: c. Operating Cost: Useful Life: Energy: 2 h. Maintenance Cost: g. Availability of construction materials and process chemicals: Applicability to manufacturing processes: j. k. Ability to construct with control device, install in available space, and operate within proposed levels: Describe the control technology selected: Efficiency: 1 1. Control Device: 2. 3. Capital Cost: Useful Life: Energy: 2 5. Operating Cost: 7. Maintenance Cost: Manufacturer: 9. Other locations where employed on similar processes: a. (1) Company: (2) Meiling Address: (4) State: (3) City: $^{
m l}$ Explain method of determining efficiency. 2 Energy to be reported in units of electrical power - KWH design rate. DER Form 17-1,202(1)

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(5) Environmental Manager:						
(6) Telephone No.:	·					
(7) Emissions: 1						
Contaminant			Rate of	r Concentr	etion	
· · · · · · · · · · · · · · · · · · ·						
(8) Process Rate: 1						
b. (1) Company:						
(2) Mailing Address:						
(3) City:		(4) State:				
(5) Environmental Manager:				-	*	
(6) Telephone No.:		,				
(7) Emissions: 1						
Contaminant			Rate or	. Concentra	ation	
(8) Process Rate: 1						
1G. Reason for selection as	nd description	of systems:				
Applicant must provide this in available, applicant must state			Shoul	d this in	formation	not b
NOT APPLICABLE	- PREYENTION O	F SIGNIFICAN	T DETERI	ORATION		
A. Company Monitored Data						
1no. sites	TSP _	()	_ 502+ _		Wind sp	d/dir
Period of Monitoring	month d	/ to	eonth	/ /	r	
Other data recorded				,		
Attach all data or statistic						
Specify bubbler (8) or continuo	ous (C).			•		
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4		
•	€.	Was instrumentation EPA referenced or its equivalent? [] Yes [] No
	ь.	Was instrumentation calibrated in accordance with Department procedures?
		[] Yes [] No [] Unknown
8.	Het	eorological Data Used for Air Quality Modeling
	1.	Year(s) of data from / / to / /
		Surface data obtained from (location)
l	3.	Upper mir (mixing height) data obtained from (location)
	4.	Stability wind rose (STAR) data obtained from (location)
c.	Com	puter Models Used
	1.	Modified? If yes, attach description.
ŀ	2.	
	3.	Modified? If yes, attach description.
	4.	Modified? If yes, attach description.
		ach copies of all final model runs showing input data, receptor locations, and prin- le output tables.
٥.	Арр	licants Maximum Allowable Emission Data
E.	Pol	lutant Emission Rate
		TSPgrams/sec
r		50 ² grams/sec
٤.	Em i	ssion Data Used in Modeling
	poi	ach list of emission sources. Emission data required is source name, description of nt source (on NEDS point number), UTM coordinates, stack data, allowable emissions, normal operating time.
۶.	Att	ach all other information supportive to the PSD review.
G.	ble	cuss the social and economic impact of the selected technology versus other applica- technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include essment of the environmental impact of the sources.
н.	nal	ach scientific, engineering, and technical material, reports, publications, jour- s, and other competent relevant information describing the theory and application of requested best available control technology.
		·

2. Instrumentation, Field and Laboratory

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) (1bs/ft ³)	Weight of Sawdust (1bs/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

Emission = 0.84 lbs/hr x (1.00-0.99) x 80 hrs/week x 52 weeks/year = 34.9 lbs/year

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ROHM AND HAAS SOMPANY

EMPLOYEE HEALTH PROTECTION DEPT. INDEPENDENCE MALL WEST

PHIL ACELPHIA, PA. 19105

EMERGENCY PHONE: 215—392—3000 (ROMA AMO RAAS) 800—428—3300 (CHEMTREC)



MAZARD RATING:

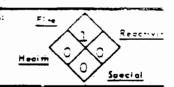
4 = ETTREME

3 = HIGH

2 = MODERATE

1 = SLIGHT

0 = NO HAZARD



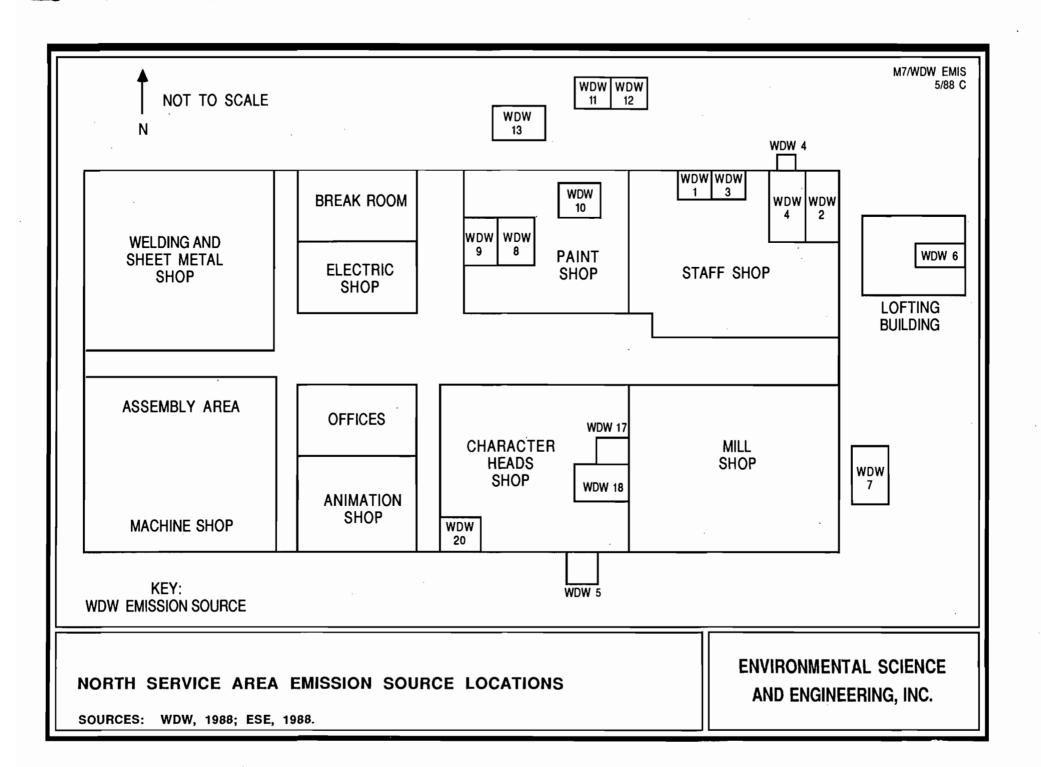
MATERIAL SAFETY DATA SHEET RECEIVED

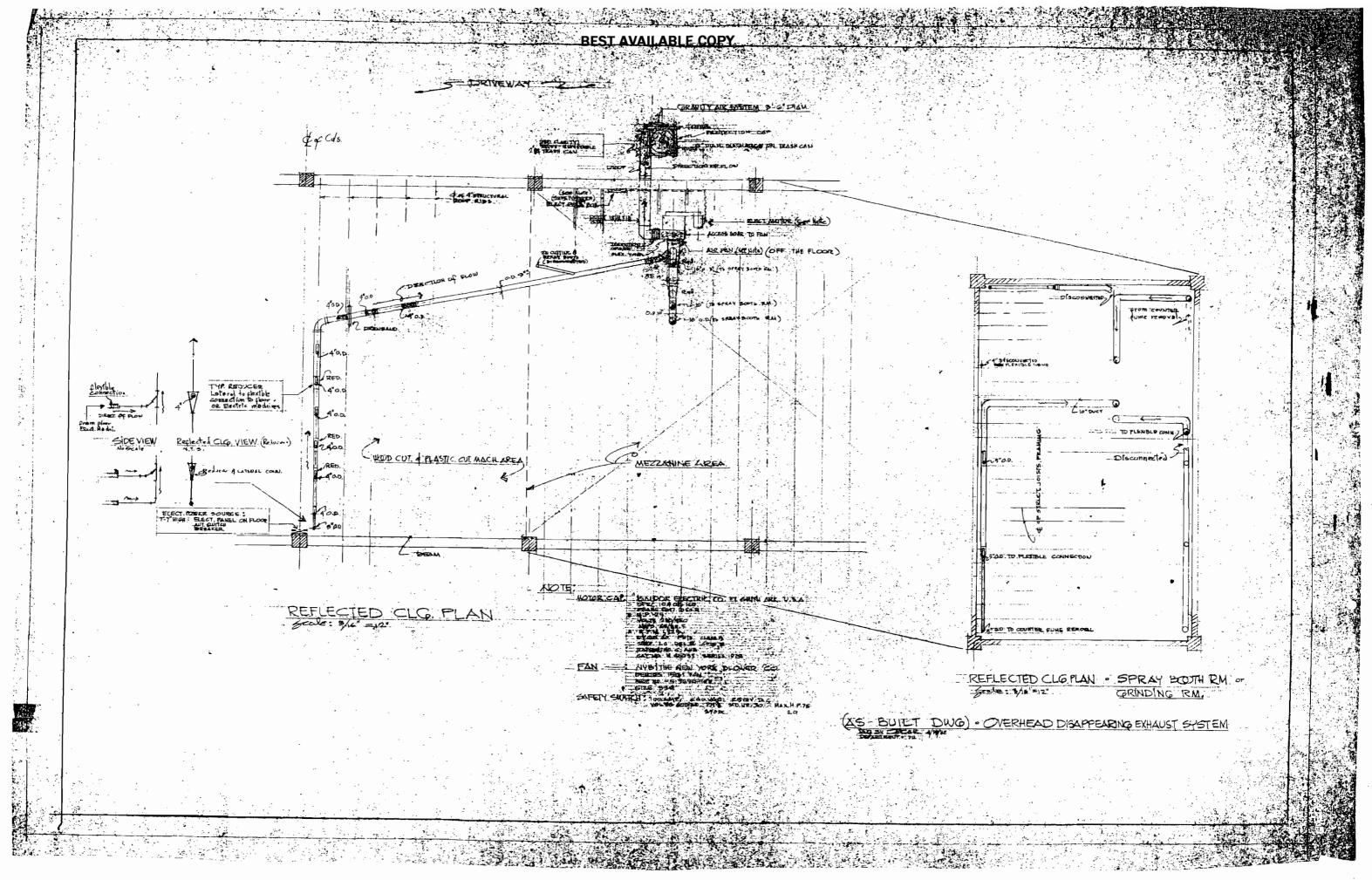
MATERIAL:	,		CODE:		ight c iMA IF	द <u>्य</u> ुट्टा इ.	380
FORMULA:			CHEMICAL HAME & SYNO		OSS PREY	Characa	*************************************
<u></u>		A William	ACRYLIC-PVC PO	OLYME	₹ .		
I. HAZARDOUS COMPONENTS:		:	•				
. Сом	PONENT					WEIGHT	TWA/TLV
ACRYLIC PVC POLYMER SHEET	(no hea	lth hazard)				100	not estad
		•					
II. PHYSICAL DATA:							
APPEARANCE - ODOR - PH.				1	OILING POINT	(³ F)	•
White or vary colored shee	t, no d	dor.			NA		
VAPOR PRESSURE 68°F (MM MERCURY)		VAPOR DENSITY (AIR = 1				THE STAF	YL ACETATE = 1)
<u>NA</u>		NA			NA.		
		(I = RETAW) YT	PERCENT VOLATILE (S	Y WEIGHT	ر]		TY IN WATER
		<u> </u>	NA NA		· !	negi	igible
III. FIRE AND EXPLOSION HAZARE	DATA		· · · · · · · · · · · · · · · · · · ·	1.0000	EXPLOSION LI		ER EXPLOSION LIM
NA		• '	•	NA NA			NA
AUTO IGNITION TEMPERATURE (OF)	 ,	MINIMUM EXPLOSE	ON CONCENTRATIONS (OZ/				ILLUOULES):
•	DUST						
Flame Inhihiting	1 0031	-	•				
Flame Inhibiting EXTINGUISHING MEDIA:	0031		*		<u> </u>	<u>.</u>	
EXTINGUISHING MEDIA:		X DRY CHEMICAL	X WATER FOG	x or:	er wate	r	•
EXTINGUISHING MEDIA: X FOAM "ALCOHOL" FOAM SPECIAL FIRE FIGHTING PROCEDURES: WEST MESA/NIOSH approved s	X coz	T DRY CHEMICAL					•
EXTINGUISHING MEDIA: X FOAM	x co₂ self con	X DRY CHEMICAL					
EXTINGUISHING MEDIA: X FOAM	x co₂ self con	X DRY CHEMICAL					·
EXTINGUISHING MEDIA: X FOAM	x co _z self con	tained breath	ing apparatus (sched	ule #13)		
EXTINGUISHING MEDIA: X FOAM "ALCOHOL" FOAM SPECIAL FIRE FIGHTING PROCEDURES: WEST MESA/NIOSH approved S UNUSUAL FIRE & EXPLOSION HAZARDS: Avoid breathing noxious an IV. HEALTH HAZARD DATA: RECOMMENDED HEALTH GUIDE TWA (MAXIMUM	x co _z self con	tained breath	ing apparatus (sched	ule #13)		
EXTINGUISHING MEDIA: X FOAM	x co _z self con	tained breath	ing apparatus (sched	ule #13)		
EXTINGUISHING MEDIA: X FOAM "ALCOHOL" FOAM SPECIAL FIRE FIGHTING PROCEDURES: WEAT MESA/NIOSH approved S UNUSUAL FIRE & EXPLOSION HAZARDS: Avoid breathing noxious an IV. HEALTH HAZARD DATA: RECOMMENDED HEALTH GUIDE TWA (MAXIMUM None established.	elf con	tained breath	ing apparatus (sched	ule #13)		•
EXTINGUISHING MEDIA: X FOAM "ALCOHOL" FOAM SPECIAL FIRE FIGHTING PROCEDURES: WEAT MESA/NIOSH approved s UNUSUAL FIRE & EXPLOSION HAZARDS: Avoid breathing noxious an IV. HEALTH HAZARD DATA: RECOMMENDED HEALTH GUIDE TWA (MAXIMUM None established. EFFECTS OF OVER EXPOSURE:	elf con	tained breath	ing apparatus (sched	ule #13)		
EXTINGUISHING MEDIA: X FOAM "ALCOHOL" FOAM SPECIAL FIRE FIGHTING PROCEDURES: WEAR MESA/NIOSH approved S UNUSUAL FIRE & EXPLOSION HAZARDS: Avoid breathing noxious an IV. HEALTH HAZARD DATA: RECOMMENDED HEALTH GUIDE TWA (MAXIMUM None established. EFFECTS OF OVER EXPOSURE:	elf con	tained breath	ing apparatus (sched	ule #13)		
EXTINGUISHING MEDIA: X FOAM "ALCONOL" FOAM SPECIAL FIRE FIGHTING PROCEDURES: WEAR MESA/NIOSH approved S UNUSUAL FIRE & EXPLOSION HAZARDS: Avoid breathing noxious an IV. HEALTH HAZARD DATA: RECOMMENDED HEALTH GUIDE TWA (MAXIMUM None established. EFFECTS OF OVER EXPOSURE:	elf con	tained breath	ing apparatus (sched	ule #13)		
EXTINGUISHING MEDIA: X FOAM "ALCONOL" FOAM SPECIAL FIRE FIGHTING PROCEDURES: WEAR MESA/NIOSH approved S UNUSUAL FIRE & EXPLOSION HAZARDS: Avoid breathing noxious an IV. HEALTH HAZARD DATA: RECOMMENDED HEALTH GUIDE TWA (MAXIMUM None established. EFFECTS OF OVER EXPOSURE:	elf con	tained breath	ing apparatus (sched	ule #13)		
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EXTINGUISHING MEDIA: X FOAM "ALCOHOL" FOAM SPECIAL FIRE FIGHTING PROCEDURES: WEAR MESA/NIOSH approved S UNUSUAL FIRE & EXPLOSION HAZARDS: Avoid breathing noxious an IV. HEALTH HAZARD DATA: RECOMMENDED HEALTH GUIDE TWA (MAXIMUM None established. EFFECTS OF OVER EXPOSURE:	elf con	tained breath	ing apparatus (sched	ule #13)		
EXTINGUISHING MEDIA: X FOAM "ALCOHOL" FOAM SPECIAL FIRE FIGHTING PROCEDURES: Wear MESA/NIOSH approved s UNUSUAL FIRE & EXPLOSION HAZARDS: Avoid breathing noxious an IV. HEALTH HAZARD DATA: RECOMMENDED HEALTH GUIDE TWA (MAXIMUM None established. EFFECTS OF OVEREXPOSURE: None known under normal op	elf con	tained breath	ing apparatus (sched	ule #13)		
EXTINGUISHING MEDIA: X FOAM "ALCOHOL" FOAM SPECIAL FIRE FIGHTING PROCEDURES: WEAT MESA/NIOSH approved s UNUSUAL FIRE & EXPLOSION HAZARDS: Avoid breathing noxious an IV. HEALTH HAZARD DATA: RECOMMENDED HEALTH GUIDE TWA (MAXIMUM None established. EFFECTS OF OVER EXPOSURE:	elf con	tained breath	ing apparatus (sched	ule #13)		
EXTINGUISHING MEDIA: X FOAM "ALCOHOL" FOAM SPECIAL FIRE FIGHTING PROCEDURES: Wear MESA/NIOSH approved s UNUSUAL FIRE & EXPLOSION HAZARDS: Avoid breathing noxious an IV. HEALTH HAZARD DATA: RECOMMENDED HEALTH GUIDE TWA (MAXIMUM None established. EFFECTS OF OVEREXPOSURE: None known under normal op	elf con	tained breath: rid fumes. red average concentrations.	ing apparatus (sched	ule #13)		

INGESTION: None under normal operating conditions.

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X STABLE	UNST	ABLE	10-0 TIONS TO FILE					. The
ARDOUS DECOM	#0517.0% P400UCT	<u>.</u> 75.						
crylic r	monomers, o	oxides of o	erbon and	hydrogen :	chloride ga	s		
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-AY 00		THE MOT OCCUR						
WATER	MATERIALS TO AN	**************************************						**
	LEAK PROCE		<u> </u>					
	IN IN CASE MATERI		R SPILLED:					
Α								
						•		
	<u> </u>					· · · · · · · · · · · · · · · · · · ·		
**** ** * **** * * * * *		•		٠				
TE DISPOSAL	METHOOS:	<u>·</u>						
andfill	according	to local.	state and	federal re	egulations.			
				· · · · · · · · · · · · · · · · · · ·	•		•	
SPECIAL	PROTECTION	INFORMATIO	N:	.	·		· · · · · · · · · · · · · · · · · · ·	·
	, .	tion to ma	vide clean	uonienoon.	ain dumina	Forming or	nerstians	
FRATORY PRO	TECTION (SPECIFY	CTON CO DEC	ATGE CTEST	MOLKLOOM	art during	rotaring of	berg (TOUS)	 -
one TeOl	ired with	adequate v	rentilation	during fo	orming open	ations.		
ECTIVE SLOVE						Spectacle	s with si	deshiel
ar is o	loves.					ing (ANS		
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							·	
. STORAG	E AND LABEL	ING:	THEATEO					
	INDOOR:	ING:	HEATED:	X NO	REFRIGERA VES	TEO:	. Out 2006	
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	INDOOR:				☐ YES	TED:		
RAGE	INDOOR:				YES AGE TEMPERATURE	TED: X NO 3f1:		
RAGE	INDOOR:	<u></u> "но		STOR	YES AGE TEMPERATURE	TED: X NO 3f1:		
RAGE	INDOOR:	<u></u> "но	755	STOR	YES AGE TEMPERATURE	TED: X NO 3f1:		
RAGE	INDOOR:	<u></u> "но	755	STOR	YES AGE TEMPERATURE	TED: X NO 3f1:		
RAGE	INDOOR:	<u></u> "но	755	STOR	YES AGE TEMPERATURE	TED: X NO 3f1:		
MENTS:	indoor: X ves dry place-	<u></u> "но	755	STOR	YES AGE TEMPERATURE	TED: X NO 3f1:		
RAGE	INDOOR: X YES dry place-	<u></u> "но	755	STOR	YES AGE TEMPERATURE	TED: X NO 3f1:		
MENTS: tore in = NOT APP = CEILING	INDOOR: X YES dry place-	-avoid exce	755	stor	YES	TED: X NO SFI: MIN:	X v	ES
MENTS: tore in = NOT APP = CEILING	INDOOR: X YES dry place-	-avoid exce	essive heat	stor	YES	TED: X NO SFI: MIN:	X v	ES
MENTS: tore in = NOT APP = CEILING	INDOOR: X YES dry place-	-avoid exce	essive heat	stor	YES	TED: X NO SFI: MIN:	X v	ES
MENTS: tore in = NOT APP = CEILING	INDOOR: X YES dry place-	-avoid exce	essive heat	stor	YES	TED: X NO SFI: MIN:	X v	ES
MENTS: tore in = NOT APP = CEILING	INDOOR: X YES dry place-	-avoid exce	essive heat	stor	YES	TED: X NO SFI: MIN:	X v	ES
MENTS: tore in = NOT APP = CEILING	INDOOR: X YES dry place-	-avoid exce	essive heat	stor	YES	TED: X NO SFI: MIN:	X v	ES
MENTS: tore in NOT APP	INDOOR: X YES dry place-	-avoid exce	essive heat	stor	YES	TED: X NO SFI: MIN:	X v	ES 🔲
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MENTS: tore in = NOT APP = CEILING	INDOOR: X YES dry place-	-avoid exce	essive heat	stor	YES	TED: X NO SFI: MIN:	X v	ES
RAGE MENTS: tore in = NOT APP = CEILING ECAUTION.	INDOOR: X YES dry place-	-avoid exce	essive heat	GULATIONS OF 05	MAX: HA, EPA, FDA, AND	TED: X NO F): MIN:	X v	ES
RAGE MENTS: tore in = not app = celling ECAUTION.	INDOOR: X YES dry place-	G: IRONM AND MAA	AS IS GUIDED BY RE	GULATIONS OF 05	MAX: MAX: MAX: DI DATA CONSIDE D OR IMPLIED RE	TED: X NO F): MIN:	HAZARDOUS MATE	ES .
RAGE MENTS: tore in = NOT APP = CEILING ECAUTION.	dry place-	THE INFORMATE CHAPTE. AGENT	TION CONTAINED PY REVER NO WARRAN	EPEIN IS BASED TY IS EXPENSES	D DATA COMBIDE D ON DATA COMBIDE PTO SE CONTAINED PT	TED: X NO OF1: MIN: OUT FOR LABELING OUT FOR LABELING	HAZARDOUS MATE	ES
RAGE MENTS: tore in ECAUTION	INDOOR: X YES TO DIACE-	THE INFORMAT CHAPTE, NOW! THE ACCUPACY VENOR ASSU- PROSON PAGE PRO	TION CONTAINED HE EVER, NO WARRAND TO TEST BATA OF MESS NO RESPONSI	EPEIN IS BASED TY IS EXPRESSE BILLITY FOR INJECT TO AS STIRLY	THE TEMPERATURE OF THE	TED: X NO OF): MIN: DED ACCURACING THIRD SAFETY BREET	HAZARDOUS MATE	ES ,
RAGE MENTS: tore in ECAUTION.	INDOOR: X YES dry Dlace- PLICABLE VALUE ARY LABELING	THE INFORMAL CHAPTE, AGMITTHE ACCURACY VENORE AGENT PROCEDURES ABOITOMBLY ON THAN ELEMANT	TION CONTAINED HE EVER NO WARRANT OF TRESE NO RESPONSE	EPEIN IS BASED TY IS EXPRESSE BILITY FOR INJE TY OR STIPPLE TO AS STIPPLE	THE TEMPERATURE MAX: THAN EPA, FDA, AND THAN EPA, FDA, AND THE TEMPERATURE MAX: THE TEMPERATURE MAX: THE TEMPERATURE MAXIMATION TO THE TEMPERATURE OF THE TEMPER	TED: X NO OF): MIN: OCT FOR LABELING OCT FO	HAZARDOUS MATE	2111 R H





DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM GOVERNOR VICTORIA J. TSCHINKEL SECRETARY

	ATT OF NOTO	
APPLICATION TO OPERA	TE/CONSTRUCT AIR POLLUTION	SOURCES
SOURCE TYPE: Paint Spray Booth	[X] New ¹ [] Exi	isting ¹
APPLICATION TYPE: [X] Construction [] Operation [] Modifica	ition
COMPANY NAME: Walt Disney World Co.	· · · · · · · · · · · · · · · · · · ·	COUNTY: Orange
Identify the specific emission point s Kilu No. 4 with Venturi Scrubber; Peak		Golf Course
SOURCE LOCATION: Street Magnolia Pal	m Drive	City Bay Lake
	North_	
Latitude 28 24		cude 81 35 12 W
APPLICANT NAME AND TITLE: Walt Disney	World Co.	
APPLICANT ADDRESS: P. O. Box 10,000, La	ake Buena Vista, Florida	32830
I am the undersigned owner or authorization I certify that the statements made permit are true, correct and complete facilities in such a manuer as to Statutes, and all the rules and regalso understand that a permit, if and I will promptly notify the dependent of the stablishment. *Attach letter of authorization	in this application for a sete to the best of my know the pollution control so comply with the provisi gulations of the department granted by the department artment upon sale or legal	construction reledge and belief. Further, urce and pollution control on of Chapter 403, Florida it and revisions thereof. I it, will be non-transferable I transfer of the permitted
	Name and Title	, Lake Buena Vista Communitie (Please Type) Inc phone No. (407)934-7256
B. PROFESSIONAL ENGINEER REGISTERED IN		
This is to certify that the enginee been designed/examined by me and principles applicable to the treatment application. There is reas	ering features of this pol found to be in conformit ment and disposal of poll	lution control project have ty with modern engineering stants characterized in the

1 See Florida Administrative Code Rule 17-2.100(57) and (104)

DER Form 17-1.202(1) Effective October 31, 1982

	************	Signed Thomas of Janes
	SIDIE	
	5.75	Thomas W. Davis
		Hunter/Environmental Science and Engineering
7		Company Name (Piesse Type)
	3.65	P. O. Box 1703, Gainesville, FL 32602
	The state of the s	Mailing Address (Please Type)
ride	Registration No. 36777	Date: 10 13 85 Telephone No. (904) 332-3318
	SECTION	• 1
		ent of the project. Refer to pollution control equipment,
#he		source performance as a result of installation. State bult in full compliance. Attach additional sheet if
Ins	tallation of paint spray	booth, Binks Model SSF-510-30-50-TRB.
Воо	th to be used for spray c	oating a variety of objects, principally golf carts.
	· · · · · · · · · · · · · · · · · · ·	
Sch	edule of project covered	in this application (Construction Permit Application Only
	rt of Construction <u>Oct</u>	ober 1988 Completion of Construction November 1988
Ste		
Cos for Inf	individual components/un	ystem(s): (Note: Show breakdown of estimated costs only its of the project serving pollution control purposes. shall be furnished with the application for operation
Cost for Info	individual components/un ormation on actual costs	ystem(s): (Note: Show breakdown of estimated costs only its of the project serving pollution control purposes. shall be furnished with the application for operation
Cost for Info	individual components/un ormation on actual costs mit.)	its of the project serving pollution control purposes.
Cost for Info	individual components/un ormation on actual costs mit.)	its of the project serving pollution control purposes.
Cost for Info	individual components/un ormation on actual costs mit.)	its of the project serving pollution control purposes.
Cost for Info	individual components/un ormation on actual costs mit.)	its of the project serving pollution control purposes.
App	individual components/un oreation on actual costs eit.) proximately \$1,000.00	its of the project serving pollution control purposes. shall be furnished with the application for operation raits, orders and notices associated with the emission
Cos for Info	individual components/un oreation on actual costs eit.) proximately \$1,000.00 icate any previous DER pent, including permit issu	its of the project serving pollution control purposes. shall be furnished with the application for operation

	· · · · · · · · · · · · · · · · · · ·	
	this is a new source or major modification, answer the following quest	ions.
1.	Is this source in a non-attainment area for a perticular pollutant?	NO
	s. If yes, has "offset" been applied?	
	b. If yes, hes "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 Deterioriation" (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
	"Ressonably Available Control Technology" (RACT) requirements apply this source?	NO
	a. If yea, for what pollutants?	

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 Chomicals Used in your Process, if applicables

	Contaminants		Utilization			
Description	Гура	\$ Wt	Rate - lbe/hr	Relate to Flow Diagram		
Ameri-Flint	VOC	60	0.52			
Reducer ,	VOC	100	0.04			
Mineral Spirits	voc	100	0.04			
Alkyd Enamel	voc	59	0.52			

8.	Process	Rate.	i f	applicable:	(500	Section V.	Item	1)
••		,		abbitcente.	, , , ,	3000001111	,	• /

- 1. Total Process Input Rate (1bs/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)

Neme of	Emiss	ion ¹	Allowed ² Emission Rate per	Allowable ³	Poten: Emis:		Relate to Flow
Conteminent	Maximum lbs/hr	Actual T/yr	Rule 17-2	lbe/hr	lbs/yr	T/yr	Diagram
VOC	2.10	1.45			2,907	1.45	
Particulate	0.17	0.12			4,659	2.32	
			7				
_	_						

¹⁵⁰⁰ Section V, Item 2. See Attachment A for calculations.

²Reference 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)

³Calculated from operating rate and applicable standard.

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

Control Devices: (See Section V, Item 4)

Neme and Type (Model & Serial No.)	Conteminent	Efficiency	Range of Particles Size Collected (in microna) (If applicable)	Baeis for Efficiency (Section V Item 5)
Binks Booth Model	Particulate	95%	N/A	Manufacturer'
SSF-510-30-50-TRB				Specificatio
with Andreae-type paint arrestors for	Contains 1	6 filters each	20" x 20"	
exhaust	for a tota	l filter area	of 45 ft ³	
	-			

E. Fuels

	Consump	tion*	*
Type (8e Specific)	avg/hr	eax./hr	Maximum Heat Input (MM87U/hr)
N/A ·			
			· '
			•

*Units: Natural Gas--MMCF/hr; Fuel Oils--gellona/hr; Coel, wood, refuse, other--lbs/hr.

_								
Fue	1	Αſ	18	ΙV	8	1	3	•

Percent Sulfur:	Percent Ash:			
Density:	lb#/gel	Typical Percen	t Nitrogen:	
Heat Capacity:	870/16			8TU/ga:
Other Fuel Contaminents (which	may cause air po	llution):		
				
F. If applicable, indicate the	percent of fuel	used for spac	e heating.	
Annuel Average N/A	Нах	isus <u>N/A</u>		
		·		
Annuel Average N/A	atee generated a	nd method of d	isposal.	Disney

Stack Height:		16		ft. Stack Dismeter:			2
as Flow R	ete:	ACFH	6,300	_DSCFH G	es Exit Tem	ersture:	Ambient
Meter Vapor Content:		Ambi	ent	\$ V	elecity:	33.44	
NOT AI	PPLICABLE	SECT		INCINERAT	OR INFORMAT	ION	
Type of Waste					I Type IV) (Patholog- ical)		Type VI (Solid By-prod.
Actual lb/hr Inciner- ated						_	
Uncon- trolled (lbe/hr)							
proximat inufactur	e Number of	Hours of (Operation	per day	day/	'uk	wks/yr
ta Const				woder	NO		
		Volume (ft) ³	Heat Re	hr)	Fue I	8TU/hr	Temperature (*F)
		(16)	(8.0)				
Primery C	hamber		(810)				
	hamber Chamber		(313)				
econdary	Chamber			iter:		Stack T	emp.
econdery	Chamber	n. s	Stack Dies				
econdary ack Heigh a Flow R	Chamber ht:	ft. S	ACFH	ity, subm	DSCFH*	Velocity: _	empF n grains per sta

								
							_	
Ultimate dispo ssh, etc.):	sal of any	effluent (other tha	n that em	itted from	the stack	(ac rubber	water

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 air-borne 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 $1/2^n \times 11^n$ plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9.		sccordance with Rule 17-4.05. The check should be
10.		permit, attach a Certificate of Completion of Con- urce was constructed as shown in the construction
` A.	NOT APPLICABLE	AVAILABLE CONTROL TECHNOLOGY ow stationary sources pursuant to 40 C.F.R. Part 60
	[] Yes [] No	
	Conteminent	Rate or Concentration
8.	Has EPA declared the best availablyes, attach copy) [] Yes [] No	e control technology for this class of sources (If
	Contaminant	Rate or Concentration
	· · · · · · · · · · · · · · · · · · ·	-
		···
c.	What emission levels do you propose	as best available control technology?
	Conteminant	Rate or Concentration
		· · · · · · · · · · · · · · · · · · ·
0.	Describe the existing control and to	restment technology (if any).
	1. Control Device/System:	2. Operating Principles:
	3. Efficiency:*	4. Capital Costs:

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*Explain method of determining

5. Useful Lifa: Operating Costs: 7. Energy: 8. Maintenance Cost: 9. Emissions: Contaminant Rate or Concentration 10. Stack Parameters ft. **a**. Height: ft. b. Diameter: Temperature: OF. Flow Rate: ACFM d. FPS Velocity: Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary). ı. Control Device: Operating Principles: **a** . b. c. Efficiency: 1 Capital Cost: Useful Life: Operating Cost: Energy: 2 Maintenance Cost: Availability of construction materials and process chemicals: Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 2. Control Device: Operating Principles: Efficiency: 1 Capital Cost: đ. Useful Life: f. Operating Cost: Energy: 2 Maintenance Cost: Availability of construction materials and process chemicals: Explain method of determining efficiency. ²Energy to be reported in units of electrical power - KWH design rate. DER Form 17-1.202(1) Effective November 30, 1982

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Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 3. Control Device: Operating Principles: Efficiency: 1 Capital Cost: Useful Life: Operating Cost: Energy: 2 Maintenance Cost: Availability of construction materials and process chemicals: Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 4. Control Device: b. Operating Principles: Efficiency: 1 Capital Costs: Useful Life: Operating Cost: q. Energy: 2 Maintenance Cost: Availability of construction materials and process chemicals: j. Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: Describe the control technology selected: 2. Efficiency: 1 1. Control Device: 3. Capital Cost: Useful Life: Energy: 2 5. Operating Cost: 8. Manufacturer: 7. Maintenance Cost: 9. Other locations where employed on similar processes: a. (1) Company: (2) Mailing Address: (4) State: (3) City: Explain method of determining efficiency. 2 Energy to be reported in units of electrical power - KWH design rate. DER form 17-1.202(1)

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(5) Environmental Manager:	
(6) Telephone No.:	
(7) Emissions: ¹	
Contaminant	Rate or Concentration
4	
· · · · · · · · · · · · · · · · · · ·	
(8) Process Rate: 1	
b. (1) Company:	
(2) Mailing Address:	
(3) City:	(4) State:
(5) Environmental Manager:	
(6) Telephone No.:	
(7) Emissions: 1	
Contaminant	Rate or Concentration
·	· · · · · · · · · · · · · · · · · · ·
(8) Process Rate: 1	
10. Reason for selection an	d description of systems:
Applicant must provide this in available, applicant must state	formation when available. Should this information not to the reason(s) why.
NOT APPLICABLE SECTION VII -	PREVENTION OF SIGNIFICANT DETERIORATION
A. Company Monitored Data	
1no. sites	TSP ()_ \$0 ² * Wind spd/dir
Period of Manitaring	month day year month day year
	month day year month day year
Other data recorded	
Attach all data or statistic	al summaries to this application.
Specify bubbler (B) or continuo	us (C).
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	2.	Instrumentat	tion, Field end L	aboratory				
	٠.	Was instrume	entation EPA refe	renced or it?	equivalent?	[] Yes [] No		
	b.	Was instrumentation calibrated in accordance with Department procedures?						
		[] Yes []] No [] Unknown	·				
в.	Met	teorological Data Used for Air Quality Modeling						
	1.	Year(s	s) of data from _	/ / month day y'a	r month	day year		
	2.	Surface data	s obtained from ((location)		·		
1	3.	Upper air (m	eixing height) da	te obtained fr	om (locatio	n)		
	4.	Stability wi	ind rose (STAR) d	iata obtained f	rom (locati	on)		
c.	Com	puter Models	Used					
	1.				_ Modified?	If yes, attach description.		
1	2.		- -		_ Modified?	If yes, attach description.		
	3.			· .	Modified?	If yes, attach description.		
ł	4.			33333333333	_ Modified?	If yes, attach description.		
)]		ach copies of le output tab		. runs showing	input data,	receptor locations, and prin-		
٥.	Арр	licants Maxim	um Allowabie Emi	ssion Data				
I	Pol	lutant	Emi	ssion Rate				
		TSP _			gr	ams/sec		
1		so ²			gr	3m3/3ec		
٤.	Emi	ssion Data Us	ed in Modeling					
•	poi	ach list of e nt source (on normal opera	NEDS point numb	Emission dat per), UTM coord	a required i linates, sta	is source name, description of ick data, allowable emissions,		
F.	Att	ach all other	information sup	portive to the	PSD review.			
G.	ble	technologies		payroll, produ	uction, tax	chnology versus other applica- es, energy, etc.). Include		
'н.	nal	s, and other o		nt information	describing	reports, publications, jour- the theory and application of		

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

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 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 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 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 lbs/year

Total Emission E (Potential and Actual)

$$E = \sum_{i=1}^{4} E_{i} = 1,297.9 \text{ lbs/year} + 166.4 \text{ lbs/year} + 166.4 \text{ lbs/year} + 1,276.3 \text{ lbs/year}$$

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 lbs/hr

= 2,907.0 lbs/year = 1.45 tons/year

BEST AVAILABLE COPY

MATERIAL SAFETY DATA SHEET FOR COATINGS, RESINS AND RELATED MATERIALS

AMERICAN LACQUER & SOLVENTS COMPANY

2601 E. HENRY AVENUE

	TAM	PA, FLORIDA 33	610				
DATE OF PREPARATION: 1/22/87		EMERGENCY TELEPHON		· · · · · · · · · · · · · · · · · · ·			
SIGNATURE OF PREPARER	INFORMATION TELEPHONÉ NO.: 813-236-5594						
	SECTION I -	PRODUCT IDENTIFICA	ATION				
	02, 306, 310, 311 58, 359, 361, 361 75, 379, 381, 382	2, 363, 364, 365, 3 6	1, 325, 326, 335, 3 6, 367, 368, 369, 3	342, 353, 355 370, 373, 374			
PRODUCT CLASS:	>	PRODUCT NAME:	Mea-fully 1				
	SECTION II -	HAZARDOUS INGRE	DIENTS				
INGREDIENT	CAS NUMBER	PERCENT	OCCUPATIONAL EXPOSURE LIMITS TLV PEL	VAPOR PRESSURE			
TOLUOL	108-88-3	< 20	100	3 6 . 7 mm@30 [©] €			
METHYL ETHYL KETONE	64742-95-6	< 10	200	71.2mm@20 ^O 0			
LOL	1330-20-7	₹ 20	100	10.0mm@28 ^O C			
THYL ACETATE	141-78-6	< 7	400 .	86.0mme20 ^O 0			
PM ACETATE	108-65-6	<15	NE	3.7mm@20 ⁰ 0			
	SECTIO	N III – PHYSICAL DAT	Ά				
BOILING RANGE 75-150°C V	APOR DENSITY	HEAVIER	LIGHTER THAN AIR				
EVAPORATION RATE - F	ASTER 🗓	SLOWER THAN ETHERS	2-60% VOLATILE WT.	WT/GAL 8.2-			
	SECTION IV - FIR	E AND EXPLOSION HA	ZARD DATA	•			
FLAMMABILITY CLASSIFICAT	ION) R	OSHA	FLASH POINT	LEL			

EXTINGUISHING MEDIA.

★ FOAM □ ALCOHOL

ALCOHOL X CO2

X WATER FOG

OTHER

1.1

22°F T.O.C.

UNUSUAL FIRE AND EXPLOSION HAZARUS. 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.

DOT

SPECIAL FIRE FIGHTING PHOCEDURES FULL PROTECTIVE EQUIPMENT INCLUDING SELF-CONTAINED BREATHING APPARATUS SHOULD BE USED. - WATER SPHAY MAY BE INCEFFECTIVE IF MATER IS USED. FOO NOZZESS ARE PREFERA MATER MAY BE USED TO LOCK DISCUNTAINERS TO PREVENT PRESSURE BUILD UP AND MOISIBLE HUTURUNITION FO

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	SECTION VI - REACTIVITY DATA
STABIL	ITY UNSTABLE STABLE
. HAZAR	DOUS POLYMERIZATION - MAY OCCUR ED WILL NOT OCCUR
HAZAR	DOUS DECOMPOSITION PRODUCTS: Unknown other than CO2 and possibly CO and Smoke.
CONDI	TIONS TO AVOID: Heat, open flames, electrical and static discharges.
INCOM	PATIBILITY (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, CONFIDENT WITH INERT ABSORBENT AND CLEAN UP WITH SPARK PROOF TOOLS. WEAR PROTECTIVE EQUIPMENT DURING CLEANUP.
	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 or 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.
	OTTEN PROPERTY E EGOT MELTER PROPINS SAME CONTROL TO CONTAINING CONTROL
	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 times when mixing and transferring material. Do no 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, sin the conditions under which this information may be applied are beyond our control, we can assume a liability for results of its application. This information should be used only by presons having sufficient

technical skill to make informed judgements regarding its application.

	SECTION V - HEALTH HAZARD DATA	
IMARY ROUTE	STOFENTRY: 00 DERMAL 00 INHALATION . INGESTION	•
	EMERGENCY AND FIRST AID PROCEDURE	
EYE CONTACT	If this product comes in contact with the eyes, flush with large quantities of water for least 15 minutes and seek immediate medical attention.	rat
SKIN CONTACT	If this product comes in contact with the skin, wash with soup and large quantities of wand seek medical attention if irritation from contact persists.	aler
INHALATION	If breathing difficulties, headaches, dizziness, or lightheadebness occur when working areas with high vapor concentrations, victim should seek air free of vapors. If victim experiences continued breathing difficulties, administer oxygen until med assistance can be rendered. If breathing stops, begin artificial respiration and seek med attention.	dical -
INGESTION	If this product is swallowed, DO NOT INDUCE VOMITING. Seek immediate medical advice and/or attention.	
	PHYSIOLOGICAL EFFECTS AND HEALTH INFORMATION	
EYE EFFECTS	This product may be an eye irritant. Tearing and redness may occur.	
SKIN EFFECTS	This product may cause skin irritation upon prolonged or repeated contact.	
SYSTEMIC EFFECTS	VARIOUS STUDIES HAVE SHOWN A POSSIBLE ASSOCIATION WITH EXPOSURE TO THIS PRODUCT AND THE FOLLOWING:	
	Respiratory tract irritation.	
	Central nervous system depression in high concentrations.	
	Nausea and vomiting.	
	NOTE: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OVER- EXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATION AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.	

SOLVENT MAY CAUSE KIDNEY OR LIVER DAMAGE.

MA ERIAL SAFETY DA \ SHEET

(Approved by U.S. Department of Labor "Essentially Similar" to Form LSB-00S-4)

NPVLA 6-7.

			Sec	etion I			
CTURER'S NAME	•						
Devoe & Raynolds	Company				•		
EET ACCRESS 4000 Dupont Circl	e						
Ouisville, Kentuc	ky 40207			-		_	
GENCY TELEPHONE NO. 02 - 897 - 9861							
WICAL NAME AND SYNONYMS			·	TRACE SAME			
. A. (Paint)				Velour B Flat Alkyd Ename	1, Medium Ti	nt Ba	ise
lkyd Resin Flat W	Jall Daint		•	N. A.			
7	TOTAL TOTAL	76.A.		n. a.			SEV
172			-				
	P/	UNTS.		ATIVES, & SOLVENTS		,	T +.
ENTS		*	TLV (Units)	SOLVENTS		*	(Un
	•]		Mineral Spirits		35	500
			1				
				ADDITIVES		1	
	•						
:	· · · · · · · · · · · · · · · · · · ·		<u> </u>	OTHERS			
·					•		ĺ
-	HAZABDOUS MIXTURES	OF C	THER LIG	JIDS, SOLIDS, OR GASES		*	(Un
						<u> </u>	 (0 -
•							
						+	
				·		 	ļ
	·			<u> </u>			·
				·]	
		100		HYSICAE DATA			
S PGINT (*F.)				SPECIFIC GRAVITY (H_O=1)		1.	21
PRESSURE (mm Hg.)	310-41	.0	<u> </u>	PERCENT VOLATILE BY VOLUME (%)			
DENSITÝ (AIR=1)	3			BY VOLUME (%) EVAPORATION RATE		58.	
	3.9	"		Bu Acetate=1)		Q.	16
LITY IN WATER	Negligi	ble					
PANCE AND ODOR	White Pair	it wi	lth				
	mineral sp	1-1+	s odor				
TO THE STATE OF THE				KPEOSIONEHAZARIE DATA		127	
DINT (METHOD USED)		N. T		FLAMMABLE LIMITS	Lo		Ue:
050 (Tag Closed C	<u>nb)</u>				1.1	1	6.0
bon Dioxide, Dry	Chemical or Foam	_					
AL FIRE FIGHTING PROCEDUR							
•							
FIRE AND EXPLOSION HAZ	APOS						

و الورد به تشهرين دوريوه الدارد المتحصيطينات

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

DER Form 17-1.202(1)

Effective October 31, 1982



808 GRAHAM GOVERNOR VICTORIA J. TSCHINKEL SECRETARY

APPLICATION TO	OPERATE/CONSTRUCT	AIR	POLLUTION SOURCES	
•				
C C1	*37 4	1	1 1	

SOURCE TYPE: Carpenter Shop [X] No	ew ^l [] Existing ^l
APPLICATION TYPE: [X] Construction [] Operation	[] Modification
COMPANY NAME: Lake Buena Vista Communities, Inc.	COUNTY: Orange
Identify the specific emission point source(s) address Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2,	Buena Vista Villages
SOURCE LOCATION: Street 1851 Community Drive	City Lake Buena Vista
UTM: East 448313	North 3139506
	Longitude 81 • 31 34 W
APPLICANT NAME AND TITLE: Lake Buena Vista Communit	ies, Inc.
APPLICANT ADDRESS: P. O. Box 10,000, Lake Buena Vista	
SECTION I: STATEMENTS BY APPLIC	CANT AND ENGINEER
I am the undersigned owner or authorized represent I certify that the statements made in this applic permit are true, correct and complete to the best I agree to maintain and operate the pollution facilities in such a manner as to comply with Statutes, and all the rules and regulations of the also understand that a permit, if granted by the and I will promptly notify the department upon satisfactories.	construction cof my knowledge and belief. Further, control source and pollution control the provision of Chapter 403, Florida the department and revisions thereof. I department, will be non-transferable ale or legal transfer of the permitted
*Attach letter of authorization Signed:	
	James, Dir., Lake Buena Vista Communitie and Title (Please Type) In
Date: /a/z/	/88/ Telephone No. (407)934-7256
B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (wher	
This is to certify that the engineering features been designed/examined by me and found to be i principles applicable to the treatment and dispospermit application. There is reasonable assurant See Florida Administrative Code Rule 17-2.100(57) and	of this pollution control project have a conformity with modern engineering sal of pollutants characterized in the ce, in my professional judgment, that

Page 1 of 12

cestary and the confidence	Signed Morrow W. Janis
16/03 B	Thomas W. Davis
322	Name (Please Type)
D T T T T T T T T T T T T T T T T T T T	Hunter/Environmental Science and Engineering
	Company Name (Please Type)
NEFR	P. O. Box 1703, Gainesville, FL 32602
er of the state of	Meiling Address (Plesse Type)
ride Registration No. 3	6777 Date: 10 3 88 Telephone No. (904) 332-3318
SEC	CTION II: GENERAL PROJECT INFORMATION
and expected improvement	extent of the project. Refer to pollution control equipments in source performance as a result of installation. State is result in full compliance. Attach additional sheet if
Installation of carpente	r shop with sawdust collection cyclone, Stern Model CVA 3620
dust collector. Carpent	er shop will be used to manufacture custom equipment and
accessories.	
-	red in this application (Construction Permit Application On
Schedule of project cove	
_	October 1988 Completion of Construction December 1988
Start of Construction Costs of pollution control individual component	
Start of Construction Costs of pollution control for individual component Information on actual co	ol system(s): (Note: Show breakdown of estimated costs on s/units of the project serving pollution control purposes.
Start of Construction Coats of pollution control for individual component information on actual coperait.)	
Start of Construction Coats of pollution control for individual component information on actual coperait.)	ol system(s): (Note: Show breakdown of estimated costs on s/units of the project serving pollution control purposes.
Start of Construction Coats of pollution control for individual component Information on actual coperait.)	ol system(s): (Note: Show breakdown of estimated costs on s/units of the project serving pollution control purposes.
Start of Construction Coats of pollution control for individual component information on actual coperait.)	ol system(s): (Note: Show breakdown of estimated costs on s/units of the project serving pollution control purposes.
Coats of pollution control for individual component Information on actual coperait.) Approximately \$7,000.00	ol system(s): (Note: Show breakdown of estimated costs on s/units of the project serving pollution control purposes.
Coats of pollution control for individual component Information on actual coperait.) Approximately \$7,000.00	ol system(s): (Note: Show breakdown of estimated costs on s/units of the project serving pollution control purposes. ats shall be furnished with the application for operation. R permits, orders and notices associated with the emission

	· · · · · · · · · · · · · · · · · · ·	
	this is a new source or major modification, answer the following question or No.	ions.
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 Deterioriation" (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 Standarde for Hazardoua Air Pollutants" (NESHAP) apply to this source?	NO
	Reesonably Available Control Technology (RACT) requirements apply this source?	NO
	a. If yea, for what pollutants?	

cation for any answer of "No" that might be considered questionable.

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

A. Raw Materials and Chemicals Used in your Process, if applicables

	Contam	inants	Utilization			
Description	Туре	\$ Wt	Rate - lbe/hr	Relate to Flow Diagram		
Wood (Solid spruce	Particulate	100				
fir plywood, miscellaneous hard	voods					
and pines)		-		·		

A.	Process	Rate.	i f	applicable:	(500	Section V	. Item	1)
•	1100434	nace,		abbircania:	(300	3 CCTOH A	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	• /

1.	Total	Process	Inout	Rate	(lbs/hr):	N/A	
					/ * * * / * / *	21/22	

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

Name of	Emiss	ion ¹	Allowed ^Z Emission Rate per	Allowable ³	Potential ⁴ Emission		Relate to Flow
Contaminant	Maximum lbs/hr	Actual T/yr	Rule 17-2	lbe/hr	lbs/yr T/yr	T/yr	Diagram
Particulates	0.01	0.02			4,160	2.08	
·							•

¹See Section V, Itam 2.

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

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (l) - 0.1 pounds per million BTU hest input)

³Calculated from operating rate and applicable atendard.

⁴Emission, 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 microna) (If applicable)	Basis for Efficiency (Section V Item 5)
Stern Model CVA	Particulate	99%	N/A	Manufacturer's
3620 B Cyclone Dust				specification
Collector				
· · · · · · · · · · · · · · · · · · ·			·	
			and the second s	
		1		
4	·			

Ε. Fuels

	Consump	tion*	<u> </u>
Type (8e Specific)	avg/hr	max./hr	Maximum Heat Input (MMBTU/hr)
N/A			
-			

Density:	Percent Sulfur:		Percent Ash:	
Other Fuel Contaminants (which may cause air pollution): F. If applicable, indicate the percent of fuel used for space heating.			• •	
F. If applicable, indicate the percent of fuel used for space heating.	Heat Capacity:	8TU/15		BTU/ga
Annual Average Mayinum	Atual Lauraminauta (Auton me	y cause air p	ollution):	
	<u> </u>	·		
. Indicate liquid or solid westes generated and mathod of disposal.	F. If applicable, indicate the p	escent of fue	l used for space heating.	

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tack Held)ht:	12		rt. s	itack Diamet	er:1	33
as Flow R	lete:	ACFH	6,000	_OSCFM G	as Exit Tem	perature:_	Ambient
ater Vapo	or Content:	Ambien	ıt	\$ V	elocity: _	75.38	
		tret	TOM TV.	INCINCAL	OR INFORMAT	TOM	
NOT A	PPLICABLE			incinca.			
Type of Weste					Type IV (Patholog ical)		Type VI s (Solid By-prod
Actual lb/hr inciner- ated							
Uncon- trolled (lbe/hr)							
otel Weig		ted (lbs/h	r)				/hr)
otal Weig pproximat anufactur	ht Incinera e Number of er	ted (lbs/h	r)	per day	day	/ wk	wks/yr
otal Weig pproximat anufactur	ht Incinera e Number of er	ted (lbs/h	r)	per day	day	/ wk	
otal Weig pproximat anufactur	ht Incinera e Number of er	ted (lbs/h	r)	per day Model	day	/ wk	wks/yr
otal Weig pproximat anufactur ata Const	ht Incineral e Number of er ructed	ted (lbs/h: Hours of (r)	per day Model	No	/ wk	Wks/yr
otal Weig pproximat anufactur ata Const	ht Incineral e Number of er ructed	ted (lbs/h: Hours of (r)	per day Model	No	/ wk	Wks/yr
otal Weig pproximat anufactur ata Const Primary C Secondary tack Heig	ht Incineral e Number of er ructed hamber Chamber	Volume (ft)	T) Operation Heat R (BTU,	per day Model elease /hr)	No. Fue	BTU/hr Stack	Temperature (°F)
otal Weig pproximat anufactur ata Const Primary C Secondary tack Heig	ht Incineral e Number of er ructed hamber Chamber	Volume (ft)	T) Operation Heat R (BTU,	per day Model elease /hr)	No. Fue	BTU/hr Stack	Temperature (°F)
otal Weig pproximat anufactur ata Const Primary C Secondary tack Heig as Flow R	ht Incineral e Number of er ructed hamber Chamber ht:	Volume (ft) ft.	Heat Re (BTU)	per day Model elease /hr)	No. Fue Type DSCFM* it the emis:	BTU/hr Stack	Temperature (°F)
otal Weig pproximat anufactur ata Const Primary C Secondary tack Heig as Flow R If 50 or 6 ard cubic	ht Incineral e Number of er ructed hamber Chamber ht: ate:	Volume (ft) ft. Ser day desired corrected	Heat Ro (BTU) Stack Diam ACFM ign capacied to 50%	Model Model elease /hr) ater: ity, subm excess a	DSCFMe it the eais: ir.] Wet Scrui	Stack Velocity: sione rate	Temperature (°F) Temp. in grains per st

	 			· · · · · · · · · · · · · · · · · · ·			
		-					
ltimate sh, etc.	f any efflu	ent other	than that	emitted fr	on the stack	(scrubber w	rate

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

- 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.
- Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
- 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.)
- 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).
- 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.
- 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).
- An 8 1/2 x 11 m plot plan of facility showing the location of manufacturing processes and outlets for eirborne emissions. Relate all flows to the flow diagram.

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9.	The appropriate application fee in a made payable to the Depertment of Env	ecordance with Rule 17-4.05. The check should be vironmental Regulation.
10.		ermit, attach a Certificate of Completion of Con- ce was constructed as shown in the construction
Α.	NOT APPLICABLE	AVAILABLE CONTROL TECHNOLOGY stationary sources pursuant to 40 C.F.R. Part 60
	[] Yes [] No	
	Contaminent	Rate or Concentration
8.	Has EPA declared the best available yes, attach copy)	control technology for this class of sources (If
	[] Yes [] No	•
	Contaminant	Rate or Concentration
<u> </u>	What emission levels do you propose a	s best available control technology?
	Contaminant	Rate or Concentration
	,	
) .	Describe the existing control and tre	
	1. Control Device/System:	2. Operating Principles:

*Explain method of determining

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3. Efficiency: *

Capital Costs:

Useful Life: 6. Operating Costs: 7. Energy: Maintenance Cost: Emissions: Contaminant Rate or Concentration 10. Stack Parameters Height: ft. b. Diameter: ft. a. Flow Rate: ACFM d. Temperature: OF. c. FPS Velocity: Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary). 1. Control Device: Operating Principles: Efficiency: 1 Capital Cost: c. Useful Life: Operating Cost: Energy: 2 Maintenance Cost: g. Availability of conetruction materials and process chemicals: j. Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 2. Control Device: Operating Principles: Efficiency: 1 Capital Cost: Useful Life: Operating Cost: Energy: 2 h. Maintenance Cost: Availability of construction materials and process chemicals: ¹Explain method of determining efficiency. ²Energy to be reported in units of electrical power - KWH design rate. DER Form 17-1.202(1) Effective November 30, 1982 Page 9 of 12

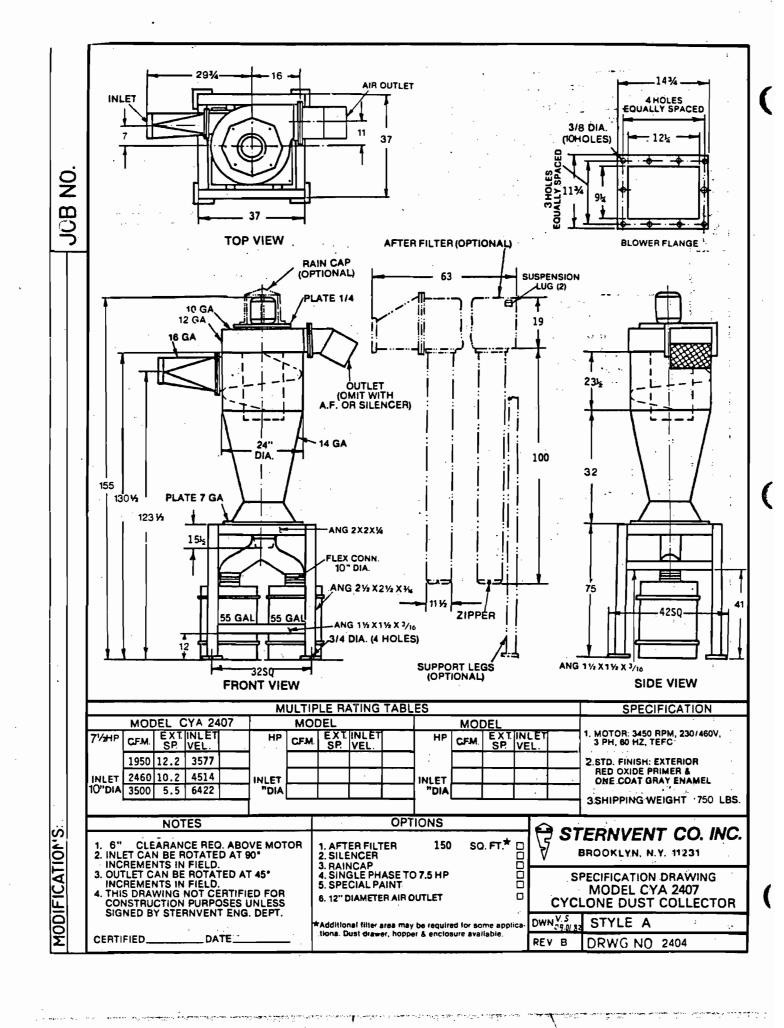
Applicability to manufacturing processes: 1. Ability to construct with control device, install in available space, and operate k. within proposed levels: 3. Control Device: Operating Principles: . Efficiency: 1 Capital Cost: c. Useful Life: Operating Cost: . Energy: 2 h. Maintenance Cost: α. Availability of construction materials and process chemicals: i. Applicability to manufacturing processes: 1. Ability to construct with control device, install in available space, and operate k. within proposed levels: 4. **Sperating Principles:** Control Device: ۵. Efficiency: 1 Capital Costs: c. Useful Life: f. Operating Cost: . Energy: 2 Maintenance Cost: g. Availability of construction materials and process chemicals: Applicability to manufacturing processes: j. Ability to construct with control device, install in available space, and operate within proposed levels: Describe the control technology selected: Control Device: Efficiency: 1 3. Capital Cost: Useful Life: Energy: 2 5. Operating Cost: Manufacturer: 7. Maintenance Cost: Other locations where employed on similar processes: (1) Company: (2) Mailing Address: (3) City: (4) State: $^{
m l}$ Explain method of determining efficiency. 2 Energy to be reported in units of electrical power - KWH design rate. DER Form 17-1.202(1)

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(5) Environmental banager:	
(6) Telephone No.:	
(7) Emissions: ¹	
Contaminant	Rate or Concentration
	······································
(8) Process Rate: 1	
b. (1) Company:	
(2) Mailing Address:	
(3) City:	(4) State:
(5) Environmental Manager:	•
(6) Telephone No.:	
(7) Emissians: 1	
Contaminant	Rate or Concentration
(8) Process Rate: 1	
lG. Reason for selection an	d description of systems:
Applicant must provide this in available, applicant must state	formation when available. Should this information not be the reason(s) why.
NOT APPLICABLE	PREVENTION OF SIGNIFICANT DETERIORATION
. Company Monitored Data	
1no. sites	TSP () SO ² + Wind spd/dir
Period of Monitoring	month day year month day year
Other data recorded	
Attach all data or statistic	al summaries to this application.
Specify bubbler (8) or continuo	us (C).
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ĺ	2. Instrument	acton, Field and Laboratory
	a. Was instru	mentation EPA referenced or its equivalent? [] Yes [] No
ĺ	b. Was instru	mentation calibrated in accordance with Department procedures?
ı	[] Yes [] No [] Unknown
8.	Meteorological	Data Used for Air Quality Modeling
, I	1 Year	(s) of data from / / to / / month day year
ł	2. Surface da	ta obtained from (location)
1	3. Upper mir	(mixing height) data obtained from (location)
	4. Stability	wind rose (STAR) data obtained from (location)
c.	Computer Model	s Used
	1	Modified? If yes, attach description.
l	2.	Modified? If yes, attach description.
•		Modified? If yes, attach description.
		Modified? If yes, attach description.
}		of all final model runs showing input data, receptor locations, and prin-
٥.	Applicants Max	imum Allowable Emission Data
)	Pollutant	Emission Rate
,	TSP	grams/sec
)	50 ²	grams/sec
ε.	Emission Data	Used in Modeling
		emission sources. Emission data required is source name, description of on NEDS point number), UTM coordinates, stack data, allowable emissions, rating time.
F.	Attach all other	er information supportive to the PSD review.
G.	ble technologi	cial and economic impact of the selected technology versus other applicaes (i.e., jobs, payroll, production, taxes, energy, etc.). Include the environmental impact of the sources.
н.	nals, and other	fic, engineering, and technical material, reports, publications, jour-competent relevant information describing the theory and application of test available control technology.
		•





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 =
		TATYTE	6025	

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM GOVERNOR VICTORIA J. TSCHINKEL SECRETARY

	THEY OF ROSE
APPLICATION TO OPERAT	TE/CONSTRUCT AIR POLLUTION SOURCES
SCURCE TYPE: Paint Spray Booth	[X] New ¹ [] Existing ¹
APPLICATION TYPE: [X] Construction [] Operation [] Modification
COMPANY NAME: Walt Disney World Co.	COUNTY: Orange
	ource(s) addressed in this application (i.e. Lime Caribbean Beach Resort ing Unit No. 2, Gas Fired) Paint Spray Booth
	d Lake Buena Vista Drive City Lake Buena Vista
Latitude 28 • 21	
APPLICANT NAME AND TITLE: Walt Disney	World Co.
I certify that the statements made permit are true, correct and comple I agree to maintain and operate t facilities in such a manner as to Statutes, and all the rules and reg also understand that a permit, if	in this application for a construction the to the best of my knowledge and belief. Further, the pollution control source and pollution control comply with the provision of Chapter 403, Florida gulations of the department and revisions thereof. I granted by the department, will be non-transferable artment upon sale or legal transfer of the permitted. Signed:
-accach letter of authorization	Lauren H. James, Dir., Lake Buena Vista Communitie
	Name and Title (Please Type) In
·	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 engineer been designed/examined by me and principles applicable to the treatm	ring features of this pollution control project have found to be in conformity with modern engineering sent and disposal of pollutants characterized in the onable assurance, in my professional judgment, that

DER Form 17-1.202(1) Effective October 31, 1982

1 See Florida Administrative Code Rule 17-2.100(57) and (104)

pollution sources.	Signed Thomas W. Davis
2/2/3/4	Thomas V. Davis
	Name (Please Type)
THE THE	Hunter/Environmental Science and Engineering
Sept 3	Company Name (Please Type)
WEER	P. O. Box 1703, Gainesville, FL 32602 Mailing Address (Please Type)
*Assessment	36777 Date: 10 13 88 Telephone No. (904)332-3318
ride Registration No	30777 Bate: 10 13 80 Telephone No. (507) 552 5510
SE	CTION II: GENERAL PROJECT INFORMATION
	its in source performance as a result of installation. State if the sult in full compliance. Attach additional sheet if
Installation of paint of	pray booth, JBI Model DB-1210-5.
- Installation of paint sp	
	ray coating a variety of miscellaneous objects, including
Booth to be used for spi	
Booth to be used for spi	
Booth to be used for spi	· · · · · · · · · · · · · · · · · · ·
Booth to be used for spi furniture and trash cans	erad in this application (Construction Perait Application On
Booth to be used for spi furniture and trash cans Schedule of project cov Start of Construction	erad in this application (Construction Perait Application On October 1988 Completion of Construction December 19
Booth to be used for spi furniture and trash cans Schedule of project cov Start of Construction Costs of pollution cont for individual component Information on actual c	erad in this application (Construction Perait Application On October 1988 Completion of Construction December 19
Booth to be used for spi furniture and trash cans Schedule of project cov Start of Construction	ered in this application (Construction Permit Application On October 1988 Completion of Construction December 19 rol system(s): (Note: Show breakdown of estimated costs on ts/units of the project serving pollution control purposes.
Booth to be used for spiniture and trash canson schedule of project covered to the spiniture of Construction Costs of pollution control individual component information on actual coperait.)	ered in this application (Construction Permit Application On October 1988 Completion of Construction December 19 rol system(s): (Note: Show breakdown of estimated costs on ts/units of the project serving pollution control purposes.
Booth to be used for spiniture and trash canson schedule of project covered to the spiniture of Construction Costs of pollution control individual component information on actual coperait.)	ered in this application (Construction Permit Application On October 1988 Completion of Construction December 19 rol system(s): (Note: Show breakdown of estimated costs on ts/units of the project serving pollution control purposes.
Booth to be used for spiniture and trash canson schedule of project covered to the spiniture of Construction Costs of pollution control individual component information on actual coperait.)	ered in this application (Construction Permit Application On October 1988 Completion of Construction December 19 rol system(s): (Note: Show breakdown of estimated costs on ts/units of the project serving pollution control purposes.
Booth to be used for spiniture and trash cans Schedule of project cov Start of Construction	ered in this application (Construction Permit Application On October 1988 Completion of Construction December 19 rol system(s): (Note: Show breakdown of estimated costs on ts/units of the project serving pollution control purposes.
Booth to be used for spiniture and trash cans Schedule of project cov Start of Construction Costs of pollution cont for individual component information on actual component information of project cov Indicate any previous Difference in the contraction of the contraction of the contraction in the contraction of the contraction in the contraction in the contraction of the contraction in the cont	ered in this application (Construction Permit Application On October 1988 Completion of Construction December 19 rol system(s): (Note: Show breakdown of estimated costs on ts/units of the project serving pollution control purposes.
Schedule of project cov Start of Construction Costs of pollution cont for individual component Information on actual coperate.) Approximately \$1,000.00	ered in this application (Construction Permit Application On October 1988 Completion of Construction December 19 rol system(s): (Note: Show breakdown of estimated costs on ts/units of the project serving pollution control purposes. oats shall be furnished with the application for operation

	sted permitted equipment operating time: hrs/day_16; days/wk_5; if seasonal, describe:;	
1. pu.	yer plant, mrs/yr, in seasonal, describe	
		
		
	· · · · · · · · · · · · · · · · · · ·	
	is is a new source or major modification, answer the following quest or No)	ions.
l. Is	s this source in a non-attainment area for a particular pollutant?	NO
a .	If yes, has "offset" been applied?	
ь.	. If yes, has "Lowest Achievable Emission Rate" been applied?	
c.	If yes, list non-attainment pollutants.	
	es best available control technology (BACT) apply to this source? yes, see Section VI.	NO
	es the State "Prevention of Significant Deterioriation" (PSD) equirement apply to this source? If yes, see Sections VI and VII.	NO
	"Standards of Performance for New Stationary Sources" (NSPS) uply to this source?	NO
	"National Emission Standards for Hazardous Air Pollutants" ESHAP) apply to this source?	NO
	asonably Available Control Technology* (RACT) requirements apply .s source?	NO
٠.	If yes, for what pollutants?	
ь.	If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.	,
	all supportive information related to any answer of "Yes". Attach for any answer of "No" that might be considered questionable.	any jus
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 Incineratore)

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

	Contaal	inants	Utilization		
Description	Туре	% Wt	Rate - lbe/hr	Relate to Flow Diagram	
Alkyd Enamel	VOC	59 .	3.17		
Lacquer	voc	85	0.89		

8.	Process	Rate.	if	applicable:	(500	Section V.	Item 1)
••		,	• .		,		,

1.	Total Process	Input F	Rate	(1bs/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	Emiss	ion ¹	Allowed ^Z Emission Rate per	Allowable ³ Emission	Potent		Relate to Flow	
Contaminant	Maximum lbs/hr	Actual T/yr	Rule 17-2	Rule lbs/hr	lbe/hr	lbs/yr	T/yr	Diagram
VOC	7.88	5.46			10,927	5.46		
Particulate	0.61	0.42			16,890	8.45		
							٠	

¹⁵⁰⁰ Section V, Item 2. See Attachment A for calculations.

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

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 hest input)

 $^{^3}$ Calculated from operating rate and applicable standard.

 $^{^4}$ Emission, if source operated without control (See Section V, Item 3).

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Conteminent	Efficiency	Range of Particles Size Collected (in microne) (If applicable)	Beeis for Efficiency (Section V Item 5)
JBI Booth Model	Particulate	95%	N/A	Manufacturer'
DB-1210-5				specificatio
with Andreae type	Contains 16 fil	ters each 20"	x 20"	
paint arrestors for exhaust	for a total fi		45 ft ²	
	-			

E. Fuels

	Consump	tion*	*	
Type (8e Specific)	avg/hr	max./hr	Maximum Heat Input (MMBTU/hr)	
N/A				
			-	
·				

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

Fuel Analysis:					
Percent Sulfur:			Percent Ash:		
Density:		lbs/gsl	Typical P	ercent Nitrogen:	
Heat Capacity:		870/16			8TU/ga.
Other Fuel Contamin	ants (which may o	cause air po	llution):		
F. If applicable,	indicate the perc	ent of fuel	used for	space heating.	
Annual Average				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.

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ater Vapor Content: Ambient 3 Velocity: 13 SECTION IV: INCINERATOR INFORMATION NOT APPLICABLE Type of Type 0 Type I Type II Type III Type IV (Fatholog- (Liq.& Gas icel)) Actual lb/hr Incinerated (lbe/hr) escription of Waste otal Veight Incinerated (lbs/hr) Design Capacity (lbs/hr) pproximate Number of Hours of Operation per day day/wk wks.	Type VI
SECTION IV: INCINERATOR INFORMATION NOT APPLICABLE Type of Type 0 Type I Type II Type III Type IV (Patholog- (Liq.& Gas By-prod.)) Actual lb/hr Incinerated (lbs/hr)	Typ• ¥I
SECTION IV: INCINERATOR INFORMATION NOT APPLICABLE Type of Type 0 Type I Type II Type III Type IV (Patholog- (Liq.& Gas By-prod.)) Actual lb/hr Incinerated (lbs/hr)	Typ• ¥I
Wasta (Plaetice) (Rubbish) (Refuse) (Garbage) (Patholog- (Liq.& Gas 8y-prod.) Actual lb/hr Incinerated (lbe/hr) escription of Wasta otal Weight Incinerated (lbs/hr) pproximate Number of Hours of Operation par day day/wk wks.	
Uncon- trolled (lbe/hr) escription of Wasts otel Weight Incinerated (lbs/hr) Design Capacity (lbs/hr) pproximate Number of Hours of Operation par day day/wk wks.	•
escription of Wasta	
otel Weight Incinerated (lbs/hr) Design Capacity (lbs/hr)	
ate Constructed Model No	
Volume Heat Release Fuel To	emperature (*F)
Primary Chamber Secondary Chamber	
tack Height: ft. Stack Diamter: Stack Temp.	
as Flow Rate:ACFM DSCFM® Velocity:	
If 50 or more tone per day design cepacity, submit the emissions rate in grand cubic foot dry gas corrected to 50% excess air.	rains per st
ype of pollution control device: [] Cyclone [] Wet Scrubber [] Aftert	

	<u> </u>					
timate disposal	of any efflue	nt other than	that emitted	from the	stack (scrubbe	r wate
	of any efflue	nt other than				r wate
	of any efflue	nt other than		I from the		wate
timate disposal h, etc.):	of any efflue	ent other than				r wate

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 a 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 $1/2^n \times 11^n$ plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

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9.		accordance with Rule 17-4.05. The check should be
10.		ermit, attach a Certificate of Completion of Conce was constructed as shown in the construction
Α.	NOT APPLICABLE	AVAILABLE CONTROL TECHNOLOGY stationary sources pursuant to 40 C.F.R. Part 60
	[] Yee [] No	
	Contaminant	Rate or Concentration
8.	Has EPA declared the best available yes, attach copy)	control technology for this class of sources (If
	[] Yes [] No	
	Contaminant	Rate or Concentration
	What emission levels do you propose a	as best available control technology?
	Contaminant	Rate or Concentration
		· ·
.	1. Control Device/System:	

*Explain method of determining DER Form 17-1.202(1) Effective November 30, 1982

3. Efficiency:*

Capital Costs:

	5.	Useful Life:		6.	Operating Coats:
	7.	Energy:		8.	Maintenance Cost:
	9.	Emissions:			
		Contaminant			Rate or Concentration
	10	. Stack Parameters		_	
	a.	Height:	ft.	ъ.	Diameter: ft.
	c.	Flow Rate:	ACFM	٥.	Temperature: °F.
	٠.	Velocity:	FPS		
ε.		scribe the control and treatment additional pages if necessary).		olog	gy available (As many types as applicable
	1.				
	٠,	Control Device:	•	b.	Operating Principles:
	c.	Efficiency: 1	•	d.	Capital Cost:
	٠.	Useful Life:		f.	Operating Cost:
	g.	Energy: ²		h.	Maintenance Cost:
	i.	Availability of construction ma	terial	s an	nd process chemicals:
	j.	Applicability to manufacturing ;	00000	s e s :	•
	k.	Ability to construct with contr within proposed levels:	ol de	vice	, install in available space, and operate
	2.				•
	٠.	Control Device:		ь.	Operating Principles:
	c.	Efficiency: 1		d.	Capital Cost:
	•.	Useful Life:		f.	Operating Cost:
	g.	Energy: 2		h.	Maintenance Cost:
	i.	Availability of construction mat	erial	s an	nd process chemicals:
lEx 2En	plai	n method of determining efficience to be reported in units of elect	y. rical	pow	ver - KWH design rate.
		m 17-1.202(1) ve November 30, 1982	Page	9 of	7 12

Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 3. Operating Principles: Control Device: Efficiency: 1 Capital Cost: c. Useful Life: f. Operating Cost: Energy: 2 h. Maintenance Cost: Availability of construction materials and process chemicals: . Applicability to manufacturing processes: ١. Ability to construct with control device, install in available space, and operate k. within proposed levels: 4. Control Device: b. Operating Principles: Efficiency: 1 Capital Costs: c. f. Operating Cost: Useful Life: Energy: 2 h. Maintenance Cost: g. Availability of construction materials and process chemicals: Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: Describe the control technology selected: 2. Efficiency: 1 1. Control Device: 3. Capital Cost: Useful Life: 6. Energy: 2 5. Operating Cost: 7. Maintenance Cost: 8. Manufacturer: 9. Other locations where employed on similar processes: a. (1) Company: (2) Mailing Address: (4) State: (3) City: ¹Explain method of determining efficiency. 2 Energy to be reported in units of electrical power - KWH design rate. DER Form 17-1.202(1)

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(5) Environmental Panager:	•
(6) Telephone No.:	
(7) Emissions: ¹	
Contaminant	Rate or Concentration
,	
<u> </u>	
(8) Process Rate: 1	
b. (1) Company:	
(2) Mailing Address:	·
(3) City:	(4) State:
(5) Environmental Manager:	•
(6) Telephone No.:	•
(7) Emissions: 1	
Contaminant	Rate or Concentration
·	
	·
(8) Process Rate: 1	
10. Reason for selection and descri	iption of systems:
Applicant must provide this information in the real state the real state the real section vii - PREVENT NOT APPLICABLE	
. Company Monitored Data	
1no. sites	TSP () SO ² * Wind spd/dir
Period of Monitoring	/ / to / / n day year month day year
Other data recorded	
Attach all data or statistical summa	iries to this application.
pecify bubbler (B) or continuous (C).	•
	•

ΥĘ

	٠.	Ind Clumbiic	acton, Field an	d cabonacory				
	•.	Was instru	mentation EPA r	eferenced or it	s equivalent?	[] Yes []	No	
	ъ.	Was instru	mentation calib	n calibrated in accordance with Department procedures?				
		[] Yes [] No [] Unkn	o wn				
В.	Meteorological Data Used for Air Quality Modeling							
	1.	1Year(s) of data from/ / to/ / month day year						
	2.	2. Surface data obtained from (location)						
ŀ	3. Upper sir (mixing height) data obtained from (location)							
l	4. Stability wind rose (STAR) data obtained from (location)							
c.	Comp	outer Models	Used				•	
l	1.				Modified?	If yes, attac	h description.	
1	2.				Modified?	If yes, attac	h description.	
	3.				Modified?	If yes, attac	h description.	
! 	4.					If yes, attac		
	Attach copies of all final model runs showing input data, receptor locations, and principle output tables.							
٥.	Appl	licants Maxi	mum Allowabie E	Emission Data			•	
	Poll	lutant	•	Emission Rats				
	TSP			_ 	gr	ams/sec		
i	so ²				gr	8m3/3ec		
ξ.	Emis	sion Data U	sed 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.							
ˈc.	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.							
н.	nals	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.						

ATTACHMENT A

WDW-32

(1) Basic Equation for VOC Emission Calculation

$$E = \sum_{i=1}^{n-1} U_i \times V_i \times 80 \text{ hrs/week x 52 weeks/year}$$

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

 $E_1 = 3.17 \text{ lbs/hr} \times 0.59 \times 80 \text{ hrs/week} \times 52 \text{ weeks/year}$ = 7,780 lbs/year

Substance i = 2, Lacquer

 $E_2 = 0.89$ lbs/hr x 0.85 x 80 hrs/week x 52 weeks/year = 3,147 lbs/year

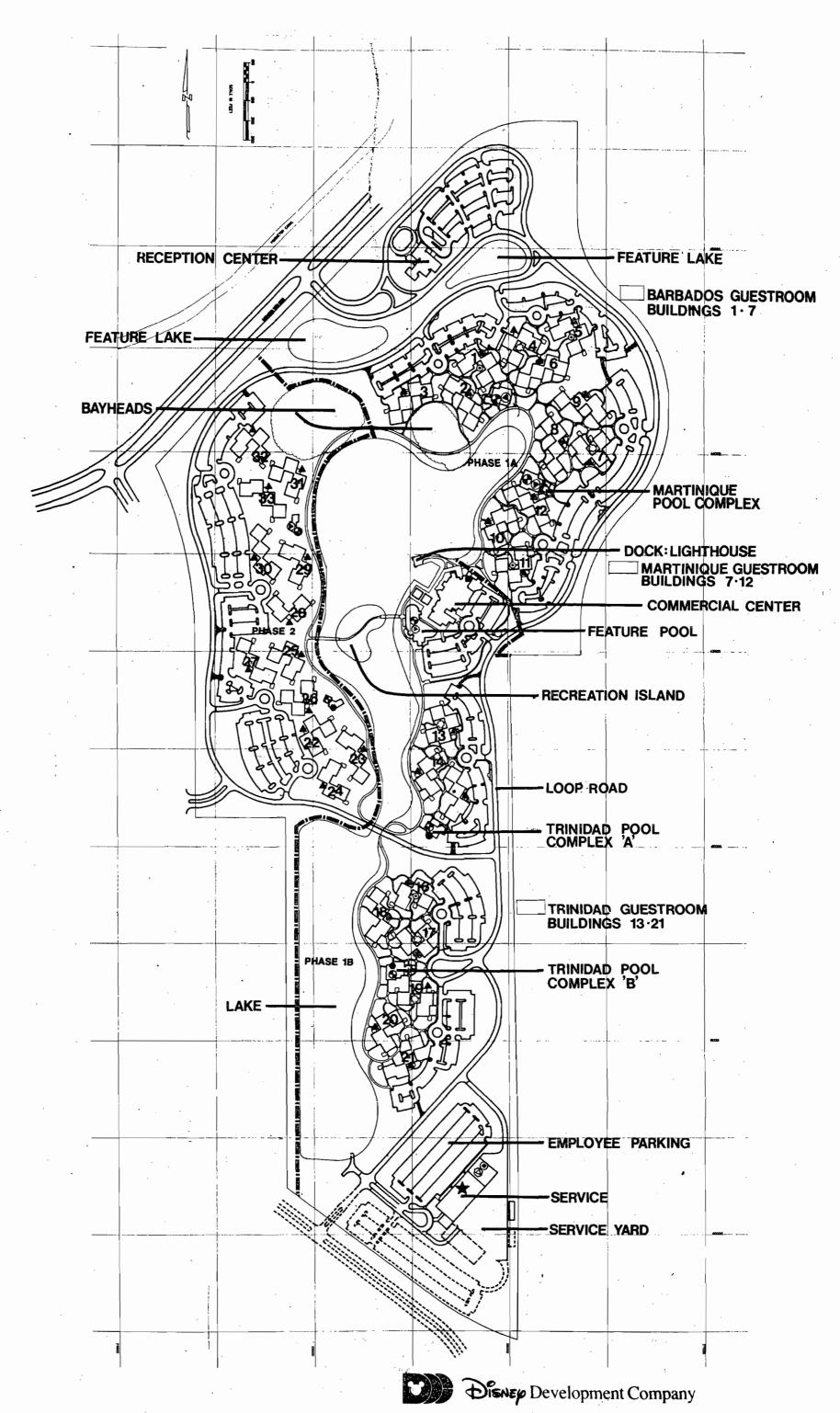
Total Emission E (Potential and Actual)

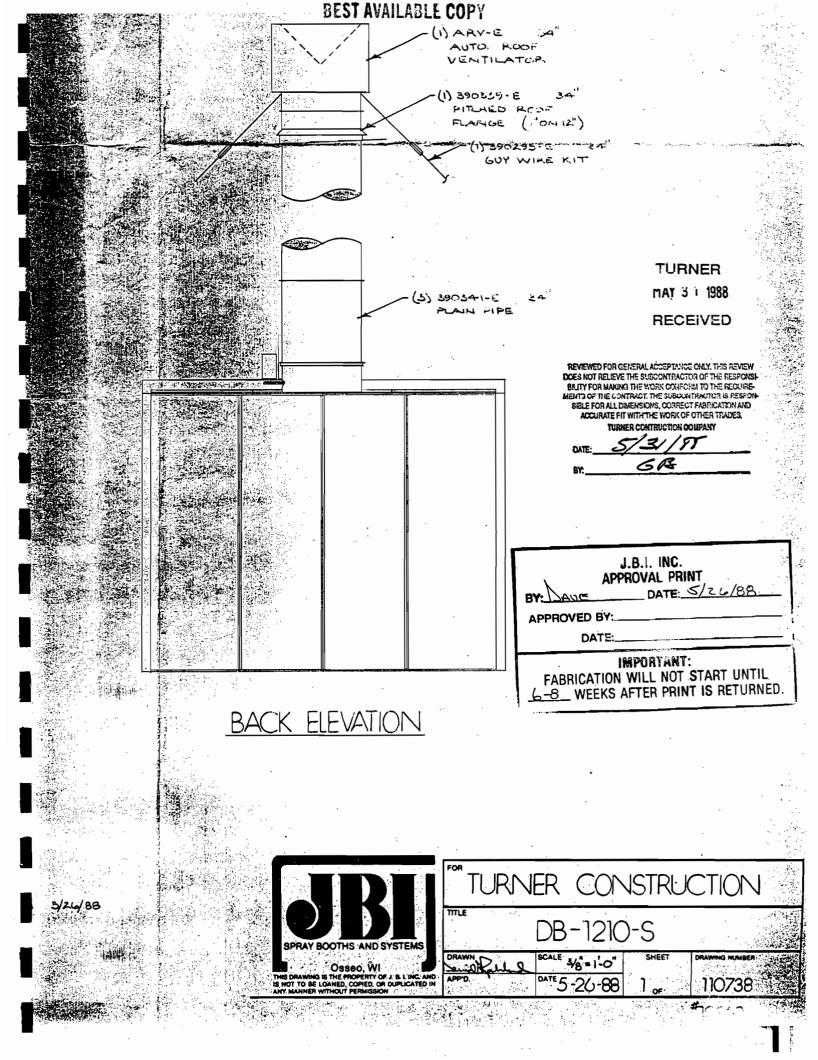
$$E = \sum_{i=1}^{2} E_{i} = 7,780 \text{ lbs/year} + 3,147 \text{ lbs/year}$$

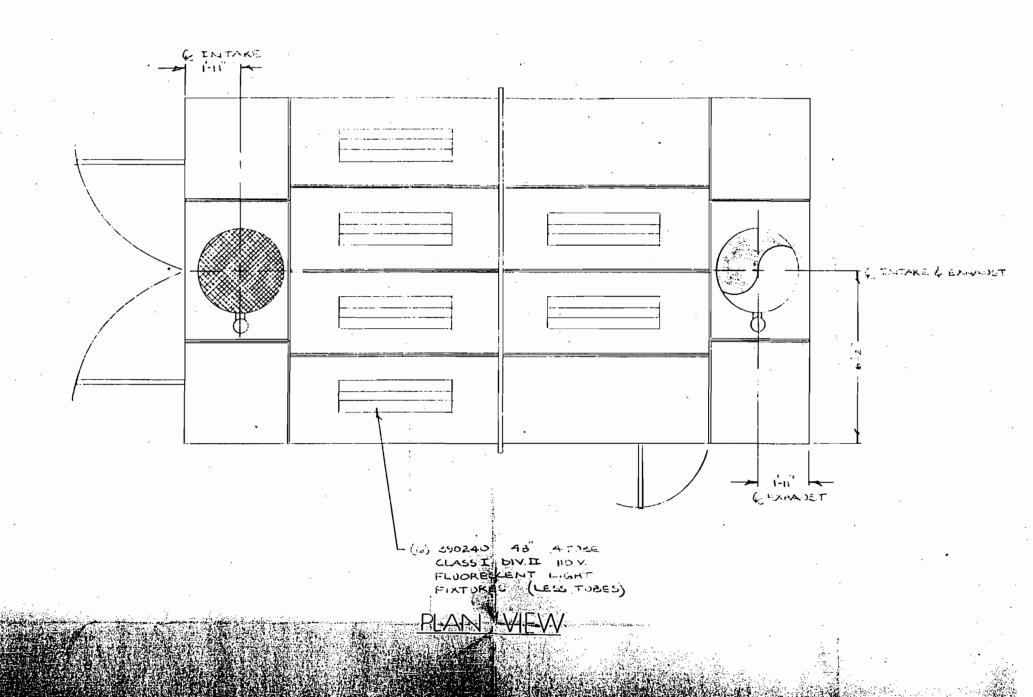
= 10,927 lbs/year ÷ 5.46 tons/year

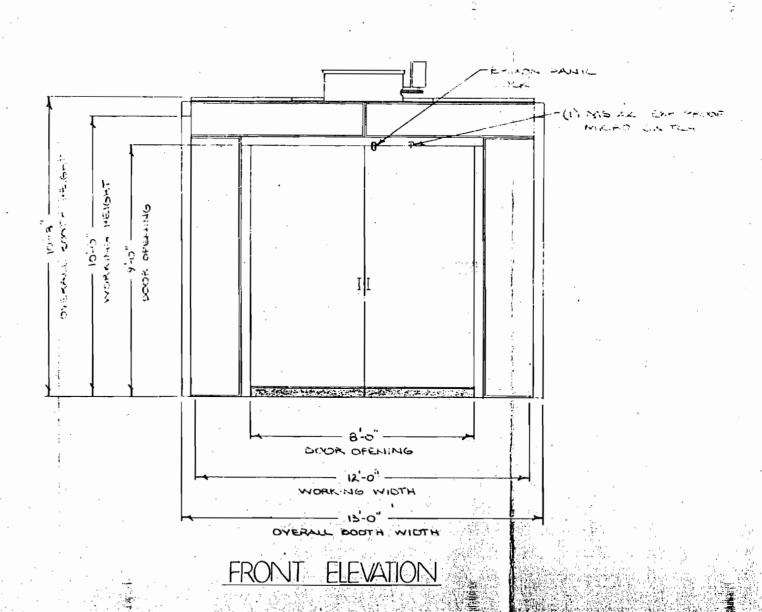
Maximum Emission E_m

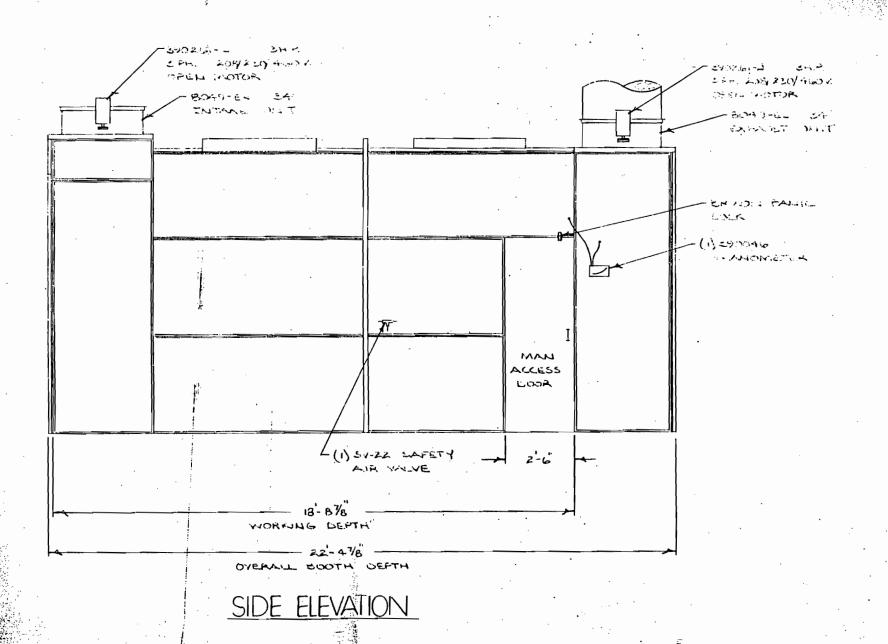
 $E_{m} = 10,927 \text{ lbs/year} \div 80 \text{ hrs/week} \div 52 \text{ weeks/year} \times 3$ = 7.88 lbs/hr











BEST AVAILABLE COPY

(Approved by U.S. Department of Labor "Essentially Similar" to Form LSB-00S-4)

NPVLA 6-70

CATALOG 2151 Section I CTURER'S NAME Devoe & Raynolds Company TREET ADDRESS 4000 Dupont Circle CITY, STATE, AND ZIP CODE Louisville, Kentucky 40207 502-897-9861 TRADE HAME Velour B Flat Alkyd Enamel, Medium Tint Base N. A. (Paint) EMICAL FAMILY FORMULA Alkyd Resin Flat Wall Paint N. PAINTS, PRESERVATIVES, & SOLVENTS TL . TLV (Units) " ENTS SOLVENTS Mineral Spirits 35 500; _YST ADDITIVES OTHERS TLV % HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES SPECIFIC GRAVITY (Mg0=1) 5 POINT ("F.) 1.31 310-410 PERCENT VOLATILE BY VOLUME (%) 3 PRESSURE (mm Hg.) 58.7 3 EVAPORATION RATE
Bu Acetate=1) DEHSITY (AIR=1) 0.16 3.9 SILITY IN WATER Negligible SANCE AND ODOR White Paint with mineral spirits odor IL EXPLOSION HAZARIC DATA Section IV - Fire DINT (METHOD USED) FLAMMABLE LIMITS 6.0 050 (Tag Closed Cup) Carbon Dioxide, Dry Chemical or Foam SCIAL FIRE FIGHTING PROCEDURES Sone

FIRE ANDIESPLOS ON HAZAROS

ISHOLO LIMIT VALL	The same of the sa			ALL THE HAVA	
eler to Sect		BESTA	VAII AB	TE CODY	
rolonged bre	athing of concentr	ated va	pors m	ay cause heada	ache, drowsiness, dizzy feeling,
ausea, vomit	ing and irritation	of res	pirato	ry tract.	
					<u> </u>
Strict and first inhalation - 1		r: keep	quiet	warm and lvi	ng flat; consult physician if
scomfort per	rsists.				
	· · · · · · · · · · · · · · · · · · ·				
	A STATE OF THE STA		7	HE WINTE	MARKE
I COLITY	UNSTABLE		COND	TIONS TO AVOID	
•	—	 	 		<u> </u>
PATABILITY (Name	STABLE (1) IN COLUMN (1)	X	Avoi	d heat, spark	s and fire ·
T.e COUS DECOMPOSI					
ne secomos					
200US	MAY OCCUR			Avoid stori	void ng paint-soaked rags in open
- ERIZATION	WILL NOT OCCUR		X	ł	as spontaneous combustion may o
DISPOSAL METHOD					
vin a landi	fill				· · · · · · · · · · · · · · · · · · ·
					· · · · · · · · · · · · · · · · · · ·
				·	
A STATE OF THE STA					
The Real Property of the Party		SPE	ना है।	ROTECTION:	INFORMATION:
SUPPLY MASK	(Specify type) if working in a w		want i 1	atad confine	daraa
ATION	LOCAL EXHAUST Acce	ptable	if yap	or concen- SPE	CIAL
	MECHANICAL (General)	ntained	below	levels. OT	HER
TIVE GLOVES					Safety goggles helpful, especia
required				for spray a	pplication.
POTECTIVE EQUIPM	ENT .				
-					
Series in the se	200	1	GD-	CIAL PRECAU	11015
TIONS TO BE TAKEN	IN HANDLING AND STORING				
e away from	high temperature	sources	and e	liminate all	ignition sources such as flame,
ks and resign	stance heating wir	es in s	torage	area.	
	e of rags or other	combus	tible :	adsorbents us	ed to clean up spills. Store p
					tainers to prevent spontaneous

MATERIAL SAFETY DATA SHEET FOR C ,TINGS, RESINS AND RELATE: MATERIALS (Approved by U.S. Department of Labor 'Essentially Similar' to form OSHA-20)

ANUFACTURER'S NAME THE SHERWIN-WILLIAMS COMPANY 101 Prospect Avenue N.W. Cleveland, Ohio 44115 ATE OF PREPARATION

EMERGENCY TELEPHONE NO. (214) 566-2917

INFORMATION TELEPHONE NO. (216) 566-2902

Section I -- PRODUCT IDENTIFICATION

PRODUCT NUMBER | T75 F 43 |

1-Dec-83

- Trade Mark

RODUCT NAME

SHER-WOOD# Water White Lacquer, Dull Rubbed Effect RODUCT CLASS

Alkyd-Cellulose Nitrate Lacquer

MUIDE AACTION II NW	Section II HAZARDOUS INGREDIENTS						
6319N	PERCENT	TL V PPM	TLY ME/TO	មេ	y.P.		
Lt. Aliphatic Hydrocarbon Solvent	15	100.	364.	1.0	53.0		
. M. & P. Narhtha.	<5	300.	1350.	0.9	12.0		
oluene.	10	100.	375.	1.0	22.0		
(ylene.	5	100.	435.	1.0	5.9		
ethanol	<5′	200.	260.	6.0	92.0		
thanol	10	1000.	1900.	3.3	44.0		
2-Propanol	<5	400.	980.	2.0	33,0		
Yethwl-1-propanol	<5	50.	150.	1.2	8.7		
Catone.	· <5	750.	1780.	2.2	180.0		
ethal n-Amal Ketone.	<5	50.	0.7.5	1.1	2.1		
isobutul Acetate.	15	150.	700.	1.3	12.5		

Section III -- PHYSICAL DATA

VAPORATION RATE -- Slower than Ether VAPOR DENSITY -- Heavier than Air DILING RANGE (F) % VOLATILE VOLUME WT/GAL 132 - 325 83.3 7.37

Section IV -- FIRE AND EXPLOSION HAZARD

-----LAMMABILITY CLASSIFICATION FLASH POINT 21 F PMCC LEL 0.9

RED LABEL -- Flammable, Flash below 100 F

XTINGUISHING MEDIA

Carbon Dioxide, Dry Cheaical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Reer containers tightly closed. Isolate from heat, electrical seuirment, sparks, and open lame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. Buring emergency conditions overexposure to decemposition products may cause a health hazard. Symptoms may not be immediately apparent. btain medical attention.

PECIAL FIRE FIGHTING PROCEDURES

full protective equipment including self-contained breathing apparatus should be used. ater spray may be ineffective. If water is used, fus nozzles are preferable. Water may be set to cool closed containers to prevent pressure build-up and possible autoishition or explosion when exposed to extreme heat.

BEST AVAILABLE COPY Section V - HEALTH HAZAN DATA THRESHOLD LIMIT VALUE SEE BAZARDOUS INCREDIENTS SECTION II ECTS 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 ontact 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 CONDITIONS TO AVOID UNSTABLE X STABLE INCOMPATABILITY , Maleriers to avoid) MAZARDOUS DECOMPOSITION PRODUCTS By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen HAZARDOUS POLYMERIZATION MAY OCCUR WILL NOT OCCUR TOMOITIONS 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. Incinerate in approved facility. Do not incinerate closed container. WASTED SPOSAL METHOD pose of in accordance with Federal. State, and Local regulations regarding pollution. Section VIII - SPECIAL PROTECTION INFORMATION . SEP RATORY PROTECTION If engineering and administrative controls of air contaminants are not -sible, use respiratory devices approved by NIOSE/MESA for protection against spray mist vapors. Local exhaust preferable. Mechanical (general) exhaust acceptable. TENTILATION Special ventilation required to keep below TLV and LEL. Required for prolonged or repeated contact. FEDTECTIVE GLOVES Safety spectacles with unperforated sideshields. ETE PROTECTION STHER PROTECTIVE EQUIPMENT Section IX - SPECIAL PRECAUTIONS EPECAUTIONS TO BE TAKEN IN HANDLING AND STORING COLSTORAGE CATEGORY Contents are flammable. Keep away from heat, sparks, and open flame.

MOUSTORAGE CATEGORY Contents are flammable. Keep away from heat, sparks, and open flame.

IB During use and until all vapors are gone: Keep area ventilated - Do not cooke - 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 swallow io 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. I led on clothes, remove clothing and launder before reusing. Keep container closed when but 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

È.

procedures.

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



808 GRAHAM GOVERNOR VICTORIA J. TSCHINKEL SECRETARY

APPLICATION TO OPERA	TE/CONSTRUCT AIR POLL	UTION SOURCES
SOURCE TYPE: Natural Gas Fired Boile	r [X] New1 [] Existing ^l
APPLICATION TYPE: $[X]$ Construction [] Operation [] Mod	ification .
COMPANY NAME: Walt Disney World Co.	· · · · · · · · · · · · · · · · · · ·	COUNTY: Orange
Identify the specific emission point so Kiln No. 4 with Venturi Scrubber; Peak		Caribbean Beach Resort
SOURCE LOCATION: Street Cayman Way and	d Lake Buena Vista Dr	ive City Lake Buena Vista
UTM: East 44431	3	orth 2137578
Latitude 28 • 21		ongitude 81 9 32 49 W
APPLICANT NAME AND TITLE: Walt Disney	World Co.	
APPLICANT ADDRESS: P. O. Box 10,000, La	ke Buena Vista, Flor	ida 32830
I certify that the statements made permit are true, correct and comple I agree to maintain and operate facilities in such a manner as to Statutes, and all the rules and regalso understand that a permit, if and I will promptly notify the dependentablishment. *Attach letter of authorization	ete to the best of my the pollution contro comply with the pr gulations of the depar granted by the depar	knowledge and belief. Further, I source and pollution control ovision of Chapter 403, Florida rement and revisions thereof. I tment, will be non-transferable
		Dir., Lake Buena Vista Communitie
		Telephone No. (407) 934-7256
B. PROFESSIONAL ENGINEER REGISTERED IN		
This is to certify that the enginee been designed/examined by me and principles applicable to the treatment application. There is reas	found to be in contact and disposal of	ormity with modern engineering pollutants characterized in the
1 See Florida Administrative Code Rule	1.7-2.100(57) and (10-	()

DER Form 17-1.202(1) Effective October 31, 1982

Page 1 of 12

	ollution sources.	Signed Thomas N. Diwis
		Thomas W. Davis
	5025	Name (Please Type)
;	10.00	Hunter/Environmental Science and Engineering
		Company Name (Please Type)
•	SAN SAN	P. O. Box 1703, Gainesville, FL 32602
	Manna Maria	Mailing Address (Please Type)
rid	la Registration No. 36777	Dete: 10 3 88 Telephone No. (904)332-3318
	SECTION	III: GENERAL PROJECT INFORMATION
#h	ether the project will rescensive.	n source performance as a result of installation. State sult in full compliance. Attach additional sheet if
In	stallation of a hot water l	boiler (PVI Model 1500-2 NV 250TP) to provide space heat
an	d domestic hot water to the	e Caribbean Beach Resort Service Building. The boiler w
<u>be</u>	natural gas fired. No po	llution control equipment will be installed.
	hedule of project covered	in this application (Construction Perait Application On
	· · ·	in this application (Construction Persit Application On ober 1988 Completion of Construction December 1988
St Co fo In	ert of Construction Octo ets of pollution control s r individual components/un	ober 1988 Completion of Construction December 1988
St Co fo In	ats of pollution control s r individual components/un formation on actual costs rmit.)	ober 1988 Completion of Construction December 1988 system(s): (Note: Show breakdown of estimated costs on its of the project serving pollution control purposes.
St Co fo In	ats of pollution control s r individual components/un formation on actual costs rmit.)	ober 1988 Completion of Construction December 1988 system(s): (Note: Show breakdown of estimated costs on its of the project serving pollution control purposes.
St Co fo In pe	ats of pollution control s r individual components/un formation on actual costs rmit.)	ober 1988 Completion of Construction December 1988 system(s): (Note: Show breakdown of estimated costs on its of the project serving pollution control purposes.
St Co fo In	ats of pollution control s r individual components/un formation on actual costs rmit.)	ober 1988 Completion of Construction December 1988 system(s): (Note: Show breakdown of estimated costs on its of the project serving pollution control purposes.
St Confo	art of Construction Octo ats of pollution control s r individual components/un formation on actual costs rmit.) one	ober 1988 Completion of Construction December 1988 system(s): (Note: Show breakdown of estimated costs on its of the project serving pollution control purposes.
St Co. fo In po	art of Construction Octo ats of pollution control s r individual components/un formation on actual costs rmit.) one	cober 1988 Completion of Construction December 1988 System(s): (Note: Show breakdown of estimated costs on its of the project serving pollution control purposes. shall be furnished with the application for operation

f power plant, hrs/yr; if sessonal, describe:	
f this is a new source or major modification, answer the following ques	tions.
. 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.	
. Does best available control technology (BACT) apply to this source? If yes, see Section VI.	NO NO
. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII.	NO
. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?	NO
. Do "Netional Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?	NO
o "Reasonably Availabla Control Tachnology" (RACT) requirements apply this source?	NO
e. If yes, for what pollutants?	

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

any information requested in Rule 17-2,650 must be submitted.

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

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

	Contai	inants	Utilization			
Description	Туре	\$ Wt	Rate - lbe/hr	Relate to Flow Diagram		
N/A		٠.				
	-		·			

8.	Process	Rate.	18	applicable:	(500	Section V	Item	1	١

- 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 ¹		Allowed ² Emission Rate per	Allowable ³ Emission	Potential ⁴ Emission		Relate to Flow
	Maximum lbs/hr	Actual T/yr	Rule 17-2	lbe/hr	lbs/yr	T/yr	Diagram
so ₂	0.0007	0.003			0.0007	0.003	
РМ	0.006	0.026			0.006	0.026	
NO x	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	

¹⁵⁰⁰ Section V, Itam 2. See Table 1 for emission factors.

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Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - G.1 pounds per million BTU heet input)

³Calculated from operating rate and applicable standard.

⁴Emission, 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 microna) (If applicable)	Besis for Efficiency (Section V Item 5)
None				
7				

E. Fuels

	Cons	sumption*		
Type (8e Specific)	avg/hr	eax./hr	Maximum Heat Inpu (MM8TU/hr)	
Natural Gas	1,200 Ft ³ /hr	1,200 ft ³ /hr	1,200,000 Btu/hr	
<u> </u>			·	
<u> </u>			•	

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

Fue	1	An	a 1	V :	ı i	s :
-----	---	----	------------	-----	-----	------------

Percent Sulfur:	Percent Ash:		
Density:	lba/gal	Typical Percent Nitrogen:	
Heat Capacity:	BTU/15		BTU/gel
Other Fuel Contaminents (which may	cause air p	ollution):	
	_		
F. If applicable, indicate the perc	cent of fue	l used for space heating.	

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

Maximum 50%

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Annual Average 50%

Stack Height:		25	_	ft.	Stack Diame	1		
							250	
ater Vapo	r Content:	N/A	Λ	\$	Velocity: _	·	2.9	
NOT	APPLICABLE	SECT	ION IV:	INCINER	ATPÄ INFORMA	TION		
Type of Weste					III Type IV ge) (Patholo ical)		Type VI as (Solid By-prod	
Actual 1b/hr Inciner- ated		,	·				-	
Uncon- trolled (lbe/hr)	·							
otal Weig		ted (lbe/h					s/hr)wks/yr	
otal Weig oproximat anufactur	ht Incinera e Number of er	ted (lbe/h	Operation	per dey	, de	y/wk	wks/yr	
otal Weig oproximat anufactur	ht Incinera e Number of er	ted (lbe/h	Operation	per dey	, de	y/wk		
otal Weig oproximat anufactur	ht Incinera e Number of er	ted (lbe/h	Operation	per dey Mode	de	y/wk	wks/yr	
otal Weig oproximat anufactur	ht Incineral • Number of er ructed	ted (lbe/h: Hours of (Operation Heat R	per dey Mode	, de el No Fu	y/wk	wks/yr	
otal Weig pproximat anufactur ata Const	ht Incineral • Number of er ructed	ted (lbe/h: Hours of (Operation Heat R	per dey Mode	, de el No Fu	y/wk	wks/yr	
otal Weig pproximat anufactur ata Const	ht Incineral Number of er ructed hamber Chamber	Hours of (Yolume (ft) ³	Operation Heat R (BTU	Mode	ol NoFu	el BTU/hr	wks/yr	
pproximatenufacturate Const	ht Incineral e Number of er ructed hamber Chamber	Volume (ft) ft.	Heat R (BTU)	Mode	Fu Type	el BTU/hr Stack	Temperature (°F)	
proximate nufacturate Const	ht Incineral e Number of er ructed hamber Chamber ht:	Volume (ft) ft.	Heat R (BTU,	Mode elease /hr) ater:	Type OSCFM	stack	Temperature (°F)	
proximate nufacturate Const	ht Incineral e Number of er ructed hamber Chamber ht: ate: more tone per foot dry ga	Volume (ft) ³ ft.	Heat R (BTU,	Mode elease /hr) ater: ity, sub	Type OSCFM	Stack Velocity:	Temperature (°F) Temp. in grains per st	

4**.** 1

Ξ

ltimate diso	osal of any	effluent athe	r than that e	mitted from	the stack	(acrubber w	ate
	· · ·						
				ş + <u>;</u>			
				<u> </u>			- -
ish, etc.):							
		·		· · ·			

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 a 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 $1/2^n \times 11^n$ 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 $1/2^n \times 11^n$ plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

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9.	The appropriate application fee in made payable to the Department of E	accordance with Rule 17-4.05. The check should be nvironmental Regulation.
10.	With an application for operation struction indicating that the soupermit.	permit, attach a Certificate of Completion of Con- rce was constructed as shown in the construction
A.	NOT APPLICABLE	AVAILABLE CONTROL TECHNOLOGY w stationary sources pursuant to 40 C.F.R. Part 60
	[] Yes [] No	
	Contaminant	Rate or Concentration
	•	
8.	Has EPA declared the best available yes, attach copy)	e control technology for this class of sources (If
	[] Yes [] No	
	Contaminant	Rate or Concentration
		<u> </u>
	What emission levels do you propose	as best available control technology?
	Contaminant	Rate or Concentration
D.	Describe the existing control and to	reatment technology (if any).
	1. Control Device/System:	· 2. Operating Principles:
	3. Efficiency:*	4. Capital Costs:
*E x	plain method of determining	·

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Useful Life: Operating Costs: 7. Energy: Maintenance Cost: 9. Emissions: Contaminant Rate or Concentration 10. Stack Parameters Height: ft. Diameter: ft. 2. b. Flow Rate: oF. ACFM d. Temperature: FPS Velocity: Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary). Control Device: Operating Principles: Efficiency: 1 Capital Cost: Useful Life: Operating Cost: q. Energy: 2 h. Maintenance Cost: Availability of construction materials and process chemicals: j. Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 2. Control Device: Operating Principles: Efficiency: 1 Capital Cost: Useful Life: Operating Cost: g. Energy: 2 Maintenance Cost: Availability of construction materials and process chemicals: $^{
m l}$ Explain method of determining efficiency. 2 Energy to be reported in units of electrical power - KWH design rate. DER Form 17-1.202(1)

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Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 3. Control Device: b. Operating Principles: Efficiency: 1 d. Capital Cost: Useful Life: f. Operating Coet: Energy: 2 h. Maintenance Cost: q. Availability of construction materials and process chemicals: 1. Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 4. Control Device: b. Operating Principles: Efficiency: 1 d. Capital Costs: c. Useful Life: Operating Cost: Energy: 2 h. Maintenance Cost: g. Availability of construction materials and process chemicals: Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: Describe the control technology selected: 2. Efficiency: 1 1. Control Device: 3. Capital Cost: Useful Life: 6. Energy: 2 5. Operating Cost: 7. Maintenance Cost: 8. Manufacturer: 9. Other locations where employed on similar processes: a. (1) Company: (2) Mailing Address: (3) City: (4) State: Explain method of determining efficiency. ²Energy to be reported in units of electrical power - KWH design rate. DER Form 17-1.202(1)

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· · · · · · · · · · · · · · · · · · ·			î.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
				٠	
(5) Environmental Manager:	•			•	
(6) Telephone No.:					
(7) Emissions: 1		•			
Contaminant			Rate or	r Concentra	tion
			·		
(8) Process Rate: 1					
b. (1) Company:					
(2) Mailing Address:					
(3) City:		(4) State	:		
(5) Environmental Manager:					`
(6) Telephone No.:					
(7) Emissions: 1					
Contaminant	-		Rate or	Concentra	tion
			 -		
(8) Process Rate: 1					
10. Reason for selection an	d description	of systems	:	· .	
l Applicant must provide this in available, applicant must state	formation whe the reason(s	n available) why.	. Shoul	d this inf	ormation not
NOT APPLICABLE NOT APPLICABLE A. Company Monitored Data	PREVENTION O	F SIGNIFICA	NT DETERI	ORATION	
1no. sites	TSP	() sn2+		Wind and/dir
Period of Monitoring					
reriod of Monitoring	month d	ay year	month	day year	
Other data recorded				· - • · · -	
Attach all data or statistic	al summaries	to this app	lication.		
Specify bubbler (8) or continuo	us (C).			•	
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-	a. Was instrument	ation EPA referenced or its equivalent? [] Yes [] No
1	b. Was instrument	ation calibrated in accordance with Department procedures?
	[] Yes [] N	o [] Unknown
В.	Meteorological Dat	a Used for Air Quality Modeling
I	1 Year(s)	of data from / / to / / month day year
•	2. Surface data o	btained from (location)
1	3. Upper air (mix.	ing height) data obtained from (location)
	4. Stability wind	rose (STAR) data obtained from (location)
c.	Computer Models Use	e d
	1.	Modified? If yes, attach description.
1		Modified? If yes, attach description.
		Modified? If yes, attach description.
١.	4.	Modified? If yes, attach description.
]	Attach copies of a	ll final model runs showing input data, receptor locations, and prin-
1	ciple output tables	
٥.	Applicants Maximum	Allowable Emission Data
Ī	Pollutant	Emission Rate
	TSP	grams/sec
I	so ²	grams/sec
١.	Emission Data Used	
] ,		ssion sources. Emission data required is source name, description of EDS point number), UTM coordinates, stack data, allowable emissions, ng time.
F.	Attach all other in	formation supportive to the PSD review.
G.	ble technologies (and economic impact of the selected technology versus other applica- (i.e., jobs, payroll, production, taxes, energy, etc.). Include environmental impact of the sources.
'н. 	nals, and other com	engineering, and technical material, reports, publications, jour- petent relevant information describing the theory and application of available control technology.
-		

Page 12 of 12

2. Instrumentation, Field and Laboratory

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Table 1. Summary of Emission Factors for Domestic and Commercial Boilers

Pollutant	Emission Factor ·
Sulfur Dioxide	0.6 lb/10 ⁶ ft ³
Particulate Matter	$5.0 \text{ lb/}10^6 \text{ ft}^3$
Nitrogen Oxides	$100 \text{ lb}/10^6 \text{ ft}^3$
Carbon Monoxide	$20 \text{ lb}/10^6 \text{ ft}^3$
Volatile Organic Compounds	$5.3 \text{ lb/}10^6 \text{ ft}^3$

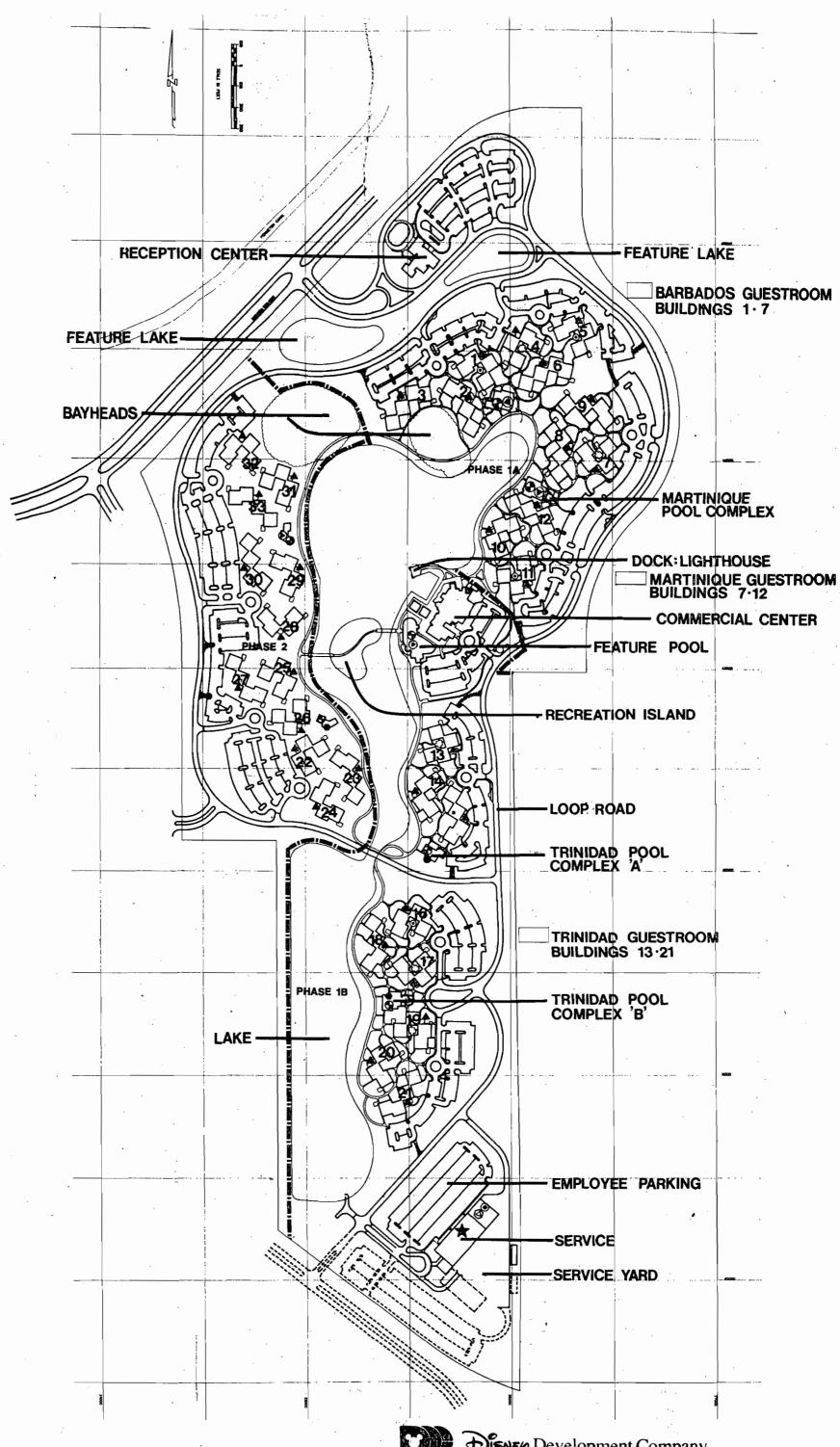
Note: ft^3 - cubic feet.

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.



Disnep Development Company

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 t
- 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

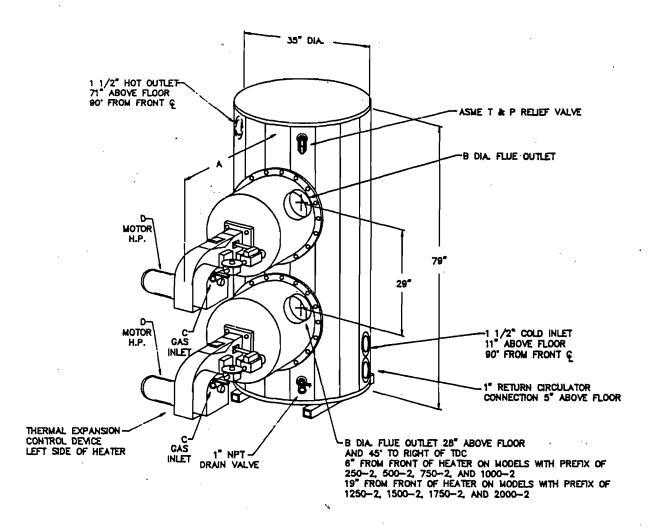
Prepurge and postpurge - 2,800,000 Btu thru 3,200,000 Btu

- 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

BEST AVAILABLE COPY

SUPERTANK" SERIES V 250 PACKAGED WATER HEATER DUAL MODULE TURBOPOWER® GAS

NICKELSHIELD® MODEL NUMBER	PHYSHIELD™ MODEL NUMBER	/SICAL CHA Btu/hr INPUT	JALLONS STORAGE	REC RATE GPH 40°F-120°F		В	С	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"	1/3	14	1310#
500-2 NV 250 TP	500-2 PV 250 TP	400,000	250	500	22"	4"	3/4"	1/2	14	1320#
780-1 NV 280 TP	750-2 PV 250 TP	800,000	250	750	22*	4"	8/4"	1/2		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#
150042 ML 150 TP	1500-2 PV 250 TP	4400-000	2160	M. LEDO, F.	444			11/2	-14	11100
1780-2 NV 250 TP	1750-2 PV 250 TP	1,400,000	250	1750	44.	6.	La Carrie	111/2	00000001001001001000000	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. MINIMAM TO 14" 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 OTHER PATENTS APPLIED FOR

GALLONS STORAGE EXCLUDE DISPLACEMENT OF HEATING SURFACE

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

DER Form 17-1.202(1) Effective October 31, 1982



BOB GRAHAM GOVERNOR VICTORIA J. TSCHINKEL SECRETARY

	THE OF MORE	
APPLICATION TO OPERATE/	CONSTRUCT AIR POLLUTION	SOURCES
SOURCE TYPE: Natural Gas Fired Boilers	[X] Nev ¹ [] Exi	sting!
APPLICATION TYPE: [X] Construction []	Operation [] Modifics	tion
COMPANY NAME: Walt Disney World Co.		COUNTY: Orange
Identify the specific emission point sour	ce(s) addressed in this	
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 "M Longit	ude 81 34 29 W
APPLICANT NAME AND TITLE: Walt Disney Wo	orld Co.	
APPLICANT ADDRESS: P. O. Box 10,000, Lake	Buena Vista, Florida	32830
I certify that the statements made in permit are true, correct and complete I agree to maintain and operate the facilities in such a manner as to constatutes, and all the rules and regulated understand that a permit, if grand I will promptly notify the departmentablishment.	to the best of my know pollution control so comply with the provisi ations of the department of the de	ledge and belief. Further ince and pollution control on of Chapter 403, Florid t and revisions thereof. will be non-transferable.
*Attach letter of authorization	Signed: Edition	B (Invell
		P., Facilities Support
	Name and Title Date: 10/20/22 Tele	(Please Type) phone No. (407)828-2100
BRASHATAVAL SUATURAS ANALAS SA SECTIONAL SA	1 /00	
B. PROFESSIONAL ENGINEER REGISTERED IN FI	ORIDA (where required	- · · · · · · · · · · · · · · · · · · ·

Page 1 of 12

- as	Signed Thomas W. Dievis
21938	Thomas W. Davis
2000	Neme (Please Type)
300	Hunter/Environmental Science and Engineering
	Company Name (Please Type)
NEER	P. O. Box 1703, Gainesville, FL 32602 Mailing Address (Please Type)
"Agaiffed the back a said	
rida Registration No	36777 Dete: 10 13 88 Telephone No. (904)332-3318
ŞE	ECTION II: GENERAL PROJECT INFORMATION
and expected improvemen	d extent of the project. Refer to pollution control equipment its in source performance as a result of inetallation. State it result in full compliance. Attach additional sheet if
Installation of three na	atural gas fired boilers to provide steam to a laundry facilit
These facilities exist	and were previously exempt from permitting under 17-2.210(3)(a
The boilers share a com	mon stack. No pollution control equipment will be installed.
Schedule of project cov	ered in this application (Construction Permit Application On)
Start of Construction _	September 1988 Completion of Construction December 1988
	rol system(s): (Note: Show breakdown of estimated costs on)
for individual componen	ts/units of the project serving pollution control purposes, osts shall be furnished with the application for operation
for individual component Information on actual c	ts/units of the project serving pollution control purposes.
for individual component Information on actual compermit.)	ts/units of the project serving pollution control purposes.
for individual component Information on actual compermit.)	ts/units of the project serving pollution control purposes.
for individual component Information on actual compermit.)	ts/units of the project serving pollution control purposes.
for individual component Information on actual component.) None Indicate any pravious D	ts/units of the project serving pollution control purposes.
for individual component Information on actual opermit.) None Indicate any pravious D	ts/units of the project serving pollution control purposes. dets shall be furnished with the application for operation ER permits, orders and notices associated with the emission

if power plant, hrs/yr; if seasonal, describe:	
If this is a new source or major modification, answer the following qu	uestions.
Yes or No) . Is this source in a non-attainment area for a particular pollutant	t? NO
a. If yes, has "offset" been applied?	· ·
b. If yes, has "Lowest Achievable Emission Rate" been applied?	
c. If yes, list non-ettainment pollutants.	
. Does best available control technology (BACT) apply to this source If yes, see Section VI.	no No
. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VI	I. NO
. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?	NO
. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?	NO
o "Reasonably Available Control Technology" (RACT) requirements apply o this source?	NONO
a. If yea, for what pollutants?	

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

DER Form 17-1.202(1) Effective October 31, 1982

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

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

	Contag		Utilization			
Description	Туре	% Wt	Rate - lbe/hr	Relate to Flow Diagram		
, N/A						
	·					
			·			
			·			

A.	Process	Rate	i (applicables	1500	Section V	Item	1)	
	L LOCATE	nate,	LI	SDDITCSDIEL	(344	SACTION A	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4,	

	7 - A - 1 0	•		114 . 14 - 1	27 / 4
١.	Total Prod	sess tubac	KELO	(108/Dr):	N/A

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

Name of	[noiesim3		Allowed ² Emission Rate per	Allowable ³ Emission	Potential ⁴ Emission		Relate to Flow
Contaminant	mumirsM ad/ed1		Rule 17-2	lbe/hr	lbs/yr	T/yr	Diagram
so ₂	0.024	0.104			0.024	0.104	
PM	0.198	0.867			0.198	0.867	_
NO	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	

¹⁵⁰⁰ Section V, Item 2. See Tables 1 and 2 for calculation details.

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Product Weight (lbs/hr):

²Reference 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)

³Calculated from operating rate and applicable standard.

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

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Conteminent	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section Y Item 5)
None			· · · · · · · · · · · · · · · · · · ·	
· ·				

E. Fuels

	Const	umption*	
Type (8e Specific)	avg/hr	max./hr	Maximum Heat Input (MMB_TU/hr)
Natural Gas	39,600 ft ³ /hr	39,600 ft ³ /hr	39,600,000 Btu/hr
		·	
			•

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

Fuel Analysis	s :
---------------	------------

Percent Sulfur:		Percent Ash:	<u>.</u>
Density:	lbs/gal	Typical Percent Nitrogen:	
Heat Capacity:	8TU/16		8TU/gal
Other Fuel Contaminants (which	n may cause air p	allution):	

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

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	jht:	30		ft.	Stack Diam	eter:	3
as Flow R	late:	ACFH	15,000	_DSCFM	Gae Exit T	emperature:_	400
	r Content:					0.5	
							·
			ION IA:	INCINER.	ATOR INFORM	ATION	
1	NOT APPLICAB	LE		<u> </u>	1	_	
Type of Waste					III Type I ge) (Patholo ical	pg- (Liq.& Ga	Type VI (Salid By-prod
Actual lb/hr Inciner- ated							
Uncon- trolled (lbe/hr)							
escriptio	n of Wasta						
otal Weig	e Number of	Hours of (s/hr) _ wks/yr
otal Weig pproximat anufactur	ht Incineral	Hours of (Operation	per de	y da	sy/wk	
otal Weig pproximat anufactur	ht Incineral	Hours of (Operation	per de	y da	sy/wk	wks/yr
otal Weig pproximat anufactur	ht Incineral	Hours of (Operation	per day	ol No	sy/wk	wks/yr
otal Weig pproximat anufactur	ht Incineral e Number of er ructed	Hours of (Operation Hest R	per day	ol No	ay/wk	wks/yr
otal Weig pproximat anufactur ate Const	ht Incineral e Number of er ructed	Hours of (Operation Hest R	per day	ol No	ay/wk	wks/yr
otal Weig pproximat anufactur ate Const Primary C	ht Incineral e Number of er ructed hamber Chamber	Volume (ft)3	Hest R (BTU	per day	y da	sel STU/hr	Temperature (°F)
otal Weig pproximat anufactur ate Const Primary C Secondary tack Heig	ht Incineral e Number of er ructed hamber Chamber	Volume (ft)3	Hest R (BTU	per de	y da	ay/wk	wks/yr
otal Weig pproximat anufactur ate Const Primary C Secondary tack Heig ae Flow R	ht Incineral e Number of er ructed hamber Chamber ht:	Volume (ft)3 ft. S	Hest R (BTU	per dey Made	ol No filter on the contract of the co	Stack Velocity:	Temperature (°F)

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											-
				Clunch		than that	anitted	from the	a t a a k	(ac subbas	
Itimat	8 013008										# M L G
sh, et		al or	any er	LIMBUC	orner (· ·	9.610.00	.10# 5#	SCHCK	(ac robbat	wa . 0
		a l or	any er	ridenc						(36 100041	
			any er								·
			any er							(SC LODDA)	

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

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 astablishment, 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 $1/2^n \times 11^n$ plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

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9.	The appropriate application fee in made payable to the Department of $\boldsymbol{\epsilon}$	eccordance with Rule 174.75 . The check should be nvironmental Regulation.
10.		permit, ettach a Cartificate of Completion of Con- rce was constructed as shown in the construction
۸.	NOT APPLICABLE	AVAILABLE CONTROL TECHNOLOGY w stetionary sources pursuant to 40 C.F.R. Part 60
	[] Yes [] No	
	Contaminant	Rate or Concentration
_		
8.	Has EPA declared the best eveilable yes, ettach copy)	e control technology for this class of sources (If
	[] Yes [] No	
	Contaminant	Rate or Concentration
<u> </u>	What emission levels do you propose	as best available control technology?
	Contaminant	Rate or Concentration
 D.	Describe the existing control and tr	restment technology (if eny).
- *	1. Control Device/System:	2. Operating Principles:
	3. Efficiency:*	4. Capital Costs:

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*Explain method of determining

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5. Useful Life:		6.	Operating Costs:	
7. Energy:		8.	Maintenance Cost:	
9. Emissions:				
Contaminant			Rate or Concentratio	on
· · · · · · · · · · · · · · · · · · ·				
· · · · · · · · · · · · · · · · · · ·				
10. Stack Parameters			·	
a. Height:	ft.	ь.	Diameter:	ft.
c. Flow Rate:	ACFM	d.	Temperature:	٥٤.
e. Velocity:	FPS			
Describe the control and tre		olog	y available (As many types a	s applicable,
use additional pages if neces	sary).			
a. Control Device:			Onemakine Onimainlynn	
c. Efficiency: 1		ь.	Operating Principles: Capital Cost:	
e. Useful Life:		đ. f.		
_ 1			Operating Cost:	
•		h.	Maintenance Cost:	
i. Availability of construct			d process chemicals:	
 j. Applicability to manufact k. Ability to construct with within proposed levels: 	• ,		, install in available space	, and operate
2.				
a. Control Device:		ь.	Operating Principles:	
c. Efficiency:1		d.	Capital Cost:	
e. Useful Life:		r.	Operating Cost:	
g. Energy: ²		h.	Maintenance Cost:	
i. Availability of construct	ion material	s an	d process chemicals:	
xplain method of determining ef nergy to be reported in units o	ficiency.			
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Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 3. Control Device: b. Operating Principles: d. Capital Cost: Efficiency: 1 c. Operating Cost: Usaful Life: Energy: 2 Maintanance Cost: q. Availability of construction materials and process chemicals: Applicability to manufacturing processes: j. Ability to construct with control device, install in available space, and operate within proposed levels: 4. Control Device: Operating Principles: a. Efficiency: 1 Capital Costs: c. Useful Life: Operating Cost: . Energy: 2 Maintenance Cost: Availability of construction materials and process chemicals: Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: Describe the control technology selected: Efficiency: 1 Control Device: 2. Capital Cost: Useful Life: Energy: 2 5. Operating Cost: 7. Maintenance Cost: Manufacturer: Other locations where employed on similar processes: (1) Company: 8. (2) Mailing Address: (3) City: (4) State: Explain method of determining efficiency.

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 2 Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:					
(6) Telephone No.:					
(7) Emissions: ¹					
Conteminent			Rate or C	oncentrat	ion
(8) Process Rate: 1	· · · · · · · · ·				
b. (1) Company:					
(2) Mailing Address:					
(3) City:	((4) State:			
(5) Environmental Manager:					•
(6) Telephone No.:					
(7) Emissions: 1					
Contaminent		!	Rate or C	oncentrat	ion
		-			
(8) Process Rate: 1					
10. Reason for selection a lapplicant must provide this is available, applicant must state	nformation when	available.	Should	this info	ormation not !
NOT APPLICABLE A. Company Monitored Data	- PREVENTION OF	SIGNIFICANT	DETERIOR	ATION	
1no. sites	TSP	(_)_	502+		Wind spd/dir
Period of Monitoring	aonth day				
Other data recorded					
Attach all data or statisti	cal summeries to	this applic	estion.		
Specify bubbler (B) or continu	ous (C).				
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,	2. Instrumentation, Field and Laborate	ory
	a. Was instrumentation EP* referenced	or its equivalent? [] Yes [] No
ı	b. Was instrumentation calibrated in	accordance with Department procedures?
	[] Yes [] No [] Unknown	
В.	Meteorological Data Used for Air Quali	ty Modeling
i	1. Year(s) of data from / month of	day year month day year
	2. Surface data obtained from (location	on)
	3. Upper mir (mixing height) data obt	ained from (location)
I	4. Stability wind rose (STAR) data obt	tained from (location)
c.	Computer Models Used	
į.	1.	Modified? If yes, attach description.
	2	Modified? If yes, attach description.
	3.	Modified? If yes, attach description.
	4	Modified? If yes, attach description.
ı	Attach copies of all final model runs sciple output tables.	showing input data, receptor locations, and prin-
٥.	Applicants Maximum Allowable Emission C	ata
	Pollutant Emission R	Rate
	TSP	grams/sec
ı	so ²	grams/sec
٤.	Emission Data Used in Modeling	
		sion data required is source name, description of TM coordinates, stack data, allowable emissions,
F.	Attach all other information supportive	to the PSD review.
G.	Discuss the social and economic impact ble technologies (i.e., jobs, payrol assessment of the environmental impact	
н.		echnical material, reports, publications, jour- ermation describing the theory and application of echnology.

Table 1. Summary of Emissions from the North Service Area Laundry Boilers*

Source	Identification Number	Rate (cfh)	Emissions (TPY)				
			so ₂	PM	$NO_{\mathbf{X}}$	СО	VOC
Boiler #1 - York-Shipley Steam Boiler (300 HP)		12,500					
		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_X - nitrogen oxides PM - particulate matter SO_2 - 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	$0.6 \text{ lb/}10^6 \text{ ft}^3$			
Particulate Matter	$5.0 lb/10^6 ft^3$			
Nitrogen Oxides	$100 \text{ lb/}10^6 \text{ ft}^3$			
Carbon Monoxide	$20 \text{ lb/}10^6 \text{ ft}^3$			
Volatile Organic Compounds	5.3 lb/10 ⁶ ft ³			

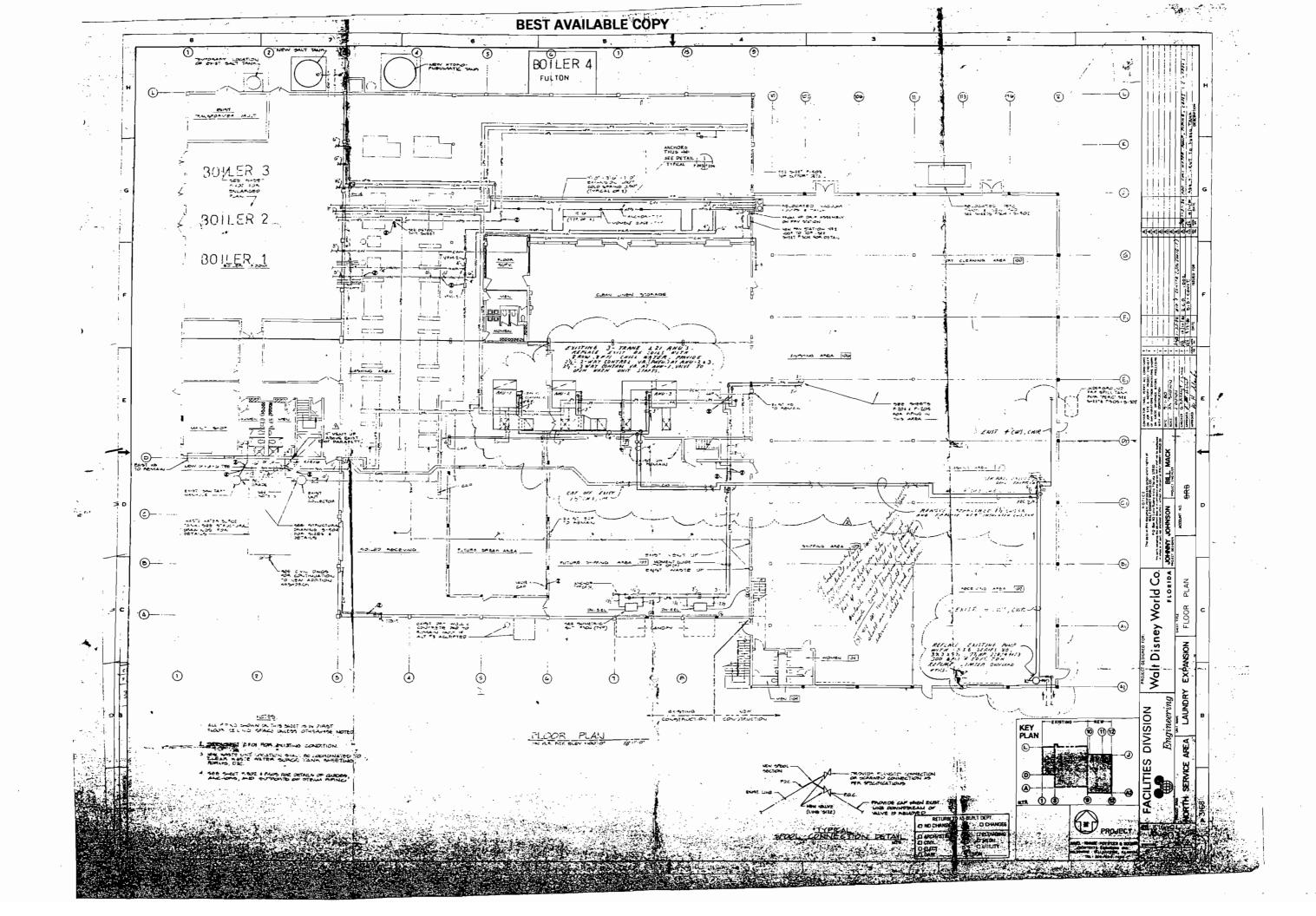
Note: ft³ - cubic feet.

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

APPLICATION TYPE: [X] Construction [] Open COMPANY NAME: Walt Disney World Co.	ration [] Modification
COMPANY NAME: Walt Disney World Co.	recton () worktreacton
	COUNTY: Orange
Identify the specific emission point source(s) addressed in this application (i.e. Lime
Kiln No. 4 with Venturi Scrubber; Peaking Un	it No. 2, Gas Fired) Laundry Boiler #4
SOURCE LOCATION: Street Facilities Way	City Bay Lake
UTM: East 443650	North 3144460
Latitude 28 25 36	
APPLICANT NAME AND TITLE: Walt Disney Worl	d Co.
APPLICANT ADDRESS: P. O. Box 10,000, Lake Bu	ena 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.
	ollution control source and pollution control by with the provision of Chapter 403, Florida
Statutes, and all the rules and regulation also understand that a permit, if grantom and I will promptly notify the department establishment. *Attach letter of authorization S	ons of the department and revisions thereof. I sed by the department, will be non-transferable t upon sale or legal transfer of the permitted igned: Codward B. Crowell, V.P., Facilities Support
Statutes, and all the rules and regulation also understand that a permit, if grantom and I will promptly notify the department establishment. *Attach letter of authorization S	igned: Wall be non-transferable t upon sale or legal transfer of the permitted igned: Cowell V.P. Facilities Support Name and Title (Please Type)
Statutes, and all the rules and regulation also understand that a permit, if grantom and I will promptly notify the department establishment. *Attach letter of authorization S	igned: Crowell, V.P., Facilities Support
Statutes, and all the rules and regulation also understand that a permit, if grantom and I will promptly notify the department establishment. *Attach letter of authorization S	igned: Wall V.P. Facilities Support Name and Title (Please Type) ate: 10/10/68 Telephone No. (407)828-2100
Statutes, and all the rules and regulationals understand that a permit, if grante and I will promptly notify the department establishment. *Attach letter of authorization S B. PROFESSIONAL ENGINEER REGISTERED IN FLOR This is to certify that the engineering been designed/examined by me and found principles applicable to the treatment a	igned: Wall V.P. Facilities Support Name and Title (Please Type) ate: 10/10/68 Telephone No. (407)828-2100
Statutes, and all the rules and regulation also understand that a permit, if grante and I will promptly notify the department establishment. *Attach letter of authorization S B. PROFESSIONAL ENGINEER REGISTERED IN FLOR This is to certify that the engineering been designed/examined by me and found principles applicable to the treatment a	igned: Wall be non-transferable tupon sale or legal transfer of the permitted digned: When B. Crowell V.P. Facilities Support Name and Title (Please Type) ate: Where required by Chapter 471, F.S.) features of this pollution control project have to be in conformity with modern engineering and disposal of pollutants characterized in the assurance, in my professional judgment, that

pollution sources.	the grani
81338	Signed Worms H. Javis
3739 60	Thomas W. Davis
0 2 7	Hunter/Environmental Science and Engineering
100 O 77 S	Company Name (Please Type)
3.6	P. O. Box 1703, Gainesville, FL 32602
The Parameter of the Pa	Mailing Address (Please Type)
ida Registration No3	6777 Date: 10 13/88 Telephone No. (904)332-3318
	•
251	TION II: GENERAL PROJECT INFORMATION
	es in source performance as a result of installation. State la result in full compliance. Attach additional sheet if
Installation of one natu	ral gas fired boiler to provide steam to a laundry facility
This boiler exists and w	as previously exempt from permitting under 17-2.210(3)(a).
	ent will be installed.
	ent will be installed.
pollution control equipm	
pollution control equipm	
pollution control equipment of project covers	red in this application (Construction Permit Application On
pollution control equipmed Schedule of project covers Start of Construction Schedule of pollution controls individual component Information on actual co	ered in this application (Construction Permit Application One
pollution control equipmed Schedule of project covers Start of Construction Schedule of pollution controls individual component Information on actual co	ered in this application (Construction Permit Application Or eptember 1988 Completion of Construction December 1988 ol system(s): (Note: Show breakdown of estimated coets or s/units of the project serving pollution control purposes.
pollution control equipmed Schedule of project covers Start of Construction Schedule of pollution controls individual component Information on actual coperait.)	ered in this application (Construction Permit Application On eptember 1988 Completion of Construction December 1988 ol system(s): (Note: Show breakdown of estimated costs on s/units of the project serving pollution control purposes.
pollution control equipmed Schedule of project covers Start of Construction Schedule of pollution controls individual component Information on actual coperait.)	ered in this application (Construction Permit Application Or eptember 1988 Completion of Construction December 1988 ol system(s): (Note: Show breakdown of estimated costs or s/units of the project serving pollution control purposes.
pollution control equipmed Schedule of project covers Start of Construction Schedule of pollution controls individual component Information on actual coperait.)	ered in this application (Construction Permit Application Or eptember 1988 Completion of Construction December 1988 ol system(s): (Note: Show breakdown of estimated coets or s/units of the project serving pollution control purposes.
pollution control equipmed Schedule of project covers Start of Construction Schedule of pollution controls individual component Information on actual coperait.)	ered in this application (Construction Permit Application On eptember 1988 Completion of Construction December 1988 ol system(s): (Note: Show breakdown of estimated costs on s/units of the project serving pollution control purposes.
pollution control equipmed Schedule of project covers Start of Construction Schedule of pollution controls individual component Information on actual coperait.) None	eptember 1988 Completion of Construction December 1988 of system(s): . (Note: Show breakdown of estimated costs of s/units of the project serving pollution control purposes. ets shall be furnished with the application for operation
pollution control equipmed Schedule of project covers Start of Construction Schedule of pollution control individual component Information on actual coperait.) None	ered in this application (Construction Permit Application Or eptember 1988 Completion of Construction December 1988 ol system(s): (Note: Show breakdown of estimated costs or s/units of the project serving pollution control purposes.

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_		
If (Y	this is a new source or major modification, answer the following quest	ione.
ı.	Is this source in a non-ettainment area for a particular pollutant?	NO
	a. If yes, has "offset" been applied?	
	b. If yee, has "Lowest Achievable Emission Rate" been applied?	
	c. If yes, list non-ettainment pollutants.	
2.	Does best svailable control technology (BACT) apply to this source? If yee, see Section VI.	NO
3.	Does the State "Pravention of Significant Deterioriation" (PSD) requirement apply to this source? If yee, see Sections VI and VII.	NO
▲.	Do "Standards of Performence 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
	"Researably Available Control Technology" (RACT) requirements apply this source?	NO

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

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

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

	Contami	Inants	Utilization	
Description	Туре	% Wt	Rate - lbs/hr	Relate to Flow Diagram
N/A				

8. Process Rete, if applicable: (See Section V, Item 1	8.	Process	Rete,	if	applicable:	(See	Section Y	. Item 1)
--	----	---------	-------	----	-------------	------	-----------	----------	---

- 1. Total Process Input Rate (lbe/hr): N/A
- 2. Product Weight (lbs/hr): N/A

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

Name of	Eniss	ion ¹	Allowed ^Z Emission Rate per	Allowable ³	Potent		Relate to Flow
Contaminant	Maximum lbs/hr	Actual T/yr	Rule 17-2	lbe/hr	lbs/yr	T/yr	Diagram
so ₂	0.005	0.020			0.005	0.020	
PM	0.039	0.169			0.039	0.169	
NO x	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	

¹⁵ee Section V, Item 2. See Tables 1 and 2 for calculation details.

Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (l) - G.l pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

Emission, if source operated without control (See Section V, Item 3).

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Conteminent	Efficiency	Range of Particles Size Collected (in microna) (If applicable)	Basis for Efficiency (Section V Iter 5)
None				
·				
				<u> </u>
	·			

	Consu	mption*	
Type (8e Specific)	evg/hr	eax./hr	Maximum Heat Input (MMBTU/hr)
Natural Gas	7,734 ft ³ /hr	7,734 ft ³ /hr	7,734,000 Btu/hr
		·	
•			

*Units: Natural Gas--HMCF/hr; Fuel Oils--gallona/hr; Coal, wood, refuse, other--lbs/hr.

Fuel	Anal	ysis:
------	------	-------

Percent Sulfur:	·	Percent Ash:	
Density:	lbs/gal	Typical Percent Nitrogen:	
Heat Capacity:	BTU/16		BTU/gal
Other Fuel Contaminants (which	n may causa air p	ollution):	
mrust inet confessiusurs (Auto	i may causa air p	ollution):	

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

Annual Average 0% Maximum 0%

6. Indicate liquid or solid wastes generated end method of disposal.

None		

	ht:	30		/t. s	tack Diamete		1.17	
as Flow R	ate:	ACFH	3,000	_OSCFM G	as Exit Temp	ereture:_	400	•ı
later Vepo	r Content:	N/A		\$ V	elocity:	4	6.5	
N	OT APPLICAB		ION IA:	INCINERAT	OR INFORMATI	O#		
		·				_	T	
Type of Weste			Type II (Refuse)		I Type IV) (Patholog- ical)	Type V (Liq.& Ga By-prod.	Type VI (Solid By-p	rod.
Actuel lb/hr Inciner- ated			•					
Uncon- trolled (lbe/hr)	·							
otal Weigh	ht Incinera	ted (lbe/h	.)			acity (lbs	/hr)	
otal Weigh	ht Incinera e Number of	ted (lbe/h	r)	per dey	_ Design Cap day/	acity (lbs	/hr)wks/yr	
otal Weigh	ht Incinera e Number of	ted (lbe/h	r)	per dey	_ Design Cap day/	acity (lbs	/hr)	
otal Weigh	ht Incinera e Number of	ted (lbe/h	r)	per dey Model	_ Design Cap day/	acity (lbs	/hr)wks/yr	
otal Weigh	ht Incineral	ted (lbe/hi	Tperstion	per dey Model	_ Design Cap day/ No Fuel	acity (lbs	/hr)wks/yr	
otal Weight pproximate anufacture ete Const	ht Incineral	ted (lbe/hi	Tperstion	per dey Model	_ Design Cap day/ No Fuel	acity (lbs	/hr)wks/yr	
otal Weight pproximate and facture eta Const. Primery Charter Const.	ht Incineral e Number of er ructed Chamber	Hours of (Yolume (ft) ³	Perstion Heat R (BTU	per deyModel	day/ No Fuel	acity (lbs	/hr)wks/yr	•
pproximate snufacture ete Const: Primery Cf Secondery tack Heigh	ht Incineral e Number of er ructed Chamber	Volume (ft) 3	Heat R (BTU	per dey Model eleese /hr)	day/ No Fuel Type	BTU/hr Stack	/hr) wks/yr Temperatur (°F)	•
pproximate anufacture ete Consti	ht Incineral e Number of er ructed Chamber ht:	Volume (ft)3	Heat R (BTU	per deyModel	Design Cap day/ No Fuel Type DSCFM* it the emiss	BTU/hr Stack	/hr)	• FI
pproximate anufacture ete Constitute Constit	ht Incineral e Number of er ructed Chamber ht: ete: foot dry ge	Volume (ft)3 ft. 5	Heat R (BTU	per deyModel	Design Cap day/ No Fuel Type DSCFM* it the emiss	BTU/hr Stack Velocity:	/hr)	• FI

ltimata dia	nassl of nav	affluent other	s than that emit	ted from the stac	k (scrubber water
sh, etc.):		attinent orna	r than that emit	ted from the state	k (Scrubber Here)
				<u> </u>	

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 accommode payable to the Department of Envir	ordance with Rule 17-4.05. The check should be onmental Regulation.
10.		it, attach a Certificate of Completion of Con- was constructed as shown in the construction
A.	NOT APPLICABLE	ILABLE CONTROL TECHNOLOGY tationary sources pursuant to 40 C.F.R. Part 60
	[] Yes [] No	
	Contaminant	Rate or Concentration
		·
8.	Has EPA declared the best evailable co	ntrol technology for this class of sources (If
	[] Yes [] No	•
	Contaminant	Rate or Concentration
C.	What emission levels do you propose as t	
	Contaminant	Rate or Concentration
D.	Describe the existing control and treats	ment technology (if any).
	1. Control Device/System:	2. Operating Principles:
	3. Efficiency:*	4. Capital Costs:
*E x ;	olain method of determining	•

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5. Useful Life:		6 .	Operating Costs:	
7. Energy:		8.	Maintenance Cost:	
9. Emissions:				
Contaminant			Rate or Concentration	,
10 01 10		_		
10. Stack Parameters	•			.
a. Height:	ft.	b.	Diameter:	ft.
c. Flow Rate:	ACFM	d.	Temperature:	٩F.
e. Velocity:	FPS			
Describe the control and treatment use additional pages if necessary)		olog	y available (As many types as	applicable,
1.			•	
a. Control Device:		b .	Operating Principles:	
c. Efficiency:1		d.	Capital Cost:	
e. Useful Life: —		f.	Operating Cost:	
g. Energy: ²		h.	Maintenance Cost:	
i. Availability of construction ma	aterial	s an	d process chemicals:	
j. Applicability to manufacturing	proces	ses:		
k. Ability to construct with cont within proposed levels:	rol de	vice	, install in available space,	and operate
2.				
a. Control Device:		b.	Operating Principles:	
c. Efficiency: 1		d.	Capital Cost:	
e. Useful Life:		r.	Operating Cost:	
g. Energy: ²		h.	Maintenance Cost:	
i. Availability of construction ma	terial	s an	d process chemicals:	
plain method of determining efficien				

...

Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate **L** . within proposed levels: 3. Control Device: b. Operating Principles: Efficiency: 1 Capital Cost: c. Useful Life: Operating Cost: g. Energy: 2 h. Maintenance Cost: Availability of construction materials and process chemicals: Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate k. within proposed levels: 4. Control Device: b. Operating Principles: **a** . Efficiency: 1 d. Capital Costs: c. Useful Life: f. Operating Cost: e . Energy: 2 h. Maintenance Cost: g. Availability of construction materials and process chemicals: Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: Describe the control technology selected: 1. Control Device: 2. Efficiency: 1 Useful Life: 3. Capital Cost: Energy: 2 Operating Cost: 7. Maintenance Cost: Manufacturer: Other locations where employed on similar processes: a. (1) Company: (2) Mailing Address: (3) City: (4) State: ¹Explain method of determining efficiency. 2 Energy to be reported in units of electrical power - KWH design rate. DER Form 17-1.202(1)

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(5) Environmental Manages:		
(6) Telephone No.:		
(7) Emissions: 1	,	
Conteminant	Rata or Concentrati	on
		·
	•	
(8) Process Rate: 1		
b. (1) Company:		
(2) Mailing Address:		
(3) City:	(4) State:	
(5) Environmental Manager:	•	L
(6) Telephone No.:		
(7) Emissions: 1		
Contaminant	Rate or Concentration	on
(8) Process Rate: 1		
10. Reason for selection an	d description of systems:	
Applicant must provide this in available, applicant must state	formation when available. Should this infor the reason(s) why.	∌a tion not
NOT APPLICABLE Company Monitored Data	PREVENTION OF SIGNIFICANT DETERIORATION	
1no. sites	TSP () S0 ² * Wi	ind spd/dir
Period of Monitoring	month day year to/.	•
Other data recorded		
Attach all data or statistic	al summaries to this application.	
Specify bubbler (B) or continuo	is (C).	
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	2.	Instrumentation, Fig.	eld and Laboratory	
	٠.	Was instrumentation	EPA referenced or its	equivalent? [] Yes [] Nc
	ь.	Was instrumentation	calibrated in accorda	nce with Department procedures?
		[] Yes [] No [] Unknown	
8.	Met	ecrological Data Used	d for Air Quality Mode	ling
) 	1.	Year(s) of date	ta from // /month day ye	to / / month day year
	2.	Surface data obtaine	ed from (location)	
1	3.	Upper mir (mixing he	eight) data obtained f	rom (location)
	4.	Stability wind rose	(STAR) data obtained	from (location)
c.	Com	puter Models Used		
	1.			Modified? If yes, attach description.
1	2.			Modified? If yes, attach description.
	3.			Modified? 'If yes, attach description.
•	4.			Modified? If yes, attach description.
) 1		ach copies of all fin le output tables.	al model runs showing	input data, receptor locations, and prin-
٥.	Арр	licants Maximum Allow	able Emission Data	•
Ī	Pol	lutant	Emission Rata	
		TSP		grams/sec
	:			grams/sec
ε.	Emi	ssion Data Used in Mo	deling	
	poin		oint number), UTM coor	a required is source name, description of dinates, stack data, allowable emissions,
F.	Att	ach all other informa	tion supportive to the	PSD review.
G.	ble	technologies (i.e.,		selected technology versus other applica- uction, taxes, energy, etc.). Include sources.
Н.	Att	sch scientific, engi	neering, and technica	l material, reports, publications, jour-

the requested best available control technology.

nals, and other competent relevant information describing the theory and application of

Table 1. Summary of Emissions from the North Service Area Laundry Boilers*

				Emissions (TPY)					
Source	Identification Number	Rate (cfh)	so_2	. PM	$\mathtt{NO}_{\mathbf{X}}$.	СО	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

 ${
m CO}$ - carbon monoxide ${
m NO_X}$ - nitrogen oxides PM - particulate matter ${
m SO_2}$ - 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/l0 ⁶ ft ³
Particulate Matter	$5.0 \text{ lb/}10^6 \text{ ft}^3$
Nitrogen Oxides	$100 \text{ lb/}10^6 \text{ ft}^3$
Carbon Monoxide	$20 \text{ lb/}10^6 \text{ ft}^3$
Volatile Organic Compounds	$5.3 \text{ lb/}10^6 \text{ ft}^3$

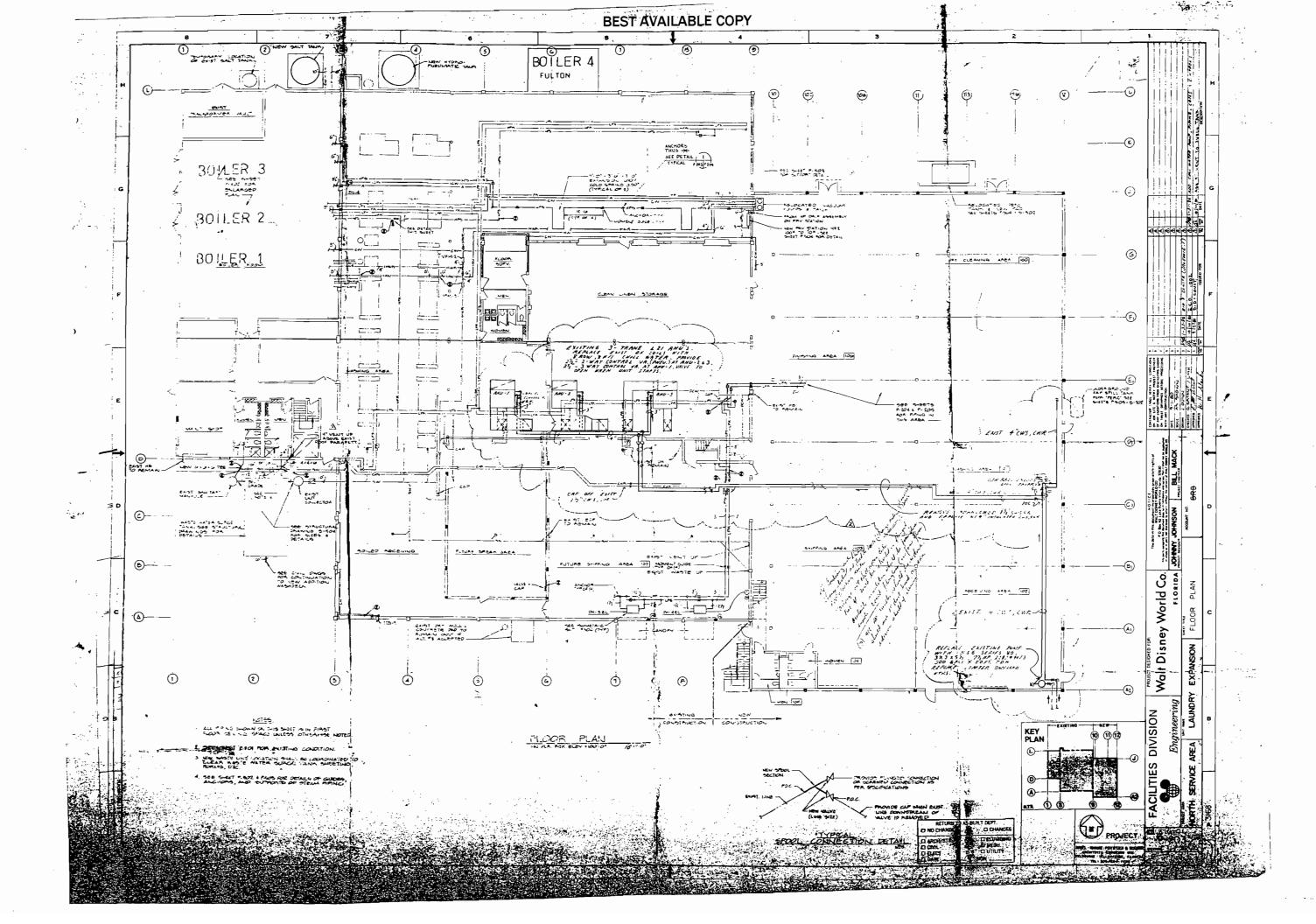
Note: ft³ - cubic feet.

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



808 GRAHAM GOVERNOR

VICTORIA J. TSCHINKEL SECRETARY

	THE CO NO.	JEGNETANT
APPLICATION TO OPERATE	CONSTRUCT AIR POLLUTION	SOURCES
SOURCE TYPE: Natural Gas Fired Water He	ater [X] New [] Exis	sting ¹
APPLICATION TYPE: [X] Construction []	Operation [] Modificat	ion
COMPANY NAME: Walt Disney World Co.		COUNTY: Orange
Identify the specific emission point sour	ce(s) addressed in this	application (i.e. Lime
Kiln No. 4 with Venturi Scrubber; Peaking	Unit No. 2, Gas Fired)	North River Heater
SOURCE LOCATION: Street Buena Vista Dr	ive	City Lake Buena Vista
UTM: East 448193	North_	3137578
Latitude 28 · 21 ·		ide <u>81 31 39 "</u> W
APPLICANT NAME AND TITLE: Walt Disney W	orld Co.	
APPLICANT ADDRESS: P. O. Box 10,000, Lake	Buena Vista, Florida 3	2830
SECTION I: STATEMEN	TS BY APPLICANT AND ENGI	NEER
A. APPLICANT		
I am the undersigned owner or authori	zed representative* of W	alt Disney World Co.
I certify that the statements made in permit are true, correct and complete I agree to maintain and operate the facilities in such a manner as to constantes, and all the rules and regulates understand that a permit, if grand I will promptly notify the depart establishment. *Attach letter of authorization	to the best of my knowled pollution control sourcemply with the provision ations of the department anted by the department, ment upon sale or legal. Signed:	edge and belief. Further, roe and pollution control of Chapter 403, Florida and revisions thereof. I will be non-transferable transfer of the permitted
	Name and Title (Lake Buena Vista Communities Please Type) Inc
	Date: 10/21/88 Telep	hone No. (407) 934-7256
B. PROFESSIONAL ENGINEER REGISTERED IN FI	•	
This is to certify that the engineering been designed/examined by me and for principles applicable to the treatment permit application. There is reasonate	and to be in conformity t and disposal of pollu	with modern engineering tants characterized in the

1 See Florida Administrative Code Rule 17-2.100(57) and (104)

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Continue and Care	Mailing Address (Please Type)
da Registration No. 3677	
	N II: GENERAL PROJECT INFORMATION
	boiler (Rite Boiler Model 150) to provide hot water to
he Typhoon Lagoon River.	The boiler will be natural gas fired. No pollution
ontrol equipment will be i	nstalled
sets of Construction Feb	in this application (Construction Permit Application Or ruary 1989 Completion of Construction May 1989 system(s): (Note: Show breakdown of estimated costs of nits of the project serving pollution control purposes. shall be furnished with the application for operation
one	<u> </u>

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a production of the second

	this is a new source or major modification, enswer the following questions or No.	loņs.
	Is this source in a non-attainment area for a particular pollutant?	NO
	a. If yes, has "offset" been applied?	
	b. If yes, hes "Lowest Achievable Emission Rate" been applied?	
	c. If yes, list non-ettainment pollutants.	·
•	Does best available control technology (BACT) apply to this source? If yes, see Section VI.	NO
•	Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yea, see Sections VI and VII.	NO
•	Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?	NO
•	Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?	NO
	"Reseanably Available Control Technology" (RACT) requirements apply this source?	NO

Attach all supportive information related to any answer of "Yea". 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:

		inents	Utilization			
Description	Туре	\$ Wt	Rate - lbs/hr	Relate to Flow Diagram		
N/A						

A.	9 - 0 - 0 - 0	Rate	i #	applicable:	(544	Section V	Item	1 '	١
•	L L O C 6 2 2	RECE,	3 r	90011C9016:	(386	Sacriou A	. 168		,

1.	Total Process Input Rate	(1bs/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	Emiss	ion ¹	Allowed ² Emission Rate per	Allowable ³ Emission	Potenti		Relate to Flow
Conteminant	Maximum lbs/hr	Actual T/yr	Rule 17-2	lbs/hr _	lbs/yr	T/yr	Diagram
SO ₂	0.0009	0.004			0.0009	0.004	
PM	0.008	0.033			0.008	0.033	
NOx	0.15	0.657			0.15	0.657	
СО	0.030	0.131			0.030	0.131	
VOC	0.008	0.035			0.008	0.035	

¹⁵⁰⁰ Section V, Itam 2. See Tables 1 and 2 for calculation detail.

^{2.} Product Weight (lbs/hr):______N/A

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

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (Ses Section V, Item 3).

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminent	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
None				
				<u>-</u>
· · · · · · · · · · · · · · · · · · ·	·			
			·	

E. Fuels

	Cons	umption*	
Type (8e Specific)	avg/hr	eax./hr	Maximum Heat Input (MM8TU/hr)
Natural Gas	1,500 ft ³ /hr	1,500 ft ³ /hr	1,500,000 Btu/hr
			•

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

Fue.	l Ana	lysis:
------	-------	--------

Percent Sulfur:		Percent Ash:	
Density:	lbs/gal	Typical Percent Nitrogen:	
Heat Capacity:	87U/1b		87U/gs1
Other Fuel Contaminants (wh	ich may causa sir p	ollution):	

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

Annual Average ______ 0% ____ Meximum _____ 0%

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

None

	ht:	8		ft. :	Stack Diamet	•F:	1.3
as Flow R	late:	ACFH	300	_DSCF# (Gas Exit Tem	perature,	250
eter Vapo	r Content:	N/A	•	\$ \	Velocity:	3.8	
NOT	APPLICABLE	SECT	ION IV:	INCINERA	TOR INFORMAT	ION	
Type of Weste					II Type IV (Pathological)	Type V - (Liq.& Gas By-prod.)	Type VI (Solid By-prod
Actuel lb/hr Inciner- ated							
Uncon- trolled (lbs/hr)							
otal Waig	ht Incinera	ted (lbs/h	r)		Design Cep	pacity (lbs/	/he)
pproximat enufactur	e Number of	Hours of	Operation	per dey	dey/	/wk	wks/yr
pproximat enufactur	e Number of	Hours of	Operation	per dey	dey/	/wk	/hr)wks/yr
pproximat enufactur	e Number of	Hours of	Operation	per deyModel	dey/	/wk	wks/yr
pproximat enufactur	e Number of	Hours of	Operation Heat R	per deyModel	dey/	/wk	wks/yr
pproximat enufactur ete Const	e Number of er ructed	Hours of	Operation Heat R	per deyModel	dey/	/wk	wks/yr
pproximatenufacturete Const	e Number of er ructed hamber Chamber	Volume (ft)	Operation Heat R (BTU	per deyModel eleese /hr)	Ho. Fuel Type	BTU/hr	wks/yr
pproximatenufacturate Const	e Number of er ructed hamber Chamber	Volume (ft)3	Heat R (BTU,	per dey Model eleese /hr)	dey/	BTU/hr Stack T	Temperature (°F)
Primary Constant Height Room Room Room Room Room Room Room Roo	e Number of er ructed hamber Chamber ht:	Volume (ft)3 ft.	Heat R (BTU)	per dey Model eleese /hr) mter: ity, subm	Type DSCFHe oit the emiss	BTU/hr Stack T	Temperature (°f)

1

					·
Itimate dispossh, etc.):	osal of any eff	uent other than	n that emitted (rom the stac	(scrubber water
					

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 air-borne 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 $1/2^n \times 11^n$ plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

	made payable to the Department of E	nvironmental Regulation.
10.		permit, attach a Certificate of Completion of Con- rce was constructed as shown in the construction
۸.	NOT APPLICABLE	AVAILABLE CONTROL TECHNOLOGY we stationary sources pursuant to 40 C.F.R. Part 60
	[] Yes [] No	·
	Conteminent	Rate or Concentration
		
8.	Has EPA declared the best availabl yes, attach copy)	e control technology for this class of sources (If
	[] Yes [] No	
	Contaminant	Rate or Concentration
с.	What emission levels do you propose	as best available control technology?
	Contaminant	Rata or Concentration
		· · · · · · · · · · · · · · · · · · ·
	<u> </u>	
D.	Describe the existing control and to	restment technology (if any).
	1. Control Device/System:	2. Operating Principles:
	3. Efficiency:*	4. Capital Costs:

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5. Useful Life:		6.	Operating Costs:	
7. Energy:		8.	Maintenance Cost:	
9. Emissions:			•	
Contaminant			Rate or Concentration	n
<u> </u>				
·				
				- ·
10. Stack Parameters				
a. Height:	ft.	ь.	Diameter:	ft.
c. Flow Rate:	ACFM	d.	Temperature:	۰F.
e. Velocity:	FPS			
E. Describe the control and treatm use additional pages if necessar		olog	y available (As many types as	applicable,
1. /	.,,.			
a. Control Device:		ь.	Operating Principles:	
c. Efficiency:1		đ.	Capital Cost:	
e. Useful Life: (r.	Operating Cost:	
g. Energy: ²		h.	Maintenance Cost:	
.i. Availability of conetruction	naterial	s an	d process chemicals:	
j. Applicability to manufacturi	ing proces	383:	•	
k. Ability to construct with c within proposed levels:	ontrol de	vice	, install in available space,	and operate
2.				
a. Control Device:		b.	Operating Principles:	
c. Efficiency: 1		đ.	Capital Cost:	
e. Useful Life:		f.	Operating Cost:	
g. Energy: ²		h.	Maintenance Cost:	
i. Availability of construction	n material	s an	d process chemicals:	
¹ Explain method of determining effic ² Energy to be reported in units of e	ciency. electrical	paw	er - KWH design rate.	
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\$ 25 A

Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 3. Control Device: Operating Principles: Efficiency: 1 Capital Cost: c. Useful Life: Operating Cost: Energy: 2 Maintenance Cost: Availability of construction materials and process chemicals: i. Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate k. within proposed levels: 4. Control Device: Operating Principles: a. Efficiency: 1 Capital Costs: c. Useful Life: Operating Cost: . Energy: Z Maintenance Cost: α. Availability of construction materials and process chemicals: í. Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: Describe the control technology selected: 2. Efficiency: 1 Control Device: Capital Cost: 3. Useful Life: Energy: 2 Operating Cost: 6. 7. Maintenance Cost: Manufacturer: Other locations where employed on similar processes: a. (1) Company: (2) Mailing Address: (3) City: (4) State: Explain method of determining efficiency. 2 Energy to be reported in units of electrical power - KWH design rate. DER Form 17-1.202(1) Effective November 30, 1982 Page 10 of 12

(5) Environmental Manager:	
•	
(6) Telephone No.:	
(7) Emissions: 1	
Conteminant	Rate or Concentration
T	
	<u> </u>
(8) Process Rate: 1	· · · · · · · · · · · · · · · · · · ·
b. (1) Company:	
(2) Mailing Address:	
(3) City:	(4) State:
(5) Environmental Manager:	•
(6) Telephone No.:	
(7) Emissions: ¹	
Contaminant	Rate or Concentration
Concession	
	· · · · · · · · · · · · · · · · · · ·
(8) Process Rate: 1	
10. Reason for selection and desc	ription of systems:
Applicant must provide this informat available, applicant must state the r SECTION VII - PREVE NOT APPLICABLE A. Company Monitored Data	
l. no. sites	
aon	th day year south day year
Other data recorded	
Attach all data or statistical sum	maries to this application.
Specify bubbler (B) or continuous (C)	•
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· É

			referenced or its equivalent? [] Yes [] No
b.	Was instru	mentation calib	brated in accordance with Department procedures?
	[] Yes [] No [] Unkn	n o wn
1et	eorological	. Data Used for	Air Quality Modeling
l.	Y285	(s) of data fro	month day year month day year
2.	Surface da	ta obtained fro	om (location)
3.	Upper air	(mixing height)) data obtained from (location)
4.	Stability	wind rose (STAR	R) data obtained from (location)
Com	puter Model	s Used	
1.			Modified? If yes, attach description.
2.			Modified? If yes, attach description.
		. <u> </u>	Modified? If yes, attach description.
١.			Modified? If yes, attach description.
ip	le output t		odel runs showing input data, receptor locations, and prin- Emission Data
ol	lutant	1	Emission Rate
	lutant TSP		Emission Rate grams/sec
!	TSP So ²		grams/sec
Emi: Att	TSP SO ² ssion Data ach list of nt source (Used in Modeling	grams/sec
Emi: Att. poid	TSP SO ² ssion Data ach list of nt source (normal ope	Used in Modeling emission source on NEDS point nearing time.	grams/sec grams/sec grams/sec grams/sec grams/sec
Emi: Att: poin and Att: Discole	TSP SO ² ssion Data ach list of nt source (normal ope ach all oth cuss the so	Used in Modeling emission source on NEDS point nating time. er information social and economics (i.e., jobs	grams/sec grams/sec grams/sec grams/sec grams/sec grams/sec

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2. Instrumentation, Field and Laboratory

Table 1. Summary of Emissions from Water Heating Facilities at Typhoon Lagoon

				Emi:	ssions (TP	Y)	
Source	Identification Number	Rate (cfh)	so ₂	PM	NO _x .	со	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

 $\mathrm{NO}_{\mathbf{X}}$ - nitrogen oxides

PM - particulate matter

SO₂ - 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	$0.6 \text{ lb/}10^6 \text{ ft}^3$
Particulate Matter	$5.0 \text{ lb}/10^6 \text{ ft}^3$
Nitrogen Oxides	$100 \text{ lb}/10^6 \text{ ft}^3$
Carbon Monoxide	$20 \text{ 1b/10}^6 \text{ ft}^3$
Volatile Organic Compounds	$5.3 \text{ lb/}10^6 \text{ ft}^3$

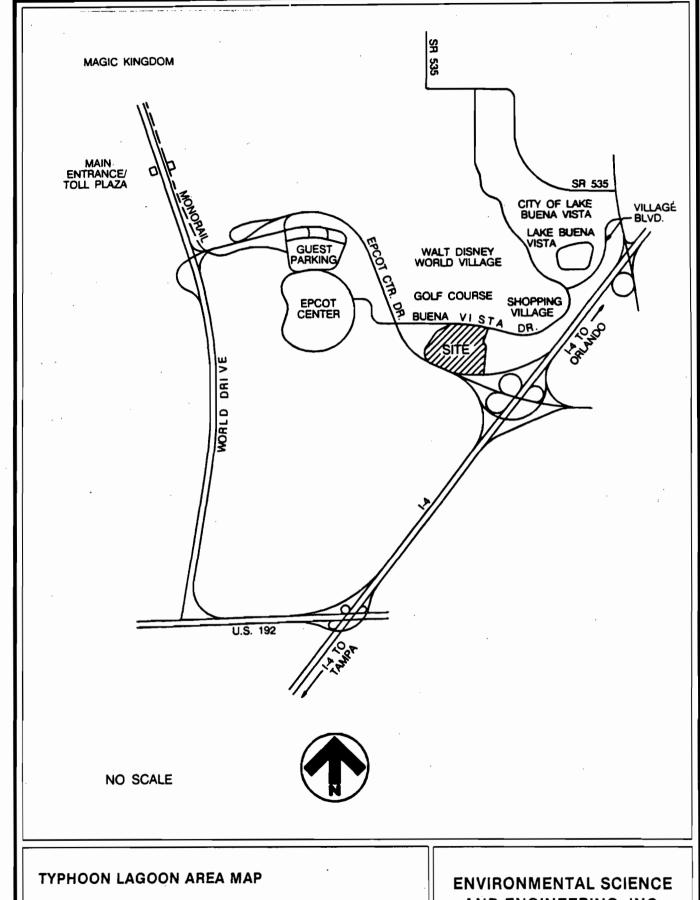
Note: ft³ - cubic feet.

Source: U. S. Environmental Protection Agency, 1986.

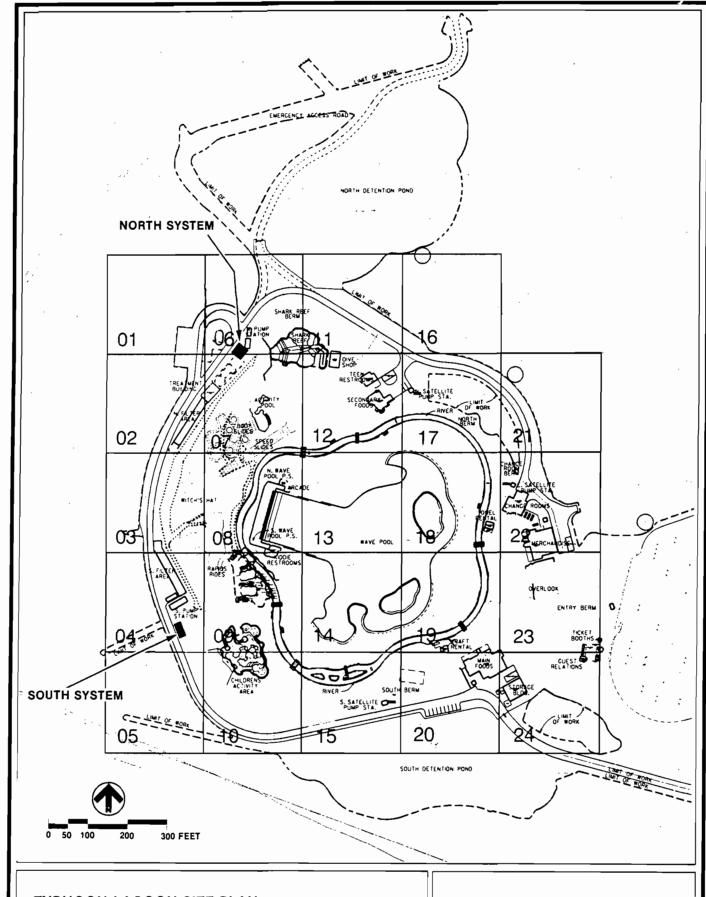
Compilation of Air Pollutant Emission Factors, Volume I:

Stationary Point and Area Sources, with Supplement A. Research

Triangle Park, North Carolina.



AND ENGINEERING, INC.



TYPHOON LAGOON SITE PLAN

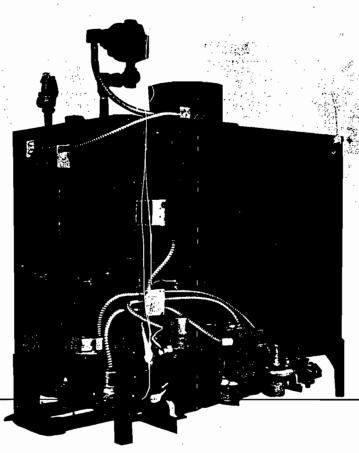
ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

BEST AVAILABLE COPY







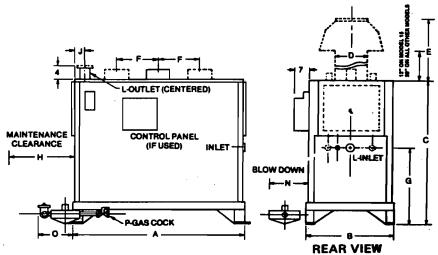


A.I.A. File No. 30-C-

WATER HEATING BOILER
LOW PRESSURE
ATMOSPHERIC NATURAL GAS FIRED

9441 WASHBURN ROAD / DOWNEY / CALIFORNIA 90242

WATER-ATMOSPHERIC GAS



"6" Dimension	Blow Down Size
26	1
32	1-1/4
42	1-1/2
51 & larger	2

			1			, DI	MEN:	SIONS	<u> </u>		NOTE	: Over 4"	all dimens	ions are flanged
N	AODEL	. 🗛	8	c	D	Ε .	F	G	н	•	L	N .	0	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 3.
	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
	105	52	32	52	14	36	0	26	42	2-5/8	3	12	18	1-1/4
	120	- 58	32	52	14	36	Ŏ	26	48		3	12	18	1-1/4
	135	64	32	52	16	38	0	26	54		3	12	18	1-1/4
	150	70	32	52	16	38	Ö	26	60 4		3	12	18	1-1/2
; —	A150	55	42	57	16	38	0	26	42		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 57	2-14	36	15	26	60	3-1/2	4	16	24	2
	250	73	42	57	2-14	36	16	26	66	3-1/2	4	16	24	2
	275	75 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		21				4	16	24	2-1/2
	350	103	42	57 57	2-16	38		26	84	3-1/2	4	. 16		2-1/2
		103	42			40	23	26	90	3-1/2			24	
	375			57	2-18	40	24	26	96	3-1/2	4	16	24	2-1/2
	400 T 400	115	42	57	2-18		25	26	102	3-1/2	4	16	24	2
	Ā400	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	-	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	a_	30	26	120	3-1/2	4	16	24	2
	500	139	42	<u>57</u>	2-20	——₹—	31	26	126	3-1/2		16	24	2
	A500	95	63	63	26	—ફે—	0	28		4-3/4	2-4	14	24	2
	550	109	51	62	2-20	 ഗ	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	<u></u>	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	<u>63</u>	63	2-22	<u></u>	24	28	92	4-3/4	2-4	14	28	2
4	A700	138	51	62	2-22	<u> </u>	30	26	<u>123</u>	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	<u>6</u>	28	28	108	4-3/4	2-4	14	28	2
	840	115	77	63	2-24	——A—	23	27	_ 87	5 ·	2-5	14	28	2-1/2
	940	128	<u>77 </u>	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

RITE BOILERS-U.LI. 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

OPȚION 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
- DE03 SYSTEM (ELECTRONIC CONTINUOUS PILOT, AUTOMATIC RELIGHT, 100% SHUT OFF) RECOMMENDED FOR HEAVY GASES
- RITE LITE PANEL
- FLUE GAS THERM.
- TATTLE TALE PANEL
- HAND HOLES
- STACK SUPPORT
- GAS STRAINER
- MODULATION
- LEAK TEST COCK
- COPPER TUBES.
- o 125 PS
- HINGED HEAD PLATES OR DAVITS:
- INSULATED HEAD PLATES
- ANODES
- EXPANSION TANKS

GENERAL DATA

	Input BTU/HR x1000	BTU/HR x1000	H.P.	20° F Rise	G.P.H. 100° F Riss	Content Gallons	Heating Sq. Ft.	Shipping Wt.
48	480	384	11.5	38	485	20,5	49	1060
55	550	440	13.2	44	535	22.3	56	1:260
63	630	506	15.1	51	615	24.0	63	1360
76	760	608	18.2	61	740	27.0	75	1!500
A90	900	720	21.5	72	876	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	28.6	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
A160	1500	1200	35.8	120	1460	71.0	160	2330
165	1650	1320	39.4	135	1600	57.0	159	23/50
A165	1650	1320	39.4	135	1600	75.0	168	2500
180	1800	1440	43.0	145	1750	61.0	174	2460
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	1960	83.0	205	2500
225	2250	1800	53.8	180	2190	89.0	230	3100
250	2600	2000	59.7	200	2430	94.0	252	33)3
275	2750	2200	65.7	220	2670	100.0	273	35.20
300	3000	2400	71.8	240	2920	105.0	295	
325	3250	2600	77.7	265	3160	111,0	318	3740 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		383	
A400	4000	3200	95.6	325	3900	127.0 160.0		4620
425	4250	3400	101.5	345	4140		390 405	4800
460	4500	3600	107.5	365	4380	133.0	428	4840 5060
A450	4500	3600						
475	4750	3800	107.5 113.5	365	4380	180.0	440	5250
500	5000	4000		385	4630	145.0	450	5280
A500	5000	4000	119.5	405	4870	151.0	473	5500
550	5500	4400	119.5 131.5	405	4870	195.0	486	5700
A550	5500	4400	131.5	445	5370	190.0	526	6000
600	6000	4800	143.5	445	5370	215.0	535	6150
A600	6000	4800	143.5	485	5850	213.0	574	6500
A660	6500	5200	155.0	485	5850	235.0	584	662
650	6500	5200		520	6250	240.0	622	69 €∠.>
A700	7000	5600	155.0 167.0	520	6250	250,0	632	7100
700	7000	5600		560	6720	255.0	670	7400
A750	7500	6000	167.0	560	6720	275.0	680	7600
750	7500	6000	180.0	600	7200	270.0	722	7900
840	8400	6700	180.0	600	7200	290.0	730	8075
940	9400	7500	200.0	650	7800	320.0	800	8500
1060	10500	7500 8400	225.0 250.0	770 810	9270 9740	345.0 370.0	900	9100

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM GOVERNOR VICTORIA J. TSCHINKEL SECRETARY

Lake Buena Vista Communities

	APPLICATION TO OPERATE/CO	HSTRUCT AIR POLLUTION	SOURCES
SCJRCE TYPE: Na	tural Gas Fired Water Hea	ter [X] New [] Exis	sting ¹
APPLICATION TYPE:	[X] Construction [] Op	eration [] Modificat	ion
COMPANY NAME: W	alt Disney World Co.		COUNTY: Orange
Identify the speci	fic emission point source	(s) addressed in this	application (i.e. Lime
Kiln No. 4 with Ve	nturi Scrubber; Peaking U	nit No. 2, Gas Fired)	South River Heater
SOURCE LOCATION:	Street Buena Vista Dri	ve	City Lake Buena Vista
	UTM: East 448193	North	3137578
	Latitude 28 • 21 • 55	_"N Loagitu	de 81 • 31 · 39 · 7
APPLICANT NAME AND	TITLE: Walt Disney Wor	ld Co.	
APPLICANT ADDRESS:	P. O. Box 10,000, Lake B	uena Vista, Florida 3	2830
•	SECTION I: STATEMENTS	BY APPLICANT AND ENGI	NEER
A. APPLICANT			
I am the unders	signed owner or authorize	d representative* of Wa	alt Disney World Co.
I certify that permit are true I agree to ma facilities in Statutes, and a also understand and I will propestablishment.	the statements made in the correct and complete to intain and operate the such a manner as to compall the rules and regulated that a permit, if grant aptly notify the departments.	his application for a the best of my knowled the best of my knowled the best of my knowled the best of the department of the department, at upon sale or legal	
*Attach letter of a	encuotizacioa ;	signed: A. H.	

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

Lauren H. James, Dir.,

Name and Title (Please Type)

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

DER Form 17-1.202(1) Effective October 31, 1982

¹ See Florida Administrative Code Rule 17-2.100(57) and (104)

Thomas W Davis Name (Please Type)	A THE STATE OF THE	Signed Thomas W. Davis
Hunter/Environmental Science and Engineering Company Name (Please Type) P. O. Box 1703, Gainesville, FL 32602 Mailing Address (Please Type) P. O. Box 1703, Gainesville, FL 32602 Mailing Address (Please Type) SECTION II: GENERAL PROJECT IMFORMATION escribe the nature and extent of the project. Refer to pollution control equipment and expected improvements in source perforance as a result of installation. State hather the project will result in full compliance. Attach additional sheet if ecessary. Installation of a hot water boiler (Rite Boiler Model 150) to provide hot water to me Typhoon Lagoon River. The boiler will be natural gas fired. No pollution control equipment will be installed. Chadule of project covered in this application (Construction Persit Application Onlets of Construction February 1989 Completion of Construction May 1989 mosts of pollution control system(s): (Note: Show breakdown of estimated coats onless individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation examples. None	6/244	· ·
Company Name (Please Type) P. O. Box 1703, Gainesville, FL 32602 Mailing Address (Please Type) de Registration No. 36777		
Company Name (Please Type) P. O. Box 1703, Gainesville, FL 32602 Mailing Address (Please Type) de Registration No. 36777	3 7 7 8	Hunter/Environmental Science and Engineering
Mailing Address (Please Type) de Registration No. 36777 Date: 16 388 Telephone No. (904)332-3318 SECTION II: GENERAL PROJECT INFORMATION escribe the nature and extent of the project. Refer to pollution control equipment and expected improvements in source performance as a result of installation. State bather the project will result in full compliance. Attach additional sheet if eccessary. Installation of a hot water boiler (Rite Boiler Model 150) to provide hot water to be Typhoon Lagoon River. The boiler will be natural gas fired. No pollution control equipment will be installed. Chadule of project covered in this application (Construction Pereit Application Online of Construction February 1989 Completion of Construction May 1989 costs of pollution control system(s): (Note: Show breakdown of estimated costs only individual components/units of the project serving pollution control purposes. Information on school costs shall be furnished with the application for operation eresit.) None	EN 0 0 77 67 8	
Meiling Address (Please Type) de Registration No. 36777 Dete: 10 388 Telephone No. (904)332-3318 SECTION II: GENERAL PROJECT INFORMATION escribe the nature and extent of the project. Refer to pollution control equipment and expected improvements in source performance as a result of installation. State bether the project will result in full compliance. Attach additional sheet if eccessary. Installation of a hot water boiler (Rite Boiler Model 150) to provide hot water to me Typhoon Lagoon River. The boiler will be natural gas fired. No pollution control equipment will be installed. Chadule of project covered in this application (Construction Pereit Application Online of Construction February 1989 Completion of Construction May 1989 Desir of pollution control system(s): (Note: Show breakdown of estimated coats only individual components/units of the project serving pollution control purposes. Information on actual coats shall be furnished with the application for operation servine.) None	The state of the s	P. O. Box 1703. Gainesville Et. 32602
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escribe the nature and extent of the project. Refer to pollution control equipment and expected improvements in source performence as a result of installation. State hether the project will result in full compliance. Attach additional sheet if eccessary. 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 sourced equipment will be installed. Chedule of project covered in this application (Construction Permit Application Onlitert of Construction February 1989 Completion of Construction May 1989 and of pollution control system(s): (Note: Show breakdown of estimated costs only individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation service.) None	de Registration 46.	Date: 10(15/00 retephone No. (15/000 5000
nd expected improvements in source performence as a result of installation. State mether the project will result in full compliance. Attach additional sheet if scessary. 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 on the project covered in this application (Construction Permit Application Onlease of Construction February 1989 Completion of Construction May 1989 and a follution control system(s): (Note: Show breakdown of estimated coats only individual components/units of the project serving pollution control purposes. Information on actual coats shall be furnished with the application for operation remit.) Individual components of the project serving pollution control purposes. Information on actual coats shall be furnished with the application for operation remit.)	SECTION	II: GEMERAL PROJECT INFORMATION
chadule of project covered in this application (Construction Permit Application Onloant of Construction February 1989 Completion of Construction May 1989 sets of pollution control system(s): (Note: Show breakdown of estimated coats onlow individual components/units of the project serving pollution control purposes. of ormation on actual coats shall be furnished with the application for operation stait.) None	stallation of a hot water b	offer (Rite Boffer Model 150) to provide not water to
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cats of Construction February 1989 Completion of Construction May 1989 cats of pollution control system(s): (Note: Show breakdown of estimated coats only individual components/units of the project serving pollution control purposes. Information on actual coats shall be furnished with the application for operation erait.) None Indicate any previous DER permits, orders and nucless associated with the emission	he Typhoon Lagoon River. Th	e boiler will be natural gas fired. No pollution
construction February 1989 Completion of Construction May 1989 control of pollution control system(s): (Note: Show breakdown of estimated control or individual components/units of the project serving pollution control purposes. Information on actual control be furnished with the application for operation ermit.) None Odicate any previous DER permits, orders and nucices associated with the emission	 -	
cats of Construction February 1989 Completion of Construction May 1989 cats of pollution control system(s): (Note: Show breakdown of estimated coats only individual components/units of the project serving pollution control purposes. Information on actual coats shall be furnished with the application for operation erait.) None Indicate any previous DER permits, orders and nucless associated with the emission		
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or individual components/units of the project serving pollution control purposes. oforeation on actual costs shall be furnished with the application for operation smit.) None odicate any previous DER permits, orders and nucleas associated with the amission	ontrol equipment will be ins	in this application (Construction Permit Application Onl
ndicate any previous DER permits, orders end nucices associated with the amission	ontrol equipment will be ins	in this application (Construction Permit Application Onl
	chedule of project covered tert of Construction Februous of pollution control so or individual components/uninformation on actual costs serait.)	in this application (Construction Permit Application Onloary 1989 Completion of Construction May 1989 ystem(s): (Note: Show breakdown of estimated coats onlits of the project serving pollution control purposes.
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Page 2 of 12

DER Form 17-1.202(1) Effective October 31, 1982

the state of the s

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_		
	this is a new source or eajor addification, answer the following questi	ons.
ı.	Is this source in a non-attainment area for a particular pollutant?	NO
	e. If yes, has "offset" been applied?	
	b. If yes, hes "Lowest Achievable Emission Rate" been applied?	
	c. If yes, list non-ettainment pollutants.	
•	Does best available control technology (BACT) apply to this source? If yes, see Section VI.	NO
•	Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII.	NO
•	Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?	NO
•	Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?	NO
	"Reseanably Available Control Technology" (RACT) requirements apply this source?	NO
	e. If yea, for what pollutants?	

Attach all supportive information related to any answer of "Yes". Attach any justifi-

cation for any answer of "No" that eight be considered questionable.

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

A. Raw Materials and Chemicals Used in your Process, if applicables

	Contag		Utilization	
Description	Type	\$ Wt	Rate - lbe/hr	Relate to Flow Diagram
N/A				
,	·			
)				

8.	Process	Rate.	i f	applicable:	(See	Section V	. Item	1)	
		,	• .		,	20007411 1	,	• ,	

1.	Total Process	Input	Rate	(lbe/hr):_	N/A	<u> </u>

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

Neme of	Emiss	ian ¹	Allowed ² Emission Rate per	Alloweble ³	Paten Emis:		Relate to Flow
Conteminent	Meximum lbs/hr	Actuel T/yr	Rule 17-2	Rule lbe/hr	lbe/yr	T/yr	Diagram
so ₂	0.0009	0.004		<u>-</u>	0.0009	0.004	
PM	0.008	0.033			0.008	0.033	-
NO x	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	

¹ See Section V, Item 2. See Tables 1 and 2 for calculation detail.

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

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

 $^{ho^3}$ Calculated from operating rate and applicable standard.

^{*}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	Siz (i	of Particles Collected acrone) applicable)	Basis for Efficiency (Section V Item 5)
None					
			_		
					· ·
			 		<u> </u>
·			J		
. Fuels					
Type (8e Specific)		Consumption*		Maximum	Neat Input
	avq/hr				BTU/hr)
Natural Gas	1,500 ft ³	/hr 1,500 ft	. ³ /hr	1,500,000 Bt	u/hr
Units: Natural GasMMC	F/hr; Fuel Oils	gallons/hr; C	osl, wood	, refuse, othe	rlbs/hr.
uel Analysis:					
ercent Sulfur:		Percent	Ash:		
ensity:					
est Capacity:		•			
· · · · · · · · · · · · · · · · · · ·					
ther Fuel Contaminants	(Aptch mea canse	e air pollution):		
. If applicable, indic	ate the necest	of fuel used f	02 50500	hesting	
	0%				
. Indicate liquid or s	olid wastee gand	ersted and meth	od of dis	posel.	
None	_				

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scack height	:	8		rt. S	tack Diamet	•t:	1.3
ise Flow Rat	•:	ACFH	300	_DSCFM G	es Exit Tem	perature:_	250
later Vapor	Content:	N/A		\$ V	olocity:	3.8	
NOT A	APPLICABLI		ION IV:	INCIRERAT	OR INFORMAT	ION	
	Type 0 Plastics)					Type V - (Liq.& Ga By-prod.	Solid By-prod
Actual lb/hr Inciner- ated							
Uncon- trolled (1be/hr)							
pproximata : anufacturer				per day _	dey,	- WK	wks/yr
ete Constru	cted		 	Model	No		
		Volume (ft) ³	Heat Re		Fue:	BTU/hr	Temperature (°F)
	ber						
Primery Cha							
Primery Char	neden						
		ft. S	itack Diam	iter:		Stack	
Secondary C	•	 _				•	
Secondary C tack Height se Flow Rate	: :: re tans p	er day desi	ACFH	ity, submi	DSCFM*	Velocity:	
Secondary C tack Height as Flow Rate If 50 or so	e: re tone poot dry g	er day desi	ACFH	ity, submi	DSCFH* t the emiss	Velocity:	in grains per sta

itted from the stack (scrubber water
itted from the stack (scrubber water
_

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
- 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 air-borne 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 $1/2^n \times 11^n$ plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

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_	•	
7.	made payable to the Department of	a accordance with Rule 17-4.05. The check should be Environmental Regulation.
10.		permit, attach a Certificate of Completion of Con- urce was constructed as shown in the construction
A.	NOT APPLICABLE	T AVAILABLE CONTROL TECHNOLOGY New stationary sources pursuant to 40 C.F.R. Part 60
	[] Yes [] No	
	Contaminant	Rate or Concentration
_		
8.	Has EPA declared the best availably yes, attach copy) [] Yes [] No	le control technology for this class of sources (If
	Contaminant	Rate or Concentration
	What emission levels do you propose	as best available control technology?
	Contaminent	Rata or Concentration
D .		restment technology (if any).
	1. Control Device/System:	2. Operating Principles:
	3. Efficiency:*	4. Capital Costs:

*Explain method of determining

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	Useful Life:		6.	Operating Costs:
7.	Energy:		8.	Maintenance Cost:
9.	Emissions:			·
	Contaminant			Rate or Concentration
	·			· · · · · · · · · · · · · · · · · · ·
10.	Stack Parameters			
a.	Height:	ft.	ь.	Diameter: ft
с.	Flow Rate:	ACFM	d.	Temperature:
٠.	Velocity:	FPS		
	cribe the control and treatment additional pages if necessary).	techn	alog	y available (As many types as applicabl
1.				
٠	Control Device:		ь.	Operating Principles:
´c.	Efficiency: 1		d.	Capital Cost:
٠.	Useful Life:		f.	Operating Cost:
g.	Energy: ²		h.	Maintenance Cost:
i.	Availability of construction mat	erial	s an	d process chemicals:
j.	Applicability to manufacturing p	10068	ses:	
k.	Ability to construct with contr within proposed levels:	ol de	vice	, install in available space, and opera
2.				
٠.	Control Device:		ъ.	Operating Principles:
c.	Efficiency: 1		đ.	Capital Cost:
•.	Useful Life:		1.	Operating Cost:
g.	Energy: 2		h.	Maintenance Cost:
	Availability of construction mat	orial	s an	d process chemicals:
i.				

Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 3. Operating Principles: Control Device: Efficiency: 1 Capital Cost: c. Useful Life: Operating Coet: Energy: 2 Maintenancs Cost: g. Availability of construction materials and process chemicals: i. Applicability to manufacturing processes: j. Ability to construct with control device, install in available space, and operate k. within proposed levels: 4. Control Device: Operating Principles: b. a. Efficiency: 1 Capital Costs: Useful Life: Operating Cost: f. Energy: 2 Maintenance Cost: g. Availability of construction materials and process chemicals: í. Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: Describe the control technology selected: Control Device: 2. Efficiency: 1 Useful Life: 3. Capital Cost: Energy: 2 Operating Cost: 7. Maintenance Cost: Manufacturer: Other locations where employed on similar processes: (1) Company: **8**. (2) Mailing Address: (4) State: (3) City: Explain method of determining efficiency. 2 Energy to be reported in units of electrical power - KWH design rate. DER Form 17-1.202(1)

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(5) Environmental Manager:				٠.	
(6) Telephone No.:					
(7) Emissions: 1					
Contaminant			Rate or	Concentra	tion
			_	,	
(8) Process Rate: 1				•	
b. (1) Company:					
(2) Mailing Address:					
(3) City:	(4) State:			
(5) Environmental Manager:				_	•
(6) Telephone No.:					
(7) Emissions: ¹					
Contaminant			Rate or	Concentra	tion
·					
(8) Process Rate: 1					
10. Reason for selection and	description o	f systams:			
Applicant must provide this info available, applicant must state t SECTION VII - P NOT APPLICABLE A. Company Monitored Data	he reason(s)	rhy.			ormation no
lno. sites	TSP	()	502.		Wind spd/di
Period of Monitoring	/	/ _ to		/ /	_
	month day	year		day yea	r
Other data recorded					
Attach all data or statistical	summeries to	this appli	cstion.		
Specify bubblar (8) or continuous	(c).			-	
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	. Was inatrume	ntation EPA r	eferenced or its	equivalent?	[] Yes	[] No	
•							
b	. Was inatrume	ntation calib	rated in accordan	ce with Dep	ertment p	rocedure	9? ·
	[] Yes []	No [] Unkn	o wu				
B. M	eteorological D	ata Used for .	Air Quality Model	ing			,
1	Year(s) of data from	month day yea	to month	/ / day yea	r	•
2	. Surface data	obtained from	e (location)				
3	. Upper air (m	.xing height)	data obtained fr	om (locatio	n)		
4	. Stability wi	id rose (STAR) data obtained f	om (locati	on)		
с. с	omputer Models	ised	•				
1	·•			Modified?	If yes,	attach o	description.
2		,	· .	_ Modified?	If yes,	attach o	description.
3				Modified?	If yes,	attach o	lescription.
4	·			Modified?	If yes,	attach o	description.
A		all final mod	del runs showing i	_			
A C	ttach copies of	all final mod	del runs showing i	_			
A c. D. A	ttach copies of iple output tab	all final mod es. m Allowable E	del runs showing i	_			
A c. D. A	ttach copies of iple output tab	all final modes. m Allowable E	del runs showing i Emission Data	nput data,	receptor		
A c. D. A	ttach copies of iple output tab pplicants Maximo	all final modes. m Allowable E	del runs showing i Emission Data Emission Rate	nput data,	receptor		
A c.	ttach copies of iple output tab. pplicants Maximo ollutant	all final modes. m Allowable E	del runs showing i Emission Data Emission Rate	nput data,	receptor		
A c. D. Ap	ttach copies of iple output tab. pplicants Maximollutant TSP S02 mission Data Use	all final modes. m Allowable E d in Modeling ission source NEDS point n	del runs showing i Emission Data Emission Rate	gr:	receptor ams/sec ams/sec	location	ns, and prin-
A c. D. Apper	ttach copies of iple output tab. pplicants Maximollutant TSP S02 mission Data Use ttach list of ending source (on and normal operate)	all final modes. m Allowable E d in Modeling ission source NEDS point noing time.	del runs showing i Emission Data Emission Rate	gr: gr: gr: gr: gr:	receptor ams/sec ams/sec is source ack data,	location	ns, and prin-
A C C C A P C A A P C A C A C A C A C A	ttach copies of iple output tab. pplicants Maximoliutant TSP SO2 mission Data Use ttach list of ending source (on and normal operations) ttach all other iscuss the social technologies	all final modes. m Allowable E d in Modeling ission source NEDS point noing time. information s l and economic (i.e., jobs	del runs showing i Emission Data Emission Rate g es. Emission data umber), UTM coord	required in inates, sta	receptor ams/sec ams/sec is source ack data,	name, de allowabl	escription of e emissions,

2. Instrumentation, Field and Laboratory

Table 1. Summary of Emissions from Water Heating Facilities at Typhoon Lagoon

				Emis	ssions (TP	Y)	<u>.</u>
Source	Identification Number	Rate (cfh)	so ₂	PM	NO _x .	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_X - nitrogen oxides PM - particulate matter

SO₂ - 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	$0.6 \text{ lb/}10^6 \text{ ft}^3$	
Particulate Matter	$5.0 \text{ lb/}10^6 \text{ ft}^3$	
Nitrogen Oxides	$100 \text{ lb/}10^6 \text{ ft}^3$	
Carbon Monoxide	20 lb/10 ⁶ ft ³	
Volatile Organic Compounds	5.3 lb/10 ⁶ ft ³	

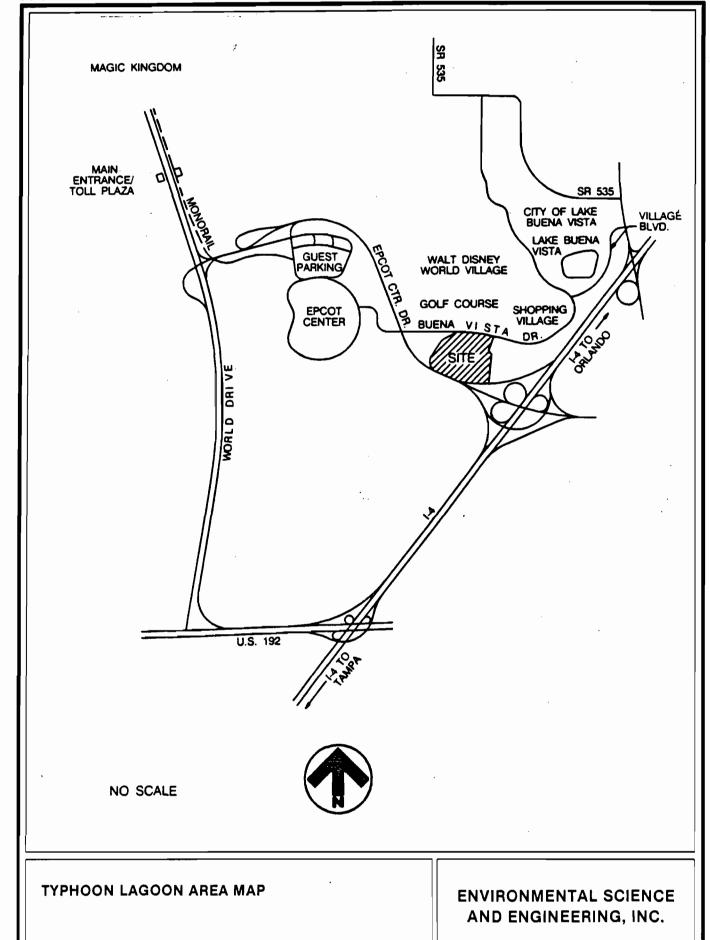
Note: ft³ - cubic feet.

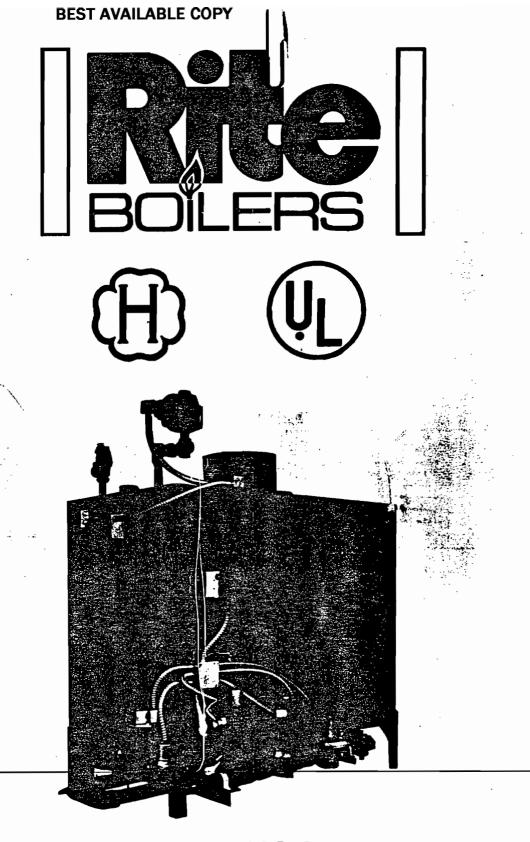
Source: U. S. Environmental Protection Agency, 1986.

Compilation of Air Pollutant Emission Factors, Volume I:

Stationary Point and Area Sources, with Supplement A. Research

Triangle Park, North Carolina.





WATER HEATING BOILER
LOW PRESSURE
ATMOSPHERIC NATURAL GAS FIRED

RITE ENGINEERING & MANUFACTURING CORPORATION 9441 WASHBURN ROAD / DOWNEY / CALIFORNIA 90242

RITE BOILERS-U.L. LISTED THRU MOD. 840

OPTION EQUIPMENT (EXTRA COST)

STANDARD EQUIPMENT

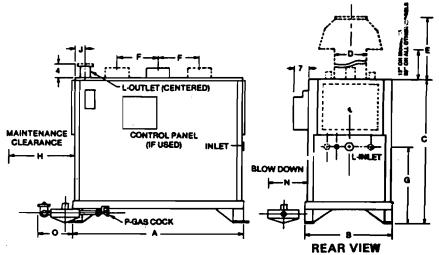
- LIFTING LUGS
- OPERATING CONTROL
- FULLY WIRED 120/1/60
- FACTORY FIRE TESTED
- FIRING SYSTEM: MODELS 48-200 ON OFF A150-A200, 225-1250 LOW HIGH LOW
- CONTROL SYSTEM: ALL MODELS E02 SYSTEM (ELECTROSIC INTERMITTENT PILOT, AUTOMATIC RELIGHT, 100% SHUT OFF)
- DRILLED PORT ATMOSPHERIC BURNERS
- MAIN GAS 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
- FLUE GAS THERM.
- TATTLE TALE PANEL
- HAND HOLES
- STACK SUPPORT
- GAS STRAINER
- MODULATION
- LEAK TEST COCK
- COPPER TUBES
- 125 PSI
- HINGED HEAD PLATES OR DAVITS
- INSULATED HEAD PLATES
- ANODES
- EXPANSION TANKS

MODEL STUPING X10000 X100000 X10000 X10000 X100000 X1000000 X10000000 X100000000 X1000000000 X10000000000	GENERAL DATA										
86 550 440 13.2 44 538 22.3 59 1290 63 63 630 506 16.1 51 61 61 24.0 63 1390 78 760 608 18.2 61 740 27.0 75 1500 A90 900 720 21.5 72 876 30.5 69 1700 A90 900 720 21.5 72 876 30.5 69 1700 86 550 680 20.3 69 830 40.0 68 1700 90 900 720 21.5 72 876 40.0 68 1700 90 900 720 21.5 72 876 40.0 68 1700 106 1060 840 25.1 84 1015 43.0 101 1850 1106 1060 840 25.1 84 1015 43.0 101 1850 1120 1200 960 32.2 110 1315 50.0 131 2100 1135 1350 1060 32.2 110 1315 50.0 131 2100 1160 1500 1200 36.8 120 1460 54.0 146 71.0 160 2386 1160 1500 1200 36.8 120 1460 71.0 160 2386 1160 1500 1200 36.8 120 1460 71.0 160 2386 1160 1500 1320 39.4 135 1600 57.0 169 2386 1160 1600 1320 39.4 135 1600 57.0 169 2386 1160 1800 1440 43.0 146 1750 75.0 168 2500 1180 1800 1440 43.0 146 1750 75.0 168 2500 1180 1800 1440 43.0 146 1750 75.0 169 2386 1180 1800 1440 43.0 146 1750 75.0 169 2386 1180 1800 1440 43.0 146 1750 75.0 169 2386 1180 1800 1440 43.0 146 1750 75.0 169 2386 1180 1800 1440 43.0 146 1750 75.0 169 2386 1180 1800 1440 43.0 146 1750 75.0 169 2386 1180 1800 1440 43.0 146 1750 75.0 169 2386 1180 1800 1440 43.0 146 1750 75.0 169 2386 1180 1800 1440 43.0 146 1750 75.0 169 2386 1180 1800 1440 43.0 146 1750 75.0 169 2386 1180 1800 1440 43.0 146 1750 75.0 169 2386 1180 1800 1440 43.0 146 1750 75.0 169 2386 1180 1800 1440 43.0 146 1750 75.0 169 2386 1180 1800 1440 43.0 146 1750 75.0 169 2386 1180 1800 1400 47.8 160 1960 66.0 192 2385 1180 1800 1400 47.8 160 1960 68.0 192 2385 1180 1800 1400 47.8 160 1960 68.0 192 2385 1180 1800 1800 1800 53.8 180 2190 89.0 230 3100 1180 350 3500 50.0 50.0 50.0 50.0 50.0 50.0	MODEL	Input BTU/HR x1000		H.P.	20° F		Content	Heating Sq. Ft.			
83	48			11,5	38	466	20.5		1060		
180 180	56	550	440	13.2	44	535	22.3				
190 190 720 21.5 72 878 30.5 99 1700 195 850 860 20.3 98 830 40.0 88 1700 190 900 720 21.5 72 875 40.0 88 1700 190 900 720 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 1185 47.0 118 1960 133 1350 1080 32.2 110 1315 50.0 131 2100 138 1350 1080 32.2 110 1315 50.0 131 2100 138 1350 1080 32.2 110 1315 50.0 131 2200 1460 1500 1200 35.8 120 1460 71.0 160 2384 168 1650 1320 39.4 135 1600 57.0 169 2385 168 1650 1320 39.4 135 1600 57.0 168 2500 180 1800 1440 43.0 146 1750 61.0 174 2460 180 1800 1440 43.0 146 1750 61.0 174 2460 180 1800 1440 43.0 146 1750 61.0 174 2460 180 2000 2000 1600 47.8 160 1960 68.0 192 2365 180 2000 2000 1600 47.8 160 1960 68.0 192 2365 180 2500 2000 53.8 180 2190 89.0 230 3100 225 2250 1800 53.8 180 2190 89.0 230 3100 226 2250 2500 2000 57.7 200 2430 94.0 252 239 276 2760 2200 65.7 220 2670 100.0 273 35 270 276 2760 2200 65.7 220 2670 100.0 273 35 270 276 2760 2800 33.6 285 3400 110.0 340 4100 280 280 2800 77.7 266 3180 11.0 318 39.9 380 3500 2800 83.6 285 3400 110.0 340 4100 285 4250 3400 101.5 345 4140 133.0 406 440 426 426 4250 3400 101.5 345 4140 133.0 406 440 426 426 4250 3400 101.5 345 4140 133.0 406 440 426 4250 3400 101.5 345 4140 133.0 406 440 426 4250 3400 101.5 345 4140 133.0 406 440 426 426 4260 4300 131.5 446 5370 196.0 440 426 4260 4300 430.5 446 5370 196.0 426 426 4260 4260 4260 4260 42	63	630	506	15.1	51.	615	24.6				
86 850 680 20.3 68. 850 40.0 88 1700 90 90 900 720 21.5 72 878 40.0 88 1700 90 900 900 720 21.5 72 878 40.0 88 1700 105 1050 1050 840 25.1 84 1015 47.0 115 1960 1200 1200 960 28.6 97 1165 47.0 115 1960 1200 1200 960 28.6 97 1165 47.0 115 1960 1335 1350 1080 32.2 110 1315 80.0 131 2100 1200 1200 35.8 120 1460 54.0 145 22.2 41.0 1315 120 1460 1500 131 120 1200 1200 35.8 120 1460 54.0 145 22.2 41.0 1315 1600 1500 1200 35.8 120 1460 54.0 145 22.2 41.0 1315 1600 1500 1200 35.8 120 1460 57.0 159 2385 186 1650 1320 39.4 135 1600 57.0 159 2385 180 1800 1440 43.0 145 1750 75.0 168 2500 1800 1440 43.0 145 1750 75.0 168 2500 1800 1440 43.0 145 1750 75.0 190 2885 180 1800 1440 43.0 145 1750 76.0 190 2885 180 1800 1440 43.0 146 1750 76.0 190 2885 180 1800 1440 43.0 146 1750 76.0 190 2885 120 120 120 120 120 120 120 120 120 120	76	760	608	18.2	61	740	27.0				
90 900 720 21.5 72 875 40.0 98 1700 106 1060 840 25.1 84 1016 43.0 101 1830 120 120 960 28.6 97 1165 47.0 116 1950 133 1350 1080 32.2 110 1318 50.0 131 210 136 1500 1200 35.8 120 1460 71.0 160 2380 146 1500 1500 1200 35.8 120 1460 71.0 160 2380 168 1650 1320 39.4 135 1600 75.0 168 2380 168 1650 1320 39.4 135 1600 75.0 168 2500 180 1800 1440 43.0 145 1750 61.0 174 2464 180 1800 1440 43.0 146 1750 60.0 190 190 2880 180 1800 1440 43.0 146 1750 60.0 192 2886 180 200 2000 1600 47.8 160 1950 68.0 192 2856 180 2200 2000 1600 47.8 160 1950 68.0 192 2856 180 2500 2000 1600 47.8 160 1950 68.0 192 2856 180 2500 2000 69.7 200 2430 94.0 262 330 3100 250 250 2500 2000 68.7 220 2670 100.0 273 352 275 2750 2700 68.7 220 2670 100.0 273 352 276 2750 3000 89.6 32.8 180 2190 89.0 230 3100 250 2500 2500 2500 69.7 200 2430 110.0 273 352 276 2750 3000 89.6 32.8 380 111.0 318 39.9 280 3500 3000 2400 77.7 268 3180 111.0 318 39.9 280 3500 3000 89.6 30.6 285 3400 111.0 318 39.9 280 3500 3000 89.6 30.6 285 3400 111.0 318 39.9 280 376 400 4000 3200 95.8 325 3800 127.0 383 4624 400 4000 3200 95.8 325 3800 127.0 383 4624 400 4000 3200 95.8 325 325 3900 127.0 383 4624 400 4000 3200 95.8 325 325 3900 127.0 383 4624 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 366 4380 190.0 440 6250 480 4500 3600 107.5 560 6700 2700 2700 270.0 720 270	A90	900	720	21.5	72	876	30.5				
106 1050 840 25.1 84 1015 43.0 101 1830 120 120 1200 960 28.6 97 1168 47.0 118 1960 133 1350 1080 32.2 110 1315 50.0 131 210 1315 50.0 131 210 1315 50.0 131 210 1315 50.0 131 210 1315 50.0 131 210 1315 50.0 131 210 1315 50.0 131 210 1315 50.0 131 210 1315 50.0 132 130 1480 54.0 145 22 130 1480 54.0 145 22 130 1480 1500 1200 35.8 120 1480 71.0 190 2330 168 1680 1500 1320 39.4 135 1600 57.0 150 168 2500 180 1800 1440 43.0 146 1750 77.0 180 2330 180 1800 1440 43.0 146 1750 61.0 174 246 180 1800 1440 43.0 146 1750 61.0 174 246 180 1800 1440 43.0 146 1750 79.0 180 238 180 1800 1440 43.0 146 1750 79.0 180 238 180 1800 1500 47.8 160 1950 66.0 192 235 180 180 1800 1500 47.8 160 1950 66.0 192 235 180 180 1800 1500 47.8 160 1950 83.0 206 230 230 200 200 1600 47.8 160 1950 83.0 206 230 230 250 250 2500 2000 1600 65.7 200 2430 94.0 252 330 300 256 2300 255 250 2500 2000 65.7 200 2430 94.0 252 337 275 275 2750 200 85.7 200 2430 94.0 252 337 275 2750 200 85.7 220 2670 100.0 273 35 12 275 2750 2800 83.6 280 77.7 286 3160 111.0 318 39.5 338 330 266 37.0 330 3000 2400 77.7 286 3160 111.0 318 39.5 338 339 350 280 83.6 285 3400 116.0 340 4115 375 375 3750 3000 89.6 305 3860 122.0 382 440 400 4000 3200 95.8 325 3250 2800 77.7 286 3160 111.0 318 39.5 330 300 280 89.6 305 3860 122.0 382 440 410 400 4000 3200 95.8 325 325 3800 110.0 340 4115 348 440 450 340 450 340 4115 340 440 450 340 440 450 340 440 450 340 440 450 340 440 450 340 440 450 340 440 450 340 440 450 340 450 340 440 450 450 450 450 450 450	86	850	680	20.3	69	830					
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168 1650 1320 39.4 135 1600 57.0 159 2350 180 1800 1320 39.4 135 1600 75.0 168 2500 180 1800 1440 43.0 145 1750 61.0 174 2460 A180 1800 1440 43.0 145 1750 79.0 190 2680 P200 2000 1600 47.8 160 1950 68.0 192 2856 A200 2000 1600 47.8 160 1950 83.0 206 2800 225 2250 1800 53.8 180 2190 89.0 230 1300 255 2250 2500 200 68.7 220 2870 100.0 273 35 ½ 278 2780 2200 68.7 220 2870 100.0 273 35 ½ 278 2780 2800 77.7 </td <td>A 150</td> <td>1500</td> <td>1200</td> <td>35.8</td> <td>120</td> <td></td> <td></td> <td></td> <td></td>	A 150	1500	1200	35.8	120						
180	168	1650		39.4	135	1600	57.0	159			
A180 1800 1440 43.0 146 1750 79.0 190 2685 Day 200 2000 1600 47.8 160 1960 66.0 192 2865 A200 2000 1600 47.8 160 1960 83.0 206 2800 228 2280 1800 53.8 180 2190 89.0 230 3100 250 250 2500 2000 69.7 200 2430 94.0 262 3337 278 2750 2200 68.7 220 2870 100.0 273 355 300 3000 2400 71.8 240 2920 106.0 296 37.40 328 3280 3280 2800 77.7 268 3160 111.0 318 39.3 328 3280 2800 77.7 268 3160 111.0 318 39.3 338 378 3750 3000 89.6 306 3650 122.0 362 440 400 4000 3200 95.8 325 3900 127.0 383 4620 400 4000 3200 95.8 325 3900 127.0 383 4620 400 4000 3200 95.8 325 3900 127.0 383 4620 4400 4400 3200 95.8 325 3900 127.0 383 4620 4400 4500 3600 107.5 366 4380 139.0 426 5060 4450 4500 3600 107.5 366 4380 139.0 426 5060 4450 4500 3600 107.5 366 4380 139.0 426 5060 500 5000 4000 119.5 405 4870 151.0 473 5500 500 5000 4000 131.5 445 5370 190.0 528 600 500 5000 4000 131.5 465 5370 190.0 528 600 500 5000 4000 131.5 465 5370 190.0 528 600 500 5000 4000 131.5 465 5370 190.0 528 600 A550 5500 5000 4000 131.5 465 5370 190.0 528 600 A550 5500 5000 4000 131.5 465 5370 190.0 528 600 A550 5500 5000 4000 131.5 465 5370 190.0 528 600 A550 5500 5000 4000 131.5 465 5370 190.0 528 600 A550 5500 5000 4000 131.5 505 585 5850 235.0 584 666 600 A550 5500 5000 4000 131.5 505 585 5850 235.0 584 666 600 A550 5500 5000 4000 131.5 505 580 6720 275.0 680 670 7400 A760 7000 7000 5600 167.0 580 6720 275.0 680 7600 A760 7500 6000 180.0 600 7200 270.0 722 7900 A760 7500 6000 180.0 600 7200 270.0 722 7900 A760 7500 6000 180.0 600 7200 275.0 680 6700 A760 7500 6000 180.0 600 7200 270.0 720 770 770 9270 345.0 900 9100	A165	1650	1320	39.4	135	1800	75.0	168			
\$\begin{array}{c c c c c c c c c c c c c c c c c c c	180	1800	1440	43.0	145	1750	61.0				
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A200 2000 1600 47.8 160 1960 83.0 206 2800 228 2260 1800 53.8 180 2190 89.0 230 3190 250 2500 2000 59.7 200 2430 94.0 262 3372 278 2780 2200 65.7 220 2670 100.0 273 35 20 300 3000 3000 2400 71.8 240 2920 106.0 286 3740 328 3250 2800 83.6 285 3400 111.0 318 3935 380 3500 2800 83.6 285 3400 118.0 340 4180 375 3750 3000 89.6 305 3650 122.0 362 4460 400 4000 3200 95.8 325 3800 127.0 383 482 4400 4000 3200 95	200	2000	1600	47.8	160	1950	66.0		2650		
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428 4250 3400 101.5 345 4140 133.0 406 4840 450 4500 3600 107.5 366 4380 139.0 428 5060 A450 4500 3600 107.5 365 4380 180.0 440 5250 476 4750 3800 113.5 385 4630 145.0 450 5280 500 5000 4000 119.5 406 4870 161.0 473 5500 A500 5000 4000 119.5 406 4870 195.0 486 5700 A500 5000 4400 131.5 445 5370 190.0 526 600 A550 5500 4400 131.5 445 5370 215.0 535 6150 A600 8000 4800 143.5 485 5860 213.0 574 8500 A600 8600 5200 155.0 <td>A400</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>390</td> <td>4800</td>	A400							390	4800		
480 4500 3600 107.5 365 4380 139.0 428 5060 A450 4500 3600 107.5 365 4380 180.0 440 5250 476 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 A550 5500 4400 131.5 445 5370 190.0 526 6000 A550 5500 4400 131.5 445 5370 215.0 535 6150 600 8000 4800 143.5 485 5850 213.0 574 8540 A600 8000 4800 143.5 485 5850 235.0 584 682 A600 8500 5200 155.0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>4840</td>									4840		
A450 4500 3600 107.5 365 4380 180.0 440 5250 476 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 850 5500 4400 131.5 445 5370 190.0 526 6000 850 5500 4400 131.5 445 5370 190.0 526 6000 850 5500 4400 131.5 445 5370 215.0 535 6150 860 8000 4800 143.5 485 5860 213.0 574 6540 A660 8500 5200 165.0 520 8250 240.0 622 69C 850 8500 5200 155.0	460					4380	139.0	428	5060		
478 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 580 5500 4400 131.5 445 5370 190.0 526 6000 A880 5500 4400 131.5 445 5370 215.0 535 6150 A880 5600 4800 143.5 485 5860 213.0 574 6540 A600 6000 4800 143.5 485 5860 213.0 574 6540 A600 6000 4800 143.5 485 5860 236.0 584 662° A600 6500 5200 155.0 520 6250 240.0 622 69C A600 6500 5200 155.0 <td>A450</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>180.0</td> <td>440</td> <td>5250</td>	A450						180.0	440	5250		
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 190.0 526 600 A850 5500 4400 131.5 445 5370 215.0 535 6150 600 8000 4800 143.5 485 5860 213.0 574 6540 A000 6000 4800 143.5 485 5860 236.0 584 862° A080 8500 5200 155.0 520 8250 236.0 584 862° A080 8500 5200 155.0 520 8250 240.0 622 89C. 850 8500 5200 155.0 520 8250 250.0 632 7100 700 7000 5600 167.0	475	4750				4630	145.0	450	5280		
580 5500 4400 131.5 445 5370 190.0 526 600 A880 5500 4400 131.5 445 5370 215.0 535 6150 600 8000 4800 143.5 485 5860 213.0 574 6510 A800 6000 4800 143.5 485 5860 236.0 584 6627 A860 8500 5200 155.0 520 6250 240.0 622 696. 680 6500 5200 155.0 520 6250 250.0 632 7100 A700 7000 5600 167.0 560 6720 255.0 670 7400 A760 7500 6000 180.0 600 7200 270.0 722 7900 760 7500 6000 180.0 600 7200 290.0 730 807 840 8400 6700 200.0	500	5000				4870	151,0	473	5500		
580 5500 4400 131.5 445 5370 190.0 526 6000 A850 5500 4400 131.5 445 5370 215.0 536 6150 600 8000 4800 143.5 485 5860 213.0 574 6500 A860 8000 4800 143.5 485 5850 236.0 584 662° A860 6500 5200 155.0 520 6250 240.0 622 69C. 650 8500 5200 155.0 520 6250 250.0 632 7100 A700 7000 5600 167.0 560 8720 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 760 7500 6000 180.0 <td>A500</td> <td>5000</td> <td>4000</td> <td>119.5</td> <td>405</td> <td>4870</td> <td>195.0</td> <td>486</td> <td>5700</td>	A500	5000	4000	119.5	405	4870	195.0	486	5700		
600 6000 4800 143.5 485 5860 213.0 574 6540 A600 6000 4800 143.5 485 5860 236.0 584 682.7 A660 6500 5200 155.0 520 6250 240.0 622 69C. 680 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 760 7500 6000 180.0 600 7200 290.0 730 807 840 8400 6700 200.0 660 7800 320.0 800 8500 940 9400 7500 225.0	560	5500	4400		445	5370	190.0	526	6000		
600 6000 4800 143.5 485 5860 213.0 574 6540 A600 6000 4800 143.5 485 5850 236.0 584 662.1 A650 8500 5200 155.0 520 6250 240.0 622 696. 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 180.0 800 7200 270.0 722 7900 760 7500 6000 180.0 800 7200 290.0 730 807 840 8400 6700 200.0 660 7800 320.0 800 8500 940 9400 7500 225.0	A550	5500	4400	131.5	445	5370	215.0	535	6150		
A600 6000 4800 143.5 485 5850 236.0 584 662° A660 6500 5200 155.0 520 6250 240.0 622 69C 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 780 7500 6000 180.0 600 7200 290.0 730 807 840 8400 6700 200.0 650 7800 320.0 800 8500 940 9400 7500 225.0 770 9270 346.0 900 9100	600	6000	4800		485	5860	213.0	574	6500		
680 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 760 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 9270 346.0 900 9100		6000	4800	143.5		5850	236.0	584	662		
680 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 760 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 9270 346.0 900 9100	A660	6500	5200	155.0	520	6250	240.0	622	69C _ `		
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 760 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 9270 346.0 900 9100	650	6500		155.0			250.0	632	7100		
700 7000 5600 167.0 560 6720 275.0 680 7600 A750 7500 8000 180.0 800 7200 270.0 722 7900 760 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 9270 346.0 900 9100		7000							7400		
A750 7500 6000 180.0 600 7200 270.0 722 7900 760 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 9270 346.0 900 9100	700	7000	5600					680	7600		
780 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 9270 346.0 900 9100		7500							7900		
840 8400 6700 200.0 650 7800 320.0 800 8500 940 9400 7500 225.0 770 9270 346.0 900 9100	760	7500							8075		
940 9400 7500 225.0 770 9270 345.0 900 9100	840	8400	6700	200.0	650				8500		
	940	9400	7500						9100		
<u> </u>	1060	10500	8400	250.0	810	9740	370.0	1000	9750		

BEST AVAILABLE COPY

WATER-ATMOSPHERIC GAS



"B" Dimension	Blow Down Size
26	1
32	1-1/4
42	1-1/2
51 & Jarger	2

2-1/2

						DIMENSIONS							NOTE: Over 4" all dimensions are flanged				
MODEL	- A	8	C	D.	E	F	G	н		L	N	0	P				
48	40	26	48	9	31	0	26	32	2-1/2	2	10	10	1				
55	45	26	48	10	32		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	2-6/8	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	2-6/8	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		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				
A 165	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	2-6/8	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	86	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				
360	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				
Ā400	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					
450	127	42	57	2-20		28	26	114			16	24	2				
A450	87	63	63	24		- 48	28		3-1/2	4 24	14	24	2				
475	133	42	<u> 57</u>	2-20	—-₹—	30	28 26	<u>65</u> 120	4-3/4 3-1/2	2-4	16	24	2				
500	139	42	57 57	2.20		31	26		3-1/2	4	16	24	2				
A500	95	63	63	26	—₹—	31	<u> 26</u> 28	126 72	4-3/4	2-4	14	24	2				
550	109	51	<u>62</u>	2-20	—-ե	23				4		28	2				
A550	102	63	63		o_		<u>26</u>	<u>96</u>	3-1,2		16	28	2				
600	118	<u>53</u> 51	62	26	—-55—	<u>0</u>	28	80	4-3/4	2-4	14	28	2				
A600	109	63	63	2-22	ــــــــــــــــــــــــــــــــــــــ	25	26	105	3-1/2	4	16	28	2				
A650	129			2-20	 ₹	23	28	85	4-3/4	2-4	14						
650	117	51	62	2-22	<u>—</u> -à—	28	28	114	4	5	16	28	2 2				
A700	138	<u>63</u> 51	63 62	2-22	—_ల_	24	28	92	4-3/4	2-4	14	<u>28</u> 28	2				
700	124	<u>51</u>		2-22	—≝—	30	<u>26</u>	123	4	5	16		2				
	147		<u>63</u>	2-22	—— <u>~</u>	26	28	100	4-3/4	2-4	14	28					
A750		51	62	2-24	—-ह−	32	26	132	4	5	16	<u> 28</u>	2				
750	132	<u>63</u>	63	2-24	——≅—	28	28	108	4-3/4	2-4	14	28	2 1/2				
840	115	77	63	2-24		23	27	87	5	2-5	14	28	2-1/2				
940 1050	128		63	2-24		26	27	100	<u>5</u>	2-5	14	<u>28</u>	2-1/2				
	140	77	63	2-26		29	27	111	<u>. 5</u>	2-5	14	<u> 28</u>	2-1/2				
1150	152	77	63	2-26		32	27	123	5	2-5	14 _	28	2-1/2				

2-26

1250

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM GOVERNOR

VICTORIA J. TSCHINKEL SECRETARY

		TO ROLL	
	APPLICATION TO OPERATE/	CONSTRUCT AIR POLLUT	ION SOURCES
SOURCE TYPE. Na	atural Gas Fired Water H	eater [x] New1 [] 1	Existing
APPLICATION TYPE:	[X] Construction []	Operation [] Modif	ication
COMPANY NAME: W	alt Disney World Co.		COUNTY: Orange
Identify the speci	fic emission point sour	ce(s) addressed in th	is application (i.e. Lime
Kiln No. 4 with Ve	nturi Scrubber; Peaking	Unit No. 2, Gas Fire	North Wave Pool Heater
SOURCE LOCATION:	Street Buena Vista Dr	ive	City Lake Buena Vista
	UTM: East 448193	Nor	sh3137578
;	Latitude 28 21	55 "N Long	gitude 81 31 39 W
APPLICANT NAME AND	TITLE: Walt Disney Wo	orld Co.	
APPLICANT ADDRESS:	P. O. Box 10,000, Lake	Buena Vista, Florida	32830
	SECTION I: STATEMENT	rs by applicant and i	Ingineer
A. APPLICANT			
I am the under	signed owner or authoria	ed representative* o	Walt Disney World Co.
permit are true I agree to ma facilities in Statutes, and a also understand	intain and operate the such a manner as to co all the rules and regula I that a permit, if gra	to the best of my kr pollution control mply with the provi tions of the departmented by the department	construction nowledge and belief. Further, source and pollution control sion of Chapter 403, Florida ent and revisions thereof. I ent, will be non-transferable gal transfer of the permitted
*Attach letter of a	uthorizatioa	Signed:	lamo
		Lauren H. James, Din	., Lake Buena Vista Communities e (Please Type) Inc
		Date: 10/21/88 Te	lephone No. (407) 934-7256
B. PROFESSIONAL EN	GINEER REGISTERED IN FL	ORIDA (where require	d by Chapter 471, F.S.)
been designed/eprinciples appl	examined by me and fou icable to the treatment	nd to be in conform	ollution control project have mity with modern engineering llutants characterized in the professional judgment, that

1 See Florida Administrative Code Rule 17-2.100(57) and (104)

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pollution sources.	Signed Thomas W. Duvis
50,00	Thomas W. Davis
70	Name (Please Typs)
MIN MC TO	Hunter/Environmental Science and Engineering
77.16	Company Name (Please Type)
VEF BUILDING	P. O. Box 1703, Gainesville, FL 32602
ar Tare T.	Mailing Address (Please Type)
ide Registration No	36777 Dete: 10 13 88 Telephone No. (904)332-3318
3	SECTION II: GENERAL PROJECT INFORMATION
	water boiler (Rite Boiler Model 200) to provide hot water to t
Typhoon Lagoon Wave Poo	ol. The boiler will be natural gas fired. No pollution contr
equipment will be insta	vered in this application (Construction Permit Application On
equipment will be insta	alled.
equipment will be instance Schedule of project co Start of Construction Costs of pollution confor individual components Information on actual	vered in this application (Construction Permit Application On
equipment will be instance Schedule of project co Start of Construction Coats of pollution confor individual component	vered in this application (Construction Permit Application On February 1989 Completion of Construction May 1989 trol system(s): (Note: Show breekdown of estimated costs on nts/units of the project serving pollution control purposes.
equipment will be instanced of project construction Costs of pollution confor individual components information on actual permit.)	vered in this application (Construction Permit Application On February 1989 Completion of Construction May 1989 trol system(s): (Note: Show breekdown of estimated costs on nts/units of the project serving pollution control purposes.
equipment will be instanced of project construction Costs of pollution confor individual components information on actual permit.)	vered in this application (Construction Permit Application On February 1989 Completion of Construction May 1989 trol system(s): (Note: Show breekdown of estimated costs on nts/units of the project serving pollution control purposes.
equipment will be instanced of project construction Costs of pollution confor individual components information on actual permit.)	vered in this application (Construction Permit Application On February 1989 Completion of Construction May 1989 trol system(s): (Note: Show breekdown of estimated costs on nts/units of the project serving pollution control purposes.
equipment will be instanced of project construction Costs of pollution confor individual components information on actual permit.)	vered in this application (Construction Permit Application On February 1989 Completion of Construction May 1989 trol system(s): (Note: Show breekdown of estimated costs on nts/units of the project serving pollution control purposes.
equipment will be instanced of project construction Costs of pollution confor individual components information on actual permit.)	vered in this application (Construction Permit Application On February 1989 Completion of Construction May 1989 trol system(s): (Note: Show breekdown of estimated costs on nts/units of the project serving pollution control purposes.
equipment will be instance of project constant of Construction Costs of pollution confor individual component information on actual permit.) None	vered in this application (Construction Permit Application On February 1989 Completion of Construction May 1989 trol system(s): (Note: Show breakdown of estimated costs on nts/units of the project serving pollution control purposes. coets shall be furnished with the application for operation
equipment will be instance of project constant of Construction Costs of pollution confor individual component information on actual permit.) None	vered in this application (Construction Permit Application On February 1989 Completion of Construction May 1989 trol system(s): (Note: Show breakdown of estimated costs on nts/units of the project serving pollution control purposes. coets shall be furnished with the application for operation

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c.

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_		
	f this is a new source or major modification, enswer the following quest	ione.
1.	. Is this source in a non-attainment aree for a particular pollutant?	NO
	e. If yes, has "offset" been applied?	·
	b. If yes, has "Lowest Achievable Emission Rate" been applied?	
	c. If yes, list non-ettainment pollutants.	
2 .	. Does best available control technology (BACT) apply to this source? If yea, see Section VI.	NO
3.	Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yea, see Sections VI and VII.	NO
١.	Do "Standards of Performance for New Stationary Sources" (NSPS) spply to this source?	NO
3.	Oo "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?	NO
	"Ressonably Available Control Technology" (RACT) requirements apply this source?	NO
	a. If yes, for what pollutants?	

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

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

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

	Contam	inents	Utilization			
Description	Тура	\$ Wt	Rate - lbe/hr	Relate to Flow Diagram		
N/A						
	·					

8.	Process	Rate.	if	applicables	(See	Section V.	. Itam	1)	

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

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

Nese of	¹ noieeim3		Allowed ² Emission Rate per	Allowable ³	Poten: Emis		Relate to Flow
Contaminant	Mexicus lbs/hr	Actual T/yr	Rule 17-2	lbe/hr	lbs/yr	T/yr	Diagram
S0 ₂	0.001	0.005			0.001	0.005	
РМ	0.010	0.044			0.010	0.044	
NO _x	0.200	0.876		- <u></u>	0.200	0.876	
CO	0.040	0.175			0.040	0.175	
VOC	0.011	0.046			0.011	0.046	

¹⁵ee Section V, Item 2. See Tables 1 and 2 for calculation detail.

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

²Reference 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)

³Calculated from operating rate and applicable atandard.

AEmission, if source operated without control (See Section V, Item 3).

Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminent	Erri	ciency	. Size (in	of Particles Collected microns) pplicable)	Beeis for Efficiency (Section \ Item 5)
None						
·						
·.					· · · · · · · · · · · · · · · · · · ·	
	·					
. Fuels	•	• .				
Tura (Da Caraidia)		Consumo	tion*		Maniana	Nach Tasub
Type (Be Specific)	avg/hr		-8			Heat Input BTU/hr)
Natural Gas	2,000 ft ³ /	hr	2,000 ft	³ /hr	2,000,000 Bt	u/hr
Units: Natural GasMMC	F/hr; Fuel Gils-	gello	na/he; Co	oel,'wood	, refuse, othe	rlbs/hr.
uel Analysis:						
ercent Sulfur:			Percent	Ash:	· · ·	
ensity:	11	os/gal	Typical	Percent !	Nitrogen:	
eat Capacity:		3TU/15				BTU/ga
ther Fuel Contaminants	(which may cause	air po	ollution)	:		
. If applicable, indica	ete the percent	of fuel	used fo	r space !	neating.	
nnual Average0	<u>% · · · </u>	Нех	cisus	0%		
. Indicate liquid or ac	olid waatea gene	rated a	ind metho	d of disp	oosal.	

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		-			ics (Provide			
					tack Diamete es Exit Temp			
					elocity:	-		 F:
-acer vapor	Concents						٠.	
NO	T APPLICABL		ION IA:	INCINERAT	DR INFORMATI	GN		
Type of waste	Type G (Plastics)				Type IV (Patholog- ical)	Type V (Liq.& Gas By-prod.)	Type V (Salid By-	
Actual lb/hr Inciner- ated		,						
Uncon- trolled (lbe/hr)								
lanu facture	r				day/	· · · · · · · · · · · · · · · · · · ·		
		Valume (ft) ³	Heat Re		Fuel Type	8TU/hr	Temperatu (*F)	61
Primary Ch								
		rt. S	tack Diam	nter:		Stack T	• • ••••••••••••••••••••••••••••••••••	
					DSCFH+			
olf 50 or m		r day desi	gn capaci	ity, aubai	t the emiss			
Type of pol	lution cont	rol device	: [] c ₁	velone [] Wet Scrub	ber [] Af	terburner	
			[]0	ther (spec	ify)			
ER Form 17 Effective N	-1.202(1) ovember 30,	, 1982	ı	Page 6 of	12			

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					•	•		•	
ltimate dispo- sh. etc.):	sal of	any efflu	ent other	r than that	emitted	from th	e stack	(ac rubber	wate
ltimate dispossh, etc.):	sal of	any efflu	ent other	r than that	emitted	from th	e stack	(scrubber	wate
	sal of	any efflu	ent other	r than that	emitted .	from th	e stack	(scrubber	wate

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 air-borne 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 $1/2^m \times 11^m$ plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

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7.		pplication fee in a he Department of Env		ca with Rule 17-4.05. Ital Regulation.	The check shoul	d be
10.				sttach a Certificate of constructed as shown		
Α.	NOT APPLICABLE Are standards of applicable to the	performance for new		E CONTROL TECHNOLOGY	to 40 C.F.R. Par	t 60
	[] Yes [] No					
	Cont	eminent		Rete or Cond	entration	
						
В.	Has EPA declared yes, attach copy)	the best available	control	technology for this	class of sources	<u> </u>
•	[] Yes [] No					
	Contai	inant _.		Rate or Cond	entration	
						
				· · · · · · · · · · · · · · · · · · ·		·
Ç.	What emission leve	ls do you propose a	s best	available control tech	inology?	
		minent		Rata or Conc	entration	
						
						_
٥.	Describe the exist	ing control and tre	atment	technology (if eny).		
	1. Control Device	/System:	2.	Operating Principles	:	
	3. Efficiency:		A .	Canital Costs:		

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*Explain method of determining

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5. Useful Life: Overating Costs: 7. Maintenance Cost: Energy: 9. Emissions: Rate or Concentration Contaminant Stack Parameters ft. a. Height: ft. b. Diameter: OF. Flow Rate: ACFM d. Temperature: Velocity: FPS Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary). Control Device: Operating Principles: **b**. Efficiency: 1 Capital Cost: Useful Life: Operating Cost: Energy: 2 h. Maintenance Cost: Availability of construction materials and process chemicals: Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 2. Control Device: Operating Principles: **b**. Efficiency: 1 c. Capital Cost: Useful Life: :teo3 pnitsreq0 g. Energy: 2 Maintenance Cost: Availability of construction materials and process chemicals: 1 Explain method of determining efficiency. ²Energy to be reported in units of electrical power - KWH design rate. DER Form 17-1.202(1)

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Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 3. Operating Principles: Control Device: Efficiency: 1 Capital Cost: Useful Life: Operating Cost: Energy: 2 Maintenance Cost: g. Availability of construction materials and process chemicals: i. Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 4. Operating Principles: Control Device: Efficiency: 1 d. Capital Costs: Useful Life: Operating Cost: Energy: 2 h. Maintenance Cost: Availability of construction materials and process chemicals: Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: Describe the control technology selected: 2. Efficiency: 1 ı. Control Device: Capital Cost: Useful Life: Energy: 2 Operating Cost: 7/. Maintenance Cost: Manufacturer: Other locations where employed on similar processes: (1) Company: ₿. (2) Mailing Address: (3) City: (4) State: Examplain method of determining efficiency. 2 Energy to be reported in units of electrical power - KWH design rate. DER Form 17-1.202(1) Effective November 30, 1982 Page 10 of 12

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(5) Environmental Manager:	·
(6) Telephone No.:	
(7) Emissions: ¹	
Conteminant	Rate or Concentration
(8) Process Rate: 1	
b. (1) Company:	
(2) Mailing Address:	
(3) City:	(4) State:
(5) Environmental Manager:	•
(6) Telephone No.:	·
(7) Emissions: 1	
Contaminant	Rate or Concentration
	·
·	
·	
(8) Process Rate: 1	
10. Reason for selection and descr	ription of systems:
available, applicant must state the re	ion when available. Should this information not beason(s) why.
earled or Henricoring aont	th day year month day year
Other data recorded	
Attach all data or statistical summ	earies to this application.
Specify bubbler (B) or continuous (C).	
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)	•.	Wes	inetr	umenta	tion EP	A refe	renced	orits	equiv	alent?	[]	Yes	[]	No .	
i	b.	Was	instr	umenta	ion ce	libre	ted in	accorda	nce wi	th Dep	artme	nt p	rocedu	res?	
l		[]	Yes	[] No	[] U	nknowr	1			•					
В.	Met	eorol	ogica	l Data	Used f	or Ais	Quali	ty Mode	ling						
	1.		_ Yea:	r(s) o	dete	from	/ lonth	/ day ye	er to	aonth	/ day	/ yea	r ·		
	2.	Surf	ace di	ata obi	benia:	from (locati	on)							
1	3.	Uppe	r air	(mixim	g heigi	nt) da	ta obt	benia	rom (1	ocatio	n)	•			
	4.	Stab	ility	wind :	ose (Si	TAR) d	iata ob	tained	from (locati	on)				
c.	Comp	puter	Mode:	ls Used	ı										
	1.								Mod	ified?	If	yes,	attaci	n desc	ription.
ı	2.								Mod	ified?	If	yes,	attaci	n desc	ription.
	3.								Mod	ified?	If	yes,	attact	n desc	riptian.
ì	4.								Mod	ified?	If	yes,	attaci	n desc	ription.
			•	of all		model	tuns	showing	input	data,	rece	ptor	locati	ions,	and prin-
٥.	App1	lican	ts Max	cimum A	llowabi	e Emi	ssion	Data							
	Poli	lutan	t			Em i	noise	Rate							
	1	TSP								gr	ams/s	e c			
	S	so ²								gr	ems/s	e C			
٤.	Emis	ssion	Data	Used i	n Model	ing									
	poin	nt so	srce (S paint										iption of missions,
۶.	Atta	ach a	ll oth	er inf	ormatio	n sup	portiv	e to th	e PSD 1	eview.	•				
G.	ble	tech	nolog	ies (i	.e., j	obs,	payrol		duction	ı, tax					applica- Include
і _{н.} І	nals	, and	i othe	r comp	etent r	eleva	nt info	echnica ormatio echnolo	n desci	rial, ribing	repo the	rts, theor	publi y and	cation	s, jour- cation of
ł															
i															

2. Instrumentation, Field and Laboratory

Table 1. Summary of Emissions from Water Heating Facilities at Typhoon Lagoon

				Emissions (TPY)						
Source	Identification Number	Rate (cfh)	so ₂	PM	NO _x .	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_X - nitrogen oxides PM - particulate matter

SO₂ - 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 ⁶ ft ³
Particulate Matter	$5.0 lb/10^6 ft^3$
Nitrogen Oxides	$100 \text{ lb/}10^6 \text{ ft}^3$
Carbon Monoxide	$20 \text{ lb/}10^6 \text{ ft}^3$
Volatile Organic Compounds	$5.3 1b/10^6 ft^3$

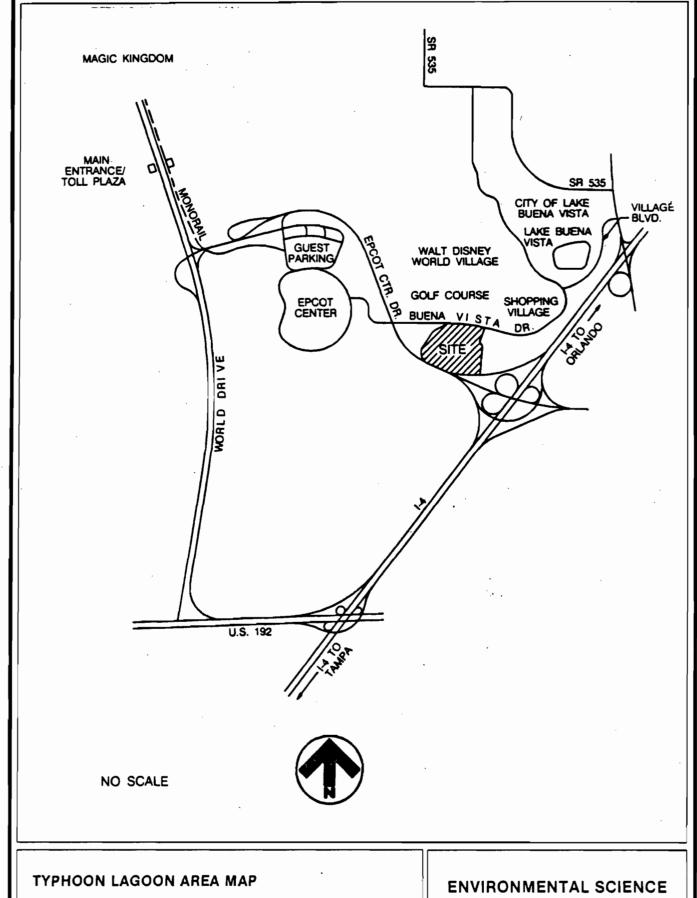
Note: ft³ - cubic feet.

Source: U. S. Environmental Protection Agency, 1986.

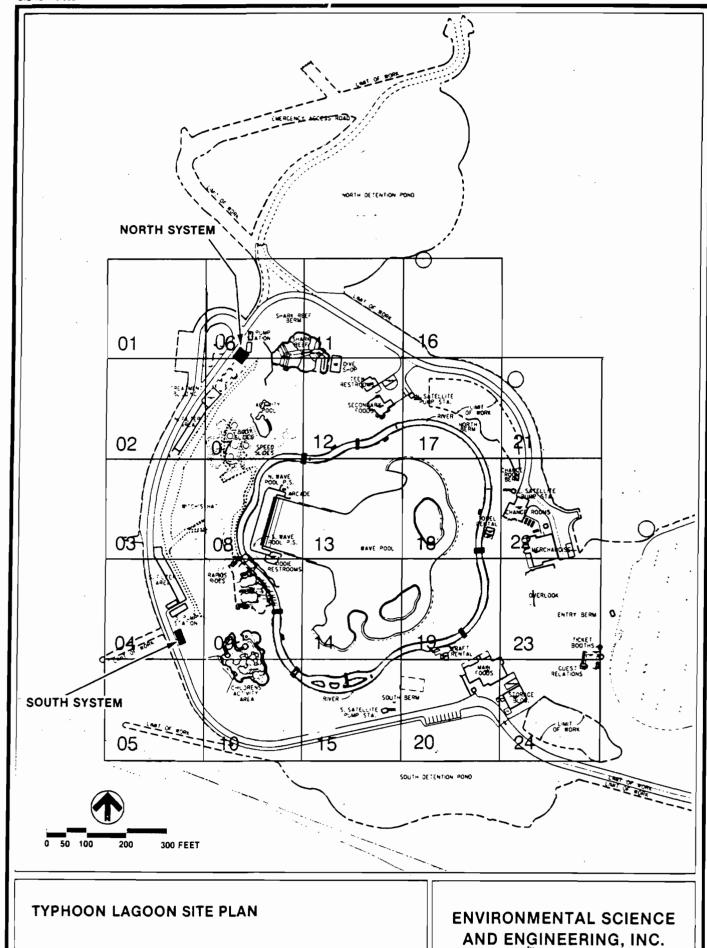
Compilation of Air Pollutant Emission Factors, Volume I:

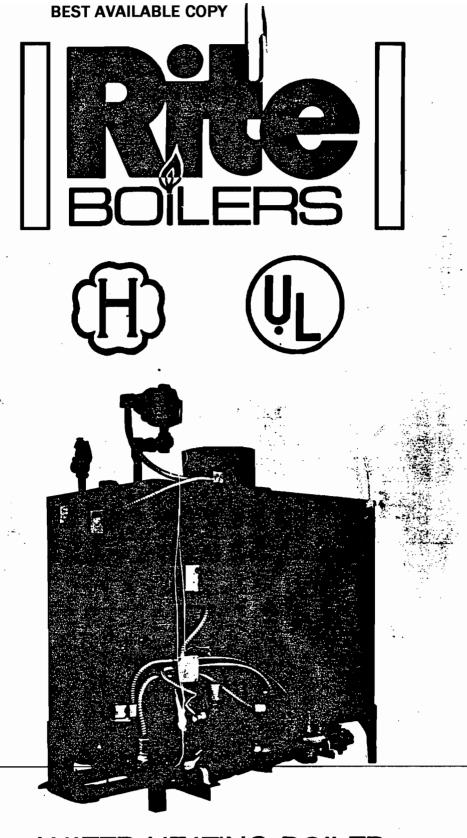
Stationary Point and Area Sources, with Supplement A. Research

Triangle Park, North Carolina.



ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.





A.I.A. File No. 20-C-1 A.I.A. File No. 29-D-2

WATER HEATING BOILER LOW PRESSURE ATMOSPHERIC NATURAL GAS FIRED

RITE ENGINEERING & MANUFACTURING CORPORATION
9441 WASHBURN ROAD / DOWNEY / CALIFORNIA 90242
TELEPHONE (212) 952 2125

BEST AVAILABLE COPY

RITE BOILERS-U.LI. 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)
- **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)

OPTION EQUIPMENT (EXTRA COST)

FLUE GAS THERM.

HAND HOLES

 GAS STRAINER LEAK TEST COCK

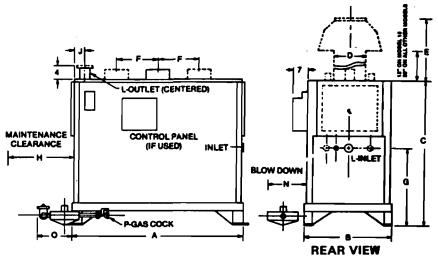
- EXTERNAL HEAT EXCHANGER MOUNTED ON **BOILER W/PUMP AND TEMP. CONTROLLER**
- EO3 SYSTEM (ELECTRONIC CONTINUOUS PILOT, AUTOMATIC RELIGHT, 100% SHUT OFF) RECOMMENDED FOR HEAVY GASES
- RITE LITE PANEL
- TATTLE TALE PANEL
- STACK SUPPORT
- MODULATION
- **COPPER TUBES**
- 125 PSI
- HINGED HEAD PLATES OR DAVITS
- **INSULATED HEAD PLATES**
- ANODES
- **EXPANSION TANKS**

ENEDAL DATA

			GE	NERAL D	AIA	<u></u>		
MODEL	Input BTU/HR x1000	Output BTU/HR x1000	H.P.	G.P.M. 20° F Riss	G.P.H. 100° F Rise	Gallons	Surface Heating Sq. Ft.	Shipping Wt.
48	480	384	11,5	38	465	20.5	49	1060
55	550	440	13.2	44	536	22.3	56	1260
63	630	506	15.1	51.	615	24.0	63	1360
76	760	608	18.2	61	740	27.0	76	1500
A90	900	720	21.5	72	876	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	28.6	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	146	2220
A150	1500	1200	35.8	120	1460	71.0	160	23/30
168	1650	1320	39.4	135	1600	57.0	159	23/50
A165	1650	1320	39.4	136	1600	75.0	168	2500
180	1800	1440	43.0	145	1750	61.0	174	2460
A180	1800	1440	43.0	146	1750	79.0	190	2680
200	2000	1600	47.8	160	1950	66.0	192	2650
A200	2000	1600	47.8	160	1960	83.0	206	2500
225	2250	1800	53.8	180	2190	89.0	230	3100
250	2500	2000	59.7	200	2430	94.0	252	3374
275	2750·	2200	65.7	220	2670	100.0	273	35 20 (8)
300	3000	2400	71.8	240	2920	105.0	296	3740
325	3250	2600	77.7	265	3160	111.0	318	39:0
360	3500	2800	83.6	285	3400	116.0	340	41/30
375	3750				3660	122.0	362	4400
400	4000	3000	89.6	306	3900	127.0	383	4620
A400	4000	3200	95.6	325				4800
425	4250	3200	95.6	325	3900	160.0	390 405	4840
450	4500	3400	101.5	345	4140	133.0		5060
A450		3600	107.5	365	4380	139.0	428	5250
475	4500 4750	3600	107.5	366	4380	180.0	440	5280
500		3800	113.5	385	4630	145.0	450	
A500	5000 5000	4000	119,5	406	4870	151.0	473	5500
550		4000	119.5	405	4870	195,0	486	5700
A560	5500	4400	131.5	445	5370	190.0	526	6000
600	5500	4400	131.5	445	5370	215.0	535	6150
	6000	4800	143.5	485	5850	213.0	574	65(10
A600 A660	6000	4800	143,5	485	5850	235.0	584	662
650	8500	5200	155.0	520	6250	240.0	622	69C ~
	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
760	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 _	9270	345.0	900	9100
1060	10500	8400	260.0	810	9740	370.0	1000	9750

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WATER-ATMOSPHERIC GAS



"B" Dimension	Blow Down Size
26	1
32 ·	1-1/4
42	1-1/2
51 & larger	2

					· Di	MEN	SIONS	5		NOTE	: Over 4"	all dimens	ions are flang
MODEL	. 🗚	В	, c	D	E	F	G	н	J	L	N .	0	. P
48	40	26	48	9	31		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	Ō	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	Ō	26	54	2-5/8	3	12	18	1-1/4
150	70	32	52	16	38	<u> </u>	26	60	2-5/8	3	12	18	1-1/2
A150	55	42	57	16	38	Ŏ	26	42	3-1/2	4	14	20	1-1/2
165	78	32	52	16	38	Ö	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	57 52	2-12	36	20	26	80		3 .	12	18	1-1/2
A200	69	42	57						2-6/8				
				2-14	36	15	26	56	3-1/2	4	14	20	2
225	73	42	57	2-14	36	15	26	<u>80</u>	3-1/2	4	16	24	2
250	79	42	57	2-14	36	16	26		3-1/2	4	16	24	2
275	85	42	57_	2-16	38	18	26	<u>72</u>	3-1/2		16	24	2
300	91	42	57	2-16	38	19	26	<u>78</u>	3-1/2	4	16	24	2-1/2
325	<u>97</u>	42	57	2-16	38	21	26	84	3-1/2	4	16	24	2-1/2
360	103	42	<u>57</u>	2-18	40	23	<u> 26</u>	90	3-1/2	4	1 <u>6</u>	24	2-1/2
375	109	42	57	2-18	40	24	26	96	3-1/2	4	16	24	2-1 <i>[</i> 2
400	115	42	57	2-18		25	26	102	3-1/2	4	16	24	2
Ā400	79	63	63	22		0	28	55	4-3/4	2-4	14	24	2
	121	42	- 57	2-18		27	-28	108	3-1/2	4	18	24	2
450	127	42	57	2-20		28	26	114	3-1/2	4	16	24	2
A450	87	63	63	24	Œ	Ö	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	<u>¥</u> _	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	—-ც—	23	26	96	3-1/2	4	10	28	2
A550	102	63	63	26	<u>s</u>	0	28	80	4-3/4	2-4	14	28	2
600	118	51	62	2-22	<u>——</u> ш	25	26	106	3-1/2	4	16	28	2
A600	109	63	63	2-20		23		85	4-3/4	2-4	14	28	2
A650	129	<u>51</u>	62	2-20		28	26	114	4	5	16	28	2
650	117	63	63		<u> </u>	24						28	2
A700	138	<u>53</u> 51	<u>63</u>	2-22	<u>——º</u>	30	28	92	4-3/4	2-4	14	28	2
700	124	63	63	2-22 2-22	<u>-</u> -	<u> 30</u> 26	<u>26</u>	123	4 2/4	5	16	<u>28</u> 28	2
A750	147				—— <u>—</u> —		28	100	4-3/4	2-4	14		2
		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	
840	115	77	63	2-24		23	27	87		2-5	14	28	2-1/2
940	128	77	<u>63</u>	2-24		26	27	100	5	2-5	14	28	2-1/2
1050	140	77	63	2-26		29	27	111	- 5	2-6	14	28	2-1/2
1150 1250	152		63	2-26		32	27	123	5	2-5	14	28	2-1/2
	164	77	63	2-26		35	27	135	5	2-6	14	28	2-1/2

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



SOS GRAHAM GOVERNOR VICTORIA J. TSCHINKEL SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Natural Gas Fired Water	Heater [X] New [] Existing !
APPLICATION TYPE: [X] Construction []	Operation [] Modification
COMPANY NAME: Walt Disney World Co.	COUNTY: Orange
Identify the specific emission point sou	rce(s) addressed in this application (i.e. Lime
Kila No. 4 with Venturi Scrubber; Peakin	g Unit No. 2, Gas Fired) South Wave Pool Heater
SOURCE LOCATION: Street Buena Vista D	rive 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, Lak	e Buena Vista, Florida 32830
SECTION I: STATEME	HTS BY APPLICANT AND ENGINEER
A. APPLICANT	
I am the undersigned owner or author	ized representative* of Walt Disney World Co.
permit are true, correct and complet I agree to maintain and operate the facilities in such a manner as to statutes, and all the rules and regulated understand that a permit, if great the such as th	this application for a construction e to the best of my knowledge and belief. Further, e pollution control source and pollution control comply with the provision of Chapter 403, Florida lations of the department and revisions thereof. I ranted by the department, will be non-transferable tment upon sale or legal transfer of the permitted
*Attach letter of authorization	Signed: R.H. Dime
	Lauren H. James, Dir., Lake Buena Vista Communities Name and Title (Please Type) Date: 10/21/88 Telephone No. (407)934-7256
B BROTTOG TOWN THE BUILDING BY	
	TLORIDA (where required by Chapter 471, P.S.)
been designed/examined by me and for principles applicable to the treatment	ing features of this pollution control project have bund to be in conformity with modern engineering at and disposal of pollutants characterized in the table assurance, in my professional judgment, that
1 See Florida Administrative Code Rule 17	7-2.100(57) and (104)
DER Form 17-1.202(1) Effective October 31, 1982	·

www.new	Signed Thomas W. Duvis
37.59 300 1	Thomas W. Davis
7000	
	Hunter/Environmental Science and Engineering Company Name (Please Type)
2000	P. O. Box 1703, Gainesville, FL 32602
SER	Meiling Address (Please Type)
ide Registration No. 3677	77 Dete: 10 13/88 Telephone No. (904)332-3318
SECTI	ON II: GENERAL PROJECT INFORMATION
Describe the seture and an	tent of the project. Refer to pollution control equipment
necessary. Installation of a hot water	boiler (Rite Boiler Model 200) to provide hot water to
the Typhoon Lagoon Wave Poc	ol. The boiler will be natural gas fired. No pollution
control equipment will be i	installed.
control equipment will be i	installed. I in this application (Construction Permit Application Onl
control equipment will be i Schedule of project covered Start of ConstructionFeb	installed. I in this application (Construction Permit Application Onloruary 1989 Completion of Construction May 1989
control equipment will be in the control equipment will be in the control of project covered by the control of a control o	installed. I in this application (Construction Permit Application Onloruary 1989 Completion of Construction May 1989
control equipment will be in Schedule of project covered Start of Construction Feb. Costs of pollution control for individual components/	installed. In this application (Construction Permit Application Onloruary 1989 Completion of Construction May 1989 system(s): (Note: Show breakdown of estimated costs onlounits of the project serving pollution control purposes.
control equipment will be in Schedule of project covered Start of Construction Feb Costs of pollution control for individual components/of Information on actual costs permit.)	installed. In this application (Construction Permit Application Onloruary 1989 Completion of Construction May 1989 system(s): (Note: Show breakdown of estimated costs onlounits of the project serving pollution control purposes.
control equipment will be in Schedule of project covered Start of Construction Feb Costs of pollution control for individual components/of Information on actual costs permit.)	installed. In this application (Construction Permit Application Onloruary 1989 Completion of Construction May 1989 system(s): (Note: Show breakdown of estimated costs onlouits of the project serving pollution control purposes.
control equipment will be in Schedule of project covered Start of Construction Feb Costs of pollution control for individual components/of Information on actual costs permit.)	installed. In this application (Construction Permit Application Onloruary 1989 Completion of Construction May 1989 system(s): (Note: Show breakdown of estimated costs onlounits of the project serving pollution control purposes.
control equipment will be in Schedule of project covered Start of Construction Feb. Costs of pollution control for individual components/conformation on actual costs permit.)	installed. In this application (Construction Permit Application Onloruary 1989 Completion of Construction May 1989 system(s): (Note: Show breakdown of estimated costs onlounits of the project serving pollution control purposes.
control equipment will be in Schedule of project covered Start of Construction Feb. Costs of pollution control for individual components/sinformation on actual costs permit.) None	installed. In this application (Construction Permit Application Onloruary 1989 Completion of Construction May 1989 system(s): (Note: Show breakdown of estimated costs onlouits of the project serving pollution control purposes.
control equipment will be in Schedule of project covered Start of Construction Feb. Costs of pollution control for individual components/of information on actual costs permit.) None Indicate any previous DER p	installed. In this application (Construction Permit Application Oncornary 1989 Completion of Construction May 1989 system(s): (Note: Show breakdown of estimated costs on anits of the project serving pollution control purposes. shall be furnished with the application for operation

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_		
	this is a new source or eajor endification, enswer the following quest	ions.
ı .	Is this source in a non-ettainment area for a perticular pollutant?	NO
	a. If yes, hae "offset" been applied?	
	b. If yee, hes "Lowest Achievable Emission Rate" been applied?	
	c. If yes, list non-ettainment pollutants.	
2.	Oces best evailable control technology (BACT) apply to this source? If yes, see Section VI.	NO
3.	Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII.	NO
١.	Do "Standarde of Performance for New Stationary Sources" (NSPS) apply to this source?	NO
3.	Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?	NO
	"Ressonably Aveilable Control Technology" (RACT) requirements apply this source?	МО

b. If yee, 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)

医海绵 化二十二烷

A. Raw Meterials and Chemicals Used in your Proceso, if applicables

	Contaminants		Utilization			
Description	Type	\$ Wt	Rate - lbe/hr	Relate to Flow Diagram		
N/A						
				,		

BB 8	Process	Rate,	if	applicable:	(See	Section V,	, Item	1))
------	---------	-------	----	-------------	------	------------	--------	-----	---

- E. Total Process Input Rate (lbe/hr): N/A
- Z. 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	Emiss	ion ¹	Allowed ² Emission Rate per	Allowable ³	Poten: Emis:		Relate to Flow
Comteminent	Maximum lbs/hr	Actual T/yr	Rule 17-2	lbe/hr	lbs/yr	T/yr	Diagram
so ₂	0.001	0.005			0.001	0.005	
РМ	0.010	0.044			0.010	0.044	
NO _x	0.200	0.876			0.200	0.876	
СО	0.040	0.175			0.040	0.175	
VOC	0.011	0.046			0.011	0.046	

¹ See Section V, Item 2. See Table 1 and 2 for calculation detail.

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 $[\]mathbb{Z}_{\mathbb{R}}$ efference 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)

Example and Example 2 Tender of the Standard o

Emission, if source operated without control (See Section V, Item 3).

Name and Type (Model & Serial No.)	Conteminent	Efficiency	Range of Particles Size Collected (in microne) (If applicable)		Basis for Efficiency (Section V Item 5)	
None						
	·					
. Fuels			- ,			
Type (Be Specific)		Consumption*		Maximum	N Heat Input	
Natural Gas	2,000 ft ³ /1		*./hr	2,000,000 Bt	87U/hr)	
				<u> </u>		
Units: Natural GasMMC	F/hr; Fuel Oils	gellons/hr; Co	oal, wood	d, refuse, othe	rlbs/hr.	
uel Analysis:						
ercent Sulfur:		Percent	Ash:			
ensity:	11	ba/gal Typical	Percent	Nitrogen:	•	
eat Capacity:		8TU/16		· .	87U/ga	
ther Fuel Contaminants	(which may cause	e air pollution):			
. If applicable, indic	ata the percent	of fuel used fo	or space	heating.	.	
nnual Average	0%.	_ Maximum	0%			
. Indicate liquid or s						

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					. —	1.3	
ete:	ACFH	400	_OSCFM	Gas Exit T	emperature:_	250	•ı
r Content:	N/A		\$	Velocity:	5.0	·	F1
NOT APPLIC		IOK IV:	INCINER	ATOR INFORM	ATION		
				ge) (Pathol	og- (Liq.& Ga	s (Solid By-pr	od.
		·				- ,	
) r			-				
			====	81 NO			
	Volume (ft) ³			Typa	BTU/hr	Temperature (°F)	
redma							
Chamber		1					
ıt:	ft. s	teck Dia	eter: _		Steck	Temp.	
ite:		ACFH		OSCF)	• Velocity:		F
					issions rate	in grains per	s t a
	Type G (Plastics Not APPLIC Type G (Plastics n of Waste nt Inciner Number of ructed Chamber nt: age cora tons	SECT NOT APPLICABLE Type 0 Type I (Rubbish) Type 1 (Rubbish) Type 2 (Rubbish) Type 3 (Rubbish) Type 4 (Rubbish) Type 5 (Rubbish) Type 6 (Rubbish) Type 1 (Rubbish)	SECTION IV: NOT APPLICABLE Type 0 Type I Type II (Rubbish) (Refuse) To of Waste It Incinerated (lbs/hr) Number of Hours of Operation Type II (Rubbish) (Refuse) Type II (Rubbish) (Refuse)	SECTION IV: INCINER SECTION IV: INCINER NOT APPLICABLE Type 0 Type I Type II Type (Garba (Rubbish) (Refuse) (Garba To af Waste Incinerated (lba/hr) Number of Hours of Operation per day (ft) 3 Heat Release (BTU/hr) Namber Chamber The Content: ft. Steck Diamter: Steriors tons per day design capacity, sub-	SECTION IV: INCINERATOR INFORM NOT APPLICABLE Type 0	SECTION IV: INCINERATOR INFORMATION	SECTION IV: INCINERATOR INFORMATION NOT APPLICABLE Type 0 Type I Type II Type III Type IV (Liq.& Gam (Solid By-pr ical)) (Plastics) (Rubbish) (Refuse) (Garbage) (Patholog-liq.& Gam (Solid By-pr ical)) Not Incinerated (lbm/hr)

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)	· · ·				_				 -		
									- +		
			•							·	
		of any	efflu	ent othe	r than	that em	itted	from t	ne stack	(acrubber	water
sh, etc.):	•					•				
•											
•					_		<u> </u>			· .	
					_		· ·			<u>· · · · · · · · · · · · · · · · · · · </u>	-
							· .			······································	

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.
- 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 x 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 air-borne 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 $1/2^n \times 11^n$ plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

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		•
9.	The appropriate application fee in ande payable to the Department of En	accordance with Rule 17-4.05. The check should be avironmental Regulation.
10.	With an application for operation particular struction indicating that the sour permit.	permit, attach a Certificate of Completion of Con- ce was constructed as shown in the construction
۸.	NOT APPLICABLE	AVAILABLE CONTROL TECHNOLOGY w stationary sources pursuant to 40 C.F.R. Part 60
	[] Yes [] No	
	Contaminant	Rate or Concentration
	·	
8.	Has EPA declared the best available yes, attach copy)	control technology for this class of sources (If
	[] Yes [] No	
	Contaminant	Rate or Concentration
С.	What emission levels do you propose	as best available control technology?
	Contaminant	Rate or Concentration
0.	Describe the existing control and tro	estment technology (if any).
	1. Control Device/System:	2. Operating Principles:

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4. Capital Costs:

3. Efficiency: *

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*Explain method of determining

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Useful Life: Operating Costs: 7. Energy: Maintenance Cost: 9. Emissions: Contaminant Rate or Concentration 10. Stack Parameters a. Height: ft. b. Diameter: ft. OF. Flow Rate: ACFM Temperature: Velocity: FPS Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary). 1. Control Device: b. Operating Principles: c. Efficiency: 1 Capital Cost: Useful Life: Operating Cost: Energy: 2 Maintenance Cost: Availability of construction materials and process chemicals: Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 2. Control Device: Operating Principles: Efficiency: 1 Capital Cost: Useful Life: Operating Cost: g. Energy: 2 Maintenance Cost: Availability of construction materials and process chemicals: $^{
m l}$ Explain method of determining efficiency. 2 Energy to be reported in units of electrical power - KWH design rate. DER Form 17-1.202(1) Effective November 30, 1982 Page 9 of 12

Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 3. Control Device: Operating Principles: Capital Cost: Efficiency: 1 c. Useful Life: Operating Coet: Energy: 2 Maintenance Cost: Availability of construction materials and process chemicals: Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: 4. Control Device: Operating Principles: Efficiency: 1 Capital Costs: c. Useful Life: Operating Cost: Energy: 2 Maintenance Cost: Availability of construction materials and process chemicals: Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: Describe the control technology selected: 2. Efficiency: 1 1. Control Device: Capital Coet: Useful Life: Energy: 2 Operating Cost: Maintenance Cost: Manufacturer: Other locations where employed on similar processes: a. (1) Company: (2) Mailing Address: (3) City: (4) State: ¹Explain method of determining efficiency. $^{\mathbf{Z}}$ Energy to be reported in units of electrical power - KWH design rate.

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(5) Environmental Manager:					
(6) Telephone No.:					
(7) Emissions: ¹					
Contaminant			Rate or	Concents	ation
			•		
(8) Process Rate: 1		•			
b. (1) Company:	•				
(2) Mailing Address:					
(3) City:		(4) State:			
(5) Environmental Manager:					`
(6) Telephone No.:					
(7) Emissions: ¹					
Contaminant			Rate or	Concentr	ation
	·				·
(8) Process Rate: 1					
10. Reason for selection and	d description	of systems:			
Applicant must provide this infavailable, applicant must state	formation when the reason(:	en available. 3) why.	Should	ni eidt b	formation not
NOT APPLICABLE SECTION VII -	PREVENTION O	F SIGNIFICAN	T DETERIO	DRATION	
. Company Monitored Data			_		
lno. sites	TSP_	()	_ ^{\$02} * _		_ Wind spd/dir
Period of Monitoring	month c	/ to year	month	/ / /	ar
Other data recorded					* - =
Other data recorded			ication.		
	al summaries		ication.		

and the second of the second o

a. W	es inetrument	ation EPA refere	enced or its equivalent	7 [] Yes [] No
b. , W	es inetrument	ation calibrated	d in accordance with Dep	partment procedures?
[] Yes [] N	o [] Unknown		
Meteor	rological Da.	a Used for Air Q	Quality Modeling	
1	Year(s)	of data from	/ / to much menth	day year
2. Su	urface data o	btained from (lo	ocetion)	
3. Up	per air (mix	ing height) data	obtained from (location	nn)
4. St	tability wind	rose (STAR) dat	a obtained from (locati	on)
Comput	er Models Us	ed		
1	·		Modified?	If yes, attach description.
2		_	Modified?	If yes, attach description.
3			Modified?	If yes, attach description.
4			Modified?	If yes, attach description.
		Allowable Emiss	ion Data	t.,
TSP	·		gr	ams/sec
so ²	·		gr	
Enissi	on Data Used	in Modeling		•
point	list of emis source (on Ni emal operation	EDS point number	Emission data required r), UTM coordinates, st	is source name, description of ack data, allowable emissions,
Attach	all other in	nformation suppo	rtive to the PSD review	•
ble to	echnologies	(i.e., jobs, pa		chnology versus other applica- xes, energy, etc.). Include
nals,	and other com		information describing	reports, publications, jour- the theory and application of
				•
Form 1	7-1.202(1)			-

2. Instrumentation, Field and Laboratory

Table 1. Summary of Emissions from Water Heating Facilities at Typhoon Lagoon

,				Emissions (TPY)						
Source	Identification Number	Rate (cfh)	so ₂	PM	NO _x	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_x - nitrogen oxides

PM - particulate matter

SO₂ - 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	$0.6 \text{ lb/}10^6 \text{ ft}^3$
Particulate Matter	$5.0 \text{ lb/l0}^6 \text{ ft}^3$
Nitrogen Oxides	$100 \text{ lb/}10^6 \text{ ft}^3$
Carbon Monoxide	$20 \text{ lb/}10^6 \text{ ft}^3$
Volatile Organic Compounds	5.3 lb/10 ⁶ ft ³

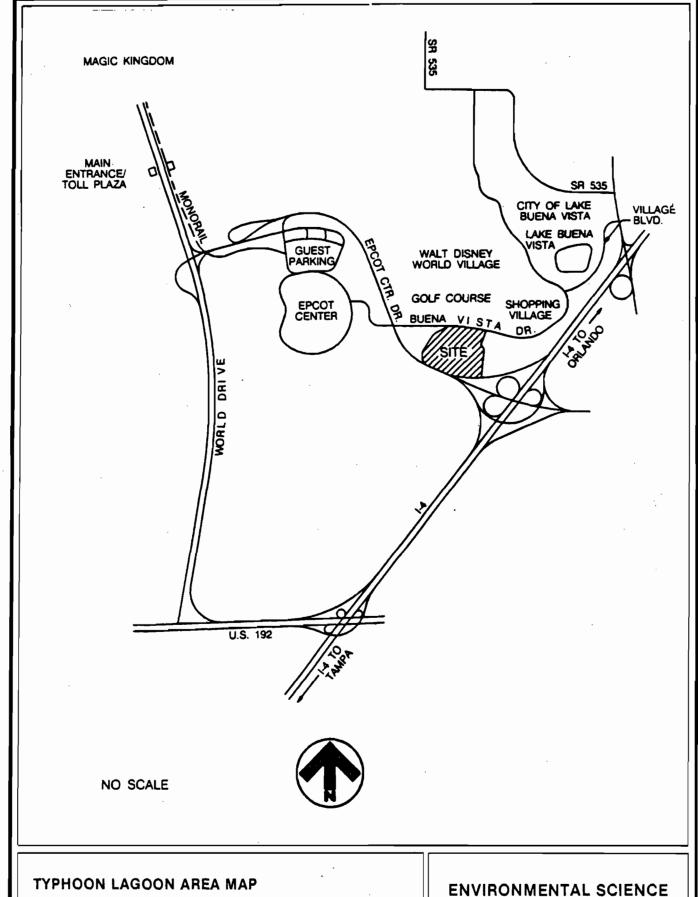
Note: ft³ - cubic feet.

Source: U. S. Environmental Protection Agency, 1986.

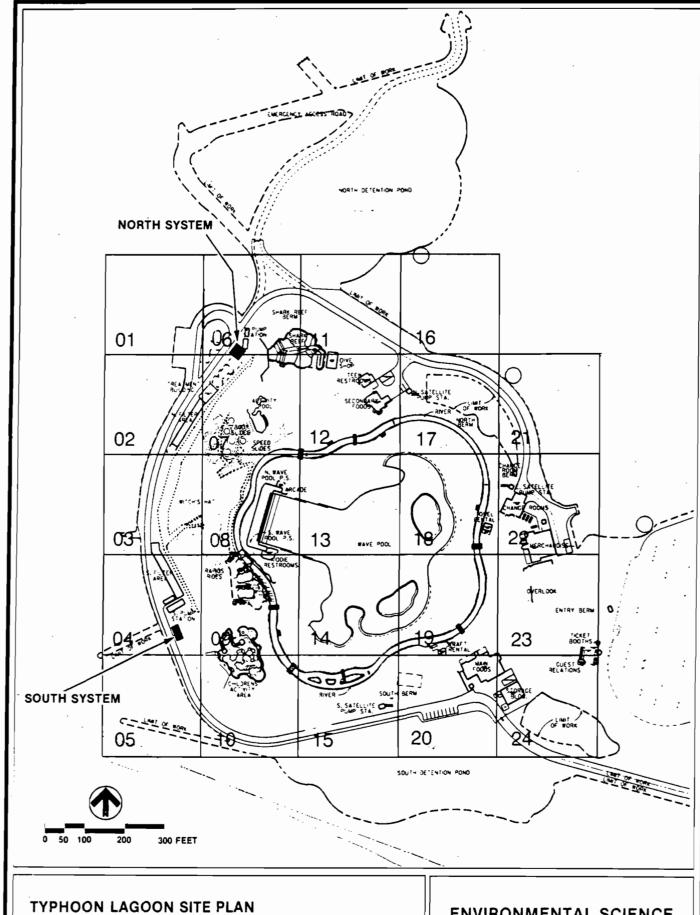
Compilation of Air Pollutant Emission Factors, Volume I:

Stationary Point and Area Sources, with Supplement A. Research

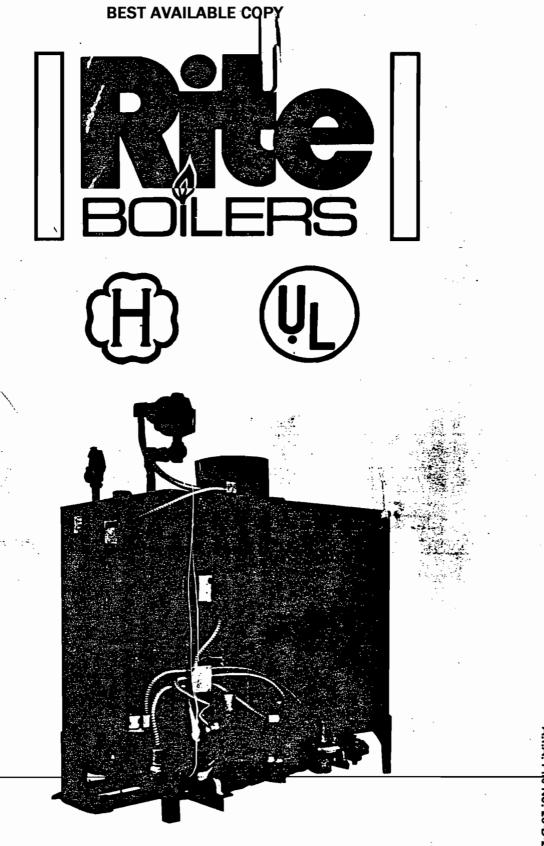
Triangle Park, North Carolina.



ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.



ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.



WATER HEATING BOILER LOW PRESSURE ATMOSPHERIC NATURAL GAS FIRED

RITE ENGINEERING & MANUFACTURING CORPORATION
9441 WASHBURN ROAD / DOWNEY / CALIFORNIA 90242
TELEPHONE (212) 952 2125

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)
- **DUAL GAS VALVES IN SERIES**

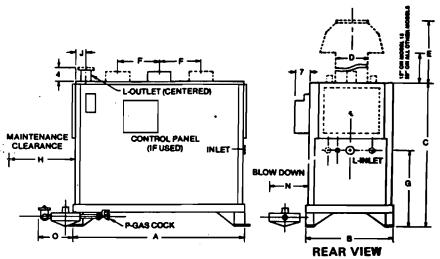
OPTION EQUIPMENT (EXTRA COST)

- 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
- FLUE GAS THERM.
- TATTLE TALE PANEL
- HAND HOLES
- STACK SUPPORT
- GAS STRAINER
- MODULATION
- LEAK TEST COCK
- COPPER TUBES
- 125 PSI
- HINGED HEAD PLATES OR DAVITS
- **INSULATED HEAD PLATES**
- ANODES
- EXPANSION TANKS

	GENERAL DATA									
MODEL	Input BTU/HR ×1000	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	466	20.5	49	1060		
56	550	440	13.2	44	536	22.3	56	1260		
63	630	506	15.1	51	615	24.8	63	1360		
76	760	608	18.2	61	740	27.0	76	1500		
A90	900	720	21.5	72	876	30.5	89	1700		
85	850	680	20.3	80	830	40.0	88	1700		
90	900	720	21.5	72	875	40.0	- 88	1700		
106	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		
A 150	1500	1200	35.8	120	1460	71.0	180	2330		
168	1650	1320	39.4	135	1600	57.0	150	2350		
A165	1650	1320	39.4	135	1600	75.0	168	2500		
180	1800	1440	43.0	145	1750	61.0	174	2460		
A180	1800	1440	43.0	146	1750	79.0	190	2680		
200	2000	1600	47.8	160	1950	66.0	192	2350		
A200	2000	1600	47.8	160	1960	83.0	205	2100		
225	2250		53.8	180	2190	89.0	230	3100		
250		1800				94.0	252	3372		
275	2600	2000	59.7	200	2430					
300	2750	2200	65.7	220	2670	100.0	273	35 20 60		
325	3000	2400	71.8	240	2920	105.0	295	3740		
350	3250	2600	77.7	265	3160	111.0	318	3950		
375	3500	2800	83.6	285	3400	116.0	340	4130		
400	3750	3000	89.6	305	3860	122.0	362	44,00		
A400	4000	3200	95.6	325	3900_	127.0	383	4620		
425	4000	3200	95.6	325	3900	160.0	390	4800		
460	4250	3400	101.5	345	4140	133.0	405	4840		
A450	4500	3600	107.5	366	4380	139.0	428	5060		
476	4500	3600	107.5	365	4380	180.0	440	5250		
500	4750	3800	113.5	385	4630	145.0	450	5280		
	5000	4000	119.5	406	4870	151.0	473	5500		
A500	5000	·4000	119.5	406	4870	195.0	486	5700_		
550	5500	4400	131.5	445	5370	_190.0	526	6000		
A550	5500	4400	131.5	445	5370	215.0	535	6150_		
	6000	4800	143.5	485	5860	213.0	574	6500		
A600	6000	4800	143.5	485	5850	235.0	584	662		
A660	6500	5200	155.0	520	6250	240.0	622	69C _ `		
680	6500	5200	155.0	520	6250	250,0	632	71 <u>00</u> /		
A700	7000	5600	167.0	560	6720	255.0	670	7400		
700	7000	5600	167.0	560	6720	275.0	680	7600		
A759	7500	6000	180.0	600	7200	270.0	722	7900		
760	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_	9270	345.0	900	9100		
1060	10500	8400	250.0	810	9740	370.0	1000	9750		
1150	10500 11500	9200	250.0	810	9740	370.0	1000			

BEST AVAILABLE COPY

WATER-ATMOSPHERIC GAS



"B" Dimension	Blow Down Size
26	
32	1-1/4
42	1-1/2
51 & larger	2

		` N ₁			DIMENSIONS					NOTE: Over 4" all dimensions are flange				
MODEL	. 🛦	В	С	D	Ε.	F	G	н	1	L	N	0	P	
48	40	26	48	9	31	0	26	32	2-1/2	2	10	10	1	
56	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	<u>2-1/2</u>	2	10	10	1	
A90	68	26	48	12	34	0	<u> 26</u>	<u> 60</u>	<u>2-1/2</u>	2	10	10	1-1/4	
95	46	32	52	12	34	0	26	36	2-5/8	3	12	18	1	
90	46	. 32	52	12 _	34	0	26	36	<u>2-6/8</u>	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	2-6/8	3	12	18	1-1/4	
135	64	32	52	16	38	0	26	54	2-5/8		12	18	1-1/4	
150	70	32	52	16	38	0	26	80 :	2-5/8	3	12	18	1-1/2	
A 150	55	42	57	16.	38	0	26	42	3-1/2	4	14	20	1-1/2	
165	76	32	52	16	38	0	<u> 26</u>	66	2-5/8	3	12	18	1-1/2	
A165	59	42	57	16	38	0	26	46	<u>3-1/2</u>	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	<u>60</u>	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	<u>85</u> _	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	
360	103	42	57	2-18	40	23	26	90	3-1/2	4	16	24	2-1/2	
376	109	42	67	2-18	40	24	26	96	3-1/2	4	16	24	2-1/2	
400	<u>115</u>	42	<u>57</u>	2-18		25	26	102	3-1/2	4	16	. 24	2	
Ā400	79	63	63	22		0	28	<u>5</u> 6	4-3/4	2-4	14	24	2	
426	121	42	57	2-18		27	28	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	<u>8</u> 7	63	63	24	æ	0	28	65	4-3/4	2-4	14	24	2	
475	133	42	57	2-20	<u></u> <u>&</u>	30	<u> 26</u>	120	3-1/2	4	16	24	2	
500	139	42	57	2-20	—— Z —	31	26	126	3-1/2	4	16	24	2	
A500	95	63	63	26	<u>s</u>	0	28	72	4-3/4	2-4	14	24	2	
550	109	51	62	2-20	—ფ <u>—</u>	23	26	96	<u>3-1/2</u>	4	16	28	2	
A550	102	<u>63</u>	63	26	<u>—</u> Ё—	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	<u>63</u>	<u>63</u>	2-20		23	28	85	4-3/4	2-4	14	28	2	
A650	129	<u>51</u>	62	2-22	—გ—	28	<u> 26 </u>	114	4	5	16	28	2	
650	117	63	63	2-22_	<u>—_</u> _ <u>_</u>	24	28	92	4-3/4	2-4	14	28	2	
A700	138	51	62	2-22	Ē_	30	26	123	4	5	16	28	2	
700	124	63	63	2-22	——丗—	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	——ജ—	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	<u> 77</u>	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	