PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 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 service(s) requested.

1. ☐ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:
Mr. Bernard W. McBee, Jr.
TreeSweet Products Company, Inc.
100 Bell Avenue
Ft. Pierce, FL 33482

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number
P 408 531 330

Always obtain signature of addressee or agent and **DATE DELIVERED.**

5. Signature – Addressee
X

6. Signature – Agent
X Glenn Miller

7. Date of Delivery
12-29-86

8. Addressee's Address *(ONLY if requested and fee paid)*

DOMESTIC RETURN RECEIPT

P 408 531 330

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. Bernard W. McBee, Jr.	
Street and No.	
P.O., State and ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date	12/22/86

PS Form 3800, Feb. 1982

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

Mr. Bernard W. McBee, Jr.
General Manager
TreeSweet Products Company, Inc.
100 Bell Avenue
Ft. Pierce, Florida 33482

December 19, 1986

Enclosed is Permit Number AC 56-117673 to TreeSweet Products Company, Inc. which authorizes the modification of an existing source to burn No. 6 fuel oil in Ft. Pierce, St. Lucie County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

Any Party to this permit has the right to seek judicial review of the permit 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 this permit is 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:

Wayne E. Griffin, P.E.
Isidore Goldman

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on Dec. 22, 1986 to the listed persons.

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.

Patricia G. Adams — Clerk

Dec. 22, 1986 — Date

Final Determination

TreeSweet Products Company, Inc.
St. Lucie County
Ft. Pierce, Florida

Permit Number:
AC 56-117673

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

December 16, 1986

Final Determination
TreeSweet Products Company, Inc.: AC 56-117673
St. Lucie County

The construction permit application and attachments have been reviewed by the department. Public notice of the department's intent to issue was published in The News Tribune issue of November 7, 1986. The technical evaluation and preliminary determination were available for public inspection at the DER's Southeast Florida Subdistrict office and Bureau of Air Quality Management office.

There were no comments received. Therefore, it is recommended that the construction permit be issued as drafted.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
TreeSweet Products Co., Inc.
P. O. Box 189
1000 Bell Avenue
Ft. Pierce, Florida 33454

Permit Number:AC 56-117673
Expiration Date: April 30, 1987
County: St. Lucie
Latitude/Longitude: 27° 24' 11"N
80° 20' 24"W
Project: Peel Dryer/Waste Heat Evaporator with an Associated Wet Scrubber Control System

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 drawings, plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the modification to an existing source to fire new No. 6 fuel oil and natural gas as primary fuels and No. 2 fuel oil as a back-up, malfunction, and emergency fuel only. "New" means an oil which has been refined from crude oil and has not been used, and which may or may not contain additives. Maximum sulfur content for the No. 6 fuel oil shall not exceed 2.5% by weight.

The peel dryer/waste heat evaporator processes a maximum of 35 tons/hour of wet peel and is rated at 40 MMBtu/hr heat input. A wet scrubber system is used to control pollutant emissions.

The Standard Industrial Codes are: Industrial No. 2037-Frozen Juices, Fruit Juices and Vegetables. The Source Classification Codes are: Food and Agriculture-Fuel Fired Equipment-Process Heaters: 3-02-900-02 Residual Oil; 3-02-900-03 Natural Gas; and, 3-02-900-01 Distillate Oil (No. 2).

The UTM coordinates are Zone 17, 565.6 km East and 3031.3 km North.

The source shall be as reflected in the permit application, plans, documents, drawings, and amendments, except as otherwise noted on pages 5-8 of the Specific Conditions.

Attachments;
1. Application to Construct/Modify Air Pollution Sources, DER Form 17-2.202(1), received by DER's Southeast Florida Subdistrict office on March 17, 1986.
2. Mr. Tim Powell's letter dated March 19, 1986.
3. Mr. C. H. Fancy's letter dated April 15, 1986.
4. Mr. John Fredrick Lang's letter with attachment, May 26, 1986.
5. Mr. Wayne E. Griffin's letter with enclosures, May 29, 1986, and received June 2, 1986.

PERMITTEE:
TreeSweet Products Co., Inc.

Permit Number: AC 56-117673
Expiration Date: April 30, 1987

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 therefore 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.

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

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.

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. Maximum through-put rate of wet peel shall not exceed 35 tons per hour.

2. Operating hours shall not exceed 576 per month and 4320 annually.

3. Particulate matter (PM) emissions shall not exceed 30.6 lbs/hr, 8.8 tons per month, and 66.1 TPY, in accordance with FAC Rule 17-2.610(1).

4. Sulfur dioxide (SO_2) emissions shall not exceed 43.8 lbs/hr, 12.6 tons per month, and 94.5 TPY, based on a minimum 70% wet scrubber control system efficiency to remove SO_2.

SPECIFIC CONDITIONS:

5. Visible emissions (VE) shall be limited to "less than 20% opacity" in accordance with FAC Rule 17-2.610(2).

6. Annual compliance tests for PM, SO_2, and VE shall be performed using EPA Methods 5, 6, and 9, respectively, as referenced in FAC Rule 17-2.700 and pursuant to Appendix A, 40 CFR 60. At least 14 days prior notice shall be given the DER's Southeast Florida District. Compliance tests shall be conducted at 100% of the maximum rated throughput of wet peel. Subsequent compliance tests can be performed while the unit is operating at 90-100% of the rated throughput. Any alternate compliance test method shall require approval by the department.

7. In accordance with FAC Rule 17-2.610(3), no person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any source whatsoever, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling, without taking reasonable precautions to prevent such emissions. Reasonable precautions to be taken may include, but not be limited to the following:

a. Paving and maintenance of roads, parking areas and yards.
b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
c. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar sources.
d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the source to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
e. Landscaping or planting or vegetation.
f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
g. Confining wet abrasive blasting where possible.
h. Enclosure or covering of conveyor systems.

8. Objectionable odors shall not be allowed off plant property in accordance with FAC Rule 17-2.620(2).

SPECIFIC CONDITIONS:

9. The source is subject to the provisions of FAC Rule 17-2.250(1),(4),(5), and (6), Excess Emissions. When a report of excess emissions is required, the DER's Southeast Florida District office shall be notified.

10. According to FAC Rule 17-2.240, Circumvention, no person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.

11. Maximum new No. 6 fuel oil usage shall not exceed: 360 gallons per hour; 207,360 gallons per month; and $1,555.2 \times 10^3$ gallons per year. Maximum sulfur content shall not exceed 2.5% by weight. Fuel sulfur content shall be analyzed using ASTM Method D-1552 upon request by the department. The permittee shall maintain a copy of the invoice for each delivery describing the volume and percent sulfur content, by weight, for a minimum of two years.

12. Maximum natural gas consumption shall not exceed 40,000 cubic feet per hour, 23.04×10^6 cubic feet per month, and 172.8×10^6 cubic feet per year.

13. No. 2 fuel oil can be used as an emergency, malfunction, and back-up fuel only. The department is to be notified when the unit is operating on this fuel and records shall be maintained on the volume used and time frame in which it was fired. The permittee shall maintain a copy of the invoice for each delivery describing the volume and percent sulfur content, by weight, for a minimum of two years.

14. Fuel flow meters shall be installed on the discharge lines of the fuel oil storage tanks.

15. The permittee shall submit an Annual Operating Report for each calendar year, on forms provided by the department, no later than March 1 of the following calendar year.

16. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, the department must be notified in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (FAC Rule 17-4.09)

PERMITTEE:
TreeSweet Products Co., Inc.

Permit Number: AC 56-117673
Expiration Date: April 30, 1987

SPECIFIC CONDITIONS:

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with test results and Certificate of Completion, to the DER's Southeast Florida District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rules 17-4.22 and 17-4.23)

If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct, which can take up to 90 days to process a complete application. (FAC Rule 17-4.10)

Issued this 17th day of Dec, 1986

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE

To: _____ Loctn: _____
To: _____ Loctn: _____
To: _____ Loctn: _____
From: _____ Date: _____

TO: Victoria J. Tschinkel

FROM: Clair Fancy

DATE: December 16, 1986

SUBJ: Approval of Air Construction Permit

Attached for your approval and signature is one air construction permit to TreeSweet Products Company, Inc. to modify an existing source to burn new No. 6 fuel oil at the applicant's facility in Ft. Pierce, St. Lucie County, Florida.

Day 90, after which the permit would be issued by default, is December 22, 1986.

The Bureau recommends your approval and signature.

CF/pa

Attachment

Check Sheet

Company Name: ~~Wakefield~~ TreeSweet Products Co, Inc
Permit Number: AC56-107673
PSD Number:
Permit Engineer:

Application:

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

Cross References:
- ☐
- ☐
- ☐

Intent:

- ☑ Intent to Issue
- ☑ Notice of Intent to Issue
- ☐ Technical Evaluation
- ☒ BACT or LAER Determination
- ☑ Unsigned Permit

  Correspondence with:
  - ☐ EPA
  - ☐ Park Services
  - ☐ Other
- ☑ Proof of Publication
  - ☐ Petitions - (Related to extensions, hearings, etc.)
  - ☐ Waiver of Department Action
  - ☐ Other

Final Determination:

- ☑ Final Determination
- ☑ Signed Permit
- ☒ BACT or LAER Determination
  - ☐ Other

Post Permit Correspondence:

- ☐ Extensions/Amendments/Modifications
- ☐ Other

THE NEWS TRIBUNE

Published Seven Days A Week
Fort Pierce, St. Lucie County, Florida

STATE OF FLORIDA
COUNTY OF ST. LUCIE

Before the undersigned authority personally appeared James J. McMillen or Kathleen K. LeClair, who on oath says that he/she is Publisher, Publisher's Secretary of The News Tribune, a daily newspaper published at Fort Pierce in St. Lucie County, Florida; that the attached copy of advertisement, being a legal notice in the matter of DER application was published in said newspaper in the issues of 9/23/86

Affiant further says that the said News Tribune is a newspaper published at Fort Pierce, in said St. Lucie County, Florida, and that the said newspaper has heretofore been continuously published in said St. Lucie County, Florida, each day and has been entered as second class mail matter at the post office in Fort Pierce, in said St. Lucie 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 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.
Sworn to and subscribed before me

This 23rd day of SEP A.D. 1986

(SEAL) Notary Public

NOTARY PUBLIC STATE OF FLORIDA
MY COMMISSION EXP. DEC 13,1987
BONDED THRU GENERAL INS. UND.

No. 05429
BEFORE THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION
In the Matter of Application for Permit by:
TreeSweet Products Company, Inc.
1000 Bell Avenue
Ft. Pierce, Florida 33482
DER File No. AC 56-117673

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (copy 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, Treesweet Products Company, Inc., applied on March 17, 1986, to the Department of Environmental Regulation for a permit to use No. 6 fuel oil in its existing peel dryer/waste heat evaporator at the applicant's existing facility in Ft. Pierce, St. Lucie 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 an air construction permit was needed for the proposed work.

Pursuant to Section 403.815 F.S. and DER Rule 17-103.150, FAC, you (the applicant) are required to publish at your own expense the enclosed Notice of Proposed Agency Action on permit application. The notice must be published one time only in a section of a major local newspaper of general circulation in the county in which the project is located and within thirty (30) days from receipt of this intent. Proof of publication must be provided to the Department within seven days of publication of the notice. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S. A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. Petitions must comply with the requirement of Florida Administrative Code Rules 17-103.155 and 28-5.201 (copies enclosed) and be filed with (received by) the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32301-8241. Petitions filed by the permit applicant must be filed within fourteen (14) days of receipt of this intent. Petitions filed by other persons must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this intent, whichever first occurs. 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, concerning the subject permit application. Petitions which are not filed in accordance with the above provisions will be dismissed.

Executed in Tallahassee, Florida.
STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION
(s) C. H. Fancy
C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management
PUBLISH: September 23, 1986.

DER
OCT 2 1986
BAQM

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

		Initial	Date
1.	TO: (NAME, OFFICE, LOCATION) Patty Adams or Bruce Mitchell - BAQM		10/2/86
2.	DER OCT 2 1986 BAQM		
3.			
4.			

REMARKS:

Treesweet
Public Notice

INFORMATION

- Review & Return
- Review & File
- Initial & Forward

DISPOSITION

- Review & Respond
- Prepare Response
- For My Signature
- For Your Signature
- Let's Discuss
- Set Up Meeting
- Investigate & Report
- Initial & Forward
- Distribute
- Concurrence
- For Processing
- Initial & Return

FROM: T. Powell

DATE 9/30/86

PHONE

PM
11-7-86
Ft. Pierce

THE NEWS TRIBUNE
Published Seven Days A Week
Fort Pierce, St. Lucie County, Florida

DER

NOV 12 1986

BAQM

STATE OF FLORIDA
COUNTY OF ST. LUCIE

Before the undersigned authority personally appeared James J. McMillen or Kathleen K. LeClair, who on oath says that he/she is Publisher, Publisher's Secretary of The News Tribunal, a daily newspaper published at Fort Pierce in St. Lucie County, Florida; that the attached copy of advertisement, being a legal notice
in the matter of DER Intent
was published in said newspaper in the issues of
11/7/86

Affiant further says that the said News Tribune is a newspaper published at Fort Pierce, in said St. Lucie County, Florida, and that the said newspaper has heretofore been continuously published in said St. Lucie County, Florida, each day and has been entered as second class mail matter at the post office in Fort Pierce, in said St. Lucie 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 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.
Sworn to and subscribed before me

This 7th day of November
A.D. 1986

Gloria Lagnosko
(SEAL) Notary Public

NOTARY PUBLIC STATE OF FLORIDA
MY COMMISSION EXP. DEC 13,1987
BONDED THRU GENERAL INS. UND.

No. 00261
State of Florida
Department of
Environmental
Regulation
Notice of Intent

Best Available Copy

The Department gives notice of its intent to issue a permit to TreeSweet Products Company, Inc. to use No. 6 fuel oil in its existing peel dryer/waste heat evaporator. An associated wet scrubber system will be used to control both particulate matter and sulfur dioxide emission. The proposed project will be located at the TreeSweet Products Company's existing facility in Ft. Pierce, St. Lucie County, Florida. A determination of best available control technology (BACT) was not required.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

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:
Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301
Dept. of Environmental Regulation
Southeast Florida Subdistrict
2745 Southeast Morningside Blvd.
Port St. Lucie, Florida 33452

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.

PUBLISH: November 7, 1986.

THE NEWS TRIBUNE
Published Seven Days A Week
Fort Pierce, St. Lucie County, Florida

PM 11-7-86 Ft. Pierce

DER

NOV 12 1986

BAQM

STATE OF FLORIDA
COUNTY OF ST. LUCIE

Before the undersigned authority personally appeared James J. McMillen or Kathleen K. LeClair, who on oath says that he/she is Publisher, Publisher's Secretary of The News Tribune, a daily newspaper published at Fort Pierce in St. Lucie County, Florida; that the attached copy of advertisement, being a legal notice in the matter of DER Intent was published in said newspaper in the issues of 11/7/86

Affiant further says that the said News Tribune is a newspaper published at Fort Pierce, in said St. Lucie County, Florida, and that the said newspaper has heretofore been continuously published in said St. Lucie County, Florida, each day and has been entered as second class mail matter at the post office in Fort Pierce, in said St. Lucie 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 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.

Sworn to and subscribed before me

This 7th day of November A.D. 1986

Gloria Lignoski
(SEAL) Notary Public

NOTARY PUBLIC STATE OF FLORIDA
MY COMMISSION EXP. DEC 13,1987
BONDED THRU GENERAL INS. UND.

State of Florida
Department of
Environmental
Regulation
Notice of Intent

The Department gives notice of its intent to issue permit to TreeSweet Products Company, Inc. to use No. 6 fuel oil in its existing peel dryer/waste heat evaporator. An associated wet scrubber system will be used to control both particulate matter and sulfur dioxide emission. The proposed project will be located at the TreeSweet Products Company's existing facility in Ft. Pierce, St. Lucie County, Florida. A determination of best available control technology (BACT) was not required.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

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:

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Dept. of Environmental Regulation
Southeast Florida Subdistrict
2745 Southeast Morningside Blvd.
Port St. Lucie, Florida 33452

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.

PUBLISH: November 7, 1986.

P 408 532 032

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. Bernard W. McBee, J	
Street and No.	
P.O., State and ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date 8/4/86	

PS Form 3800, Feb. 1982

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 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 service(s) requested.

1. ☐ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:
Mr. Bernard W. McBee, Jr.
TreeSweet Products Company, Inc.
1000 Bell Avenue
Ft. Pierce, Florida 33482

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number: P 408 532 032

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X Joyce Hill

7. Date of Delivery
8-6-86

8. Addressee's Address *(ONLY if requested and fee paid)*

DOMESTIC RETURN RECEIPT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

August 4, 1986

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Bernard W. McBee, Jr.
General Manager
TreeSweet Products Company, Inc.
100 Bell Avenue
Ft. Pierce, Florida 33482

Dear Mr. McBee:

Attached is one copy of the Technical Evaluation and Preliminary Determination, and proposed permit to use No. 6 fuel oil in your existing peel dryer/waste heat evaporator at your facility in Ft. Pierce, St. Lucie County, Florida.

Please submit, in writing, any comments which you wish to have considered concerning the department's proposed action to Mr. Bill Thomas of the Bureau of Air Quality Management.

Sincerely,

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

CHF/pa

Attachments

cc: Wayne E. Griffin, P.E.
Tim Powell

State of Florida
Department of Environmental Regulation
Notice of Intent

The Department gives notice of its intent to issue a permit to TreeSweet Products Company, Inc. to use No. 6 fuel oil in its existing peel dryer/waste heat evaporator. An associated wet scrubber system will be used to control both particulate matter and sulfur dioxide emission. The proposed project will be located at the TreeSweet Products Company's existing facility in Ft. Pierce, St. Lucie County, Florida. A determination of best available control technology (BACT) was not required.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, F orida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009, Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

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:

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Dept. of Environmental Regulation
Southeast Florida Subdistrict
2745 Southeast Morningside Blvd.
Port St. Lucie, Florida 33452

Any person may send written comments on the proposed action to Mr. Bill Thomas at the department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the department's final determination.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

TreeSweet Products Company, Inc.
1000 Bell Avenue
Ft. Pierce, Florida 33482

DER File No. AC 56-117673

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (copy 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, Treesweet Products Company, Inc., applied on March 17, 1986, to the Department of Environmental Regulation for a permit to use No. 6 fuel oil in its existing peel dryer/waste heat evaporator at the applicant's existing facility in Ft. Pierce, St. Lucie 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 an air construction permit was needed for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, FAC, you (the applicant) are required to publish at your own expense the enclosed Notice of Proposed Agency Action on permit application. The notice must be published one time only in a section of a major local newspaper of general circulation in the county in which the project is located and within thirty (30) days from receipt of this intent. Proof of publication must be provided to the Department within seven days of publication of

the notice. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S. A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. Petitions must comply with the requirement of Florida Administrative Code Rules 17-103.155 and 28-5.201 (copies enclosed) and be filed with (received by) the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32301-8241. Petitions filed by the permit applicant must be filed within fourteen (14) days of receipt of this intent. Petitions filed by other persons must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this intent, whichever first occurs. 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, concerning the subject permit application. Petitions which are not filed in accordance with the above provisions will be dismissed.

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:

Bernard W. McBee, Jr.
Wayne E. Griffin, P.E.
Tim Powell

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on August 4, 1986.

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.

Patricia G. Adams — Clerk

Aug. 4, 1986 — Date

RULES OF THE ADMINISTRATIVE COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

(1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.

(2) All petitions filed under these rules should contain:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name and address of the petitioner or petitioners;

(c) All disputed issues of material fact. If there are none, the petition must so indicate;

(d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;

(e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;

(f) A demand for the relief to which the petitioner deems himself entitled; and

(g) Such other information which the petitioner contends is material.

of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to an administrative determination (hearing) under Section 120.57, F.S.

---

(4) Notice to substantially affected persons concerning applications for Department permits is an essential and integral part of the state environmental licensing process. Therefore, no application for a permit for which publication of notice is required shall be granted until and unless proof of publication of Notice is furnished to the appropriate Department permitting office.

(5)(a) Any applicant or person benefiting from the Department's action may elect to publish notice of proposed agency action in the manner provided by subsection (2) or (3). Any person who elects to publish notice of proposed agency action, upon presentation of proof of publication to the Department, prior to final agency action, shall be entitled to the same benefits under this rule as a person who is required to publish notice of proposed agency action. Since persons whose substantial interests are affected by a Department decision on a permit application may petition for an administrative proceeding within fourteen (14) days after receipt of notice and since, unless notice is given or published as prescribed in this rule, receipt of notice can occur at any time, the applicant or persons benefiting from the Department's action cannot justifiably rely on the finality of the Department's decision without the notice having been duly given or published.

(b) The notices required by this rule may be combined with other notices required by the Department pursuant to Chapter 403, 376, or 253, F.S., or Chapter 17, FAC.

(c) The provisions of this section shall also apply to the permitting of hazardous waste facilities, but only to the extent it is consistent with Chapter 17-30, Part IV, FAC. Whenever Chapter 17-30, Part IV, FAC, provides for a different time or notice procedure than that set forth in this section the time and notice provisions of Chapter 17-30 shall govern.

(6) Failure to publish any notice of application, notice of proposed agency action, or notice of agency action required by the Department shall be an independent basis for the denial of a permit.

Specific Authority: 120.53, 403.0876, 403.815, F.S. Law Implemented: 120.53, F.S. History: New 9-20-79, Amended 4-28-81, Transferred from 17-1.62 and Amended 6-1-84.

17-103.155 Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding.

(1)(a) Any person whose substantial interests may be affected by proposed or final agency action may file a petition for administrative proceeding. A petition shall be in the form required by this Chapter and Chapter 28-5, FAC, and shall be filed (received) in the Office of General Counsel of the Department within fourteen (14) days of receipt of notice of proposed agency action or within fourteen (14) days of receipt of notice of

agency action whenever there is no public notice of proposed agency action. In addition to the requirements of Rule 28-5.201, FAC, the Petition must specify the county in which the project is or will be located.

(b) Failure to file a petition within fourteen (14) days of receipt of notice of agency action or fourteen (14) days of receipt of notice of proposed agency action, whichever notice first occurs, shall constitute a waiver of any right to request an administrative proceeding under Chapter 120, F.S.

(c) When there has been no publication of notice of agency action or notice of proposed agency action as prescribed in Rule 17-103.150, FAC, a person who has actual knowledge of the agency action or has knowledge which would lead a reasonable person to conclude that the Department has taken final agency action, has a duty to make further inquiry within fourteen (14) days of obtaining such knowledge by contacting the Department to ascertain whether action has occurred. The Department shall upon receipt of such an inquiry, if agency action has occurred, promptly provide the person with notice as prescribed by Rule 17-103.150, FAC. Failure of the person to make inquiry with the Department within fourteen (14) days after obtaining such knowledge may estop the person from obtaining an administrative proceeding on the agency action.

(2)(a) "Receipt of notice of agency action" means receipt of written notice of final agency action, as prescribed by Department rule, or the publication, pursuant to Department rule, of notice of final agency action, whichever first occurs.

(b) "Receipt of notice of proposed agency action" means receipt of written notice (such as a letter of intent) that the Department proposes to take certain action, or the publication pursuant to Department rule of notice of proposed agency action, whichever first occurs.

(3) Notwithstanding any other provision in this Chapter, should a substantially affected person who fails to timely request a hearing under Section 120.57, F.S., administratively appeal the final Department action or order, the record on appeal should be limited to:

(a) the application, and accompanying documentation submitted by the applicant prior to the issuance of the agency's intent to issue or deny the requested permit.

(b) the materials and information relied upon by the agency in determining the final agency action or order;

(c) any notices issued or published; and

(d) the final agency action or order entered concerning the permit application.

(4) In such cases where persons do not timely exercise their rights accorded by Section 120.57(1), Florida Statutes, the allegations of fact contained in or incorporated by the final agency action shall be deemed uncontested and true, and appellants may not dispute the truth of such allegations upon subsequent appeal.

(5) Any applicant may challenge the Department's request for additional information by filing with the Office of General Counsel an appropriate petition for administrative proceeding pursuant to Section 120.60, F.S., following receipt by

the applicant of the Department's notification, pursuant to Section 403.0876, F.S., that additional information is required.
Specific Authority: 120.53, 403.0876, 403.815, F.S. Law Implemented: 120.53, F.S.
History: New 9-20-79, Amended 4-28-81, Transferred from 17-1.62 and Amended 6-1-84.

17-103.160 Uniformity in Approval and Denial of Applications for Department Permits and Certifications. To the extent possible and consistent with the public interest, the Department approves and denies applications for permits and certifications on a uniform and consistent basis. Final Department actions on applications for permits and certifications shall be consistent with prior Department actions, unless deviation therefrom is explained by the Department in writing or the hearing officer who submits a recommended order to the Department for final agency action in accordance with Section 120.57, Florida Statutes.
Specific Authority: 120.53(1), F.S. Law Implemented: 120.53(1), 120.68(12), F.S. History: New 2-6-78, Transferred from 17-1.63, 6-1-84.

17-103.170 Designation, Preparation and Transmittal of Record for Administrative Appeals.

When any Department action or order is the subject of an administrative appeal under Chapter 17-103, Part II, FAC, the following requirements shall apply:

(1) Designation of Record. Within fifteen (15) days of rendition of the Department's final order, the appellant shall designate to the Department, in writing, with copies to other parties, those documents or things under the control of or in the possession of the Department which the appellant desires to have included in the record, and which were received or considered in the Department proceeding below. If a proceeding was reported by mechanical recording devices, the appellant shall designate those portions of the proceeding for which it requires written transcription or tapes for transcription. Any other party may designate other portions of the record in the manner provided herein. Such cross-designation shall be filed with the Department, with copies provided other parties, within seven (7) days after receipt of the designation by the appellant.

(2) Original Record. The Department shall thereupon include in the record all of the designated portions of the original papers and exhibits in the proceedings or matter from which administrative appeal is taken, together with a copy of any such parts of the proceedings as were stenographically reported or transcribed from tapes, and as have been designated by the parties and certified by a notary public, the reporter, or other officer for inclusion in the record on appeal or review, and certified copies of the order, if any, of which review is sought. The Department may, at its discretion, substitute certified copies for original papers or documents in its possession.

(3) Preparation of Record. Upon tender or deposit by appellant of the estimated cost of preparation, the Department shall prepare the record in accordance with the designations of the parties. The cost of preparation, and reproduction,

Technical Evaluation
and
Preliminary Determination

TreeSweet Products Company, Inc.
St. Lucie County
Ft. Pierce, Florida

Permit Number:
AC 56-117673

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

August 1, 1986

I. Project Description

A. Applicant

TreeSweet Products Company, Inc.
1000 Bell Avenue
Ft. Pierce, Florida 33482

B. Project Description

The applicant proposes to use No. 6 fuel oil (FO) in its existing peel dryer/waste heat evaporator as a primary fuel when it is financially advantageous. The No. 6 FO will have a maximum sulfur content of 2.5% by weight. The existing source is currently firing natural gas as the primary fuel with diesel fuel being used only as a back-up, malfunction, and emergency fuel.

The Standard Industrial Codes for the source are: Industrial No. 2037 - Frozen Juices, Fruit Juices and Vegetables. The Source Classification Codes for the source are: Food and Agriculture - Fuel Fired Equipment - Process Heaters: 3-02-900-02 Residual Oil; 3-02-900-03 Natural Gas; 3-02-900-01 Distillate Oil (No. 2).

The UTM coordinates are zone 17, 565.6 km East and 3031.3 km North.

C. Process and Controls

The existing peel dryer/waste heat evaporator are integral units and process 35 tons per hour (TPH) of wet peel. An associated wet scrubber system will be used to control both particulate matter (PM) and sulfur dioxide (SO_2).

II. Rule Applicability

The proposed project is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (FAC) Rules 17-2 and 17-4.

The application package was deemed complete on June 2, 1986.

The existing facility is located in St. Lucie County, which is an area designated attainment for all of the criteria pollutants. The existing facility is a minor facility pursuant to FAC Rule 17-2.100(115).

The projected potential pollutant emissions associated with the peel dryer/waste heat evaporator are exhibited in the following table:

Table 1

Source	Potential Pollutant Emissions (TPY) PM	SO_2	NOx	CO	NMHC
Peel Dryer/Waste Heat Evaporator	66.1	94.5	93.3	3.9	0.2

Note:
- o Annual hours of operation are 4320.
- o Maximum through-put rate is 35 TPH of wet peel
- o Maximum No.6 FO consumption is 360 gals/hr.
- o PM: emissions are based on Process Weight Table.

  SO_2: emissions are based on stoichiometric calculations using as density 8.108 lbs/gal, 2.5% sulfur content by weight, and a scrubber system control efficiency of 70%.

  NOx: emissions are based on AP-42 Emission Factors, Table 1.3-1 formula of lb $NO_2/10^3$ gals = $22 + 400(N)^2$, where N = 0.5% by weight.

  CO: emissions are based on AP-42 Emission Factors, Table 1.3-1 formula of 55 lbs/10^3 gals.

  NMHC: emissions are based on AP-42 Emission Factors, Table 1.3-1 formula of 0.28 lb/10^3 gals.

Based on the table, the proposed project would be a minor modification to a minor facility. Therefore, the proposed project's emissions shall be subject to review pursuant to FAC Rule 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements.

The source's allowable PM emission limiting and performance standards shall be in accordance with FAC Rules 17-2.610, General Particulate Emission Limiting Standards. The SO_2 allowable emission limiting and performance standards shall be in accordance with what was requested by the applicant and is acceptable by the department, which is placing a minimum scrubber control efficiency for SO_2 at 70%.

In accordance with FAC Rule 17-2.610(1), the source's allowable emissions shall be in accordance with the Process Weight Table, Table 610-1.

The source shall be subject to FAC Rule 17-2.610(2), General Visible Emissions Standard.

The source shall be subject to FAC Rule 17-2.610(3), Unconfined Emissions of Particulate Matter.

According to FAC Rule 17-2.620(2), no person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance according to FAC Rule 17-2.100(130). Therefore, objectionable odors shall not be allowed off plant property.

No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly in accordance with FAC Rule 17-2.240, Circumvention.

The source is subject to the provisions of FAC Rule 17-2.250(1), (4), (5), and (6), Excess Emissions.

Testing verification shall be required to demonstrate compliance with the allowable emission limits. For PM, the compliance test method shall be EPA Method 5 in accordance with 40 CFR 60, Appendix A. For SO_2, the compliance test method shall be EPA Method 6 in accordance with 40 CFR 60, Appendix A. For visible emissions (VE), the compliance test method shall be EPA Method 9 in accordance with 40 CFR 60, Appendix A. If any other compliance test method is to be substituted, approval by the department is required.

Fuel sulfur analysis shall be required using ASTM Method D-1552 or other approved method by the department.

An annual operating report will be required and shall be submitted to the DER's Southeast Florida Subdistrict office accounting for the annual consumption of fuels and shall be submitted no later than March 1 of the following calendar year.

III. Summary of Emissions and Air Quality Analysis

A. Emission Limitations

The regulated pollutant emissions from the facility are PM, SO_2, and VE. The following table will reflect the maximum allowable pollutant emissions for the peel dryer/waste heat evaporator:

Table 2

Source	Maximum Allowable Pollutant Emissions PM lbs/hr	PM TPM	PM TPY	SO_2 lbs/hr	SO_2 TPM	SO_2 TPY
Peel Dryer/Waste Heat Evaporator	30.6	8.8	66.1	43.8	12.6	94.5
	Visible Emissions			less than 20% opacity		

Note:
- o TPM - tons per month
- o Based on 576 hrs/mth and 4320 hrs/yr.
- o Maximum through-put rate is 35 TPH of wet peel
- o Assume 70% minimum removal efficiency of SO_2 by the scrubber control system
- o Maximum No. 6 FO is 360 gals/hr; the No. 6 FO shall be "an oil which has been refined from crude oil and has not been used, and which may or may not contain additives."

The permitted pollutant emissions are in compliance with all applicable requirements of FAC Rules 17-2 and 17-4.

B. Air Quality Analysis

Based on the emissions, an air quality analysis was not required.

IV. Conclusion

Allowing the use of No. 6 FO as a fuel could benefit the company economically. It is noted that the potential NOx emissions, at the maximum FO consumption and annual hours of operation, are 93.3 TPY and very close to making the source major (based on AP-42 Emission Factors Table 1-3.1 formula). However, the facility is not on the list of Table 500-1 and would require emissions in excess of 250 TPY before being subject to PSD (prevention of significant deterioration) review.

No. 2 FO and natural gas will also be used as fuels for the source, with the No. 2 FO as a back-up, malfunction, and emergency fuel only. The applicant has said that there are existing separate fuel tanks for keeping the fuel oils separate.

The permitted pollutant emissions from the proposed project should not cause any violation of Florida's ambient air quality standards.

The General and Specific Conditions listed in the proposed permit (attached) will assure compliance with all applicable requirements of FAC Rules 17-2 and 17-4.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
TreeSweet Products Co., Inc.
P. O. Box 189
1000 Bell Avenue
Ft. Pierce, Florida 33454

Permit Number:AC 56-117673
Expiration Date: April 30, 1987
County: St. Lucie
Latitude/Longitude: 27° 24' 11"N
80° 20' 24"W
Project: Peel Dryer/Waste Heat Evaporator with an Associated Wet Scrubber Control System

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 drawings, plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the modification to an existing source to fire new No. 6 fuel oil and natural gas as primary fuels and No. 2 fuel oil as a back-up, malfunction, and emergency fuel only. "New" means an oil which has been refined from crude oil and has not been used, and which may or may not contain additives. Maximum sulfur content for the No. 6 fuel oil shall not exceed 2.5% by weight.

The peel dryer/waste heat evaporator processes a maximum of 35 tons/hour of wet peel and is rated at 40 MMBtu/hr heat input. A wet scrubber system is used to control pollutant emissions.

The Standard Industrial Codes are: Industrial No. 2037-Frozen Juices, Fruit Juices and Vegetables. The Source Classification Codes are: Food and Agriculture-Fuel Fired Equipment-Process Heaters: 3-02-900-02 Residual Oil; 3-02-900-03 Natural Gas; and, 3-02-900-01 Distillate Oil (No. 2).

The UTM coordinates are Zone 17, 565.6 km East and 3031.3 km North.

The source shall be as reflected in the permit application, plans, documents, drawings, and amendments, except as otherwise noted on pages 5-8 of the Specific Conditions.

Attachments;
1. Application to Construct/Modify Air Pollution Sources, DER Form 17-2.202(1), received by DER's Southeast Florida Subdistrict office on March 17, 1986.
2. Mr. Tim Powell's letter dated March 19, 1986.
3. Mr. C. H. Fancy's letter dated April 15, 1986.
4. Mr. John Fredrick Lang's letter with attachment, May 26, 1986.
5. Mr. Wayne E. Griffin's letter with enclosures, May 29, 1986, and received June 2, 1986.

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 therefore 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.

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

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.

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. Maximum through-put rate of wet peel shall not exceed 35 tons per hour.

2. Operating hours shall not exceed 576 per month and 4320 annually.

3. Particulate matter (PM) emissions shall not exceed 30.6 lbs/hr, 8.8 tons per month, and 66.1 TPY, in accordance with FAC Rule 17-2.610(1).

4. Sulfur dioxide (SO_2) emissions shall not exceed 43.8 lbs/hr, 12.6 tons per month, and 94.5 TPY, based on a minimum 70% wet scrubber control system efficiency to remove SO_2.

SPECIFIC CONDITIONS:

5. Visible emissions (VE) shall be limited to "less than 20% opacity" in accordance with FAC Rule 17-2.610(2).

6. Annual compliance tests for PM, SO_2, and VE shall be performed using EPA Methods 5, 6, and 9, respectively, as referenced in FAC Rule 17-2.700 and pursuant to Appendix A, 40 CFR 60. At least 14 days prior notice shall be given the DER's SE Florida Subdistrict. Compliance tests shall be conducted at 100% of the maximum rated throughput of wet peel. Subsequent compliance tests can be performed while the unit is operating at 90-100% of the rated throughput. Any alternate compliance test method shall require approval by the department.

7. In accordance with FAC Rule 17-2.610(3), no person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any source whatsoever, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling, without taking reasonable precautions to prevent such emissions. Reasonable precautions to be taken may include, but not be limited to the following:

a. Paving and maintenance of roads, parking areas and yards.
b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
c. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar sources.
d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the source to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
e. Landscaping or planting or vegetation.
f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
g. Confining wet abrasive blasting where possible.
h. Enclosure or covering of conveyor systems.

8. Objectionable odors shall not be allowed off plant property in accordance with FAC Rule 17-2.620(2).

SPECIFIC CONDITIONS:

9. The source is subject to the provisions of FAC Rule 17-2.250(1),(4),(5), and (6), Excess Emissions. When a report of excess emissions is required, the DER's Southeast Florida Subdistrict office shall be notified.

10. According to FAC Rule 17-2.240, Circumvention, no person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.

11. Maximum new No. 6 fuel oil usage shall not exceed: 360 gallons per hour; 207,360 gallons per month; and $1,555.2 \times 10^3$ gallons per year. Maximum sulfur content shall not exceed 2.5% by weight. Fuel sulfur content shall be analyzed using ASTM Method D-1552 upon request by the department. The permittee shall maintain a copy of the invoice for each delivery describing the volume and percent sulfur content, by weight, for a minimum of two years.

12. Maximum natural gas consumption shall not exceed 40,000 cubic feet per hour, 23.04×10^6 cubic feet per month, and 172.8×10^6 cubic feet per year.

13. No. 2 fuel oil can be used as an emergency, malfunction, and back-up fuel only. The department is to be notified when the unit is operating on this fuel and records shall be maintained on the volume used and time frame in which it was fired. The permittee shall maintain a copy of the invoice for each delivery describing the volume and percent sulfur content, by weight, for a minimum of two years.

14. Fuel flow meters shall be installed on the discharge lines of the fuel oil storage tanks.

15. The permittee shall submit an Annual Operating Report for each calendar year, on forms provided by the department, no later than March 1 of the following calendar year.

16. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, the department must be notified in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (FAC Rule 17-4.09)

PERMITTEE:
TreeSweet Products Co., Inc.

Permit Number: AC 56-117673
Expiration Date: April 30, 1987

SPECIFIC CONDITIONS:

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with test results and Certificate of Completion, to the DER's Southeast Florida Subdistrict office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rules 17-4.22 and 17-4.23)

If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct, which can take up to 90 days to process a complete application. (FAC Rule 17-4.10)

Issued this_____day of_____, 19__

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

_____
VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

BM
7-29-86

GulfCoast Engineering Inc.

CONSULTING ENGINEERS

POST OFFICE BOX 1786 • BRANDON, FLORIDA 33511 (813) 685-9727

DER
JUL 31 1986
BAQM

July 29, 1986

Florida Department
of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

ATTN: C.H. Fancy, P.E. RE: TreeSweet Products Company

Dear Mrs. Fancy:

Pursuant to our telephone conversation with Bruce Mitchell of your staff we would like to permit the feedmill/dryer/wasteheat evaporator for use on #6 fuel oil (AC56-117673). Additionally, we would like to withdraw the two (2) boiler permits at the referenced facility (AC56-117649 and AC56-117671).

Should you have any questions please contact me at my office at your earliest convenience.

Sincerely,

Wayne E. Griffin, P.E.
President

WEG/pg

cc: Tim Powell
Bruce Mitchell
Chet Kagel

2.808 (x factor)

3 Boiler AC 56-117649 18/6/52 = 5616 hrs. operation ÷12 = 468 hrs per month

1. UTM's incorrect, also, does not transpose to lat/longs correctly on the application
2. Hours of operation and #6 FO consumption ? vs Btu/hr HI
   #2 FO " ? "

the HI, FO consumption, stack parameters differ from the permitted levels:

Permitted (AO 56-55650)

NG	33.5×10^6 Btu/hr HI	vs. 43.9×10^6	@ 41.85×10^3 cf/hr
#2		38.6×10^6	@ 276 gph
#6		41.9×10^6	@ 276 gph 2.5%S

#6 FO @ 152,000 Btu/gal ρ = 9.0 @ 60°F (lbs/gal)

.05 Ash .05 Nitrogen

stack ht

25' vs 38.5'

2.67' ϕ

425°F exit T

14,660 ACFM

8.2% wv

44 fps

9-17-86
@ 8:48AM
called & W. Griffin about PN for Treesweet Po. Co. - left a return call message. BSR

9:57AM
W. Griffin said that he would w/ the app. on the PN and will forward the affidavit if the PN has occurred.

7-28-86
@ 10:45
Spoke @ W. Griffin (consult) Treesweet will be withdrawing their boiler (2) request, I asked for a letter. BSR

Fuel usage

NG	16.90×10^3 cf/hr	vs 41.85×10^3 cf/hr	@ 43.9×10^6 Btu/hr
#2	110 gph	vs 276 gph	@ 38.6×10^6 Btu/hr
#6	110 gph	vs 276 gph	@ 41.9×10^6 Btu/hr

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)	Initial / Date
1. BARRY	
2.	Initial / Date
3.	Initial / Date
4.	Initial / Date

REMARKS:

THIS IS TREESWEET. THEY HAVE REQUESTED USE OF #6 INSTEAD OF PERMITTED NAT'L GAS.

BACT IS REQUIRED IF 100% USE OF #6, BUT THEY WANT TO STAY MINOR SOURCE.

THIS QUESTION HAS BEEN ON BILLS' DESK FOR 2 WEEKS. SO THOUGHT YOU SHOULD LOOK IT JUST IN CASE.

Mike

INFORMATION

- Review & Return
- Review & File
- Initial & Forward

DISPOSITION

- Review & Respond
- Prepare Response
- For My Signature
- For Your Signature
- Let's Discuss
- Set Up Meeting
- Investigate & Report
- Initial & Forward
- Distribute
- Concurrence
- For Processing
- Initial & Return

FROM: ~~BILL~~

DATE 20 JUNE

PHONE

BRUCE — WED

WAYNE GRUPEN CALLED & WOULD LIKE YOU TO CALL HIM TODAY (THURSDAY) — (813) 685-9727

BILL

384

TreeSweet Products Co

#3 A056-55650 2400 hr/yr

PM 0.4 TPY

NOx 2.3 TPY

WHE/PD A056-64438

(PW Table) PM 30.6 #/hr 36.7 TPY

on #6 2880 hr/yr

PM 4.08 #/hr 5.88 TPY

SO_2 20.4 #/hr 29.38 TPY

#4

7-14-86

@ 1.5% S = BACT

276 x 8.108 #/gal x 2 x 0.015 = 67.13 #/hr

340,000 #/yr ÷ 67.13 ⇒ 5064 hr/yr vs 5616

7-14-86 @ 9:35

Spoke w W. Griffin on the above.

① Which boiler to be designated?

② Boiler data (he will be v/ing this week-end - 7/19-20/86

③ common tanks?

④ fuel meters

⑤ testing until Dec or production is up (SO2 verification of ⑥ on Peel dryer)

⑥ BACT @ 1.5% S

⑦ Fee - has already paid $1000 > 100 TPY (either Boiler)

would owe $750 > 75 TPY (Peel Dryer)

BA

5?

BA

7-11-86
@ 9:15 → :45 Spoke @ Mr. Griffin - recheck data; withdraw #3+#4 Boiler Apps; advise status Ba

360 gal/hr × 8.108 #/gal × 0.025 (%S) × 2 #SO₂/#S = 145.94 #/hr ⇒ 146 #/hr

@ 4320 hr/yr = 630,478 #/yr = 315 TPY

Peel Dryer

360 gal/hr × 63.58 (stk. test) = 228.9 gal/hr × 8.108 × 0.025 × 2 = 92.79 = 93 #/hr

23.75/40.5 ↑

@ 4320 hr/yr = 200 TPY

20.40/92.79 = 22% Pen.; ∴, 78% ∈ on SO_2 removal

661 TPY

∴ 200 TPY × 0.22 = 44 TPY ↑

315 TPY × 0.22 = 69.3 TPY ↑

conservative

315 TPY × .25 ≅ 78.75 TPY ↑

94.5 TPY ↑

conservative

* What was the input volume / hr of #6 FO

SO_2 2.5% #6 70% ∈ 30 ∈

43.75 #/hr

① Fuel guage requirement

② Method 7

③ @ max rate of fuel input and process input

* ④ March 19, Test - not @ max fuel + process input

* ⑤ Permitted @ 35 TPH ↑ @ 40.5 TPH

tested @ 25.75 TPH

Boilers 3+4

* ① Info. correct vs permitted levels

②

276 × 8.108 × 0.025 × 2 = 111.89 #/hr ⇒ 112 #/hr

249 TPY - 79 TPY = 170 TPY × 2000 = 340,000 #/yr ÷ 112 = 3035.7 ⇒

3036 hr/yr

max @ 2880 hrs/yr → Peel dryer for past 5 yr.

~2400 hr/yr →

Mr. Tim Powell
Department of Environmental Regulation
2745 S.E. Morningside Blvd.
PORT ST. LUCIE, FL 33452

Dear Mr. Powell:

During our Stack test of March 19, 1986, our August fuel consumption rate was 300 gm/hour of #6 fuel oil.

Sincerely,

John Frederick Lang

John Frederick Lang, C.O.
Plant Environmentalist

JFL/sr

cc: Bernie McBee
Wayne Griffin

DER

JUN 16 1986

BAQM

RECEIVED

JUN 16 1986

Dept. of Environmental Reg
Port St. Lucie

TREESWEET PRODUCTS CO.
1000 Bell Avenue, Ft. Pierce, Florida 33482
(305) 461-3800

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION) [redacted] BAQM	Initial	
	Date	
2. Mike Phillips - BAQM	Initial	
	Date	
3. Tallahassee	Initial	
	Date	
4.	Initial	
	Date	

REMARKS:

Treesweet's current application for switch to fuel oil.

DER

JUN 16 1986

BAQM

INFORMATION	
	Review & Return
	Review & File
	Initial & Forward

DISPOSITION	
	Review & Respond
	Prepare Response
	For My Signature
	For Your Signature
	Let's Discuss
	Set Up Meeting
	Investigate & Report
	Initial & Forward
	Distribute
	Concurrence
	For Processing
	Initial & Return

FROM:

Powell PSR

DATE 6/13/86

PHONE 457-5055

GulfCoast Engineering Inc.

CONSULTING ENGINEERS

POST OFFICE BOX 1786 • BRANDON, FLORIDA 33511 • (813) 685-9727

May 29, 1986

DER

JUN 2 1986

BAQM

Florida Department
of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

ATTN: Mike Phillips

RE: AC56 117649
AC56 117671
AC56 117673

Dear Mr. Phillips:

We have received your information request and would like to respond using your numerology.

Specifically:

Boilers 3 and 4 are identical.

1. The only modification requested is to allow the use of an alternate fuel. No change in operational hours is contemplated.
2. The equipment is already capable of operating on #6 fuel. Consequently no construction is required.
3. The current and past permits are as follows:

SOURCE	ISSUED/EXPIRED	NUMBER
Boiler #3	6/04/82 - 6/01/87	AO-56-55650
	3/25/77 - 3/25/82	AO-56-4026
Boiler #4	1/22/81 - 1/22/86	AO-56-38284
	12/08/80 - 4/01/81	AC-56-35634
	2/14/86 - 2/14/91	AO-56-112676

4. The operational hours are correct.
5. We would like to utilize the boilers without modification or conversion to meet BACT criteria. Consequently, we would suggest operational time limitations for #6 use to retain a minor source/ modification classification.
6. This information is contained on the existing permits.
7. A flow diagram is attached.

GulfCoast Engineering Inc.

CONSULTING ENGINEERS

POST OFFICE BOX 1786 • BRANDON, FLORIDA 33511 • (813) 685-9727

FEEDMILL

1. The feedmill currently is equipped to operate on #6 fuel. No additional construction is necessary. No other operational changes are necessary.
2. No construction is required to operate on #6.
3. The current and past permits are as follows:

SOURCE	ISSUED/EXPIRED	NUMBER
Dryer-Evaporator	12/22/78 - 12/15/79	AC-56-15012
	12/22/78 - 12/22/82	AO-56-15011
	12/10/79 - 12/15/80	AC-56-25094
	12/15/80 - 12/15/81	AC-56-40775
	3/29/83 - 3/29/88	AO-56-64438

4. Because of variations in fruit availability the actual dryer operational time will be approximately 2400 hours. Maximum run time will be 2880 hours during the December thru July fresh fruit season.
5. The dryer/wasteheat evaporator is a minor source. The proposed modification is a minor modification. The dryer cannot be operated without the wasteheat evaporator. Consequently, true potential emissions should include the removal of the pollutants by the scrubber. A test run on #6 was conducted on 3/19/86. Emission levels were 4.08 #/hr and 20.4 #/hr for particulates and sulfur dioxide respectively. This would reflect annual emissions of 5.88 TNS/yr and 29.38 TNS/yr for particulates and sulfur dioxide respectively (at 2880 Hrs.). This shall be considered as the potential emissions for this source.
6. This information is in the previous permit.
7. The flow diagram is attached.

GulfCoast Engineering Inc.

CONSULTING ENGINEERS

POST OFFICE BOX 1786 • BRANDON, FLORIDA 33511 • (813) 685-9727

I trust this information will complete the applications. Should you have any questions please contact me at my office at your earliest convenience.
convenience.

Sincerely,

Wayne E. Griffin, P.E.
President

Enclosure

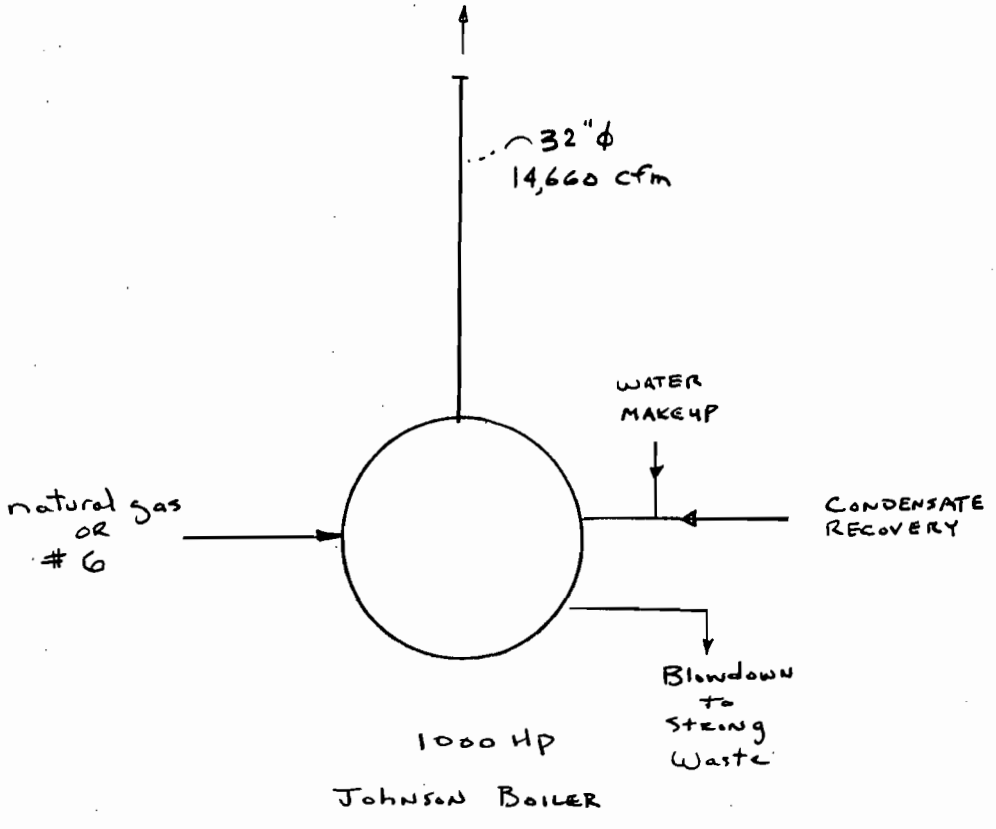
cc: Chet Kagel
Tim Powell

WEG/pg

GULFCOAST ENGINEERING COMPANY, INC.
CONSULTING ENGINEERS
P.O. BOX 1788 • BRANDON, FLORIDA 33511
TELEPHONE: (813) 685-9727 • 685-0085

job no. _____
description TREESWEET computed by _____ date _____
_____ sheet _____ of _____ checked by _____ date _____

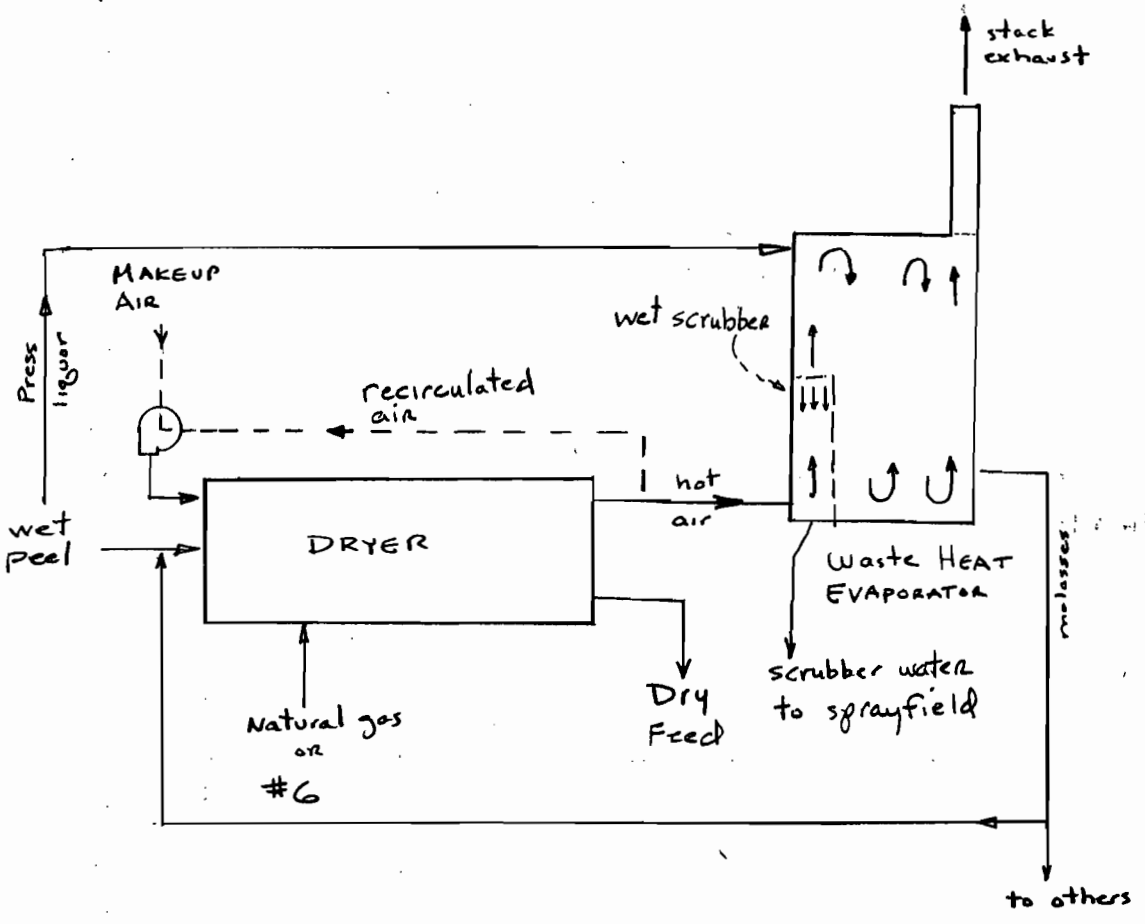
BOILERS #3 & #4



GULFCOAST ENGINEERING COMPANY, INC.
CONSULTING ENGINEERS
P.O. BOX 1786 • BRANDON, FLORIDA 33511
TELEPHONE: (813) 685-9727 • 685-0085

job no. _____
description Tree Sweet computed by _____ date _____
_____ sheet _____ of _____ checked by _____ date _____

Waste Heat Evaporator



STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHEAST FLORIDA
SUBDISTRICT

2745 SOUTHEAST MORNINGSIDE BOULEVARD
PORT ST. LUCIE, FLORIDA 33452

DER

JUN 2 1986

BAQM

PERMITTEE:
Treesweet Products, Co., Inc.
Bernard W. McBee, Jr., General Manager
P.O. Box 189
Fort Pierce, Florida 33454

I.D. Number: APIS #51/56/0009/01
Permit Number: AO-56-64438
Date of Issue: March 29, 1983
Expiration Date: March 29, 1988
County: St. Lucie
Latitude/Longitude:
Section/Township/Range:
Project: Peel Dryer/Waste Heat Evaporator

This permit is issued under the provisions of Chapter(s) 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:

OPERATE:
A Peel Dryer/Waste Heat Evaporator processing 35 tons/hour wet peel; burning 40,000 $ft.^3$/hour natural gas (40 MM BTU-hour); equipped with a wet scrubber. Hours of operation are normally 16 hours/day, 5 days/week and 30 weeks/year.

IN ACCORDANCE WITH:
Application for Renewal of Permit to Operate Air Pollution Source(s), DER Form 17-1.202(4), received 1/4/83.

LOCATED AT:
1000 Bell Avenue, Ft. Pierce. UTM: Zone 17, 565.6 km East/3031.3 North.

SUBJECT TO:
GENERAL CONDITIONS one (1) through fifteen (15) and SPECIFIC CONDITIONS one (1) through eight (8).

PERMITTEE:
Treesweet Products Co., Inc.
Bernard W. McBee, Jr., General Manager

I.D. Number: APIS #51/56/0009/01
Permit/Certification Number: AO-56-64438
Date of Issue: March 29, 1983
Expiration Date: March 29, 1988

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.

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 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)
( ) Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)
( ) 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.

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.

PERMITTEE:
Treesweet Products Co., Inc.
Bernard W. McBee, Jr., General Manager

I.D. Number: APIS #51/56/0009/01
Permit Number: AO-56-64438
Date of Issue: March 29, 1983
Expiration Date: March 29, 1988

SPECIFIC CONDITIONS:

1. The Permittee shall test annually for particulate and visible emissions using EPA Methods 1, 2, 3, 5 and 9 as referenced in Florida Administrative Code (FAC) Rule 17-2.700. Test dates shall be either on or prior to the anniversary date of this permit. At least 14 days prior notice will be afforded to the DER Southeast Florida Subdistrict.

2. During the compliance test, the process rate shall be 35 tons/hour wet peel, ± 10%.

3. The emission limiting standard for particulate is defined by the Process Weight Table, 17-2.610(1), FAC Rule. The visible emissions standard is an opacity less than 20% as given in 17-2.610(2), FAC Rule.

4. The Permittee shall take necessary precautions to prevent unconfined emissions of particulate matter as deemed necessary by the Department and as referenced in 17-2.610(3)(c), FAC Rule.

5. Natural gas is the only permitted fuel for this source. In the event of emergency conditions, when the natural gas supplied is curtailed, fuel oil may be burned only upon immediate notification to the Port St. Lucie Office (within 24 hours of such a curtailment) so that a visible emissions test may be scheduled; the next regularly scheduled stack test must then be performed while firing fuel oil. If the Permittee at some later date wishes to use fuel oil in normal operations, an application must be submitted to the Port St. Lucie Office and a stack test will be rescheduled within 30 days of such a modification.

6. The permittee shall submit an Annual Operating Report for each calendar year, on forms provided by the Department, no later than March 1 of the following calendar year.

7. The stack sampling facilities shall be maintained and designed as given in 17-2.700(4)(c)., FAC Rule.

8. This permit will expire on March 29, 1988. No later than 60 days prior to this date, the Permittee shall apply for a renewed operating permit on forms provided by the Department.

Note: Based on 1/14/83 stack test results, this source is expected to emit 27.5 lb/hr particulate x 2400 hr/yr = 33 TPY. Allowable emissions based on Process Weight Table and 35 TPH wet peel are 30.6 lb/hour or 36.7 TPY.

Issued this 29th day of March, 1983

RMD:tps/8

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Roy M Duke

Roy M. Duke
District Manager

4 Pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHEAST FLORIDA DISTRICT
BRANCH OFFICE
2745 SOUTHEAST MORNINGSIDE BOULEVARD
PORT ST. LUCIE, FLORIDA 33452

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

DER

JUN 2 1986

BAQM

PERMITTEE:
Bernard W. McBee, Jr.
General Manager
TreeSweet Products Co., Inc.
1000 Bell Avenue
Fort Pierce, Florida 33482

APIS No.: 50/56/0009/08
Permit Number: AO-56-112676
Date of Issue: February 14, 1986
Expiration Date: February 14, 1991
County: St. Lucie
Latitude/Longitude: 27°24'11"N/80°20'24"W
Project: Boiler #4

This permit is issued under the provisions of Chapter(s) 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:

OPERATE:

1000 H.P. (17 MM BTU/hr.) Johnson fire tube process steam boiler, Model 538 AHG, burning natural gas (16,148 ft.^{3}/hr. maximum) or No. 2 diesel oil (124 gal./hr.) as backup fuel; discharging pollutants through 36 inch I.D. stack, 38.5 ft. above ground; unlimited hours of operation.

IN ACCORDANCE WITH:

The original construction permit, AC-56-35634; "Application for Renewal of Permit to Operate Air Pollution Sources", DER Form 17-1.202(4), received November 22, 1985.

LOCATED AT:

1000 Bell Avenue, Fort Pierce. UTM Coordinates: Zone 17, 565.3 km East/3030.4 km North.

SUBJECT TO:

GENERAL CONDITIONS one (1) through fifteen (15) and SPECIFIC CONDITIONS one (1) through four (4).

PERMITTEE:

I.D. Number:
Permit/Certification Number:
Date of Issue:
Expiration Date:

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.

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 limit tion 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 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)
( ) Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)
( ) 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.

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.

PERMITTEE:
Bernard W. McBee, Jr., General Manager
TreeSweet Products Co., Inc.

APIS Number: 50/56/0009/08
Permit Number: AO-56-112676
Date of Issue: February 14, 1986
Expiration Date: February 14, 1991

SPECIFIC CONDITIONS:

1. The emission limiting standard for this source is less than 20 percent opacity as referenced in FAC Rule 17-2.600(5). Compliance with the standard is accomplished by performing EPA Method 9 as referenced in FAC Rule 17-2.700.

2. Compliance with the visible emissions standard shall be tested for prior to renewal of this permit. At least 14 days prior notice will be afforded the DER Southeast Florida Subdistrict Office in Port St. Lucie. Test results must be submitted to this office within 45 days after the test date.

3. During the compliance test, the source shall be fired with the "worst-case" fuel permitted, 124 gal./hr. No. 2 Diesel, ± 10%.

4. This permit will expire on 2/14/1991. No later than 60 days prior to this date, the Permittee shall apply for a renewal of the permit on forms provided by the Department. Along with the application, test results showing compliance with the standard must be submitted. The test must have been run no earlier than 90 days from the date of expiration. At least 14 days prior notice shall be afforded the DER Southeast Florida Office in Port St. Lucie so that a representative may witness the test.

AP:tps/17

Issued this 14th day of February, 1986

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Alexander Padva, Ph.D.
Acting District Manager

4 Pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTH FLORIDA
SUBDISTRICT
BRANCH OFFICE

2745 SOUTHEAST MORNINGSIDE BOULEVARD
PORT ST. LUCIE, FLORIDA 33452

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

DER

JUN 2 1986

BAQM

APIS #51/56/0009/003

APPLICANT:

William E. Parker
Executive Vice President
TreeSweet Products Company
Post Office Box 189
Fort Pierce, Florida 33454

PERMIT/CERTIFICATION
NO. AO 56-55650

COUNTY: St. Lucie

PROJECT: TreeSweet Products Co.
Boiler #3

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

OPERATE: A 1000 H.P. (33.5 MMBTU/HR) Johnson Firetube Boiler fired by natural gas with #2 fuel oil standby discharging pollutants to the atmosphere 25 feet above ground level.

IN ACCORDANCE WITH: Application to Operate Air Pollution Sources dated February 16, 1977 and Application for Renewal dated May 10, 1982.

LOCATED AT: 1000 Bell Avenue, Fort Pierce

UTM COORDINATES: Zone 17; 565.4 KmE, 3030.6 KmN

SERVING: A citrus processing plant (SIC# 2037)

SUBJECT TO: General Conditions 1 - 12 and Specific Condition 1 - 6.

PERMIT NO.:
APPLICANT:

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 Section 403.161(1), Florida Statutes. Permittee is hereby placed on notice that the department will review this permit periodically and may initiate court 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 indicated in the attached drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit shall constitute grounds for revocation and enforcement action by the department.

3. 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 non-compliance, 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 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.

4. As provided in subsection 403.087(6), 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.

5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.

6. 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 Section 403.111, F.S.

7. In the case of an operation permit, 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.

8. 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 penalities therefore 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, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.

9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.

10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.

11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.

12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation 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.

13. This permit also constitutes:

[ ] Determination of Best Available Control Technology (BACT)
[ ] Determination of Prevention of Significant Deterioration (PSD)
[ ] Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)

PERMIT NO: AO 56-55650 - TreeSweet Products Company
APPLICANT: Mr. William E. Parker, Executive Vice President

SPECIFIC CONDITIONS:

1. Compliance testing shall be conducted for the sources covered by this permit prior to renewal in accordance with the methods specified below.

2. Emission limiting standard is as follows:

In accordance with Florida Administrative Code Rule 17-2.610(2), visible emissions from this boiler shall not equal or exceed an average of 20% opacity.

3. The compliance test report shall include emissions tested by the following methods:

Source/Emission Point	Pollutant	Test Method
Boiler #3	Visible Emissions	EPA Method 9

The compliance test report shall be submitted to the Department in accordance with Florida Administrative Code (F.A.C.) Rule 17-2.700(7).

4. Testing of emissions should be conducted using the fuel and/or process input which are expected to result in the highest emissions and within ten percent (10%) of the rated capacity of the source. Otherwise the Department may require the test to be repeated or modify the permit to reflect tested rates and/or fuels.

5. The Department shall be notified of expected test dates at least ten (10) days prior to compliance testing.

6. Copies of all reports, tests, notifications or other submittals required by this permit shall be submitted to the Department of Environmental Regulation, South Florida Subdistrict Branch Office.

PERMIT NO: AO 56-55650 - TreeSweet Products Company
APPLICANT: Mr. William E. Parker, Executive Vice President

SPECIFIC CONDITIONS (continued):

NOTE: The sources covered by this permit are expected to emit the following amounts of pollutants:

Particulate	0.4 tons/year
NO_x	2.3 tons/year

Based on: AP42-Table 1.4-1, emission factors; burning 0.016 MMCF/hr of natural gas 4800 hrs/yr.

Expiration Date: June 1, 1987

Issued this 7th day of June 1982

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Roy M. Duke

Roy M. Duke
Subdistrict Manager

DER Form 17-1.22(63)4/4 (1/80)

EMISSIONS TEST REPORT

TREESWEET PRODUCTS COMPANY

WASTE HEAT EVAPORATOR

MARCH 19, 1986

Prepared For:

TREESWEET PRODUCTS COMPANY
1000 BELL AVENUE
FORT PIERCE, FLORIDA

Prepared By:

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.
5119 NORTH FLORIDA AVENUE
TAMPA, FLORIDA

May 9, 1986

TABLE OF CONTENTS

I. SUMMARY

On March 19, 1986 Environmental Engineering Consultants, Inc. conducted an emissions test on the exhaust stack of the citrus peel dryer at Treesweet Products Company in Fort Pierce, Florida. Particulate matter and sulfur dioxide emission rates for certification of compliance while burning No. 6 fuel oil were determined according to procedures prescribed by the United States Environmental Protection Agency Methods 5 and 6.

The test was conducted by Carl Fink and Byron Burrows of Environmental Engineering Consultants, Inc. with the assistance and cooperation of John Lang and Mike Bryant of Treesweet Products.

A summary of the test results is shown in Table 1. The average emissions rate was 4.08 pounds per hour of particulates and 20.40 pounds per hour of sulfur dioxide at an average process input rate of 25.75 tons per hour of wet peel. The particulate emission rate is well below the emission limiting standard of 26.90 pounds per hour. There is no emissions standard for sulfur dioxide. The facility is therefore found to be in compliance with applicable standards.

I hereby certify that these results are true and correct and were obtained by the procedures and methods described herein.

Respectfully Submitted;

Carl F. Fink
Associate Engineer
Test Team Leader

Jack R. Fross
Principal

TABLE 1

TEST SUMMATION

PLANT: Treesweet Products

SOURCE: Waste Heat Evaporator

DATE: March 19, 1986

Run No.	Sample Vol. (DSCF)	Flow Rate (DSCFM)	Moisture (%)	Stack Temp. (°F)	Isokinetics (%)	Particulate Emissions (lb/hr)	SO2 Emissions (lb/hr)
1	40.462	16,766	20.97	146	100.0	2.59	22.98
2	37.303	14,553	30.79	160	106.2	3.80	13.31
3	36.130	13,930	35.83	168	107.5	5.86	24.91
Average		15,083	29.20	158	104.6	4.08	20.40
					Allowable *	26.90	N/A

* Allowable Emissions Rate from 17-2.610(1)(b); E = 3.59 po.62

II. SOURCE DESCRIPTION

Treesweet Products Company processes fruit juice and a dried citrus peel used as animal feed. After removing the juice, the wet peel is shredded and lime is added. After pressing to remove liquids and essential oils, the peel is conveyed to the dryer where the moisture content is reduced from approximately 75 percent to 15 percent. The dried peel is loaded into trucks for shipping, and exhaust gases are passed through a scrubber and then through a heat recovery unit before being vented to the atmosphere (Figure 1). During this test the dryer was being fired with a No. 6 fuel oil with a sulfur content of 2.5 percent.

The stack is 38 inches in diameter and approximately 100 feet high with two sampling ports. The sampling ports are located 0.63 diameters upstream and 3.8 diameters downstream from flow disturbances in the exhaust flow (Figure 2).

Process input rates were determined by combining the dried peel output with the moisture removed by the drier. The dried peel output was determined by Treesweet. Analysis of the wet peel input and dry feed output were used to calculate the moisture removed during drying. The samples were composited prior to analysis to obtain average values.

May 22, 1986

Mr. T. Powell
Department of Environmental Regulation
2745 S.E. Morningside Blvd.
Port St. Lucie, Florida 33452

Dear Mr. Powell:

Please find enclosed two copies of our stack tests utilizing 2.5% sulfur by weight fuel oil #6. It is my understanding that this is the last piece of information needed to begin work on my permit modification for the waste heat evaporator and dryer complex.

Thank you,

John Frederick Lang

John Frederick Lang
Plant Environmentalist

JFL/sr

TreeSweet Products Co.
1000 Bell Avenue, Ft. Pierce, Florida 33482
(305) 461-3800

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

	Initial	Date
1. TO: (NAME, OFFICE, LOCATION) Bill Thomas - BAQM Tallahassee		
2.		
3.		
4. DER		

REMARKS:

MAY 30 1986

BAQM

Bill -

We advised Ken to do an SO_2 test in order to calculate potential SO_2 emissions from Dryer / W.H.E. This report doesn't give fuel usage data though - which is needed to calculate SO_2 removal in Ketu.

INFORMATION

- Review & Return
- Review & File
- Initial & Forward

DISPOSITION

- Review & Respond
- Prepare Response
- For My Signature
- For Your Signature
- Let's Discuss
- Set Up Meeting
- Investigate & Report
- Initial & Forward
- Distribute
- Concurrence
- For Processing
- Initial & Return

FROM:

T. Powell

PSD Branch

DATE 5/28/86

PHONE 451-5005

EMISSIONS TEST REPORT

TREESWEET PRODUCTS COMPANY

WASTE HEAT EVAPORATOR

MARCH 19, 1986

Prepared For:

TREESWEET PRODUCTS COMPANY
1000 BELL AVENUE
FORT PIERCE, FLORIDA

Prepared By:

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.
5119 NORTH FLORIDA AVENUE
TAMPA, FLORIDA

May 9, 1986

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The test was conducted by Carl Fink and Byron Burrows of Environmental Engineering Consultants, Inc. with the assistance and cooperation of John Lang and Mike Bryant of Treesweet Products.

A summary of the test results is shown in Table 1. The average emissions rate was 4.08 pounds per hour of particulates and 20.40 pounds per hour of sulfur dioxide at an average process input rate of 25.75 (63.6%) tons per hour of wet peel. The particulate emission rate is well below the emission limiting standard of 26.90 pounds per hour. There is no emissions standard for sulfur dioxide. The facility is therefore found to be in compliance with applicable standards.

I hereby certify that these results are true and correct and were obtained by the procedures and methods described herein.

Respectfully Submitted;

Carl F. Fink

360 gal/hr x 63.58% = 228.9 gal/hr max

Carl F. Fink
Associate Engineer
Test Team Leader

Jack R. Fross
Principal

TABLE 1

TEST SUMMATION

PLANT: Treesweet Products

SOURCE: Waste Heat Evaporator

DATE: March 19, 1986

Run No.	Sample Vol. (DSCF)	Flow Rate (DSCFM)	Moisture (%)	Stack Temp. (°F)	Isokinetics (%)	Particulate Emissions (lb/hr)	SO2 Emissions (lb/hr)
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3	36.130	13,930	35.83	168	107.5	5.86	24.91
Average		15,083	29.20	158	104.6	4.08	20.40
					Allowable *	26.90	N/A

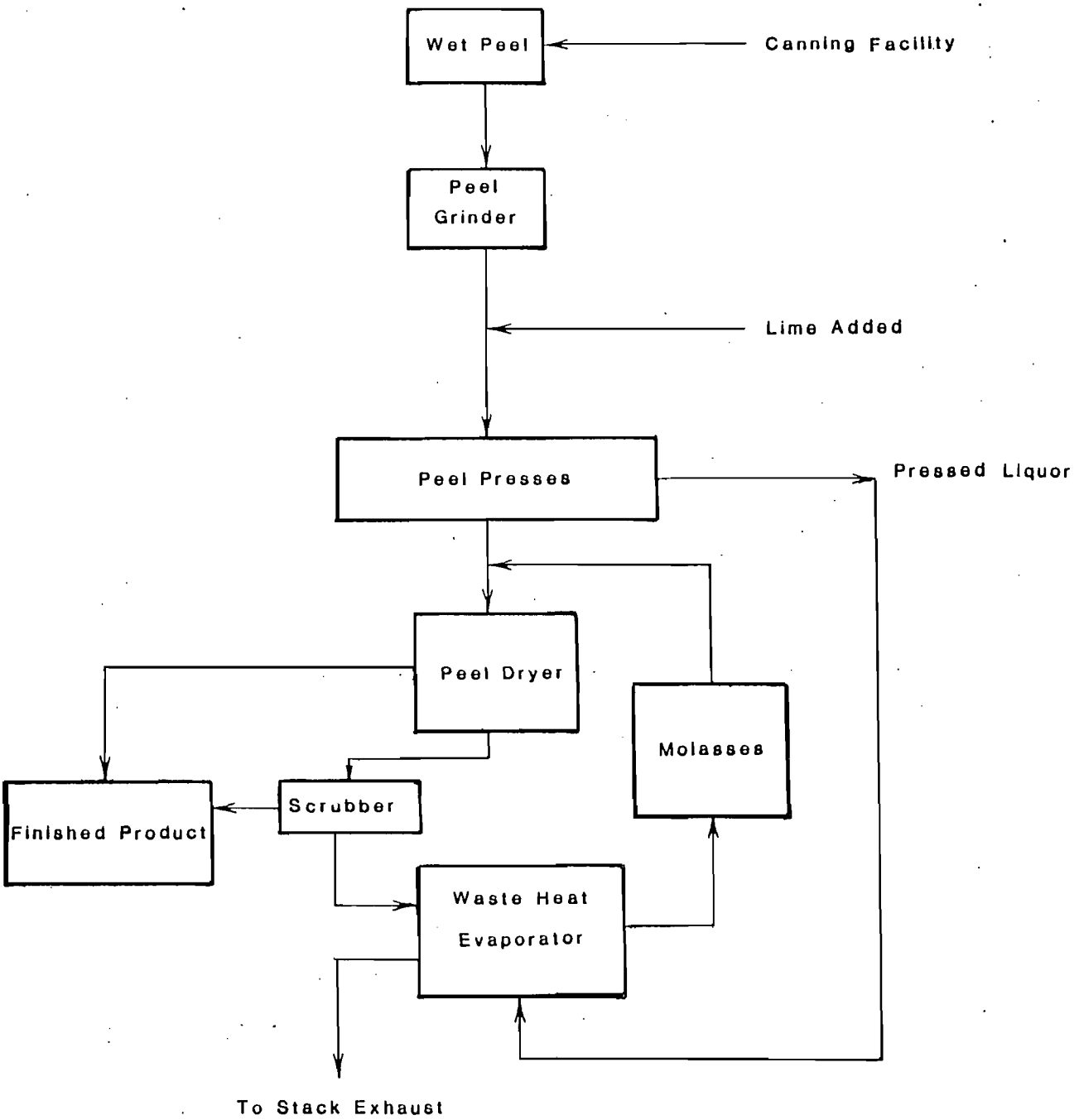
*
Allowable Emissions Rate from 17-2.610(1)(b); E = 3.59 po.62

II. SOURCE DESCRIPTION

Treesweet Products Company processes fruit juice and a dried citrus peel used as animal feed. After removing the juice, the wet peel is shredded and lime is added. After pressing to remove liquids and essential oils, the peel is conveyed to the dryer where the moisture content is reduced from approximately 75 percent to 15 percent. The dried peel is loaded into trucks for shipping, and exhaust gases are passed through a scrubber and then through a heat recovery unit before being vented to the atmosphere (Figure 1). During this test the dryer was being fired with a No. 6 fuel oil with a sulfur content of 2.5 percent.

The stack is 38 inches in diameter and approximately 100 feet high with two sampling ports. The sampling ports are located 0.63 diameters upstream and 3.8 diameters downstream from flow disturbances in the exhaust flow (Figure 2).

Process input rates were determined by combining the dried peel output with the moisture removed by the drier. The dried peel output was determined by Treesweet. Analysis of the wet peel input and dry feed output were used to calculate the moisture removed during drying. The samples were composited prior to analysis to obtain average values.



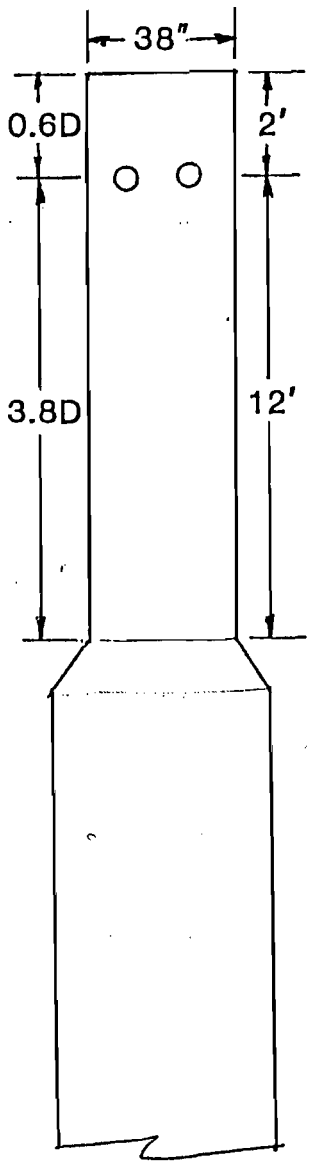
FEED MILL PROCESS DESCRIPTION

TREESWEET PRODUCTS

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

CONSULTING ENGINEERS, ENVIRONMENTAL SCIENTISTS

Fig. 1



PT. NO.	DIST. (IN.)
1	1.00*
2	2.55
3	4.48
4	6.73
5	9.50
6	13.49
7	24.51
8	28.50
9	31.27
10	33.52
11	35.45
12	37.00*

* Adjusted to 1 inch from stack wall.

SAMPLING POINTS
TREESWEET PRODUCTS

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.
CONSULTING ENGINEERS & ENVIRONMENTAL SCIENTISTS

Figure 2

III. METHODS AND PROCEDURES

EPA Methods 1 and 2 were used to obtain the sampling port locations and determine stack velocity and volumetric flowrate respectively. Twenty-four points were determined to be the proper number of sampling locations. Each point was sampled for 2.5 minutes, giving a total time of 60 minutes per run. EPA Methods 5 and 6 were followed for sampling and analysis of particulates and sulfur dioxide, respectively.

Particulate

The Method 5 sampling train was assembled as shown in Figure 3 for each particulate test. A five foot probe with a heated pyrex glass liner was used. The probe temperature was monitored continuously during the test runs. Stack temperature measurements were conducted at each point during the initial velocity traverse and during sampling.

The first and second impingers were each charged with 100 ml of distilled, deionized water; the third was dry; and the fourth was filled with known weight of indicator-grade silica gel. Crushed ice was placed around the impingers during sampling to maintain the temperature of the gas leaving the last impinger below 68 ^{o}F.

A borosilicate glass fiber filter (maintained at a temperature of 248 $\pm$ 25 ^{o}F) was used for particulate matter collection. The filter temperature was monitored throughout the test.

Leak tests were performed before and after each sampling run by blocking the nozzle inlet. No leakages were observed at vacuum levels equal to or exceeding those experienced during sampling.

At the end of each run the volume of water collected in the first three impingers was measured and the silica gel in the fourth impinger was weighed to the nearest 0.5 gram to determine the volume of water collected. All impingers were then rinsed and charged for the next run.

The filter holder was removed, sealed, and stored for subsequent gravimetric analysis. The sample nozzle and probe liner were brushed and rinsed with acetone into a storage container. A new loaded filter holder was installed and the sampling train reassembled for the next run.

After returning to the laboratory, the filters were removed from the holders, oven dried at 105 ^{o}C for 2 hours, cooled in a desiccator and weighed to constant weight. The front half of each filter holder was brushed and rinsed with acetone into the bottle with the corresponding probe rinse.

The acetone wash volumes were measured and transferred to tared 400 ml beakers and evaporated to dryness at low heat and ambient pressure. The beakers were then cooled in a desiccator and weighed to constant weight. A portion of the acetone used for component washing was analyzed by the same procedure to determine blank residue.

Sulfur Dioxide

The Method 6 sampling train was assembled as shown in Figure 4 for each sulfur dioxide test. A mass flowmeter with totalizer was substituted for the dry gas meter for volume measurements. A three foot probe with a heated 1/4 inch pyrex glass liner was inserted approximately 18 inches into the stack for sampling. The probe liner was connected to the impingers with pyrex glass fittings.

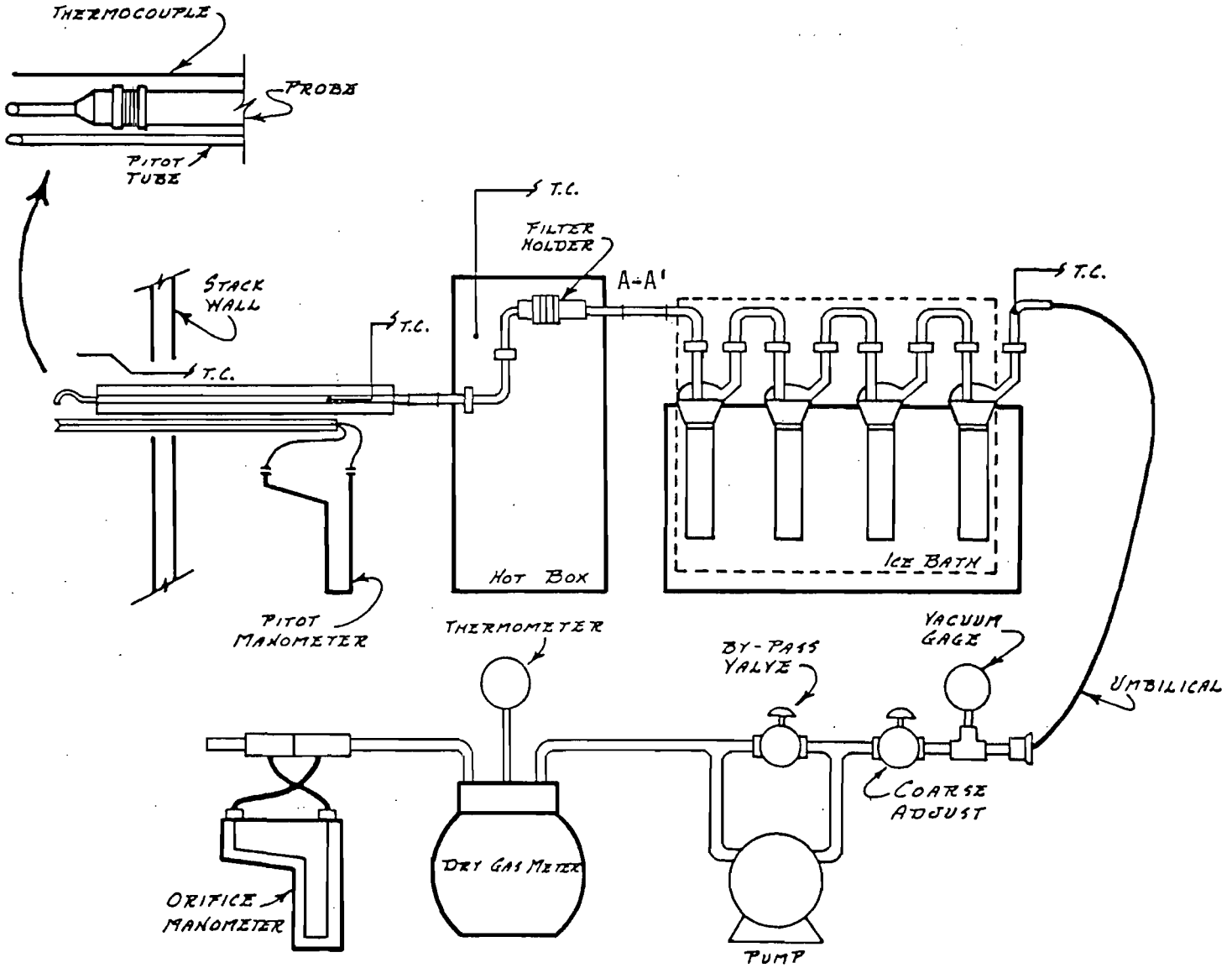
The first midget impinger was charged with 15 ml of 2-propanol; the second and third were charged each with 15 ml of 3% hydrogen peroxide; and the fourth was dry. The entire sampling train was immersed in an ice bath to maintain the temperature of the gas leaving the last impinger below 68 ^{o}F. This temperature was monitored throughout the test with a thermocouple in the outlet line from the final impinger.

The sampling flowrate was adjusted to approximately one liter per minute as indicated by the mass flowmeter. At the end of each twenty minute sampling period, a leak check was performed by pulling a vacuum of 10 in. Hg. at the inlet of the first impinger and observing less than 20 cc/min flow as indicated by the mass flowmeter. The ice bath was then drained and the sampling system purged with ambient air for 20 minutes at the rate of approximately one liter per minute.

At the end of each purge period, the 2-propanol was discarded and the contents of the other three midget impingers transferred quantitatively to a polyethylene container for laboratory analysis. Distilled water rinses of the midget impingers and

connecting glassware were added to the sampler container. The train was then charged and reassembled for the next run. A reagent sample blank was prepared from the peroxide solution used for charging the impingers.

The sulfur dioxide and peroxide blank samples were analyzed by Interscience, Inc. using the barium-thorin procedure as described in EPA Method 6.



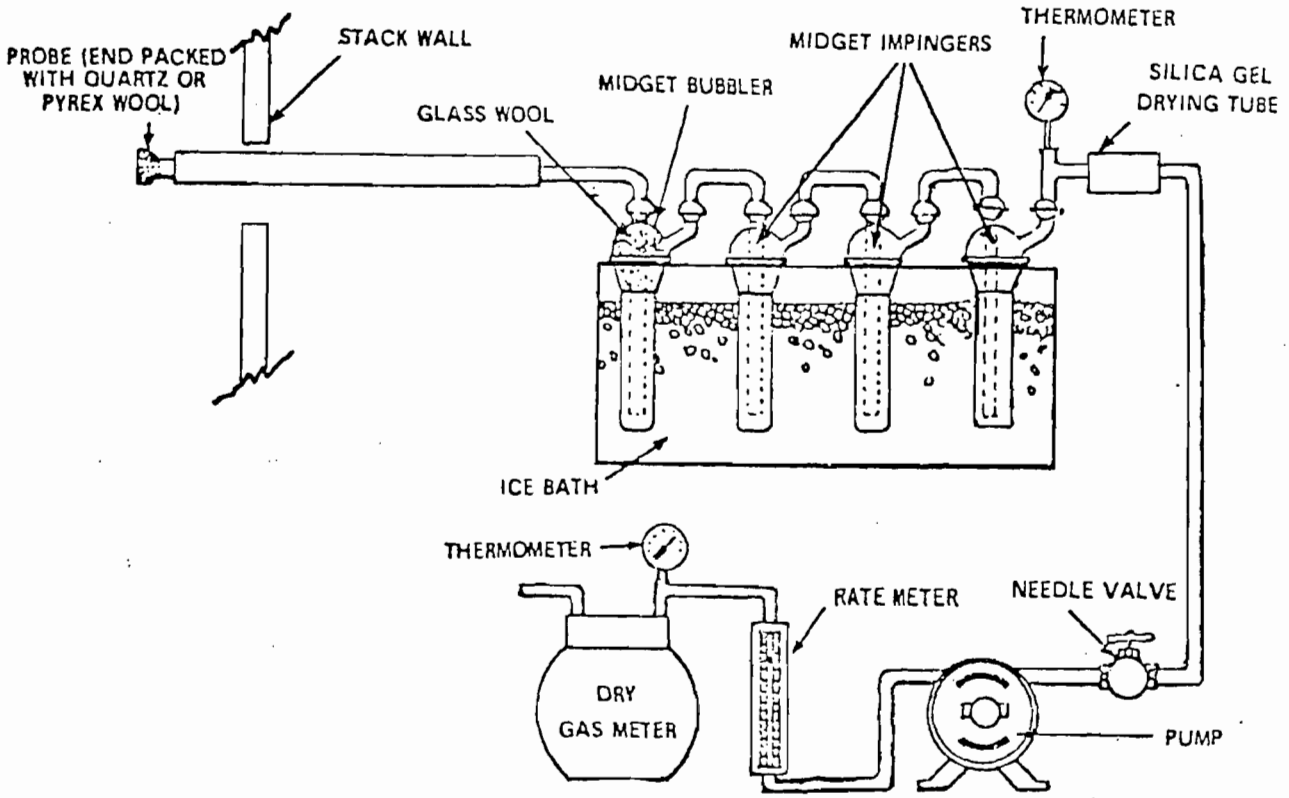
Section A-A' consisted of
a 50 ft. Flexible Tube

METHOD 5 SAMPLING TRAIN

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

CONSULTING ENGINEERS, ENVIRONMENTAL SCIENTISTS

Figure 3



METHOD 6 SAMPLING TRAIN

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

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Figure 4

APPENDIX A

TEST DATA AND CALCULATIONS

SOURCE TESTING NOMENCLATURE AND DIMENSIONS

An:	Cross sectional area of nozzle, ft^2
As:	Cross sectional area of stack, ft^2
Bws:	Water vapor in the gas stream, proportion by volume
Cs:	Concentration of particulate matter in stack gas at standard conditions, gr/dscf
Cs50:	Concentration corrected to 50% excess air
Cs12:	Concentration corrected to 12% carbon dioxide
Cp:	Pitot tube coefficient
E:	Source emission rate, lbs/hr
EA:	Excess air
Fd:	Ratio of standard volume of gas produced per unit of heat combustion (oxygen based), dscf/MBTU
I:	Percent of isokinetic sampling
Md:	Molecular weight of stack gas, dry basis, lb/lb-mole
Ms:	Molecular weight of stack gas, wet basis, lb/lb-mole
Mn:	Total particulate collected, less acetone blank correction; grams
Pb:	Barometric pressure at test site, in. Hg
Ps:	Absolute stack gas pressure, in. Hg
Qs:	Volumetric flow rate, dry at standard conditions, DSCFM
Tm:	Absolute average dry gas meter temperature, ^oR
Ts:	Absolute average stack gas temperature, ^oR
Vlc:	Total volume of liquid collected in impingers and silica gel, ml
Vm:	Volume of gas sampled under actual conditions, DCF

Vm(std):	Volume of gas sampled corrected to standard conditions, DSCF
Vs:	Stack gas velocity, ft/sec
Vw:	Volume of water in sample corrected to standard conditions, SCF
Y:	Dry gas meter calibration factor
θ:	Total sampling time, min.
P:	Velocity head, in H2O
H:	Average pressure differential across orifice meter, in. H2O

SUMMARY OF TEST DATA

Plant: Treesweet Products
Source: Evaporator
Date: March 19, 1986
Emission: Particulate Matter

	Run 1	Run 2	Run 3
Test Interval:	0836-0939	1112-1214	1327-1428
Test Time, min.:	60	60	60
Stack Area, sq. ft.:	7.876	7.876	7.876
Nozzle Diameter, in.:	0.241	0.241	0.241
Barometric Pressure, in. Hg.:	30.05	30.05	30.00
Absolute Stack Pressure, in. Hg:	30.01	30.01	29.96
Volume Liquid Collected, ml.:	227.9	352.4	428.3
Stack Gas Moisture Content, %:	20.97	30.79	35.83
Stack Gas Temperature, F:	146	160	168
Sample Volume, DSCF:	40.462	37.303	36.130
Gas Velocity, FPS:	51.410	52.135	54.607
Gas Flowrate, ACFM:	24,295	24,637	25,805
Gas Flowrate, DSCFM:	16,766	14,553	13,930
Particulate Matter Collected, g:	0.0473	0.0737	0.1150
Concentration, grains/DSCF:	0.0180	0.0305	0.0491
Emission Rate, lb/hr:	2.59	3.80	5.86
Percent Isokinetic, %:	100.0	106.2	107.5

SUMMARY OF TEST DATA

Plant: Treesweet Products
Source: Evaporator
Date: March 19, 1986
Emission: Sulfur Dioxide

	Run 1	Run 2	Run 3
Test Interval:	0730-0750	1000-1020	1222-1242
Barometric Pressure, in. Hg.:	30.05	30.05	30.00
Sample Volume, DSCF:	0.711	0.709	0.713
Stack Temperature, °F:	146	160	168
Gas Flowrate, ACFM:	24,295	24,637	25,805
Gas Flowrate, DSCFM:	16,766	14,553	13,930
Sulfur Dioxide, meq.:	0.230	0.153	0.301
Emission Rate, lb/hr:	22.98	13.31	24.91

PLANT TREESWEET PRODUCTS

SOURCE WASTE HEAT EVAPORATOR

DATE 3-19-86

RUN NO. 1

CALIBRATION

C_p	0.84	
Y	1.003	
D_n	0.241	in.
A_n	3.1678×10^{-4}	ft^2

NEW DATA

P_b	30.05	in. H_g
P_s	30.01	in. H_g
A_s	7.876	ft^2
θ	60	min.
V_m	41.811	DCF
ΔH	1.93	in. H_2O
T_m	552	°R
T_s	606	°R
V_{lc}	227.9	ml
$(\sqrt{\Delta P})_{avg.}$	0.8352	
M_n	0.0473	g.

$$V_{m(std)} = \frac{17.64\, V_m\, Y\, (P_b + \Delta H/13.6)}{T_m} =$$

$$\frac{17.64\,(41.811)(1.003)(30.05+\frac{1.93}{13.6})}{(552)} = 40.4615 \text{ DSCF}$$

$$V_w = 0.0471\, V_{lc} = 0.0471\,(227.9) = 10.7341 \text{ SCF}$$

$$B_{ws} = \frac{V_w}{V_w + V_{m(std)}} = \frac{(10.7341)}{(10.7341)+(40.4615)} = 0.2097$$

$$M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%CO + \%N_2) =$$

$$0.44(\quad) + 0.32(\quad) + 0.28(\quad) = \text{ASSUME } 30.0$$

$$M_s = M_d(1-B_{ws}) + 18\,B_{ws} = (30.0)(.7903) + 18(.2097) = 27.4836$$

$$V_s = 85.49\, C_p\, (\sqrt{\Delta P})_{avg.}\, (T_s/P_s M_s)^{1/2} =$$

$$85.49(.84)(.8352)\left[\frac{(606)}{(30.01)(27.4836)}\right]^{1/2} = 51.410 \text{ FPS}$$

$$Q_s = 1058\,(1-B_{ws})\, V_s\, A_s\, (P_s/T_s) =$$

$$1058\,(.7903)(51.410)(7.876)\frac{(30.01)}{(606)} = 16,766 \text{ DSCFM}$$

$$24,295 \text{ ACFM}$$

$$I = \frac{100\, V_{m(std)}\, A_s}{\theta\, Q_s\, A_n} = \frac{100\,(40.4615)(7.876)}{(60)(16,766)(3.1678\times10^{-4})} = 100.0\ \%$$

$$C_s = 15.43\,\frac{M_n}{V_{m(std)}} = \frac{(15.43)(.0473)}{(40.4615)} = 0.0180 \text{ gr/DSCF}$$

$$E = \frac{C_s\, Q_s}{116.67} = \frac{(.0180)(16,766)}{116.67} = 2.59 \text{ LB/HR}$$

SOURCE SAMPLING CALCULATION SHEET

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

CONSULTING ENGINEERS, ENVIRONMENTAL SCIENTISTS

PLANT TREESWEET PRODUCTS

SOURCE WASTE HEAT INCINERATOR

DATE 3-19-86

RUN NO. 2

CALIBRATION

C_p	0.84	
Y	1.003	
D_n	0.241	in.
A_n	3.1678×10^{-4}	ft^2

NEW DATA

P_b	30.05	in. Hg.
P_s	30.01	in. Hg.
A_s	7.876	ft^2
θ	60	min.
V_m	38.508	DCF
ΔH	1.60	in. H_2O
T_m	551	°R
T_s	620	°R
V_{lc}	352.4	ml
$(\sqrt{\Delta P})_{avg.}$	0.8192	
M_n	0.0737	g.

$$V_{m(std)} = \frac{17.64\, V_m\, Y\, (P_b + \Delta H/13.6)}{T_m} =$$

$$\frac{17.64\,(38.508)(1.003)(30.05+\frac{1.60}{13.6})}{(551)} = 37.3027 \text{ DSCF}$$

$$V_w = 0.0471\, V_{lc} = 0.0471\,(352.4) = 16.5980 \text{ SCF}$$

$$B_{ws} = \frac{V_w}{V_w + V_{m(std)}} = \frac{(16.5980)}{(16.5980)+(37.3027)} = 0.3079$$

$$M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%CO + \%N_2) =$$

$$0.44(\quad) + 0.32(\quad) + 0.28(\quad) = \text{ASSUME } 30.0$$

$$M_s = M_d(1-B_{ws}) + 18\,B_{ws} = (30.0)(.6921) + 18(.3079) = 26.3052$$

$$V_s = 85.49\, C_p\, (\sqrt{\Delta P})_{avg.}\, (T_s/P_s M_s)^{1/2} =$$

$$85.49(.84)(.8192)\left[\frac{(620)}{(30.01)(26.3052)}\right]^{1/2} = 52.135 \text{ FPS}$$

$$Q_s = 1058\,(1-B_{ws})\, V_s\, A_s\, (P_s/T_s) =$$

$$1058\,(.6921)(52.135)(7.876)\frac{(30.01)}{(620)} = 14{,}553 \text{ DSCFM}$$

$$(24{,}637 \text{ ACFM})$$

$$I = \frac{100\, V_{m(std)}\, A_s}{\theta\, Q_s\, A_n} = \frac{100\,(37.3027)(7.876)}{(60)(14{,}553)(3.1678\times10^{-4})} = 106.2\ \%$$

$$C_s = 15.43\,\frac{M_n}{V_{m(std)}} = \frac{(15.43)(.0737)}{(37.3027)} = 0.0305 \text{ gr/DSCF}$$

$$E = \frac{C_s\, Q_s}{116.67} = \frac{(14{,}553)(.0305)}{116.67} = 3.80 \text{ LB/HR}$$

SOURCE SAMPLING CALCULATION SHEET

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

CONSULTING ENGINEERS, ENVIRONMENTAL SCIENTISTS

PLANT TREESWEET PRODUCTS

SOURCE WASTE HEAT EVAPORATOR

DATE 3-19-86

RUN NO. 3

CALIBRATION

C_p	0.84	
Y	1.003	
D_n	0.241	in.
A_n	3.1678×10^{-4}	ft^2

NEW DATA

P_b	30.00	in. Hg.
P_s	29.96	in. Hg.
A_s	7.876	ft^2
θ	60	min.
V_m	37.640	DCF
ΔH	1.50	in. H_2O
T_m	555	°R
T_s	628	°R
V_{lc}	428.3	ml
$(\sqrt{\Delta P})_{avg.}$	0.8420	
M_n	0.1150	g.

$$V_{m(std)} = \frac{17.64\, V_m\, Y\, (P_b + \Delta H/13.6)}{T_m} =$$

$$\frac{17.64\,(37.640)(1.003)(30.00 + \frac{1.50}{13.6})}{(555)} = 36.1303 \text{ DSCF}$$

$$V_w = 0.0471\, V_{lc} = 0.0471\,(428.3) = 20.1729 \text{ SCF}$$

$$B_{ws} = \frac{V_w}{V_w + V_{m(std)}} = \frac{(\quad)}{(\quad)+(\quad)} = 0.3583$$

$$M_d = 0.44(\%\,CO_2) + 0.32(\%\,O_2) + 0.28(\%\,CO + \%\,N_2) =$$

$$0.44(\quad) + 0.32(\quad) + 0.28(\quad) = \text{ASSUME } 30.0$$

$$M_s = M_d(1 - B_{ws}) + 18\,B_{ws} = (30.0)(.6417) + 18(.3583) = 25.7004$$

$$V_s = 85.49\, C_p\, (\sqrt{\Delta P})_{avg.}\, (T_s / P_s M_s)^{1/2} =$$

$$85.49(.84)(.8420)\left[\frac{(628)}{(29.96)(\quad)}\right]^{1/2} = 54.607 \text{ FPS}$$

$$Q_s = 1058\,(1 - B_{ws})\, V_s\, A_s\, (P_s / T_s) =$$

$$1058\,(.6417)(54.607)(7.876)\frac{(29.96)}{(628)} = 13,930 \text{ DSCFM}$$

(25,805 ACFM)

$$I = \frac{100\, V_{m(std)}\, A_s}{\theta\, Q_s\, A_n} = \frac{100\,(36.1303)(7.876)}{(60)(13,930)(3.1678 \times 10^{-4})} = 107.5\ \%$$

$$C_s = 15.43\,\frac{M_n}{V_{m(std)}} = \frac{(15.43)(.1150)}{(36.1303)} = 0.0491 \text{ g}^r/\text{DSCF}$$

$$E = \frac{C_s\, Q_s}{116.67} = \frac{(.0491)(13930)}{116.67} = 5.86 \text{ LB/HR}$$

SOURCE SAMPLING CALCULATION SHEET

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

CONSULTING ENGINEERS, ENVIRONMENTAL SCIENTISTS

PLANT TREESWEET PRODUCTS

SOURCE EVAPORATOR

DATE 3-19-86

RUN NO. 1 - SO_2

NOTE: FLOWRATE VALUES ARE THOSE DETERMINED DURING PARTICULATE RUN IMMEDIATELY FOLLOWING SO_2 METHOD 6 SAMPLE.

FLOWRATE

C_p 0.84

Y _____

P_b 30.05 in. Hg

P_s 30.01 in. Hg

A_s 7.876 ft^2

V_m _____ DCF

ΔH _____ in. H_2O

T_m _____ °R

T_s 606 °R

V_{lc} _____ ml

$(\sqrt{\Delta P})_{avg}$ 0.8352

$$B_{ws} = \frac{V_w}{V_w + V_{m(std)}} = \frac{(\quad)}{(\quad)+(\quad)} = 0.2097$$

$$M_d = 0.44(\%\,CO_2) + 0.32(\%\,O_2) + 0.28(\%\,CO + \%\,N_2) =$$

$$0.44(\quad) + 0.32(\quad) + 0.28(\quad) = \text{ASSUME } 30.0$$

$$M_s = M_d(1 - B_{ws}) + 18\,B_{ws} = (\quad)(\quad) + 18(\quad) = 27.4836$$

$$V_s = 85.49\,C_p\,(\sqrt{\Delta P})_{avg.}\,(T_s / P_s M_s)^{1/2} =$$

$$85.49(\quad)(\quad)\left[\frac{(\quad)}{(\quad)(\quad)}\right]^{1/2} = 51.410 \text{ FPS}$$

$$Q_s = .1058\,(1 - B_{ws})\,V_s\,A_s\,(P_s / T_s) =$$

$$1058(\quad)(\quad)(\quad)\frac{(\quad)}{(\quad)} = 16{,}766 \text{ SCFM}$$

SO_2

Y 1.004

K 7.061×10^{-5} lb/meq.

V_m 0.708 DCF

T_m N/A °R

P_b _____ in. Hg

SO_2 .230 meq.

$$V_{m(std)} = \frac{V_m Y}{\text{[illegible]}} = \frac{(\text{[illegible]})(.708)(1.004)(\quad)}{(\quad)} = \frac{.711}{0.\text{[illegible]}708} \text{ DSCF}$$

$$C_{SO_2} = K\frac{(SO_2)}{(V_{m(std)})} = (7.061 \times 10^{-5})\frac{(.230)}{(.708)} = 2.2841 \times 10^{-5} \text{ lb/dscf}$$

$$E_{SO_2} = C_s Q_s (60) = (2.2841 \times 10^{-5})(16{,}766)(60) = 22.98 \text{ lb/hr}$$

SAMPLE CALCULATION

ESO_2 VALUES

#1 _____ lb/hr

#2 _____ lb/hr

#3 _____ lb/hr

AVG. _____ lb/hr

SO_2 SOURCE SAMPLING CALCULATION SHEET

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

CONSULTING ENGINEERS, ENVIRONMENTAL SCIENTISTS

PLANT TREESWEET PRODUCTS

SOURCE EVAPORATOR

DATE 3-19-86

RUN NO. 2-SO_2

NOTE: FLOWRATE VALUES ARE THOSE DETERMINED DURING PARTICULATE RUN IMMEDIATELY FOLLOWING SO_2 METHOD 6 SAMPLE.

$$B_{ws} = \frac{V_w}{V_w + V_{m(std)}} = \frac{(\quad)}{(\quad)+(\quad)} = 0.3079$$

$$M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%CO + \%N_2) =$$

$$0.44(\quad) + 0.32(\quad) + 0.28(\quad) = \text{ASSUME } 30.0$$

$$M_s = M_d(1 - B_{ws}) + 18 B_{ws} = (\quad)(\quad) + 18(\quad) = 26.352$$

$$V_s = 85.49\, C_p\, (\sqrt{\Delta P})_{avg.} \left(T_s / P_s M_s\right)^{1/2} =$$

$$85.49(\quad)(\quad)\left[\frac{(\quad)}{(\quad)(\quad)}\right]^{1/2} = 52.135 \text{ FPS}$$

$$Q_s = 1058\,(1 - B_{ws})\, V_s\, A_s\, (P_s / T_s) =$$

$$1058(\quad)(\quad)(\quad)\frac{(\quad)}{(\quad)} = 14{,}553 \text{ SCFM}$$

$$V_{m(std)} = \frac{V_m Y}{\quad} = \frac{(\quad)(.706)(1.004)(\quad)}{(\quad)} = 0.709 \text{ DSCF}$$

$$C_{SO_2} = K\frac{(SO_2)}{(V_{m(std)})} = (7.061 \times 10^{-5})\frac{(.153)}{(.709)} = 1.5237 \times 10^{-5} \text{ lb/dscf}$$

$$E_{SO_2} = C_s Q_s (60) = (1.5237 \times 10^{-5})(14{,}553)(60) = 13.31 \text{ lb/hr}$$

SAMPLE CALCULATION

FLOWRATE

C_p 0.84

Y _____

P_b 30.05 in. Hg

P_s 30.01 in. Hg

A_s 7.876 ft^2

V_m _____ DCF

ΔH _____ in. H_2O

T_m _____ °R

T_s 620 °R

V_{lc} _____ ml

$(\sqrt{\Delta P})_{avg.}$ 0.8192

SO_2

Y 1.004

K 7.061×10^{-5} lb/meq.

V_m 0.706 DCF

T_m N/A °R

P_b _____ in. Hg

SO_2 0.153 meq.

ESO_2 VALUES

#1 _____ lb/hr

#2 _____ lb/hr

#3 _____ lb/hr

AVG. _____ lb/hr

SO_2 SOURCE SAMPLING CALCULATION SHEET

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

CONSULTING ENGINEERS, ENVIRONMENTAL SCIENTISTS

PLANT Treesweet Products

SOURCE Evaporator

DATE 3-19-86

RUN NO. 3-SO_2

NOTE: FLOWRATE VALUES ARE THOSE DETERMINED DURING PARTICULATE RUN IMMEDIATELY FOLLOWING SO_2 METHOD 6 SAMPLE.

FLOWRATE

C_p 0.84

Y _____

P_b 30.00 in. Hg

P_s 29.96 in. Hg

A_s 7.876 ft^2

V_m _____ DCF

ΔH _____ in. H_2O

T_m _____ °R

T_s 628 °R

V_{lc} _____ ml

$(\sqrt{\Delta P})_{avg}$ 0.8420

SO_2

Y 1.004

K 7.061×10^{-5}

V_m 0.710 DCF

T_m N/A °R

P_b _____ in. Hg

SO_2 0.301 meq.

$$B_{ws} = \frac{V_w}{V_w + V_{m(std)}} = \frac{(\quad)}{(\quad)+(\quad)} = 0.3583$$

$$M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%CO + \%N_2) =$$

$$0.44(\quad) + 0.32(\quad) + 0.28(\quad) = \text{ASSUME } 30.0$$

$$M_s = M_d(1 - B_{ws}) + 18 B_{ws} = (\quad)(\quad) + 18(\quad) = 25.7004$$

$$V_s = 85.49\, C_p (\sqrt{\Delta P})_{avg.} (T_s / P_s M_s)^{1/2} =$$

$$85.49(\quad)(\quad)\left[\frac{(\quad)}{(\quad)(\quad)}\right]^{1/2} = 54.607 \text{ FPS}$$

$$Q_s = 1058(1 - B_{ws})\, V_s\, A_s\, (P_s / T_s) =$$

$$1058(\quad)(\quad)(\quad)\frac{(\quad)}{(\quad)} = 13,930 \text{ SCFM}$$

$$V_{m(std)} = \frac{V_m Y}{\quad} = \frac{(\quad)(0.710)(1.004)(\quad)}{(\quad)} = \frac{0.713}{0.710} \text{ DSCF}$$

$$C_{SO_2} = K\frac{(SO_2)}{(V_{m(std)})} = (7.061 \times 10^{-5})\frac{(0.301)}{(.713)} = 2.9809 \times 10^{-5}$$

$$E_{SO_2} = C_s Q_s (60) = (2.9809 \times 10^{-5})(13,930)(60) = 24.91 \text{ lb/hr}$$

SAMPLE CALCULATION

E_{SO_2} VALUES	
#1	lb/hr
#2	lb/hr
#3	lb/hr
AVG.	lb/hr

SO_2 SOURCE SAMPLING CALCULATION SHEET

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

CONSULTING ENGINEERS, ENVIRONMENTAL SCIENTISTS

Interscience, Inc.

5460 Beaumont Center Blvd.
Tampa, FL 33614
(813) 885-4774

March 31, 1986

Environmental Engineering Consultants
P. O. Box 7854
Tampa, Florida 33673

Attn: Mr. Carl Fink

Re: Project Number: 86030-20
Analysis of Samples for SO_2
Sample Numbers: 86-03-167 thru 86-03-170

METHODOLOGY

These samples were analyzed using the analytical protocol cited in USEPA Method 6 - Determination of Sulfur Dioxide Emissions from Stationary Sources.

RESULTS

Sample Description	SO_2, milliequivalents
86-03-167 Treesweet SO_2 #1 3-19-86	0.230
86-03-168 Treesweet SO_2 #2 3-19=86	0.153
86-03-169 Treesweet SO_2 #3 3-19-86	0.301
86-03-170 Treesweet SO_2 Peroxide BLK 3-19-86	<0.001

< denotes less than

The remaining samples will be discarded April 21, 1986, unless we are otherwise notified.

Interscience, Inc. operates as an independent contractor and does not guarantee any particular results other than its best efforts.

Respectfully submitted,

INTERSCIENCE, INC.

Michael C. Jackman
Analyst

Approved by,

Timothy M. O'Dell
Laboratory Supervisor

Ref: FW-140

MCJ/sgb

B 03-167-170

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

LABORATORY ANALYSIS

Client TREESWEET PRODUCTS Source EVAPORATOR Test Date 3-19-86

FILTER	Run 1	Run 2	Run 3	Blank
I.D. No.	106	107	108	109
Gross Weight, g	0.3053	0.3439	0.3855	0.2766
Gross Weight, g	0.3055	0.3439	0.3857	0.2768
Average Weight, g	0.3054	0.3439	0.3856	0.2767
Tare Weight, g	0.2786	0.2807	0.2786	0.2761
Net Weight, g	0.0268	0.0632	0.1070	0.0006

ACETONE RINSE	Run 1	Run 2	Run 3	Blank
I.D. No.	250	251	252	152
Volume, ml	175	180	200	100
Gross Weight, g	105.9549	102.4364	105.8386	67.8455
Gross Weight, g	105.9549	102.4368	105.8391	67.8460
Average Gross, g	105.9549	102.4366	105.8389	67.8458
Tare Weight, g	105.9335	102.4252	105.8299	67.8453
Acetone Residue, g	0.0009	0.0009	0.0010	
Net Weight, g	0.0205	0.0105	0.0080	0.0005

TOTAL PARTICULATE, g	0.0473	0.0737	0.1150	

Acetone Rinse Blank Residue=(blank weight)(rinse volume)/(blank volume)

Maximum Allowable Residue=(0.00001 of acetone weight)(0.7857 g/ml)

Each component was weighed to a constant weight, meaning a difference of no more than 0.5 mg or 1 percent of total weight less tare weight, whichever is greater, between two consecutive weighings, with no less than 6 hours of dessication time between weighings.

Comments:

Laboratory Analyst

Best Available Copy FIELD DATA LOG

PLANT TREESWEET SOURCE EVAPORATOR

NOZZLE I.D. NO. #3	
DIA 1	.240
DIA 2	.241
DIA 3	.241
AVERAGE	~~.269~~ .241

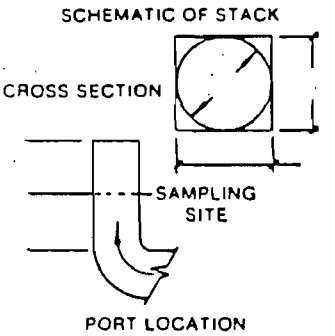
FINAL VOLUME	150.311
INITIAL VOLUME	108.500
NET VOLUME	41.811

RUN NO 1
DATE 3-19-86
OPERATORS FINK & BURROW
METER BOX NO EEC-2
FILTER NO 106

NOMOGRAPH VALUES
ΔH@ ____ C FACTOR ____
Tm ____ AVG ΔP ____
%H2O ____ Ts ____
REFERENCE K= ~~4.20~~ 2.75

BAROMETRIC PRESSURE 30.05
STATIC PRESSURE ____
AMBIENT TEMPERATURE ____
PROBE LENGTH 5 FT.
PROBE LINER PYREX
PORT LENGTH 2 3/4"
PORT DIAMETER ____
METER SYSTEM LEAK-CHECK ____
ORSAT LEAK-CHECK ____
SAMPLE BAG LEAK-CHECK ____

SCHEMATIC OF STACK



TRAVERSE POINT NUMBER	SAMPLING TIME CLOCK	SAMPLING TIME SAMPLE	STACK TEMP (T_s) °F	VELOCITY HEAD (ΔPs)	VELOCITY HEAD ($\sqrt{\Delta Ps}$)	ORIFICE METER (ΔH)	GAS SAMPLE VOLUME (Vm) ft³	DRY GAS METER TEMP (Tm) °F	PROBE TEMP °F	SAMPLE BOX TEMP °F	TEMP OF GAS LEAVING LAST IMPINGER °F	PUMP VACUUM GAUGE in. Hg
	0836						108.500					
1		2.5	133	.70		1.93	110.23	87	245	253	58	6
2		5	133	.68		1.87	111.95	88	244	245	54	7
3		7.5	135	.63		1.73	113.66	88	242	235	53	7
4		10	137	.50		1.38	115.23	89	238	238	56	6
5		12.5	139	.48		1.32	116.75	89	239	242	58	6
6		15	141	.47		1.29	118.23	90	240	244	59	6
7		17.5	141	.80		2.20	120.05	90	240	242	58	10
8		20	144	.81		2.23	121.95	91	240	239	59	10
9		22.5	145	.75		2.06	123.80	91	242	247	60	10
10		25	145	.86		2.37	125.72	92	243	246	60	11
11		27.5	147	.78		2.15	127.59	92	244	244	59	10
12		30	146	.80		2.20	129.43	92	244	245	58	10
1		32.5	147	.78		2.15	131.25	92	244	248	56	10
2		35	148	.82		2.26	133.06	93	242	254	55	11
3		37.5	147	.80		2.20	134.87	93	241	251	55	10
4		40	148	.77		2.18	136.65	93	241	253	55	10
5		42.5	149	.68		1.87	138.42	93	241	254	54	9
6		45	149	.70		1.93	140.15	93	241	253	54	9
7		47.5	150	.68		1.87	141.85	93	242	256	54	9
8		50	153	.68		1.87	143.57	94	243	255	54	9
9		52.5	158	.66		1.82	145.26	94	249	258	53	9
10		55	159	.68		1.87	146.97	94	251	255	53	10
11		57.5	159	.68		1.87	148.65	95	252	255	54	10
12		60	160	.65		1.79	150.311	95	257	260	54	9
	0939											
			351R		2.0252	46.41		2301				
			196F					92°F				
TOTAL												
AVERAGE			606R		2.0252	1.93		552R				

STATIC PITOT LEAK-CHECK @ 15 sec	✓
IMPACT PITOT LEAK-CHECK @ 15 sec	✓
TRAIN LEAK RATE @ 60 sec 0.00 cf @ 12 in	

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

VOLUME OF LIQUID WATER COLLECTED	IMPINGER WEIGHT (g) OR VOLUME (ml) #1			
	1	2	3	4
FINAL	309	106	0	292.4
INITIAL	100	100	0	279.5
LIQUID COLL.	209	6	0	12.9
TOTAL VOLUME		227.9		

GAS MEASUREMENTS					
	TIME	CO_2	O_2	CO	N_2
1					
2					
3					
4					

SIGNATURE Carl Fink
TEST TEAM CHIEF

FIELD DATA LOG

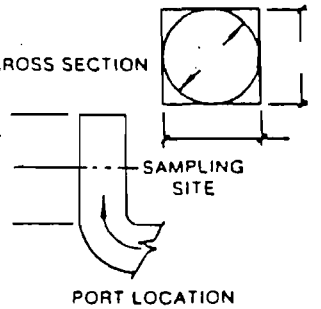
PLANT TREESWEET SOURCE EVAPORATOR

NOZZLE I.D. NO. 8
DIA 1
DIA 2
DIA 3
AVERAGE .241

RUN NO 2
DATE 3-19-86
OPERATORS FINK & BARRAS
METER BOX NO EEC-2
FILTER NO 107

BAROMETRIC PRESSURE 30.05
STATIC PRESSURE -.55 "H2O
AMBIENT TEMPERATURE
PROBE LENGTH
PROBE LINER
PORT LENGTH
PORT DIAMETER
METER SYSTEM LEAK-CHECK ✓
ORSAT LEAK-CHECK
SAMPLE BAG LEAK-CHECK

SCHEMATIC OF STACK



FINAL VOLUME	189.108
INITIAL VOLUME	150.600
NET VOLUME	38.508

NOMOGRAPH VALUES	
ΔH@	C FACTOR
Tm	AVG ΔP
%H2O	Ts
REFERENCE	2.32

TRAVERSE POINT NUMBER	SAMPLING TIME CLOCK	SAMPLING TIME SAMPLE	STACK TEMP (Ts) °F	VELOCITY HEAD (ΔPs)	VELOCITY HEAD (√ΔPs)	ORIFICE METER (ΔH)	GAS SAMPLE VOLUME (Vm) ft³	DRY GAS METER TEMP (Tm) °F	PROBE TEMP °F	SAMPLE BOX TEMP °F	TEMP OF GAS LEAVING LAST IMPINGER °F	PUMP VACUUM GAUGE in. Hg
	1112						150.600					
1		2.5	152	.73		1.69	152.25	89	256	265	60	8
2		5	153	.78		1.81	154.04	89	247	245	50	9
3		7.5	154	.70		1.62	155.71	89	245	247	50	8
4		10	157	.58		1.35	157.18	90	246	251	52	6
5		12.5	160	.60		1.39	158.61	90	247	251	54	7
6		15	163	.75		1.74	160.20	90	247	252	55	9
7		17.5	166	.99		2.30	162.02	91	246	250	60	13
8		20	172	1.02		2.37	163.89	91	246	250	62	14
9		22.5	173	1.05		2.44	165.88	90	247	249	64	15
10		25	172	.95		2.20	167.65	90	249	253	64	14
11		27.5	172	.89		2.06	169.44	90	249	255	65	14
12		30	173	.82		1.90	171.15	91	250	248	66	12
										2		
1		32.5	171	.75		1.74	172.90	91	252	249	64	11
2		35	165	.73		1.69	174.57	91	249	250	59	10
3		37.5	159	.68		1.58	176.20	91	248	251	59	9
4		40	156	.68		1.58	177.84	91	248	251	59	9
5		42.5	154	.65		1.51	179.45	92	247	249	59	9
6		45	152	.65		1.51	181.07	92	245	251	57	9
7		47.5	151	.28		.65	182.50	92	246	250	56	4
8		50	150	.25		.58	183.55	92	247	251	55	4
9		52.5	149	.30		.70	184.66	92	252	250	52	5
10		55	149	.58		1.35	186.16	92	253	248	53	7
11		57.5	156	.56		1.30	187.61	92	248	249	54	7
12		60	163	.58		1.35	189.108	92	246	250	55	8
	1214											
			3842		[illegible]	38.41		2180				
			160°F					91°F				
TOTAL												
AVERAGE			6202		0.3142	1.60		551 R				

STATIC PITOT LEAK-CHECK @ 15 sec	✓
IMPACT PITOT LEAK-CHECK @ 15 sec	✓
TRAIN LEAK RATE @ 60 sec	0.00 cf @ 16 in

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

VOLUME OF LIQUID WATER COLLECTED	IMPINGER WEIGHT (g) OR VOLUME (ml) 1	2	3	4 #2
FINAL	342	198	0	287.8
INITIAL	100	100	0	275.4
LIQUID COLL.	242	98	0	12.4
TOTAL VOLUME		352.4		

GAS MEASUREMENTS					
	TIME	CO2	O2	CO	N2
1					
2					
3					
4					

SIGNATURE Carl Fink
TEST TEAM CHIEF

FIELD DATA LOG

PLANT TREE SWEET SOURCE EVAPORATOR

NOZZLE I.D. NO. 8
DIA 1
DIA 2
DIA 3
AVERAGE .241

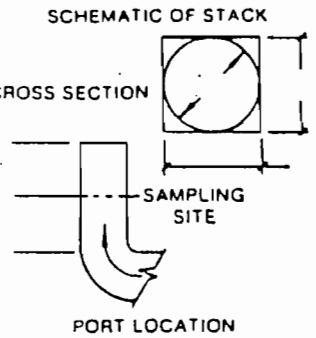
RUN NO 3
DATE 3-19-86
OPERATORS FINK & BURROWS
METER BOX NO CEC-2
FILTER NO 108

BAROMETRIC PRESSURE 30.00
STATIC PRESSURE
AMBIENT TEMPERATURE
PROBE LENGTH
PROBE LINER
PORT LENGTH
PORT DIAMETER
METER SYSTEM LEAK-CHECK
ORSAT LEAK-CHECK
SAMPLE BAG LEAK-CHECK

NOMOGRAPH VALUES	
ΔH@	C FACTOR
Tm	AVG ΔP
%H2O	T_s
REFERENCE	K = 2.10

FINAL VOLUME	227.646
INITIAL VOLUME	190.006
NET VOLUME	37.640

SCHEMATIC OF STACK



TRAVERSE POINT NUMBER	SAMPLING TIME CLOCK	SAMPLING TIME SAMPLE	STACK TEMP (T_s) °F	VELOCITY HEAD (ΔPs)	VELOCITY HEAD ($\sqrt{\Delta Ps}$)	ORIFICE METER (ΔH)	GAS SAMPLE VOLUME (Vm) ft³	DRY GAS METER TEMP (Tm) °F	PROBE TEMP °F	SAMPLE BOX TEMP °F	TEMP OF GAS LEAVING LAST IMPINGER °F	PUMP VACUUM GAUGE in. Hg
	1327						190.006					
1		2.5	160	.70		1.47	191.66	93	253	242	58	7
2		5	162	.70		1.47	193.20	93	245	240	52	7
3		7.5	165	.66		1.39	194.68	94	245	241	51	7
4		10	168	.65		1.37	196.14	94	240	239	51	7
5		12.5	169	.68		1.43	197.70	95	241	242	53	8
6		15	171	.75		1.58	199.16	94	239	246	53	9
7		17.5	172	.95		2.00	200.85	94	244	242	54	12
8		20	173	.96		2.02	202.67	94	248	246	55	13
9		22.5	169	.87		1.83	204.45	94	252	243	55	10
10		25	166	.76		1.60	206.03	95	254	245	58	9
11		27.5	165	.66		1.39	207.62	95	253	245	57	8
12		30	166	.54		1.13	209.06	95	251	245	58	7
1		32.5	163	.75		1.58	210.70	95	252	251	60	9
2		35	162	.72		1.51	212.32	95	246	250	57	9
3		37.5	163	.64		1.34	213.86	95	243	250	57	8
4		40	164	.62		1.30	215.35	95	241	251	58	8
5		42.5	166	.65		1.37	216.85	95	243	251	59	8
6		45	169	.70		1.47	218.40	95	242	251	58	9
7		47.5	172	.70		1.47	219.95	95	242	250	59	9
8		50	175	.80		1.68	221.58	95	243	252	58	11
9		52.5	178	.81		1.70	223.26	95	245	250	59	12
10		55	176	.72		1.51	224.85	95	248	251	61	10
11		57.5	175	.68		1.43	226.38	95	249	252	62	10
12		60	172	.45		.95	227.646	95	250	251	62	7
	1428											
			404		20.295	35.97		2.370				
			168°F					95°F				
TOTAL												
AVERAGE			678%		0.845	1.50		555%				

STATIC PITOT LEAK-CHECK @ 15 sec	✓
IMPACT PITOT LEAK-CHECK @ 15 sec	✓
TRAIN LEAK RATE @ 60 sec	0.02 cf @ 15 in

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

VOLUME OF LIQUID WATER COLLECTED	IMPINGER WEIGHT (g) OR VOLUME (ml) #3			
	1	2	3	4
FINAL	360	256	0	284.3
INITIAL	100	100	0	272.0
LIQUID COLL.	260	156	0	12.3
TOTAL VOLUME		428.3		

GAS MEASUREMENTS					
	TIME	CO_2	O_2	CO	N_2
1					
2					
3					
4					

SIGNATURE Carl Fink
TEST TEAM CHIEF

SAMPLING DATA FORM FOR SO_2

Plant name TREESWEET PRODUCTS
City FT. PIERCE
Sample location EVAPORATOR STACK
Date 3-19-86
Operator C. FINK
Sample number SO_2 #1
Barometric pressure, ~~(~~ (in.) Hg 30.05
Probe length m (ft) 3 FT.
Probe material PYREX
Probe heater setting 5.0
Meter box number AUTO SAMPLER
Meter calibration factor (Y) 1.004
Ambient temperature, °C (°F)
Sample point location 18" FROM STACK WALL
Initial leak check 0.00 ℓm @ 10" Vac.
Sample purge time, min 20 MIN.
Final leak check 0.00 ℓm @ 10" Vac
Remarks USE VOL. FLOWRATE FROM PARTICULATE RUN #1

Sampling time, min	Clock time, 24 h	Meter Counts ~~Sample volume~~, ~~ℓ (ft³)~~	Sample flow rate setting, ℓ/min (ft^3/min)	Sample volume metered (ΔV_m), ℓ (ft^3)	Percent deviation,[a] %	Dry gas meter temp, °C (°F)	Impinger temp, ~~(~~ (°F)
	0730	000					
5		098	1.02	4.90	-2.2	N/A	62
10		201	1.00	5.15	2.8	↓	64
15		301	1.00	5.00	-0.2	↓	64
20		401	1.00	5.00	-0.2	↓	64
	0750						
Total 20		Total 20.05 ℓ		$\Delta V_{m\ avg}$ 5.01	Avg dev	Avg N/A	Max temp

[a] Percent deviation = $\frac{\Delta V_m - \Delta V_{m\ avg}}{\Delta V_{avg_m}}$ 100.

Volume = Meter Counts × .05 ℓ/cnt

SAMPLING DATA FORM FOR SO_2

Plant name TREESWEET PRODUCTS — City FT. PIERCE

Sample location EVAPORATOR STACK — Date 3-19-86

Operator C. FINK — Sample number SO_2 #2

Barometric pressure, (in.) Hg 30.05 — Probe length m (ft) 3 FT.

Probe material PYREX — Probe heater setting 5.0

Meter box number AUTO-SAMPLER — Meter calibration factor (Y) 1.004

Ambient temperature, °C (°F) — Sample point location 18" From Stack Wall

Initial leak check 0.00 lpm @ 10" VAC — Sample purge time, min 20 min

Final leak check 0.01 lpm @ 10" VAC — Remarks Use Vol. Flowrate from Particulate Run #2

Sampling time, min	Clock time, 24 h	Meter Counts ~~Sample volume, ℓ (ft³)~~	Sample flow rate setting, ℓ/min (ft³/min)	Sample volume metered (ΔV_m), ℓ (ft³)	Percent deviation,[a] %	Dry gas meter temp, °C (°F)	Impinger temp, (°F)
	1000	000					
5		098	1.00	4.90	-2.0	N/A	68
10		197	0.99	4.95	-1.0		66
15		297	1.00	5.00	0.0		65
20		400	1.02	5.15	3.0		66
	1020						
Total 20		Total 20.00 ℓ		ΔV_m avg 5.00 ℓ	Avg dev	Avg	Max temp

[a] Percent deviation = $\frac{\Delta V_m - \Delta V_{m\ avg}}{\Delta V\ avg_m}$ 100.

Volume = Meter Count × 0.05 ℓ/Count

SAMPLING DATA FORM FOR SO_2

Plant name TREESWEET PRODUCTS
City FT. PIERCE
Sample location EVAPORATOR STACK
Date 3-19-86
Operator C. FINK
Sample number SO_2 #3
Barometric pressure, (in.) Hg 30.00
Probe length m (ft) 3 FT.
Probe material PYREX
Probe heater setting 5.0
Meter box number AUTO-SAMPLER
Meter calibration factor (Y) 1.004
Ambient temperature, °C (°F)
Sample point location 18" From Stack Wall
Initial leak check 0.00 lpm @ 10" VAC
Sample purge time, min 20 min.
Final leak check 0.00 lpm @ 10" VAC
Remarks Used Vol. Flowrate from Particulate Run #3

Sampling time, min	Clock time, 24 h	Meter Counts ~~Sample volume~~, ~~ℓ (ft³)~~	Sample flow rate setting, ℓ/min (ft³/min)	Sample volume metered (ΔV_m), ℓ (ft³)	Percent deviation,[a] %	Dry gas meter temp, °C (°F)	Impinger temp, (°F)
	1222	000					
5		100	1.00	5.00	-0.6	N/A	67
10		204	1.00	5.20	3.4		66
15		305	.99	5.05	0.4		66
20		402	.98	4.85	-3.6		65
	1242						
Total		Total 20.10 ℓ		$\Delta V_{m\ avg}$ 5.03 ℓ	Avg dev	Avg	Max temp

[a] Percent deviation = $\frac{\Delta V_m - \Delta V_{m\ avg}}{\Delta V_{avg_m}}$ 100.

Volume = meter counts × 0.05 ℓ/count

APPENDIX B

PROCESS WEIGHT STATEMENT

STATEMENT OF PROCESS WEIGHT

COMPANY NAME: Treesweet Products Company

MAILING ADDRESS: P.O. Box 189, Ft. Pierce, Florida 33454

SOURCE IDENTIFICATION: Peel Dryer

SOURCE LOCATION:

DATE: March 19, 1986

OPERATION TIME	SAMPLING TIME
START:	START: 0836
END:	END: 1428

ELAPSED TIME:

IDLE TIME DURING CYCLE: N/A

DATA ON ACTUAL PROCESS RATE DURING OPERATION CYCLE

permit states 35 TPH

MATERIAL: Wet Peel	RATE: 25.75 tons/hr.
MATERIAL:	RATE:
MATERIAL:	RATE:
MATERIAL:	RATE:
MATERIAL:	RATE:

TOTAL PROCESS WEIGHT RATE:

PRODUCT: Dry Feed RATE: 6.75 tons/hr

REMARKS:

SIGNATURE John Frederick Sang DATE: 5/22/86

TITLE: PLANT ENVIRONMENTALIST

PROCESS INPUT CALCULATIONS

Peel Moisture* 78.9%

Feed Moisture* 19.5%

$$\text{Process Input Rate} = \text{Production Rate} \times \frac{100 - \text{Feed Moisture \%}}{100 - \text{Peel Moisture \%}}$$

$$= 9 \text{ lbs feed/box} \times 1{,}500 \text{ boxes/hr} \times \frac{100 - 19.5}{100 - 78.9}$$

$$= 51{,}505 \text{ lbs/hr}$$

$$= 25.75 \text{ tons/hr}$$

* Samples were collected at the end of each particulate run. Composite samples of wet peel and feed were prepared for laboratory analysis.

  Values for lbs feed/box and production, boxes/hr, were provided by Treesweet.

APPENDIX C

CALIBRATION DATA

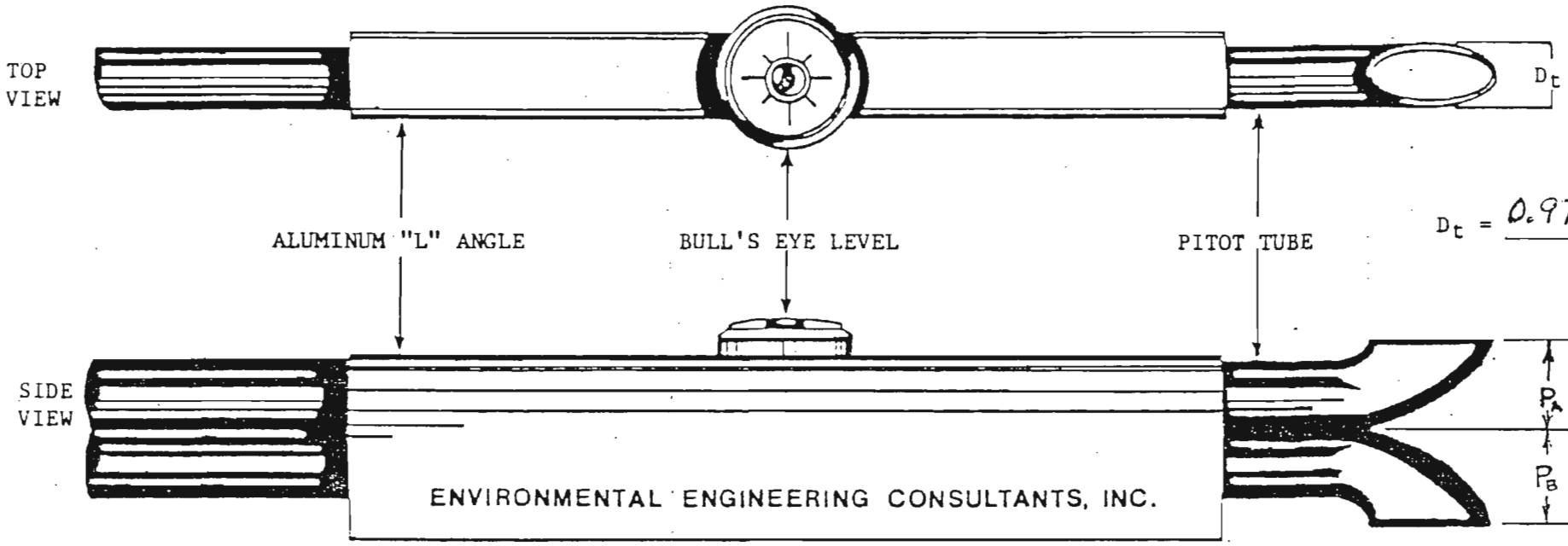
SUMMARY OF EQUIPMENT CALIBRATION

Equipment	Calib. Date	Place	Method	Results
Nozzle #8	03-19-86	On-site	3 measurements w/vernier caliper	Dn=0.241 in.
Pitot Tube	01-20-86	EEC, Inc.	EPA Alt. Method	Cp=0.84
Console EEC-2	10-10-85	EEC, Inc.	Wet Test Meter	Y=1.003 ^H@=2.12
Post-Test Check	03-25-86	EEC, Inc.	Wet Test Meter	Y=0.993
Thermocouples & Dial Thermometer	10-10-85	EEC, Inc.	Comparison to ASTM Thermometer	Correct to $\pm 3°F$
Method 6 Console	03-17-86	EEC, Inc.	Wet Test Meter	Y=1.004
Post-Test Check	03-21-86	EEC, Inc.	Wet Test Meter	Y=1.001

SER NO. P-

CALIBRATED BY: Carl Fl

DATE 1-20-86

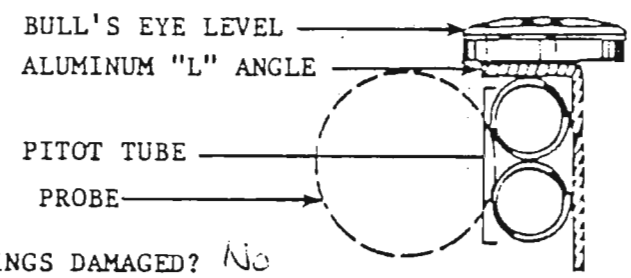


D_t = 0.97 cm.

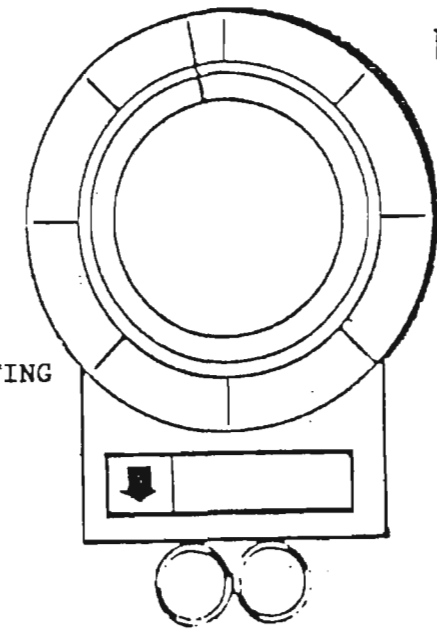
$P = \frac{P_A + P_B}{2}$ = 1.34 cm

$1.05 D_t \leq P \leq 1.50 D_t$

$P_A + P_B$ = 2.67 cm



END VIEW



DEGREE INDICATING LEVEL

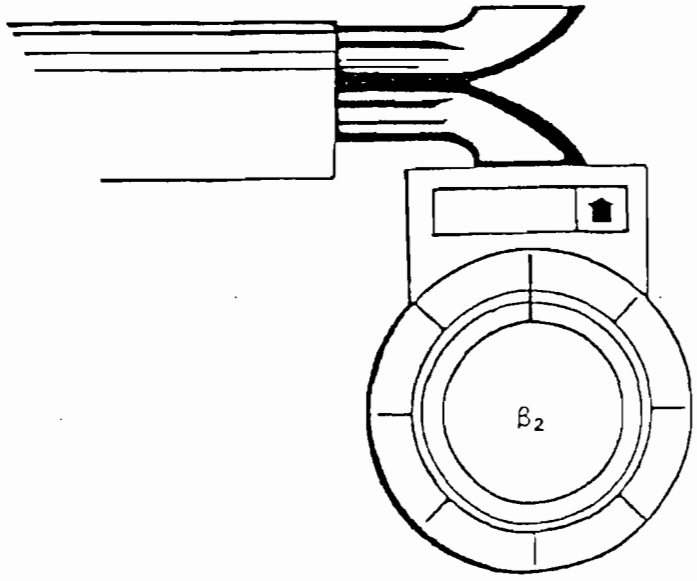
PITOT TUBE OPENINGS DAMAGED? No

COMMENTS: Pitot tube meets all specifications C_p = 0.84

SERIAL NO. [redacted]-1

CALIBRATED BY Carl Fd

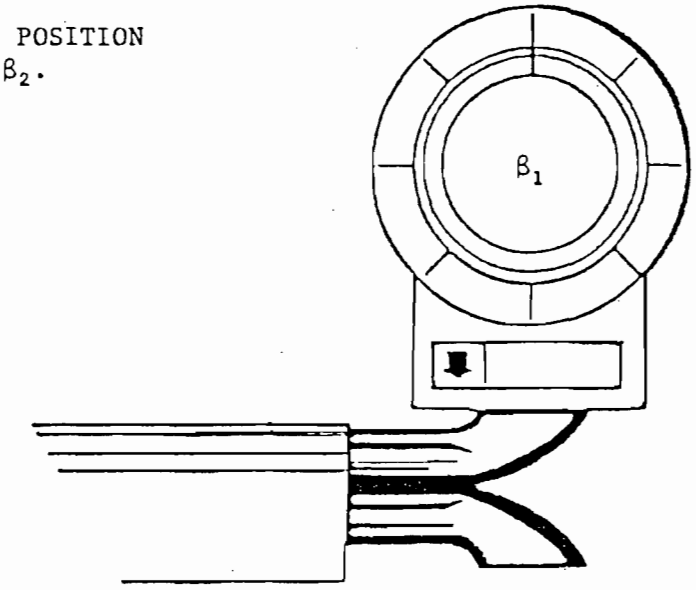
DATE 1-20-86

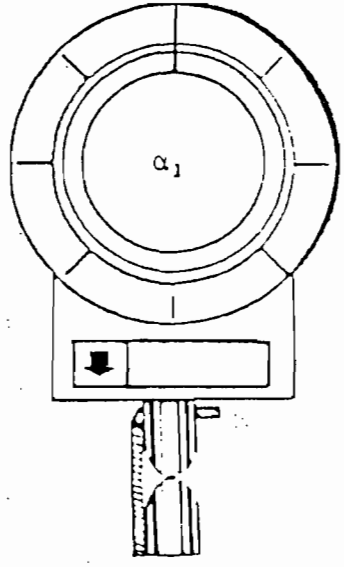


DEGREE INDICATING LEVEL POSITION FOR DETERMINING β_1 and β_2.

β_1 = 2.0° (<5°)

β_2 = 1.5° (<5°)

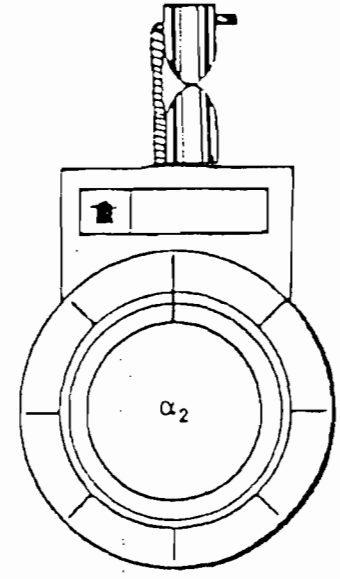




DEGREE INDICATING LEVEL POSITION FOR DETERMINING α_1 and α_2.

α_1 = 0.0° (<10°)

α_2 = 1.0° (<10°)

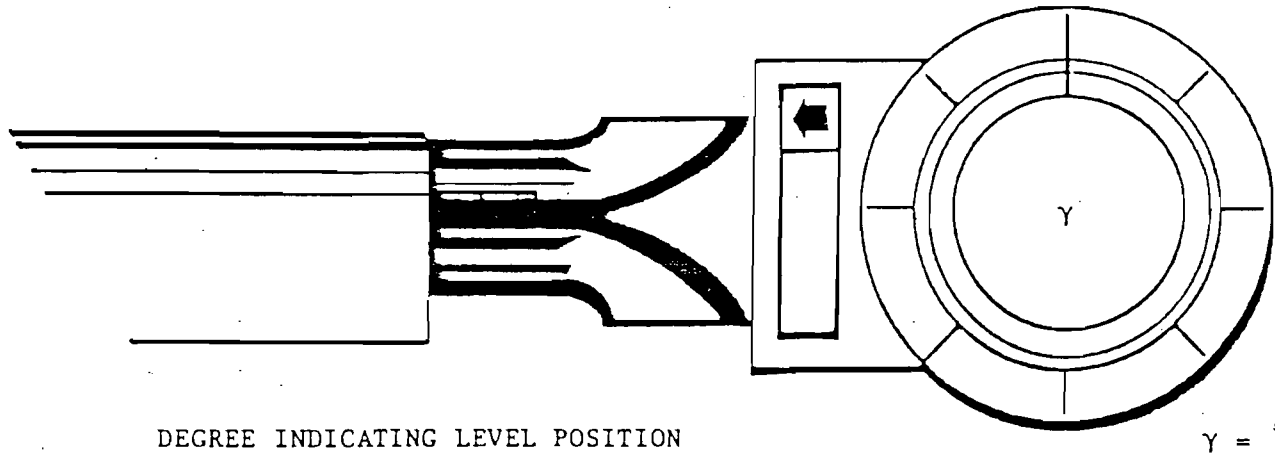


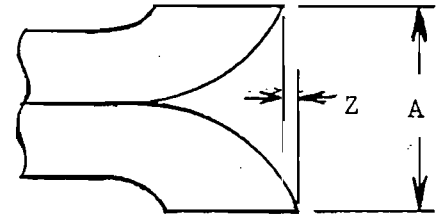
PITOT TUBE CALIBRATION; α and β DETERMINATION

SERIAL NO. P-1

CALIBRATED BY Carl Ful

DATE 1-20-86



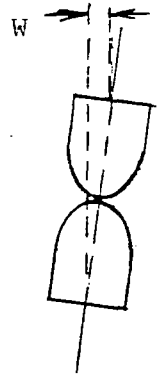


DEGREE INDICATING LEVEL POSITION
FOR DETERMINING γ, THEN CALCULATING Z.

γ = 88.0°

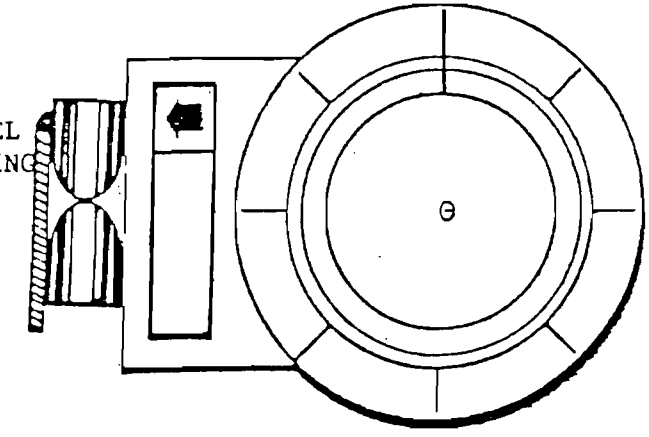
A = DISTANCE BETWEEN TIPS, (P_a + P_b), cm. = 2.67 cm.

Z = A cos γ = 0.09 cm; (<0.32 cm).



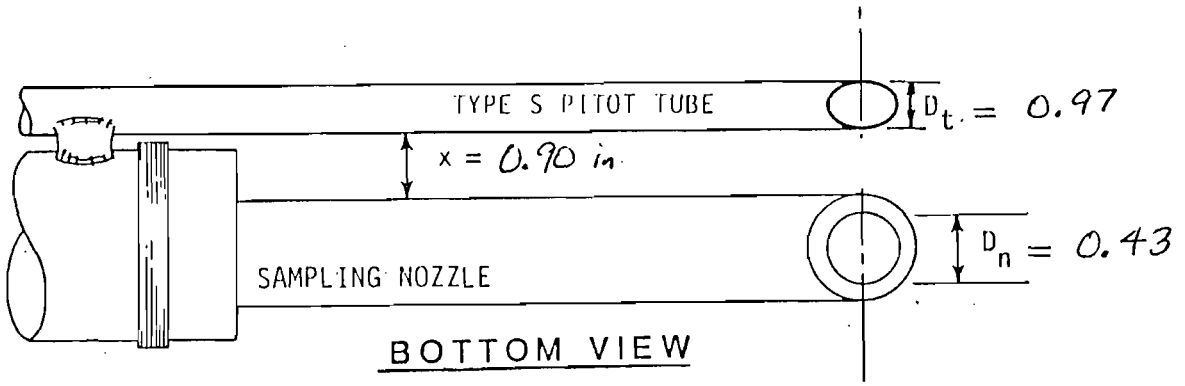
DEGREE INDICATING LEVEL POSITION FOR DETERMINING θ, THEN CALCULATING W.

θ = 89.5°

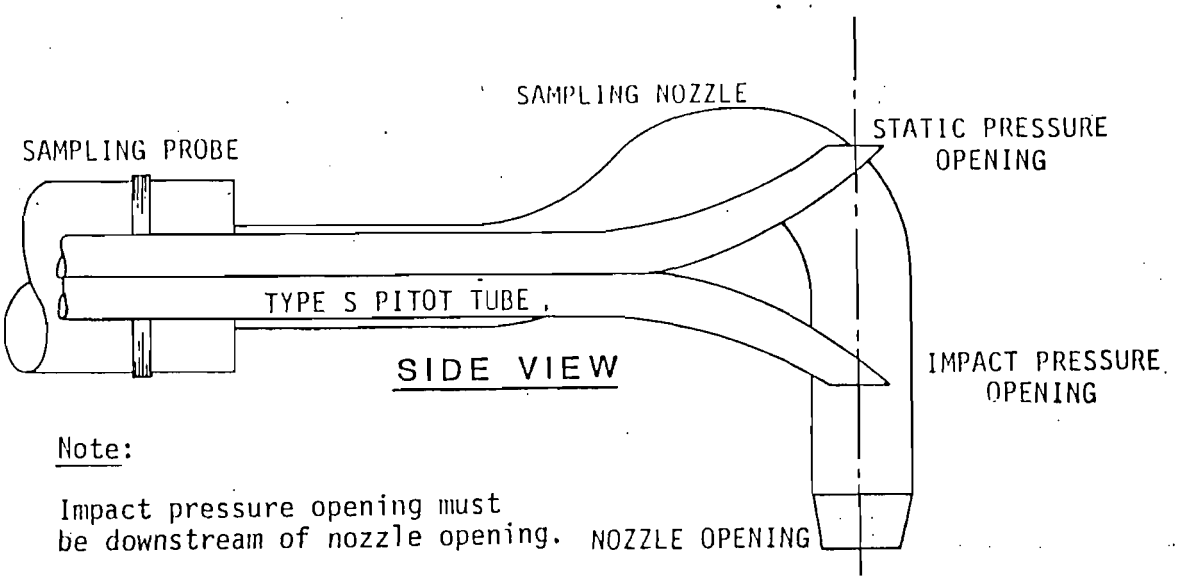


W = A cos θ = 0.02 cm; (<0.08 cm).

PITOT TUBE CALIBRATION: A, W, γ, θ and Z DETERMINATION



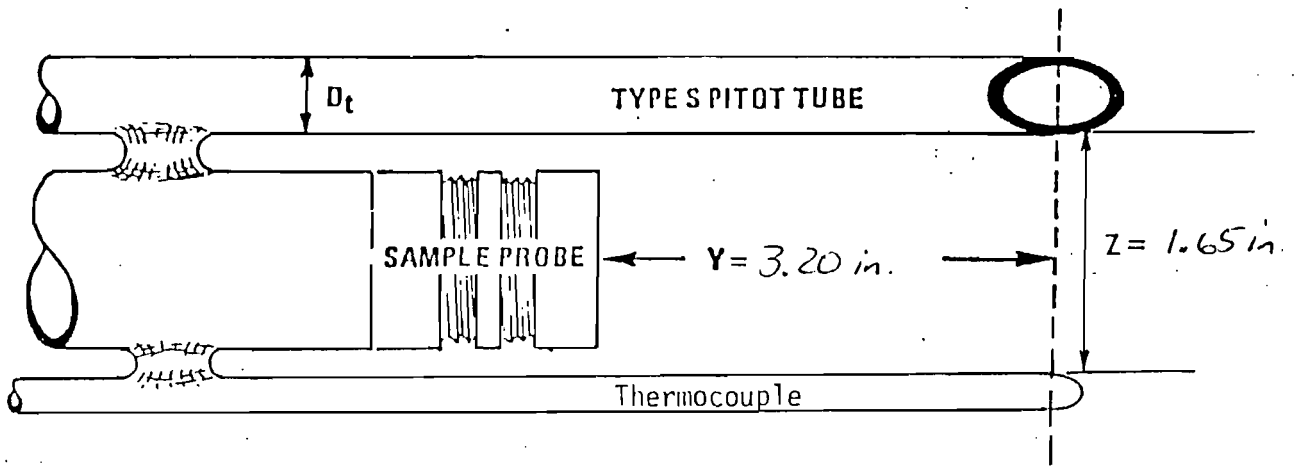
BOTTOM VIEW



SIDE VIEW

Note:

Impact pressure opening must be downstream of nozzle opening.



SERIAL NO. P-1

CALIBRATED BY: Carl Jul

DATE 1-20-86

PROBE ASSEMBLY CONFIGURATION

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

CONSULTING ENGINEERS, ENVIRONMENTAL SCIENTISTS

Environmental Engineering Consultants, Inc.

METER BOX CALIBRATION DATA AND CALCULATION FORM

Date 10-10-85 Meter box number EEC-2

Barometric pressure, P_b = 30.053 in. Hg Calibrated by Byron A Bartow

Orifice manometer setting (ΔH), in. H_2O	Gas volume: Wet test meter (V_w), ft^3	Gas volume: Dry gas meter (V_d), ft^3	Temperatures: Wet test meter (t_w), °F	Temperatures: Dry gas meter: Inlet (t_{d_i}), °F	Temperatures: Dry gas meter: Outlet (t_{d_o}), °F	Temperatures: Dry gas meter: Avg[a] (t_d), °F	Time (θ), min	Y_i	$\Delta H@_i$ in. H_2O
0.5	5.507	5.580	73	84	83	84	15	1.006	2.04
1.0	5.215	5.179	77	84	82	83	10	1.016	2.06
1.5	9.496	9.421	76	85	83	84	15	1.019	2.09
2.0	11.402	11.611	74	87	84	86	16	.999	2.17
3.0	10.027	10.254	74	87	84	86	11.5	.993	2.17
4.0	10.015	10.252	73	84	82	83	10	.986	2.20
							Avg	1.003	2.12

ΔH, in. H_2O	$\frac{\Delta H}{13.6}$	$Y_i = \frac{V_w P_b (t_d + 460)}{V_d (P_b + \frac{\Delta H}{13.6}) (t_w + 460)}$	$\Delta H@_i = \frac{0.0317\ \Delta H}{P_b (t_d + 460)} \left[\frac{(t_w + 460)\ \theta}{V_w}\right]^2$
0.5	0.0368	$\left(\frac{5.507}{5.58}\right)\left(\frac{30.053}{30.0368}\right)\left(\frac{544}{533}\right) = 1.006$	$\frac{0.317(0.5)}{30.053(544)}\left[\frac{533(15)}{5.507}\right]^2 = 2.04$
1.0	0.0737	$\left(\frac{5.215}{5.179}\right)\left(\frac{30.047}{30.201}\right)\left(\frac{543}{531}\right) = 1.016$	$\frac{0.0317(1)}{30.047(543)}\left[\frac{537(10)}{5.215}\right]^2 = 2.06$
1.5	0.110	$\left(\frac{9.496}{9.421}\right)\left(\frac{30.047}{30.157}\right)\left(\frac{544}{536}\right) = 1.019$	$\frac{0.317(1.5)}{30.047(544)}\left[\frac{536(15)}{9.496}\right]^2 = 2.09$
2.0	0.147	$\left(\frac{11.402}{11.611}\right)\left(\frac{30.047}{30.268}\right)\left(\frac{546}{531}\right) = .9992$	$\frac{0.317(2.0)}{30.047(546)}\left[\frac{534(16)}{11.402}\right]^2 = 2.17$
3.0	0.221	$\left(\frac{10.027}{10.251}\right)\left(\frac{30.047}{30.268}\right)\left(\frac{546}{534}\right) = .9925$	$\frac{0.0317(3.0)}{30.053(546)}\left[\frac{534(11.5)}{10.027}\right]^2 = 2.17$
4.0	0.294	$\left(\frac{10.015}{10.252}\right)\left(\frac{30.01}{30.339}\right)\left(\frac{543}{533}\right) = .9865$	$\frac{0.0317(4.0)}{30.01(543)}\left[\frac{533(10)}{10.015}\right]^2 = 2.20$

[a] If there is only one thermometer on the dry gas meter, record the temperature under t_d.

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

RECHECK OF ORIFICE AND DGM CALIBRATION

CALIBRATION CHECK BY: Byron A Burrows DATE: 3-25-86 CONTROL BOX NO. EEC-2

LEAK CHECK OF METER SYSTEM _____ BAROMETRIC PRESSURE ("Hg) 30.43

-ΔHW ("H_2O)	ΔHd ("H_2O)	Wet Meter Volume (ft^3)	Final Dry Meter Volume (ft^3)	Initial Dry Meter Volume (ft^3)	Net Dry Meter Volume (ft^3)	Wet Test Meter (°F)	Dry Test Meter Inlet (°F)	Dry Test Meter Outlet (°F)	Time (Min)	Vacuu Setti ("Hg
X	2.0	10.069	254.871	244.718	10.153	68	70	73	14	15
X	2.0	10.090	265.070	254.871	10.199	68	71	73	14	15
X	2.0	9.991	275.183	265.070	10.113	68	72	74	14	15
01	02	03			04	05	06	07	08	

Perform three calibration runs at a single intermediate orifice meter setting (ΔHd) with the vacuum set at the maximum value reached during the previous test series. If the calibration factor γ deviates by <5% from the initial calibration factor γ, then the dry gas meter volumes obtained during the test series are acceptable. If γ deviates by >5%, recalibrate the metering system, and use whichever meter coefficient (initial or recalibrated) that yields the lowest gas volumes for each test run.

$$\gamma = Vm\,(Pb - (\Delta Hw/13.6))(td + 460)/(Vd(Pb + (\Delta Hd/13.6))(tw + 460))$$

$$\Delta H@ = 0.0317\,(\Delta H)/(Pb(td + 460)) \times ((tw + 460)\,\theta/Vw)^2$$

Prior Calibration γ = 1.003

Recheck Calibration γ = 0.9929

% Difference = 1.0 % (If <5%, then use prior calibration γ for calculations.)

PYROMETER/THERMOMETER CALIBRATION

IDENTIFICATION	DATE	REFERENCE TEMP. °F(ASTM-Hg)	INDICATION TEMP. °F	REFERENCE MEDIUM	CORRECTION
EEC-2 DGM THERMOCOUPLE PROG.	10-10-85	38	38	ICE WATER	0
		116	118	HOT WATER	+2
		211	214	HOT WATER	+3
		426	425	HOT OIL	-1
	CALIBRATED BY: Ryan D. Burrows				

MASS FLOWMETER/TOTALIZER CALIBRATION

CALIBRATION CHECK BY: C. Feil DATE: 3-17-86 CONTROL BOX NO. AUTO-SAMPLER

LEAK CHECK OF METER SYSTEM ✓ BAROMETRIC PRESSURE ("Hg) 30.02

ΔHw ("H_2O)	Initial Wet Test Volume(ft^3)	Final Wet Test Volume(ft^3)	Wet Test Volume (ft^3@STP)	Wet Test Volume (ℓpm)	Wet Test Temp. (^oF)	MFM Total Counts	MFM Indicated Flow (Total ℓ)	MFM Actual Flow (ℓpm)	Time (Min.)	Y
—	0.000	20.225	20.151	1.008	71.7	406	20.300	1.015	20.0	0.993
—	0.000	20.555	20.461	1.023	72.2	401	20.050	1.003	20.0	1.020
—	0.000	20.500	20.414	1.021	72.0	409	20.450	1.023	20.0	0.998

count rate = 100

Vw (STP) = Vw Yw (528^{oR}/(Tw + 460))((P bar + (ΔHw/13.60))/29.92)

ℓpm = ft^3 @ STP x 28.316

Total Flow = Total counts x 5ℓ/count rate

Yavg. = ℓpm(w)/ℓpm(MFM) = 1.004

MASS FLOWMETER/TOTALIZER CALIBRATION
POST-TEST CHECK

CALIBRATION CHECK BY: C. Zink DATE: 3-21-86 CONTROL BOX NO. AUTO-SAMPLER

LEAK CHECK OF METER SYSTEM ✓ BAROMETRIC PRESSURE ("Hg) 30.15 in. Hg

count rate = 100

ΔHw ("H_2O)	Initial Wet Test Volume(ft^3)	Final Wet Test Volume(ft^3)	Wet Test Volume (ft^3@STP)	Wet Test Volume (ℓpm)	Wet Test Temp. (^oF)	MFM Total Counts	MFM Indicated Flow (Total ℓ)	MFM Actual Flow (ℓpm)	Time (Min.)	Y
—	0.000	20.205	20.341	1.017	68.5	407	20.350	1.018	20.0	0.999
—	0.000	20.195	20.273	1.014	70.0	405	20.250	1.013	20.0	1.001
—	0.000	20.195	20.273	1.014	70.0	404	20.200	1.010	20.0	1.004

$Vw\ (STP) = Vw\ Yw\ (528^{oR}/(Tw + 460))((P\ bar + (\Delta Hw/13.60))/29.92)$

$\ell pm = ft^3$ @ STP x 28.316

Total Flow = Total counts x 5ℓ/count rate

Yavg. = ℓpm(w)/ℓpm(MFM) = 1.001

APPENDIX D

CHAIN OF CUSTODY

Environmental Engineering Consultants, Inc.

Sample Chain of Custody

Plant TREESWEET PRODUCTS

Source Sampled WASTE HEAT EVAPORATOR Date Sampled 3-19-86

Sample Recovery

Sample Code and Description	Recovery Location	Date and Time of Recovery
Filter # 106 – Run #1	EEC, Dr.	3-19-86
Filter # 107 – Run #2		
Filter # 108 – Run #3		
Filter # 109 – Blank		
Wash # 1 – Run #1	On-Site	
Wash #2 – Run #2		
Wash #3 – Run #3		
Acetone Blank – Blank		

Sample Recovery By: Byron A Bunnow Title TECHNICIAN

Sample Received By: SAME Title _____
(Upon Recovery)

Date & Time of Recept. _____ Sample Storage _____

Sample Received By: SAME Title _____
(For Analysis)

Date & Time of Recept. _____ Sample Storage _____

Analysis

Sample Code	Method of Analysis	Date & Time of Analysis	Signature of Analyst
Filter 106	Gravimetric	4-10-86	B A Bunnow
Filter 107			
Filter 108			
Filter 109			
Beaker 250			
Beaker 251			
Beaker 252			
Beaker 152			

The TreeSweet Companies
P.O. BOX 770429, HOUSTON, TEXAS 77215

ACCOUNTS PAYABLE VOUCHER

P.O. NUMBER	VENDOR INVOICE	DATE	GROSS	DISCOUNT	NET AMOUNT
	Air Permit for Modification to Feedmill Dryer/Evaporator				1,000.00

DER
MAY 14 1986
BAQM

REMITTANCE ADVICE – PLEASE DETACH BEFORE DEPOSITING

TSP 3001 (1/86)

NATIONAL BANK OF COMMERCE OF SAN ANTONIO
P.O. DRAWER 121
SAN ANTONIO, TEXAS 78291
(512) 225-2511

CHECK NO. 3290

TreeSweet PRODUCTS CO. 1,000dol's00cts

DATE May 9, 1986

AMOUNT **1,000.00**

The TreeSweet Companies
P.O. BOX 770429, HOUSTON, TEXAS 77215

PAY TO THE ORDER OF Department of Environmental Regulations

John Stewart Clay

INVALID OVER $5,000 UNLESS COUNTERSIGNED

[redacted]

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

No 76124

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Treesweet Companies Date May 14, 1986

Address P.O. Box 770429, Houston, Texas 77215 Dollars $ 1,000.00

Applicant Name & Address same as above

Source of Revenue

Revenue Code 001031 Application Number AC 56-117671, -117673, 117649

By Patricia D. Adams

P 408 533 201

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. Bernard W. McBee, J:	
Street and No.	
P.O., State and ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date	4/16/86

PS Form 3800, Feb. 1982

PS Form 3811, July 1983

SENDER: Complete items 1, 2, 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 service(s) requested.

1. ☐ Show to whom, date and address of delivery.

2. ☐ Restricted Delivery.

3. Article Addressed to:

Mr. Bernard W. McBee, Jr.
Treesweet Products Company, Inc.
1000 Bell Avenue
Ft. Pierce, Florida 33482

4. Type of Service:

☐ Registered ☐ Insured
XX Certified ☐ COD
☐ Express Mail

Article Number: P 408 533 201

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee

X

6. Signature – Agent

X Sharon Ransdell

7. Date of Delivery

4-18-86

8. Addressee's Address *(ONLY if requested and fee paid)*

DOMESTIC RETURN RECEIPT

PERSONAL
FILE COPY

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

April 15, 1986

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Bernard W. McBee, Jr.
Treesweet Products Company, Inc.
1000 Bell Avenue
Ft. Pierce, Florida 33482

Dear Mr. McBee:

RE: Permit Application Nos. AC 56-117649, -117671, and -117673; Boilers 3, 4, and Peel Dryer/Waste Heat Evaporator/Scrubber, Respectively

As a major modification, your applications to modify these existing sources will be processed by this office. Please make all further correspondence regarding these applications directly to our attention.

A review of your aforementioned applications to modify indicates they are incomplete. The following is required to complete your application.

For boilers No. 3 and No. 4

1. Section II-A: All changes requested are to be included (e.g. operational hours).

2. Section II-B: Estimate these dates.

3. Section II-D: Include all construction and operation permits.

4. Section II-E: Is this correct? If not, change as required.

5. Section II-F: Complete this sub-section.

6. Section III-A: Complete this sub-section including complete description of boiler. (i.e., manufacturer(s), model No(s)., design heat capacity, etc.).

7. Section V-6: Provide an accurate flow diagram as your facility exists. This should clearly depict the relationship between different pieces of equipment both spatially and process related.

For: Peel dryer/waste heat evaporator/scrubber

8. Same as items 1-7 above (except item 6 where a description of this combined system is requested rather than that of a boiler).

Upon receipt of the above information processing of your applications will resume. Please refer to this letter in your response.

Should there be any questions, please call M. G. Phillips at (904)488-1344 or write to me at the above address.

Sincerely,

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

CHF/MP/s

cc: Tim Powell
Wayne E. Griffin

2745 S.E. MORNINGSIDE BOULEVARD
PORT ST. LUCIE, FLORIDA 33452

STATE OF FLORIDA

BOB GRAHAM
GOVERNOR

JACOB D. VARN
SECRETARY

NEDS NO. 10-3960-050-0009-08
APIS NO. 51-56-0009-08
MINOR
1,2

DEPARTMENT OF ENVIRONMENTAL REGULATION

December 8, 1980 SOUTH FLORIDA SUBDISTRICT BRANCH OFFICE

APPLICANT:

Mr. Richard E. Smith, Gen. Mgr.
Treesweet Products Co.
P. O. Box 189
Fort Pierce, Florida 33454

PERMIT/~~CERTIFICATION~~
NO. AC-56-35634

COUNTY: St. Lucie

PROJECT: Construct Process Steam Boiler #4

Expires 4/1/81

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

CONSTRUCT: An industrial process steam boiler, a 1000 H. P. Johnson, fire tube, Model 538AHG, S.N. S4619, burning natural gas at a max. rate of 16,148 ft^3/hr producing max. of 16.9×10^6 Btu/hr input, or No. 2 diesel oil (0.16%S) standby fuel at max. rate of 124 gals/hr, producing a max. of 17.3×10^6 Btu/hr input, discharging through a 36 inch I.D. stack, 38.5 ft. above ground level, operating 24 hrs/day, 6 days/wk, 52 wks/yr.

IN ACCORDANCE WITH: The engineering plans/data submitted with the construction permit application, DER Form 17-1.122(16) signed by Mr. Wayne E. Griffin, P.E., received on October 14, 1980 and subsequent information received on October 23, 1980.

LOCATED AT: 1000 Bell Avenue, Fort Pierce, St. Lucie Co., UTM Zone 17, East 565,300 meters, North 3,030,400 meters.

SUBJECT TO: GENERAL CONDITIONS one (1) through twelve (12) and SPECIFIC CONDITIONS one (1) through four (4).

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION) Bill Thomas BAQM	Initial	
	Date	
2. Tallahassee	Initial	
	Date	
3. DER	Initial	
	Date	
4. MAR 31 1986	Initial	
	Date	

REMARKS: BAQM

Bill -

This mess of paper represents all of construct and current operate permits from our files. Briefly, this is what I found:

Boiler No. 4 - had AC and AO permits.

Boiler No. 3 - no AC on file but has current AO

Dryer/W.H.E. - has had various AC permits issued. It appears however that the dryer may have been installed w/o AC permit.

Please call if you need more.

T. Powell

INFORMATION	
	Review & Return
	Review & File
	Initial & Forward

DISPOSITION	
	Review & Respond
	Prepare Response
	For My Signature
	For Your Signature
	Let's Discuss
	Set Up Meeting
	Investigate & Report
	Initial & Forward
	Distribute
	Concurrence
	For Processing
	Initial & Return

FROM:

DATE 3/28/86

PHONE 487-5053 S.C.

PERMIT NO.: AC-56-35634 - Treesweet Products Co., Process Steam Boiler #4
APPLICANT: Mr. Richard E. Smith, General Manager

SPECIFIC CONDITIONS:

1. Construction of this installation shall be completed by January 1, 1981. Application for permit to operate to be submitted by February 1, 1981. This construction permit expires on April 1, 1981 following an initial period of operation for appropriate testing to determine compliance with the Rules of this Department.

   Test the emissions for plume density by visible emissions test, (aka Visible Determination of Opacity), in accordance with the code of Federal Regulations 40 CFR Part 60, Appendix A, Method 9, entitled "Visual Determination of Opacity of Emissions from Stationary Sources".

   Notification of all tests must be given at least two (2) weeks prior to the test date(s) in order that a representative may be present. The testing must be accomplished at approximately the maximum designed rates as stated in the application. Failure to submit the input rates or operation at conditions which do not reflect actual operating conditions may invalidate the data, Chapter 403, Section 403.161(1)(c), Florida Statutes(FS). In cases wherein alternate fuels are involved, the "dirtiest" fuel is to be used, i.e., fuel oils instead of natural gas, for the complete test(s).

   The plume density test will be made by a DER or EPA currently certified reader at fifteen (15) second intervals for a minimum of a one (1) hour period. The readings will be entered on the attached "Record of Visual Determination of Opacity" sheets. Xerox copies of the reader's certification are to be attached. The observation results are to be submitted to this office along with the application for an operation permit.

2. The emissions limiting standards for this boiler stack are defined in Section 17-2.05(6) Table II E(2), Chapter 17-2, "Air Pollution", Florida Administrative Code(FAC); visible emissions shall have a density equal to or less than 20% opacity.

3. Submit all correspondence to the Department of Environmental Regulation, South Florida Subdistrict Branch Office at Port St. Lucie.

4. The permittee agrees to comply with regulatory changes applicable to this type of facility which may be proposed and promulgated by this Department in order to abate air pollution sources.

Expiration Date: April 1, 1981

3 Pages Attached.

Issued this 8th day of December, 1980

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Signature
Warren G. Strahm
Subdistrict Manager

WGS:ghm

DER FORM 17-1.122(63) 4/4 (1/80)

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHEAST FLORIDA DISTRICT
BRANCH OFFICE
2745 SOUTHEAST MORNINGSIDE BOULEVARD
PORT ST. LUCIE, FLORIDA 33452

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
Bernard W. McBee, Jr.
General Manager
TreeSweet Products Co., Inc.
1000 Bell Avenue
Fort Pierce, Florida 33482

APIS No.: 50/56/0009/08
Permit Number: AO-56-112676
Date of Issue: February 14, 1986
Expiration Date: February 14, 1991
County: St. Lucie
Latitude/Longitude: 27°24'11"N/80°20'24"W
Project: Boiler #4

This permit is issued under the provisions of Chapter(s) 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:

OPERATE:

1000 H.P. (17 MM BTU/hr.) Johnson fire tube process steam boiler, Model 538 AHG, burning natural gas (16,148 ft.^{3}/hr. maximum) or No. 2 diesel oil (124 gal./hr.) as backup fuel; discharging pollutants through 36 inch I.D. stack, 38.5 ft. above ground; unlimited hours of operation.

IN ACCORDANCE WITH:

The original construction permit, AC-56-35634; "Application for Renewal of Permit to Operate Air Pollution Sources", DER Form 17-1.202(4), received November 22, 1985.

LOCATED AT:

1000 Bell Avenue, Fort Pierce. UTM Coordinates: Zone 17, 565.3 km East/3030.4 km North.

SUBJECT TO:

GENERAL CONDITIONS one (1) through fifteen (15) and SPECIFIC CONDITIONS one (1) through four (4).

PERMITTEE:
Bernard W. McBee, Jr., General Manager
TreeSweet Products Co., Inc.

APIS Number: 50/56/0009/08
Permit Number: AO-56-112676
Date of Issue: February 14, 1986
Expiration Date: February 14, 1991

SPECIFIC CONDITIONS:

1. The emission limiting standard for this source is less than 20 percent opacity as referenced in FAC Rule 17-2.600(5). Compliance with the standard is accomplished by performing EPA Method 9 as referenced in FAC Rule 17-2.700.

2. Compliance with the visible emissions standard shall be tested for prior to renewal of this permit. At least 14 days prior notice will be afforded the DER Southeast Florida Subdistrict Office in Port St. Lucie. Test results must be submitted to this office within 45 days after the test date.

3. During the compliance test, the source shall be fired with the "worst-case" fuel permitted, 124 gal./hr. No. 2 Diesel, ± 10%.

4. This permit will expire on 2/14/1991. No later than 60 days prior to this date, the Permittee shall apply for a renewal of the permit on forms provided by the Department. Along with the application, test results showing compliance with the standard must be submitted. The test must have been run no earlier than 90 days from the date of expiration. At least 14 days prior notice shall be afforded the DER Southeast Florida Office in Port St. Lucie so that a representative may witness the test.

AP:tps/17

Issued this 14th day of February, 1986

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Alexander Padva, Ph.D.
Acting District Manager

4 Pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTH FLORIDA
SUBDISTRICT
BRANCH OFFICE

2745 SOUTHEAST MORNINGSIDE BOULEVARD
PORT ST. LUCIE, FLORIDA 33452

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

issued 6/4/82

APIS #51/56/0009/03

APPLICANT:

William E. Parker
Executive Vice President
TreeSweet Products Company
Post Office Box 189
Fort Pierce, Florida 33454

PERMIT/CERTIFICATION
NO. AO 56-55650

COUNTY: St. Lucie

PROJECT: TreeSweet Products Co.
Boiler #3

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

OPERATE: A 1000 H.P. (33.5 MMBTU/HR) Johnson Firetube Boiler fired by natural gas with #2 fuel oil standby discharging pollutants to the atmosphere 25 feet above ground level.

IN ACCORDANCE WITH: Application to Operate Air Pollution Sources dated February 16, 1977 and Application for Renewal dated May 10, 1982.

LOCATED AT: 1000 Bell Avenue, Fort Pierce

UTM COORDINATES: Zone 17; 565.4 KmE, 3030.6 KmN

SERVING: A citrus processing plant (SIC# 2037)

SUBJECT TO: General Conditions 1 - 12 and Specific Condition 1 - 6.

No AC permit on record.

PERMIT NO: AO 56-55650 - TreeSweet Products Company
APPLICANT: Mr. William E. Parker, Executive Vice President

SPECIFIC CONDITIONS:

1. Compliance testing shall be conducted for the sources covered by this permit prior to renewal in accordance with the methods specified below.

2. Emission limiting standard is as follows:

In accordance with Florida Administrative Code Rule 17-2.610(2), visible emissions from this boiler shall not equal or exceed an average of 20% opacity.

3. The compliance test report shall include emissions tested by the following methods:

Source/Emission Point	Pollutant	Test Method
Boiler #3	Visible Emissions	EPA Method 9

The compliance test report shall be submitted to the Department in accordance with Florida Administrative Code (F.A.C.) Rule 17-2.700(7).

4. Testing of emissions should be conducted using the fuel and/or process input which are expected to result in the highest emissions and within ten percent (10%) of the rated capacity of the source. Otherwise the Department may require the test to be repeated or modify the permit to reflect tested rates and/or fuels.

5. The Department shall be notified of expected test dates at least ten (10) days prior to compliance testing.

6. Copies of all reports, tests, notifications or other submittals required by this permit shall be submitted to the Department of Environmental Regulation, South Florida Subdistrict Branch Office.

STATE OF FLORIDA
DEPARTMENT OF
POLLUTION CONTROL

should have included reel dryer 1) included fuels (gas/oil) 2) stated fuels for dryer

DER
MAR 31 1986
BAQM

OPERATION PERMIT

FOR Treesweet Products Co.
P. O. Box 189
Ft. Pierce, FL 33450

PERMIT NO. A056-2187 DATE 10-16-73

PURSUANT TO THE PROVISIONS OF SECTION 403.061 (16) OF CHAPTER 403 FLORIDA STATUTES AND CHAPTER 17-4 FLORIDA ADMINISTRATIVE CODE, THIS PERMIT IS ISSUED TO:
W. E. Parker, Vice President Exec. Vice President, 2/77

FOR THE OPERATION OF THE FOLLOWING:
waste heat evaporator system, including scrubber and dust collector

LOCATED AT: 1000 Bell Ave., Ft. Pierce, St. Lucie County
LAT: 27°23'58" LONG: 80°20'36"

IN ACCORDANCE WITH THE APPLICATION DATED Stack Test info 5-10-73

AND IN CONFORMITY WITH THE STATEMENTS AND SUPPORTING DATA ENTERED THEREIN, ALL OF WHICH ARE FILED WITH THE DEPARTMENT AND ARE CONSIDERED A PART OF THIS PERMIT.

THIS PERMIT SHALL BE EFFECTIVE FROM THE DATE OF ITS ISSUANCE UNTIL 10-16-78 OR UNTIL REVOKED OR SURRENDERED AND SHALL BE SUBJECT TO ALL LAWS OF THE STATE AND THE RULES AND REGULATIONS OF THE DEPARTMENT.

C. Medeiros

C. Medeiros
for REGIONAL ENGINEER

Richard C. Smith, General Manager

FORM 1-1

DK

OPERATION PERMIT CONDITIONS
FOR AIR POLLUTION SOURCES

(An "X" indicates applicable conditions)

DATE: 10-16-73

PERMIT NO.
AO 56-2187

( ) 1. The density of visible emissions for existing sources, until July 1, 1975, shall not exceed a Ringelmann Number Two or an equivalent 40% opacity. The density of visible emissions for all sources after July 1, 1975, shall not exceed a Ringlemann Number One or an equivalent 20% opacity. If the presence of uncombined water is the only reason for failure to meet these visible emissions standards, such a failure shall not be in violation of this rule. (Chapter 17-2.04 (1) (a) (b) (d))

(X) 2. Test the emissions for the following pollutant(s) at intervals of 1 yr. from the date of this permit and submit four copies of test results to the regional engineer of this agency within fifteen days of such testing. (Chapter 17-2.07(1))

(X)	Particulates	( )	Sulfur Oxides
( )	Fluorides	( )	Nitrogen Oxides
( )	Plume Density	( )	Hydrocarbons

( ) 3. According to revised Chapter 17-2 (Revised 1-18-72), this facility must be modified, up graded, or eliminated in order to comply with applicable emission limitations. * To insure compliance pursuant to the time limitation specified in Section 17-2.03(2), Chapter 17-2, Florida Administrative Code, the following steps toward compliance are made a condition of this permit.

(A) Submit on or before _____ a final control plan for complying with Chapter 17-2, Florida Administrative Code. This plan is subject to approval by the regional office.

(B) Submit on or before _____ a copy of contract(s) for modification/control equipment and/or fuels necessary to comply with Chapter 17-2.

(C) On or before _____, construction and/or modification must be initiated. Submit 60 days prior to this date construction permit applications and necessary information.

(D) Construction and/or modifications toward compliance must be completed by _____. Submit no later than _____ confirmation of this condition.

(E) Submit on or before _____ proof of compliance. This must include any changes in the construction permit application as submitted, and a final engineering report and _____ _____ to prove compliance. (test results and/or calculations)

* The applicable emission limitation for this facility is: _____ Section _____ Chapter 17-2, Florida Administrative Code.

(X) 4. Submit for this facility, each calander year, on or before March 1 an emission report for the preceding calander year containing the following information.

(A) Annual amount of materials and/or fuels utilized.

(B) Annual emissions.

(C) Any changes in the information contained in the permit application.

office
461-3800

State of Florida
Department of Air and Water Pollution Control

AO-56-2187

Application For Permit to Construct Air Pollution Sources

Applicant (Owner or authorized agent): W. E. Parker V.P. Florida Operations
(Name and Title)

Name of Establishment: Treesweet Products Co.
(Corporation, Company, Political SD, Firm, etc.)

Mailing Address: P. O. Box 189

Location of Pollution Source: 1000 Bell Avenue, Fort Pierce
(Number and Street) (City)

St. Lucie, Florida 33450
(County) Long. 80° 20' 36", Lat. 27° 23' 58"

Nature of Industrial Operation: Citrus Processing Plant
SIC CODE 2033& 2037

Permit Applied For:

New Source ☐

Existing Source after modification ☒

Existing Source ☐

Relocation, expansion or reconstruction ☐

Project Engineer:

H. R. Heath
Name

Treesweet Products Co.
Firm

P.O. Box 189, Fort Pierce, Florida 33450
Mailing Address

Harold R Heath
Signature

8013
Florida Registration Number

For Department's Use Only Permit No. Date:

1-C

The undersigned owner or authorized representative* of Treesweet Products Company is fully aware that the statements made in this form and the attached exhibits and statements constitute the application for a Construction Permit from the Florida Department of Air and Water Pollution Control and certifies that the information in this application is true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes and all the rules and regulations of the Department or revisions thereof. He also understands that the Permit is non transferable and, if granted a permit, will promptly notify the Department upon sale or legal transfer of the permitted establishment.

Signature of owner or agent.

William E. Parker

Vice President, Florida Operations

Name and Title

Date: August 24, 1972

*Attach letter of authorization.

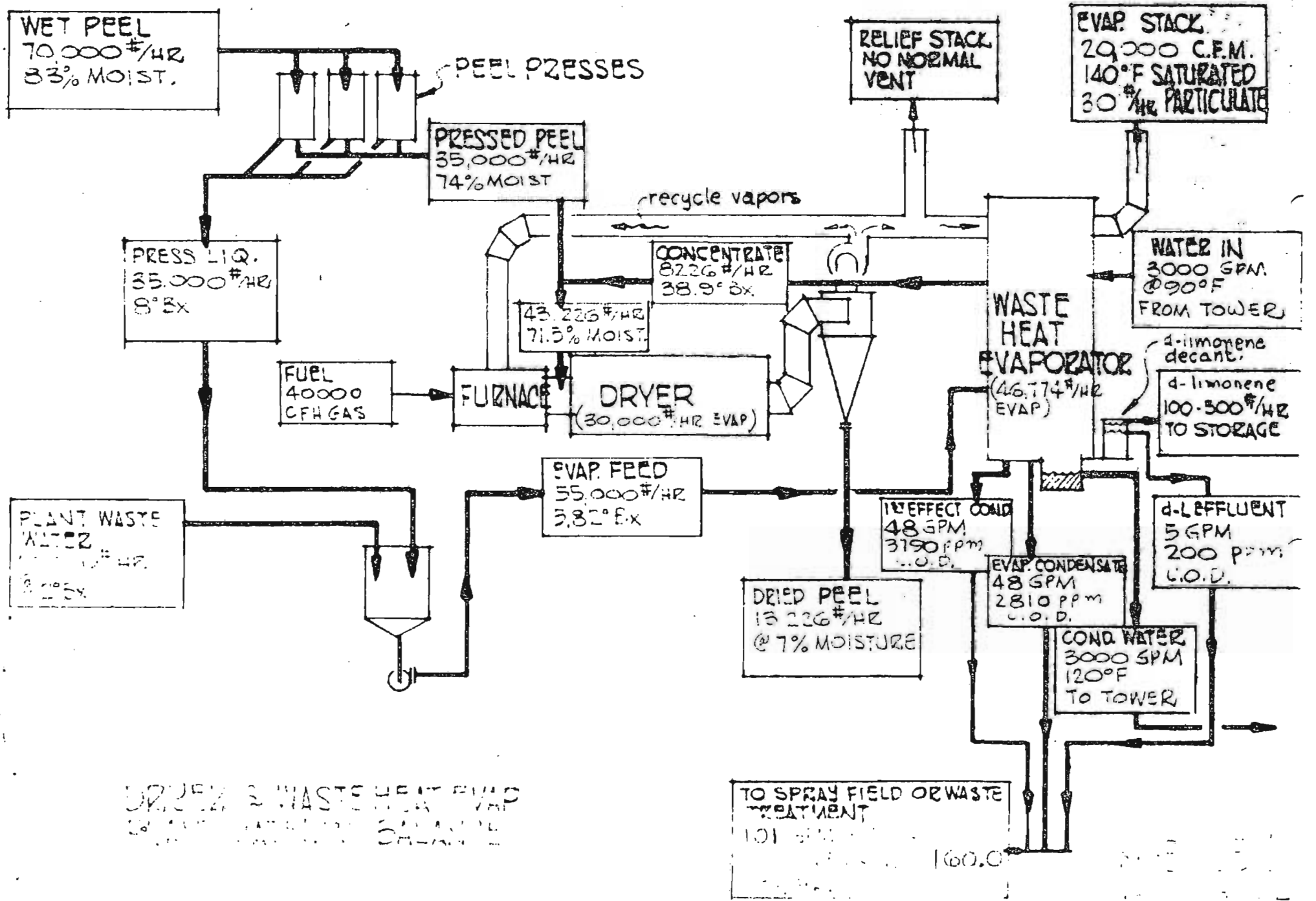
Estimated Schedule of

Construction of the Project

This equipment installation will be completed during December 1972 and will be put into operation as soon as possible after completion.

GULF MACHINERY CO., SAFETY HARBOR, FLA.

FILE E-1705	PART	CUST. TREESWEET PRODUCTS Co FT. PIERCE, FLA.	JOB NO. E-1705
DATE	DEVICE		



DRYER & WASTE HEAT EVAP
MATERIAL BALANCE

Information Regarding Pollution Sources and Proposed Control Facilities

1. Estimated cost of proposed control facilities $ 750,000.00.

2. Prepare and attach an 8½" x 11" flow diagram, without revealing trade secrets, identifying the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit where gaseous emissions and/or airborne particulates are involved and where finished products are obtained.

3. Include an 8½" x 11" plot plan showing location of manufacturing processes and location of outlets for airborne emissions. Relate all flows to the flow diagram.

4. Submit an 8½" x 11' plot plan showing the exact location of the establishment and points of discharge in relation to the surrounding area, residences and other permanent structures and roadways.

I General

A. Raw Materials and Chemicals Used.

	Description	Utilization Tons/day, Lbs./day, etc.	Approximate Contaminant Content		Relate to Flow Diagram
			Type	Percent Dry Weight	
1.	Wet Citrus Peel	770 Tons Per Day	Solid	Neg.	Infeed
2.	Oil Mill Effluent, Plant Floor Water & spent caustic	220 Tons Per Day	Liquid	Neg.	Plant Waste Water
3.	Lime	1/2 Ton Per Day	Solid	Neg.	On Peel

Tons/hr 32.1

9.2

40 MBTU/HR

B. Fuels

Type (Be Specific)	Daily Consumption	Gross Maximum Heat Output	Relate to Flow Diagram
Natural Gas	40,000 Cu. Ft./Hr.	1,000 BTU/Cu. Ft.	Dryer Fuel
	880,000 Cu. Ft./Day		
No. 6 Oil	Standby fuel as Required for Gas Contract		Dryer Fuel

C. Products

Description	Average Daily Production (Tons/Day. Lbs/Hr. etc.)
Cattle Feed	145 + Tons/Day
D-Limonene Oil	3300#/Day

D. Normal operation: Hours/Day 22 Day/Week 6 Days/Week

If operation or process is seasonal, describe: Seasonal-From December 15th to July 15th, average 7 months/year., as dictated by available citrus.

II Identification of Air Contaminants

Compounds of:		Also —			
Chlorine	☐	Hydrocarbons	☒	Acid Mists	☐
Fluorine	☐	Smoke	☐	Odors	☐
Nitrogen	☐	Fly Ash	☐	Radioisotopes	☐
Sulfur	☐	Dusts	☒	Other _____	☐

Specific Compounds _____

III Air Pollution Control Devices

Contaminant	Control Device	Relate to Flow Diagram	Operating Efficiency	Conditions (Particle Size Range, Temp. etc.)
Particulate	Scrubber	Waste Heat Evaporator	99.9%	.1mm @ 140°F
Particulate	Bag Filter	Cooling Air	99.9%	1 micron @ 145° F

Provide a brief description of the control device or treatment system. Attach separate sheets giving details regarding principle of operation, manufacturer, model, size, type and capacity of control treatment device and the basis for calculating its efficiency. Show any bypasses of the control device and specify when such bypasses are to be used and under what conditions.

This application is for construction of equipment to reduce air pollution from an existing source and incidently by use of strong waste water from existing concentrate plant to also reduce water contamination.

Briefly application is to modify existing feed mill equipment and dehydrators and install waste heat evaporator. Purpose is to control air pollution from the feed mill by recirculation of 66% of air presently used and also to scrub exhaust air before releasing to atmosphere which reduces total particulate discharge and also reduces temperature of released air.

Part of the feed for the evaporator is strong waste water from the concentrate plant which is concentrated and put on the feed which reduces the overall water contamination from the plant.

This system uses a water cooling tower for barometric cooling water. This practice is a definite water conservation measure.

NOTE: APPLICATION FORM SUMMARY

IV. Contaminant Balance

From contaminant content in raw materials, waste products, and manufactured products, summarize daily contaminant flow:

	Pounds Contaminant per Day	
	Input	Output
List Raw Materials:		
Wet Citrus Peel		
Oil Mill Waste Effluents		
Lime		
Fuel		
List Manufactured Products:		
Cattle Feed		
D-Limonene Oil		
List Solid Wastes:		
30.5#/Hr. Particulate Stack Emission		671#/Day
Present Stack Emissions	7,750#/Day	
List Liquid Wastes:		
101 Gals./Minute to Waste Treatment (Spray Field)		COD Demand 3520#/Day
COD Diverted from Spray Field to Evaporator	3,880#/Day	
Totals	11,630#/Day	4191#/Day

Airborne Wastes (Total input minus total output)

Total Airborne Particulate Emmitted: 30.5#/Hr.

Note: If more than one contaminant, specify each
Contaminants recovered in control devices should be shown as either a liquid or a solid waste.

V. Discharged Emissions to Atmosphere

A. Discharge Points and Design Conditions

Discharge Point Description	Relate to Flow Diagram	Height above Ground (ft.)	Cross Sect. Area (sq. ft.)	Periods of Flow Hrs./ Day	Periods of Flow Hrs./ Wk.	Temp. of Discharge (°F)
Vapor Stack	Evaporator	93'-0"	7.8	22 Hrs./Day		140°F
Cooling Air Stack	Dried Peel	35'-0"	3.79	22 hrs./Day		140° F

B. Tabulation of Discharged Contaminants

Discharge Point — Relate to Flow Diagram	Flow Rate at Std. Cond. (cfm)	Total Contaminants Discharged: Particulates Gr/ft3 (Std.Cond.)	Particulates lbs./ Day	Other Contaminants (F^-, SO_X, NO_X etc.) Gr/ft3 (Std. Cond.)	Other Contaminants lbs/ Day	Other Contaminants Gr/ft3 (Std.Cond)	Other Contaminants lbs/ Day
Stack	20,000		660				
Tank	101 GPM				1056		
					#/Day		
Cooling Air Stack	13000 CFM		11				
Totals			671		1056		

VI. Treatment and Disposal of Liquid and Solid Waste

1. Identify the contaminants which will be discharged as liquid or solid wastes.
   Carbohydrate dust from Feed Mill = 30#/Hr. Dust from cooling air 1/2 lb/hr.
   Carbohydrates, Hydrocarbons as soluble solids = 160#/Hr. of COD
2. Describe the treatment and disposal of liquid and solid wastes. Indicate the concentrations and volume of individual contaminants in treated wastes before disposal.

a) Exhaust gasses and water vapor from existing feed dryers are used for energy in Waste Heat Evaporator. First effect reducing tube bundles are continually scrubbed by condensate to substantially reduce total particulate contaminate emission into atmosphere. As energy from gas and vapor exhaust from dryers is used by the waste heat evaporator both to volume and temperature of exhaust is substantially reduced. Total volume emission is approximately 20,000 cu. ft./minute @ 140°F with total particulate not to exceed 30#/Hr.

b) Plant strong waste water contained at least 60/70% of existing plant water contamination is fed into waste heat evaporator and used on the cattle feed produced. The contaminated fluids from the evaporator are to be pumped to the existing plant waste disposal system. Load from this source is approximately 101 GPM with a total COD demand of 160#/Hr. This will reduce the overall loading on the plant waste water system.

c) Cooling air from dried feed contains an average of 24.5 lbs of dust which will be cleaned by mechanical filtration to eliminate 99.9% of dust above 1 micron. Dust removed by the filtration will be processed into pellets and added to the feed output at the rate of 24 lbs/hr. 13000 CFM air at 145° F will be discharged containing less than 1/2 lb of dust per hour.

STATE OF FLORIDA
DEPARTMENT OF AIR AND WATER
POLLUTION CONTROL

CONSTRUCTION PERMIT

FOR Treesweet Products Company
Post Office Box 189
Fort Pierce, Florida 33450

PERMIT NO. AC-73020 DATE January 31, 1973

PURSUANT TO THE PROVISION OF SECTION 403.061 (16) OF CHAPTER 403, FLORIDA STATUTES AND CHAPTER 17-4 FLORIDA ADMINISTRATIVE CODE, THIS PERMIT IS ISSUED TO:
W. E. Parker, Vice President

FOR THE CONSTRUCTION OF THE FOLLOWING:
Waste Heat Evaporator System Including Scrubber and Dust Collector

LOCATED AT: 1000 Bell Avenue, Fort Pierce, St. Lucie County, Florida
80°20'36" -- 27°23'58"

IN ACCORDANCE WITH THE APPLICATION DATED August 24, 1972
AND IN CONFORMITY WITH THE STATEMENTS AND SUPPORTING DATA ENTERED THEREIN, ALL OF WHICH ARE FILED WITH THE DEPARTMENT AND ARE CONSIDERED A PART OF THIS PERMIT.

THIS PERMIT SHALL BE EFFECTIVE FROM THE DATE OF ITS ISSUANCE UNTIL 12/1/73
AND SHALL BE SUBJECT TO ALL APPLICABLE LAWS OF THE STATE AND THE RULES AND REGULATIONS OF THE DEPARTMENT.

K. K. Dubberstein, Chief
BUREAU OF PERMITTING

Vincent D. Patton
VINCENT D. PATTON
EXECUTIVE DIRECTOR

FORM 1-J

STATE OF FLORIDA

DEPARTMENT OF POLLUTION CONTROL

CONSTRUCTION PERMIT PROVISOS

AIR POLLUTION SOURCES

Permit No. AC-73020 Date: 1/31/73

[X] 1. Construction of this installation shall be completed by June 1, 1973.

[X] 2. This construction permit expires on December 1, 1973 following an initial period of operation for appropriate testing to determine compliance with the Rules of the Florida Pollution Control Board.

[X] 3. All applicable rules of the Department including design discharge limitations specified in the application shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction.

[X] 4. The applicant shall continue the retention of the engineer of record for the inspection of the construction of this project. Upon completion the engineer shall inspect for conformity to construction permit applications and associated documents. A report of such inspection shall be submitted by the engineer to the Department of Pollution Control for consideration toward the issuance of an operation permit.

[X] 5. This control equipment shall be tested for total particulates within 180 days after it is placed in operation. These test results are required prior to our issuance of an operation permit and shall be submitted in duplicate to the DPC Southeast Florida Regional Office, 200 S. E. 6th Street, Suite 504, Ft. Lauderdale, Florida 33301.

[X] 6. The operation of this installation shall be observed for visible emissions in accordance with Method 9 -- Visible Determination of the Opacity of Emissions from Stationary Sources (Federal Register, December 23, 1971). The observation results are required prior to our issuance of an operation permit, and shall be submitted in duplicate to the DPC Southeast Florida Regional Office, 200 S.E. 6th St., Suite 504, Ft. Lauderdale, Fla. 33301.

[ ] 7. Stack sampling for total particulate or other contaminant emissions shall be conducted if found by the DPC Florida Regional Office to be necessary as a basis for the issuance of an operation permit.

[X] 8. Satisfactory ladders, platforms, and other safety devices shall be provided/available as well as necessary ports to facilitate the carrying out of an adequate sampling program.

(TURN OVER)

9. The following items are required prior to our issuance of an operation permit in addition to the engineer of record's report of inspection:

   (a) An emission report for total particulates and sulfur oxides based upon actual operations.

   (b) A tabular summary of actual records of frequencies and durations of soot blowing as well as boiler blowdown characteristics and disposal practices.

   These items are required prior to our issuance of an operation permit and shall be submitted in duplicate to the DPC Florida Regional Office, _____

[ ] 10. There shall be no discharges of liquid effluents or contaminated runoff from the plant site.

[ ] 11. All fugitive dust generated at this site shall be adequately controlled.

[X] 12. This construction permit is subject to approval by the Board of the Florida Department of Pollution Control.

November 24, 1976

no construct permit issued

Mr. George Humbert
Dept. of Environmental Regulation
806 South Sixth Street
Fort Pierce, Florida 33450

Dear George:

As you may recall, back in March of this year I visited the Fort Pierce D.E.R. office for the purpose of disclosing the fact that TreeSweet was purchasing a new 40,000#/Hr. Gulf Machine dryer and an additional peel press. In addition to the above equipment, we have purchased two new cyclone dust removing fans and a shaker screen.

We believe that our feed mill is now state of the art and will be one of if not the most efficient and pollution free in the state. For your records you may note that the new dryer is tied into the waste heat evaporator in the same manner as the old equipment.

All four of our stack tests, one waste heat and three boiler, are scheduled for January 12, 1977.

Thank you,

TREESWEET PRODUCTS CO.

R. E. Smith
R. E. Smith
General Manager

RES:fh

RECEIVED
NOV 29 1976
Dept. of Environmental Reg.
Fort Pierce

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHEAST FLORIDA
SUBDISTRICT

2745 SOUTHEAST MORNINGSIDE BOULEVARD
PORT ST. LUCIE, FLORIDA 33452

PERMITTEE:
Treesweet Products, Co., Inc.
Bernard W. McBee, Jr., General Manager
P.O. Box 189
Fort Pierce, Florida 33454

I.D. Number: APIS #51/56/0009/01
Permit Number: AO-56-64438
Date of Issue: March 29, 1983
Expiration Date: March 29, 1988
County: St. Lucie
Latitude/Longitude:
Section/Township/Range:
Project: Peel Dryer/Waste Heat Evaporator

This permit is issued under the provisions of Chapter(s) 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:

OPERATE:

A Peel Dryer/Waste Heat Evaporator processing 35 tons/hour wet peel; burning 40,000 $ft.^3$/hour natural gas (40 MM BTU-hour); equipped with a wet scrubber. Hours of operation are normally 16 hours/day, 5 days/week and 30 weeks/year.

IN ACCORDANCE WITH:

Application for Renewal of Permit to Operate Air Pollution Source(s), DER Form 17-1.202(4), received 1/4/83.

LOCATED AT:

1000 Bell Avenue, Ft. Pierce. UTM: Zone 17, 565.6 km East/3031.3 North.

SUBJECT TO:

GENERAL CONDITIONS one (1) through fifteen (15) and SPECIFIC CONDITIONS one (1) through eight (8).

PERMITTEE:
Treesweet Products Co., Inc.
Bernard W. McBee, Jr., General Manager

I.D. Number: APIS #51/56/0009/01
Permit Number: AO-56-64438
Date of Issue: March 29, 1983
Expiration Date: March 29, 1988

SPECIFIC CONDITIONS:

1. The Permittee shall test annually for particulate and visible emissions using EPA Methods 1, 2, 3, 5 and 9 as referenced in Florida Administrative Code (FAC) Rule 17-2.700. Test dates shall be either on or prior to the anniversary date of this permit. At least 14 days prior notice will be afforded to the DER Southeast Florida Subdistrict.

2. During the compliance test, the process rate shall be 35 tons/hour wet peel, ± 10%.

3. The emission limiting standard for particulate is defined by the Process Weight Table, 17-2.610(1), FAC Rule. The visible emissions standard is an opacity less than 20% as given in 17-2.610(2), FAC Rule.

4. The Permittee shall take necessary precautions to prevent unconfined emissions of particulate matter as deemed necessary by the Department and as referenced in 17-2.610(3)(c), FAC Rule.

5. Natural gas is the only permitted fuel for this source. In the event of emergency conditions, when the natural gas supplied is curtailed, No. 6 R.O. fuel oil may be burned only upon immediate notification to the Port St. Lucie Office (within 24 hours of such a curtailment) so that a visible emissions test may be scheduled; the next regularly scheduled stack test must then be performed while firing fuel oil. If the Permittee at some later date wishes to use fuel oil in normal operations, an application must be submitted to the Port St. Lucie Office and a stack test will be rescheduled within 30 days of such a modification.

6. The permittee shall submit an Annual Operating Report for each calendar year, on forms provided by the Department, no later than March 1 of the following calendar year.

7. The stack sampling facilities shall be maintained and designed as given in 17-2.700(4)(c)., FAC Rule.

8. This permit will expire on March 29, 1988. No later than 60 days prior to this date, the Permittee shall apply for a renewed operating permit on forms provided by the Department.

Note: Based on 1/14/83 stack test results, this source is expected to emit 27.5 lb/hr particulate x 2400 hr/yr = 33 TPY. Allowable emissions based on Process Weight Table and 35 TPH wet peel are 30.6 lb/hour or 36.7 TPY.

Issued this 29th day of March, 1983

RMD:tps/8

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Roy M. Duke

Roy M. Duke
District Manager

4 Pages attached.

GulfCoast Engineering Company

Consulting Engineers

October 29, 1981

Mr. Al Mueller, P. E.
Branch Manager
Department of Environmental Regulation
2745 S. E. Morningside Blvd.
Port St. Lucie, Florida 33452

Re: Peel-Dryer/Waste Heat
Evaporator #2
Permit #AC-56-40775

Gentlemen:

We are in receipt of your notice concerning the upcoming expiration of the noted permit.

The noted permit was obtained for a proposed expansion of the Peel Dryer/Waste Heat Evaporator #1 which did not occur. It is anticipated that any future expansions will be a modification of the Peel Dryer/Waste Heat Evaporator #1 permit. As a result, we intend to let the permit noted above expire without renewal.

Should you have any questions, please contact our office at your earliest convenience.

Sincerely,

Wayne E. Griffin

Wayne E. Griffin, P. E.
Vice President

WEG:ss
xc: Dick Smith
Dick Taubman

according to our files this AC permit was never used (Drier never built.)

RECEIVED
NOV 2 1981
Dept. of Environmental Reg.
Port St. Lucie

POB 1786 Brandon Fl. 33511 813 6859727
220 W. Brandon Blvd.

2745 S.E. MORNINGSIDE BOULEVARD
PORT ST. LUCIE, FLORIDA 33452

BOB GRAHAM
GOVERNOR
Victoria J. Tschinkel
SECRETARY

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTH FLORIDA SUBDISTRICT BRANCH OFFICE

April 2, 1981

Mr. R. E. Smith, Gen. Manager
Treesweet Products Co.
P. O. Box 189
Fort Pierce, Florida 33454

Dear Mr. Smith:

Re: Treesweet Products Co., construct citrus pulp/peel fire dryer #2, Renewal of AC-56-25094

This office has completed the review of your request to extend the expiration date of the referenced permit which was originally issued on December 10, 1979.

Your request for an extension of the expiration date is approved. Your new permit number is AC-56-40775 and the new expiration date is December 15, 1981. All the conditions of the original permit shall remain in effect for the duration of this time extension and this letter of approval must be attached to the original permit.

Should you have any questions please contact this office, telephone 305/878-3890.

Sincerely,

Warren G. Strahm
Subdistrict Manager

WGS:ghm

cc: Tallahassee, Records Center

806 SOUTH SIXTH STREET
FORT PIERCE, FLORIDA 33450

BOB GRAHAM
GOVERNOR

JACOB D. VARN
SECRETARY

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

December 10, 1979 SOUTH FLORIDA SUBDISTRICT BRANCH OFFICE

10-2620-050-00~~45-01~~ 99-02 GA
Class B (Minor)

APPLICANT: R. E. Smith, General Manager
Treesweet Products, Co.
P. O. Box 189
Ft. Pierce, FL 33450

PERMIT/~~CERTIFICATION~~
NO. AC-56-25094

COUNTY: St. Lucie

PROJECT: Construction of pulp fire dryer #2

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

CONSTRUCTION OF: A citrus pulp, peel fire dryer, using $4.8 \times 10^4 ft^3$/hr. natural gas or 6 gal./hr. #6 oil as stand-by fuel (2.3%S), processing 20T/hr. of material, 24 hrs/day, 6 days/week, approximately 32 weeks/year, with emissions controlled by modification of the existing waste heat evaporator from 60T/hr. to 120T/hr. capacity and existing stack, resulting in 99% efficiency removal of particulates, size 1.0mm and smaller.

IN ACCORDANCE WITH: The engineering plans/data submitted with the construction application, DER Form 12-1(Jan 78), signed by Robert S. Sholtes, P.E., received on November 8, 1978, and request for extension, signed by R. E. Smith, received on October 11, 1979.

LOCATED AT: 1000 Bell Ave., Ft. Pierce, St. Lucie County, UTM Zone 17, East 565,550 meters, North 3,031,250 meters.

SUBJECT TO: GENERAL CONDITIONS one (1) through twelve (12) and SPECIFIC CONDITIONS one (1) through four (4).

expires 12/15/80

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 Section 403.161(1), Florida Statutes. Permittee is hereby placed

on notice that the department will review this permit periodically and may initiate court 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 indicated in the attached drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit shall constitute grounds for revocation and enforcement action by the department.

3. 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 non-compliance, 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 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.

4. As provided in subsection 403.087(6), 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.

5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.

6. 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 Section 403.111, F.S.

7. In the case of an operation permit, 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.

8. 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 penalities therefore 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, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.

9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.

10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.

11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.

12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation 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.

13. This permit also constitutes:

[ ] Determination of Best Available Control Technology (BACT)
[ ] Determination of Prevention of Significant Deterioration (PSD)
[ ] Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)

SPECIFIC CONDITIONS:

SEE PAGE THREE (3).

FILE DRAWER #2

PERMIT NO.: AC-56-25094
APPLICANT: Mr. R. E. Smith, General Manager

SPECIFIC CONDITIONS:

1. Construction of this installation shall be completed by October 15, 1980 . Application for permit to operate to be submitted by November 15, 1980 .

2. This construction permit expires on December 15, 1980 following an initial period of operation for appropriate testing to determine compliance with the Rules of the Florida Environmental Regulation Commission.

3. This waste heat evaporator stack shall be tested for particulates and d-limonene within 30 days after it is placed in operation. These test results are required prior to our issuance of an operation permit and shall be submitted to the Department of Environmental Regulation, 806 So. 6th St., Ft. Pierce, FL 33450, phone 305/464.8525. .

   Testing of emissions must be accomplished at approximately the maximum designed rates as stated in the application. Failure to submit the input rates or operate at conditions which do not reflect actual operating conditions may invalidate the data (Chapter 403.161(1)(c), Florida Statutes).

   Notification of all tests must be given at least two weeks prior to the test date(s) in order that a representative may be present (Chapter 17-2.08(5)(1), Florida Administrative Code (FAC).

4. Stack to be equipped with hardware for the State of Florida, Department of Environmental Regulation, stack sampling team.

Expiration Date:

December 15, 1980

Issued this 10th day of Dec. , 1979

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

WARREN G. STRAHM
Subdistrict Manager

WGS/GH:dm

RULES OF THE ADMINISTRATION COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

(1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed, typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.

(2) All petitions filed under these rules should contain:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name and address of the petitioner or petitioners;

(c) All disputed issues of material fact. If there are none, the petition must so indicate;

(d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;

(e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;

(f) A demand for the relief to which the petitioner deems himself entitled; and

(g) Such other information which the petitioner contends is material.

Note: At a formal hearing all parties shall have an opportunity to present evidence and argument on all issues involved, to conduct cross-examination and submit rebuttal evidence, to submit proposed findings of fact and orders, to file exceptions to any order or hearing officer's recommended order, and to be represented by counsel.

FILE

806 SOUTH SIXTH STREET
FORT PIERCE, FLORIDA 33450

BOB GRAHAM
GOVERNOR

JACOB D. VARN
SECRETARY

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTH FLORIDA SUBDISTRICT BRANCH OFFICE

December 10, 1979

Mr. R. E. Smith, General Manager
Treesweet Products Co.
P. O. Box 189
Ft. Pierce, FL 33450

RE: Treesweet Products Co.
AC-56-25094
Construct citrus pulp/peel fire dryer #2
St. Lucie County

Dear Mr. Smith:

Enclosed is Permit Number AC-56-25094, dated December 10, 1979, to construct the subject pollution source, issued pursuant to Section 403.087 and 403.161, Florida Statutes.

Should you object to this permit, including any and all of the conditions contained therein, you may file an appropriate petition for administrative hearing. This petition must be filed within fourteen (14) days of the receipt of this letter. Further, the petition must conform to the requirements of Section 28-5.15, Florida Administrative Code, (copy enclosed). The petition must be filed with the Office of General Counsel, Department of Environmental Regulation, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32301.

If no petition is filed within the prescribed time, you will be deemed to have accepted this permit and waived your right to request an administrative hearing on this matter.

Acceptance of the permit constitutes notice and agreement that the department will periodically review this permit for compliance, including site inspections where applicable, and may initiate enforcement action for violation of the conditions and requirements thereof.

Sincerely,

Alfred Mueller, Jr.
Branch Office Manager

AM/GH:dm

cc: Records Center
Robert S. Sholtes, P.E.
Sholtes & Koogler
1213 NW 6th St.
Gainesville, FL 32601

Enclosure DER Form 17-1.122(63)

DER Form 17-1.122(66)

SERIAL № 04831

10-3960-050-~~0009-01~~ Class B (MINOR)
5
-0045-01

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

CONSTRUCTION PERMIT

FOR Treesweet Products Co.
P.O. Box 189
Ft. Pierce, FL 33450

PERMIT NO. AC-56-15012 DATE OF ISSUE December 22, 1978

PURSUANT TO THE PROVISIONS OF SECTIONS 403.061 (16) AND 403.707 OF CHAPTER 403, FLORIDA STATUTES AND CHAPTERS 17-4 AND 17-7 FLORIDA ADMINISTRATIVE CODE, THIS PERMIT IS ISSUED TO:
R. E. Smith, General Manager

FOR THE CONSTRUCTION OF THE FOLLOWING: A citrus pulp fire-dryer, using 4.8×10^4 ft.^{3}/hr. natural gas or #6 oil stand by fuel (2.3%S) at 6 gal/hr., processing 20 T/hr. wet peel, 24 hrs/day, 6 days/wk, approximate 32 wks/yr. Emissions controlled by modification of existing waste heat evaporator from 60 T/hr to 120 T/hr. capacity and employing existing stack. Subject to attached permit provisos. # 1,2,3,4,5,7,8,9,10,11,13,14

LOCATED AT 1000 Bell Ave., Ft. Pierce, St. Lucie Co.
UTM zone 17, East 565,550 meters; North 3,031,250 meters

IN ACCORDANCE WITH THE APPLICATION DATED November 6, 1978

ANY CONDITIONS OR PROVISOS WHICH ARE ATTACHED HERETO ARE INCORPORATED INTO AND MADE A PART OF THIS PERMIT AS THOUGH FULLY SET FORTH HEREIN. FAILURE TO COMPLY WITH SAID CONDITIONS OR PROVISOS SHALL CONSTITUTE A VIOLATION OF THIS PERMIT AND SHALL SUBJECT THE APPLICANT TO SUCH CIVIL AND CRIMINAL PENALTIES AS PROVIDED BY LAW.

THIS PERMIT SHALL BE EFFECTIVE FROM THE DATE OF ISSUE UNTIL December 15, 1979 OR UNLESS REVOKED OR SURRENDERED AND SHALL BE SUBJECT TO ALL ~~LAWS OF~~ THE STATE AND THE RULES AND REGULATIONS OF THE DEPARTMENT.

Branch Office Manager

JOSEPH W. LANDERS JR.
SECRETARY

DISTRICT MANAGER

GH

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

CONSTRUCTION PERMIT PROVISOS

AIR POLLUTION SOURCES

Permit No. AC-56-15012 Date December 22, 19

(X) 1. Construction of this installation shall be completed by October 15, 1979. Application for permit to operate to be submitted by November 15, 1979.

(X) 2. This construction permit expires on December 15, 1979 following an initial period of operation for appropriate testing to determine compliance with the Rules of the Florida Environmental Regulation Commission.

(X) 3. All applicable rules of the Department including design discharge limitations specified in the application shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction.

(X) 4. The applicant shall continue the retention of the engineer of record for the inspection of the construction of this project. Upon completion the engineer shall inspect for conformity to construction permit applications and associated documents. A report of such inspection shall be submitted by the engineer to the Department of Environmental Regulation for consideration toward the issuance of an operation permit.

(X) 5. This waste heat evaporator stack shall be tested for particulates and d-limonene within 30 days after it is placed in operation. These test results are required prior to our issuance of an operation permit and shall be submitted to the Department of Environmental Regulation, 806 So. 6th St., Ft. Pierce, FL, 33450, Phone 305/464-8525.

( ) 6. The operation of this installation shall be observed for visible emissions in accordance with Method 9 - Visible Determination of the Opacity of Emissions from Stationary Sources (Federal Register, December 23, 1971) by a certified reader. A copy of the reader's certification card is to be submitted. The observation results are required prior to our issuance of an operation permit and shall be submitted to the Department of Environmental Regulation,

_____.

(X) 7. Stack sampling for total particulates or other contaminant emissions shall be conducted if found by the Department of Environmental Regulation Ft. Pierce Florida District Office to be necessary as a basis for the issuance of an operation permit.

(X) 8. Satisfactory ladders, platforms, and other safety devices shall be provided/available as well as necessary ports to facilitate the carrying out of an adequate sampling program.

(X) 9. The following items are required prior to our issuance of an operation permit in addition to the engineer of record's report of inspection:

(X) (a) An emission report for total particulates based upon actual operations.

(X) (b) A tabular summary of fuels used & sulfur content (as received basis).

( ) (c) A tabular summary of actual records of frequencies and durations of soot blowing as well as boiler blowdown characteristics and disposal practices.

These items are required prior to our issuance of an operation permit and shall be submitted to the Department of Environmental Regulation Ft. Pierce Office.

(X) 10. There shall be no discharges of liquid effluents or contaminated runoff from the plant site.

(X) 11. All fugitive dust generated at this site shall be adequately controlled. This includes, but is not limited to, roadway dust.

( ) 12. This permit is associated with a Development of Regional Impact (D.R.I.). It does not waive any other permits that may be required from this or any other State, Federal, or local agency.

(X) 13. Please be advised that the Department does not condone nor authorize the permittee to by-pass waste materials from either air or wastewater facilities at any time that would result in a violation of the rules and regulations of the Department.

In case of breakdown or lack of proper functioning of the facility causing or likely to cause discharge of improperly treated sewage or air emissions, it shall be the duty of the owner of the facility to promptly notify the Department. In addition to notifying this Department, the permittee shall notify the local County Health Officer.

The owner of the impaired facility causing the violation shall be responsible for any and all damages which may result. If violations of State standards occur, enforcement actions may be initiated.

(X) 14. Stack to be equipped with hardware for the State of Florida, Department of Environmental Regulation, stack sampling team.

RULES OF THE ADMINISTRATION COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

(1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed, typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.

(2) All petitions filed under these rules should contain:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name and address of the petitioner or petitioners;

(c) All disputed issues of material fact. If there are none, the petition must so indicate;

(d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;

(e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;

(f) A demand for the relief to which the petitioner deems himself entitled; and

(g) Such other information which the petitioner contends is material.

Note: At a formal hearing all parties shall have an opportunity to present evidence and argument on all issues involved, to conduct cross-examination and submit rebuttal evidence, to submit proposed findings of fact and orders, to file exceptions to any order or hearing officer's recommended order, and to be represented by counsel.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
SOUTH FLORIDA SUBDISTRICT BRANCH OFFICE
806 SOUTH SIXTH STREET
FORT PIERCE, FLORIDA 33450

REUBIN O'D. ASKEW
GOVERNOR

JOSEPH W. LANDERS, JR.
SECRETARY

December 22, 1978

Mr. R. E. Smith, General Manager
Treesweet Products Co.
1000 Bell Avenue
Ft. Pierce, FL 33450

Dear Mr. Smith

Pursuant to Section 403.061(16), Florida Statutes, your application has been approved by the Department and therefore, we are issuing to you the enclosed permit no. AC-56-15012 which will expire on Dec. 15, 1979.

This permit is not effective unless you accept it, including any and all of the conditions contained therein. If you do not choose to accept it, you must file an appropriate petition for a hearing pursuant to the provisions of Section 120.57, Florida Statutes.

A petition for a hearing must comply with the requirements of Florida Administrative Code, Section 28-5.15 and be filed (postmarked) with the Secretary of the Department of Environmental Regulation at 2562 Executive Center Circle, East, Montgomery Building, Tallahassee, Florida 32301, with a copy to this office within fourteen (14) days from receipt of this letter. Petitions which are not filed in accordance with the above provisions may be subject to dismissal.

Any time limits imposed in the permit are a condition to this permit and are enforceable under Section 403.061, Florida Statutes. You are hereby placed on notice that the Department will review this permit to check for compliance and will initiate enforcement action for violations of the conditions and requirements of this permit.

Your continued cooperation in this matter is appreciated. Please refer to your assigned permit number in all future communications.

Sincerely,

Alfred Mueller, Jr.
Branch Office Manager

AM/GH/yr

cc: Tallahassee Central Files
John B. Koogler, P.E., Sholtes & Koogler Environmental Consultants, 1213 N.W. 6th St., Gainesville, FL 32601

AC-56-15012
(Renewal) New number: AC-56-25094

RECEIVED
NOV 08 1978
Dept. of Environmental Reg.
Fort Pierce

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

WORK COPY

Source Type: [X] Air Pollution [ ] Incinerator

Application Type: [X] Construction [ ] Operation [X] Modification [ ] Renewal of DER Permit No. _____

Company Name: TreeSweet Products Co. County: Saint Lucie

Identify the specific emission point source(s) addressed in this application (i.e.: Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired): Citrus Peel Dehydration System

Source Location: Street: 1000 Bell Avenue City: Fort Pierce

UTM: East 5,655,500 North 30,312,500

Latitude: ___ ___ ° ___ ___ ' ___ ___ "N. Longitude: ___ ___ ° ___ ___ ' ___ ___ "W.

Appl. Name and Title: SAME AS ABOVE

Appl. Address: _____

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative of* TreeSweet Products Co.

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

R. E. Smith
Name of Person Signing (please Type or Print)

R. E. Smith
Signature of the Owner or Authorized Representative and Title

Date: 11-6-78 Telephone No.: (305) 461-3800

*Attach a letter of authorization.

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA

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 judgement, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the Department. It is also agreed that the undersigned will furnish, if requested, to the Department within one month after the pollution control facilities are placed in operation, certification that the pollution control facilities have been constructed or installed in substantial conformity to the engineering plans, specifications and provisions of the application. Furnished by manufacturer

Signature: [signature]

Name: Robert S. Sholtes, Ph.D., P.E.
(Please Type)

Company Name: Sholtes & Koogler Environmental Consultants

Florida Registration Number: 7601

(Affix Seal)

Mailing Address: 1213 NW 6th St
Gainesville, FL 32601

Telephone No.: (904) 377-5822

Date: 11/3/78

SECTION II: GENERAL PROJECT INFORMATION

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

This project involves the installation of one 40,000 #/hr. fire dryer with a 60,000 #/hr. waste heat molasses evaporator which includes wet scrubbing of dryer exhaust gasses as they pass through the system. Dryer will operate at about 36,000 #/hr as indicated by the performance figures on the flow diagram in this application. This over capacity will permit some future expansion and will permit the waste heat evaporator to process approximately 20,000 #/hr of contaminated plant waste water. This unit is similar to existing plant system and will result in full compliance with regulations for air pollution sources; as indicated by operation and stack emmission test conducted on existing unit.

Refer to existing blueprint, attached:
new dryer same as existing
existing waste heat evaporator will be modified from 60,000 #/hr to 120,000 #/hr.

B. Schedule of Project Covered in this Application (Construction Permit Application Only).

Start of Construction: August 1st, 1979 Completion of Construction: October 15th, 1979
Some construction/replacement to start earlier.

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

Separators and recycle gas system on dryer	-	$ 66,000
Wet scrubbing system on evaporator	-	96,000
Fan and separator system on exhaust	-	34,000
TOTAL:		$196,000

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

AC 73020

E. Is the emission point considered to be a New* or Existing* source, as defined in Chapter 17-2.02(5) & (6), Florida Administrative Code?
_X_ New _____ Existing

F. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? _____ Yes _X_ No

G. Normal Equipment Operating Time: hrs/day: 24 ; days/wk: 6 ; wks/yr: 32 ; if seasonal, describe: Citrus Harvesting season; normally December through July.

*Note

New Source: any source which came into existence, began operation or construction, or received a permit for the latter on or after January 18, 1972.

Existing Source: any source in existence, operating or under construction (or with a permit to construct) prior to January 18, 1972.

(other than incinerators)

A. Raw Materials and Chemicals Used In Your Process:

40.5 T/hr [illegible]

Description	Utilization Rate lbs./hr.	Relate to Flow Diagram
Wet Citrus Peel	81,000 #/Hr.	In feed to Feed Mill
Dry Lime	100 #/Hr.	Added to Citrus Peel
Plant Waste Waters and Spent Caustic	9,000 #/Hr.	To Peel or Evaporate Feed Tank

B. Process Rate:

1) Total Process Input Rate (lbs./hr.): 90,100

2) Product Weight (lbs/hr): Approximately 18,000 #/Hr. Feed @ 10% moisture

C. Airborne Contaminants Discharged:

16 lbs/hr x 24 hr/day x 6 da/wk x 52 wk/year ÷ 2,000 lb/Ton = 36.9 T/y

Name of Contaminant	Actual Discharge* lbs./hr.	Actual Discharge* T/yr.	Allowed Discharge Rate Per Ch. 17-2, F.A.C.**	Allowable Discharge*** (lbs./hr.)	Relate to Flow Diagram
Dust as Particulate	16	34.6	17-2.04 Proc.	31.8	Exhaust From Evap.
Inexhaust			Wt. Table #1		Stack
	30	From Relief Stack Should It Be Used.			
		Relief Stack Not Normally Used In Operation			

D. Control Devices:

Name and Type (Model and Serial No.)	Contaminant	Efficiency†	Range of Particles Size Collected (in microns)	Basis for Efficiency††
Gas Recycle	Dust		2/3 of Exhaust	11 Years Operation
System on Dryer			is Recirculated	on 10 or more Similar
				Fire Dryers
Wet Scrubbing	Dust	99 + %	Particules of	11 Years Operation
System on Evap.			1.0 mm & Under	on 10 or more similar
			@ 140°F	fire dryers

*Estimate only if this is an application to construct.

**Specify units in accordance with emission standards prescribed within Section 17-2.04, F.A.C. (e.g. Section 17-2.04(6)(e)1.a. specifies that new fossil fuel steam generators are allowed to emit particulate matter at a rate of 0.1 lbs. per million BTU heat input computed as a maximum 2-hour average.)

***Using above example for a source with 260 million BTU per hour heat input: $\frac{0.1 \text{ lbs}}{\text{MMBTU}} \times \frac{260 \text{ MMBTU}}{\text{hr.}} = 26 \text{ lbs./hr.}$

†See Supplemental Requirements, page 5, number 2.

††Indicate whether the efficiency value is based upon performance testing of the device or design data.

E. Fuels: 8.08 lb/gal

Type (Be Specific)	Consumption* avg./hr.	Consumption* Max./hr.	Maximum Heat Input (MMBTU/hr)
Natural Gas	48,000 cu ft./hr	56,400	1,000 BTU/CU Ft
Sub #6 Oil	2831 #/Hr.	3146 #/Hr.	56.4

1120 mm/hr

56.4 48 x 10^6 Btu/hr

*Units: Natural Gas - MMCF/hr.; Fuel Oils, Coal - lbs./hr. Gas by Ft. Pierce Utilities Authority, Box 3191, Ft. Pierce, Florida 33450

Fuel Analysis: Oil:

Percent Sulfur: 2.3 Percent Ash: 0.06

Density: 8.088 lb./gal.

Heat Capacity: 17928 BTU/lb. 145,000 BTU/gal.

Other Fuel Contaminants:

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:

Solids become animal feed. Approximately 55 gpm of evaporator condensate are disposed of on plant spray field. Approximately 55 gpm of second effect condensate reused as plant water.

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

Stack Height: Exhaust 90'-0" Relief 52'-0" ft. Stack Diameter: Exhaust 4.2 ft.

Gas Flow Rate: 16,250 ACFM Gas Exit Temperature: Approximately 140 °F

Water Vapor Content: Approximately 20 %

350 gal/hr x 145,000 Btu/gal = 50.75 x 10^6 Btu/hr

Same stack will be used

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs./Hr. Incinerated							

Description of Waste:

Total Weight Incinerated (lbs./hr.): Design Capacity (lbs./hr.):

Approximate Number of Hours of Operation per Day: , days/week:

Manufacturer:

Date Constructed: Model No.:

	Volume $(ft.)^3$	Heat Release (BTU/hr.)	Fuel		Temp. (°F)
			Type	BTU/hr.	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp.: _____ °F

Gas Flow Rate: _____ ACFM _____ DSCFM*

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

Type of Pollution Control Device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (Specify): _____

Brief Description of Operating Characteristics of Control Device: _____

Ultimate Disposal of Any Effluent Other Than That Emitted From the Stack (scrubber water, ash, etc.): _____

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please Provide the Following Supplements Required For All Pollution Sources:

1. Total process input rate and product weight - show derivation.
2. Efficiency estimation of control device(s) - show derivation. Include pertinent test and/or design data.
3. An 8½" 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.
4. An 8½" x 11" plot plan of facility showing the exact location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
5. An 8½" x 11" plot plan showing the exact 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 USGS topographic map.)
6. Description and sketch of storm water control measures taken both during and after construction. None Req'd. Existing Paved Ar
7. An application fee of $20.00, unless exempted by Chapter 17-4.05(3), FAC, made payable to the Department of Environmental Regulation.
8. With construction permit application, include design details for control device(s). Example: for baghouse, include cloth to air ratio; for scrubber, include cross-sectional sketch; etc.
9. Certification by the P.E. with the operation permit application that the source was constructed as shown in the construction permit application.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHEAST FLORIDA DISTRICT
BRANCH OFFICE
2745 SOUTHEAST MORNINGSIDE BOULEVARD
PORT ST. LUCIE, FLORIDA 33452

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

March 19, 1986

Mr. Bernard W. McBee, Jr.
General Manager
TreeSweet Products Co., Inc.
P.O. Box 189
Fort Pierce, Florida 33454

AP - St. Lucie County
TreeSweet Products

Dear Mr. McBee:

Re: Applications for Permit Modifications to Burn No. 6 Fuel Oil - Boilers 3 and 4 Feed Mill.

The referenced applications have been sent to Tallahassee for review. As "major" modifications (proposed emissions greater than 100 tons per year) they must be processed by the Bureau of Air Quality Management. Please be advised that until a determination has been made on these applications, the boilers and feed mill should be operated according to the current permit limitations.

If you should have any questions you may call me, or Bill Thomas at BAQM, telephone (904)-488-1344.

Sincerely,

Tim Powell

Tim Powell
Permitting Section

TP:lh/1

cc: Bill Thomas
Wayne Griffen

DER
MAR 21 1986
BAQM

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)	Initial / Date
Bill Thomas	
2. Tally	Initial / Date
3.	Initial / Date
4.	Initial / Date

REMARKS:

DER
MAR 21 1986
BAQM

INFORMATION	
	Review & Return
	Review & File
	Initial & Forward

DISPOSITION	
	Review & Respond
	Prepare Response
	For My Signature
	For Your Signature
	Let's Discuss
	Set Up Meeting
	Investigate & Report
	Initial & Forward
	Distribute
	Concurrence
	For Processing
	Initial & Return

FROM:

DATE

PHONE

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)	Initial / Date
Bill Thomas - BAQM Tallahassee	
2.	Initial / Date
3. DER	Initial / Date
4. MAR 19 1986 BAQM	Initial / Date

REMARKS:

Bill -

Here are three (3) copies each for modifications to allow No. 6 fuel oil - switch from natural gas. Actual emissions increase could be up to 900 TPY SO_2. I'll send up whatever permits, etc. that are necessary for BAQM's review. They plan to test peel dryer/WHE. on 3/19 for SO_2 and particulates.

INFORMATION
- Review & Return
- Review & File
- Initial & Forward

DISPOSITION
- Review & Respond
- Prepare Response
- For My Signature
- For Your Signature
- Let's Discuss
- Set Up Meeting
- Investigate & Report
- Initial & Forward
- Distribute
- Concurrence
- For Processing
- Initial & Return

FROM:

Tim Powell

DATE 3-17-86

PHONE 451-5053

AC 56-117649 } withdrawn
-117621 }

See letter dated July 29, 1986, from Wayne E. Griffin, P.E., to C.H. Fancy, P.E., BAQM, Deputy Bureau Chief.

RAM

1. What are present AO limitations —
2. Has there ever been a construction permit? — Spoke to Tim Powell 3/27 — He will send info.

Bill - Still this need a BACT?

AC 56-117649

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHEAST FLORIDA
SUBDISTRICT

2745 SOUTHEAST MORNINGSIDE BOULEVARD
PORT ST. LUCIE, FLORIDA 33452

RECEIVED
MAR 17 1986
Dep... Port St. Lucie

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

AL MUELLER
SUBDISTRICT MANAGER

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Industrial Steam Process Boiler [ ] New[1] [xx] Existing[1]

APPLICATION TYPE: [ ] Construction [ ] Operation [xx] Modification

COMPANY NAME: TREESWEET PRODUCTS COMPANY INC. COUNTY: ST. LUCIE

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Boiler #3

SOURCE LOCATION: Street 1000 Bell Avenue City Ft. Pierce

UTM: East 714,120' 565.25km North 1,114,050' 3031.08km

Latitude 27 ° 24 ' 11 "N Longitude 80 ° 20 ' 24 "W

APPLICANT NAME AND TITLE: Bernard W. McBee, Jr. General Manager

APPLICANT ADDRESS: 1000 Bell Avenue, Ft. Pierce, Florida 33482

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of TreeSweet Products Co.,Inc.

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

*Attach letter of authorization

Signed: Bernard W. McBee Jr

Bernard W. McBee, Jr. General Manager
Name and Title (Please Type)

Date: 3/10/86 Telephone No. (305)461-3800

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

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

Certified Mail # P318 101 073

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

Signed _____

Wayne E. Griffin
Name (Please Type)

GulfCoast Engineering, Inc.
Company Name (Please Type)

913 S. Parsons Avenue-Suite A, Brandon,Florida 33511
Mailing Address (Please Type)

Florida Registration No. 19974 Date: 3/12/86 Telephone No. (813)685-9727

SECTION II: GENERAL PROJECT INFORMATION

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

TreeSweet desires to use #6 fuel oil as the primary fuel when it is financially advantageous utilizing existing equipment.

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

Start of Construction _____ Completion of Construction _____

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

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

Current Permit #AO-56-55650 expires 6-1-87

5616

E. Requested permitted equipment operating time: hrs/day 18 ; days/wk 6 ; wks/yr 52 ; if power plant, hrs/yr_____; if seasonal, describe: Citrus processing season December through July (normally)

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

1. Is this source in a non-attainment area for a particular pollutant? _____

   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. _____

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. _____

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? _____

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this scurce? _____

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? _____

   a. If yes, for what pollutants? _____

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

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

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

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

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

2. Product Weight (lbs/hr): Approximately 33,000 (steam)

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 Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Particulates	77	87	17-2.600(10)	20% opacity	6.7×10^5	337	-
Sulfur Dioxide	108	120			9.5×10^5	473	-
Carbon Monoxide	1.4	1.5			12,260	6	-
Hydrocarbon	.28	.3			2,450	1.2	-
Nitrogen Oxides	33	37			2.9×10^5	144	-

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard.

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

D. Control Devices: (See Section V, Item 4) None

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	16,900 cf/Hr.	41,850 cf/hr	43.9
No. 2 Fuel Oil	110 gal/hr.	276 gph	38.6
No. 6 Fuel Oil	110 gal/hr.	276 gph	41.9

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

Fuel Analysis: No. 6

Percent Sulfur: 2.5 Percent Ash: .05

Density: 9.0 @ 60°F lbs/gal Typical Percent Nitrogen: .5

Heat Capacity: - BTU/lb 152,000 BTU/gal

Other Fuel Contaminants (which may cause air pollution):

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

Annual Average 0 Maximum 0

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

Liquid wastes disposed of in plant waste water system.

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

Stack Height: 38.5 ft. Stack Diameter: 2.67 ft.

Gas Flow Rate: 14,660 ACFM - DSCFM Gas Exit Temperature: 425 °F.

Water Vapor Content: 8.2% % Velocity: 44 FPS

SECTION IV: INCINERATOR INFORMATION N/A

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

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

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

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

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

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

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

_____

_____

_____

_____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. 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 consiatent: 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 snd roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing procesaes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(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) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ ( ) SO^2* _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from ____/____/____ to ____/____/____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

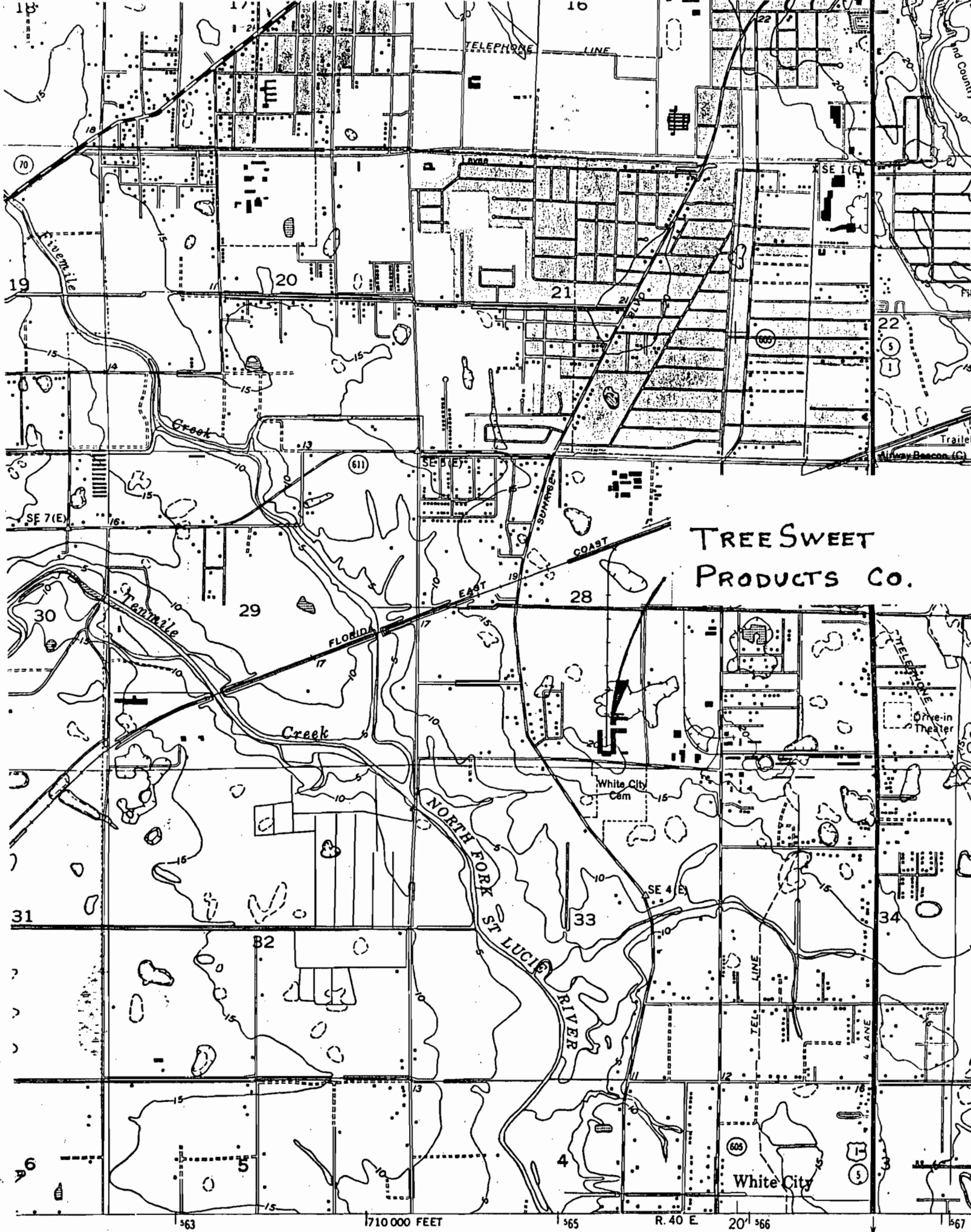
E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.



y the U. S. Coast & Geodetic Survey
d published by the Geological Survey

GULFCOAST ENGINEERING COMPANY
CONSULTING ENGINEERS
P.O. BOX 1786 • BRANDON, FLORIDA 33511
TELEPHONE: (813) 685-9727 • 685-0085

job no. _____
description Tree Sweet Products computed by WG date 3-12-86
sheet 2 of 2 checked by _____ date _____

Boilers #3 & #4

Uncontrolled Emissions

Particulates	@	28 #/10^3 gal	@	276 gph	=	77 #/Hr
Sulfur Dioxide	@	393 #/10^3 gal	@	276 gph	=	108 #/Hr
Carbon Monoxide	@	5 #/10^3 gal.	@	276 gph	=	1.38 #/HR
Hydrocarbons	@	1 #/10^3 gal	@	276 gph	=	.28 #/Hr
Nitrogen Oxides	@	120 #/10^3 gal	@	276 gph	=	33 #/Hr

Emissions are calculated using table 1.3-1 AP-42

Annual emissions are based on 5616 Hours of operation
Potential emissions are based on 8760 Hours of operation

Actual Emissions

Particulates	@	28 #/10^3 gal	@	110 gph	=	31 #/Hr
Sulfur Dioxide	@	393 #/10^3 gal	@	110 gph	=	43 #/Hr
Carbon Monoxide	@	5 #/10^3 gal	@	110 gph	=	.55 #/HR
Hydrocarbon	@	1 #/10^3 gal	@	110 gph	=	.10 #/Hr
Nitrogen Oxides	@	120 #/10^3 gal	@	110 gph	=	13 #/Hr

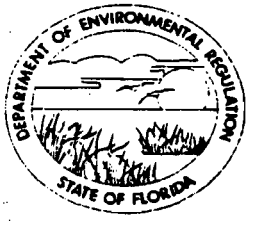
AC 56-117671

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHEAST FLORIDA
SUBDISTRICT

2745 SOUTHEAST MORNINGSIDE BOULEVARD
PORT ST. LUCIE, FLORIDA 33452



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

AL MUELLER
SUBDISTRICT MANAGER

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Industrial Steam Process Boiler [ ] New[1] [x] Existing[1]

APPLICATION TYPE: [ ] Construction [ ] Operation [x] Modification

COMPANY NAME: TREESWEET PRODUCTS COMPANY INC. COUNTY: ST. LUCIE

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Boiler #4

SOURCE LOCATION: Street 1000 Bell Avenue City Ft. Pierce

UTM: East 714,120' North 1,114,050'

Latitude 27 ° 24 ' 11 "N Longitude 80 ° 20 ' 24 "W

APPLICANT NAME AND TITLE: Bernard W. McBee, Jr. General Manager

APPLICANT ADDRESS: 1000 Bell Avenue, Ft. Pierce, Florida 33482

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of TreeSweet Products Co.,Inc.

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

*Attach letter of authorization

Signed: Bernard W. McBee, Jr.

Bernard W. McBee, Jr. General Manager
Name and Title (Please Type)

Date: 3/10/86 Telephone No. (305)461-3800

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

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

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

Signed W E G

Wayne E. Griffin

Name (Please Type)

GulfCoast Engineering, Inc.

Company Name (Please Type)

913 S. Parsons Avenue-Suite A, Brandon, Florida 33511

Mailing Address (Please Type)

Florida Registration No. 19974 Date: 3/12/86 Telephone No. (813)685-9727

SECTION II: GENERAL PROJECT INFORMATION

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

TreeSweet desires to use #6 fuel oil as the primary fuel when it is financially advantageous utilizing existing equipment.

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

Start of Construction _____ Completion of Construction _____

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

Current Permit #AO-56-112670 expires 2/14/91

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

E. Requested permitted equipment operating time: hrs/day 18 ; days/wk 6 ; wks/yr 52 ;

if power plant, hrs/yr_____; if seasonal, describe: Citrus processin season

December through July (normally)

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

1. Is this source in a non-attainment area for a particular pollutant? _____

   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. _____

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. _____

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? _____

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this scurce? _____

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? _____

   a. If yes, for what pollutants? _____

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

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

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

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

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

2. Product Weight (lbs/hr): Approximately 33,000 (steam)

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 Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Particulates	77	87	17-2.600(10)	20% opacity	6.7×10^5	337	-
Sulfur Dioxide	108	120			9.5×10^5	473	-
Carbon Monoxide	1.4	1.5			12,260	6	-
Hydrocarbon	.28	.3			2,450	1.2	-
Nitrogen Oxides	33	37			2.9×10^5	144	-

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard.

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

D. Control Devices: (See Section V, Item 4) NONE

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	16,900 cf/Hr.	41,850 cf/Hr.	43.9
No. 2 Fuel Oil	110 gal/Hr.	276 gph	38.6
No. 6 Fuel Oil	110 gal/Hr.	276 gph	41.9

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

Fuel Analysis: no.6

Percent Sulfur: 2.5 Percent Ash: .05

Density: 9 @ 60° F lbs/gal Typical Percent Nitrogen: .5

Heat Capacity: _____ BTU/lb 152,000 BTU/gal

Other Fuel Contaminants (which may cause sir pollution): _____

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

Annual Average 0 Maximum 0

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

Liquid wastes disposed of in plant waste water system.

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

Stack Height: 38.5 ft. Stack Diameter: 2.67 ft.

Gas Flow Rate: 14,660 ACFM _____ DSCFM Gas Exit Temperature: 425 °F.

Water Vapor Content: 8.2% % Velocity: 44 FPS

SECTION IV: INCINERATOR INFORMATION

N/A

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

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

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

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

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

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

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

_____

_____

_____

_____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(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) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO^2* _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from ____/____/____ to ____/____/____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

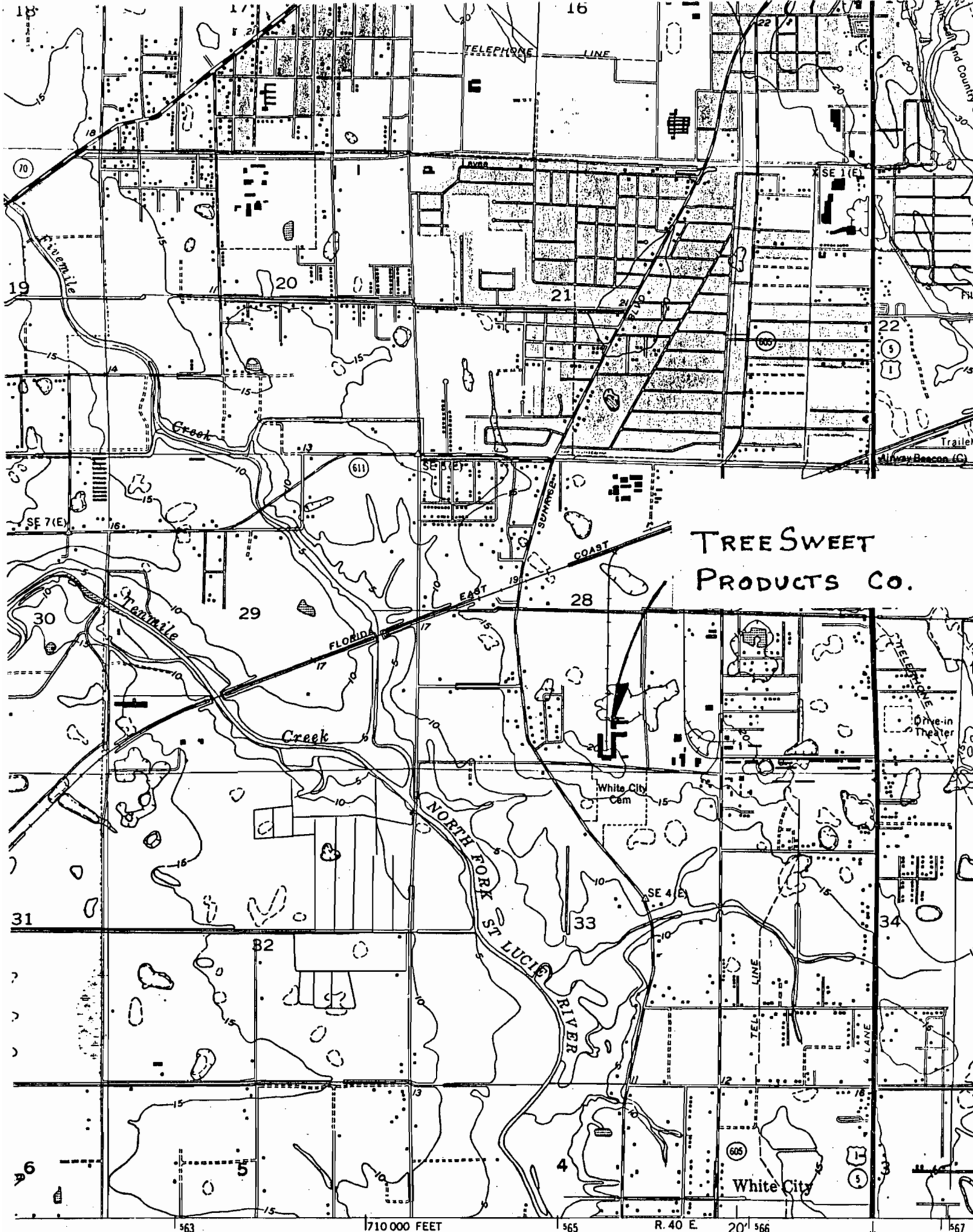
E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.



y the U. S. Coast & Geodetic Survey
d published by the Geological Survey

GULFCOAST ENGINEERING COMPANY
CONSULTING ENGINEERS
P.O. BOX 1786 • BRANDON, FLORIDA 33511
TELEPHONE: (813) 685-9727 • 685-0085

job no. _____
description Tree Sweet Products computed by WLT date 3-12-86
sheet 2 of 2 checked by _____ date _____

Boilers #3 & #4

Uncontrolled Emissions

Particulates	@	28 #/10^3 gal	@	276 gph	=	77 #/Hr
Sulfur Dioxide	@	393 #/10^3 gal	@	276 gph	=	108 #/Hr
Carbon Monoxide	@	5 #/10^3 gal.	@	276 gph	=	1.38 #/HR
Hydrocarbons	@	1 #/10^3 gal	@	276 gph	=	.28 #/Hr
Nitrogen Oxides	@	120 #/10^3 gal	@	276 gph	=	33 #/Hr

Emissions are calculated using table 1.3-1 AP-42

Annual emissions are based on 5616 Hours of operation
Potential emissions are based on 8760 Hours of operation

Actual Emissions

Particulates	@	28 #/10^3 gal	@	110 gph	=	31 #/Hr
Sulfur Dioxide	@	393 #/10^3 gal	@	110 gph	=	43 #/Hr
Carbon Monoxide	@	5 #/10^3 gal	@	110 gph	=	.55 #/HR
Hydrocarbon	@	1 #/10^3 gal	@	110 gph	=	.10 #/Hr
Nitrogen Oxides	@	120 #/10^3 gal	@	110 gph	=	13 #/Hr

AC 56-117673

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

RECEIVED
MAR 17 1986
Dept. of Environmental Reg.
Port St. Lucie

SOUTHEAST FLORIDA
SUBDISTRICT
2745 SOUTHEAST MORNINGSIDE BOULEVARD
PORT ST. LUCIE, FLORIDA 33452

BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY
AL MUELLER
SUBDISTRICT MANAGER

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Citrus Pulp Dehydrator System [ ] New[1] [x] Existing[1]

APPLICATION TYPE: [ ] Construction [ ] Operation [x] Modification

COMPANY NAME: TREESWEET PRODUCTS COMPANY, INC. COUNTY: ST. LUCIE

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) waste heat evaporator and scrubber, peel dryer

SOURCE LOCATION: Street 1000 Bell Avenue City Ft. Pierce

UTM: East 714,120' North 1,114,050'

Latitude 27 ° 24 ' 11 "N Longitude 80 ° 20 ' 24 "W

APPLICANT NAME AND TITLE: Bernard W. McBee, Jr. General Manager

APPLICANT ADDRESS: 1000 Bell Avenue, Ft. Pierce, Florida 33482

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of TreeSweet Products Co.,Inc.

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

*Attach letter of authorization

Signed: Bernard W. McBee, Jr.

Bernard W. McBee,Jr. General Manager
Name and Title (Please Type)

Date: 3/10/86 Telephone No. (305) 461-3800

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

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

Certified Mail # P 318 101 073

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

Signed W. E. G.

Wayne E. Griffin
Name (Please Type)

GulfCoast Engineering, Inc.
Company Name (Please Type)

913 S. Parsons Avenue-Suite A,Brandon,Florida 33511
Mailing Address (Please Type)

Florida Registration No. 19974 Date: 3/12/86 Telephone No. (813)685-9727

SECTION II: GENERAL PROJECT INFORMATION

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

TreeSweet desires to use #6 fuel oil as the primary fuel when it is financially advantageous utilizing existing equipment.

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

Start of Construction _____ Completion of Construction _____

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

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

Current permit #AO-56-64438 expires 3/29/88

4320 576 hrs/mth 7.5 mths

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 6 ; wks/yr 30 ;

if power plant, hrs/yr_____; if seasonal, describe: Operates during fruit processing season; normally December through July.

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

1. Is this source in a non-attainment area for a particular pollutant? _____

   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. _____

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. _____

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? _____

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? _____

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? _____

   a. If yes, for what pollutants? _____

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

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

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Wet Citrus Peel	Particulate	±1%	81,000#/Hr.	in feed to feed mill
Dry Lime	-	0	100#/Hr.	Added to Citrus Peel
Plant Waste Water and spent caustic	-	0	9,000#/Hr.	to evaporator feed tank #2

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

1. Total Process Input Rate (lbs/hr): 90,100

2. Product Weight (lbs/hr): Approximately 18,000#/Hr. feed @ 10% moisture

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 Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Particulates	3.38#/Hr.	4.1	17-2.600(10)	20% opacity	1.97×10^6	984	-
Sulfur Dioxide	*	*	& 17-2.610	31.3#/Hr.	3.4×10^5	169	-
Carbon Monoxide	*	*			4320	2.2	-
Hydrocarbons	*	*			864	.4	-
Nitrogen Oxides	*	*			1.04×10^5	51.8	-

[1] See Section V, Item 2.

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

[3] Calculated from operating rate and applicable standard.

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

* Actual emission are unknown ; to be tested

** Based on 2400 Hrs. of operation without wet scrubber control.

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Wet Scrubber	Particulate	99±%	Particules of 1mm and	
			under @ 140° F.	

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	4 x 10^4 cf/Hr.	4.8 x 10^4 cf/Hr.	48
#6 Oil	240 gal/Hr.	360 gal/Hr.	54.7

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

Fuel Analysis: No.6

Percent Sulfur: 2.5 Percent Ash: .05

Density: 9.0 @ 60°F 8.108 @ 60°F lbs/gal Typical Percent Nitrogen: 0.5

NOFI Tech. Bulletin No. 69-101, Appendix C

Heat Capacity: _____ BTU/lb 152,000 BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

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

Annual Average 0 Maximum 0

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

Solids become animal feed. Liquids are utilized in cooling, scrubbing, washdowns and evaporator cleanups ultimately disposed of in plant wastewater system.

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

Stack Height: _____ ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION

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

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

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

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

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

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

GULFCOAST ENGINEERING COMPANY
CONSULTING ENGINEERS
P.O. BOX 1786 • BRANDON, FLORIDA 33511
TELEPHONE: [813] 685-9727 • 685-0085

job no. _____
description Treesweet Products computed by WL date 3-11-86
_____ sheet 1 of 1 checked by _____ date _____

Waste Heat Evaporator

Uncontrolled emissions

Process Particulates - ±1% = 81,000 #/Hr × 1% = 810 #/HR

#6
- Fuel Particulates - 28 #/10^3 gal = 28 × 360 gph ÷ 1000 = 10.1 #/HR
- Sulfur Dioxide - 393 #/10^3 gal = 393 × 360 gph ÷ 1000 = 141 #/Hr
- Carbon Monoxide - 5 #/10^3 gal = 5 × 360 gph ÷ 1000 = 1.8 #/Hr
- Hydrocarbons - 1 #/10^3 gal = 1 × 360 gph ÷ 1000 = .36 #/Hr
- Nitrogen Oxides - 120 #/10^3 gal = 120 × 360 gph ÷ 1000 = 43.2 #/Hr

Controlled emissions (per test)

Process Particulates = 30.85 TNS/Hr × 1% particulates = 617 #/HR
potential uncontrolled emissions = 617 + 10.1 = 627.1 #/HR
Actual emissions = 3.38 #/HR

Particulate % removal = 99.46 %

Controlled emissions for sulfur dioxide, carbon monoxide, hydrocarbons, & nitrogen oxides are unknown. It is anticipated the emission levels of these parameters will be significantly less than the uncontrolled emissions.

Annual emission levels based on 7,400 Hrs of operation

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

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

_____

_____

_____

_____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(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) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO^{2}* _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____/____/____ to _____/____/____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach deacription.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

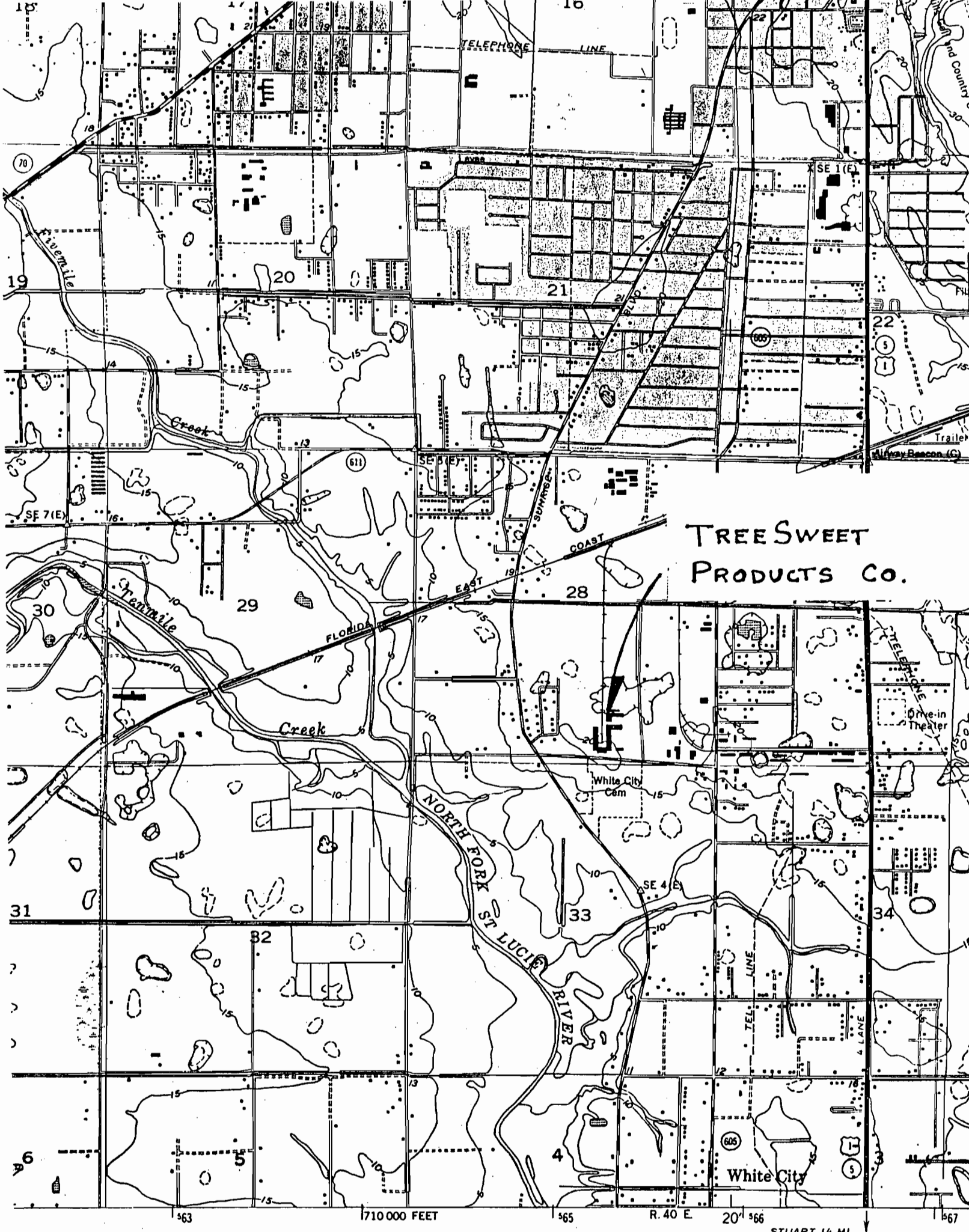
E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.



y the U. S. Coast & Geodetic Survey
d published by the Geological Survey

Mike Phillips Work

TREESWEET

- COUNTY: ST. LUCIE
- CHG BOILERS 3 & 4 FROM NAT'L GAS → #6 FUEL OIL
- P.E.: WAYNE GRIFFIN (813) 685-9727
- DUTY: $\frac{18 \text{ hrs}}{\text{day}} \times \frac{6 \text{ days}}{\text{wk}} \times \frac{52}{\text{yr}} = 5616 \frac{\text{hrs}}{\text{yr}}$

THIS IS FOR	CONTROL	#6 /ldt
- BOILER #3	NO	276 gal/hr
- #4	NO	" "
- PEAK HEATER & W.H.E.	SCRUBBER	360 "

- FUEL (#6) HAS 2% S
  152,000 Btu/gal
- $152{,}000 \text{ Btu/gal} \times 300 \text{ gal/hr} = 45.6 \cdot 10^6 \text{ Btu/hr}$

THUS ALL ARE CONSIDERED "INDUSTRIAL" CLASS.

- #6 (BOILER C) IS CONSIDERED A "RESIDUAL OIL"

- P.M: $^{lb}/_{10^3 gal} = 1.25(2.5) + 0.38 \frac{kg}{10^3 l}\left[10(2.5) + 31\text{lb}/10^3 gal\right]$

$$^{lb}/_{10^3 gal} = (1.25)(.025) + 0.38 \frac{kg}{10^3 l}\left[10(0.025) + \frac{31\text{lb}}{10^3 gal}\right]$$

$$= 0.03125 + 0.38 \frac{kg}{10^3 l}\left[0.25 + \frac{31\text{lb}}{10^3 gal}\right]$$

$$\frac{kg}{10^3 l} \times \left(\frac{10^3 l}{3\,64.2 gal}\right) \times \left(\frac{lb}{0.4544 kg}\right) = \frac{lb}{gal}$$

$$8.329 \cdot 10^{-3}\left(\frac{kg}{10^3 l}\right) = \frac{lb}{gal}$$

So $^{lb}/_{10^3 gal} = .03125 + 0.38(8.329 \cdot 10^{-6})\left[0.25 + \frac{31\text{lb}}{10^3 gal}\right]$

$$= .03125 + 3.165 \cdot 10^{-6}[3] + 3.165(.025)$$

$.03125 + 9.495 \cdot 10^{-6} \frac{lb}{10^3 gal} + 7.913 \cdot 10^{-2} \frac{lb}{10^3 gal}$

PM (PM_{10}) "industrial" $\frac{lb}{10^3 gal} = 10(2.5) + \frac{3 lb}{10^3 gal}$

$= 10(2.5) + \frac{3 lb}{10^3 gal}$ $\quad S = .025$

$= 25 + 3 = 28$

$\frac{276 gal}{10^3} = 2.76 \cdot 10^1$

$\frac{.276 \cdot 10^5 gal}{hr} \times \left(\frac{28 lb}{10^3 gal}\right) = 7.728 \frac{lb}{hr}$

$7.728 \frac{lb}{hr} \times (5,616 hrs/yr) = 43400.448 lb/yr$

$= 21.700 TPY$

SO_2 : $\frac{157\,(7.5)}{10^3\,gal} = \frac{157\,(2.5)}{10^3\,gal} = \frac{392.5\ lb}{10^3\,gal}$

BOILERS 3 or 4: $\frac{276\ EACH}{10^3} = 2.76 \cdot 10^{-1}$

$$\frac{2.76 \cdot 10^{-1}\,(10^3\,gal)}{hr} \times \left(\frac{392.5\ lb}{10^3\,gal}\right) = 108.33\ lbs/hr$$

$$TPY = \frac{108.33\ lbs}{hr} \times \left(\frac{5616\ hrs}{yr}\right) \times \left(\frac{1\ TON}{2000\ lbs}\right) = 304.191\ TPY$$

TOTAL SO_2:

BOILER #3 : 304.191

4 : 304.191

LIME 396.771 SENT TO SCRUBBER

1,005.153

17-2.510 (2)(d) 5 MOVE TO ABOVE (illegible)

17-2.500 (2)(d) 3

CO: $\frac{5\ lb}{10^3\ gal}$

3 of 4: $\frac{.276\ 10^3\ Gal}{AC} \times \left(\frac{5,616\ tons}{yr}\right) \times \left(\frac{1\ Ton}{2000\ lbs}\right) \times \left(\frac{5\ lbs}{10^3\ gal}\right) = 3.87\ TPY$

NOx: $\frac{16\ NO_2}{10^3\ gal} = 22 + 400[N]^2$ $N = 0.5$

$= 22 + 100 = 122$

#3 & #4: $\frac{.276\ 10^3\ gal}{hr} \times \left(\frac{122\ lb\ NO_2}{10^3\ gal}\right) \times \left(\frac{5616\ hr}{yr}\right) \times \left(\frac{ton}{2000\ lb}\right) = 94\ TPY$

94.551 TPY PER UNIT #3 & #4

TREESWEET

- SPECIFICATIONS

- BOILER #3
  - MODEL : JOHNSON FIRETUBE (1,000 hp)
  - RATED CAPACITY : 33.5 MBtu/hr ?
  - HRS OF OP. : $\frac{24 \text{ hrs}}{\text{day}} \times \frac{6 \text{ days}}{\text{wk}} \times \frac{52 \text{ wks}}{\text{yr}}$ = 7,488 hrs/yr.
  - DATE OF CONSTRUCTION : ?
  - EMISSIONS LIMIT : V.E. OF 20%
  - REQUESTED MOD : $\frac{18 \text{ hrs}}{\text{day}}$; #6 FUEL , 5,616 hrs/yr

- BOILER #4
  - MODEL : JOHNSON FIRETUBE (1,000 hp)
  - RATED CAPACITY : 16.9 MBtu/hr ?
  - HRS. OF OP. : 7,488 hrs/yr.
  - DATE OF CONSTRUCTION : ~ APRIL 81
  - EMISSIONS LIMIT : V.E. OF 20%
  - REQ. MOD. : $\frac{18 \text{ hrs}}{\text{day}} \times \frac{6 \text{ days}}{\text{wk}} \times \frac{52 \text{ wks}}{\text{yr}}$ = 5,616 hrs/yr. , #6 FUEL

- PEEL DRYER / WASTE HEAT EVAPORATOR
  - MODEL : GULF MACHINE DRYER
  - RATED CAPACITY : 40,000 #/hr PEEL , 40 MBtu/hr
  - HRS OF OP : $\frac{16 \text{ hr}}{\text{day}} \times \frac{5 \text{ day}}{\text{wk}} \times \frac{30 \text{ wks}}{\text{yr}}$ = 2,400 hrs/yr
  - DATE OF CONSTRUCTION : ~ NOV '76
  - EMISSIONS LIMIT : FROM P.W.T. : 35TPH (wet peel)
    = 30.6 lb/hr 34.7 TPH (TESTS @ 33 TPH)
  - REQ. MOD. : $\frac{24 \text{ hrs}}{\text{day}} \times \frac{6 \text{ days}}{\text{wk}} \times \frac{30 \text{ wks}}{\text{yr}}$ = 4,320 hrs/yr. , #6 FUEL

↑ INPUT ~ 45 TPH