

P 274 010 470

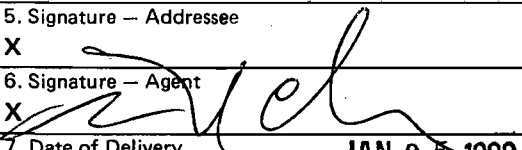
RECEIPT FOR CERTIFIED MAIL

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

\* U.S.G.P.O. 1985-480-794  
 PS Form 3800, June 1985

Mr. J.D. Folkerts	
Coca Cola Foods	
Street and No. P.O. Box 2079	
P.O., State and ZIP Code Houston, TX 77252	
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 Mailed: 01/20/88 Permit: AC 35-135881	

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

<input checked="" type="checkbox"/> Show to whom delivered, date, and addressee's address.		2. <input type="checkbox"/> Restricted Delivery.	
Article Addressed to: Mr. J. D. Folkerts Vice President - Manufacturing Coca Cola Foods P.O. Box 2079 Houston, TX 77252		4. Article Number P 274 010 470	
		Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail	
5. Signature -- Addressee X		Always obtain signature of addressee or agent and DATE DELIVERED.	
6. Signature -- Agent X 		8. Addressee's Address (ONLY if requested and fee paid)	
7. Date of Delivery JAN 25 1988			

file

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
NOTICE OF PERMIT

Mr. J. D. Folkerts  
Vice President - Manufacturing  
Coca Cola Foods  
Post Office Box 2079  
Houston, Texas 77252

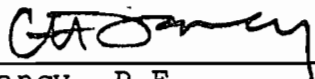
January 20, 1988

Enclosed is permit No. AC 35-135881, for Coca Cola Foods to construct a 3550 Kw Cogeneration System (gas turbine and steam generator), at their existing facility located in Leesburg, Lake 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

Copy furnished to:

T. Sawicki, CF Dist.  
F. Darabi, P.E.

Final Determination

Coca Cola Foods  
Lake County, Florida

Permit No. AC 35-135881  
3550 KW Cogeneration System  
APIS No. 30ORL35000203

Bureau of Air Quality Management  
Central Air Permitting  
New Source Review Section

January 12, 1988

## Final Determination

Coca Cola Food's application for a permit to construct a 3550 KW Cogeneration System has been reviewed by the Bureau of Air Quality Management. The Coca Cola Foods facility is located in Leesburg, Lake County, Florida.

Public Notice of the Department's Intent to Issue the construction permit was published in the Orlando Sentinel on December 13, 1987.

Copies of the preliminary determination have been available for public inspection at the Department's district office in Orlando and the Bureau of Air Quality Management office in Tallahassee.

No comments were received as a result of the public notice period.

The final action of the Department will be to issue the permit as noticed during the public notice period.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY

**PERMITTEE:**  
Coca Cola Foods  
P. O. Box 2079  
Houston, Texas 77252

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988  
County: Lake  
Latitude/Longitude: 28° 49' 54"N  
81° 49' 40"W  
Project: 3550 Kw Cogeneration  
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 construction of a 3550 Kw Cogeneration System (gas turbine and steam generator). This will be located at the Coca Cola Food facility in Leesburg, Lake County, Florida. The UTM coordinates of this site are Zone 17, 415.5 E and 3187.3 N.

Construction shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the General Conditions Specific Conditions of this permit.

**Attachments:**

1. Application to Construct Air Pollution Sources, DER Form 17-1.122(16) dated June 24, 1987.
2. Department's letter of July 15, 1987.
3. Coca Cola Food's letter of September 3, 1987.
4. Department's letter of September 23, 1987.
5. Coca Cola Food's letter of October 22, 1987.

PERMITTEE:  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 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 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.

PERMITTEE:  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988

**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.

PERMITTEE:  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988

**GENERAL CONDITIONS:**

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

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

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

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

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

13. This permit also constitutes:

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

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

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



**PERMITTEE:**  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988

**GENERAL CONDITIONS:**

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

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

**SPECIFIC CONDITIONS:**

1. The maximum emission rates for the 49.95 MMBtu/hr cogeneration unit during natural gas firing shall not exceed the limits required by 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, as follows:

PERMITTEE:  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988

SPECIFIC CONDITIONS:

Nitrogen oxides NSPS Standards =  $0.0150 \left( \frac{14.4}{Y} \right) + F$

or

= 168 ppm NOx

and

Sulfur dioxide NSPS Standard = 0.0150% by volume at 15% oxygen  
on a dry basis

Best Available Control Technology (BACT) limits:

Turbine

Visible Emission Not to exceed 15% opacity

Fuel oil No. 2 Not to exceed 0.5% sulfur  
content by weight

Waste Heat Boiler - Auxiliary Duct Burner

Visible Emission Not to exceed 15% opacity

Fuel Oil No. 6 Not to exceed 1.5% sulfur  
content by weight

2. The cogeneration system shall be allowed to operate continuously (8736 hours per year). The gas turbine shall operate on natural gas at all times, except that No. 2 fuel oil with a maximum sulfur content of 0.5 percent by weight shall be allowed to be burned.

3. Maximum No. 2 fuel oil consumption in the turbine shall not exceed 342 gals/hr for up to 50 hrs/yr. Maximum No. 6 fuel oil consumption in the duct burner shall not exceed 119 gals/hr for up-to-600-hrs/yr. 199

4. Before this construction permit expires, the 3550 KW combined cycle gas turbine will be tested for sulfur dioxide, visible emissions, and nitrogen oxides. Except as provided under 40 CFR 60.8(b), the performance tests shall be in accordance with the provisions of the following reference methods in Appendix A of 40 CFR 60.

a. Method 1. Sample and Velocity Traverses

PERMITTEE:  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988

SPECIFIC CONDITIONS:

- b. Method 2. Volumetric Flow Rate
- c. Method 3. Gas Analysis
- d. Compliance with the opacity limitation will be determined by reference Method 9, Visual Determination of Opacity of Emission from Stationary Sources.
- e. Compliance with the sulfur dioxide emission limits will be determined by reference Method 20 or by calculations based on fuel analysis (ASTM 1552) for sulfur content.
- f. Compliance with the allowable emissions limits for nitrogen oxides shall be conducted using EPA reference Method 20 subpart GG Section 60.335.

During performance tests to determine compliance with the proposed standard, measured NOx emission at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$\text{NOx} = (\text{NOx OBS}) \left( \frac{P_{\text{ref}}}{P_{\text{OBS}}} \right)^{0.5} e^{19(H_{\text{obs}} - 0.00633)} \left( \frac{T_{\text{AMB}}}{288^{\circ}\text{K}} \right)^{1.53}$$

where:

NOx = Emissions of NOx at 15% oxygen and ISO standard ambient conditions.

NOx obs = Measured NOx emission at 15% oxygen, ppmv.

Pref = Reference combustor inlet absolute pressure at 101.3 kilopascals (1-atmosphere) ambient pressure.

Pbs = Measured combustor inlet absolute pressure at test ambient pressure.

Hobs = Specific humidity of ambient air at test.

e = Transcendental constant (2.718)

TAMB = Temperature of ambient air at test.

PERMITTEE:  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988

SPECIFIC CONDITIONS:

Test results will be the average of 3 valid runs. The Department will be notified 15 days in advance of the compliance test. The test will be conducted at permitted capacity  $\pm 10\%$ .

5. A continuous monitoring system shall be installed to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine.

6. Sulfur and nitrogen content of the fuel being fired in the gas turbine shall be determined and recorded as specified in the NSPS for Gas Turbines 40 CFR 60, Subpart GG, Section 60.334. The records of fuel oil usage will be kept by the company, available for regulatory agency's inspection, for a two year period.

7. The applicant shall comply with all requirements of 40 CFR 60, Subpart GG, Standards of Performance for stationary gas turbines.

8. The operating permits for this facility shall be modified as follows:

Permit No.	Unit	Emission Limit Tons/Yr		
		SO <sub>2</sub>	NO <sub>x</sub>	Particulate
AO 35-119361	Citrus Peel Dryer & Waste Heat Evaporator	16	37.5	118.6
AO 35-56596	Cooling Reel	0	0	55.8
AO 35-99125	Boilers # 2, 3, & 4	72	43	8

9. 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, (Rule 17-2, FAC).

12. 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 compliance test results and Certificate of Completion, to the Department's District office 90

PERMITTEE:  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988

**SPECIFIC CONDITIONS:**

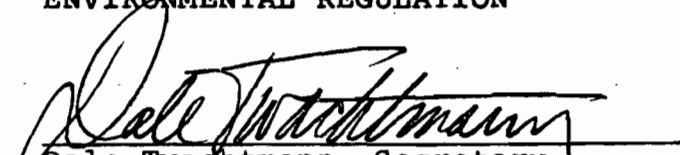
days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate, (Rules 17-2 and 17-4, FAC).

13. 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, (Rule 17-4, FAC).

14. Upon obtaining an operation permit, the permittee will be required to submit annual reports on the actual operation and emissions of the facility. Annual reports shall be sent to the Department's District office in Orlando.

Issued this 15 day of Jan, 1988

STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION

  
Dale Twachtmann, Secretary

Best Available Control Technology (BACT) Determination  
Coca-Cola Foods  
Lake County

The applicant plans to install one waste heat process steam boiler at their facility in Leesburg, Florida, in conjunction with a natural gas-fired turbine generator. The turbine will fire only natural gas. Diesel fuel No. 2 may be fired for up to 50 hours in any 12 month period. The applicant also plans to install an auxiliary gas-fired burner in the waste heat boiler duct to generate additional steam. This BACT determination is addressed only to the auxiliary duct burner. The burner will fire only natural gas except during curtailment when No. 6 fuel oil may be fired for up to 600 hours per year.

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

BACT Determination Requested by the Applicant:

Use of high efficiency burners fired by natural gas constitutes the best available technology for this project. The applicant requested that No. 6 fuel oil with a sulfur content of up to 2.4 percent be used in case of natural gas curtailment for the auxiliary duct burner.

BACT Determination by DER:

The amount of particulate and sulfur dioxide emissions from the boiler will be limited by the firing of natural gas except during periods of curtailment when No. 6 fuel oil having a sulfur content not to exceed 1.5 percent, by weight, may be fired for up to 600 hours in any 12 month period.

Visible Emissions

Not to exceed 15 percent  
opacity.

DER Method 9 (17-2.700(6)(a)9, FAC) will be used to determine compliance with the opacity standard.

BACT Determination Rationale:

Sulfur in fuel is a primary air pollution concern. Most of the sulfur becomes SO<sub>2</sub> when the fuel is burned. Particulate emissions from fuel burning are related to the sulfur content of the fuel. The Department agrees with the applicant's proposal that the firing of natural gas is BACT for the auxiliary duct burner. However, the No. 6 fuel oil sulfur content proposed by the applicant does not constitute BACT. A review of BACT determinations made for similar proposals indicates that a No. 6 fuel oil sulfur content not to exceed 1.5 percent is generally deemed as BACT based on cost/benefit analyses.

Details of the Analysis May be Obtained by Contacting:

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

Recommended by:

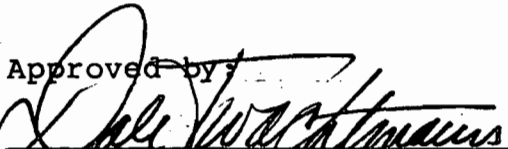


C. H. Fancy, P.E.  
Deputy Bureau Chief, BAQM

1/14/88

Date

Approved by:

  
Dale Twachtmann, Secretary

15 Jan 88  
Date

Best Available Control Technology (BACT) Determination  
Coca-Cola Foods  
Lake County

The applicant plans to install one waste heat process steam boiler at their facility in Leesburg, Florida in conjunction with a natural gas-fired turbine generator. The turbine will fire only natural gas. Diesel fuel No. 2 may be fired for up to 50 hours in any 12 month period.

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

BACT Determination Request by the Applicant:

Use of high efficiency burner fired by natural gas constitutes the best available technology for this project. The applicant requested that diesel fuel with a sulfur content up to 1.0 percent be used in case of natural gas curtailment.

BACT Determination by DER:

The amount of particulate and sulfur dioxide emissions from the boiler will be limited by the firing of natural gas. Diesel fuel having a sulfur content not to exceed 0.5 percent, by weight, may be fired for up to 50 hours in any 12 month period.

Visible Emissions

Not to exceed 15 percent  
opacity.

DER Method 9 (17-2.700(6)(a)9, FAC) will be used to determine compliance with the opacity standard.

BACT Determination Rationale:

Sulfur in fuel is a primary air pollution concern. Most of the sulfur becomes SO<sub>2</sub> when the fuel is burned. Particulate emissions from fuel burning are related to the sulfur content of the fuel. The Department agrees with the applicant's proposal that the firing of natural gas is BACT for the turbines. However, the diesel fuel oil sulfur content proposed by the applicant does not constitute BACT. A review of BACT determinations made for similar proposals indicates that the allowable sulfur content for diesel fuel oil has been limited to 0.5 percent.



Details of the Analysis May be Obtained by Contacting:

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

Recommended by:



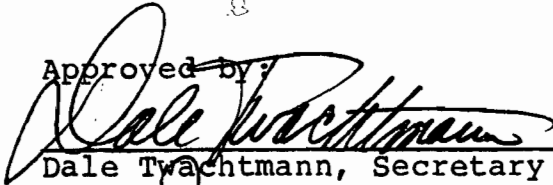
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C. H. Fancy, P.E.  
Deputy Bureau Chief, BAQM

1/14/88

Date:

Approved by:

---

Dale Twachtmann, Secretary

15 Jan 88  
Date



# Interoffice Memorandum

TO: Dale Twachtmann  
THRU: Howard Rhodes *HR*  
FROM: Clair Fancy *CF*  
DATE: January 14, 1988  
SUBJ: Approval of Coca Cola Foods  
State Construction Permit Number: AC 35-135881

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

**RECEIVED**  
JAN 15 1988

Office of the Secretary

Attached for your approval and signature is a permit for the above mentioned company to construct a 3550 KW Cogeneration System at the facility's location in Leesburg, Lake County, Florida. No comments were received during the public notice period.

Day 90 after which these permits will be issued by default is February 16, 1988.

The Bureau recommends approval and signature.

CHF/MJ/s  
attachment

→ P 4/6

Check Sheet

Company Name: *Coca Cola Foods*  
Permit Number: *AC 35-135821*  
PSD Number:  
County: *Lake*  
Permit Engineer:  
Others involved:

Application:

- Initial Application
- Incompleteness Letters
- Responses
- Final Application (if applicable)
- Waiver of Department Action
- Department Response

Intent:

- Intent to Issue
- Notice to Public
- Technical Evaluation
- BACT Determination
- Unsigned Permit

Attachments:

- 
- 
- 
- Correspondence with:
  - EPA
  - Park Services
  - County
  - Other
- Proof of Publication
- Petitions - (Related to extensions, hearings, etc.)

Final Determination:

- Final Determination
- Signed Permit
- BACT Determination

Post Permit Correspondence:

- Extensions
- Amendments/Modifications
- Response from EPA
- Response from County
- Response from Park Services

# STEVENSON AND ASSOCIATES

RECEIVED

JAN 11 1994

January 7, 1994

Bureau of  
Air Regulation

Mr. Preston Lewis  
Florida Department of  
Environmental Protection  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

**Re: Coca Cola Foods  
Air Permit Modification**

Dear Mr. Lewis:

As you know Coca-Cola Foods, Leesburg, has requested a modification of the construction permit for their combined cycle gas turbine and steam generator. In late August an application for modification with a cover letter were sent to Alan D. Zahm, P.E., Central District, explaining the reasons for the request.

As we discussed in our recent phone conversation, as a consultant for Coca-Cola Foods I am very concerned about the length of time that has passed since the original request was submitted. This delay on the part of the district reflects on me as a consultant. It is not clear why the request was sent to Tallahassee for review approximately one week prior to the end of the original 90 day review period. As a result Coca-Cola Foods was requested to give a 90 day waiver to allow more time for review. This they did. We were told that the local district felt it was necessary to send it to you in order to have a BACT Determination made since we are requesting an increase in fuel oil consumption. This may be true, but as we stated in the cover letter, the total permitted plant wide fuel oil usage will actually decrease compared to the time of the original BACT Determination. Also, if a BACT Determination were necessary, why was the request not sent to you originally instead of waiting until the 90 day review period was almost over?

I was asked to submit this request early in anticipation of receiving approval prior to the citrus processing season. The changes are necessary to insure continued operation during this period of time. Gas curtailments and restricted allowances for fuel oil usage could result in lost production and revenues.

We would like to request a speedy review of the permit modification or as alternative, a temporary permit allowing the increased consumption of fuel oil at the level stated in the request.

ENVIRONMENTAL CONSULTING, ENGINEERING AND GEOLOGY

333 FAULKENBURG N. B-214 TAMPA, FLORIDA 33619  
(813) 651-0878 FAX (813) 653-9082

Coca-Cola Foods is a very important client of ours, having multiple facilities in Florida, and we wish for our relationship with them to remain strong. If there are any questions concerning the request please call me at (813) 651-0878.

Sincerely,

A handwritten signature in cursive script that reads "Kenneth E. Given". The signature is written in dark ink and is positioned above the typed name.

Kenneth E. Given, P.E.

P 274 007 537

RECEIPT FOR CERTIFIED MAIL

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

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

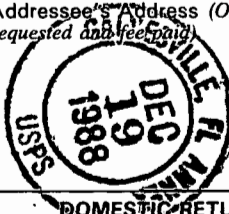
PS Form 3800, June 1985

Sent to Frank A. Darabi, P.E.	
Jones, Edmunds & Assoc., Inc. 730 North Waldo Road	
P.O., State and ZIP Code Gainesville, FL 32601	
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 Coca-Cola Foods AC 35-135881 mailed: 12/16/88	

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

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

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

3. Article Addressed to: Frank A. Darabi, P.E. Jones, Edmunds & Assoc., Inc. 730 North Waldo Road Gainesville, FL 32601	4. Article Number P 274 007 537 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
5. Signature - Address X	Always obtain signature of addressee or agent and DATE DELIVERED.
6. Signature - Agent X <i>Margaret LeCrain</i>	8. Addressee's Address (ONLY if requested and fee paid) 
7. Date of Delivery 12-19-88	

PS Form 3811, Mar. 1988

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

DOMESTIC RETURN RECEIPT



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

December 13, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Frank A. Darabi, P.E.  
Jones, Edmunds & Associates, Inc.  
730 North Waldo Road  
Gainesville, Florida 32601

Dear Mr. Darabi:

Re: Permit No. AC 35-135881

The Department is in receipt of your letter dated October 31, 1988, on behalf of Coca-Cola Foods, requesting a change in Specific Condition No. 5.

The Department has considered your request and determined that Specific Condition No. 5 will be deleted as per your letter of October 31, 1988, and the remaining specific conditions renumbered.

In addition, the formula which includes the factor in Specific Condition No. 5 is an error. The correct formula must be used in determining the compliance status of this source. Please see the attached letter.

Attachments to be Incorporated:

Mr. Frank A. Darabi's letter of October 31, 1988.

EPA's letter of April 3, 1983.

Sincerely,

Dale Twachtmann  
Secretary

DT/ks

Reading File ✓

C. Collins / J. Turner CFD

T. Heron

Best Available Copy



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Office of Air Quality Planning and Standards  
Research Triangle Park, North Carolina 27711

APR 28 1983

DER  
MAY 02 1983  
BAQM

Ms. Teresa H. Heron  
Department of Environmental Regulation  
State of Florida  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Dear Ms. Heron:

As you requested in our phone conversation of April 26, 1983, I am sending you this letter to confirm the correct ISO adjustment equation for the new source performance standard for stationary gas turbines. The equation as it appears in the Federal Register of September 10, 1979, (44 FR 52800) is incorrect. The correct equation is as follows:

$$NO_x = (NO_{xOBS}) \left( \frac{Pref.}{P_{OBS}} \right)^{0.5} e^{19(H_{OBS} - 0.00633)} \left( \frac{288^{\circ}K}{T_{amb.}} \right)^{1.53}$$

Also, as we discussed, the allowance for fuel NO<sub>x</sub> in the standard must be based on the amount of bound nitrogen actually present in the fuel being burned in the gas turbine. There is no bound nitrogen in natural gas (the primary fuel for the Kissimee Utility gas turbine) and only a negligible amount in most #2 distillate (the emergency fuel). Thus, for most (if not all) of this gas turbine operating time, a fuel NO<sub>x</sub> allowance will be inappropriate and allowable NO<sub>x</sub> emissions will be 79 ppmv. However, the permit does require the fuel nitrogen to be measured (p.4 of 5), so the allowance for it can be applied when appropriate. It should be noted that the plant must file a report whenever the plant burns fuel with a nitrogen level giving a higher fuel NO<sub>x</sub> allowance than that provided during compliance tests.

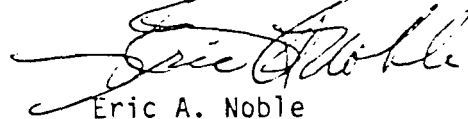
You commented that the proposed standards allowed only the gas turbine heat rate to be used in determining allowable NO<sub>x</sub> emissions, but that this limitation does not appear in the promulgated standards (Part 60, Subpart GG). The limitation is defined in Part 60, Subpart GG as follows:

1. The standard is defined by the formula in 60.332(a)(1), when y = manufacturer heat rate ... for the affected facility.
2. The affected facility is, per 60.330, all stationary gas turbines.
3. And, in 60.331(a) "Stationary gas turbine" means any ... gas turbine portion of a combined cycle steam/electric generating system .... portability.



If you have any further questions, please contact me at (919) 541-5596,  
or call Doug Bell at (919) 541-5578.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Eric A. Noble". The signature is written in dark ink and is positioned above the printed name.

Eric A. Noble  
Industrial Studies Branch  
Emission Standards and  
Engineering Division



State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION

# Interoffice Memorandum

RECEIVED

DEC 14 1988

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

DER BAQM

RECEIVED

DEC 13 1988

Office of the Secretary

TO: Dale Twachtman

*for*

FROM: Steve Smallwood *[Signature]*

SUBJ: Approval of an Amendment to the Construction Permit  
No. AC 35-135881  
Coca-Cola Foods

DATE: December 13, 1988

Attached for your approval and signature is a letter authorizing changes in the specific conditions of the above referenced air construction permit. There are no controversies associated with these changes.

I recommend your approval and signature.

SS/TH/s

attachment

PM  
11-1-88  
Gainesville, FL

file copy

**Jones  
Edmunds &  
Associates, Inc.**

730 North Waldo Road / Gainesville, Florida 32601 / (904) 377-5821



CONSULTING ENGINEERS AND SCIENTISTS

RECEIVED

NOV 2 1988

DER-BAQM

October 31, 1988

Mrs. Claire Fancy, P.E.  
Bureau of Air Quality Management  
Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Re: Permit Number AC35-135881  
Coca-Cola Foods  
3550 KW Cogeneration System  
Leesburg, Lake County

Dear Mrs. Fancy:

As requested by the Orlando District Office, we are hereby requesting a modification of the referenced Permit, eliminating the requirement under Specific Condition Number 5, requiring monitoring of ratio of water to fuel being fired. This is necessitated due to the fact that there is no provision for water injection on this turbine. Therefore, the water to fuel ratio is zero.

The NO<sub>x</sub> emissions reported in the Permit Application and authorized are based on no water injection. Test data submitted to the District Office shows compliance with Permit limitation.

Sincerely,

JONES, EDMUNDS & ASSOCIATES, INC.

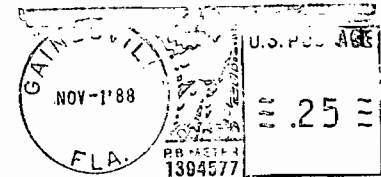
Frank A. Darabi, P.E.  
Consultant

FAD:jaj

cc: Avedis Zarikian  
Theodore R. Davis  
John Turner

copied: Teresa Heron  
CHF/RT

*Jones  
Edmunds &  
Associates, Inc. JEA*  
730 North Waldo Road Gainesville, Florida 32601



Mrs. Claire Fancy, P.E.  
Bureau of Air Quality Management  
Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400



INDUSTRIAL ENERGY SERVICES

713 974-1973

Suite 211  
800 Wilcrest Drive  
Houston, Texas 77042

October 28, 1988

Frank Darabi  
Jones Edmunds & Associates  
730 N. Waldo Road  
Gainesville, Florida 32601

Dear Frank:

The Centaur H turbine-generator installed at Coca Cola Food's Leesburg facility is designed to burn either natural gas or diesel fuel without any water injection. The emission rates that were submitted to the DER were provided by the equipment manufacturer and was in accordance with the regulations. There is no provision for water injection on this turbine. Therefore, the water to fuel ratio is zero under present operations. Water injection will reduce significantly the NO<sub>x</sub> emissions and is now required in several states such as California, New Jersey and Texas, but I am not sure about Florida.

Please advise if there is additional information required.

Sincerely,

  
Theodore R. Davis

/nk



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary  
Alex Alexander, Deputy Assistant Secretary

October 20, 1988

## COMPLETENESS SUMMARY AIR POLLUTION SOURCES

SOURCE NAME: Coca Cola Foods  
3550 KW Cogeneration System

DATE RECEIVED: 9/30/88

APPLICANT NAME: Frank A. Darabi, P.E.  
Jones, Edmunds & Associates, Inc.

DATE REVIEWED: 10/17/88

APPLICANT ADDRESS: 730 N. Waldo Road  
Gainesville, Florida 32601

REVIEWED BY: J. Turner

(A035-153889)

Your application for a permit to construct/operate this referenced project has been received, and reviewed for completeness. The following checked items are needed to complete your application.

- ( ) Application fee of \$ \_\_\_\_\_. Make check payable to the Department of Environmental Regulation.
- ( ) Letter authorizing applicant to represent owner.
- ( ) 8-1/2" x 11" diagram of flow process.
- ( ) 8-1/2" x 11" location map.
- ( ) 8-1/2" x 11" plant layout sketch showing emission points.
- ( ) Test results showing compliance with emission limitations of the department.
- ( ) Air diffusion modeling results showing compliance with ambient air standards and PSD increment.
- ( ) Engineer's report pursuant to Florida Administrative Code Rule 17-4.21(1)(c).

DER FORM 17-1.202(2)  
Effective Date November 30, 1982

Page Two

- ( ) See comments on application attached.
- (X) Other: (Any section of the application which is incomplete or lacks sufficient information to be evaluated).

Submit information that permit AC35-135881 has been changed to eliminate the requirement of Specific Condition No. 5. Note that this requested change must be submitted to the Central Air Permitting staff in Tallahassee.

Pursuant to Section 120.60(2) Florida Statutes, the department may deny an application if the applicant, after receiving timely notice fails to correct errors, omissions or supply additional information within a reasonable period of time.

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

Sincerely,

*Charles M. Collins*

Charles M. Collins, P.E.  
Program Administrator  
Air Quality

*Ted Davis 7/3/974-1973*

CMC/jtj *J-*

cc: Teresa Heron

Duplicate



602 McKean St.  
Auburndale, Florida 33823

December 17, 1987

DER  
DEC 21 1987  
BAQM

DER Bureau of Air Quality Management  
Twin Towers Office Bldg.  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Re: Permits for Cogeneration - Leesburg

Gentlemen:

Enclosed find an original notarized affidavit of publication for a "Notice of Intent" regarding permits for the Cogeneration System and the boilers at our facility in Leesburg, Florida.

As noted in the affidavits, the date of publication listed is December 13, 1987. The comment period should terminate on December 27, 1987. It would be appreciated if the Department could expedite issuance of the permits following completion of the comment period.


We trust that forwarding of these affidavits fulfills our responsibilities regarding publication.

Sincerely,

  
Ted Hong  
Manager, Environmental Control

TH/as

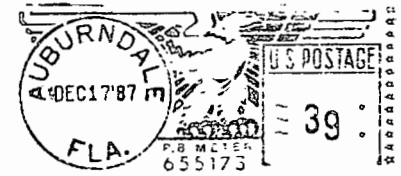
cc: DER Central Florida District  
3319 McGuire Blvd., 5232  
Orlando, Florida 32803

Copied: Tom Sawicki, CF Dist }  
Teresa Heron } 12.28.87 



*Coca-Cola Foods*  
A Division of The Coca-Cola Company

P. O. BOX 247  
AUBURNDALE, FL 33823



**First Class Mail**  
**First Class Mail**

DER Bureau of Air Quality Management  
Twin Towers Office Bldg.  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

**The Orlando Sentinel**

Published Daily  
Tavares, Lake County, Florida

ADVERTISING CHARGE

\$10.03 Paid

State of Florida }  
COUNTY OF ORANGE } SS.

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

Nancy A. Puglia, who on oath says that

she is the Legal Advertising Representative of The Orlando Sentinel, a Daily newspaper published at Tavares, in Lake County, Florida; that the attached copy of advertisement, being a Notice of Intent in the matter of Permit to Cola Cola Foods

\_\_\_\_\_ in the \_\_\_\_\_ Court;

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

December 13, 1987

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

*Nancy A. Puglia*

Sworn to and subscribed before me this 14th

day of December

1987

Notary Public

FLORIDA

Notary Public

My Commission Expires March 4, 1989

Bonded Thru Brown & Brown, Inc.

State of Florida  
Department of  
Environmental Regulation  
**Notice of Intent**

The Department gives notice of its intent to issue a permit to Cola Cola Foods for the construction of a 3550 Kw Cogeneration System (gas turbine and steam generator). This will be located at the Coca Cola Food facility in Leesburg, Lake County, Florida.

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 Tower Office Building, Tallahassee, Florida 32399-2400, 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 32399-2400. 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 32399-2400 Dept. of Environmental Regulation, Central Florida District, 3319 Maquire Blvd., Suite 232, Orlando, Florida 32803-3767

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

LK-113

Dec. 13, 1987

NO. AD-261

**The Orlando Sentinel**

Published Daily  
Tavares, Lake County, Florida

DER

PM  
15 Dec. 1987  
Orlando, FL

*file copy*

DEC 18 1987

ADVERTISING CHARGE

\$10.03 Paid

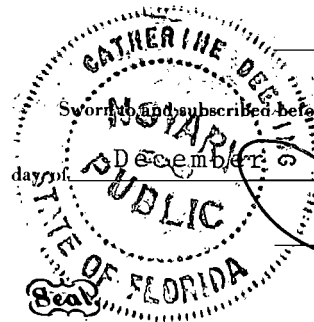
State of Florida }  
COUNTY OF ORANGE } SS.

BAQM

Before the undersigned authority personally appeared \_\_\_\_\_  
Nancy A. Puglia \_\_\_\_\_, who on oath says that  
she is the Legal Advertising Representative of The Orlando Sentinel, a Daily newspaper  
published at Tavares, in Lake County, Florida; that the attached copy of ad-  
vertisement, being a Notice of Intent \_\_\_\_\_ in the matter of  
Permit to Cola Cola Foods \_\_\_\_\_  
\_\_\_\_\_ in the \_\_\_\_\_ Court,  
was published in said newspaper in the issues of \_\_\_\_\_  
December 13, 1987 \_\_\_\_\_

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

*Nancy A. Puglia*



Sword subscribed before me this 14th  
day of December, 1987

Notary Public, State of Florida at \_\_\_\_\_  
My Commission Expires March 4, 1989  
Bonded Thru Brown & Brown, Inc.

State of Florida  
Department of  
Environmental Regulation  
Notice of Intent  
The Department gives notice  
of its intent to issue a permit to  
Cola Cola Foods for the con-  
struction of a 3550 Kw Cogener-  
ation System (gas turbine and  
steam generator). This will be lo-  
cated at the Coca Cola Food fa-  
cility in Leesburg, Lake County,  
Florida.  
Persons whose substantial in-  
terests are affected by the De-  
partment's proposed permitting  
decision may petition for an ad-  
ministrative determination (hear-  
ing) in accordance with Section  
120.57, Florida Statutes. The pe-  
tition must conform to the re-  
quirements of Chapters 17-103  
and 28-5, Florida Administrative  
Code, and must be filed (re-  
ceived) in the Department's Of-  
fice of General Counsel, 2600  
Blair Stone Road, Twin Towers  
Office Building, Tallahassee,  
Florida 32399-2400, within four-  
teen (14) days of publication of  
this notice. Failure to file a pe-  
tition 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 admin-  
istrative hearing process is de-  
signed to formulate agency ac-  
tion. Accordingly, the Depart-  
ment's final action may be differ-  
ent from the proposed agency  
action. Therefore, persons who  
may not wish to file a petition  
may wish to intervene in the pro-  
ceeding. A petition for interven-  
tion must be filed pursuant to  
Rule 28-5.207, Florida Adminis-  
trative Code, at least five (5)  
days before the final hearing  
and be filed with the hearing of-  
ficer if one has been assigned at  
the Division of Administrative  
Hearings, Department of Admin-  
istration, 2009 Apalachee Park-  
way, Tallahassee, Florida 32301.  
If no hearing officer has been as-  
signed, the petition is to be filed  
with the Department's Office of  
General Counsel, 2600 Blair  
Stone Road, Tallahassee, Flor-  
ida 32399-2400. Failure to pe-  
tition to intervene within the al-  
lowed 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 Fri-  
day, except legal holidays, at:  
Dept. of Environmental Regula-  
tion, Bureau of Air Quality Man-  
agement, 2600 Blair Stone Road,  
Tallahassee, Florida 32399-2400  
Dept. of Environmental Regula-  
tion, Central Florida District,  
3319 McGuire Blvd., Suite 232,  
Orlando, Florida 32803-3767  
Any person may send written  
comments on the proposed ac-  
tion to Mr. Bill Thomas at the  
Department's Tallahassee ad-  
dress. All comments mailed  
within 14 days of the publication  
of this notice will be considered  
in the Department's final  
determination.  
LK-113 Dec. 13, 1987

VI NO. AD-261

P 274 007 639

RECEIPT FOR CERTIFIED MAIL

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

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

PS Form 3800, June 1985

Sent to J. D. Folkerts, V.P.	
Coca-Cola Foods Street and No. Post Office Box 2079	
P.O., State and ZIP Code Houston, TX 77252	
Postage	S
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	S
Postmark or Date Mailed: 12/07/87 Permit: AC 35-135881	

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: J.D. Folkerts  
Vice President - Manufacturing  
Coca Cola Foods  
Post Office Box 2079  
Houston, TX 77252

4. Type of Service:	Article Number
<input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail	P 274 007 639

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee

X

6. Signature - Agent

X

7. Date of Delivery  
DEC 10 1987

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

DOMESTIC RETURN RECEIPT

file

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY

December 4, 1987

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. J. D. Folkerts  
Vice President - Manufacturing  
Coca Cola Foods  
Post Office Box 2079  
Houston, Texas 77252

Dear Mr. Folkerts:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit to construct a 3550 Kw Cogeneration System (gas turbine and steam generator). This will be located at the Coca Cola Food facility in Leesburg, Lake 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, or call him at (904) 488-1344.

Sincerely,

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

CHF/bm

Attachments

cc: T. Sawicki, CF Dist.  
F. Darabi, P.E.

State of Florida  
Department of Environmental Regulation  
Notice of Intent

The Department gives notice of its intent to issue a permit to Coca Cola Foods for the construction of a 3550 Kw Cogeneration System (gas turbine and steam generator). This will be located at the Coca Cola Food facility in Leesburg, Lake County, Florida.

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 32399-2400, 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<sup>(7)</sup> 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 32399-2400. 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 32399-2400

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

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

BEFORE THE STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of  
Application for Permit by:

Coca Cola Foods  
Post Office Box 2079  
Houston, Texas 77252

---

DER File Nos. AC 35-135881

INTENT TO ISSUE

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

The applicant, Coca Cola Foods applied on June 19, 1987, to the Department of Environmental Regulation for a permit to construct a 3550 Kw Cogeneration System (gas turbine and steam generator). This will be located at the Coca Cola Food facility in Leesburg, Lake 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

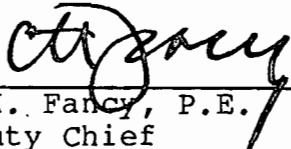


provided to the Department within seven days of publication of the notice. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permits.

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 32399-2400. 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 applications. 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:

T. Sawicki, CF Dist.  
F. Darabi, P.E.

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.

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 12-7-87.

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.

Madha M. M. M.  
Clerk

12-7-87  
Date

Technical Evaluation  
and  
Preliminary Determination

Coca Cola Foods  
Lake County, Florida

Permit No. AC 35-135881  
3550 Kw Cogeneration System  
APIS No. 30ORL35000203

Bureau of Air Quality Management  
Central Air Permitting  
New Source Review Section

December 7, 1987

I. NAME AND ADDRESS OF APPLICANT

Coca Cola Foods  
Post Office Box 2079  
Houston, Texas 77252

II. REVIEWING AND PROCESS SCHEDULE

Date of Receipt of Application: June 19, 1987

Completeness Review (30 days): Department's letter of  
July 15, 1987 and September 23, 1987

Response to Request for Additional Information: Coca Cola  
Food's letter of September 3, 1987 and October 22, 1987

Application Completeness Date: October 26, 1987

III. FACILITY INFORMATION

III.1 Facility Location

The proposed facility is located on Cloud Street and U.S.  
441 in Leesburg, Lake County, Florida. The UTM coordinates are  
Zone 17, 415.5 E and 3187.3 N.

III.2 Standard Industrial Classification Code (SIC)

This facility is classified as follows:

Major Group No. 20: FOOD AND KINDRED PRODUCTS

Group No. 203: CANNED, FROZEN, AND PRESERVED FRUITS,  
VEGETABLES, AND FOOD SPECIALTIES

Industry No. 2037: FROZEN FRUITS, FRUIT JUICES, AND  
VEGETABLES

III.3 Facility Category

Coca Cola Foods (Leesburg location) is a major facility for  
particulate matter (182.4 tons per year).

The proposed project will increase the overall NOx  
emissions by 114 tons per year.

III.3.1 Background Information

A revision of the existing air operating permits was  
conducted at the Leesburg facility. Since these permits do not  
contain specific and enforceable emission limits, the Company

agreed to the following specific limits for each operating permit:

Permit No.	Unit	Emission Limit tons/year		
		SO <sub>2</sub>	NO <sub>x</sub>	Particulate
AO 35-119361	Citrus Peel Dryer & Waste Heat Evaporator	16	37.5	118.6
AO 35-56596	Cooling Reel	0	0	55.8
AO 35-99125	Boilers #2, 3, & 4	72	43	8

It was concluded that the greatest emissions are PM, as indicated in the Table, in the order of 182.4 tons per year.

#### IV. PROJECT DESCRIPTION

Coca Cola Foods is planning to install a new cogeneration facility consisting of a turbine electric generator and waste heat boiler combination. This new system will eventually replace existing boilers which would be kept as standby units for a few years until the company would feel confident about the capability of the new unit then the existing units would be removed. The new system will have the turbine operating on natural gas (with No. 2 oil as standby). The heat from the generator would be used to generate steam in a waste heat type boiler with capabilities of duct firing to increase the steam capability.

#### V. RULE APPLICABILITY

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

The plant site is in an area, Lake County, designated attainment for all pollutants in accordance with Rule 17-2.420, Florida Administrative Code (FAC).

Coca Cola Foods is classified as a major facility in accordance with Rule 17-2.100, FAC. Emissions of sulfur dioxide, nitrogen oxide, and particulate matter, are in the order of 88, 80.5 and 182.4 tons per year, respectively.

For purpose of the Prevention of Significant Deterioration (PSD) regulations, this facility is a minor facility since potential emissions are less than 250 tons per year. Therefore, any modification under the 250 tons per year will be reviewed as a minor modification to a minor facility, thereby, exempting this

facility of the New Source Requirements of PSD regulations. Rule 17-2.500(2)(d)1. and 17-2.500(2)(d)3., Florida Administrative Code.

This project shall be permitted under Rule 17-2.520 Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements. The proposed source shall comply with Rule 17-2.660 Standards of Performance for New Stationary Sources (NSPS). Specifically, Subpart GG, NSPS for Gas Turbine Rule 17-2.650, Best Available Control Technology (BACT), Rule 17-2.610, General Particulates Emission Limiting Standards and Rule 17-2.700 Stationary Point Source Emissions Test Procedures.

For a future modification, this facility may be subject to a Prevention of Significant Deterioration Review, Rule 17-2.500, if the net increase of emissions of any criteria pollutant is equal to or greater than the significant emission rates listed in Table 500-2.

## VI. EMISSIONS SUMMARY

The operation of the cogeneration system will produce emission of nitrogen oxide (NOx), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), particulate matter (PM), and volatile organic compounds (VOC) to the atmosphere.

Table 1 summarizes the potential to emit all pollutants regulated under the act which are affected by the proposed project. This table also includes the emission limits determined as the Best Available Control Technology for this source. These permitted emissions are in compliance with all applicable requirements of Chapter 17-2, Florida Administrative Code (FAC).

### VI.1 Air Quality Analysis

From a technical review of the application, the department has determined that the installation and operation of this source will not have a detrimental impact on Florida's ambient air quality standards.

### VI.2 Air Toxics Information

Currently, the department is developing acceptable ambient concentrations for toxic substances. Specifically, sources classified as Category A (carcinogens and highly toxic) and category B (moderately toxic substances).

In the event toxics emission limits are set during the term of this permit or any subsequent permit, the department may seek modification pursuant to Rule 17-4.08, Florida Administrative Code.

## VII. CONCLUSION

Based on the review of the data submitted by Coca Cola Foods, the Florida Department of Environmental Regulation (FDER) concludes that compliance with all applicable state air quality regulations will be achieved provided certain specific conditions are met. The impact of installing and operating the cogeneration system at the Leesburg facility will not cause or contribute to a violation of any ambient air quality standards.



Table 1  
Allowable Emission Limits  
3550 Kw Cogeneration

Pollutant	Standard	Gas Turbine (1)	Waste Heat Boiler(3)
NOx	0.0150 $\frac{14.4}{Y}$ +F (2)	168 PPM (gas); 114 TPY 218 PPM (No. 2 oil); 0.8 TPY	10.1 lb/hr; 4.7 TPY (gas) 9.9 lb/hr; 1.13 TPY (No. 6 oil)
SO <sub>2</sub>	0.8% S by weight 0.015% by volume at 15% oxygen on a dry basis	0.01 lb/hr; 0.05 TPY (gas) 12.19 lbs/hr; 0.31 TPY (No.2 oil)	0.02 lb/hr (gas) 258.2 lbs/hr; 29.48 TPY (No. 6 oil)
PM		15% opacity	15%
Unburned HC	—	1.27 lb/hr; 5.30 TPY (gas) 1.26 lb/hr; 0.03 TPY (No. 2 oil)	0.9 lb/hr; 0.42 TPY (gas) 0.9 lb/hr; 0.1 TPY (No. 6 oil)
CO	—	5.52 lb/hr; 23.18 TPY (gas) 5.63 lb/hr; 0.14 TPY (No. 2 oil)	6.00 lb/hr; 2.8 TPY (gas) 5.92 lb/hr; 0.7 TPY (No. 6 oil)

(1) The Cogeneration system will be operating mostly with natural gas. Diesel fuel No. 2 will be used for 50 hrs/year (for start-up). This No. 2 fuel oil is the alternate fuel for the gas turbine. The NOx allowance for oil burning is 50 ppm.

(2) F=O NOx emission allowance for fuel-bound nitrogen. Natural gas gas virtually no fuel-bound nitrogen.

(3) Based on 20% of fuel usage being No. 6 fuel oil. This is the alternate fuel for the waste heat boiler. Steam generators will operate as needed to meet steam demand. Duct burners will operate only during fruit season (December to June) when steam load is high.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY

PERMITTEE:  
Coca Cola Foods  
P. O. Box 2079  
Houston, Texas 77252

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988  
County: Lake  
Latitude/Longitude: 28° 49' 54"N  
81° 49' 40"W  
Project: 3550 Kw Cogeneration  
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 construction of a 3550 Kw Cogeneration System (gas turbine and steam generator). This will be located at the Coca Cola Food facility in Leesburg, Lake County, Florida. The UTM coordinates of this site are Zone 17, 415.5 E and 3187.3 N.

Construction shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the General Conditions Specific Conditions of this permit.

**Attachments:**

1. Application to Construct Air Pollution Sources, DER Form 17-1.122(16) dated June 24, 1987.
2. Department's letter of July 15, 1987.
3. Coca Cola Food's letter of September 3, 1987.
4. Department's letter of September 23, 1987.
5. Coca Cola Food's letter of October 22, 1987.

PERMITTEE:  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 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 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.

PERMITTEE:  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988

**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.

PERMITTEE:  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988

**GENERAL CONDITIONS:**

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

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

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

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

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

13. This permit also constitutes:

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

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

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

PERMITTEE:  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988

**GENERAL CONDITIONS:**

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

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

**SPECIFIC CONDITIONS:**

1. The maximum emission rates for the 49.95 MMBtu/hr cogeneration unit during natural gas firing shall not exceed the limits required by 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, as follows;

PERMITTEE:  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988

SPECIFIC CONDITIONS:

Nitrogen oxides NSPS Standards =  $0.0150 \left( \frac{14.4}{Y} \right) + F$

or  
= 168 ppm NOx

and

Sulfur dioxide NSPS Standard = 0.0150% by volume at 15% oxygen  
on a dry basis

Best Available Control Technology (BACT) limits:

Turbine

Visible Emission Not to exceed 15% opacity

Fuel oil No. 2 Not to exceed 0.5% sulfur  
content by weight

Waste Heat Boiler - Auxiliary Duct Burner

Visible Emission Not to exceed 15% opacity

Fuel Oil No. 6 Not to exceed 1.5% sulfur  
content by weight

2. The cogeneration system shall be allowed to operate continuously (8736 hours per year). The gas turbine shall operate on natural gas at all times, except that No. 2 fuel oil with a maximum sulfur content of 0.5 percent by weight shall be allowed to be burned.

3. Maximum No. 2 fuel oil consumption in the turbine shall not exceed 342 gals/hr for up to 50 hrs/yr. Maximum No. 6 fuel oil consumption in the duct burner shall not exceed 119 gals/hr for up to 600 hrs/yr.

4. Before this construction permit expires, the 3550 KW combined cycle gas turbine will be tested for sulfur dioxide, visible emissions, and nitrogen oxides. Except as provided under 40 CFR 60.8(b), the performance tests shall be in accordance with the provisions of the following reference methods in Appendix A of 40 CFR 60.

a. Method 1. Sample and Velocity Traverses

PERMITTEE:  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988

**SPECIFIC CONDITIONS:**

- b. Method 2. Volumetric Flow Rate
- c. Method 3. Gas Analysis
- d. Compliance with the opacity limitation will be determined by reference Method 9, Visual Determination of Opacity of Emission from Stationary Sources.
- e. Compliance with the sulfur dioxide emission limits will be determined by reference Method 20 or by calculations based on fuel analysis (ASTM 1552) for sulfur content.
- f. Compliance with the allowable emissions limits for nitrogen oxides shall be conducted using EPA reference Method 20 subpart GG Section 60.335.

During performance tests to determine compliance with the proposed standard, measured NOx emission at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$\text{NOx} = (\text{NOx OBS}) \left( \frac{P_{\text{ref}}}{P_{\text{OBS}}} \right)^{0.5} e^{19(H_{\text{obs}} - 0.00633)} \left( \frac{T_{\text{AMB}}}{288^{\circ}\text{K}} \right)^{1.53}$$

where:

NOx = Emissions of NOx at 15% oxygen and ISO standard ambient conditions.

NOx<sub>obs</sub> = Measured NOx emission at 15% oxygen, ppmv.

P<sub>ref</sub> = Reference combustor inlet absolute pressure at 101.3 kilopascals (1 atmosphere) ambient pressure.

P<sub>bs</sub> = Measured combustor inlet absolute pressure at test ambient pressure.

H<sub>obs</sub> = Specific humidity of ambient air at test.

e = Transcendental constant (2.718)

T<sub>AMB</sub> = Temperature of ambient air at test.



PERMITTEE:  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988

SPECIFIC CONDITIONS:

Test results will be the average of 3 valid runs. The Department will be notified 30 days in advance of the compliance test. The test will be conducted at permitted capacity  $\pm 10\%$ .

5. A continuous monitoring system shall be installed to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine.

6. Sulfur and nitrogen content of the fuel being fired in the gas turbine shall be determined and recorded as specified in the NSPS for Gas Turbines 40 CFR 60, Subpart GG, Section 60.334. The records of fuel oil usage will be kept by the company, available for regulatory agency's inspection, for a two year period.

7. The applicant shall comply with all requirements of 40 CFR 60, Subpart GG, Standards of Performance for stationary gas turbines.

8. The operating permits for this facility shall be modified as follows:

Permit No.	Unit	Emission Limit Tons/Yr		
		SO <sub>2</sub>	NO <sub>x</sub>	Particulate
AO 35-119361	Citrus Peel Dryer & Waste Heat Evaporator	16	37.5	118.6
AO 35-56596	Cooling Reel	0	0	55.8
AO 35-99125	Boilers # 2, 3, & 4	72	43	8

9. 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, (Rule 17-2, FAC).

12. 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 compliance test results and Certificate of Completion, to the Department's District office 90

PERMITTEE:  
Coca Cola Foods

Permit Number: AC 35-135881  
Expiration Date: October 31, 1988

**SPECIFIC CONDITIONS:**

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, (Rules 17-2 and 17-4, FAC).

13. 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, (Rule 17-4, FAC).

14. Upon obtaining an operation permit, the permittee will be required to submit annual reports on the actual operation and emissions of the facility. Annual reports shall be sent to the Department's District office in Orlando.

Issued this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_

STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION

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

Best Available Control Technology (BACT) Determination  
Coca-Cola Foods  
Lake County

The applicant plans to install one waste heat process steam boiler at their facility in Leesburg, Florida, in conjunction with a natural gas-fired turbine generator. The turbine will fire only natural gas. Diesel fuel No. 2 may be fired for up to 50 hours in any 12 month period. The applicant also plans to install an auxiliary gas-fired burner in the waste heat boiler duct to generate additional steam. This BACT determination is addressed only to the auxiliary duct burner. The burner will fire only natural gas except during curtailment when No. 6 fuel oil may be fired for up to 600 hours per year.

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

BACT Determination Requested by the Applicant:

Use of high efficiency burners fired by natural gas constitutes the best available technology for this project. The applicant requested that No. 6 fuel oil with a sulfur content of up to 2.4 percent be used in case of natural gas curtailment for the auxiliary duct burner.

BACT Determination by DER:

The amount of particulate and sulfur dioxide emissions from the boiler will be limited by the firing of natural gas except during periods of curtailment when No. 6 fuel oil having a sulfur content not to exceed 1.5 percent, by weight, may be fired for up to 600 hours in any 12 month period.

Visible Emissions

Not to exceed 15 percent  
opacity.

DER Method 9 (17-2.700(6)(a)9, FAC) will be used to determine compliance with the opacity standard.

BACT Determination Rationale:

Sulfur in fuel is a primary air pollution concern. Most of the sulfur becomes SO<sub>2</sub> when the fuel is burned. Particulate emissions from fuel burning are related to the sulfur content of the fuel. The Department agrees with the applicant's proposal that the firing of natural gas is BACT for the auxiliary duct burner. However, the No. 6 fuel oil sulfur content proposed by the applicant does not constitute BACT. A review of BACT determinations made for similar proposals indicates that a No. 6 fuel oil sulfur content not to exceed 1.5 percent is generally deemed as BACT based on cost/benefit analyses.

Details of the Analysis May be Obtained by Contacting:

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

Recommended by:

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

\_\_\_\_\_  
Date

Approved by:

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

\_\_\_\_\_  
Date

Best Available Control Technology (BACT) Determination  
Coca-Cola Foods  
Lake County

The applicant plans to install one waste heat process steam boiler at their facility in Leesburg, Florida in conjunction with a natural gas-fired turbine generator. The turbine will fire only natural gas. Diesel fuel No. 2 may be fired for up to 50 hours in any 12 month period.

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

BACT Determination Request by the Applicant:

Use of high efficiency burner fired by natural gas constitutes the best available technology for this project. The applicant requested that diesel fuel with a sulfur content up to 1.0 percent be used in case of natural gas curtailment.

BACT Determination by DER:

The amount of particulate and sulfur dioxide emissions from the boiler will be limited by the firing of natural gas. Diesel fuel having a sulfur content not to exceed 0.5 percent, by weight, may be fired for up to 50 hours in any 12 month period.

Visible Emissions	Not to exceed 15 percent opacity.
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DER Method 9 (17-2.700(6)(a)9, FAC) will be used to determine compliance with the opacity standard.

BACT Determination Rationale:

Sulfur in fuel is a primary air pollution concern. Most of the sulfur becomes SO<sub>2</sub> when the fuel is burned. Particulate emissions from fuel burning are related to the sulfur content of the fuel. The Department agrees with the applicant's proposal that the firing of natural gas is BACT for the turbines. However, the diesel fuel oil sulfur content proposed by the applicant does not constitute BACT. A review of BACT determinations made for similar proposals indicates that the allowable sulfur content for diesel fuel oil has been limited to 0.5 percent.

Details of the Analysis May be Obtained by Contacting:

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

Recommended by:

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

\_\_\_\_\_  
Date

Approved by:

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

\_\_\_\_\_  
Date

PM  
23 Oct. 1987  
Houston, TX

*file copy*



JAMES D. FOLKERTS  
VICE PRESIDENT  
MANUFACTURING

ADDRESS REPLY TO  
P.O. BOX 2079  
HOUSTON, TEXAS 77252

713-888-5000

October 22, 1987

**DER**  
**OCT 26 1987**  
**BAQM**

Ms. Teresa Heron  
Bureau of Air Quality Management  
Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399

Dear Ms. Heron:

Subject: Air Construction Application No. AC35-135881

As a follow-up to your recent meeting with our consultant, Mr. Frank Darabi, we provide the following additional information and comments in support of the referenced permit application:


1. In recognition of the fact that the existing air pollution permits for the units at the Leesburg facility do not contain specific and enforceable emission limits, we propose the following specific limits for each permit:

PERMIT NO.	UNIT	EMISSION LIMIT TONS/YEAR		
		SO <sub>2</sub>	NOX	PARTICULATE
A035-119361	Citrus Peel Dryer & Waste Heat Evaporator	16	37.5	118.6
A035-56596	Cooling Reel	0	0	55.8
A035-99125	Boilers #2, #3, & #4	72	43	8

2. A revised table L-6 showing emission data in terms of tons/year is attached.

We trust the information provided herein will allow you to proceed with issuance of this permit as expeditiously as possible. You may contact Mr. Frank Darabi at 904/377-5821 for any additional information.

Sincerely,

  
James D. Folkerts

JDF:bh  
Enclosures

*Copies:* Teresa Heron }  
BT/CHF } 10/26/87  
Tom Sawicki }

Table L-6  
LEESBURG  
ESTIMATED EMISSIONS

Turbine-Generator Exhaust  
Diesel No.2 Fuel

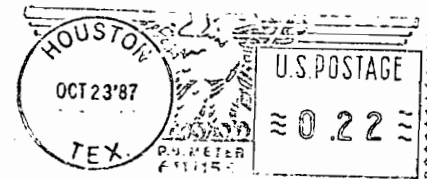
	<u>Average Hourly Rate</u>		<u>Estimated</u>
	<u>lb/hr</u>	<u>PPMV<sup>(2)</sup></u>	<u>Tons per Year<sup>(3)</sup></u>
O <sub>2</sub>	22,484		562
CO <sub>2</sub>	7,809		195
H <sub>2</sub> O	4,214		105
N <sub>2</sub>	100,125		2,503
Ar	1,700		43
CO	5.63	50	0.140
NO <sub>x</sub> <sup>(1)</sup>	30.88	167	0.772
Unburned HC	1.26	20	0.032
SO <sub>2</sub>	12.19	47.32	0.305
Particulates <sup>(4)</sup>	<u>NA</u>	NA	NA
	136,381.96		

- 1) Expressed as equivalent NO<sub>2</sub> - when corrected to ISO conditions.
- 2) PPMV Dry, reference 15% oxygen.
- 3) It is estimated that diesel fuel will be used for 50 hr/max annually (for testing and start-up).
- 4) Reference AP-42, Table 3.2-1
- 5) SO<sub>2</sub> Emission depends on sulfur content in fuel. The current estimate is based on the assumption of 100 percent conversion of fuel sulfur to SO<sub>2</sub>.



P. O. BOX 2079  
HOUSTON, TEXAS 77252

10/26  
~~CFR~~  
~~CFR~~ FYI  
Thanks,  
☺



Ms. Teresa Heron  
Bureau of Air Quality Management  
Department of Environment  
2600 Blair Stone Road  
Tallahassee, FL 32399



P 274 007 685

RECEIPT FOR CERTIFIED MAIL

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

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

PS Form 3800, June 1985

Sent to Mr. J.D. Folkerts Coca-Cola Foods	
Street and No. P.O. Box 2079	
P.O., State and ZIP Code Houston, TX 72252	
Postage	S
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	S
Postmark or Date Mailed: 09/25/87 Permit: AC 35-135881	

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.


- Show to whom, date and address of delivery.
- Restricted Delivery.

3. Article Addressed to: J.D. Folkerts  
Vice President Manufacturing  
Coca-Cola Foods  
Post Office Box 2079  
Houston, TX 72252

4. Type of Service:	Article Number
<input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail	P 274 007 685

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

5. Signature - Addressee  
X 

6. Signature - Agent  
X 

7. Date of Delivery: **OCT 01 1987**

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

DOMESTIC RETURN RECEIPT

file

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY

September 23, 1987

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James D. Folkerts  
Vice President Manufacturing  
Coca-Cola Foods  
Post Office Box 2079  
Houston, Texas 72252

Dear Mr. Folkerts:

Re: Air Construction Application No. AC 35-135881  
Letter of September 3, 1987

The Bureau of Air Quality Management (BAQM) has received the additional information for your air permit application submitted on June 24, 1987, to construct/install a new cogeneration system at your facility in Leesburg, Lake County, Florida.


We have reviewed your data and have determined that all the requested information was not provided, therefore, your application is still not complete. Based on our records, your operating permits show that your plant is a major facility for sulfur dioxide (SO<sub>2</sub>), particulate matter (PM), and nitrogen oxides (NO<sub>x</sub>).

Since your plant is major for these pollutants, any request to increase emissions above the significant emission rates, will subject your facility to a Prevention of Significant Deterioration review. Please refer to Rule 17-2.500, Florida Administrative Code.

Mr. James D. Folkerts  
Page Two  
September 23, 1987

We will resume processing your application after receipt of the requested information. Please call Teresa Heron at (904)488-1344 or write to me if you have any questions on this matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "C. H. Fancy".

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

CHF/TH/s

cc: Central Florida District  
John M. Cahil, P.E.



P.O. Box 247  
602 McKean St.  
Auburndale, FL 33823  
Tel. 813/967-6611

File Copy

September 3, 1987

DER

SEP 8 1987

BAQM

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

Attention: Mr. C. H. Fancy

RE: Air Construction Application No. AC 35-135881

Dear Mr. Fancy:

Your letter dated July 15, 1987 requested additional information regarding the proposed cogeneration unit in Leesburg.

- 1) Manufacturer's rated heat rate at Manufacturer's rated load (Kilojoules per watt hour) - 12.86.
- 2) The estimated emissions of pollutants are given in the attached tables.

Table L-5 - Turbine Generator exhaust  
Natural Gas Fuel

Table L-6 - Turbine Generator Exhaust  
Diesel No. 2 Fuel

Table L-7 - Turbine Generator - Natural gas fuel  
Duct Burner - Natural gas fuel

Table L-8 - Turbine Generator - Natural gas fuel  
Duct Burner - No. 6 Fuel oil

- 3) Best Available Control Technology (BACT)

TURBINE

The BACT is based upon the use of clean fuels - Natural Gas. The turbine is designed to operate on Diesel Fuel, but it is not expected to be utilized except in an emergency. Proper operation and maintenance will also ensure that emissions are minimized.

WASTE HEAT BOILER

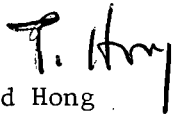
The Boiler will operate on a clean fuel - Natural Gas. No. 6 Fuel oil will only be used in an emergency. The Waste Heat Boiler is designed for a high operating efficiency, thereby minimizing fuel consumption and quantities of pollutants.

Page 2.  
Application No. AC 35-135881  
9/3/87

- 4) The Coca-Cola Foods facility is not a major emitting facility. An inventory of the present air emission sources is on file with the Department of Environmental Regulation and is updated annually.

We trust this information answers your questions and that you will proceed with processing of the permit.

Sincerely,



Ted Hong  
Environmental Engineer

TH/as

Copied: Jresa Neron

CHFIBT

Tom Sawicki - Central FL Dist

} 9/19/87

Table L-5

LEESBURG  
ESTIMATED EMISSIONSTurbine-Generator Exhaust  
Natural Gas Fuel

	<u>Average Hourly Rate</u>		<u>Estimated</u>
	<u>lb/hr</u>	<u>PPMV<sup>(2)</sup></u>	<u>Tons per Year</u>
O <sub>2</sub>	22,306		92,280
CO <sub>2</sub>	5,939		24,705
H <sub>2</sub> O	5,969		24,800
N <sub>2</sub>	100,179		416,745
Ar	1,700		7,072
CO	5.52	50	23.108
NO <sub>x</sub> <sup>(1)</sup>	27.30	150	113.329
Unburned HC	1.27	20	5.290
SO <sub>2</sub>	0.01	0.03	0.042
Particulates <sup>(3)</sup>	<u>NA</u>	<u>NA</u>	<u>NA</u>
	136,127.10		565,743.769

- 1) Expressed as equivalent NO<sub>2</sub> - at 15% O<sub>2</sub> dry when corrected to ISO conditions.
- 2) At 15% O<sub>2</sub> (dry).
- 3) Reference AP-42, Table 3.2-1
- 4) SO<sub>2</sub> Emission depends on sulfur content in fuel. The current estimate is based on the assumption of 100 percent conversion of fuel sulfur to SO<sub>2</sub>.

Table L-6

LEESBURG  
ESTIMATED EMISSIONSTurbine-Generator Exhaust  
Diesel No.2 Fuel

	<u>Average Hourly Rate</u>		<u>Estimated</u>
	<u>lb/hr</u>	<u>PPMV<sup>(2)</sup></u>	<u>Tons per Year<sup>(3)</sup></u>
O <sub>2</sub>	22,484		
CO <sub>2</sub>	7,809		
H <sub>2</sub> O	4,214		
N <sub>2</sub>	100,125		
Ar	1,700		
CO	5.63	50	-- NA --
NO <sub>x</sub> <sup>(1)</sup>	30.88	167	
Unburned HC	1.26	20	
SO <sub>2</sub>	12.19	47.32	
Particulates <sup>(4)</sup>	<u>NA</u>	NA	
	136,381.96		

1) Expressed as equivalent NO<sub>2</sub> - when corrected to ISO conditions.

2) PPMV Dry, reference 15% oxygen.

3) Diesel fuel to be used for emergencies only.

4) Reference AP-42, Table 3.2-1

5) SO<sub>2</sub> Emission depends on sulfur content in fuel. The current estimate is based on the assumption of 100 percent conversion of fuel sulfur to SO<sub>2</sub>.



Table L-7

LEESBURG  
ESTIMATED EMISSIONS<sup>(4)</sup>  
WASTE HEAT BOILER

Turbine-Generator-Natural Gas Fuel  
Duct Burner - Natural Gas Fuel

	<u>Design Hourly Rate</u>		<u>Estimated Tons per Year</u>
	<u>lb/hr</u>	<u>PPMV<sup>(1)</sup></u>	
O <sub>2</sub>	(16,854)		(7,666)
CO <sub>2</sub>	11,852		5,886
H <sub>2</sub> O	9,366		3,815
N <sub>2</sub>	247		64
Ar	Neg		Neg
CO	6.072	50	2.827
NO <sub>x</sub> <sup>(2)</sup>	10.119	150	4.712
Unburned HC	0.911	20	0.424
SO <sub>2</sub>	0.018	Neg	Neg
Particulates	NA	NA	NA

- 1) PPMV Dry, reference 15% oxygen
- 2) Expressed as NO<sub>2</sub> equivalent
- 3) Duct burner will normally operate at less than design.  
Will not be operated during summer months.
- 4) Pounds per hour and tons per year are incremental. PPMV refers to guarantee concentrations which include the turbine exhaust.
- 5) SO<sub>2</sub> Emission depends on sulfur content in fuel. The current estimate is based on the assumption of 100 percent conversion of fuel sulfur to SO<sub>2</sub>.

Table L-8

LEESBURG (4)  
ESTIMATED EMISSIONS  
WASTE HEAT BOILER

Turbine-Generator-Natural Gas Fuel  
Duct Burner - No. 6 Fuel Oil

	<u>Design Hourly Rate</u>		<u>Estimated</u>
	<u>lb/hr</u>	<u>PPMV<sup>(1)</sup></u>	<u>Tons per Year</u> (6)
O <sub>2</sub>	(12,273)		(1,897)
CO <sub>2</sub>	17,202		1,964
H <sub>2</sub> O	4,487		512
N <sub>2</sub>	14,417		1,648
Ar	Neg		Neg
CO	5.952	50	0.680
NO <sub>x</sub> <sup>(2)</sup>	9.921	150	1.133
Unburned HC	0.893	20	0.102
SO <sub>2</sub>	258.147	330.45	29.478
Particulates	5.643		0.305

- 1) PPMV Dry, reference 15% oxygen
- 2) Expressed as NO<sub>2</sub> equivalent
- 3) Duct burner will normally operate at less than design.  
Will not be operated during summer months.
- 4) Pounds per hour and tons per year are incremental. PPMV refers to guarantee concentrations which include the turbine exhaust.
- 5) SO<sub>2</sub> Emission depends on sulfur content in fuel. The current estimate is based on the assumption of 100 percent conversion of fuel sulfur to SO<sub>2</sub>.
- 6) Based on 20% of fuel usage being #6 F.O. - unlikely to occur as this plant is essentially always on natural gas.

file copy

9-3-87  
Auburndale, FL



P.O. Box 247  
602 McKean St.  
Auburndale, FL 33823  
Tel. 813/967-6611

DER  
SEP 8 1987  
BAQM

September 3, 1987

Bureau of Air Quality Management  
Dept. of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Attention: Mr. C. H. Fancy

RE: Permit Applications No. AC-53-135943, 135944 & AC-35-135881

Dear Mr. Fancy:

In view of your request for clarification of data submitted with the above noted construction permit applications, we have recalculated the data based on low heat value of fuel.


Also, the original submission utilized calculations by the equipment manufacturer (based on test data from their studies), by one of our consultants (emission data extrapolation) and myself (for general fuel usage). Apparently, we all used slightly different factors for fuel density, heat content, etc. with resulting small differences in our data.

This recalculation of the data by one party should put all the data on the same basis. Thus we are submitting page changes for the application including:

- a) Page 5 E. Fuels (for both Auburndale and Leesburg)
- b) Page 7G/Leesburg Process Flow Diagram, Drawing "A"
- c) Page 7I/Auburndale Process Flow Diagram, Drawing "A"

Hope we haven't confused you with these changes. If there are any questions, give me a call.

Sincerely,

  
Ted Hong  
Environmental Engineer

TH/as

Copied: Susan Nixon  
John Reynolds  
CHF/BT  
Tom Jahn - SW Dist Office  
Tom Saucier - Central FL Dist. Office  
Minute Maid/Five Alive/Hi-C/Maryland Club/Butter-Nut

} 919187 (mm)

AUBURNDALE

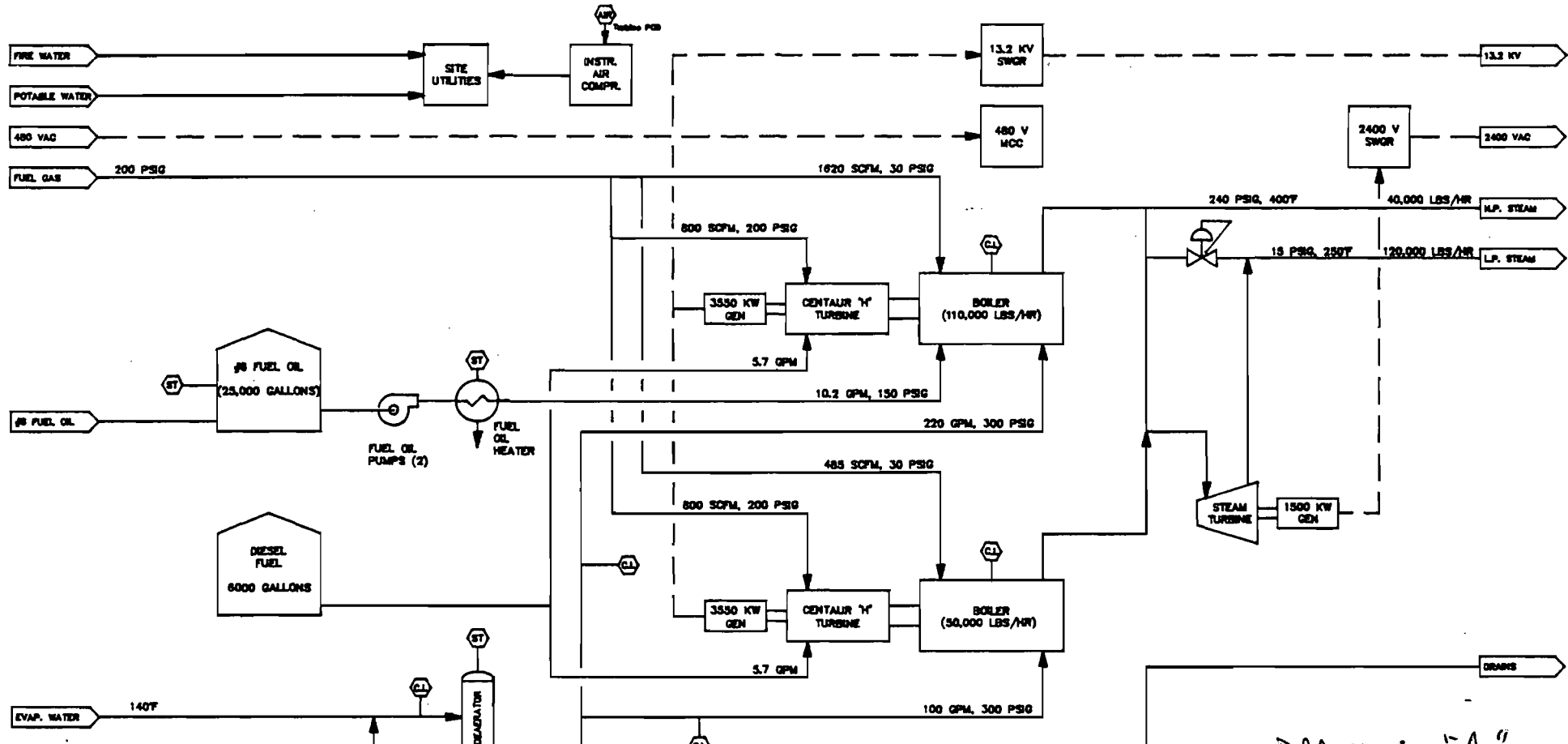
E. Fuels

<u>TYPE</u>	<u>Consumption</u>		<u>Maximum Heat Input (mmBtu/hr-LHV)</u>
	<u>Avg/hour</u>	<u>Max./hour</u>	
<u>Turbine</u>			
Natural Gas	0.048 mmcf	0.053 mmcf	49.95 <sup>(1)</sup>
#2 Fuel Oil (alternative fuel)	344 gallons	369 gallons	49.52 <sup>(1)</sup>
<u>Waste Heat Boiler</u>			
<u>Boiler #1</u>			
Natural Gas	Variable-depends on demand	0.097 mmcf	91.36
#6 Fuel Oil (alternative fuel)	Variable-depends on demand	613 gallons	93.59
<u>Boiler #2</u>			
Natural Gas (alternative fuel)	Variable-depends on demand	0.029 mmcf	27.32
Density	0.047 #/cf (7.08 #/gal) (8.21 #/gal)		
Typical percent nitrogen	(1.50) (0.02) (Neg)		
Heat Capacity	(20,610, 18,386, 17,547) Btu/lb (LHV) (938/scf, 130,200, 152,600) Btu/gal (LHV)		

Notes:

1) Design rate at 30°F ambient temperature.

PAGE 11



CL CHEMICAL INJECTION  
 ST STEAM

NO.	REVISION	DATE	BY
1	DELETED FUEL COMPRESSOR	7/31/87	LCS
0	FERC SUBMITTAL	6/30/87	LCS
C	ADDED CL, REV. FUEL GAS	3/4/87	LCS
B	REV. FUEL OIL AND WATER SOFT.	2/19/87	LCS
A	INITIAL DESIGN	1/23/87	LCS

APPROVED		DATE
PROJECT	F. BARNES	1/87
DESIGN	L. SKAUG	1/87
CHECK		
DRAFT		
C.A.O.		1/87
SOLAR PROJECT ITEM NO. PD-60312		
CUSTOMER IDENT. NO.		
CUSTOMER		
COCA COLA FOODS		
DRAWING TITLE		
BLOCK DIAGRAM COGENERATION SYSTEM		
AUBURNDALE PLANT		
SOLAR TURBINES INCORPORATED		
DRAWING NO.	SCALE	REV.
60312-1500-F-001	NONE	1

DRAWING "A"

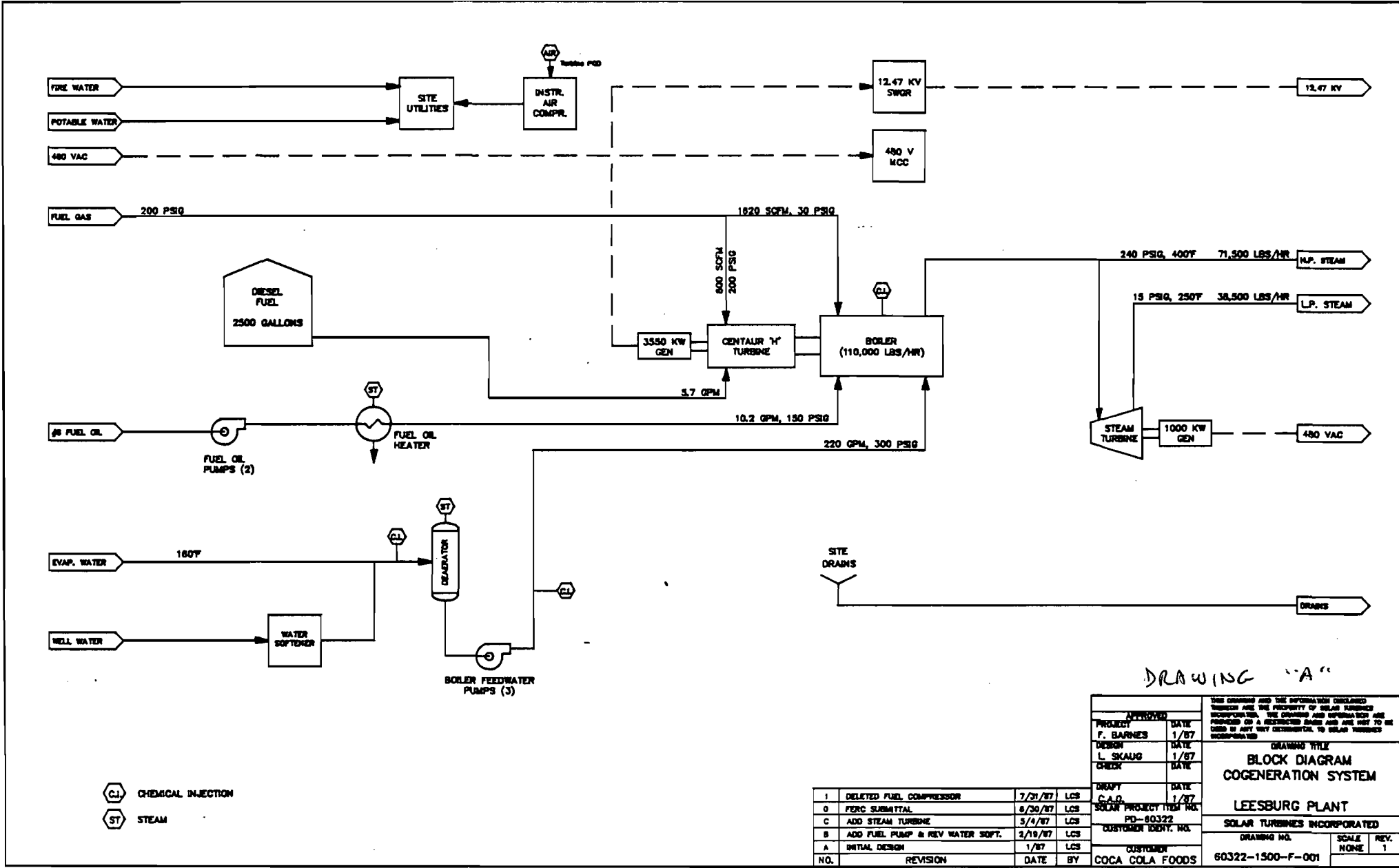
LEESBURG

E. Fuels

<u>TYPE</u>	<u>Consumption</u>		<u>Maximum Heat Input (mmBtu/hr-LHV)</u>
	<u>Avg/hour</u>	<u>Max./hour</u>	
Turbine			
Natural Gas	0.048 mmcf	0.053 mmcf	49.95 <sup>(1)</sup>
#2 Fuel Oil	344 gallons	369 gallons	49.52 <sup>(1)</sup>
Waste Heat Boiler			
Natural Gas	Variable-depends on demand	0.097 mmcf	91.36
#6 Fuel Oil	Variable-depends on demand	613 gallons	93.59

Manufacturer's rated heat rate at manufacturer's rated load (Kilo joules per watt hour) - 12.86.

PAGE 74



DRAWING "A"

P. 408 531 207

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to James D. Folkerts Coca-Cola Foods	
Street and No. Post Office Box 2079	
P.O., State and ZIP Code Houston, TX 72252	
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	
<b>TOTAL Postage and Fees</b>	<b>\$</b>

Postmark or Date  
Mailed: 07/15/87  
AC 35-135881

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.

- Show to whom, date and address of delivery.
- Restricted Delivery.

3. Article Addressed to: James D. Folkerts  
Vice President Manufacturing  
Coca-Cola Foods  
Post Office Box 2079  
Houston, Texas 72252

4. Type of Service:	Article Number
<input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail	P. 408 531 207

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee  
X
6. Signature — Agent  
X *[Signature]*
7. Date of Delivery  
JUL 20 1987
8. Addressee's Address (ONLY if requested and fee paid)

DOMESTIC RETURN RECEIPT



Ju

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY

July 15, 1987

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James D. Folkerts  
Vice President Manufacturing  
Coca-Cola Foods  
Post Office Box 2079  
Houston, Texas 72252

Dear Mr. Folkerts:

Re: Air Construction Application No. AC 35-135881

The Bureau of Air Quality Management has received your application for permit to construct/install a new cogeneration system at your facility in Leesburg, Lake County, Florida. We have reviewed your data and have determined your application is not complete.

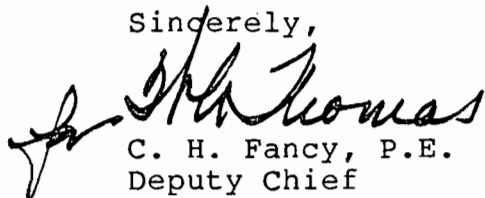
Based on the information submitted with your application, the proposed source, a gas turbine, is subject to 40 CFR 60, Subpart GG, New Source Performance Standards for Stationary gas turbine. Therefore, you need to submit the following information:

- o Manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. Please refer to 40 CFR 60, Subpart GG.
- o Estimate the emissions of all criteria pollutants from the turbine and the waste heat boiler in lb/hr, ppm and tons per year. Separate proposed emissions for each unit and for each fuel used (natural gas and No. 2 fuel oil).
- o Complete Section VI. Best Available Control Technology for each unit (turbine and boiler).
- o Is your facility, Coca Cola Food, a major emitting facility? If so, for what pollutant? Please submit an inventory of your air emission sources. Specify actual, allowable (permitted) and potential emissions for each source at the facility.

Mr. James D. Folkerts  
Page Two  
July 15, 1987

We will resume reviewing your application after receipt of the requested information. Please call Bill Thomas at (904)488-1344 or write to me if you have any questions on this matter.

Sincerely,

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

CHF/TH/s

cc: Central Fla. Dist.  
John M. Cahill, P.E.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

**Nº 112233**

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Aptco Date June 19, 1987

Address P.O. Box 2486, Jacksonville 32203 Dollars \$ 1000.00

Applicant Name & Address \_\_\_\_\_

Source of Revenue Coca-Cola Foods

Revenue Code 001031 CK 341 Application Number AC 35-135881

By K. Lullach

DER

JUN 24 1987

BAQM

APPLICATION TRACKING SYSTEM

06/19/87

APPL NO:135881

APPL RECVD:06/19/87 TYPE CODE:AC SUBCODE:01

LAST UPDATE:06/19/87

DER OFFICE RECVD:ORL DER OFFICE TRANSFER TO:BAQ APPLICATION COMPLETE:--/--/--

DER PROCESSOR:TURNER B. Thomas

APPL STATUS:AC DATE:06/19/87 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)

RELIEF:-- (SSAC/EXEMPTIONS/VARIANCE)

(Y/N) N MANUAL TRACKING DISTRICT:30 COUNTY:35
(Y/N) N DNR REVIEW REQD? LAT/LONG:28.49.54/81.49.40
(Y/N) N PUBLIC NOTICE REQD? BASIN-SEGMENT:--\*--
(Y/N) N GOV BODY LOCAL APPROVAL REQD? COE #:-----
(Y/N) Y LETTER OF INTENT REQD? (I/ISSUE D/DENY) ALT#:-----

PROJECT SOURCE NAME:COCA-COLA FOODS/TURBINE-STEAM GEN.

STREET:CLOUD STREET & US 441 CITY:LEESBURG
STATE:FL ZIP:----- PHONE:-----

APPLICATION NAME:FOKLERTS, JAMES D. CITY:HOUSTON
STREET:POST OFFICE BOX 2079 PHONE:713-888-5650
STATE:TX ZIP:77252

AGENT NAME:JOHN M. CAHILL CITY:MOUNT DORA
STREET:604 N. GRANDVIEW STREET PHONE:904-383-2214
STATE:FL ZIP:32754

FEE #1 DATE PAID:06/19/87 AMOUNT PAID:01000 RECEIPT NUMBER:00112233

B DATE APPLICANT INFORMED OF NEED FOR PUBLIC NOTICE -- -- -- / / /
C DATE DER SENT DNR APPLICATION/SENT DNR INTENT - - - - - / / /
D DATE DER REQ. COMMENTS FROM GOV. BODY FOR LOCAL APP. -- -- -- / / /
E DATE #1 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / /
E DATE #2 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / /
E DATE #3 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / /
E DATE #4 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / /
E DATE #5 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / /
E DATE #6 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / /
F DATE GOVERNING BODY REQUESTED SURVEY RESULTS/REPORTS - - - - - / / /
G DATE FIELD REPORT WAS REQ--REC - - - - - / / /
H DATE DNR REVIEW WAS COMPLETED - - - - - / / /
I DATE APPLICATION WAS COMPLETE - - - - - / / /
J DATE GOVERNING BODY PROVIDED COMMENTS OR OBJECTIONS - - - - - / / /
K DATE NOTICE OF INTENT WAS SENT--REC TO APPLICANT - - - - - / / /
L DATE PUBLIC NOTICE WAS SENT TO APPLICANT - - - - - / / /
M DATE PROOF OF PUBLICATION OF PUBLIC NOTICE RECEIVED - - - - - / / /
N WAIVER DATE BEGIN--END (DAY 90) - - - - - / / /

COMMENTS:



P.O. Box 247  
602 McKean St.  
Auburndale, FL 33823  
Tel. 813/967-6611

June 17, 1987

Dept. of Environmental Regulation  
St. John's River District  
3319 Maguire Blvd., Suite 232  
Orlando, Florida 32803



Attention: Mr. Ralph Maloy

Dear Mr. Maloy:

Enclosed, find five (5) copies of application to construct an air pollution source - in this case a cogeneration facility consisting of a turbine electric generator and waste heat boiler combination.

The intent of this project is to install and test this new combination as a replacement for the existing boilers which would be kept as standby units for a few years until we were confident about the capability of the new units. Then the existing units would be removed.

We are hopeful that the proposed system will be beneficial in reducing the air pollution level from existing conditions. The new system will have the turbine operating on natural gas (with #2 oil as standby). The heat from the generator would be used to generate steam in a waste heat type boiler with capabilities of duct firing to increase the steam capability. This duct firing would be either natural gas or #6 fuel oil as standby. Our consultants and the manufacturers claim that the new system is more efficient (91.25% versus approx. 70% for existing boilers) plus more of the operation would be conducted using higher grade fuel (#2 f.o. vs. #6 f.o. when turbines not on natural gas).

A check for \$1,000 is attached to cover the processing fee for the permit. A letter of authorization should be in Department files authorizing Mr. Folkerts to sign pollution correspondence for Coca-Cola Foods.

If there are any questions regarding the application of the project, please do not hesitate to contact me. We would appreciate expeditious review of this application if possible.

Sincerely,

Ted Hong  
Environmental Engineer

TH/as

enclosures

Minute Maid/Five Alive/Hi-C/Maryland Club/Butter-Nut

Trademarks

DEPARTMENT OF ENVIRONMENTAL REGULATION

**ROUTING AND TRANSMITTAL SLIP**

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)

*Bill Thomas*

Initial

Date

2.

*Bureau of Air Quality Management*

Initial

Date

3.

Initial

Date

4.

Initial

Date

REMARKS:

**DER**  
**JUN 24 1987**  
**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:

*John Turner*

DATE

*6/23/87*

PHONE

*SC 325-1403*

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
Best Available Copy

AC 35-135881

#1000.00

ST. JOHNS RIVER DISTRICT  
3319 MAGUIRE BOULEVARD  
SUITE 212  
ORLANDO, FLORIDA 32803 3767

PAI  
JUN 19 1987



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

A. ALEXANDER  
DISTRICT MANAGER  
DER

CENTRAL FLORIDA DISTRICT  
APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Turbine Generator/Steam Generator  New<sup>1</sup> [ ] Existing<sup>1</sup> JUN 24 1987

APPLICATION TYPE:  Construction [ ] Operation [ ] Modification

COMPANY NAME: Coca-Cola Foods COUNTY: Lake JAQM

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) turbine exhaust/boiler exhaust

SOURCE LOCATION: Street Cloud Street and US 441 City Leesburg

UTM: East 17 4 15500 North 31 87300

Latitude 28° 49' 54" N Longitude 81° 49' 40" W

APPLICANT NAME AND TITLE: James D. Folkerts Vice President Manufacturing

APPLICANT ADDRESS: P.O. Box 2079 Houston, TX 77252

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the ~~unassigned owner~~ or authorized representative\* of Coca-Cola Foods

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

\*Attach letter of authorization

Signed: James Folkerts

J. D. Folkerts VP Manufacturing  
Name and Title (Please Type)

Date: \_\_\_\_\_ Telephone No. 713-888-5650

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

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

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

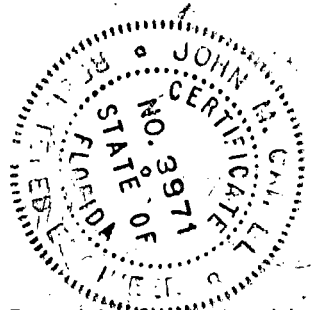
the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the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

Signed *John M. Cahill*  
John M. Cahill  
Name (Please Type)

Consultant  
Company Name (Please Type)

604 N. Grandview Street Mt. Dora, FL 32754  
Mailing Address (Please Type)

Florida Registration No. 3971 Date: 6/3/87 Telephone No. 904-383-2214



**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.

Project is to replace existing boilers with new units of higher efficiency fed from waste heat from turbine generators. Duct firing will be used as needed to generate additional heat for generation of steam capacity in excess of that available from the waste heat. Existing steam generators will be deactivated to emergency standby status upon completion of construction and testing of the new units. More details on page 2A.

B. Schedule of project covered in this application (Construction Permit Application Only)  
Start of Construction for June 1987 Completion of Construction for Dec. 1987

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.)

New units have no special pollution control devices and relies on higher efficiency to reduce pollution. Turbines will be operated on natural gas (diesel fuel as standby) and steam generators will be operated on natural gas (#6 f.o. as standby) for duct firing as needed when quantity of waste heat is insufficient to generate required steam supply.

Overall cost of project for installation is approximately \$3.76 million.

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

None for new units. Existing steam generators have Operating Permit AO-35-99125 issued on March 4, 1985 and expiring on March 4, 1990.



SECTION II:

A. This project consists of a cogeneration unit designed to furnish electrical power and steam for the Coca Cola plant at Leesburg, Florida. Major equipment includes:

- 1) One natural-gas fired Solar Centaur "H" turbine-generator.
- 2) One ERI waste heat boiler to produce 23,000 lb/hr of 240 psig saturated steam utilizing the heat from the turbine exhaust. The steam production can be increased to 110,000 lb/hr by the use of a Coen duct burner.
- 3) Miscellaneous supporting equipment such as boiler feed pumps, boiler feed water treating, etc.

Pollution control will be enhanced by essentially complete combustion of the fuel in the turbines and duct burner for an overall operating efficiency of 91.25%. The present boilers with an efficiency of approximately 70% will be placed in standby and used only for emergencies.

This project will be in full compliance with the Department of Environmental Regulation requirements.

E. Requested permitted equipment operating time: hrs/day 24; days/wk 7; wks/yr 52 ;  
if power plant, hrs/yr \_\_\_\_\_; if seasonal, describe: turbine generators to operate fulltime;  
steam generators to operate as needed to meet steam loads; duct burners to operate only  
during fruit season (essentially December through June) when steam load is high.

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

1. Is this source in a non-attainment area for a particular pollutant? no  
a. If yes, has "offset" been applied? \_\_\_\_\_  
b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_  
c. If yes, list non-attainment pollutants. \_\_\_\_\_

2. Does best available control technology (BACT) apply to this source?  
If yes, see Section VI. yes

3. Does the State "Prevention of Significant Deterioration" (PSD)  
requirement apply to this source? If yes, see Sections VI and VII. no

4. Do "Standards of Performance for New Stationary Sources" (NSPS)  
apply to this source? no

5. Do "National Emission Standards for Hazardous Air Pollutants"  
(NESHAP) apply to this source? no

H. Do "Reasonably Available Control Technology" (RACT) requirements apply  
to this source? no

a. If yes, for what pollutants? \_\_\_\_\_

b. If yes, in addition to the information required in this form,  
any information requested in Rule 17-2.650 must be submitted.

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

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Not pertinent for steam or electric generators. Only materials involved are				
fuel and water.				

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

1. Total Process Input Rate (lbs/hr): not applicable

2. Product Weight (lbs/hr): not applicable

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

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission Rate per Rule 17-2	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
particulates	VE test to be conducted		per BACT		see Section V		N/A
	see Section V						
	see Section V (pages 7B-7F)				for calculations on other contaminants		

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

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

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

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

Not applicable - merely electric and steam generation

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)
Not pertinent - units involved are electric and steam generators				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
TURBINE natural gas	.045 mmcf	.045 mmcf	45.21 mmbtu/hr (each)
#2 fuel oil (alternate fuel)	333 gallons	333 gallons	45.21 mmbtu/hr (each)
BOILER natural gas	variable - depends on demand	.101 mmcf	101.19 mmbtu/hr
#6 fuel oil (alternate fuel)	variable - depends on demand	199 gallons	101.19 mmbtu/hr

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

Fuel Analysis: NG (#2) ((#6))

Percent Sulfur: 0 (1.0 max)((2.4)) Percent Ash: zero (negligible) ((0.1 max))

Density: .047#/cf (6.83#/gal) ((8.33 lbs/gal)) Typical Percent Nitrogen: 5.15 (.02) ((neg.))

Heat Capacity: 1000/cf (19910) ((18,000)) BTU/lb 1000/cf (136,000) ((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 est. 0.8% Maximum est. 1%

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

No solid wastes generated except particulates discharged from stack. Liquid wastes are boiler blowdown waters which are disposed of in the wastewater treatment system (spray irrigation).

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

Stack Height: 40 ft. Stack Diameter: 4 ft.

Gas Flow Rate: 45400-54450 ACFM depending on operation DSCFM Gas Exit Temperature: 323\* 300\*\* 360\*\*\* °F.

Water Vapor Content: 4.38\* 10.08\*\* 6.52\*\*\* % Velocity: 60\* 61\*\* 72\*\*\* FPS

\* turbine exhaust only \*\* turbine & boiler -NG duct fuel \*\*\*turbine & boiler - #6FO duct fuel

**SECTION IV: INCINERATOR INFORMATION**

NOT APPLICABLE

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

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

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

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

Manufacturer \_\_\_\_\_

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

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

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

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

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

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



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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
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.

## SUPPLEMENTAL REQUIREMENTS

1. Total Process Input Rate - not applicable as project is for turbine generator and waste heat steam generator (cogeneration) system. The only inputs are water and fuel, only products are electricity and steam.
2. Only pollutants are combustion byproducts. VE test will be conducted on steam generator stack and results submitted to DER. Attached are data sheets provided by consultants relating to anticipated emissions.
3. Attached are data sheets from consultants relating to potential discharges from the turbine and/or boiler utilizing various duct firing fuels (natural gas or #6 f.o.). Pages 7B-7F
4. Control Devices - not applicable for steam generators.
5. Derivation of Control Device Efficiency - not applicable.
6. Process Flow Sheet - not really applicable to this application as system involved is simple turbine generator coupled with waste heat steam generator with fuel and water as raw materials and steam and electricity as products. A large portion of the steam generated is returned to the system as condensate for reuse. Boiler blowdown is sent to wastewater treatment plant for disposal and pollutants discharged through stack will be measured via VE test. Drawing "A" (Block Diagram Cogeneration System) is attached. Page 7G
7. Plot Plan - attached as Drawing "B". Page 7H
8. Site Plan - attached as Drawing "C". Page 7I
9. Processing fee - check attached.
10. Not applicable at this time.

## SECTION V: SUPPLEMENTAL REQUIREMENTS

The emissions data from the turbine and waste heat boiler have been provided by the manufacturers of this equipment. The turbines are designed to fire either natural gas or No. 2 fuel oil; however, the No. 2 fuel oil will be only used in an emergency. The duct burners are designed to burn natural gas and/or #6 fuel oil. Natural gas will be the primary fuel with the #6 fuel oil expected to be utilized for less than 20% of the total duct burner fuel.

The attached tables give the hourly emission rates and the estimated annual emissions:

Table L-1	-	Single Turbine Exhaust - Natural Gas Fuel - No Duct Firing
Table L-2	-	Waste Heat Boiler Exhaust - 110,000 lb/hr Steam Production - Natural Gas Fuel
Table L-3	-	Waste Heat Boiler Exhaust - 110,000 lb/hr Steam Production - Turbine Fuel: Natural Gas - Duct Burner Fuel: #6 Fuel Oil
Table L-4	-	Total Emissions - Estimated Maximum lb/hr Annual - Ton/yr



TABLE L-1  
 Turbine Exhaust - Natural Gas Fuel  
 No Duct Firing

<u>Turbine Exhaust Gas Composition</u>	<u>Full Load - Nominal Conditions lbs/hr</u>
Oxygen	22,306
Carbon Dioxide	5,939
Water Vapor	5,969
Nitrogen	100,179
Argon	1,700
Carbon Monoxide	0.62
Nitrogen Oxides	27.30
Unburnt Hydrocarbons	0.29
Sulfur Dioxide	0.01
Particulates	--
Total	<u>136,121.22</u>

TABLE L-2

Waste Heat Boiler Exhaust  
 110,000 lb/hr Steam Production  
 Natural Gas Fuel  
 Boiler #1

<u>Waste Heat Boiler Exhaust Composition</u>	<u>110,000 lb/hr Steam Production lbs/hr</u>
Oxygen	5,907
Carbon Dioxide	18,610
Water Vapor	14,180
Nitrogen	100,179
Argon	1,700
Carbon Monoxide	6.705
Nitrogen Oxides	37.441
Unburnt Hydrocarbons	1.203
Sulfur Dioxide	0.01
Particulates	--
Total	<u>140,621.359</u>

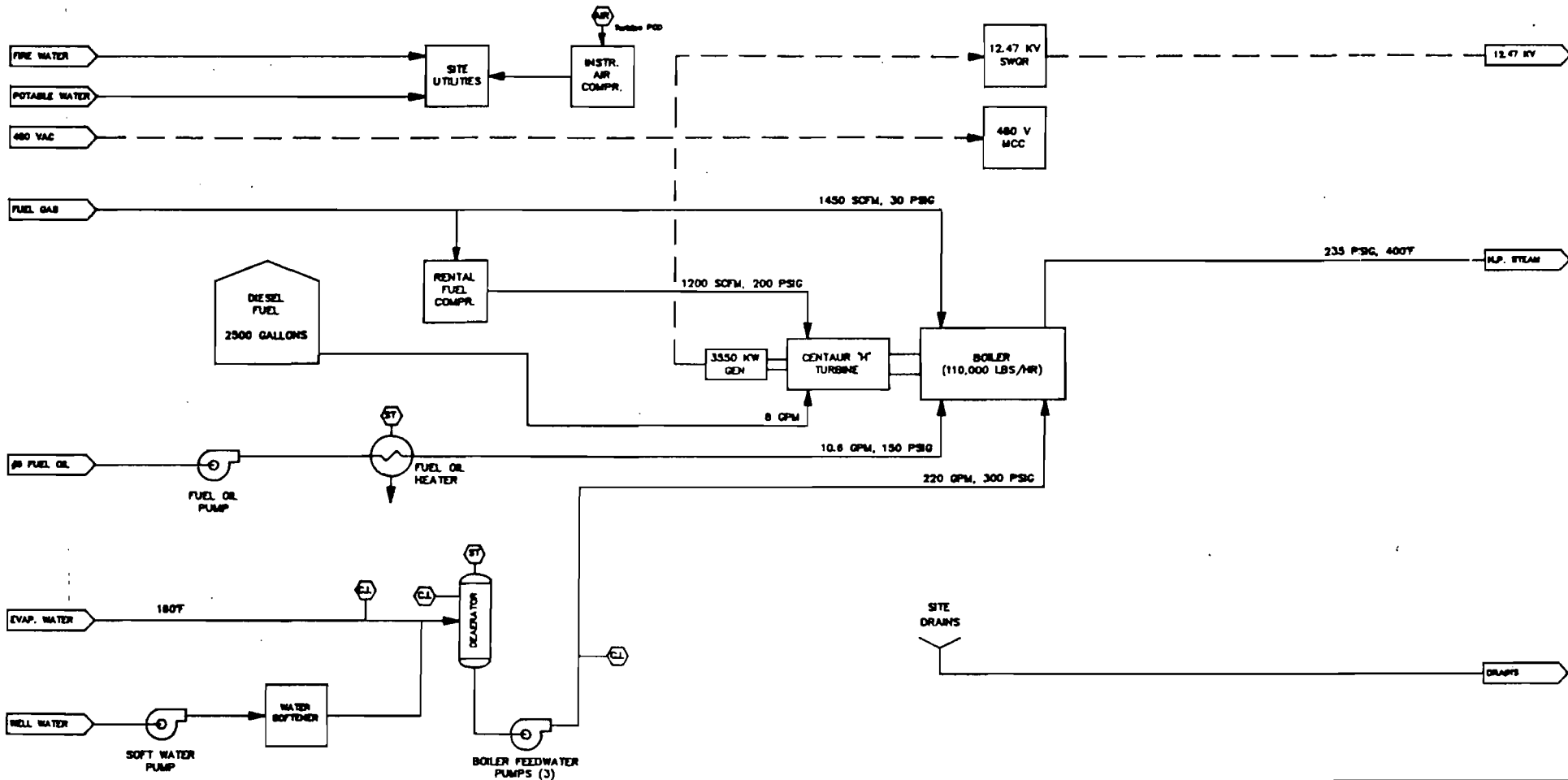
TABLE L-3

Waste Heat Boiler Exhaust  
 110,000 lb/hr Steam Production  
 Turbine Fuel - Natural Gas  
 Duct Burner Fuel - #6 Fuel Oil  
 Boiler #1

<u>Waste Heat Boiler Exhaust Composition</u>	<u>110,000 lb/hr Steam Production lbs/hr</u>
Oxygen	10,049
Carbon Dioxide	23,124
Water Vapor	10,452
Nitrogen	114,596
Argon	1,700
Carbon Monoxide	6.567
Nitrogen Oxides	37.21
Unburnt Hydrocarbons	1.182
Sulfur Dioxide	257.899
Particulates	<u>2.664</u>
Total	160,225.859

TABLE L-4  
 Leesburg  
 Estimated Emissions  
 Tons per Year

	<u>Turbine</u>	<u>Natural Gas Duct Firing</u>	<u>Air</u>	<u>Oil Duct Firing</u>	<u>Total</u>
O <sub>2</sub>	92,280	( 7,666)	518	( 1,897)	83,235
CO <sub>2</sub>	24,705	5,886	-0-	1,964	32,555
H <sub>2</sub> O	24,800	3,815	-0-	512	29,127
N <sub>2</sub>	416,745	-0-	1,712	-0-	418,457
Ar	7,072	-0-	-0-	-0-	7,072
CO	2.579	2.827	-0-	0.680	6.086
NO <sub>x</sub>	113.329	4.712	-0-	1.133	119.174
Unburned HC	1.206	0.424	-0-	0.102	1.732
SO <sub>2</sub>	0.042	-0-	-0-	29.478	29.520
Particulates	-0-	-0-	-0-	0.305	0.305



(C.I.) CHEMICAL INJECTION  
 (ST) STEAM

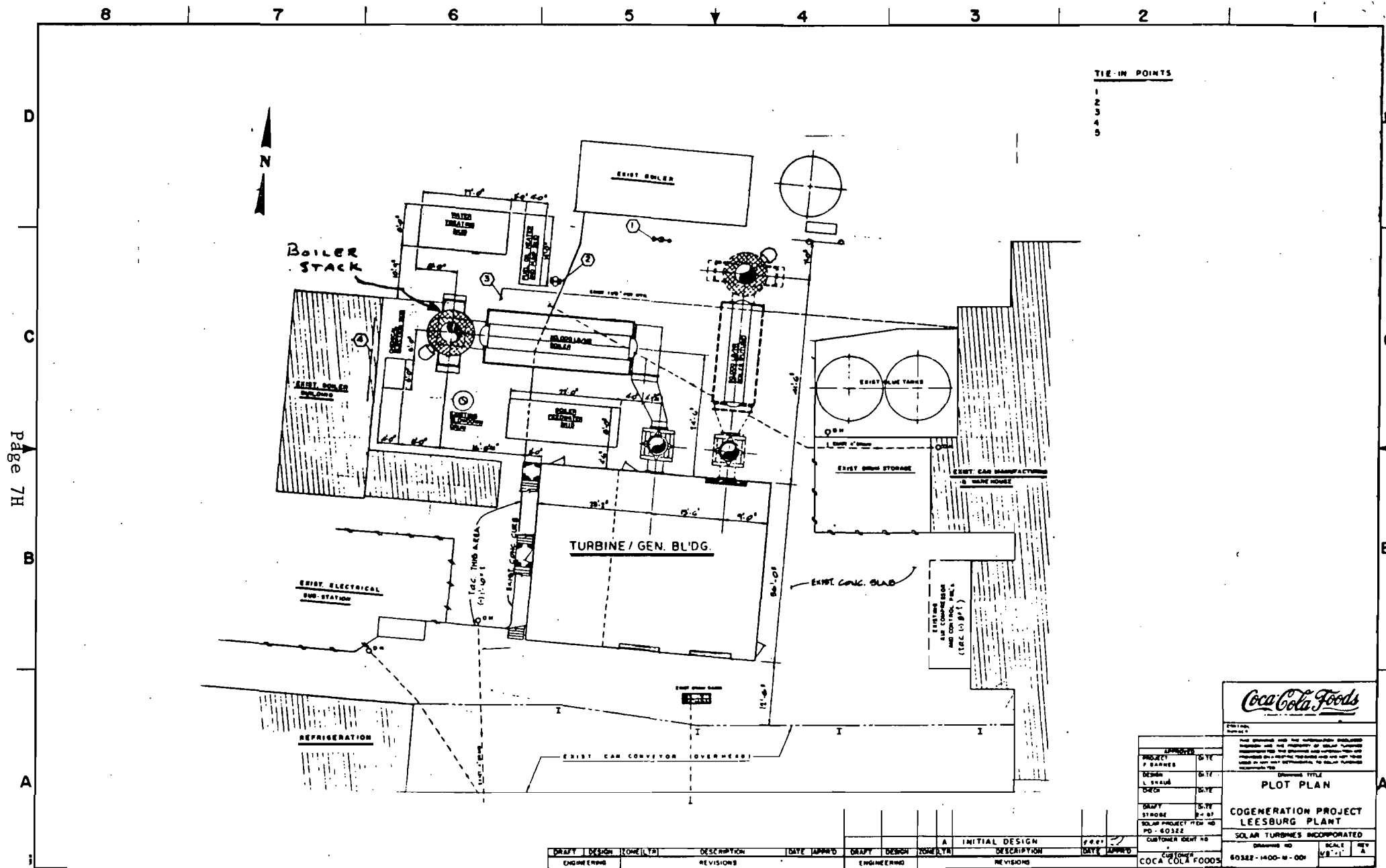
NO.	REVISION	DATE	BY
B	ADD FUEL PUMP & REV WATER SOFT.	2/19/87	LCS
A	INITIAL DESIGN	1/87	LCS

APPROVED		DATE
PROJECT	F. BARNES	1/87
DESIGN	L. SKALUG	1/87
CHECK		
DRAWN	C.A.D.	1/87
SOLAR PROJECT ITEM NO.		PD-80322
CUSTOMER IDENT. NO.		
CUSTOMER		COCA COLA FOODS

DRAWING NO.		60322-1500-F-001
SCALE	NONE	
REV.	B	

DRAWING "A"



Page 7H

*Coca-Cola Foods*

PROJECT		DATE	
DESIGN	D.T.		
CONSTR.	D.T.		
OPER.	D.T.		
START	D.T.		
STOP	D.T.		
SOLAR PROJECT # 123-456			
PROJECT # 123-456			
CUSTOMER DEPT. NO.			
COCA-COLA FOODS			

Drawn TITLE  
**PLOT PLAN**

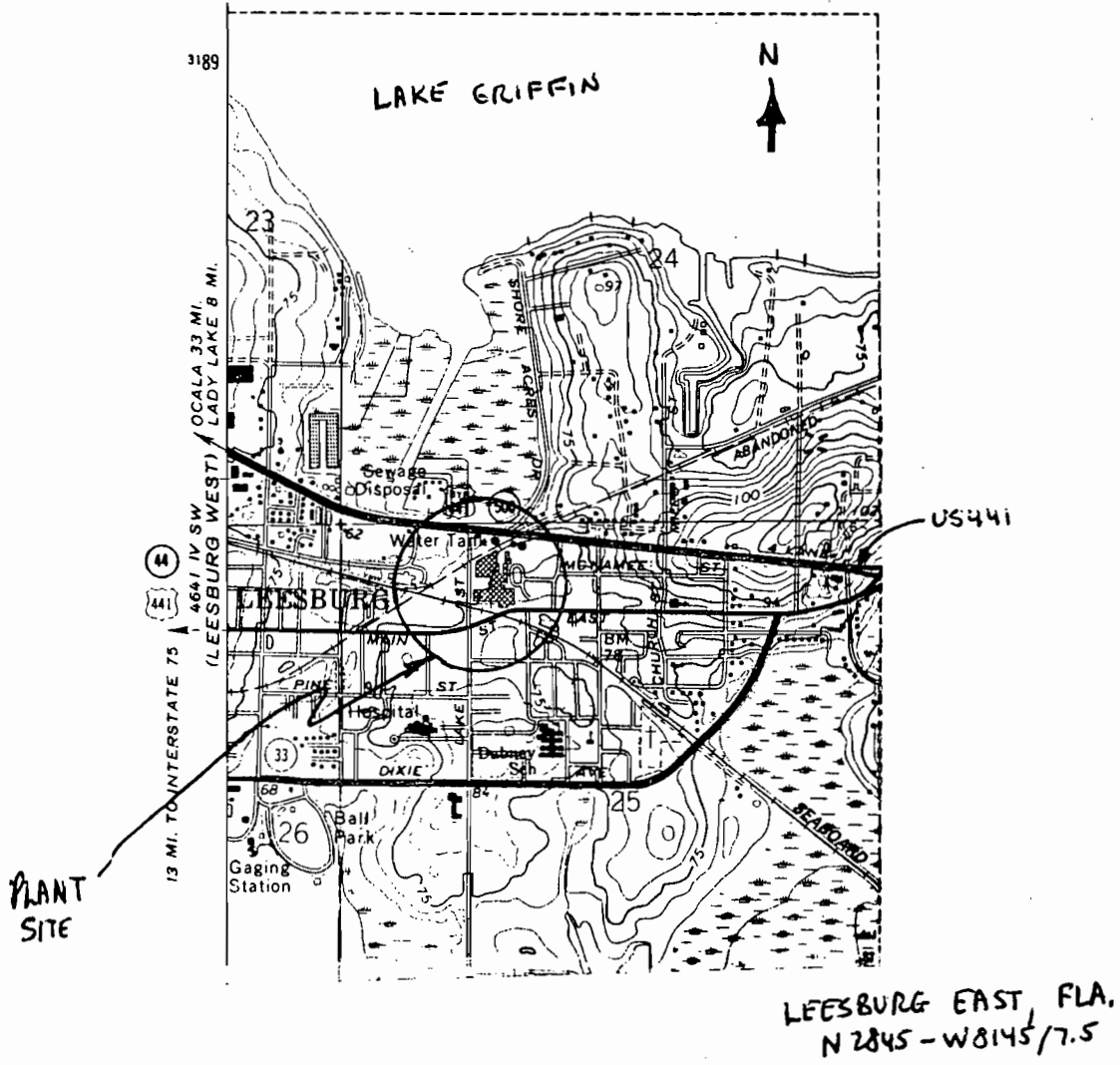
COGENERATION PROJECT  
**LEESBURG PLANT**

SOLAR TURBINES INCORPORATED

Drawn NO.  
60522-1400-N-001

SCALE  
1/8" = 1' A

DRAWING "B"



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 Unit will replace existing unit

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
No change in emission levels proposed - new units are more efficient than existing units and should produce equal or less pollutants. Standby fuel for turbine generator is #2 f.o. which is very low in sulfur. Standby fuel for boiler (duct firing) is #6 f.o. (same as existing units), but would be used for only part of the required fuel - majority would be NG or #2 f.o.	

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

1. Control Device/System: NONE
2. Operating Principles:
3. Efficiency:\*
4. Capital Costs:

\*Explain method of determining



NOT APPLICABLE

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Costs:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft.
- b. Diameter: ft.
- c. Flow Rate: ACFM
- d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1. Use of low sulfur fuels

- a. Control Device: fuel
- b. Operating Principles: less sulfur in fuel results in less sulfur discharged
- c. Efficiency:<sup>1</sup>
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2. Use of higher efficiency burners

- a. Control Device: efficient burners
- b. Operating Principles: better combustion will reduce quantity of unburned components
- c. Efficiency:<sup>1</sup> 91.25% vs. existing 70%
- d. Capital Cost:
- e. Useful Life: (est. by consultants)
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

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

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

NOT APPLICABLE

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

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

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

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

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

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

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

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

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device: fuel (#2 backup) and new high efficiency burners

3. Capital Cost:

Complete system - \$3.76 million

5. Operating Cost:  
unknown at this time

7. Maintenance Cost:  
unknown at this time

9. Other locations where employed on similar processes: Auburndale plant will also have similar system installed. Not aware of any local firms with this type system.

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

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

(5) Environmental Managers:

(6) Telephone No.:

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

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

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

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

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

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

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

10. Reason for selection and description of systems: System compatible with our needs.

Description of system contained in Section II

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

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data NOT APPLICABLE

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

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

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

Attach all data or statistical summaries to this application.

\*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. \_\_\_\_ Year(s) of data from \_\_\_\_ / \_\_\_\_ / \_\_\_\_ to \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
month day year month day year

2. Surface data obtained from (location) \_\_\_\_\_

3. Upper air (mixing height) data obtained from (location) \_\_\_\_\_

4. Stability wind rose (STAR) data obtained from (location) \_\_\_\_\_

C. Computer Models Used

1. \_\_\_\_\_ Modified? If yes, attach description.

2. \_\_\_\_\_ Modified? If yes, attach description.

3. \_\_\_\_\_ Modified? If yes, attach description.

4. \_\_\_\_\_ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO <sup>2</sup>	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.