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

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

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

3. Article Addressed to:

Mr. Antonio A. Aguto, Plant Mgr.
General Foods Manufacturing Corp.
Maxwell House Division
Post Office Box 2010
Jacksonville, FL 32203

4. Article Number

P 274 007 465

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

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee

X

6. Signature — Agent

X M. Grimm, Sec.

7. Date of Delivery

10/6/88

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

PS Form **3811**, Mar. 1987 ★ U.S.G.P.O. 1987-178-268 **DOMESTIC RETURN RECEIPT**

P 274 007 465

RECEIPT FOR CERTIFIED MAIL

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

Sent to Mr. Antonio A. Aguto, Maxwell	
Street and No. P.O. Box 2010 House Div.	
P.O., State and ZIP Code Jacksonville, FL 32203	
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: 10-3-88 Pemrit: AC 16-121136	

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

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

September 23, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Antonio A. Aguto, Plant Manager
General Foods Manufacturing Corporation
Maxwell House Division
Post Office Box 2010
Jacksonville, Florida 32203

Dear Mr. Aguto:

Re: Construction Permit No. AC 16-121136 Amendment

The Department is in receipt of Mr. George L. Whitmer's August 29, 1988, letter requesting the permit to construct a continuous coffee roasting process be amended to allow the installation of two additional product bunkers and cyclones. Only one of the five product bunkers will be in service at any given time. This request is acceptable and the process description on the first page of Permit No. AC 16-121136 is amended to read as follows:

For the construction of a 5 TPH (green bean) continuous roaster at Maxwell House's existing coffee processing plant located at 735 East Bay Street, Jacksonville, Duval County, Florida. The UTM coordinates of this site are Zone 17, 437.5 Km East and 3354.7 Km North.

Major components of the coffee roaster are: a green bean feed system consisting of a cyclone, two surge bins, scale, and baghouse; a natural gas fired continuous roaster, three cyclones, a venturi scrubber, and an afterburner; a stoner system that includes two cyclones, two surge bins, a scale, and two baghouses; a product storage system consisting of four cyclones, one baghouse, and five bunkers; three cyclones connected to the existing BAR system; a pelletizer cyclone, hopper, feed cleaner, and pelletizer; and a baghouse controlling the emissions from the pelletizer cyclone and six BAR cyclones in the regular coffee roasting process.

Attachment to be Incorporated:

9. Environmental Science and Engineering, Inc. letter dated August 29, 1988.

A copy of this letter must be attached to the referenced construction permit and shall become a part of the permit.

Sincerely,

Dale Twachtmann
Secretary

DT/mch

Attachment

cc: W. Stewart
K. Mehta
L. Stebbins

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

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

TO: Dale Twachtmann

FROM: Steve Smallwood for

DATE: September 23, 1988

SUBJ: Modification of Permit Conditions

Attached for your approval and signature is a letter that will amend the construction permit issued to Maxwell House for a continuous coffee roasting process. The amendment will authorize the installation of two product bunkers with cyclones. The new bunkers will not increase emissions from this facility.

The request is not controversial. The Bureau recommends it be approved.

CHF/WH/mch

Attachment

ESE
AN R&H COMPANY
ENVIRONMENTAL SCIENCE
AND ENGINEERING, INC.

September 19, 1988
88014-0000

RECEIVED
SEP 20 1988
DER-BAQM

Mr. Steve Smallwood, Acting Division Director
Division of Air Resources Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: Letter of Authorization
Maxwell House Coffee Company
Jacksonville, Florida

Dear Mr. Smallwood:

Enclosed please find a letter authorizing Mr. Jim Reese, new Plant Manager, to sign as the authorized representative of Maxwell House for all air permit applications and reports. The Letter of Authorization dated March 20, 1987, presently in your files, can now be removed and destroyed as Mr. Tony Aguto is no longer Plant Manager. A copy of this letter will be attached to all air permit applications prepared on behalf of Maxwell House as required in Section I, Part A, of DER Form 17-1.202(1), Application to Operate/Construct Air Pollution Sources.

Please feel free to call me should you have any questions.

Very truly yours,

George L. Whitmer

George L. Whitmer
Environmental Compliance Manager
Industrial Environmental Division

GLW/cdb

cc: Barbara Boniello - Maxwell House

GENERAL FOODS WORLDWIDE
COFFEE & INTERNATIONAL

Charles A. Adamo Vice President/Group Executive-Operations

September 1, 1988

Mr. Steven Smallwood, Bureau Chief
Bureau of Air Quality Management
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

Subject: Letter of Authorization
Maxwell House Coffee Company

Dear Mr. Smallwood:

This is to advise your office that Jim Reese, Plant Manager, Maxwell House Coffee Company, Jacksonville, Florida, is designated to sign as authorized representative for air permit applications and reports for the Jacksonville facility.

Very truly yours,

Charles A. Adamo

General Foods Worldwide
Coffee & International
800 Westchester Avenue, Rye Brook, New York
Mailing Address: 250 North Street, White Plains, New York 10625

PM
8-30-88
Jacksonville, FL

file copy

ESE. AN RSH COMPANY

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

August 29, 1988
88014-0000

RECEIVED

AUG 31 1988

DER - BAQM

C.H. Fancy, P.E., Deputy Chief
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8341

Subject: Revision to Construction Permit
Continuous Roaster Process (Permit No. AC16-121136)
Maxwell House Coffee Company
Jacksonville Plant

Dear Mr. Fancy:

The Maxwell House Coffee Company is planning to add two (2) additional product bunkers to the Continuous Roaster process. As was the case previously, only one of the bunkers will be in service at any given time. Therefore, there will be no change in either production or emissions.

The two new bunkers will have their own storage bunker cyclones but will share existing BAR cyclones. A revised Process Flow Diagram is provided along with the existing Process Flow Diagram to facilitate your review.

Please feel free to call me should you have any questions or desire additional information.

Very truly yours,

George L. Whitmer

George L. Whitmer
Environmental Compliance Manager
Industrial Environmental Division

GLW/cdb

Enclosures

cc: J.R. Hellier - Maxwell House
Barbara Boniello - Maxwell House

copied: Willard Hanks
Bill Stewart, NE Dist.
Khurshid Mehta, BES
CAAF/13T

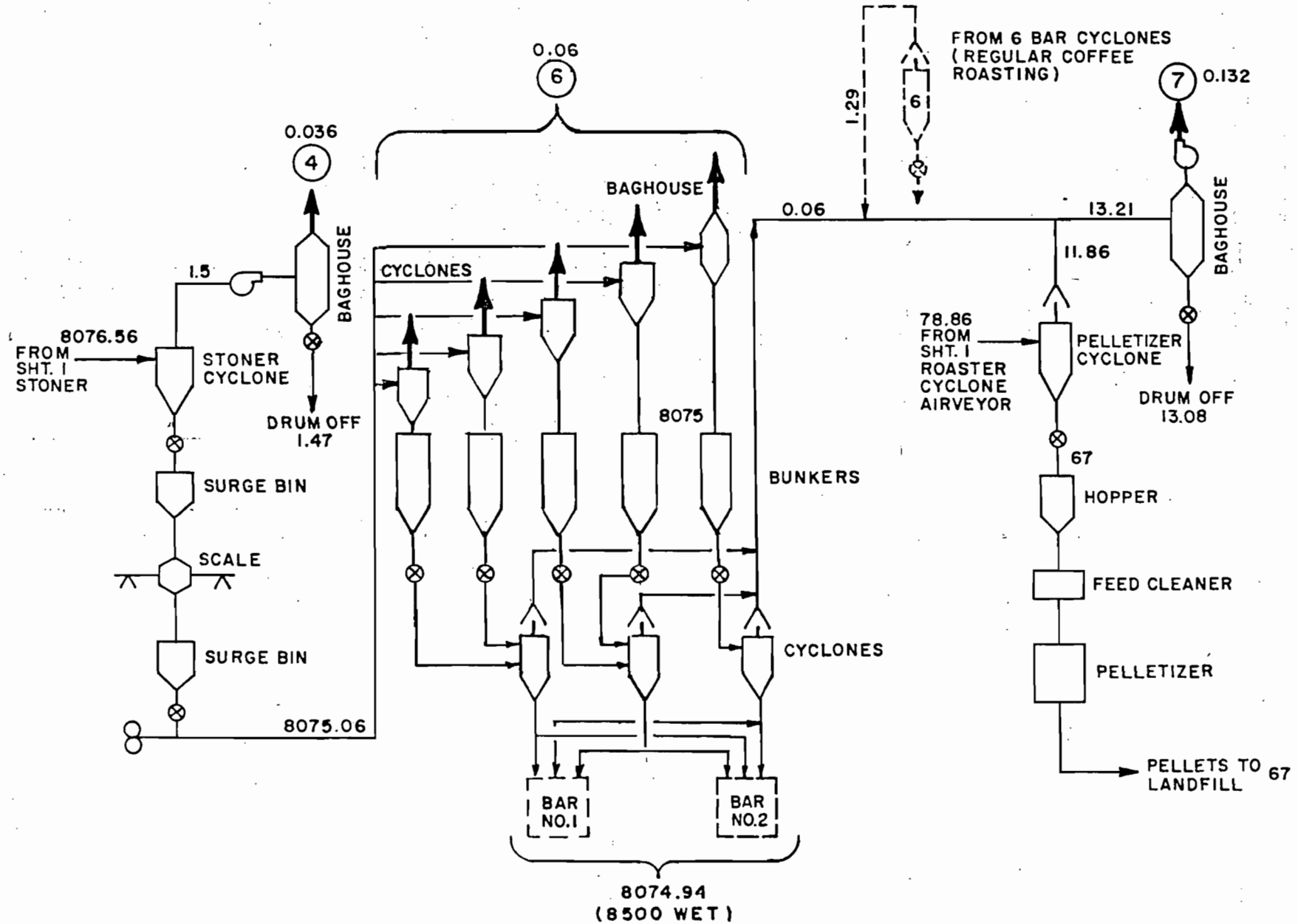
ESE®

AN RS+H COMPANY

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

6737 Southpoint Drive, South
Post Office Box 4943
Jacksonville, Florida 32201

C.H. Fancy, P.E., Deputy Chief
Bureau of Air Quality Management
Florida Dept. of Environmental Regulation
Twin Towers Office Bldg.
2600 Blair Stone Rd.
Tallahassee, FL 32301-8341



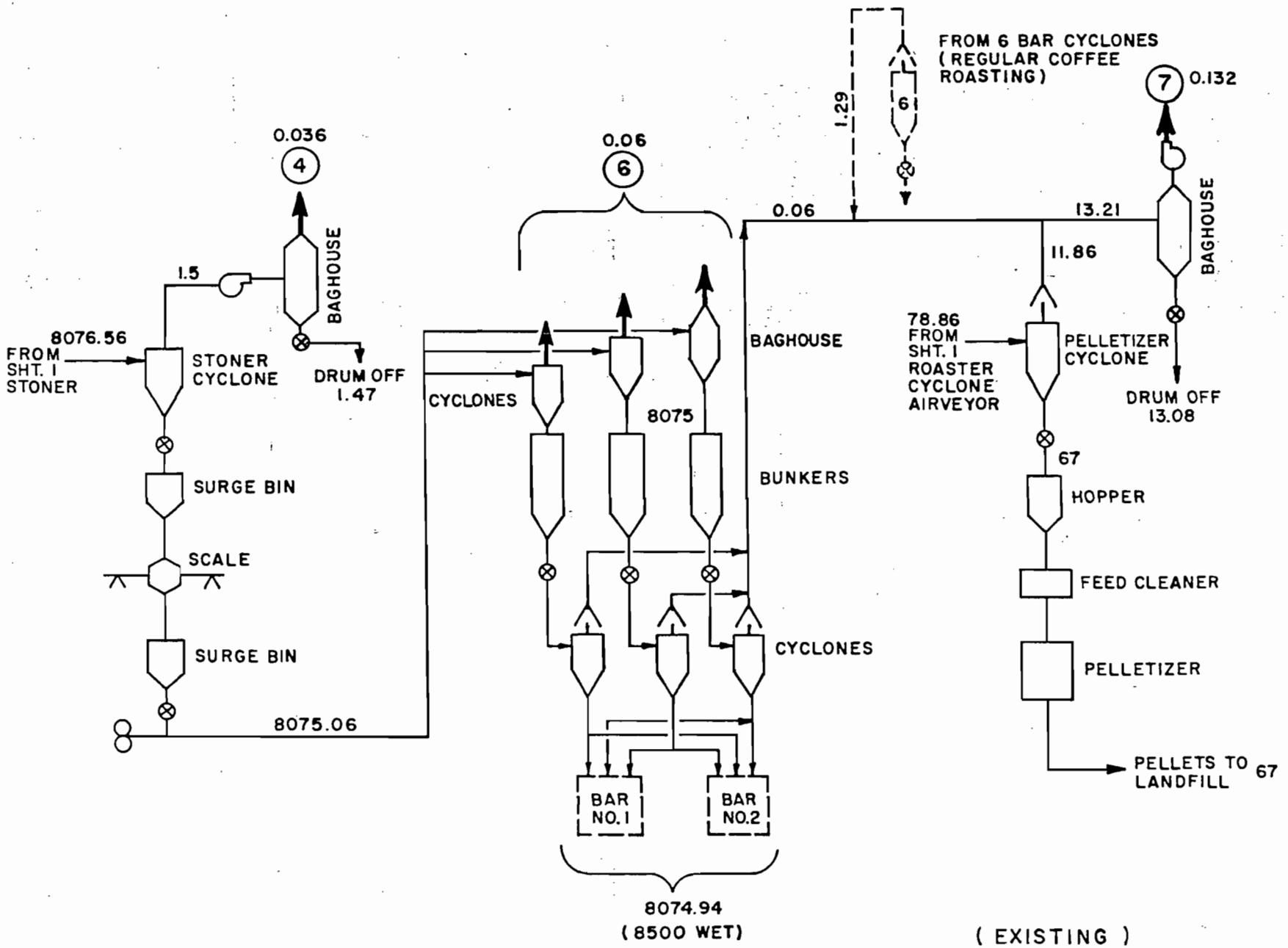
(REVISED)

ATTACHMENT 7B

PROCESS FLOW DIAGRAM

CONTINUOUS ROASTING PROCESS

MAXWELL HOUSE DIV. - GENERAL FOODS CORP.



ATTACHMENT 7B

PROCESS FLOW DIAGRAM

CONTINUOUS ROASTING PROCESS

MAXWELL HOUSE DIV. - GENERAL FOODS CORP.

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:	4. Article Number
Mr. Antonio A. Aguto, Plant Mgr. Maxwell House Division P. O. Box 2010 Jacksonville, FL 32203	P 778 940 858
	Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail
	Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature — Addressee X	8. Addressee's Address *(ONLY if requested and fee paid)*
6. Signature — Agent X	
7. Date of Delivery JUN 30 1988	

PS Form **3811**, Mar. 1987 ★ U.S.G.P.O. 1987-178-268 **DOMESTIC RETURN RECEIPT**

P 778 940 858

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. Antonio A. Aguto	
Street and No. Maxwell House Div. P. O. Box 2010	
P.O., State and ZIP Code Jacksonville, FL 32203	
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: 6-28-88 Permit: AC 16-121136	

PS Form 3800, June 1985

Florida Department of Environmental Regulation

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

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

June 23, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Antonio A. Aguto, Plant Manager
General Foods Manufacturing Corporation
Maxwell House Division
Post Office Box 2010
Jacksonville, Florida 32203

Dear Mr. Aguto:

Re: Construction Permit No. AC 16-121136 Amendment

The Department is in receipt of your engineer's June 13, 1988, letter requesting the permit to construct a continuous coffee roasting process (AC 16-121136) be extended to allow additional time to start-up and correct the mechanical problems in the process. This request is acceptable and the expiration date of the referenced construction permit is extended from December 1, 1988, to April 1, 1989.

A copy of this letter must be attached to the referenced construction permit and shall become a part of that permit.

Sincerely,

Dale Twachtmann
Secretary

DT/ks

attachment: ESE 6/13/88

cc: W. Stewart, NE District
J. Woosley, BESD
L. Stebbins, P.E.

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee

To: _____ Location: _____
To: _____ Location: _____
To: _____ Location: _____
From: _____ Date: _____

Interoffice Memorandum

TO: Dale Twachtmann

FROM: Howard L. Rhodes

SUBJ: Approval of Amendment of Maxwell House's Construction Permit
State Construction Permit Number: AC 16-121136

DATE: June 23, 1988

Attached for your approval and signature is a letter prepared by Central Air Permitting for the above mentioned company that extends the expiration date of the permit to construct a continuous coffee roasting process.

The facility is located in Jacksonville, Duval County, Florida.

The extension is not controversial.

I recommend your approval and signature.

HLR/aqm/wh

attachments

RECEIVED
JUN 24 1988
Office of the Secretary

RECEIVED
JUN 27 1988
DER - BAQM

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee

To: _____ Location: _____

To: _____ Location: _____

To: _____ Location: _____

From: _____ Date: _____

Interoffice Memorandum

maggie

TO: 6/24 Dale Twachtmann

FROM: Howard L. Rhodes /5/

SUBJ: Approval of Amendment of Maxwell House's Construction Permit
State Construction Permit Number: AC 16-121136

DATE: June 23, 1988

Attached for your approval and signature is a letter prepared by Central Air Permitting for the above mentioned company that extends the expiration date of the permit to construct a continuous coffee roasting process.

The facility is located in Jacksonville, Duval County, Florida.

The extension is not controversial.

I recommend your approval and signature.

HLR/aqm/wh

attachments

RECEIVED
JUN 24 1988
DER-BAQM

PM 6-14-88
Jacksonville, FL

file copy

ESE

AN RSH COMPANY

ENVIRONMENTAL SCIENCE
AND ENGINEERING, INC.

June 13, 1988
88014-0000

RECEIVED

JUN 15 1988

DER - BAQM

C.H. Fancy, P.E., Deputy Chief
Florida Department of Environmental Regulation
Bureau of Air Quality Management
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301-8241

Subject: **Request for Extension of Construction Permit**
Permit No. AC16-121136
Continuous Roaster
Maxwell House Coffee and International Division
Jacksonville Coffee Plant

Re: **Letter to C.H. Fancy, FDER, from L.H. Stebbins, ESE, dated December 21, 1987**

Dear Mr. Fancy:

The referenced letter requested an extension of the subject construction permit until December 1, 1988. This request was granted on January 19, 1988.

In the past few months, the roaster has undergone a major rebuild including the installation of two new drums and two new trunions. This was necessary due to mechanical failure resulting from unbalanced metallurgical stresses.

Although the roaster is presently in a start-up mode, it is doubtful that it will be operational in sufficient time to submit an application permit, including emissions test results, 90 days prior to the present December 1, 1988 expiration date. Therefore, in order to allow adequate time for proper shakedown of the new equipment, we respectfully request an extension of the construction permit to April 1, 1989.

Please feel free to call me at (904) 739-2007 if you have questions concerning this request.

Very truly yours,

L.H. Stebbins

Lloyd H. Stebbins, P.E.
Manager
Industrial Environmental Department
Jacksonville Regional Office

LHS/ay

cc: James R. Hellier - Maxwell House

copied: Willard Hanks; Bill Stewart, NED; Khurshid Mehta, BES - 6-15-88

ESE. AN R&H COMPANY

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.
6737 Southpoint Drive, South
Post Office Box 4943
Jacksonville, Florida 32201

JACKSONVILLE FLA JUN 14 '88 U.S.POSTAGE 0.25 P.B. METER 6024358

C.H. Fancy, P.E., Deputy Chief
Florida Department of Environmental Regulation
Bureau of Air Quality Management
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301-8241

PM
21 Jan. 1988
Jacksonville, FL

File Copy

DEPARTMENT OF HEALTH, WELFARE
& BIO-ENVIRONMENTAL SERVICES
Bio-Environmental Services Division
Air and Water Pollution Control

DER
JAN 22
BAQM

January 21, 1988

Mr. Clair Fancy, P.E.
Department of Environmental Regulation
2600 Blair Stone Road
Twin Towers Office Bldg.
Tallahassee, Florida 32301

Reference: Environmental Science and Engineering Correspondence of December 12, 1987.
Subject: Maxwell House Division - General Foods - Jacksonville, Florida
Permit No. AC16-121136
Request for Extension of Construction Permit

Dear Mr. Fancy:

Bio-Environmental Services Division (BESD) supports the request for the extension of the above referenced Construction Permit to December 1, 1988.

Any questions in this matter should be directed to the undersigned or Mr. Jerry Woosley at (904) 630-3210.

Very truly yours,

Jeremy W. Lucas

Jeremy W. Lucas
Pollution Control Specialist

JWL/ecr

cc: Mr. Bill Stewart, P.E., DER
Mr. Lloyd H. Stebbins, P.E. ESE
BESD File 1820-R
BESD Air Permitting File
Disc 3, 22
Copied: Willard Hanks
CHF/BT
1025.88

BIO-ENVIRONMENTAL SERVICES
Air and Water Pollution Control
515 West 6th Street
Jacksonville, Florida 32206-4397

JACKSONVILLE FLA. JAN 21 '88 U.S. POSTAGE 0.22 P.B. METER 1008643

Mr. Clair Fancy, P.E.
Department of Environmental Regulation
2600 Blair Stone Road
Twin Towers Office Bldg.
Tallahassee, Florida 32301

1-25-88

~~CHF~~
~~BE~~ JK FYI

ij

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

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

1. ☒ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to:

Mr. Anotnio A. Aguto, Plant Mgr.
General Foods Manufacturing Corp.
Maxwell House Division
P.O. Box 2010
Jacksonville, FL 32203

4. Article Number

P 274 010 466

Type of Service:

☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee

X

6. Signature – Agent

X

7. Date of Delivery

JAN 27 1988

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

WILL GIVE YOU MORE
POSTMARK - ZIP
QUALITY IS OUR

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT

P 274 010 466

RECEIPT FOR CERTIFIED MAIL

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

Mr. to Antonio A. Aguto, Plt. Mgr. ~~Maxwell House Division~~	
Street and No. P.O. Box 2010	
P.O., State and ZIP Code Jacksonville, FL 32203	
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: 01/25/88 Permit: AC 16-121136 Amendment	

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

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

January 19, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Antonio A. Aguto, Plant Manager
General Foods Manufacturing Corporation
Maxwell House Division
Post Office Box 2010
Jacksonville, Florida 32203

Dear Mr. Aguto:

Re: Construction Permit No. AC 16-121136 Amendment

The Department is in receipt of your engineer's December 21, 1987, letter requesting the permit to construct a continuous coffee roasting process (AC 16-121136) be extended to allow additional time to start-up and correct the mechanical problems in the process. This request is acceptable, with conditions, and the expiration date of the referenced construction permit is extended from March 1, 1988, to December 1, 1988.

Specific Condition No. 15 of this construction permit is changed:

From:

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 all applicable application fees along with test results of the coffee roaster and processor operations and Certificate of Completion, to Jacksonville's BESD 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate (FAC Rules 17-4.22 and 17-4.23).

From:

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

all applicable application fees along with test results of the coffee roaster and processor operations and Certificate of Completion, to Jacksonville's BESD 90 days prior to the expiration date of the construction permit or 45 days after starting commercial operation of the continuous coffee roasting process, whichever date occurs first. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate (FAC Rules 17-4.22 and 17-4.23).

A copy of this letter must be attached to the referenced construction permit and shall become a part of that permit.

Sincerely,

Dale Twachtmann

Dale Twachtmann
Secretary

DT/ks

attachment

cc: W. Stewart
J. Woosley
L. Stebbins, P.E.

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

For Routing To Other Than The Addressee

To: _____ Location: _____
To: _____ Location: _____
To: _____ Location: _____
From: _____ Date: _____

TO: Dale Twachtmann

FROM: Clair Fancy

THRU: Howard Rhodes

DATE: January 19, 1988

SUBJ: Construct Permit Amendment

DER
JAN 22
BAQM

Attached for your approval and signature is a letter that will extend the expiration date of a construction permit issued to Maxwell House for a continuous coffee roasting process. The extension will allow additional time for the permittee to start-up the process. The request is not controversial. The Bureau recommends it be approved.

CHF/WH/s

attachment

RECEIVED
JAN 20 1988
Office of the Secretary

PM
21 Dec. 1987
Jacksonville, Fl

File Copy

ESE

AN R&H COMPANY

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

December 21, 1987
86026-0002

DER

DEC 22 1987

BAQM

C.H. Fancy, P.E., Deputy Chief
Florida Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Twin Towers Building
Tallahassee, Florida 32301-8241

Subject: Construction Permit AC16-121136
Continuous Roaster
Maxwell House Division
General Foods Corporation
Jacksonville, Florida

Re: Request for Extension of Construction Permit

Dear Mr. Fancy:

Construction Permit No. AC16-121136 for the new continuous coffee bean roasting process at the Jacksonville Maxwell House plant will expire March 1, 1988. However, the startup of this system has been delayed by mechanical difficulties and the anticipated startup is currently revised to June 1988. In order to allow adequate time for proper shake down of the new equipment, we would appreciate an extension of the construction permit to December 1, 1988.

If you have any questions on this matter, please contact me at 904/739-2007.

Very truly yours,

Lloyd H. Stebbins, P.E.
Manager
Industrial Environmental Department
Jacksonville Regional Office

LHS/cdb

Copied: BTICHF
Willard Hanks
Khurshid Mukta, BESD
Bill Stewart, NEDist
} 12.23.87

ESE

AN RSH COMPANY

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

6737 Southpoint Drive, South
Post Office Box 4943
Jacksonville, Florida 32201

JACKSONVILLE FLA DEC 21 '87
U.S. POSTAGE 0.22
P.B. METER 6024358

12-23-87

~~CHF~~
~~BT~~) FYI

C.H. Fancy, P.E., Deputy Chief
Florida Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Rd.
Twin Towers Building
Tallahassee, FL 32301-8241

P 274 007 664

RECEIPT FOR CERTIFIED MAIL

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

Sent to Antonio A. Aguto Maxwell House Division	
Street and No. P.O. Box 2010	
P.O., State and ZIP Code Jacksonville, FL 32203	
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: 10/19/87 Permit: AC 16-121136 Amend.	

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

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: Antonia A. Aguto
General Foods Manufacturing Corp.
Maxwell House Division
P.O. Box 2010
Jacksonville, FL 32203

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 274 007 664

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery
OCT 22 1987

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

DOMESTIC RETURN RECEIPT

File Copy

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

October 13, 1987

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Antonio A. Aguto, Plant Manager
General Foods Manufacturing Corp.
Maxwell House Division
P. O. Box 2010
Jacksonville, Florida 32203

Dear Mr. Aguto:

Re: Construction Permit AC 16-121136 Amendment

The Department is in receipt of your engineer's March 31, 1987, and September 18, 1987, letters requesting the permit to construct a continuous coffee roasting process (AC 16-121136) be amended. We have reviewed these request and concluded that all of the relief being requested cannot be granted at this time. The construction permit for this process is amended as noted below.

Facility Description on Permit

From:

For the construction of a 5 TPH (green bean) continuous roaster at Maxwell House's existing coffee processing plant located at 735 East Bay Street, Jacksonville, Duval County, Florida. The UTM coordinates of this site are zone 17, 437.5 km East and 3354.7 km North.

Major components of the coffee roaster are: a green bean feed system consisting of a cyclone, two surge bins, scale, and baghouse; a natural gas fired continuous roaster, three cyclones, and an afterburner; a stoner system that includes two cyclones, two surge bins, a scale, and two baghouses; a product storage system consisting of three baghouses and three bunkers; two cyclones connected to the existing BAR system; and associated equipment that includes pneumatic conveying systems, blowers, ducts, stacks, etc.

To:

For the construction of a 5 TPH (green bean) continuous roaster at Maxwell House's existing coffee processing plant located at 735 East Bay Street, Jacksonville, Duval County, Florida. The UTM coordinates of this site are zone 17, 437.5 km East and 3354.7 km North.

Major components of the coffee roaster are: a green bean feed system consisting of a cyclone, two surge bins, scale, and baghouse; a natural gas fired continuous roaster, three cyclones, a venturi scrubber, and an afterburner; a stoner system that includes two cyclones, two surge bins, a scale, and two baghouses; a product storage system consisting of two cyclones, one baghouse, and three bunkers; three cyclones connected to the existing BAR system; a pelletizer cyclone, hopper, feed cleaner, and pelletizer; and a baghouse controlling the emissions from the pelletizer cyclone and six BAR cyclone in the regular coffee roasting process.

Comments:

Description amendment authorizes the installation of the venturi scrubber, the pelletizer system, and use of the pelletizer baghouse to control the emissions from the six BAR cyclones in the regular coffee roasting process.

Specific Condition No. 5

From:

The continuous roaster process shall not allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. The process shall not be operated unless the temperature in the combustion chamber of the afterburner is at least 1,500°F. The unit shall be equipped with instruments to measure its temperature.

To:

The continuous roaster process shall not allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. The process shall not be operated commercially unless the temperature in the combustion chamber of the afterburner is at least 1,200°F. The unit shall be equipped

with instruments to measure its temperature. Tests may be conducted on the afterburner at temperatures as low as 1000°F if BESD or the Department's approval is obtained prior to each test.

Comments:

The Department is lowering the minimum operating temperature of the afterburner because of the installation of the scrubber. We will allow tests to be conducted on the afterburner at lower temperatures with prior approval and, if successful in maintaining compliance, may lower the required minimum operating temperature in the future.

Specific Condition No. 6

From:

Particulate matter emissions from the continuous roaster process shall not exceed the following:

CO ID	Source	lbs/hr	gr dscf	TPY	% Opacity
1.	Green Bean Feed System	0.238	--	0.99	5
2.	Roaster Afterburner	2.57	0.03	10.79	5
3.	Cooling Section of the Roaster	2.57	0.03	10.79	5
4.	Stoner Product Handling System	0.238	--	0.99	5
5.	Pollutant from the Stoner	0.238	--	0.99	5
6.	Product Bunker	0.238	--	0.99	5
7.	Product to the BAR System	0.238	--	0.99	5

Compliance with these standards shall be determined by Reference Methods 1, 2, 3, 5, and 9 or EPA approved alternative methods as described in 40 CFR 60, Appendix A.

To:

Particulate matter emissions from the continuous roaster process shall not exceed the following:

CO ID	Source	lbs/hr	gr dscf	TPY	% Opacity
1.	Green Bean Feed System	0.238	--	0.99	5
2.	Roaster Afterburner	2.57	0.03	10.79	5
3.	Cooling Section of the Roaster	2.57	0.03	10.79	5
4.	Stoner Product Handling System	0.238	--	0.99	5
5.	Pollutant from the Stoner	0.238	--	0.99	5
6.	Product Bunker	0.238	--	0.99	5
7.	Pelletizer and BAR Systems	0.238	--	0.99	5

Compliance with these standards shall be determined by Reference Methods 1, 2, 3, 5, and 9 or EPA approved alternative methods as described in 40 CFR 60, Appendix A.

Comments:

Amendment lists additional equipment controlled by a new baghouse at emission point No. 7.

Specific Condition No. 7

From:

Only 1 of the 3 baghouses to the product bunker (Co. ID No. 6) shall be in service at any given time.

To:

Only 1 of the 3 air pollution control units for the product bunker (Co. ID No. 6) shall be in service at any give time.

Comments:

Cyclones, as originally proposed, are being used to control two of the bunkers. Whatever control devices the company chooses to use must meet the emission standards specified in the permit.

Specific Condition No. 8

From:

Only 1 of the 2 cyclones to the existing BAR system (Co. ID No. 7) shall be in service at any given time.

To:

Only 1 of the 3 cyclones to the existng BAR system (Co. ID No. 7) shall be in service at any given time.

Comments:

The addition of the third cyclone will not increase emissions provided only one cyclone is in service at any given time.

Specific Condition No. 10

From:

Prior to the operation of the continuous roaster process, the permittee shall obtain a revision to the permit for the coffee processor (AO 16-110490) that lowers the allowable particulate matter emissions from all 5 emission points to 3.0 lb/hr and 12.6 TPY.

To:

Actual particulate matter emissions from coffee processing dryer (emission point No. 4 of construction permit No. AC 16-90996) shall not exceed 3.35 lbs/hr and 14.1 TPY.

Comments:

If the proposed project results in a contemporaneous emission increase above the significant emissions rate, the project is subject to new source review for nonattainment areas. Reducing the emissions of particulate matter from the coffee processing dryer from 6.28 to 3.35 lbs/hr will result in a contemporaneous emission increase of less than 25 TPY for the continuous roasting processing. Tests on this dryer have reported actual particulate matter emissions to be less than 1.5 lbs/hr.

Attachment to be Incorporated:

4. Application to Construct Air Pollution Source, Revised March 31, 1987.
5. DER letter dated April 30, 1987.
6. ESE letter dated September 18, 1987.

A copy of this letter must be attached to the referenced construction permit and shall become a part of that permit.

Sincerely,

Dale Twachtmann
Secretary

DT/ks

attachments

cc: W. Stewart
J. Woosley
L. Stebbins

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

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

TO: Dale Twachtmann

THRU: Howard Rhodes

FROM: Clair Fancy

DATE: October 13, 1987

SUBJ: Amendment of a Permit to Construct

Attached for your approval and signature is a letter that will amend the permit to construct a continuous coffee roasting process in Maxwell House's Jacksonville plant. The amendment does not give all of the changes asked for by the permittee. The permittee may request additional relief from the conditions in the construction permit in the future. The Bureau is of the opinion that additional relief on one item related to contemporaneous emission changes (Specific Condition No. 10) is not available unless the permittee modifies his request. The Bureau recommends this amendment be approved.

CHF/WH/s

attachment

RECEIVED
OCT 16 1987
Office of the Secretary

Specific Cond
6 & 10
revised 10 $ request
from 6.28 → 1.46
back to 3.35
+ 14.1 TPY
Also requested contemporaneous
decr of 5.65 TPY
→ 9.33 TPY

PM
18 Sept. 1987
Jacksonville, Fl

File Copy

ESE

AN RSH COMPANY

ENVIRONMENTAL SCIENCE
AND ENGINEERING, INC.

September 18, 1987
86026-0002

DER
SEP 21 1987
BAQM

Clair H. Fancy, P.E., Deputy Chief
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

Subject: **Amendment I**
Application to Construct Air Pollution Source
Continuous Roasting Process (Permit No. AC16-121136)
Maxwell House Division, General Foods Corporation
Jacksonville, Florida

Re: Letter from C.H. Fancy, FDER, to A.A. Aguto, Maxwell House, dated April 30, 1987

Dear Mr. Fancy:

We are pleased to respond to the questions raised in your letter by item number as follows:

1. **Venturi-Rod Scrubber** - The scrubber is not equipped with a bypass stack. Consequently, the balance of the paragraph does not apply.

2. **Afterburner** - Although we are confident that operation of the afterburner will be satisfactory at 1100°F, we will, at this time, accept your determination which requires operation at a minimum temperature at 1200°F. However, if, after start-up, the actual operation of the system is favorable, we may elect to renew our request for authorization to operate the afterburner at 1000°F.

3. **Contemporaneous Emissions Calculations** - In the initial construction permit application package, dated May 27, 1986 (copy attached), the contemporaneous emissions calculations revealed a net particulate emissions increase of 24.98 tons per year, just below the 25 tons per year limit which would have triggered a Preconstruction Review. The revised calculation submitted with Amendment I on March 31, 1987 (copy attached), included an additional credit for ducting together six BAR cyclones and filtering the combined emissions with a baghouse. Consequently, the net emissions increase became 19.33 tons per year.

[redacted] 9/22/87

~~CHF~~:
~~BT~~:
FYI
Thanks

JACKSONVILLE
SEP 18 '87
FLA.
P.B. METER 6024358
U.S. POSTAGE 0.73

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P. O. Box 4943 • 6737 Southpoint Drive, South
Jacksonville, Florida 32201-4943 • 904/739-2007

86026-0002

To:

Clair H. Fancy, P.E., Deputy Chief
Bureau of Air Quality Management
Florida Dept. of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301-8241

"An Equal Opportunity Employer"

Both sets of calculations included actual emissions data for Emission Point #4 on the Coffee Processor (Permit #A016-110490). Subsequently, we were instructed by Specific Condition #10 in the construction permit to reduce the allowable emissions on Coffee Processor Emission Point #4 from 6.28 lbs/hour to 1.46 lbs/hour, at which time the allowable emissions would become equal to the actual emissions.

While trying to understand the relationship between the subject construction permit (Continuous Roasting Process) and a separate valid operating permit (Coffee Processor), we referred to several paragraphs in the Florida Administrative Code.

FAC 17-2.510(2)(d)4.
Modifications to Major Facilities

> . . . a proposed modification to a major facility shall be subject to the provisions of:
>
> 17-2.510(4) [Preconstruction Review] if the facility to be modified . . . would result in a significant net emissions increase of [particulates] . . .

A complete understanding of the rule hinges on an understanding of "Net Emissions Increase," thence "Significant Net Emissions Increase" and finally "Comtemporaneous Emissions Changes" as follows:

FAC 17-2.510(2)(e)1.
Net Emissions Increase

> A modification to a facility results in a net emissions increase when, for the affected pollutant, the sum of all the contemporaneous, creditable increases and decreases in the actual emissions of the facility, . . . is greater than zero.

FAC 17-2.510(2)(e)2.
Significant Net Emisisons Increase

> A significant net emissions increase of [particulates] . . . is a net emissions increase equal to or greater than . . . [25 tons per year].

FAC 17-2.510(2)(e)3.
Contemporaneous Emissions Changes

> An increase or decrease in the actual emissions . . . of a facility is contemporaneous with a particular modification if it occurs within the period beginning . . .

> [Further], The date on which any increase in the actual emissions . . . of the facility occurs is the date on which . . .
>
> [and], The date on which any decrease in the actual emissions . . . of the facility occurs is the date on which . . .

There are several important elements of the Rule which are clearly stated and reinforced by repetition:

- Each definition and each Rule segment clearly applies to both increases and decreases of emissions.
- The entire focus of the concept of Significant Net Emissions Increase (or decrease) is on actual emissions.
- The procedure for calculating Contemporaneous Emissions Changes is meticulously and consistently described in terms of actual emissions.

Subsequent paragraphs in the rule addressing "Creditible Emissions Changes" continue to focus on both increases and decreases of emissions and repeatedly refer to actual emissions.

Consequently, when the contemporaneous emissions calculations were prepared for Maxwell House, actual emissions were used for the calculations except for emission points where no tests had ever been conducted and emissions points related to the new facility which is not yet operating and cannot be tested.

We are convinced that the calculations were prepared correctly and in accordance with the regulations. If we have overlooked another relevant portion of the Rule, we respectfully request your assistance in locating the reference.

Regarding the Coffee Processor, Emission Point #4 was permitted based on the RACT Rule for Miscellaneous Manufacturing Process Operations. The RACT Rule applies because there are no New Source Performance Standards for this process. The Rule states in part:

FAC 17-2.650(2)(c)(12)b.
Emissions Limitations

> "No owner or operator of a miscellaneous manufacturing process operation, shall cause, permit, or allow emissions of particulate matter in excess of 0.03 gr/dscf . . ."

To the best of our knowledge, this is the only rule for calculating allowable emissions which applies to Emission Point #4.

We have been very pleased, that the compliance tests conducted on Emission Point #4 have demonstrated that actual emissions are consistently and substantially less than the allowable emissions. Compared to the 6.28 lbs/hour allowable emission limit, the 1986 compliance test demonstrated actual emissions at 1.46 lbs/hr. and the 1987 compliance test demonstrated actual emissions at 1.049 lbs/hr.

The Contemporaneous Emission Changes calculation described in FAC 17-2.510 is an administrative procedure used solely to determine whether or not a Preconstruction Review is required. We find no connection in the rule between the procedures for calculating contemporaneous emissions and the RACT Rule limits established in FAC 17-2.650. Consequently, there is no basis for arbitrarily reducing the allowable emissions for Emission Point #4 (Coffee Processor).

It has been suggested that there may be an inconsistency in the Rule, an assertion which is not at all clear to us. Nevertheless, if that is the Department's conviction, the issue should be addressed through the rulemaking procedure rather than risking inappropriate or controversial judgements related to permit conditions.

Once again, if we have overlooked a relevant portion of the Rule, we respectfully request your assistance in locating the reference.

We trust that the information presented herein is sufficient to answer your questions and enable you to amend the construction permit accordingly.

Very truly yours,

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

Lloyd H. Stebbins, P.E.
Manager
Industrial Environmental Department
Jacksonville Regional Office

LHS/cdb

cc: Jim Hellier, Maxwell House
Copies: → Bill Thomas, FDER
→ Willard Hanks
→ Clair Fancy
9/22/87

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS

MAXWELL HOUSE DIVISION
GENERAL FOODS CORPORATIION

JACKSONVILLE, FLORIDA

PARTICULATES

Contributions to Contemporaneous Emissions are:

Coffee Processor (Permit A016-110490)

	Lbs/Hr	
Emission Point #1	0.51	(Allowable, Minor Emission)
Emission Point #2	0.26	(Allowable, Minor Emission)
Emission Point #3	0.53	(Allowable, Minor Emission)
Emission Point #4	1.46	(TSI Test Dated 10/22/85)
Emission Point #5	0.238	(RACT Exempt Value)
	2.998	

$$\frac{2.998 \text{ lbs/hr} \times 8400 \text{ hrs/year}}{2000 \text{ lbs/ton}} = \mathbf{12.59 \text{ tons/year}}$$

Proposed Continuous Roasting Process (Permit AC16-121136)

	Lbs/Hr	
Emission Point #1	0.238	
Emission Point #2	2.57	
Emission Point #3	2.57	
Emission Point #4	0.238	
Emission Point #5	0.238	
Emission Point #6	0.238	
Emission Point #7	0.238	
	6.33	lbs/hr allowable

$$\frac{6.33 \text{ lbs/hr} \times 8400 \text{ hrs/yr}}{2000 \text{ lbs/ton}} = \mathbf{26.59 \text{ tons/year}}$$

Green Bean Steamer and Dryer [A016-31483]

This permit expired 6/85 - Refer to Appendix "B". The process has been totally dismantled as documented on page 3 of the letter in Appendix "C".

APPENDIX A

CONTEMPORANEOUS EMMISSIONS CALCULATIONS
(Continued)

Although the old process was permitted according to the process weight table, the credit for contemporaneous emissions is calculated according to the more current RACT limit. The allowable limit is used for this calculation because the emissions were never tested.

Allowable Emission:

$$30{,}000 \text{ ACFM} \times \frac{532^\circ R}{680^\circ R} \times 0.03 \text{ gr/DSCF} \times 60 \text{ min./hr} \times \frac{1}{7000} \text{ gr/lb} =$$

6.04 lbs/hr.

$$\frac{6.04 \text{ lbs/hour} \times 4 \text{ days} \times 24 \text{ hrs/day} \times 49 \text{ weeks/year}}{2000 \text{ lbs/ton}} = \mathbf{14.2 \text{ tons/year}}$$

Regular Coffee Roasting (A016-107012)

Six BAR cyclones (Refer to Permit A016-107102) will be ducted to a baghouse, listed as Emission Point 7 on the Process Flow Diagram. There is a contemporaneous emissions credit for this reduction based upon the actual emissions for these cyclone emission sources.

$$6 \text{ cyclones} \times \frac{0.942 \text{ tons}}{(\text{year})(\text{cyclone})} = \mathbf{5.65 \text{ tons/year}}$$

Total Contemporaneous Particulate Emissions:

12.59 tons/year + 26.59 tons/year - 14.2 tons/year - 5.65 tons/year =

19.33 tons/year

SULFUR DIOXIDE

Natural Gas

Afterburner:

SO_2 = 0.6 lbs/MMCF Burned *

0.6 lbs/MMCF x 0.0304 MMCF/hr x 8400 hrs/yr = 153.22 lbs/hr

$$153.22 \text{ lbs/hr} \times \frac{1}{2000 \text{ lbs/ton}} = \mathbf{0.0766 \text{ tons/yr } SO_2}$$

APPENDIX A

CONTEMPORANEOUS EMISISONS CALCULATIONS
(Continued)

Roaster:

SO_2 = 0.6 lbs/MMCF Burned*

10.5 MM Btu/hr = Project Design Data

8 MM Btu/hr = Normal Operating Rate

$$\frac{10{,}500{,}000 \text{ Btu/hr}}{1040 \text{ Btu/SCF}} = 10{,}096.2 \text{ CF/hr}$$

$$\frac{10{,}096.2 \text{ CF/hr}}{1{,}000{,}000} = 0.01 \text{ MMCF/hr}$$

0.6 Lbs SO_2/MMCF X 0.01 MMCF/hr X 8400 hr/yr = 50.4 lbs/yr

$$50.4 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{\underline{\textbf{0.0252 tons/yr } SO_2}}$$

NITROGEN OXIDES

Natural Gas

Afterburner:

NO_x = 140.0 lbs/MMCF Burned *

140 lbs/MMCF x 0.0304 MMCF/hr x 8400 = 35,750 lbs/year

$$35{,}750 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{\underline{\textbf{17.88 tons/yr } NO_x}}$$

Roaster:

NO_x = 140.0 lbs/MMCF Burned *

140 lbs/MMCF X 0.01 MMCF/hr X 8400 hr/yr = 11,760 lbs/yr

$$11{,}760 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{\underline{\textbf{5.88 tons/yr } NO_x}}$$

* Source: NEDS Source Classification Codes and Emission Factor Listing, USEPA, October 1985.

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS (Continued)

TOTAL EMISSIONS SUMMARY

PARTICULATES	TONS/YEAR
Coffee Processor	12.59
Proposed Continuous Roasting Process	26.59
Credit: Green Bean Steamer and Dryer	-14.20
Credit: BAR Cyclones (POINTS 103-109)	5.65
	19.33

SO_2

Natural Gas:	
Afterburner	0.0766
Roaster	0.0252
	0.1018

NO_x

Natural Gas:	
Afterburner	17.88
Roaster	5.88
	23.76

According to F.A.C. 17-2.500(2)(e)2, the Net Significant Emissions increases for the various pollutants which would expose the application to a New Source Review are:

25 tons/year	Particulates
40 tons/year	Sulfur Dioxide
40 tons/year	Nitrogen Oxides

It is clear from the Total Emissions Summary that none of these limits are exceeded.

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS

MAXWELL HOUSE DIVISION
GENERAL FOODS CORPORATION

JACKSONVILLE, FLORIDA

PARTICULATES

Contributors to Contemporaneous Emissions are:

Coffee Processor [Permit A016-40490]

	Lbs/Hr	
Emission Point #1	0.51	(Allowable, Minor Emission)
Emission Point #2	0.26	(Allowable, Minor Emission)
Emission Point #3	0.53	(Allowable, Minor Emission)
Emission Point #4	1.46	(TSI Test Dated 10/22/85)
Emission Point #5	0.238	(RACT Exempt Valve)
	2.998	

$$\frac{2.998 \text{ lbs/hr} \times 8400 \text{ hrs/yr}}{2000 \text{ lbs/ton}} = 12.59 \text{ tons/year}$$

Proposed Continuous Roasting Process

	Lbs/Hr	
Emission Point #1	0.238	
Emission Point #2	2.57	
Emission Point #3	2.57	
Emission Point #4	0.238	
Emission Point #5	0.238	
Emission Point #6	0.238	
Emission Point #7	0.238	
	6.33	lbs/hr Allowable

$$\frac{6.33 \text{ lbs/hr} \times 8400 \text{ hrs/yr}}{2000 \text{ lbs/ton}} = 26.59 \text{ tons/year}$$

Green Bean Steamer and Dryer [A016-31483]

This permit expired 6/85 - Refer to Appendix "B". The process has been totally dismantled as documented on page 3 of the letter in Appendix "C".

Although the old process was permitted according to the process weight table, the credit for contemporaneous emissions is calculated according to the more current RACT limit. The allowable limit is used for this calculation because the emissions were never tested.

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS (Continued)

Allowable Emissions:

$$30{,}000 \text{ ACFM} \times \frac{532^\circ \text{ R}}{680^\circ \text{ R}} \times 0.03 \text{ gr/DSCF} \times 60 \text{ min/hr} \times \frac{1}{7000} \text{ gr/lb} =$$

$$\frac{6.04 \text{ lbs/hr} \times 4 \text{ days (24 hrs)(49 wks)}}{2000 \text{ lbs/ton}} = \underline{14.20 \text{ tons/yr}}$$

Therefore, the Total Contemporaneous Particulate Emissions =

12.59 tons/yr + 26.59 tons/yr - 14.20 tons/yr =

24.98 tons/yr.

SULFUR DIOXIDE

Natural Gas

Afterburner

SO_2 = 0.6 lbs/MMCF Burned*

0.6 lbs/MMCF x 0.016 MMCF/HR x 8400 HR/YR =

$$8.064 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{\mathbf{0.04 \text{ tons/yr } SO_2}}$$

Roaster

SO_2 = 0.06 lbs/MMCF Bubned*

10.5 MM Btu/hr = Project Design Data

8 MM Btu/hr = Normal Operating Rate

$$\frac{10{,}500{,}000 \text{ Btu/hr}}{1040 \text{ Btu/SCF}} = 10{,}096.2 \text{ CF/HR}$$

$$\frac{10{,}096.2 \text{ CF/Hr}}{1{,}000{,}000} = 0.01 \text{ MMCF/HR}$$

0.06 lbs/MMCF x 0.01 MMCF/HR x 8400 HR/YR =

$$5.04 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{\mathbf{0.0025 \text{ tons/yr } SO_2}}$$

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS (Continued)

Fuel Oil

Afterburner

SO_2 = 7.055 lbs/gal SO_2**

Gal/hr x lbs/gal x % x SO_2/S = lbs/hr SO_2

$$121.3 \text{ gal/hr} \times 7.055 \text{ lbs/gal} \times 0.005 \times \frac{64}{32} = 8.56 \text{ lbs/hr } SO_2$$

$$8.56 \text{ lbs/hr} \times 8400 \text{ hrs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{\mathbf{35.95 \text{ tons/yr } SO_2}}$$

Roaster

SO_2 = 7.055 lbs/gal SO_2

$$\frac{10{,}500{,}000 \text{ Btu/hr}}{141{,}000 \text{ Btu/gal}} = 74.47 \text{ gal/hr}$$

$$74.47 \text{ gal/hr} \times 7.055 \text{ lbs/gal} \times 0.005 \times \frac{64}{32} = 5.25 \text{ lbs/hr } SO_2$$

$$5.25 \text{ lbs/hr} \times 8400 \text{ hrs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{22.05 \text{ tons/yr } SO_2}$$

Nitrogen Oxides

Natural Gas

Afterburner

NO_x = 140.0 lbs/MMCF Burned*

140 lbs/MMCF x 0.016 MMCF/Hr x 8400 hr/yr =

$$18.816 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{\mathbf{9.41 \text{ tons/yr } NO_x}}$$

Roaster

NO_x = 140.0 lbs/MMCF Burned*

140 lbs/MMCF x 0.01 MMCF/Hr x 8400 hr/yr =

$$11{,}760 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{\mathbf{5.88 \text{ tons/yr } NO_x}}$$

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS (Continued)

Fuel Oil

Afterburner

NO_X = 20.0 lbs/1000 gal Burned*

$$\frac{20 \text{ lbs/1000 gal} \times 121.3 \text{ gal/hr} \times 8400 \text{ hr/yr}}{1000 \text{ gal}} =$$

$$20{,}378.4 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \mathbf{10.19 \text{ tons/yr } NO_X}$$

Roaster

NO_X = 20.0 lbs/1000 gal Burned*

$$\frac{20 \text{ lbs/1000 gal} \times 74.47 \text{ gal/hr} \times 8400 \text{ hr/yr}}{1000 \text{ gal}} =$$

$$12{,}511 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \mathbf{6.26 \text{ tons/yr } NO_X}$$

* Source: NEDS Source Classification Codes and Emission Factor Listing, USEPA, October 1985

**Source: Eastern Seaboard Petroleum Co. Oil Analysis

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS (Continued)

TOTAL EMISSIONS SUMMARY

SO_2	Tons/yr
Natural Gas	
Afterburner	0.04
Roaster	0.0025
	0.0425
#2 Fuel Oil	
Afterburner	35.95
Roaster	22.05
	58.00
NO_x	
Natural Gas	
Afterburner	9.41
Roaster	5.88
	15.29
#2 Fuel Oil	
Afterburner	10.19
Roaster	6.26
	16.45

According to F.A.C. 17-2.500(2)(e)2, the Net Significant Emissions increases for the various pollutants which would expose this application to a New Source Review are:

25 tons/yr Particulates

40 tons/yr Sulfur Dioxide

40 tons/yr Nitrogen Oxides

It is clear from the Total Emissions Summary that none of these limits are exceeded except for the SO_2 emissions related to burning No. 2 fuel oil. Since the fuel oil is intended to be an emergency alternate fuel, the emissions can be limited to less than 40 tons/yr by restricting the allowable operating hours according to the following calculation:

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS (Continued)

Consider SO_2 emissions from the combustion of No. 2 fuel oil.

Let X = Afterburner Emissions

and Y = Roaster Emissions

The total of afterburner and roaster emissions must be less than 40 tons/yr.

Therefore, $X + Y = 39.99$

The ratio of afterburner and roaster emissions is established by the previous calculation.

$$\frac{X}{Y} = \frac{35.95}{22.05} = 1.63$$

By substitution,

$X = 1.63\ Y$

$1.63 + Y = 39.99$

$2.63\ Y = 39.99$

$Y = \frac{39.99}{2.63} = 15.21$ Tons SO_2/yr Maximum Allowable Emissions from the Roaster

Determine "X" by difference.

$X = 39.99 - Y$

$= 39.99 - 15.21 = 24.78$ tons SO_2/yr Maximum Allowable Emissions from the Afterburner

Calculate the operating hours corresponding to the above emission rates:

$$\frac{15.21 \text{ tons } SO_2/yr\ (2000)}{5.25 \text{ lbs/hr}} = 5794 \text{ hrs/yr}$$

$$\frac{24.78 \text{ tons } SO_2/yr\ (2000)}{8.56 \text{ lbs/hr}} = 5790 \text{ hrs/yr}$$

By limiting the operating hours using No. 2 fuel oil to 5790 hr/yr, the total emissions of SO_2 will be less than 40 tons/year.

P 408 531 180

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Antonio A. Aguto Gen. Foods Manu. Corp/Maxwell House Div.	
P.O. Box 2010 P.O., State and ZIP Code Jacksonville, FL 32203	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date 4/30/87 AC 16-121136	

PS Form 3800, Feb. 1982

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

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

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

3. Article Addressed to:
Antonio A. Aguto
General Foods Manufacturing Corp.
Maxwell House Division
P.O. Box 2010
Jacksonville, Florida 32203

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 408 531 180

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X Oliver Jones

6. Signature – Agent
X

7. Date of Delivery
5-4 MAY 05 1987

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

DOMESTIC RETURN RECEIPT

File Copy

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

April 30, 1987

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Antonio A. Aguto, Plant Manager
General Foods Manufacturing Corporation
Maxwell House Division
Post Office Box 2010
Jacksonville, Florida 32203

Dear Mr. Aguto:

Re: Construction Permit AC 16-121136 Amendment

The Bureau has reviewed your March 31, 1987, request to amend the construction permit for the proposed continuous roasting process. Before your request can be processed, the following issues need to be addressed.

1. Venturi-Rod Scrubber - Is this scrubber equipped with a by-pass stack? If so, under what circumstances will the scrubber discharge to the atmosphere? If the scrubber can not discharge pollutants directly to the atmosphere, the continuous roasting process permit description will be changed to include this control device. If the scrubber can discharge to the atmosphere, some restrictions will be added to the permit to limit operation of the process without the afterburner being in service. The Department will approve the installation of the scrubber.

2. Afterburner - The installation of the scrubber will allow some reduction in the operating temperature of the afterburner. However, our reference material (AP-40, Coffee Processing) implies that a minimum operating temperature of 1200°F is needed for odor (organic compound) destruction. The Department will revise Specific Condition No. 5 to require the afterburner to operate at a temperature of 1200°F or greater unless the guarantee from the afterburner manufacturer required by Specific Condition No. 12 of the construction permit provides reasonable assurance that all combustible material entering it will be destroyed at a lower temperature.

3. Contemporaneous Emission Calculations - Specific Condition No. 10 of the permit requires the allowable emissions from

the coffee processor (AO 16-110490) to be reduced to 12.6 TPY prior to placing the continuous roaster process in operation. The Department will allow the substitution of other contemporaneous emission reduction for the coffee processor. However, our calculations for the contemporaneous emission changes, using the allowable emissions for the coffee processor and continuous roasting process, shows a significant emissions rates increase for particulate matter. Thus, your March 31 request does not comply with the air pollution control regulations. We request you reexamine your operation and resubmit your contemporaneous emission calculations, specify what emissions will be reduced to avoid causing a significant emissions rate increase in particulate matter, and document each emission reduction with copies of the permit and the most recent test reports for the source.

Until a revision is approved, the continous roasting process is required to comply with all conditions specified in construction permit No. AC 16-121136. We will resume processing your request for an amendment to this permit after we receive your response on the above issues. To expedite processing of your request, please send Mr. Jerry Woosley, Bio-Environmental Service Division, a copy of all correspondence associated with your request.

Sincerely,

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

CHF/WH/s

cc: L. Stebbins
J. Cole
J. Woosley
P. Cunningham

Rec'd. 4/10/87

AMENDMENT I

APPLICATION TO CONSTRUCT

AIR POLLUTION SOURCE

CONTINUOUS ROASTING PROCESS

MAXWELL HOUSE DIVISION

GENERAL FOODS CORPORATION

Willard, 4-10-87

Here it is.

Are you going to need cc's or is Stabbins going to supply us with more copies (CBSD copy)? Anne

Prepared by

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

May 27, 1986

Revised March 31, 1987

Best Available Copy

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL NUMBER 3813162

DATE 8/9/87

AIRBILL NUMBER 3813162905

1 From (Your Name): KH George Whitmar
Your Phone Number (Very Important): 904) 739-2007
Company: ENVIRONMENTAL SCIENCE & ENGINEERING, INC.
Department/Floor No.:
Street Address: 6737 Southpoint Drive, South
City: Jacksonville, State: FL
ZIP Required For Correct Invoicing: 32201

2 To (Recipient's Name): C.H. Fancy, P.E.
Recipient's Phone Number (Very Important): ( )
Company: Florida Dept. of Environmental Regulations
Department/Floor No.:
Exact Street Address (Use of P.O. Boxes or P.O. ® Zip Codes Will Delay Delivery And Result in Extra Charge.): 1600 Blair Stone Rd./Twin Towers Bldg.
City: Tallahassee, State: FL
ZIP Street Address Zip Required: 32301

3 YOUR BILLING REFERENCE INFORMATION (FIRST 24 CHARACTERS WILL APPEAR ON INVOICE.): 85026-0002

PAYMENT [X] Bill Sender [ ] Bill Recipient's FedEx Acct. No. [ ] Bill 3rd Party FedEx Acct. No. [ ] Bill Credit Card [ ] Cash

4 SERVICES CHECK ONLY ONE BOX.

1 [ ] PRIORITY 1 Overnight Delivery Using Your Packaging
6 [ ] OVERNIGHT LETTER* (Our Packaging) 9½"x12½"
OVERNIGHT DELIVERY USING OUR PACKAGING
2 [X] Courier-Pak Overnight Envelope* 12"x 15½"
3 [ ] Overnight Box A [ ] 12½"x 17½"x 3"
4 [ ] Overnight Tube B [ ] 38"x 6"x 6"x 6"
*Declared Value Limit $100.
5 [ ] STANDARD AIR Delivery not later than second business day

SERVICE COMMITMENT
PRIORITY 1 - Delivery is scheduled early next business morning in most locations. It may take two or more business days if the destination is outside our primary service areas.
STANDARD AIR - Delivery is generally next business day or not later than second business day. It may take three or more business days if the destination is outside our primary service areas.

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1 [ ] HOLD FOR PICK-UP (Fill In Section H at right)
2 [X] DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) [ ]
4 [ ] DANGEROUS GOODS (P-1 and Standard Air Packages only. Extra charge)
5 [ ] CONSTANT SURVEILLANCE SERVICE (CSS) (Extra charge) (Do Not Complete Section 5)
6 [ ] DRY ICE _____ Lbs.
7 [ ] OTHER SPECIAL SERVICE _____
8 [ ]
9 [ ] SATURDAY PICK-UP (Extra charge)
10 [ ]

PACKAGES	WEIGHT	YOUR DECLARED VALUE	OVER SIZE
/	LBS		
/	LBS		
	LBS		
	LBS		
Total /	Total	Total	

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2 [ ] On-Call Stop
3 [ ] Drop Box 4 [ ] B.S.C. 5 [ ] Station

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Declared Value Charge
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RECIPIENT'S COPY

GENERAL FOODS

Maxwell House Division

March 31, 1987

C. H. Fancy, P.E., Deputy Chief
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blairstone Road
Tallahassee, Florida 32301

Subject: **Construction Permit Amendment**
Continuous Roasting Process

Dear Mr. Fancy:

As you are aware, we are currently involved in a modernization program designed to upgrade our coffee roasting facilities, reduce emissions to the environment, and stabilize employment in the Jacksonville area.

A major element of the modernization program includes installation of the new continuous coffee roasting process. New construction began soon after issuance of the construction permit.

We are very pleased with the progress of the project. However, we became concerned about the ability of the afterburner to satisfactorily control emissions after receiving test results from a similar process. In order to be absolutely certain that the new facilities will comply with permitted emission limits, we have elected to install additional pollution control equipment. The major design change involves scrubbing the stack gases ahead of the afterburner to remove particulates. The corresponding design changes are described in the amendment package.

Since we are located in a densely populated downtown area, we want to exert every reasonable effort to assure a clean environment. However, there are substantial capital costs as well as significantly increased fuel costs to reheat the scrubbed stack gases associated with the revised design. In order to partially offset the additional expenditure of funds for pollution control equipment, our consultant has recommended a reduction in the operating temperature of the afterburner. This will result in a substantial savings in fuel costs. Since the afterburner will only be used to control opacity, it is expected that the reduced temperature will be satisfactory.

Since all of the design changes contribute to a significant reduction of emissions, we are hopeful that you will be able to expedite the processing of this amendment.

Very truly yours,

MAXWELL HOUSE DIVISION

Antonio A. Agüto
Plant Manager

AAA/cdb

TABLE OF CONTENTS

CONTINUOUS ROASTING PROCESS

MAXWELL HOUSE DIVISION
GENERAL FOODS CORPORATION

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(Continued)

ESE.

AN RSH. COMPANY

ENVIRONMENTAL SCIENCE
AND ENGINEERING, INC.

March 31, 1987
ESE Project No. 86026-0002

C. H. Fancy, P.E., Deputy Chief
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
1600 Blair Stone Road
Tallahassee, Florida 32301

Subject: **Amendment I**
Application to Construct Air Pollution Source
Continuous Roasting Process (Permit No. AC16-121136)
Maxwell House Division, General Foods Corporation
Jacksonville, Florida

Dear Mr. Fancy:

The amended permit application has been prepared for the Continuous Coffee Roasting Facility at Maxwell House. The original construction permit application was submitted on May 27, 1986. Subsequently, the construction permit was issued on September 30, 1986.

We recently received actual emissions test information from a similar coffee roasting plant which uses a catalytic afterburner. Although the Jacksonville facility will use a thermal afterburner, significantly different from the tested unit, the new information cast doubt upon the ability of the local system to achieve the permitted emission limits. To remove any doubt about the sufficiency of the air emission controls, a Venturi scrubber will be installed ahead of the afterburner. The scrubber is designed to remove particulates to below the 0.03 gr/DSCF RACT limit.

The scrubber will operate very efficiently with respect to particulate removal but may mot be as effective for controlling opacity. For this reason, the afterburner is being retained to assure that opacity will be less than 5%. Due to the unusually light duty on the afterburner, we request authorization to operate it at 1000°F instead of 1500°F as defined in Specific Condition No. 5 in the construction permit. At the reduced temperature, the stack gas residence time in the afterburner will be increased more than 35%, i.e., from 1.11 seconds to 1.50 seconds. It is expected that the increased residence time will be more than sufficient to assure compliance with the opacity limit.

In an effort to further reduce the overall emissions from the Jacksonville plant, six BAR cyclones permitted under the Regular Coffee Roasting Permit (Permit A016-107102) were tied together and ducted into a baghouse along with two BAR cyclones and a pelletizer cyclone from the Continuous Roasting Process. The obvious emissions reduction has been recognized in the contemporaneous emissions calculation (Appendix A). Since this action resulted in reducing the contemporaneous emissions substantially below 25 TPY, we request that Specific Condition No. 10 of the Continuous Roasting Permit be deleted. It is no longer applicable. Such a reduction of allowable emissions from the Coffee Processor (A016-110490) would cause serious operating difficulty because it would not allow any operating margin.

The only other physical change is related to Emission Point No. 6. We have elected to replace one of the original three cyclones with a single baghouse. This action is a trial to evaluate the relative effectiveness of the two devices. However, we have based our calculations for that source on three cyclones. The actual emissions will be lower.

We are understandably anxious to proceed on this project. Since all of the changes documented in this amendment will result in reduced emissions, we will appreciate any effort by your office to expedite its processing.

Please feel free to call me at (904) 739-2007 if you have any questions or require additional information.

Very truly yours,

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

Lloyd H. Stebbins, P.E.
Manager
Industrial Environmental Department
Jacksonville Regional Office

LHS/cdb

Enclosure(s)
1602-14

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHEAST DISTRICT
4426 BILLS ROAD
JACKSONVILLE, FLORIDA 32207

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

G. DOUG DUTTON
DISTRICT MANAGER

DER

APR 10 1987

BAQM

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

SOURCE TYPE: CONTINUOUS ROASTER [X] New[1] [ ] Existing[1]

APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification

COMPANY NAME: MAXWELL HOUSE DIVISION, GENERAL FOODS CORPORATION COUNTY: DUVAL

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) CONTINUOUS ROASTER

SOURCE LOCATION: Street 735 East Bay Street City Jacksonville

UTM: East 437.548 North 3,354.714

Latitude 30 ° 19 ' 27 "N Longitude 81 ° 39 ' 00 "W

APPLICANT NAME AND TITLE: Antonio A. Aguto, Plant Manager

APPLICANT ADDRESS: 735 East Bay Street, Jacksonville, Florida

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Maxwell House Division, General Foods Corporation

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

REFER TO ATTACHMENT I

Signed: Antonio A. Aguto

Antonio A. Aguto, Plant Manager
Name and Title (Please Type)

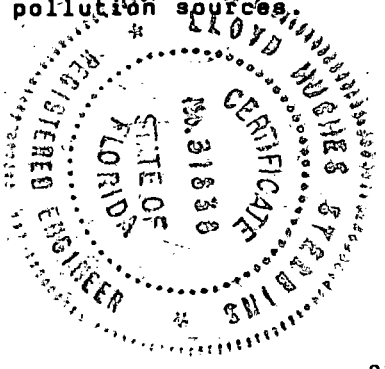
Date: _____ Telephone No. (904) 358-3251

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

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

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

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



Signed _____

Lloyd H. Stebbins
Name (Please Type)

ENVIRONMENTAL SCIENCE AND ENGINEERING, INCORPORATED
Company Name (Please Type)

Post Office Box 4943; Jacksonville, Florida 32201
Mailing Address (Please Type)

Florida Registration No. 31838 Date: 4/8/87 Telephone No. (904) 739-2007

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.

Refer to the Process Description (ATTACHMENT 2) and the Flow Diagram (ATTACHMENTS 7A & 7B)

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

Start of Construction July 1986 Completion of Construction December 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.)

1 - Baghouse	$ 9,640	5 - Baghouse	$ 6,000
2 - Afterburner	258,000	6 - Cyclones - 3 x 1,750	5,250
3 - Cyclone	17,500	7 - Cyclones - 2 x 1,750	3,500
4 - Baghouse	5,000	8 - Venturi Scrubber	50,000
		9 - Filter	8,000
		TOTAL	$362,890

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

DOES NOT APPLY

E. Requested permitted equipment operating time: hrs/dsy 24 ; days/wk 7 ; wks/yr 50 ;

if power plant, hrs/yr N/A ; if seasonal, describe: N/A

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? Yes

   a. If yes, has "offset" been applied? No*

   b. If yes, has "Lowest Achievable Emission Rate" been applied? No

   c. If yes, list non-attainment pollutants. Ozone, Particulates

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No

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

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

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

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? Yes**

   a. If yes, for what pollutants? Ozone and Particulate Matter

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

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

*Offset is not required because the net increase in emissions is not sufficient to expose this application to a New Source Review.

**Most sources of particulate emissions documented in this application are exempt from RACT requirements according to Rule 17-2.650(2)(b)3. Those sources emit less than one ton of particulates per year. The exceptions are sources 2 and 3 which are treated as RACT SOURCES.

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

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

**** REFER TO ATTACHMENT 3A ****

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1) **** REFER TO ATTACHMENT 3B ****

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

2. Product Weight (lbs/hr): _____

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

**** REFER TO ATTACHMENT 4A ****

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

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard.

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

D. Control Devices: (See Section V, Item 4) **** REFER TO ATTACHMENT 4B ****

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels **** REFER TO ATTACHMENT 5 ****

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	0.0304 MMCF	0.0304 MMCF	31.7

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

Fuel Analysis:

Percent Sulfur: N/A Percent Ash: N/A

Density: N/A lbs/gal Typical Percent Nitrogen: Not Available

Heat Capacity: N/A BTU/lb N/A BTU/gal

Other Fuel Contaminants (which may cause air pollution): N/A

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

Annual Average N/A Maximum N/A

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

Chaff from the Cyclone and Baghouse above the stoner drops into a drum. Chaff from the Cyclones ahead of the Afterburner is pelletized and drummed for disposal at a landfill. Filter cake from scrubber liquor filter is drummed for disposal. Purge stream from filter is sewered (approximately 3 GPM).

**** REFER TO ATTACHMENT 6 ****

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

Stack Height: _____ ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION N/A

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

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

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

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

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

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

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

_____

_____

_____

_____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

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

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emisaions 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 emisaions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY N/A

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION N/A

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ ( ) SO^{2}* _____ Wind spd/dir

Period of Monitoring ____/____/____ to ____/____/____
month day year month day year

Other data recorded _____

Attach all data or statiatical summaries to this application.

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

2. Instrumentation, Field and Laboratory

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

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

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

2. Surface data obtained from (location)_____

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

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

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

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

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

E. Emission Data Used in Modeling

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

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

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

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

ATTACHMENT 1

GENERAL FOODS MANUFACTURING CORPORATION / *250 North Street, White Plains, N.Y. 10625*

March 20, 1987

Mr. Steven Smallwood, Bureau Chief
Bureau of Air Quality Management
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Smallwood:

Subject: Letter of Authorization
Maxwell House Division
General Foods Corporation

This is to advise your office that Antonio A. Aguto, Plant Manager, Maxwell House Division, Jacksonville, Florida, is designated to sign as authorized representative for air permit applications and reports for the Jacksonville General Foods Manufacturing Corporation facility.

Very truly yours,

H. A. Golle
Chairman

bc: Messrs. A. A. Aguto
R. R. Chasse
R. C. Cox

NOTE: ORIGINAL RECEIVED BY
STEVEN SMALLWOOD 3/27/87

ATTACHMENT 2

SECTION II A

PROCESS DESCRIPTION

CONTINUOUS ROASTING PROCESS
MAXWELL HOUSE DIVISION, GENERAL FOODS CORPORATION
JACKSONVILLE, FLORIDA

Green coffee beans are airveyed from existing bunkers, shared with the Regular and Soluble Coffee Roasting Processes, to the surge bins and scale as shown on the Flow Diagram (Attachment 7A, and 7B "Process Flow Diagram"). A process cyclone separates the green coffee beans from the air stream. The particulates in the air stream are removed by a baghouse (EMISSION POINT NO. 1). After weighing, the coffee beans are fed into the continuous roaster. Off-gases and chaff are drawn off through process cyclones, processed through a Venturi scrubber to remove particulates, and then incinerated in a thermal afterburner to control opacity (EMISSION POINT NO. 2). The solids from the process cyclones are airveyed to a pelletizer. Purged scrubber liquor is filtered prior to going to the sewer. A cyclone is used to remove particulates from the vented cooling section of the roaster (EMISSION POINT NO. 3).

The roaster is followed by a stoner. The roasted and cooled coffee beans are airveyed to the surge bins and scale for product weighing. A process cyclone separates the roasted beans from the air stream. The particulates in this air stream are also removed by a baghouse (EMISSION POINT NO. 4).

An air stream, vented from the stoner, is controlled with a cyclone and a baghouse (EMISSION POINT NO. 5).

After weighing, the roasted coffee is airveyed to one of three existing bunkers. Two bunkers are equipped with a cyclone and one is equipped with an elementary baghouse (EMISSION POINT NO. 6) to release air from the airveyors. Only one cyclone will be operating at any given time, depending upon which bunker is being filled. Similarly, the three airveyors to the existing BAR system are each equipped with a cyclone. Only one of these airveyors will operate at a time. The BAR airveyor cyclones, a chaff pelletizer cyclone and six BAR cyclones from Regular Coffee Roasting (Permit A016-107102) are filtered by a common baghouse (EMISSION POINT NO. 7).

ATTACHMENT 3A

A. RAW MATERIALS AND CHEMICALS USED IN YOUR PROCESS, IF APPLICABLE:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Green Coffee	N/A	N/A	10,000	A

ATTACHMENT 3B

B. PROCESS RATE, IF APPLICABLE:

1. Total Process Input Rate (lbs/hr): 10,000

2. Product Weight (lbs/hr): 8,500 (Moisture difference)

ATTACHMENT 4A

III.C. Airborne Contaminants Emitted

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Particulates	0.058	0.243	RACT Exempt	0.238	1,999	0.99	(1)
Particulates	2.570	10.790	0.03 gr/DSCF	2.57	21,588	10.79	(2)
Particulates	0.330	1.390	0.03 gr/DSCF	2.57	21,588	10.79	(3)
Particulates	0.030	0.126	RACT Exempt	0.238	1,999	0.99	(4)
Particulates	0.036	0.151	RACT Exempt	0.238	1,999	0.99	(5)
Particulates	0.060	0.252	RACT Exempt	0.238	1,999	0.99	(6)
Particulates	0.132	0.554	RACT Exempt	0.238	1,999	0.99	(7)

III D. Control Devices

ATTACHMENT 4B

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
1. BAGHOUSE	Particulates	98%	40-800	Industrial Standards
2. ROSS-WALDRON 10,000 SCFM AFTERBURNER	Particulates	80%	40-800	Industrial Standards
3. CYCLONE	Particulates	90%	40-800	Industrial Stds.
4. BAGHOUSE	Particulates	98%	40-800	Industrial Standards
5. BAGHOUSE	Particulates	98%	40-800	Industrial Stds.
6. CYCLONES	Particulates	90%	40-800	Industrial Stds.
7. BAGHOUSE	Particulates	99%	40-800	Industrial Stds.

ATTACHMENT 4

SECTION III, C

CALCULATIONS OF EMISSIONS FOR CONTINUOUS ROASTING PROCESS

MAXWELL HOUSE DIVISION - GENERAL FOODS CORPORATION JACKSONVILLE, FLORIDA

EMISSION POINT NO. 1 - GREEN BEAN AIRVEYOR BAGHOUSE

EMISSIONS

REF. ESE Baghouse Test dated 4/17/81 (TAB 10)
Tested Emissions = 0.007 Grains/SCFD

System design flow rate = 970 SCFM

Therefore, the calculated actual emission rate becomes,

970 SCFM x 0.007 gr/DSCF x 60 min/hr x 1/7000 gr/lb = **0.058 LBS/HR**

0.058 LBS/HR x 8400 HRS/YR x $\frac{1}{2000}$ LBS/TON = **0.243 TONS/YR**

ALLOWABLE EMISSIONS

According to the test results for a similar source, this emission point qualifies for a RACT Exemption. Emissions will be less than **0.238 LBS/HR** and **0.99 TONS/YR**

POTENTIAL EMISSIONS *

Hourly Emission Rate = 0.238 LBS/HR x 8400 HRS/YR = **1,999 LBS/YR**

Annual Emission Rate = 1,999 LBS/YR x 1/2000 = **0.99 TONS/YR**

* According to 17-2.100(148), the revised definition of potential emissions refers to emissions after the control device.

EMISSION POINT NO. 2 - CONTINUOUS ROASTER AFTERBURNER

EMISSIONS

The Venturi scrubber is designed to meet the allowable particulates limit. An afterburner will be operated at 1000°F to assure that the opacity will be less than 5 percent.

ALLOWABLE EMISSIONS

The allowable emissions rate is limited by the RACT Rule, FAC 17-2.650(2)(c)12.b to not more than 0.03 gr/DSCF.

Afterburner Design Flow Rate = 10,000 SCFM
(Page 2 of Ross-Waldron's Data, Refer to TAB 11)

Allowable Emissions Rate
= 10,000 SCFM x 60 MIN/HR x 0.03 gr/DSCF x 1/7000 gr/LB
= **2.57 LBS/HR**

$$2.57 \text{ LBS/HR} \times 8400 \text{ HRS/YR} \times \frac{1}{2000} \text{ LBS/TON} = \textbf{10.79 TONS/YR}$$

POTENTIAL EMISSIONS *

Hourly Emission Rate = 2.57 LBS/HR x 8400 HRS/YR = **21,588 LBS/YR**

Annual Emission Rate = 21,588 LBS/YR x 1/2000 = **10.79 TONS/YR**

* According to 17-2.100(148), the revised definition of potential emissions refers to emissions after the control device.

EMISSION POINT NO. 3 - COOLER CYCLONE

EMISSIONS

REF. ESE Thermolo Stoner Cyclone Test dated 4/17/81 (TAB 12)

Tested Emissions = 0.0038 + 0.0065 + 0.0013/3 = 0.0039 Grains/DSCF

System Design Flow Rate = 10,000 SCFM

Therefore, the calculated actual emission rate becomes,

10,000 DSCFM x 0.0039 gr/DSCF x 60 min/hr x 1/7000 gr/lb = **0.33 LBS/HR**

$$0.33 \text{ LBS/HR} \times 8400 \text{ HRS/YR} \times \frac{1}{2000} \text{ LBS/TON} = \textbf{1.39 TONS/YR}$$

ALLOWABLE EMISSIONS

The allowable emissions rate is limited by the RACT Rule, FAC 17-2.650(2)(c)12.b to not more than 0.03 gr/DSCF.

10,000 DSCFM x 0.03 gr/DSCF x 60 min/hr x 1/7000 gr/lb = **2.57 LBS/HR**

$$2.57 \text{ LBS/HR} \times 8400 \text{ HRS/YR} \times \frac{1}{2000} \text{ LBS/TON} = \textbf{10.79 TONS/YR}$$

POTENTIAL EMISSIONS *

Hourly Emission Rate = 2.57 LBS/HR x 8400 HRS/YR = **21,588 LBS/YR**

Annual Emission Rate = 21,588 LBS/YR x 1/2000 = **10.79 TONS/YR**

* According to 17-2.100(148), the revised definition of potential emissions refers to emissions after the control device.

EMISSION POINT NO. 4 - AIRVEYOR TO WEIGH STATION BAGHOUSE

EMISSIONS

REF. ESE Baghouse Test dated 4/17/81 (TAB 13)

Tested Emissions = 0.007 Grains/DSCF

System Design Flow Rate = 500 SCFM

Therefore, the calculated actual emission rate becomes,
500 SCFM x 0.007 gr/DSCF x 60 min/hr x 1/7000 gr/lb = **0.03 LBS/HR**

$$0.03 \text{ LBS/HR} \times 8400 \text{ HRS/YR} \times \frac{1}{2000} \text{ LBS/TON} = \textbf{0.126 TONS/YR}$$

ALLOWABLE EMISSIONS

According to the test results for a similar source, this emission point qualifies for a RACT Exemption. Emissions will be less than **0.238 LBS/HR** and **0.99 TONS/YR.**

POTENTIAL EMISSIONS *

Hourly Emission Rate = 0.238 LBS/HR x 8400 HR/YR = **1,999 LBS/YR**

Annual Emission Rate = 1,999 LBS/YR x 1/2000 = **0.99 TONS/YR**

* According to 17-2.100(148), the revised definition of potential emissions refers to emissions after the control device.

EMISSION POINT NO. 5 - STONER BAGHOUSE

EMISSIONS

REF. ESE Baghouse Test dated 4/17/81 (TAB 13)

Tested emissions = 0.007 Grains/DSCF

System Design Flow Rate = 600 SCFM

Therefore, the calculated actual emission rate becomes,
600 SCFM x 0.007 gr/DSCF x 60 min/hr x 1/7000 gr/lb = **0.036 LBS/HR**

$$0.036 \text{ LBS/HR} \times 8400 \text{ HRS/YR} \times \frac{1}{2000} \text{ LBS/TON} = \textbf{0.151 TONS/YR}$$

ALLOWABLE EMISSIONS

According to the test results for a similar source, this emission point qualifies for a RACT Exemption. Emissions will be less than **0.238 LBS/HR** and **0.99 TONS/YR**

POTENTIAL EMISSIONS*

Hourly Emission Rate = 0.238 LBS/HR x 8400 HR/YR = **1,999 LBS/YR**

Annual Emission Rate = 1,999 LBS/YR x 1/2000 = **0.99 TONS/YR**

* According to 17-2.100(148), the revised definition of potential emissions refers to emissions after the control device.

EMISSION POINT NO. 6 - PRODUCT STORAGE BUNKER CYCLONE

EMISSIONS

REF. TSI Test dated 10/22/85 (TAB 14)

Tested emissions = 0.014 Grains/DSCF

System Design Flow Rate = 500 SCFM

Therefore, the calculated actual emission rate becomes,
500 SCFM x 0.014 gr/DSCF x 60 min/hr x 1/7000 gr/lb = **0.06 LBS/HR**

$$0.06 \text{ LBS/HR} \times 8400 \text{ HRS/YR} \times \frac{1}{2000} \text{ LBS/TON} = \textbf{0.252 TONS/YR}$$

ALLOWABLE EMISSIONS

According to the test results for a similar source, this emission point qualifies for a RACT Exemption. Emissions will be less than **0.238 LBS/HR** and **0.99 TONS/YR**

POTENTIAL EMISSIONS*

Hourly Emission Rate = 0.238 LBS/HR x 8400 HR/YR = **1,999 LBS/YR**

Annual Emission Rate = 1,999 LBS/YR x 1/2000 = **0.99 TONS/YR**

* According to 17-2.100(148), the revised definition of potential emissions refers to emissions after the control device.

EMISSION POINT NO. 7 - BAGHOUSE FOR BAR CYCLONES AND PELLETIZER CYCLONE

EMISSIONS

Solids loading = 0.215 lbs/hr (4/80 BAR cyclone test)

0.215 lbs/hr x 6 BAR cyclones = 1.29 lbs/hr

1.29 lbs/hr + 0.06 lbs/hr + 11.86 lbs/hr =

13.21 lb/hr (From Process Flow Diagram - Attachment 7B)

Design efficiency = 99% capture

100% - 99% = 1% loss

Therefore, the calculated actual emission rate becomes,

13.21 LB/HR x 1% LOSS = **0.132 LBS/HR**

$$0.132 \text{ LB/HR} \times 8400 \text{ HRS/YR} \times \frac{1}{2000} \text{ LBS/TON} = \textbf{0.554 TONS/YR}$$

ALLOWABLE EMISSIONS

According to the conservative baghouse design calculation, this emission point qualifies for a RACT Exemption. Emissions will be less than **0.238 LBS/HR** and **0.99 TONS/YR**

POTENTIAL EMISSIONS*

Hourly Emission Rate = 0.238 LBS/HR x 8400 HR/YR = **1,999 LBS/YR**

Annual Emission Rate = 1,999 LBS/YR x 1/2000 = **0.99 TONS/YR**

* According to 17-2.100(148), the revised definition of potential emissions refers to emissions after the control device.

ATTACHMENT 5

SECTION III.E: FUELS

CALCULATION OF FUEL CONSUMPTION
AND
HEAT INPUT RATE

MAXWELL HOUSE DIVISION
GENERAL FOODS CORPORATION

JACKSONVILLE, FLORIDA

NATURAL GAS

Afterburner Manufacturer's Design Data

Gross Fuel Energy Required = 31,654,000 Btu/hr
= **31.7 MMBtu/hr**

Note: Heat release from contaminants will be negligible in the scrubber gases.

Detailed Fuel Calculation

Calculate the consumption rate of natural gas

$$\frac{31{,}654{,}000 \text{ Btu/hr}}{1{,}040 \text{ Btu/SCF Natural Gas}} = 30{,}436.5 \text{ CF/hr Natural Gas}$$

$$\frac{30{,}436.5 \text{ SCF}}{1{,}000{,}000} = \textbf{0.0304 MMCF/hr Natural Gas}$$

ATTACHMENT 6

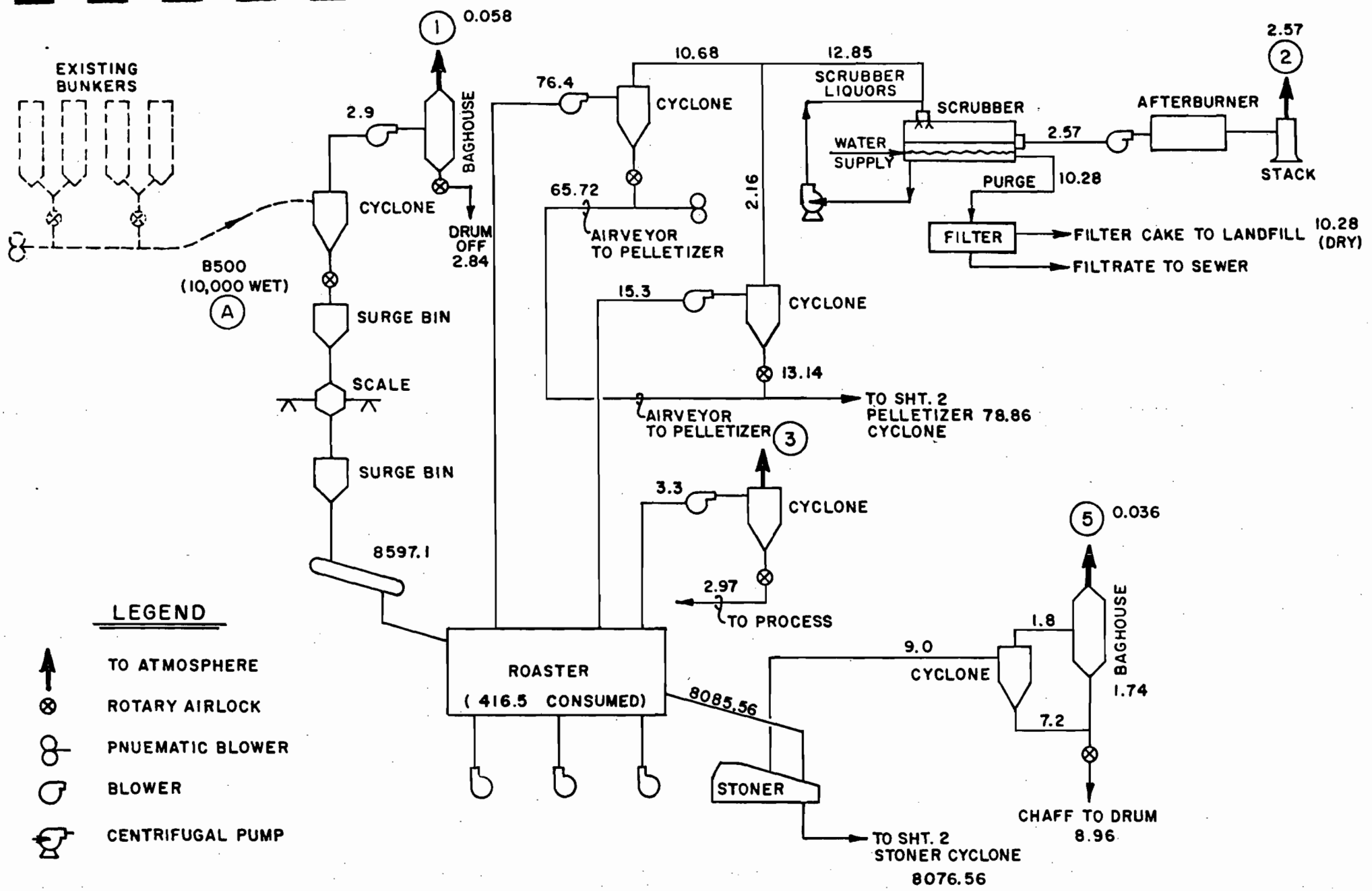
SECTION III.H: EMISSION STACK GEOMETRY AND FLOW CHARACTERISTICS

MAXWELL HOUSE DIVISION
GENERAL FOODS CORPORATION

JACKSONVILLE, FLORIDA

III. H. EMISSION STACK GEOMETRY AND FLOW CHARACTERISTICS:

SOURCE	STACK HEIGHT (FT)	STACK DIAMETER	FLOW (ACFM)	FLOW (DSCFM)	EXIT TEMP. (°F)
1.	93' 8.25"	12" x 8"	1,196	964	200°
2.	118' 0.75"	3' 11.625"	19,925	10,000	600°
3.	99' 0.25"	2' 1"	10,902	10,000	120°
4.	88' 1.75"	3' 6"	526	500	100°
5.	86' 11.25"	8"	654	600	120°
6.	97' 7.25"	11.25"	545	500	120°
7.	84' 10.875"	1' 4"	5025	4609	120°



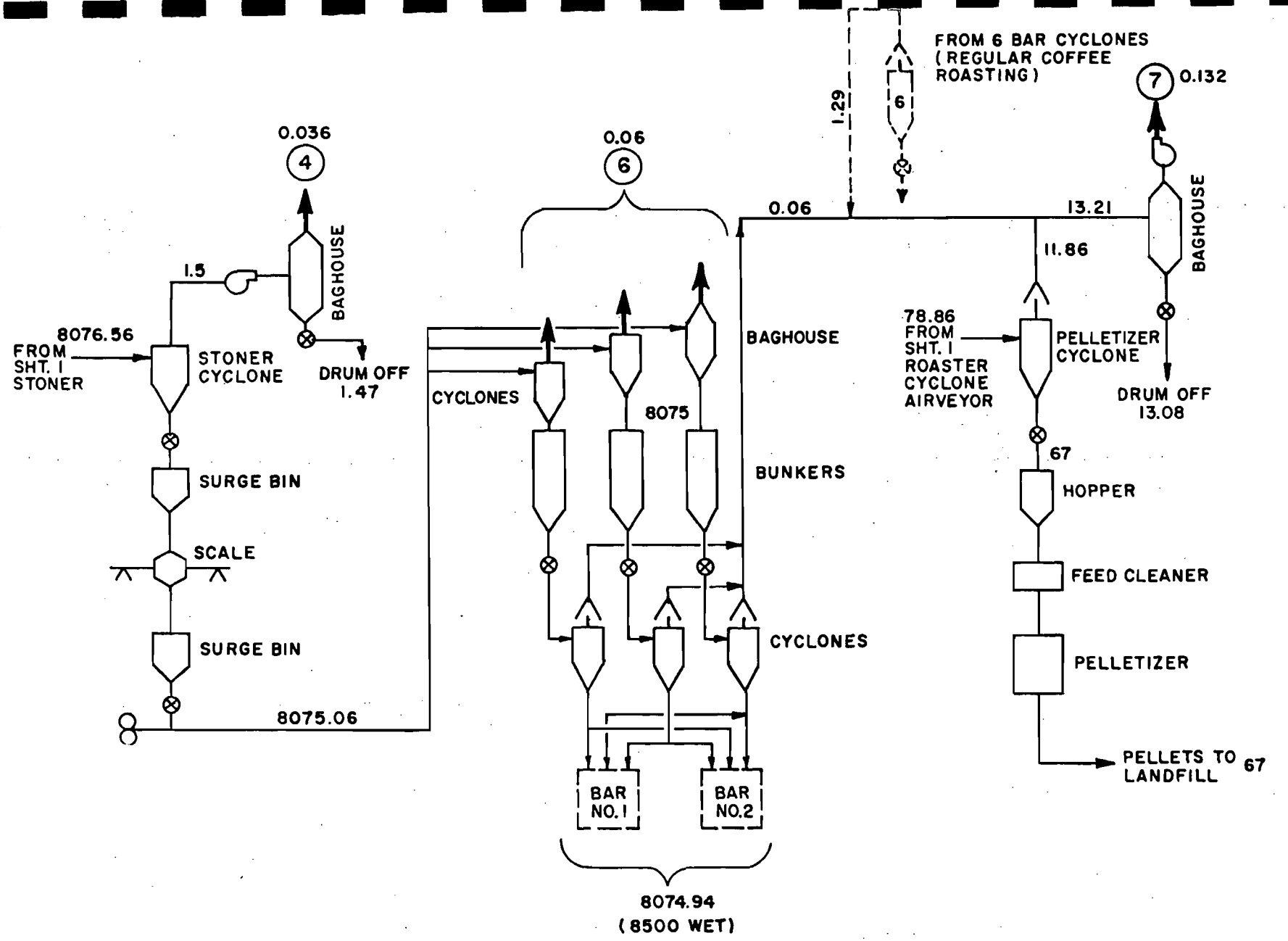
NOTE: ALL UNITS IN LBS./HR.

ATTACHMENT 7A

PROCESS FLOW DIAGRAM

CONTINUOUS ROASTING PROCESS

MAXWELL HOUSE DIV. - GENERAL FOODS CORP.



ATTACHMENT 7B

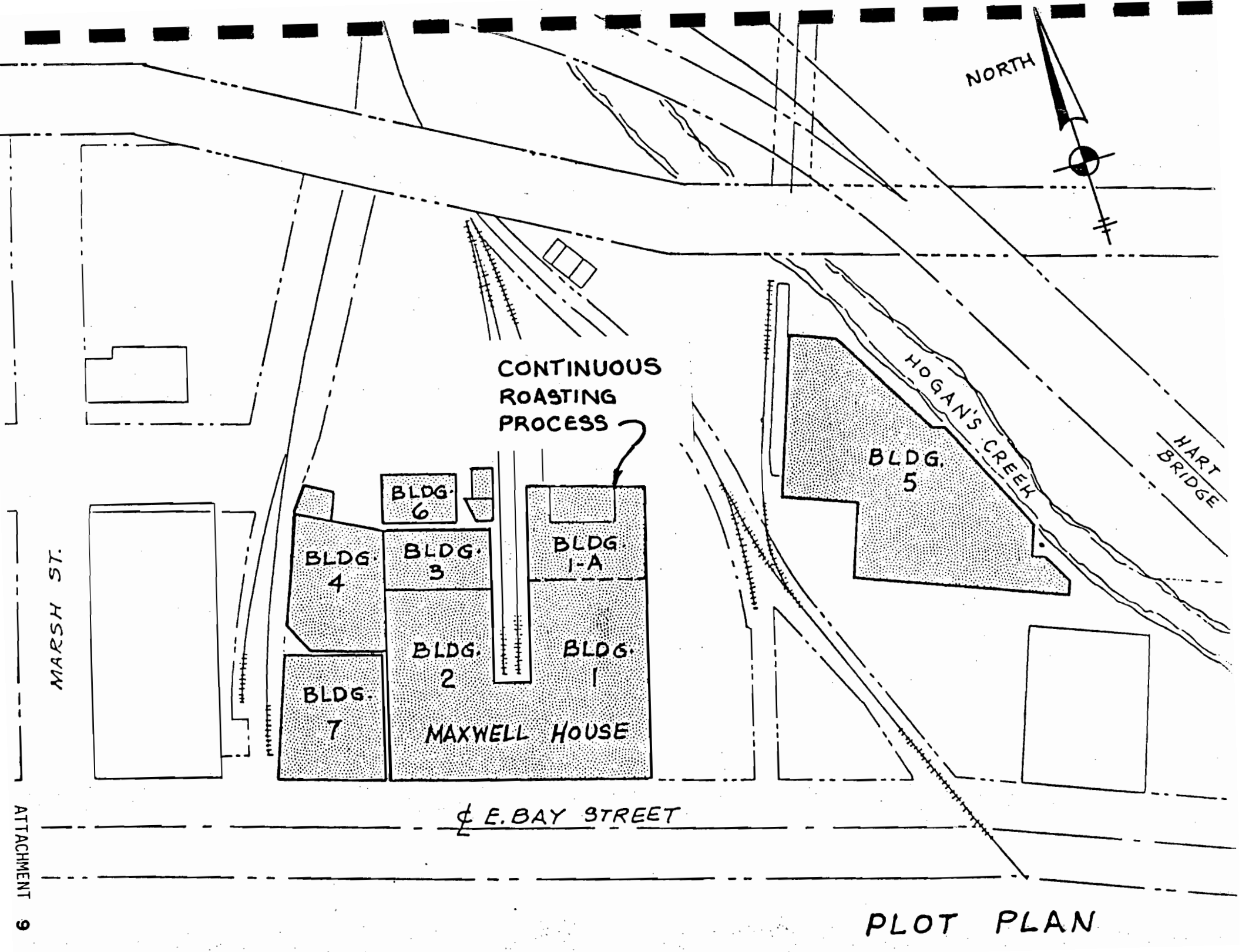
PROCESS FLOW DIAGRAM

CONTINUOUS ROASTING PROCESS

MAXWELL HOUSE DIV. - GENERAL FOODS CORP.

Best Available Copy

ATTACHMENT 8



PLOT PLAN

ATTACHMENT 9

A REPORT ON
PARTICULATE EMISSIONS TESTS

MAXWELL HOUSE COFFEE DIVISION
GENERAL FOODS CORPORATION

Jacksonville, Florida

Prepared by:

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.
Gainesville, Florida

ESE No. 80-107-100

April 1981

ATTACHMENT 10

Table 1. Emission Inventory: Maxwell House Coffee, Jacksonville, Florida (Continued, Page 2 of 2)

Flow Diagram Location	Source	Stack Dimension (ft)	Flow Rate (SCFMD)	Stack Temp. (°F)	Moisture (%)	Emission Rate (lb/hr)	No. Units
	Regular Coffee Roasting Process, Permit No. AO 16 2408 (Continued)						
X	Cold Chaff Thermalo Cyclone	1.17 ID	850	75.8	1.7	0.154	1
XI	Thermalo Cooling Car Cyclone	2.0 ID	5,334	84.7	1.3	0.270	2
XII	Thermalo Stoner Cyclone	2.0 ID	5,780	80.1	1.3	0.190	2
XIII	Thermalo Regular Coffee Scale Cyclone	1.67 ID	1,000*	86.9	2.6	0.090	1
XIV	Regular Coffee Scale and Airveyor Cyclone	1.67 ID	1,000*	57.5	1.8	0.097	15
	Green Bean Bulk Handling Process, Permit No. AO 16 2407 (Figure 3)						
I	Fuller Baghouse (4th level)	1.0x1.0	3,674	80.6	1.0	0.017	1
II	Fuller Baghouse (roof)-	0.63 ID	964	200.1	1.2	0.057	3
III	Gooseneck Bunker Vent	0.50 ID	319	65.6	1.4	0.164	18
	Soluble Spray Dryer No. 2, Permit No. AO 16 2366 (Figure 4)						
I	Spray Dryer No. 2	3.50 ID	21,652	259.7	8.4	1.931	1
	Soluble Spray Dryer No. 1, Permit No. AO 16 2445 (Figure 5)						
I	Spray Dryer No. 1	3.50 ID	25,574	241.3	8.4	1.357	1
	Agglomerating Process, Permit No. AO 16 2404 (Figure 6)						
I	Spray Dryer	3.33 ID	20,633	217.8	9.3	0.893	1

Source: Environmental Science and Engineering, Inc., 1980.

* Due to poor sampling locations, measured flow rates are considered to be in error. Design flow rates furnished by Maxwell House have been substituted based on transport velocity and duct areas.

† Emission parameters are the same as soluble coffee roasting thermalo roaster afterburner.

Source 1

Table 24

PLANT NAME = MAXWELL HOUSE COFFEE LOCATION =

STACK ID = DEG COFFEE FULLER BAGHSE SAMPLING TRAIN = PARTICULATES

- E N G L I S H UNITS -

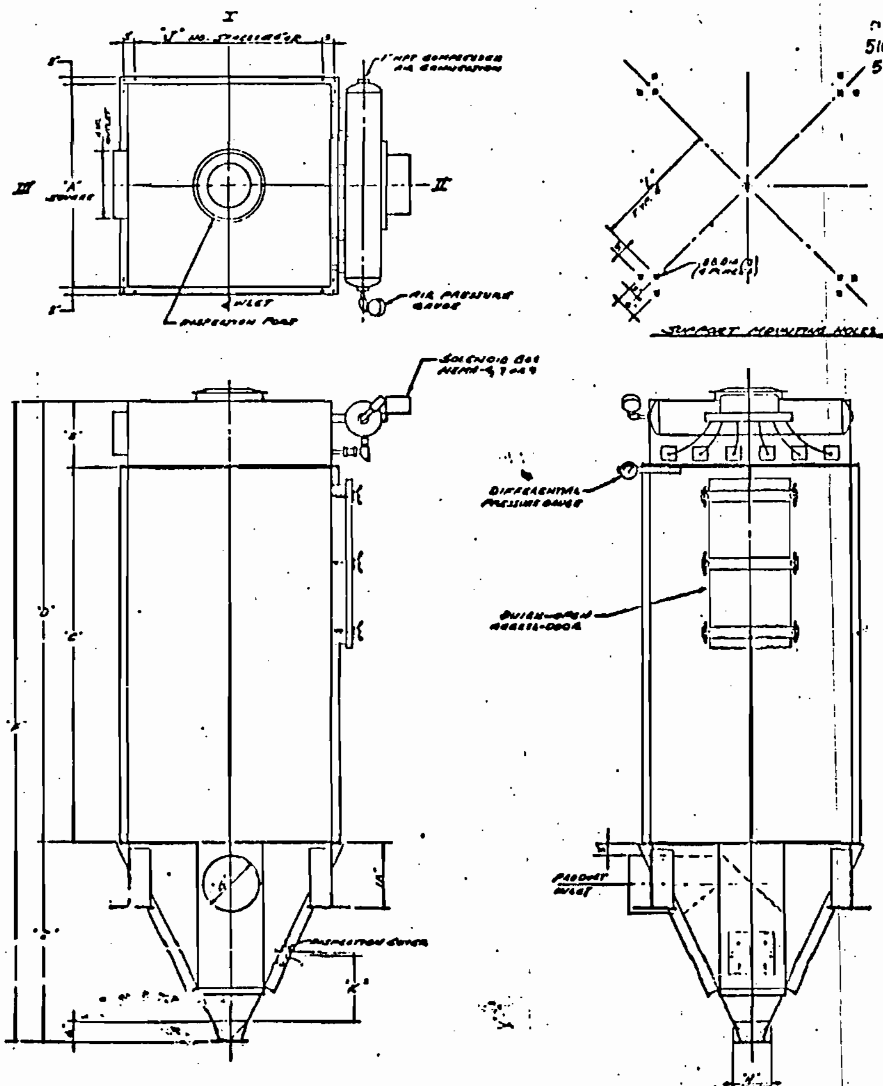
		RUN 001	RUN 002	RUN 003	AVG
DATE		2/26/80	2/26/80	2/26/80	
STARTING TIME		1308	1438	1600	
ENDING TIME		1408	1538	1704	
MINUTES		60.	60.	60.	
NUMBER OF POINTS		12.	12.	12.	
PB	(IN HG)	30.40	30.40	30.40	
PS	(IN HG)	30.40	30.40	30.40	
CP		0.840	0.840	0.840	
METER BOX NO.		3	3	3	
Y-FACTOR		1.0000	1.0000	1.0000	
AS	(SF)	0.31	0.31	0.31	
AS'	(SF)	0.31	0.31	0.31	
DN	(IN)	0.1860	0.1860	0.1860	
AN	(SF)	0.000189	0.000189	0.000189	
TM	(DEG R)	513.6	512.3	512.0	
TS	(DEG R)	652.5	680.0	647.9	660.14
VM	(ACF)	33.943	33.377	33.862	
VMSTD	(SCFD)	35.072	35.166	35.099	
CONDENSATE	(ML)	9.1	9.3	9.2	
% H2O SPECIFIED		0.00	0.00	0.00	
CALC % H2O		1.19	1.24	1.21	1.21
% H2O @ SATURATION		65.98	100.00	59.80	75.26
% CO2		0.0	0.0	0.0	0.00
% O2		21.0	21.0	21.0	21.00
% CO		0.0	0.0	0.0	0.00
MWD	(LB/LB-MOLE)	28.84	28.84	28.84	28.84
MWW	(LB/LB-MOLE)	28.71	28.71	28.71	28.71
DELTA H AVG	(IN H2O)	1.042	1.080	1.072	
SQRT DELTA P AVG	(IN H2O)	1.034	1.055	1.035	
VS	(F/S)	64.17	66.90	64.03	65.04
QS'	(ACFM)	1182.	1232.	1170.	1197.
QSH	(ACFMD)	1108.	1217.	1101.	1182.
QS	(SCFMD)	964.	964.	965.	964.
QS SPEC.	(SCFMD)	964.	964.	965.	
% ISH		100.39	98.98	99.99	99.79
TOTAL FILTER CATCH	(MG)	14.50	8.90	12.20	
TOTAL WASH CATCH	(MG)	3.31	4.95	3.01	
TOTAL CATCH	(MG)	17.81	13.85	15.41	
CONCENTRATION	(GR/ACF)	0.0005	0.0007	0.0006	0.0006
CONCENTRATION	(GR/SCFD)	0.0077	0.0061	0.0068	0.007
EMISSION RATE	(LB/HR)	0.06	0.05	0.06	0.058

ATTACHMENT 11-A

VENDOR DATA

EMISSION POINT NO. 1

BAGHOUSE



ITEM NO. 510-671, 510-694

	DIMENSIONS (IN INCHES)													
MODEL NO.	A	B	C	D	E	F	G	H	J	K	L	[illegible]	[illegible]	[illegible]
RPDC-9/14	40	16	51	73	23.5	96.5	8	8	6	—	13/16	[illegible]	[illegible]	680
RPDC-45/10	56	16	105	153	63.5	178.5	16	10	12	16	[illegible]	[illegible]	[illegible]	5990

NOTES:

1- ALL DIMENSIONS ARE IN INCHES.
2- [illegible]
3- [illegible]
4- [illegible]
5- [illegible]
6- [illegible]

REVERSE PULSE DUST COLLECTOR

BUHLER-MIAG, INC.
MINNEAPOLIS, MINNESOTA

AUCG 40091

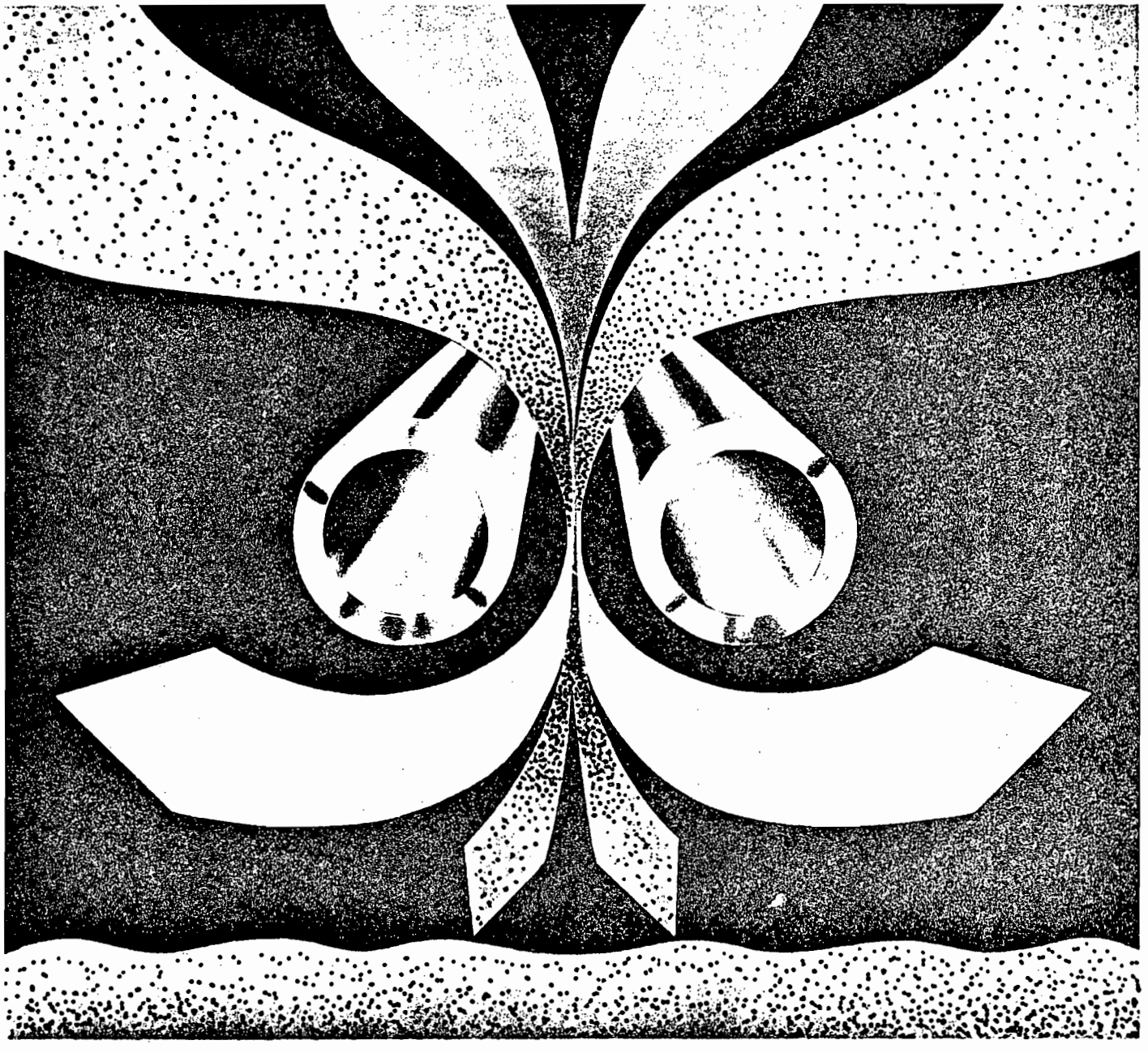
ATTACHMENT 11-B1

VENDOR DATA

EMISSION POINT NO. 2A

VENTURI SCRUBBER

A33
VENTRI-ROD SCRUBBER



INDUSTRY'S MOST VERSATILE WET SCRUBBING CONCEPT

DUCON | environeering Inc.

THE VERSATILE A-33 VENTRI-ROD SCRUBBER

The A-33 Ventri-Rod Scrubber™ offers more versatility and operating advantages than any other wet scrubbing equipment available!

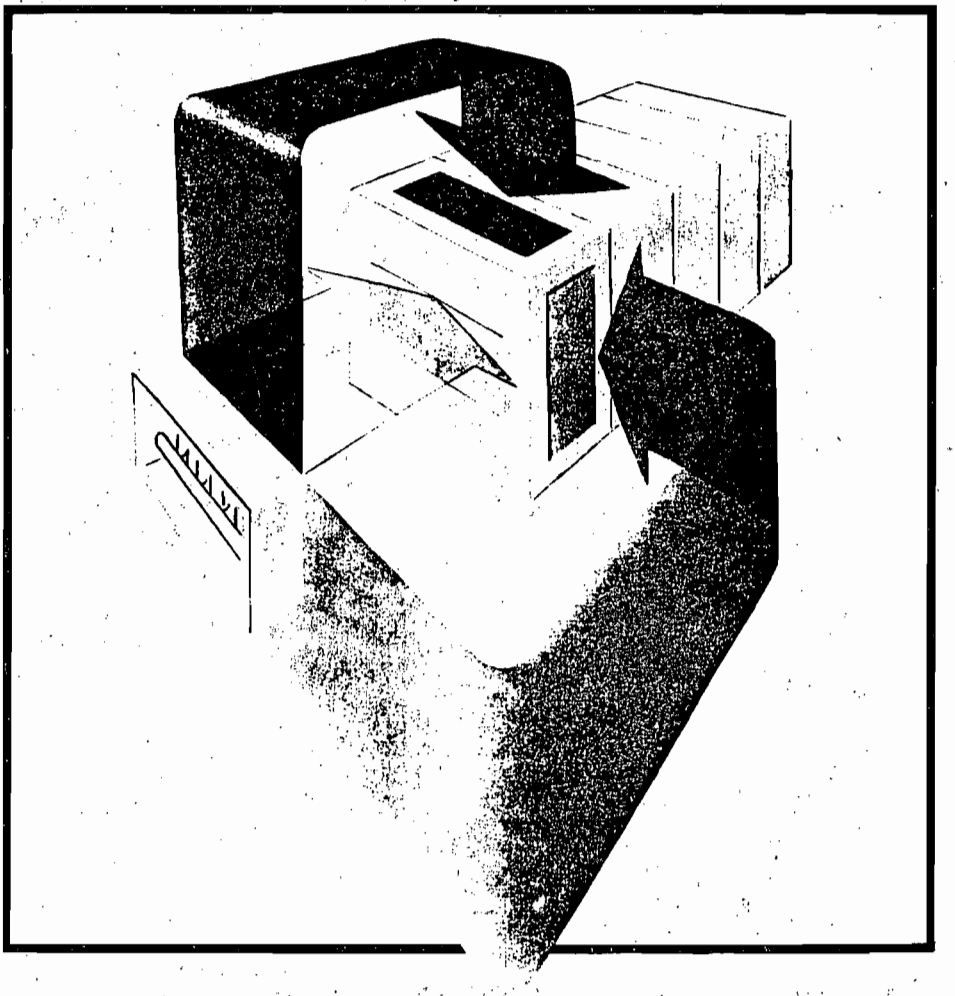
Based on the venturi principle, the A-33 Ventri-Rod Scrubber provides excellent efficiency, flexibility and maintenance free performance over long periods of operation. Unlike other venturis, the A-33 Ventri-Rod Scrubber is compact, functions well at low pressures and minimizes installation and operating costs.

The heart of the A-33 Ventri-Rod Scrubber is the unique and patented Ventri-Rod deck, a bed of parallel metal pipes spaced slightly farther apart than their diameter to produce a series of parallel venturi throats. The result is true venturi performance over a wide range with many benefits not found in other designs.

One major benefit of this design is that the Ventri-Rod deck will operate with equal ease and efficiency in an up-flow, down-flow or cross-flow configuration. This enables the design engineer to place the Ventri-Rod deck on the top, side or end of the scrubber to meet stringent or unique installation requirements as shown in the sketch at right. The outlet design is equally flexible allowing top, bottom or end exit of the scrubbed gases.

This same design flexibility enables the Ventri-Rod deck to be used as a conversion kit to upgrade inefficient or obsolete pollution control equipment of nearly any design, or to reduce maintenance costs on an existing scrubber.

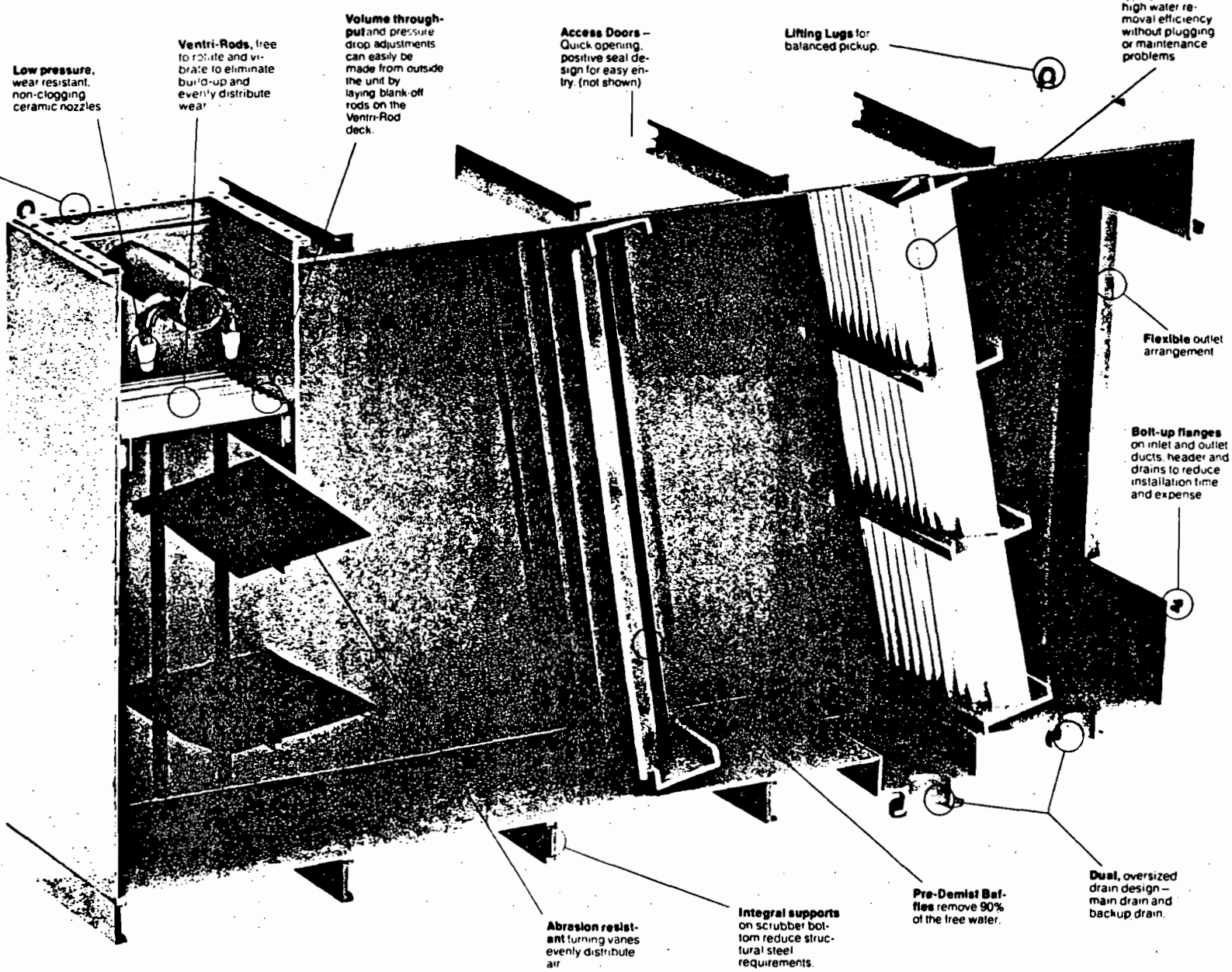
Other benefits of the Ventri-Rod design are:



- Water distribution problems are eliminated regardless of flow rate and pressure drop.
- The wear zone is reduced to the easily replaceable pipes alone.

This one versatile concept expressed in a flexible design format allows the A-33 Ventri-Rod Scrubber to outperform any competitive venturi or other design. This design has been proven in hundreds of applications throughout industry. No other scrubber offers as much flexibility in layout, installation and efficiency as the A-33 Ventri-Rod Scrubber!

ADVANCED CONSTRUCTION FEATURES



HOW THE [illegible] WORKS

Particulate-laden gas is directed through the Ventri-Rod stage where parallel pipes create a series of longitudinal short throat venturi openings. Scrub water is introduced co-currently with the gas stream through a series of low pressure, large orifice, spray nozzles. These nozzles regulate and evenly distribute the scrub water over the entire area of the Ventri-Rod bed. As the gas flows between the Ventri-Rods, a violent acceleration takes place and gas picks up moisture from the scrub water by entrainment and venturi action. High velocity in the Ventri-Rod area creates turbulent flow which literally tears the liquid droplets into smaller ones, causing a better blending of the contaminant particles and an increased collection efficiency for submicron particles. Particulate matter in the gas comes into close and repeated direct contact with the finely divided droplets of scrub water. Particulate is agglomerated and entrapped within the scrub water.

As the scrubbed gases exit the Ventri-Rod area, deceleration takes place, releasing the larger particulate-laden water droplets onto the floor of the scrubber as the scrubbed gases are directed toward the demisting zone by baffles or turning vanes. Moisture removal takes place in the pre-demist area, which removes 90% of the free water droplets and evenly distributes the gas stream to the demisting vane surfaces where the remaining free water is removed, and dry, clean gases are then exhausted via the scrubber outlet. The water collected prior to the demist section flows down the scrubber floor to the drain trough, carrying entrapped particulate to waste.

DESIGN FEATURES

FLEXIBLE DESIGN

The A-33 Ventri-Rod Scrubber works in up-flow, down-flow or horizontal-flow configurations, providing maximum flexibility to locate inlet and outlet connections to suit particular installation conditions. This design flexibility makes it possible to install the A-33 almost anywhere.

LOW MAINTENANCE

The A-33 Ventri-Rod Scrubber has an unsurpassed record of low maintenance due to a number of design features:

- Low pressure, wear resistant, non-clogging ceramic spray nozzles.
- Ventri-Rods, free to rotate and vibrate, minimize build-up and evenly distribute wear. The wear zone is limited to the easily replaceable pipes.
- Widely spaced chevron type demist vanes eliminate build-up and plugging.
- Oversized drains to eliminate plugging.
- Quick opening doors provide easy access to all areas of the scrubber.

COMPACT DESIGN

A-33 Ventri-Rod Scrubbers up to 90,000 ACFM can be shipped and installed in one piece. Larger units up to 600,000 ACFM can be shipped in as few as four pieces for field assembly. Integral demisting saves space and eliminates the need for external demisting units.

WIDE PERFORMANCE RANGE

Environeering's Ventri-Rod principle makes it possible for one basic scrubber design to handle inlet loadings in excess of 20 grains and to operate efficiently with pressure drops from 2" to 150" W.G. over a range of liquid-to-gas ratios from 2 to 15 gallons per 1000 CFM.

LOW INSTALLATION COST

The design of the A-33 Ventri-Rod Scrubber makes it easier to handle and install. Flanged inlets and outlets simplify duct and piping hookups and integral structural supports reduce customer's steel requirements. The scrubber's compact size minimizes the requirement for access platforms.

PROVEN PERFORMANCE FROM ONE DESIGN

Hundreds of A-33 Ventri-Rod Scrubber installations, ranging in volume from 1000 to 600,000 ACFM, handling everything from iron oxide dust to fly ash, have proven the performance of this exceptional scrubber design. No other scrubber offers so much installation flexibility and operating performance.

UPGRADE TO TOMORROW'S CODE

Upgrading the A-33 Ventri-Rod Scrubber to meet changing emissions standards is a simple matter of reducing the open area of the Ventri-Rod deck by laying in blank-off rods. The additional rods increase the unit's pressure drop, resulting in lower outlet loadings.

ECONOMY IN FABRICATION MATERIALS

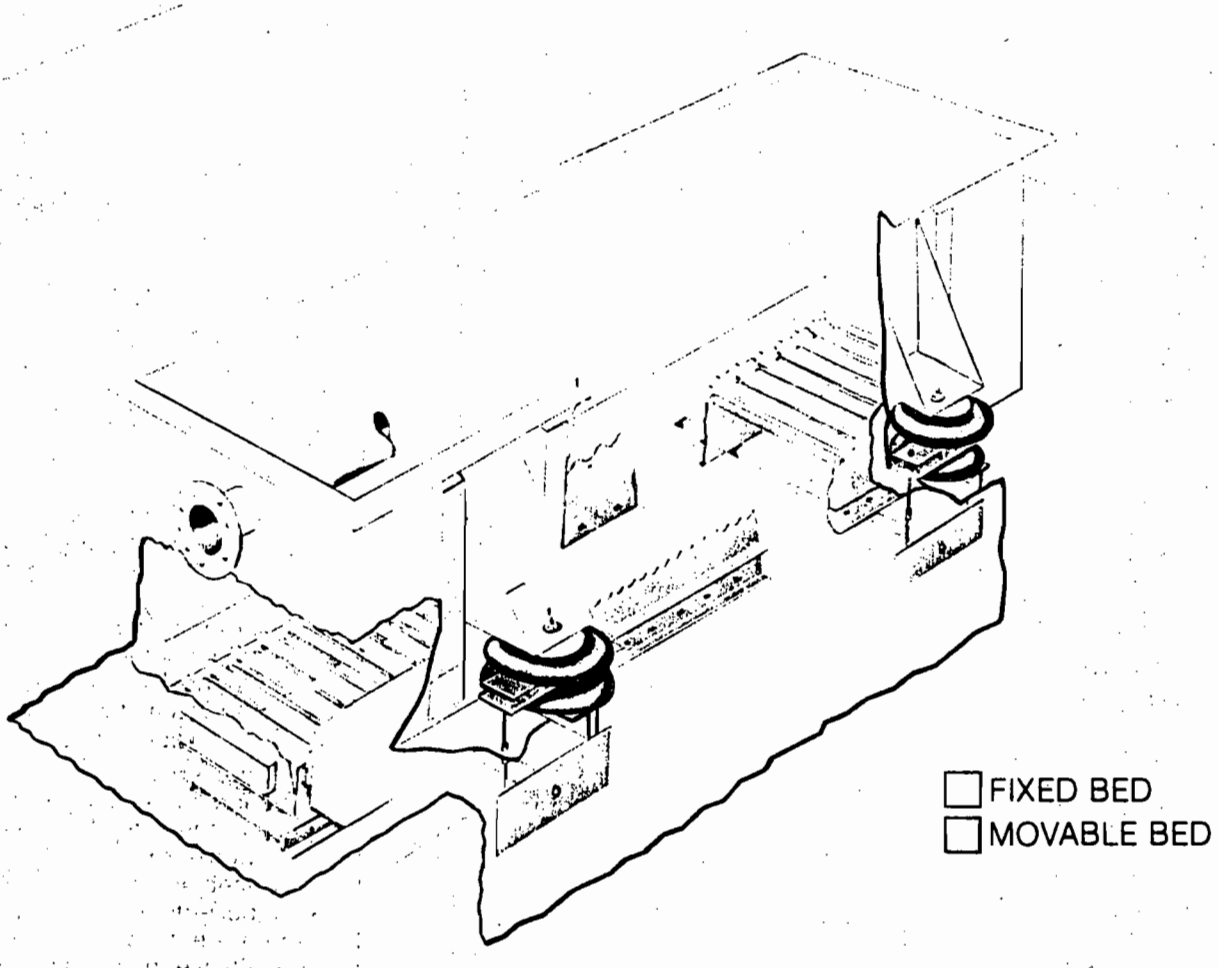
The A-33 Ventri-Rod Scrubber is well suited for fabrication from a wide variety of materials that can be combined to most economically meet the requirements of any process.

In non-severe service, such as a foundry sand system, the entire scrubber is fabricated of mild steel except for the rods and demist vanes which are stainless steel.

In high temperature service, such as a cupola control system, the inlet is made from stainless steel as are the demist vanes. The rest of the scrubber is fabricated of mild steel.

In severely corrosive service such as a coal fired boiler emission system, the inlet is made of corrosion and erosion resistant high moly, high nickel alloys. Downstream of the rod bed, corrosion can be effectively controlled by the use of mild steel coated with glass-filled polyester. Pre-demist and demist vanes are plastic for long life. This combination of materials will withstand the most severe service at a cost far less than fabrication of the entire scrubber with exotic alloys.

VARIABLE VENTRI-ROD BED

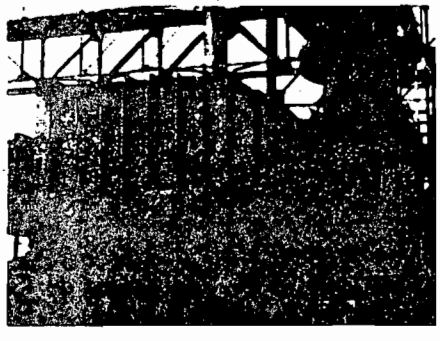


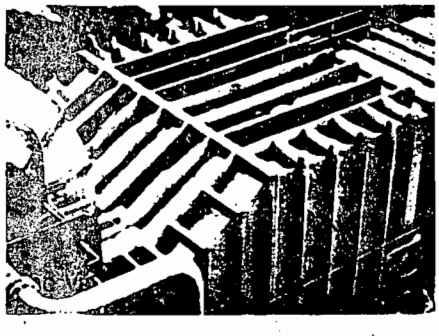
The Variable Ventri-Rod provides constant efficiency over a wide range of operating conditions. Designed with one fixed and one movable rod bed, the module adjusts for varying capacity requirements by changing the size of the venturi openings. The mechanism is rugged, compact and maintenance free. It moves less than 2 inches to achieve "full open to full closed" operation and can be designed to fail in the "full open" position for safety.

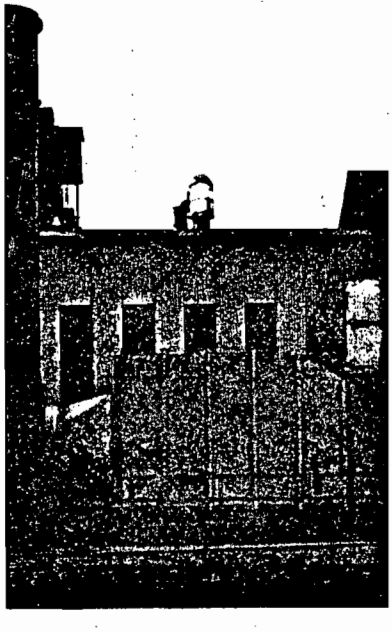
With the Variable Ventri-Rod, capacity can be cut back to one-third the rated volume while maintaining a constant efficiency. Through the use of the Variable Ventri-Rod, systems with widely varying operating conditions and/or capacities can be controlled in a manual or automatic mode.

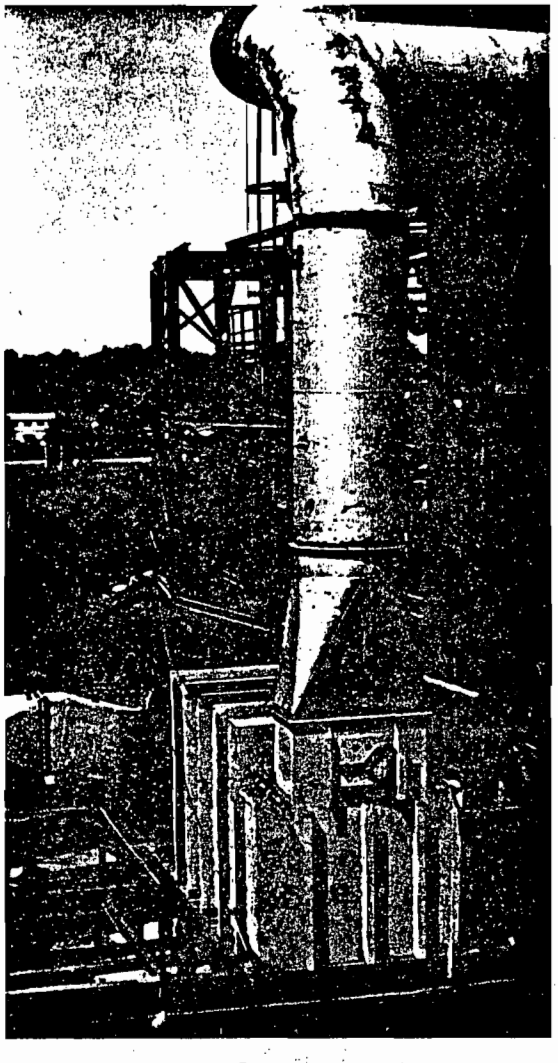
In a high energy system, the Variable Ventri-Rod can be used to regulate flow, thereby controlling the horsepower of the exhaust fan motor. This enables the fan motor to be sized for operating conditions higher than ambient.

TYPICAL APPLICATIONS







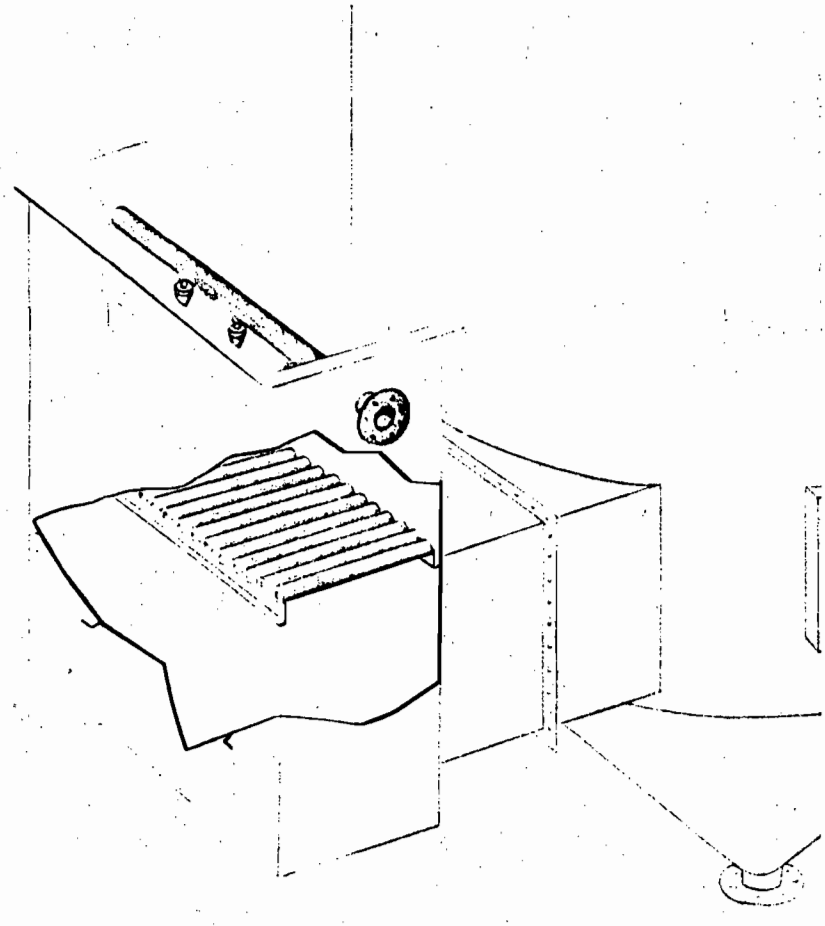


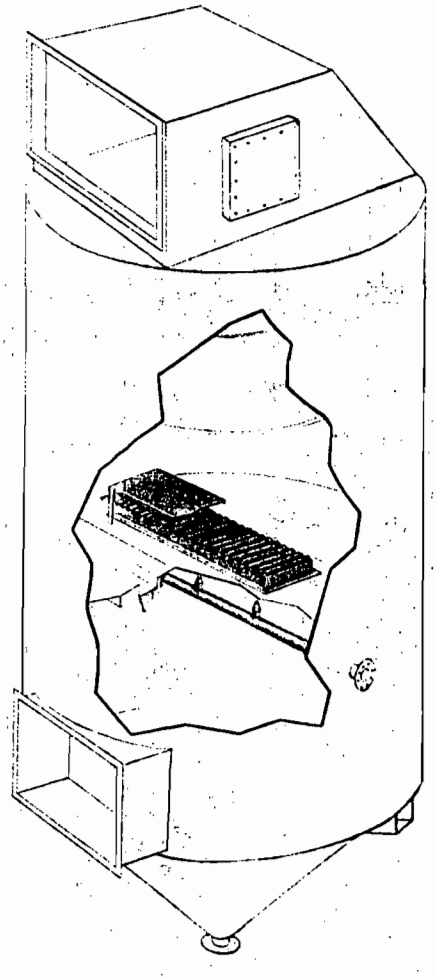
Antimony oxide kilns
Ammonium sulphate dryers
Bagasse boilers
Coal fired boilers
Chicken feather dryers
Taconite pelletizing machines

Mineral processing
Thermal coal dryers
Liquid incinerators
Refuse incinerators
Sand dryers
Foundry sand systems
Carbon black furnaces

Cupolas
Grain dryers
Phosphate dryers
Talcum powder processing
Vermiculite dryers
Sintering plants
Aggregate dryers

VENTRI-ROD CONVERSION KIT



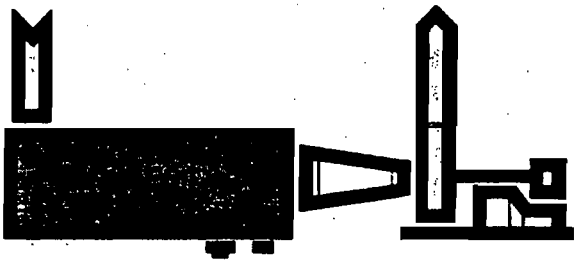


The versatility of the Ventri-Rod concept is most clearly demonstrated in the many installations where competitive scrubbers have been converted to the Ventri-Rod design to enhance the performance or reduce high maintenance costs. They may be installed on virtually any wet scrubber regardless of configuration or size. It is also possible to use the Ventri-Rod kit to convert areas of ductwork, stacks, baghouse shells or spray chambers into wet scrubbers.

Ventri-Rod kits are available for either interior or exterior conversion. They're designed for quick installation with minimal labor and downtime. Exterior kits consist of: enclosed Ventri-Rod assembly, water piping and nozzles, flanged inlet, outlet and drain, and access door. Interior conversion kits include: Ventri-Rods and supports, blank-off deck with support frame, and interior piping and nozzles.

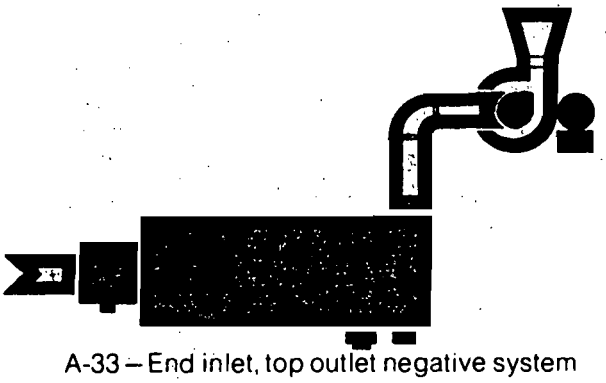
Ventri-Rod conversion kits are in use in hundreds of applications where they have increased performance and reduced maintenance while adding years of life to equipment which would have been declared unusable.

TYPICAL ARRANGEMENTS

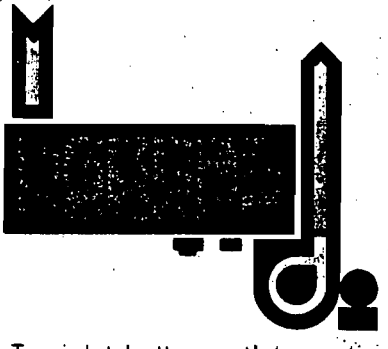


A-33 – Top inlet, end outlet negative system

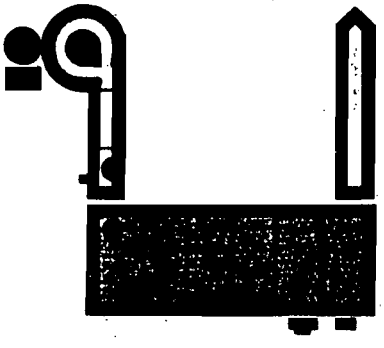
A-33 – End inlet, end outlet positive system



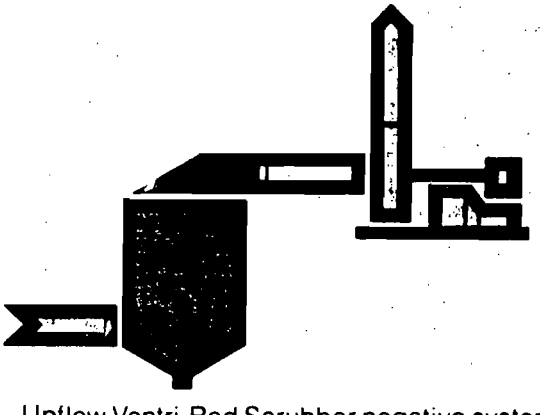
A-33 – End inlet, top outlet negative system



A-33 – Top inlet, bottom outlet negative system

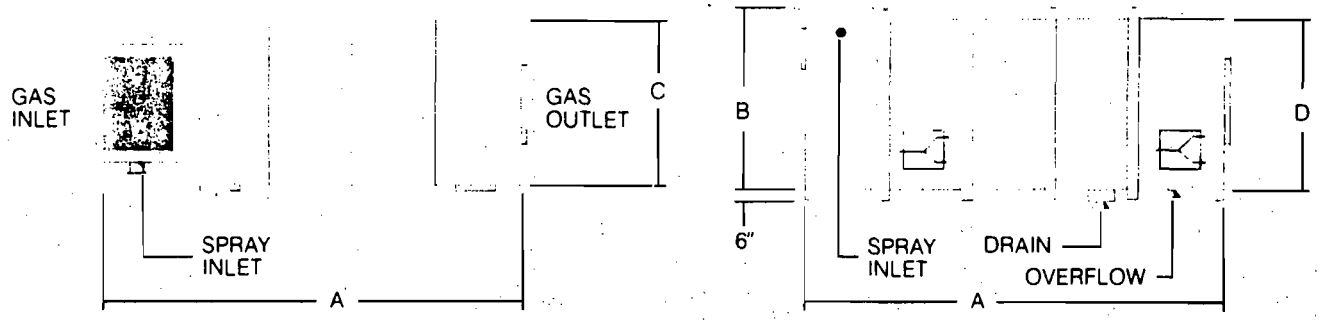


A-33 – Top inlet, top outlet positive system



Upflow Ventri-Rod Scrubber negative system

DIMENSIONS AND WEIGHTS FOR STANDARD A-33 VENTRI-ROD SCRUBBERS



MODEL	CAPACITY [1]	DIMENSIONS A[2]	B	C	D	WEIGHT (LBS.) SHIPPING	OPERATING
A-33	4000	9'0"	7'0"	2'6"	3'2"	2500	2700
A-33	6000	9'0"	7'0"	3'6"	3'2"	3000	3200
A-33	10000	10'0"	7'0"	4'0"	4'0"	3500	3800
A-33	14000	10'0"	7'0"	5'6"	4'0"	3700	4000
A-33	18000	10'0"	7'0"	7'0"	4'0"	4000	4400
A-33	22000	12'0"	7'0"	6'0"	6'0"	5200	5600
A-33	26000	12'0"	7'0"	7'0"	6'0"	5700	6200
A-33	30000	12'0"	7'0"	8'0"	6'0"	6300	6800
A-33	34000	14'0"	8'3"	7'0"	8'0"	7500	8100
A-33	40000	14'0"	8'3"	8'0"	8'0"	8000	8600
A-33	46000	14'0"	8'3"	9'0"	8'0"	9000	9700
A-33	50000	16'0"	8'3"	9'0"	8'0"	9500	10300
A-33	60000	16'0"	8'3"	10'0"	8'0"	10500	11400
A-33	75000	19'0"	10'0"	10'0"	10'6"	14500	15500
A-33	90000	22'0"	11'3"	11'6"	11'0"	17500	18900
A-33	105000	22'0"	11'3"	13'6"	11'0"	21000	22600
A-33	125000	22'0"	11'3"	16'0"	11'0"	22500	24400
A-33	150000	22'0"	11'4"	19'0"	11'0"	30000	32200
A-33	175000	22'0"	11'4"	22'3"	11'0"	34500	37100
A-33	200000	22'0"	11'4"	25'0"	11'0"	37500	40400
A-33	XXXXXX	DIMENSIONS AND WEIGHTS FOR LARGER UNITS AVAILABLE ON REQUEST					

1 MAXIMUM SATURATED GAS VOLUME CAPACITY
2 •FOR TOP OR BOTTOM OUTLET, ADD 3'0" TO DIMENSION A
•FOR END INLET, ADD 3'0" TO DIMENSION A
•FOR TOP OR BOTTOM OUTLET *AND* END INLET, ADD 6'0" TO DIMENSION A

DUCON environeering

147 EAST SECOND STREET MINEOLA, N.Y. 11501
(516) 741-6100 TWX 510-222-9861

ATTACHMENT 11-B2

VENDOR DATA

EMISSION POINT NO. 2B

AFTERBURNER

ROSS-WALDRON

ROSS-WALDRON

ROSS-WALDRON

ROSS-WALDRON

CUSTOM ENGINEERED SYSTEMS

ROSS-WALDRON

ROSS-WALDRON

ATTACHMENT 11

SOMERSET TECHNOLOGIES, INC.

PROPOSAL NO. IN6011025-1

For

GENERAL FOODS CORPORATION

ONE (1) 10,000 SCFM AFTERBURNER

APRIL 18, 1986

SOMERSET TECHNOLOGIES, INC.

DIRECT FIRED AFTERBURNER
ROSS PROPOSAL NO. SD6011069-OPTION NO. 1

MAXWELL HOUSE (HOUSTON)
FEBRUARY 6, 1987

DIRECT FIRED AFTERBURNER ENERGY CALCULATIONS

Contaminant Rate:	91.7 #/Hr.
Exhaust volume:	10,000 SCFM
Thermal energy recovery:	0 %
Afterburner temperature:	1500 Deg. F
Afterburner exhaust temperature with contaminants:	1500 Deg. F
Afterburner exhaust temperature with no contaminants:	1500 Deg. F
Process exhaust temperature (1):	118°F Saturated
Temperature increase, with no contaminants:	1382 Deg. F
Energy required:	18,042,600 Btu/Hr.
Net energy available from contaminants (gross less 10% latent heat loss):	*(495,180 Btu/Hr.)
Net fuel energy required:	18,042,600 Btu/Hr.
Available energy (latent and sensible heat loss correction factor):	57%
Gross fuel energy required:	31,654,000 Btu/Hr.
Hourly fuel cost @ $5.00/MM Btu:	$158.27/Hr.
Hours per year in operation:	6000 Hours
Operating fuel costs:	$949,620/Yr.

*As requested for the Jacksonville Afterburner, this theoretical heat release will not be used to calculate burner sizes or fuel consumptions.

Rev. I - Process exhaust temperature changed from 300°F dry to 118°F saturated.

GENERAL DESCRIPTION

The Ross Stack Fume Afterburner is designed to pass air from coffee roasting process through a combustion burner which raising the contaminants and holds it at the afterburner temperature for approximately 0.5 seconds. Contaminants are thereby consumed and the cleaned air is discharged to the atmosphere.

The operating temperature of the afterburner depends upon the type and nature of the contaminants and the control regulations for the area in which the afterburner is operating. The minimum temperature at which the unit is usually operated is that at which 90% or more of the contaminants are reduced to harmless water vapor or carbon dioxide and thus maintaining the level of contaminants exhausted within acceptable limits.

When the contaminants contain volatiles and the volatile laden air is passed through the burner flame, the volatiles are ignited, providing an additional source of heat energy which will allow automatic throttling back of the gas supply to the burner to conserve gas. The burners then continue to modulate to maintain the Afterburner temperature according to the amount of combustible volatiles in the exhaust air, taking full advantage of the energy released by the volatiles. This permits lowest possible operating costs and maximum efficiency using the direct afterburner design.

The afterburner is designed to destroy contaminants containing only he elements of carbon, hydrogen, oxygen and nitrogen (in air). It is assumed that the contaminates and fuel are volatiles which upon oxidation will produce harmless products of combustion, namely, water vapor and carbon dioxide. However, the contaminants and fuel may have other substances besides hydrocarbons which might form products of combustion other than H_2O and CO_2. Therefore, it should be remembered that these impurities should be kept to a minimum so as not to violate any regulations.

MATERIALS OF CONSTRUCTION

The afterburner will be constructed of preassembled sections having an interior lining of high temperature refractory with outer casing of heavy gauge metal. Necessary drawbands and cement are included. An access door will be provided in the dwell chamber for inspection of the Afterburner and periodic maintenance. A sight port will be provided for observation of burner and pilot.

The Afterburner is mounted on skid steel for shipping and field setting. No platforms, walkways, handrails, or ladders are included.

It is assumed the afterburner will be erected on a concrete pad or a steel base furnished by purchaser.

The afterburner will be approximately 36'-0" high x 72" outside diameter. The approximate erected weight will be 18,000 lbs.

BURNERS AND CONTROLS

As part of the afterburner system, we will provide the complete burner, safety control and temperature control system. The burner will be a gas/oil packaged type of special design. The purchaser is to supply the required volume of fuel at the required pressure for efficient burner operation. The set of insurance safety equipment will be provided with the necessary interlocks to the roaster control system.

The burner is mounted on the face of the afterburner combustion chamber. No piping or wiring of the fuel valve train is included. This burner train equipment will be shipped direct to the field, for customer's field installation.

INSTRUMENTATION

One (1) Barber Colman temperature controller will be furnished. The temperature controller is complete with thermocouples and necessary T/C extension wire.

All afterburner controls will be mounted in a NEMA 12 electrical control panel located indoors.

FAN AND MOTOR

We will furnish one (1) centrifugal type fan capable of handling 18,120 CFM at 3.5 S.P. cold.

The fan will be driven by a 15 HP, 1800 RPM, totally enclosed fan cooled motor, drive, vortex damper and remote manual operator.

DRAWINGS AND DATA

Ross-Waldron shall furnish three (3) complete sets of drawings as follows:

Spare Parts List
Instruction Manuals
Maintenance Manuals
Outline Dimensions Drawings
Assembly Drawing
Wiring Drawings

ERECTION AND STARTUP

No erection, erection coordination of field start-up services are included in this proposal.

SAFETY CONTROLS AND OTHER FEATURES

All safety controls and other features incorporated in this proposal are specified on the basis of generally accepted insurance standards as known to us. Additional safety controls and other features required by the purchaser or by any law, regulation, ordinance, insurance agency or special requirement such as U.L. approval, will be furnished at additional cost.

OSHA

Compliance with OSHA under the law is the responsibility of each employer.

Somerset Technologies, Inc., endeavors to comply with the purposes and the applicable standards of OSHA. The prices quoted herein do not include any special charges for OSHA compliance. In no event shall Somerset Technologies, Inc., be liable for direct, incidental, or consequential damages arising out of or resulting from the operation of Somerset Technologies, Inc., equipment or accessories.

In the event that the items quoted herein are found not to comply with OSHA, at the customer's request, and at his expense, Somerset Technologies, Inc., will endeavor to make improvement, if technically feasible.

EQUIPMENT NOISE LEVEL

We do not include system noise abatement equipment since the noise level of the equipment operating in conjunction with the equipment's environment, cannot be predetermined.

If the noise level exceeds standards, we will furnish, at additional cost the necessary sound absorption materials required.

CONFIDENTIALITY INFORMATION

All drawings, specifications, technical data, including this proposal, and other information we provide, is considered confidential, and the exclusive property of Somerset Technologies, Inc. The information may be used only for the purpose for which material was expressly loaned and shall not be reproduced, copied or used in any way detrimental to the interest of Somerset Technologies, Inc.

SHIPMENT

Our present schedule for shipping the proposed equipment is approximately fourteen (14) to sixteen (16) weeks after receipt of formal purchase order. This projection is based on receipt of all engineering information at the time of order and customer approval to release equipment for manufacturing prior to drawing approval. Some partial and direct shipments will be made earlier.

ITEMS TO BE PROVIDED BY OTHERS UNLESS DESCRIBED IN THIS PROPOSAL

Claims for damages in transit to the transportation company.

Labor and material to unload and move equipment from the delivery carrier to the installation site, including suitable storage and protection for all components and delivery to installation site when equipment is required for installation.

Suitable location and preparations of foundations, including anchor bolts, shimming and grouting, along with buildings and building alterations required.

Labor and supervision for the proper installation of the equipment, including field cutting, welding and bolting as noted.

Permits and approvals as may be required by any and all insurance, governmental, or local authorities.

Applicable sales, use, excise or similar taxes.

Additional costs incurred for fees and/or preparation of drawings or data for approval by insurance, governmental or local agencies.

Utilities as required for installation and operation of the equipment.

Electrical, pneumatic, hydraulic interconnecting wiring and piping including material and labor, except for those items specifically described as piped and wired in this proposal.

Lighting and equipment grounding protections.

Fire protection equipment.

Field painting.

Insulation of exposed surfaces of equipment.

Material handling, equipment such as hoists, dollies, pumps, etc.

Costs incurred in obtaining Underwriters Laboratories approval shall be borne by the Purchaser.

Services and equipment not specifically described.

EQUIPMENT PRICING

ITEM	DESCRIPTION	PRICE
Base	Provide one (1) 10,000 SCFM Direct Fired Afterburner System as described in this proposal	
	(ONE HUNDRED TWENTY-EIGHT THOUSAND SIX HUNDRED EIGHTY-FIVE DOLLARS)	$128,685

All prices F.O.B. Shipping Points, Freight Collect

FREIGHT

If the purchaser desires the freight 'Prepay and Bill', the freight charges will be accumulated monthly and invoiced at cost. A service charge of 5% of the freight bill, with a minimum charge of $60.00 will be added to each monthly invoice.

TERMS

25% cash with purchase order.

65% progress billings based on sales value of engineering and/or material and labor consumed during the previous month, payable net 30 days.

Final 10% of sales value issued upon shipment of all major components or completion of services as contracted, payable net 30 days.

NOTE: A service charge of 1% per month applies after payment due date.

The equipment quoted is subject to the attached Terms and Conditions of Sale, Form #SA-6 of 4/82.

SOMERSET TECHNOLOGIES, INC.

ROSS - WALDRON

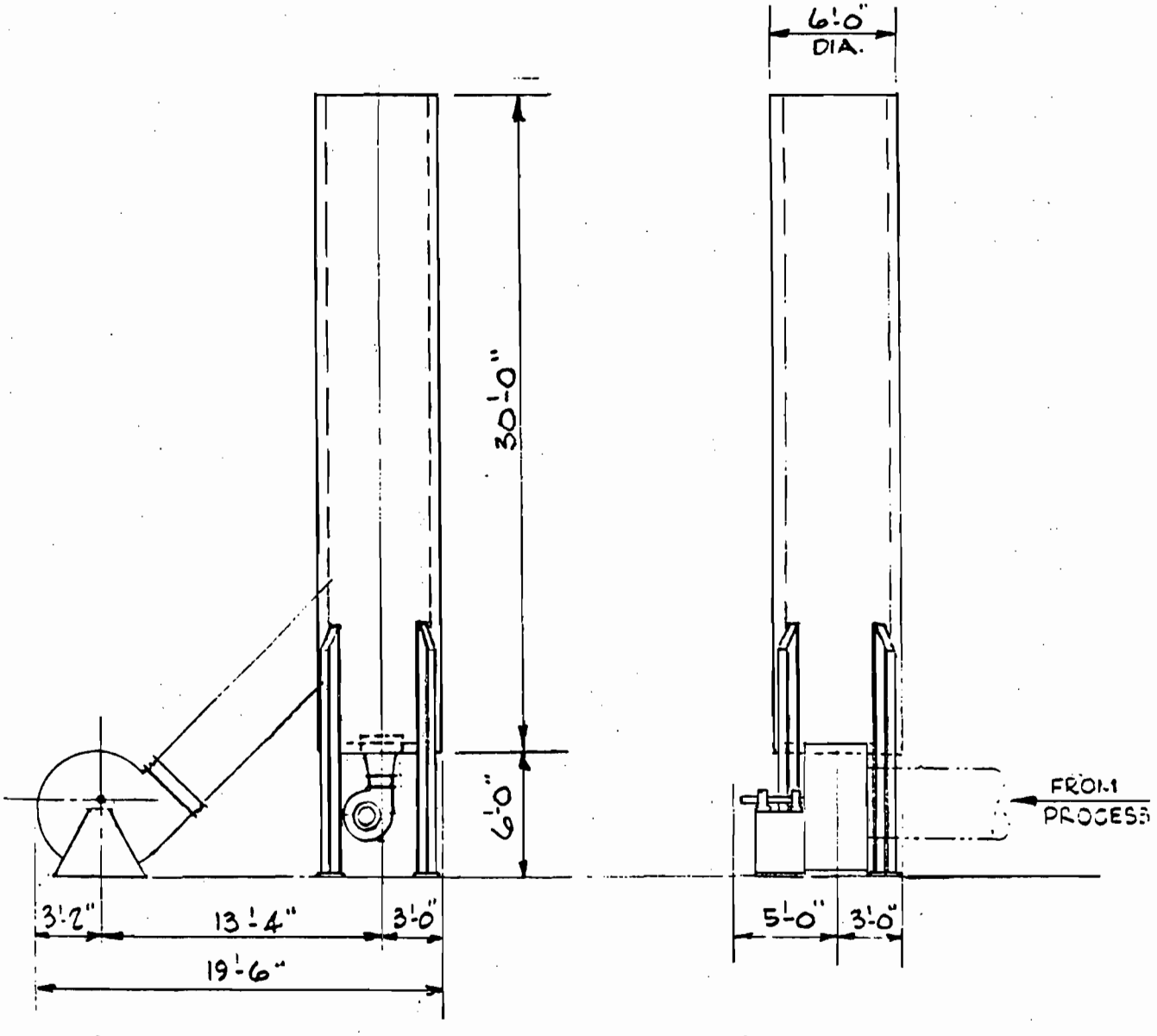
DRAWN BY: JG.
DATE: 4/16/86
REF. DWG.: —

CONTRACT #: —

SKETCH #: 1025-A
FOR: GENERAL FOODS
JACKSONVILLE, FLA.

NOTE!!

1. ALL DIMENSIONS APPROX.



SIDE ELEVATION

END ELEVATION

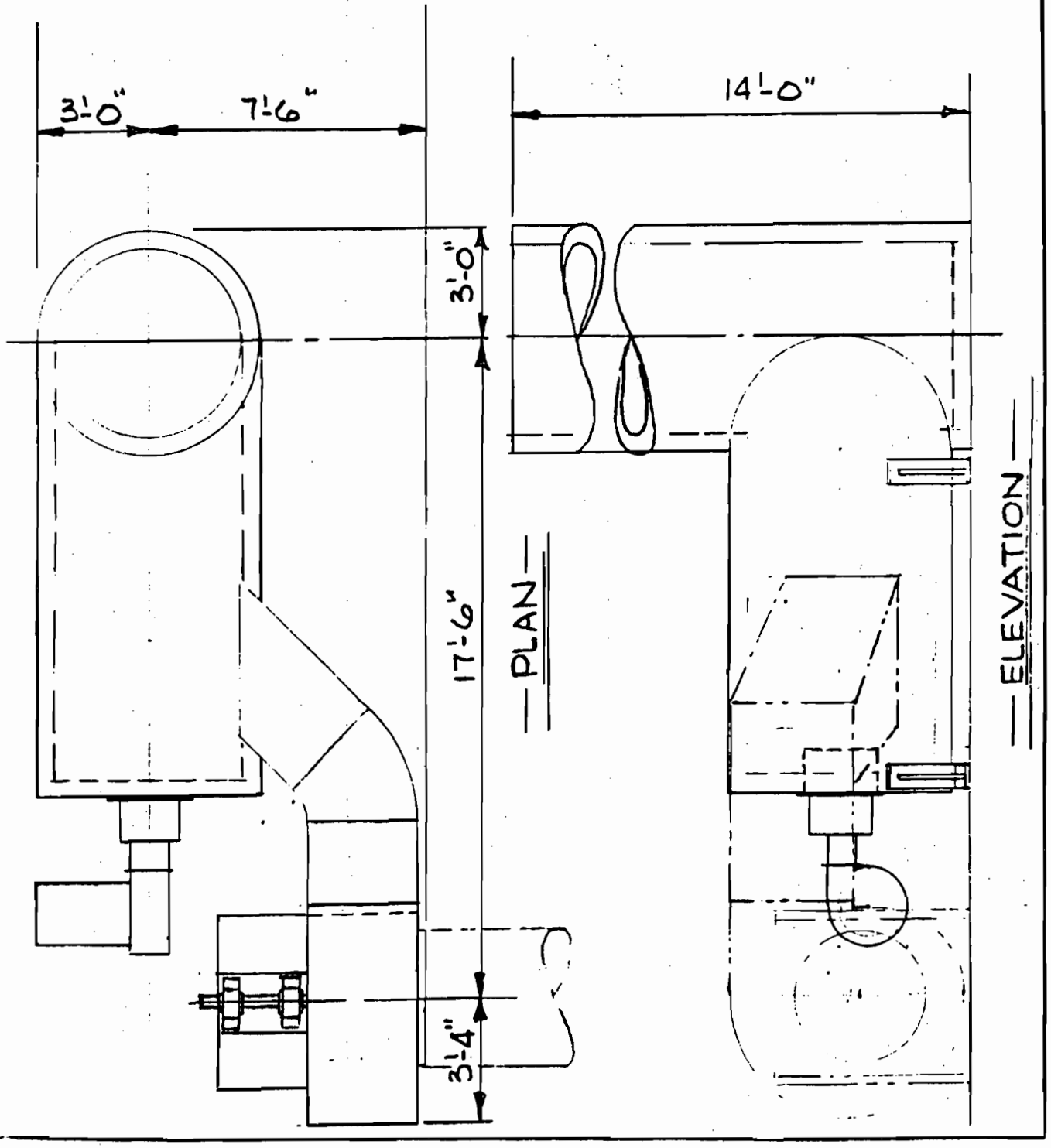
SOMERSET TECHNOLOGIES, INC.

ROSS - WALDRON

DRAWN BY: JG
DATE: 4/17/86
REF. DWG.: —

CONTRACT #: —

SKETCH #: 1025-B
FOR: GENERAL FOODS
JACKSONVILLE, FLA.



Best Available Copy

SOMERSET TECHNOLOGIES INC.

GENERAL FOODS CORPORATION
Proposal No. IN6011025-1
April 18, 1986

TERMS AND CONDITIONS OF SALE

Seller is not bound by any terms and conditions of sale unless agreed to in writing by Seller's authorized representatives at its divisional home office. The terms and conditions contained herein and any other terms and conditions stated in Seller's proposal or specifications attached hereto shall constitute the complete agreement between the Seller and Purchaser and shall supersede all prior understandings, transactions and communications, whether oral or written, with respect to the matters referred to herein and form the complete contract between the Seller and Purchaser, and shall be binding upon and accrue to the benefit of the successors and assigns of the parties hereto. No modification, alterations or amendment of the terms and conditions of sale herein whether by conditions in Purchaser's order forms or in Purchaser's written communication shall be binding upon Seller unless agreed to in writing and signed by Seller's authorized representatives at Seller's home office. This contract shall be construed according to the laws of the State of NJ including, but not limited to, the Uniform Commercial Code as therein enacted.

The failure of Seller to object to any provision in conflict herewith, whether contained on the Purchaser's purchase order or otherwise, shall not be construed as a waiver of the provisions hereof or as an acceptance of the Purchaser's terms.

PROPOSALS

Until accepted by the Purchaser and countersigned by Seller, any quote or proposal submitted to Purchaser herein is subject to change or cancellation upon written notice to the Purchaser and is void unless so accepted by Purchaser within thirty days of the date of said quote or proposal and subsequently countersigned on behalf of Seller.

WARRANTY

Except as hereinafter in this section set forth, all equipment sold by Seller is warranted for a period of one year from the date of shipment to the Purchaser to be free from latent defects in material and workmanship disclosed under normal use and service. If the Purchaser within this period notifies Seller in writing of any claimed defect in any equipment delivered by Seller and such equipment is found by Seller, after appropriate tests and inspection by Seller, not to be in conformity with this warranty, Seller will at its option and expense either repair the same or provide a replacement therefore, F.O.B. Seller's shipping point. THE WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR PARTICULAR USE.

LIABILITY LIMITATION

In the event of a breach or repudiation of this contract on any of the provisions by the Seller, Purchaser shall not be entitled to recover incidental or consequential damages including those arising upon breach of IMPLIED WARRANTY OF MERCHANTABILITY or any losses, costs, expenses, liabilities and damages (including, but without limitation to, loss of use or profits, damages to property, all liabilities of the Purchaser to its customers or third persons, and all other special or consequential damages) whether direct or indirect, and whether or not resulting from, or contributed to by the default or negligence of Seller, its agents, employees, or subcontractors, which might be claimed as the result of the use or failure of the equipment delivered. Nor shall the Purchaser be entitled to recover any costs for materials expended or used, initiated at the request of the Buyer or Purchaser. Seller's liability on its warranty shall in no event exceed its cost of correcting the defects in the equipment sold or replacing the same with non-defective equipment.

SUBSTITUTION OF MATERIALS:

In the event that Seller is unable to obtain any specified materials or parts in time to meet the scheduled delivery date, Seller reserves the right to substitute other materials or parts which will not in Seller's judgment impair the essential functions, strength or life of the equipment.

SHIPMENTS

All equipment will be shipped F.O.B. Seller's point of shipment. Unless special shipping instructions are received from the Purchaser substantially before the shipment date, Seller will use its reasonable judgment as to the best means of shipment and routing consistent with the nature of the equipment shipped and the delivery schedule.

TAXES

The price herein does not include any applicable sales, use, excise or similar taxes, now or hereafter in effect. The amount of any such taxes which Seller may be required to pay or to collect from the Purchaser will be added to each invoice unless the Purchaser has furnished Seller with an appropriate tax exemption certificate acceptable to Seller. Seller will further invoice the Purchaser for, and the Purchaser will pay to Seller any other tax or charge hereafter imposed by any governmental authority upon any part of the equipment described herein or the production, sales, transportation or delivery thereof, or upon any other feature of this transaction.

TITLE AND SECURITY

Seller shall retain title and a Security interest to all equipment sold as described herein until the purchase price shall be fully paid. And it is agreed that all equipment shall retain its personal character, and shall not become a fixture by being annexed or affixed in any manner to any land, machinery, foundation or building of any sort; and that if it be placed on any property subject to mortgage or encumbrance, it shall not be subject to such mortgage or encumbrance. Until fully paid for in cash, the Purchaser shall keep all equipment free and clear of all taxes, liens and encumbrances of any nature whatsoever or howsoever arising and shall provide and maintain adequate insurance thereon (for the full value thereof as shown by the contract price herein plus all installation costs) against loss or damage caused by fire or other casualty customarily insured against all losses under said policies to be payable to Seller or Purchaser as interest may appear. Upon default in the payment of any part of the purchase price, Seller shall have the right at its election to take possession of all equipment and remove the same, without legal process or hindrance or to enter upon Buyer's premises and render such equipment unuseable, and to retain all payments previously made as compensation for its use and wear. Upon demand of Seller, the Purchaser shall execute and deliver to Seller such further documents and other instruments (including the assent or agreement of any persons having interests in or liens upon the property upon which the equipment is placed) in form satisfactory to Seller, which Seller may reasonably require to secure to Seller the rights conferred upon it under this section.

ADDITIONAL TERMS OF SALE

If Seller in its judgment at any time, whether before or after acceptance of an order, deems that the continuance of production or delivery on the foregoing terms is not justified, or if the Seller reasonably deems his Security to be in jeopardy, he may require full or partial payment in advance.

Seller shall not be held responsible for loss or damages or excess cost resulting from the means of shipment or routing used or for any other losses or damages arising while in transit, and the Purchaser agrees to make any claim therefor directly against the carrier.

TIME OF DELIVERY AND INSTALLATION

Seller will use all reasonable diligence to meet the schedule dates for shipment, delivery, and installation but cannot guarantee any delivery or completion date. Seller shall not be liable for any loss, damage, expense or charge of any kind resulting from delay in delivery, installation or attainment of operational status of the machinery.

APPLICABLE LAW

Seller agrees that, in the performance of all work hereunder, it will comply with those laws, regulations, and ordinances of the United States, State and local governments and of all agencies of any such government, which are specifically brought to its attention, negotiated, and specifically agreed to, in writing, by the Seller. However, to the extent that such laws and regulations are changed after the date of Seller's original proposal herein and to the extent that such changes will increase Seller's cost in the performance such additional cost, if determined by Seller, will be borne by Purchaser.

The foregoing condition does not cover, and the Seller makes no warranty with respect to:

(a) Compliance with laws taking effect after execution of this contract;

(b) Compliance with laws not specifically brought to Seller's attention by Purchaser, negotiated, and specifically agreed to, in writing, by Seller.

If any provision hereof becomes unenforceable by reason of any such law, rule, regulation, ordinance or order, the same shall not affect the validity of the remainder hereof if performance of the order may still be carried out.

CANCELLATION OR CHANGES REQUIRED BY PURCHASER:

No order is subject to cancellation or to change unless requested by the Purchaser and accepted in writing by Seller. In the event of any cancellation, the Purchaser shall pay to Seller within thirty days of such cancellation all contract costs and other expenses incurred by Seller prior to receipt of the request for cancellation (including, but not limited to, engineering expenses and all commitments to its supplier, sub-contractors and others), plus an amount equal to 15% to cover general and administrative expenses plus 10% of the total to cover profit lost by reason of cancellation. In the event of any change, Seller shall be entitled to revise its price and delivery schedules to reflect such change.

PATENTS

Subject to the conditions hereinafter provided, in the event that any claim is made or action brought against the Purchaser so far as based on a claim that any apparatus or any part thereof constitutes an infringement of any U.S. Letters Patent, the Purchaser is to notify Seller immediately thereof. Seller shall have the right with the Purchaser's assistance, if required, but at Seller's expense, to conduct settlement negotiations or any litigation and Seller shall pay all damages awarded against the Purchaser. In case said apparatus or any part is in such action held to be an infringement and the use is enjoined or if as a result of a settlement, Seller deems the continued use inadvisable, then provided that the Purchaser has given the immediate notice provided for above and has used the appartus or parts only in accordance with the provisions of this contract and shall not have altered or changed them in any material way, Seller shall at its option and expense, either procure for the Purchaser the right to continue using said apparatus or part; or replace same with non-infringing apparatus or part; or remove same and refund the purchase price less reasonable depreciation; provided, however, that in the event that any equipment, article, or component is manufactured by the Seller in accordance with Buyer's designs, blueprints, samples or specifications, Seller shall have no obligations as to infringement and Buyer shall indemnify and save Seller harmless from any and all expenses, injury or loss arising out of claims of patent, design and trademark infringement because of the manufacture, use or sale thereof; and provided further, no license or right to Buyer, express or implied, is granted hereunder by the Seller under any patent or patent application, design patent or trademark owned or controlled by the Seller except to the extent necessary to permit the Buyer to use the equipment or products manufactured by the Seller. The foregoing states Seller's entire liability for patent infringement by said apparatus or any part.

SOMERSET TECHNOLOGIES INC.

- ☐ Cameron Machine Division
- ☐ Hartig Plastics Machinery Division
- ☒ Ross-Waldron Division
- ☐ Kathabar Systems Division

Proposed by James E. Caffrey
For the Sales Department

Buyer _____

Approved by _____

Title _____

Date _____

Final Acceptance:

By _____

Title _____

Date _____

SA-8 4-82

ATTACHMENT 11-B3

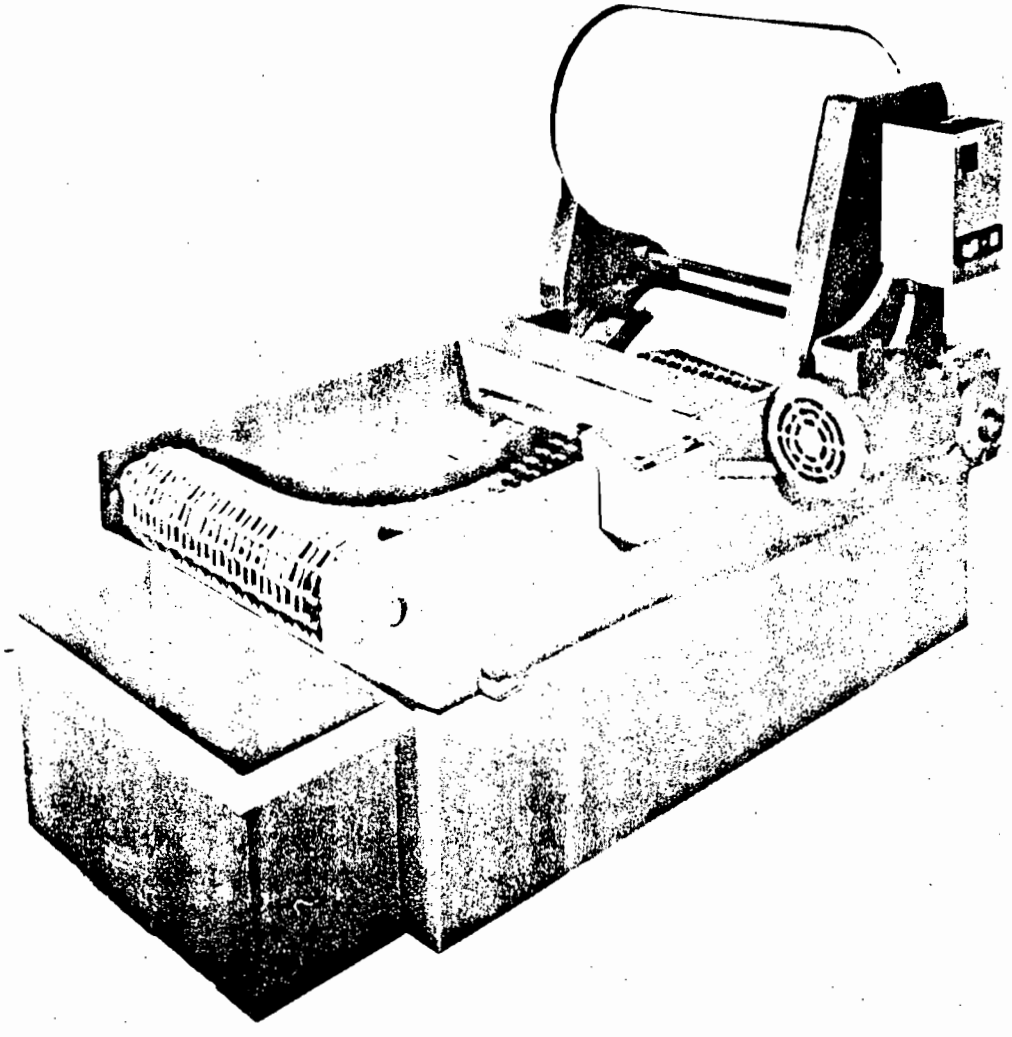
VENDOR DATA

EMISSION POINT NO. 2C

VENTURI SCRUBBER PURGE FILTER

MODEL DB-15

DEEP BED FILTER



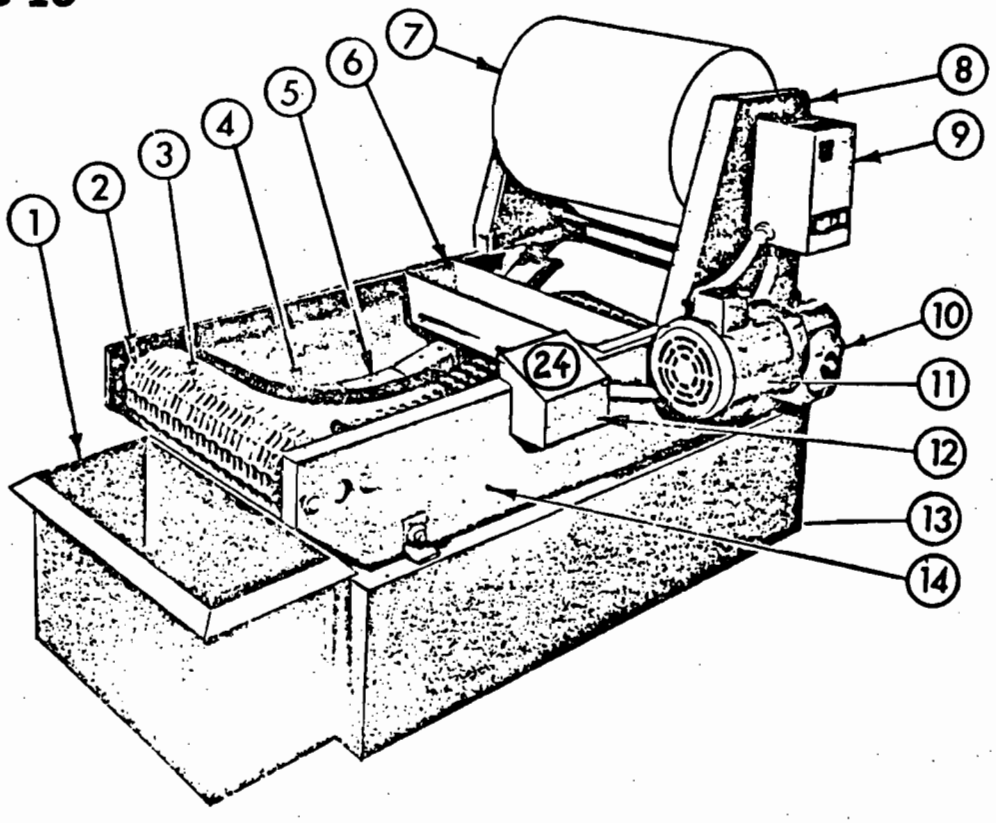
OPERATING INSTRUCTIONS and PARTS LIST

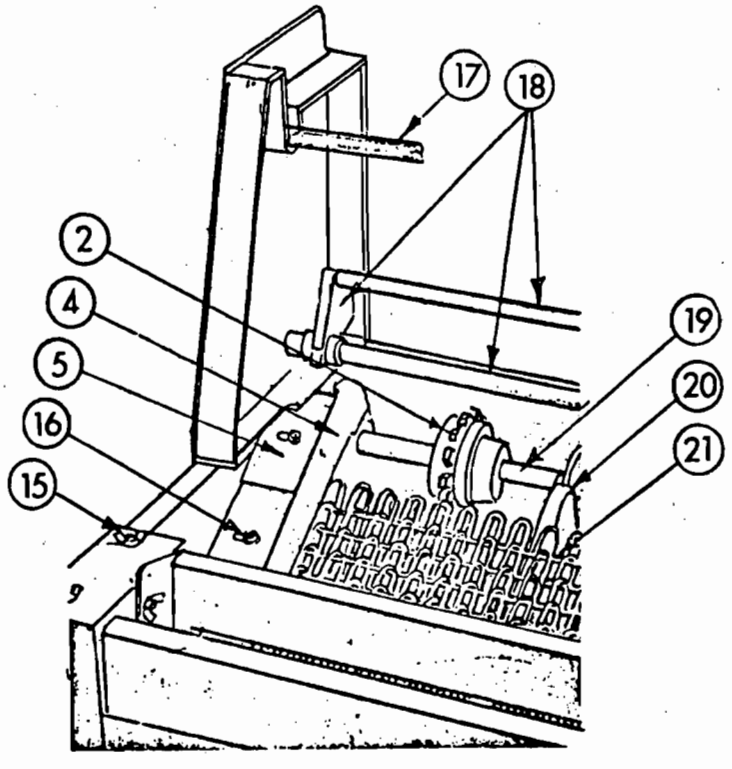
Industrial Filters Company

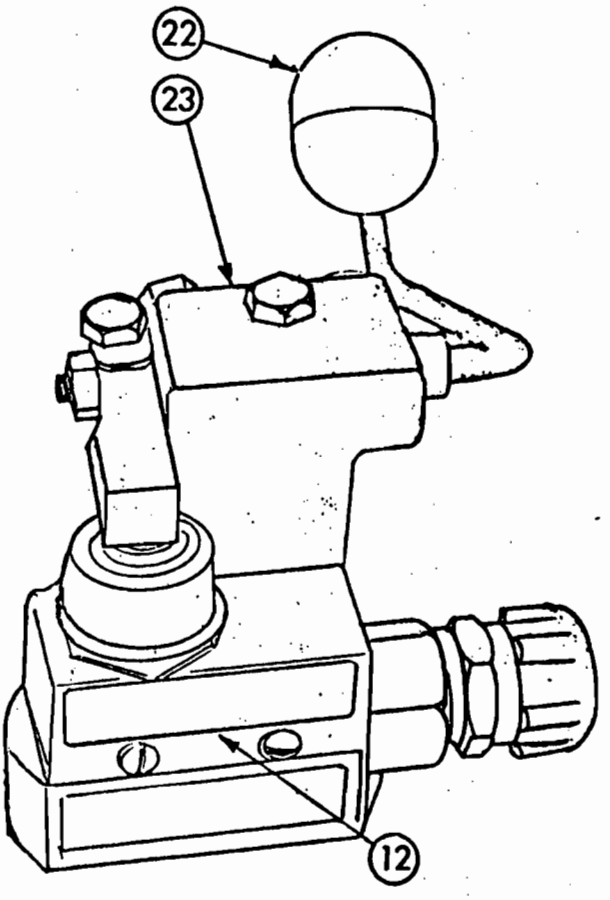
MANUFACTURERS OF FILTRATION EQUIPMENT FOR INDUSTRY

9 Industrial Rd. • Fairfield, New Jersey 07006

MODEL DB-15







DEEP BED FILTER PARTS LIST

MODEL DB-15

KEY #	PART NO.	DESCRIPTION
1	DB-30	SLUDGE BOX
2	DB-26A	SPROCKETS, 4"
2	DB-26C	PULLEYS, 4"
3	DB-20	CONVEYOR BELT — GALVANIZED
3	DB-21	CONVEYOR BELT — STAINLESS STEEL
4	DB-25	SEAL STRIPS
5	DB-36	SEAL HOLD-DOWN PLATES — STAINLESS STEEL
6	DB-34	DIFFUSER
7	DB-100	FABRIC ROLL (SPECIFY GRADE)
8	DB-72	FABRIC ROLL BRACKETS
9	DB-38A	STARTER 115-1-60
9	DB-38B	STARTER 220-1-60
9	DB-38C	STARTER 440-3-60
10	DB-19	SPEED REDUCER
11	DB-17A	MOTOR 115-1-60, 220-1-60
11	DB-17B	MOTOR 220/440-3-60
12	DB-52	MICRO SWITCH
13	DB-32	TANK
14	DB-2	FILTER FRAME ONLY
15	DB-82	WING NUTS
16	DB-81	HEX NUTS AND WASHERS
17	DB-58	FABRIC TUBE HOLDER
18	DB-56	FABRIC HOLD DOWN BAR ASSEMBLY
19	DB-48A	CONVEYOR SHAFT (FEED END)
—	DB-48B	CONVEYOR SHAFT (DISCHARGE END) NOT SHOWN
20	DB-73	CONVEYOR SUPPORT RIBS
21	DB-27	NYLON WEAR STRIPS (COVERS RIBS)
22	DB-23	FLOAT BALL
23	DB-54	FLOAT ASSEMBLY (ROD, BRACKET AND PAWL)
—	DB-83C	ROLLER CHAIN, #40 (NOT SHOWN)
—	DB-47C	CONVEYOR SHAFT SPROCKET (NOT SHOWN)
—	DB-59A	REDUCER SPROCKET (NOT SHOWN)
—	DB-64	CONVEYOR SHAFT BEARING (NOT SHOWN)
24	DB-52A	MICRO SWITCH COVER

WHEN ORDERING PARTS ALWAYS SPECIFY UNIT SERIAL NUMBER, MODEL NUMBER AND PART NUMBER.

OPERATING INSTRUCTIONS

1. The Filter should be installed in a level position.
2. The Outlet Pipe or Discharge Trough from the Machine Tool or other source of dirty liquid should be directed into the Diffuser Tray suspended across the Filter Bed.
3. The Float Rod should be adjusted so that the Conveyor will index when the liquid level of coolant reaches the high point — usually about one inch and a half below the side rails of the unit. To do this remove micro switch cover and adjust hex nut on pawl.
4. The first roll of Filter Fabric should be threaded **Under The-Red Tube Behind The Conveyor** and then into the first few inches of black sealing material on each side of the Filter Bed. Turn the Selector Switch to hand and guide the fabric along the conveyor until the bed is covered with fabric. This method must be used only once — the first time the new fabric is placed in the filter. Succeeding rolls may be fed into the Filter by merely over-lapping the trailing edge of the expended fabric with leading edge of the fresh roll by a few inches. From this point on the Filter will index the fresh fabric into the Filter automatically on demand.
5. The Filter should require little maintenance other than the changing of Filter Fabric. All Filter Bearings are sealed. The motor is lubricated for a ten year period.
6. The track on which the conveyor rides is surfaced with nylon bearing strips. These pieces are replaceable.
7. Eighteen different grades of Filter Fabrics are available for use with this Filter. The Filter Fabric Literature is enclosed in this envelope.
8. If gear reducer shaft rotates, but conveyor does not move tighten large nut (#30) on torque limiter one quarter turn each time until conveyor moves. (Model DB-15 does not have torque limiter)

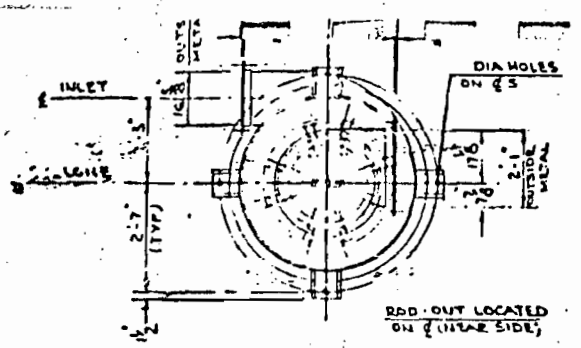
NOTE: This Filter will only operate properly when used under operating conditions with a pool of liquid on top of the Filter Fabric. Do not expect the fabric to index properly until the pool has reached its maximum depth. If the filter does not index due to mechanical failure or for some other reason the liquid will overflow into the tank below the filter.

ATTACHMENT 11-C

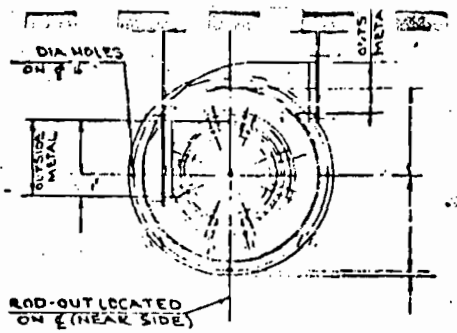
VENDOR DATA

EMISSION POINT NO. 3

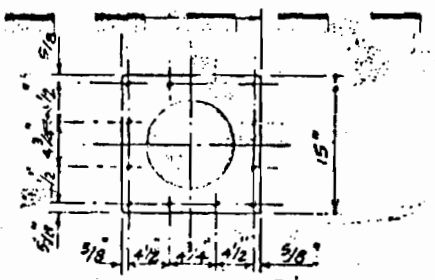
CYCLONE

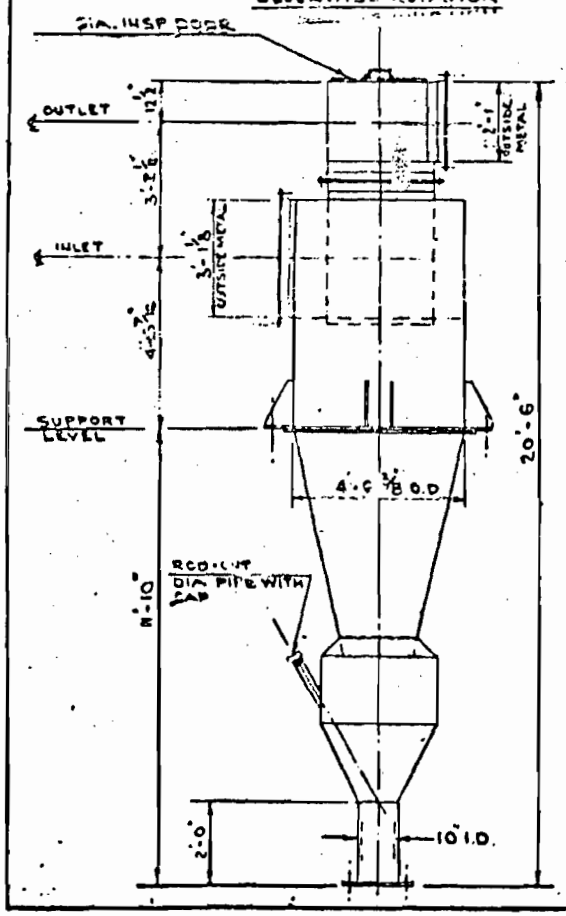


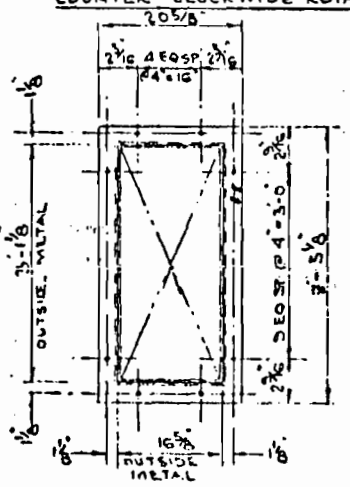
PLAN
CLOCKWISE ROTATION

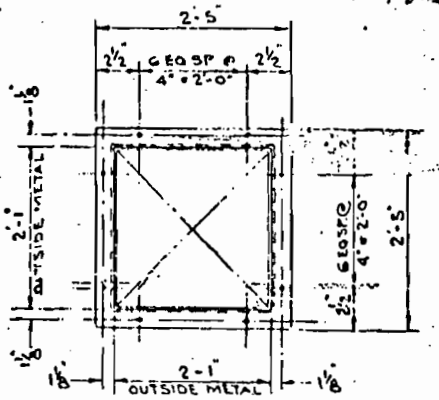


PLAN
COUNTER - CLOCKWISE ROTATION









JUL 7 1986

O.A. LENGTH = 15" FOR ROTARY LOCK

SPECIFICATIONS

CONSTRUCTION MATERIAL
CYCLONE COLLECTOR TO BE FABRICATED FROM 11GA. SS TYPE 304
EXTERNAL BOLTS TO BE C.S. ZINC PLD
GASKETS TO BE ½" THK

GENERAL NOTE
1 DUST DISCHARGE DRILLING TO SATISFY DESIRED ROTARY GATE

DESIGN DATA
CAPACITY - 15,100 ACFM
TEMPERATURE - °F
APPROX WEIGHT - 2014 LBS

WELDING NOTE
INTERNAL BUTT WELDS TO BE GROUND WITH 80 GRIT FLAPPER WHEEL

NO OF UNITS REQD - ONE (1)

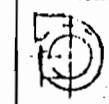
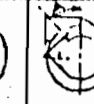
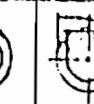
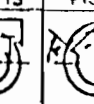
COOLER EXHAUST

FOR
GENERAL FOODS - SOMERSET

DUCON PROPOSAL NO. PBG-272

REV	BY	DATE	DESCRIPTION

PLAN VIEW ORIENTATIONS

	FIG 1	FIG 2	FIG 3	FIG 4	FIG 5	FIG 6	FIG 7	FIG 8
CLOCKWISE ROTATION								
	FIG 9	FIG 10	FIG 11	FIG 12	FIG 13	FIG 14	FIG 15	FIG 16
COUNTER CLOCKWISE ROTATION								

THE DUCON COMPANY INC.

CYCLONE COLLECTOR
SIZE 415 TYPE VM
MODEL 700/150

DR BY FW
SCALE

BP BG-272-3

REV

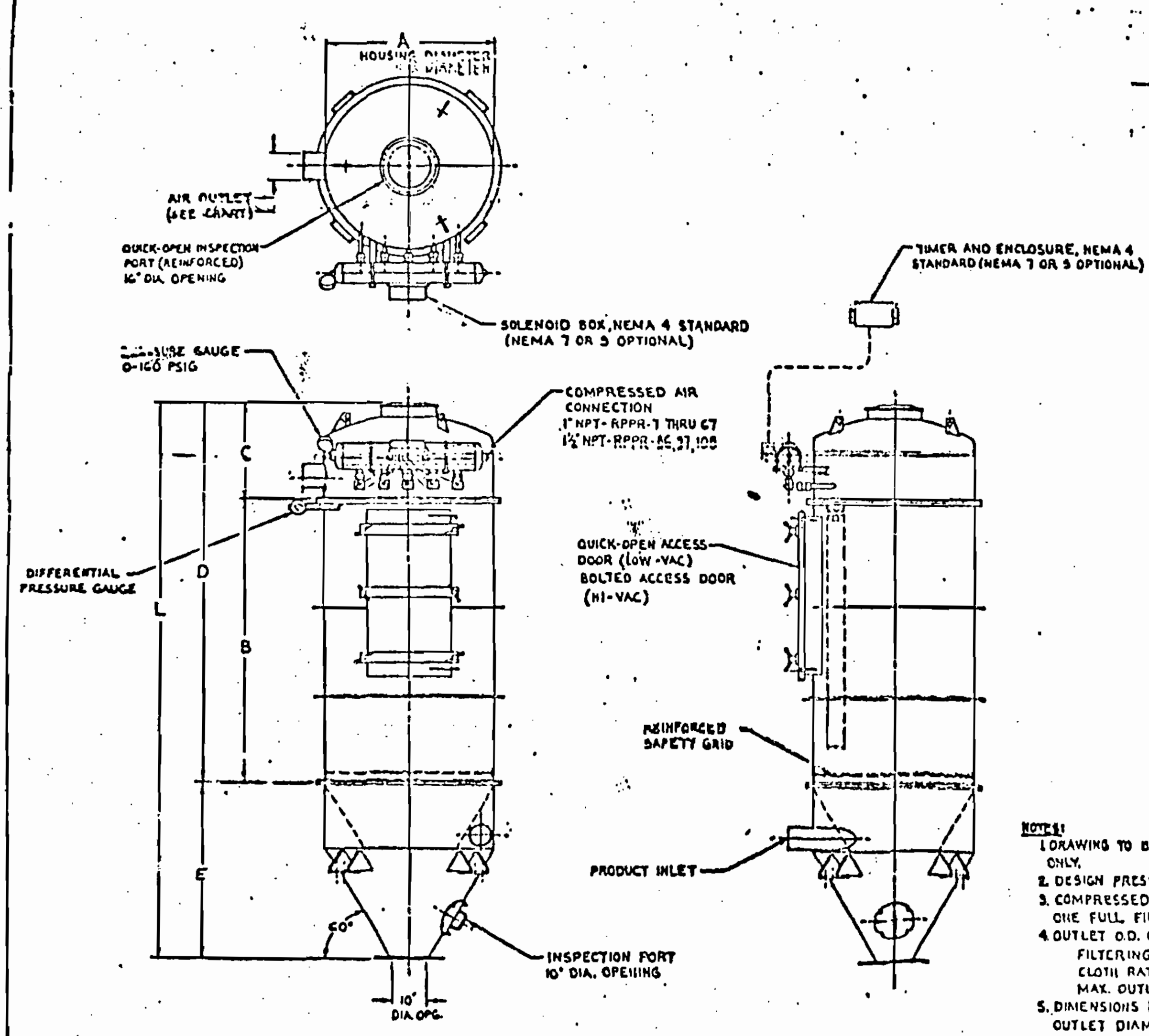
ATTACHMENT 11-D

VENDOR DATA

EMISSION POINT NO. 4

BAGHOUSE

Best Available Copy



DATA						DIMENSIONS (INCHES) * SEE NOTES								
MODEL No.	FILTER AREA (FT²)	NO. OF BAGS	BAG LENGTH (FT)	NO. OF VALVES	[illegible]	A	B	C	D	E*	L*	[illegible]	[illegible]	[illegible]
RPPR-7/2	17	7	2	3	1.4	30	33	20	53	34	67	20×24	3	655
RPPR-7/3	30	7	3	3	1.6	30	45	20	65	[illegible]	[illegible]	20×24	3½	706
RPPR-7/4	40	[illegible]	[illegible]	[illegible]	[illegible]	30	[illegible]	[illegible]	[illegible]	34	111	20×24	4	757
RPPR-7/6	62	7	6	3	1.9	30	81	[illegible]	[illegible]	[illegible]	[illegible]	20×24	5	814
RPPR-10/2	27	10	2	3	2.0	36	33	22	55	39	[illegible]	[illegible]	3	[illegible]
RPPR-10/3	42	10	3	3	2.2	36	45	22	67	39	106	[illegible]	4	[illegible]
RPPR-10/4	58	10	4	3	2.4	36	57	22	79	39	118	20×24	5	940
RPPR-10/6	89	10	6	3	2.7	36	81	22	103	39	142	[illegible]	6	1041
RPPR-10/8	119	10	8	[illegible]	[illegible]	36	105	[illegible]	127	39	166	[illegible]	7	1209
RPPR-14/3	59	14	3	4	3.1	36	45	22	67	[illegible]	[illegible]	[illegible]	5	[illegible]
RPPR-14/4	81	14	4	4	3.4	36	57	22	79	39	118	[illegible]	6	[illegible]
RPPR-14/6	124	14	6	4	3.8	36	81	22	103	39	142	[illegible]	7	1134
RPPR-14/8	167	14	8	4	4.2	36	105	22	127	39	[illegible]	[illegible]	8	[illegible]
RPPR-18/4	104	18	4	4	4.3	42	57	25	82	43	130	[illegible]	6	1272
RPPR-18/6	[illegible]	18	6	[illegible]	4.9	[illegible]	[illegible]	25	106	49	154	[illegible]	8	1490
RPPR-18/8	[illegible]	18	[illegible]	4	5.4	42	105	25	[illegible]	[illegible]	178	[illegible]	9	[illegible]
RPPR-24/4	[illegible]	24	[illegible]	5	5.8	48	57	26	83	53	136	20×24	7	[illegible]
RPPR-24/6	213	24	6	5	6.5	48	81	26	107	53	160	20×44	9	1764
RPPR-24/8	287	24	8	5	7.2	48	105	26	131	53	184	20×44	10	2024
RPPR-30/4	173	30	4	6	7.2	54	57	30	81	59	145	[illegible]	8	[illegible]
RPPR-30/6	[illegible]	30	6	6	8.1	54	81	30	111	59	169	20×44	10	[illegible]
RPPR-30/8	[illegible]	[illegible]	8	[illegible]	9.0	54	105	30	135	55	193	20×44	12	[illegible]
RPPR-41/4	237	41	[illegible]	7	[illegible]	60	57	[illegible]	90	69	[illegible]	20×24	10	2242
RPPR-41/6	363	41	6	7	[illegible]	[illegible]	81	33	[illegible]	69	183	20×44	12	[illegible]
RPPR-41/8	490	41	8	7	12.3	60	[illegible]	33	138	69	[illegible]	20×44	14	[illegible]
RPPR-48/6	425	48	6	7	13.0	66	81	34	[illegible]	[illegible]	[illegible]	20×44	12	[illegible]
RPPR-48/8	573	48	8	7	14.4	66	105	34	139	[illegible]	[illegible]	20×44	14	[illegible]
RPPR-56/6	496	56	6	8	15.1	72	81	37	118	92	[illegible]	20×44	14	[illegible]
RPPR-56/8	669	56	8	8	16.8	72	105	37	142	92	234	20×44	16	[illegible]
RPPR-67/6	594	67	6	9	18.1	78	81	40	121	97	218	20×44	16	[illegible]
RPPR-67/8	800	67	8	9	20.1	78	105	40	145	97	242	20×44	18	4472
RPPR-86/6	762	86	6	11	23.2	84	81	43	124	102	226	20×44	18	[illegible]
RPPR-86/8	1027	86	8	11	25.8	84	105	43	148	102	250	20×44	20	[illegible]
RPPR-97/8	1158	97	8	11	29.1	90	105	44	149	103	257	20×44	20	[illegible]
RPPR-108/8	1290	108	8	11	32.4	96	105	46	151	113	[illegible]	20×44	22	[illegible]

NOTES:

1. DRAWING TO BE USED FOR GENERAL ARRANGEMENT ONLY.
2. DESIGN PRESSURE = ±17" MERCURY COLUMN.
3. COMPRESSED AIR REQUIREMENTS BASED ON ONE FULL FILTER CLEANING CYCLE PER MINUTE.
4. OUTLET O.D. CALCULATIONS BASED ON:
   FILTERING VELOCITY = 8 FT./MIN. (AIR TO CLOTH RATIO 8:1)
   MAX. OUTLET VELOCITY = 4000 FT/MIN.
5. DIMENSIONS E & L ARE BASED ON A PRODUCT OUTLET DIAMETER OF 10".

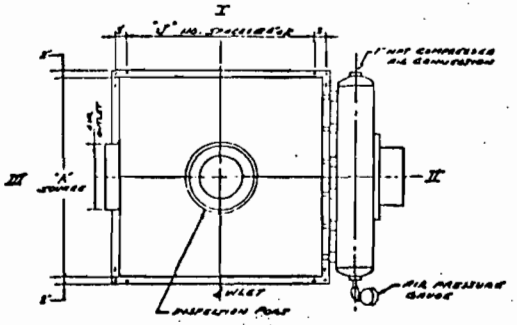
REVERSE PULSE PRODUCT RECEIVER
GENERAL DATA (TANGENTIAL INLET)
BUHLER-MIAG, INC.
MINNEAPOLIS, MINNESOTA
AUPF-41152

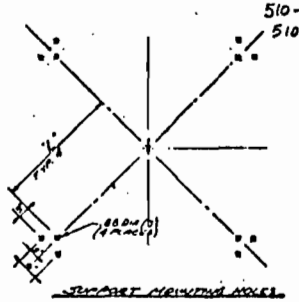
ATTACHMENT 11-E

VENDOR DATA

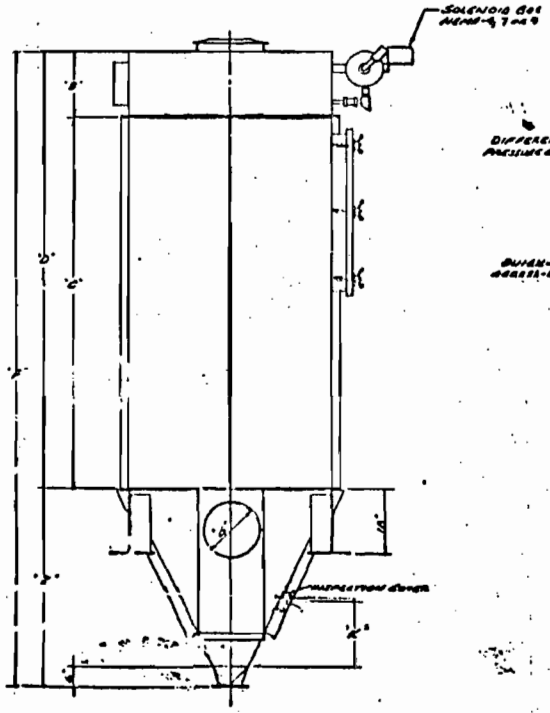
EMISSION POINT NO. 5

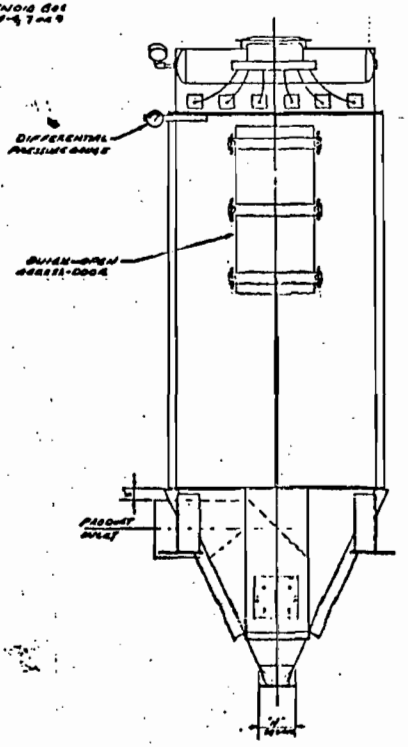
BAGHOUSE





DIMENSIONS (IN INCHES)														
MODEL NO.	A	B	C	D	E	F	G	H	J	K	L	GRAIN CAP.	OUTLET Ø D (INCH)	GROSS WEIGHT (LBS.)
RPDC-3/4	24	16	21	13	20.5	24.5	4	8	8	—	13.75	10-20	6	480
RPDC-1 1/2	24	16	NR	13	23.5	28.0	16	10	12	16	24.25	20-30	12 x 16	2990





NOTES:
1- ALL DIMENSIONS ARE IN INCHES.
2- DRAWING TO BE USED FOR REVERSE AIR MANIFOLD SYSTEM.
3- ADAPTABLE TO 4 VELOCITY-VOLUME ZONES ON ONE TOTAL FILTER CLEANING CYCLE AS SHOWN.
4- OUTLET DUCT CALCULATIONS BASED ON:
PATTERN VELOCITY - 600 FPM
(AIR TO CLOTH RATIO 6:1)
MAX. OUTLET VELOCITY - 4000 FT/MIN.
5- VARIOUS GAUGE OF MATERIALS AVAILABLE FOR MILD STEEL, STAINLESS STEEL DISCHARGE HOOD AND STAINLESS STEEL PLATES AND SIDES USED.
6- CASES AVAILABLE IN MILD STEEL, STAINLESS AND STAINLESS STEEL. DISCHARGE HOOD 4/3 PATTERN DO NOT REQUIRE 4/3 CASES.

REF: DWG 7570-72

REVERSE PULSE CLOTH COLLECTOR

DUHLER-MIAG, INC.
MINNEAPOLIS, MINNESOTA

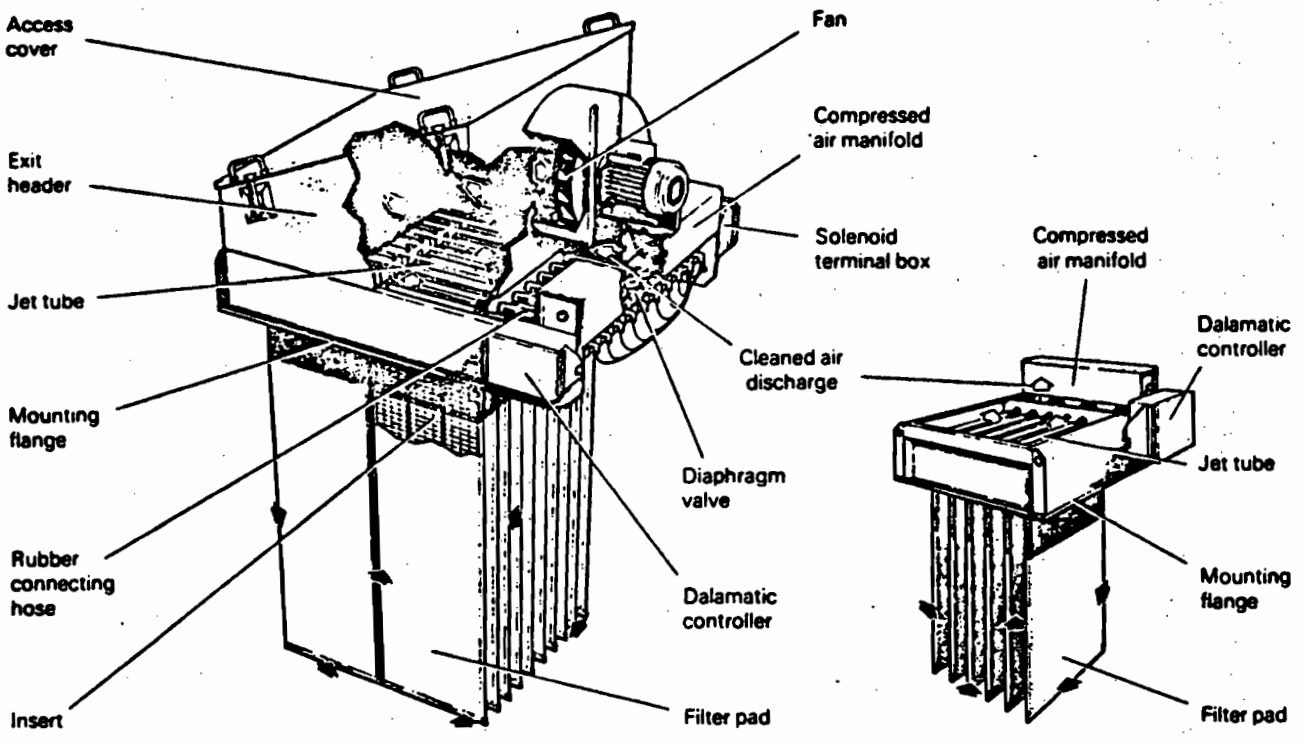
DWG 40UCG40091

ATTACHMENT 11-F

VENDOR DATA

EMISSION POINT NO. 6

BAGHOUSE



Model DLMV30/15 Type F illustrated, having a total filtration area of 30m² (315ft²)

Model DLMV4/7 Type B illustrated, having a total filtration area of 4m² (43ft²)

Fig. 2 Dalamatic Insertables

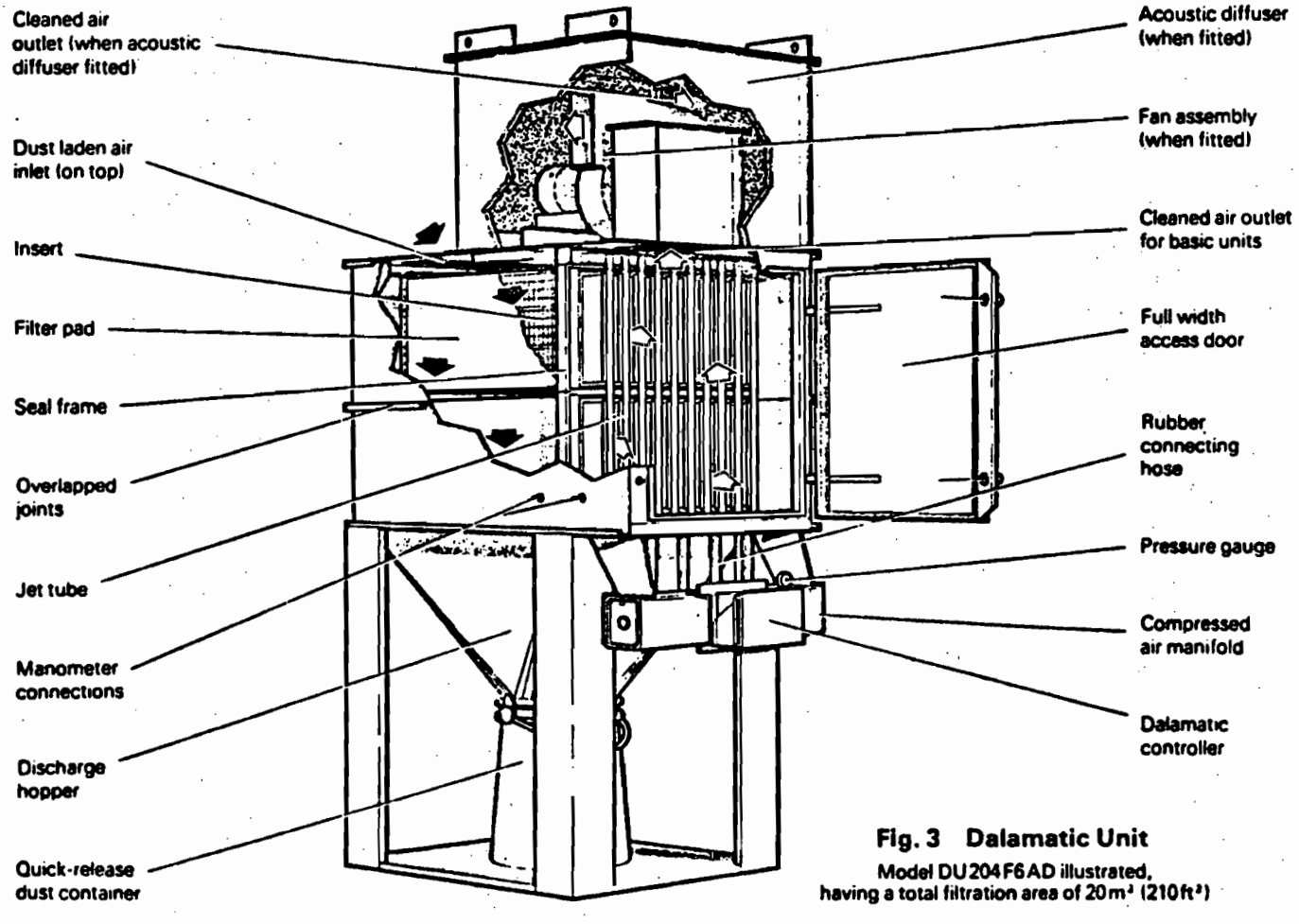
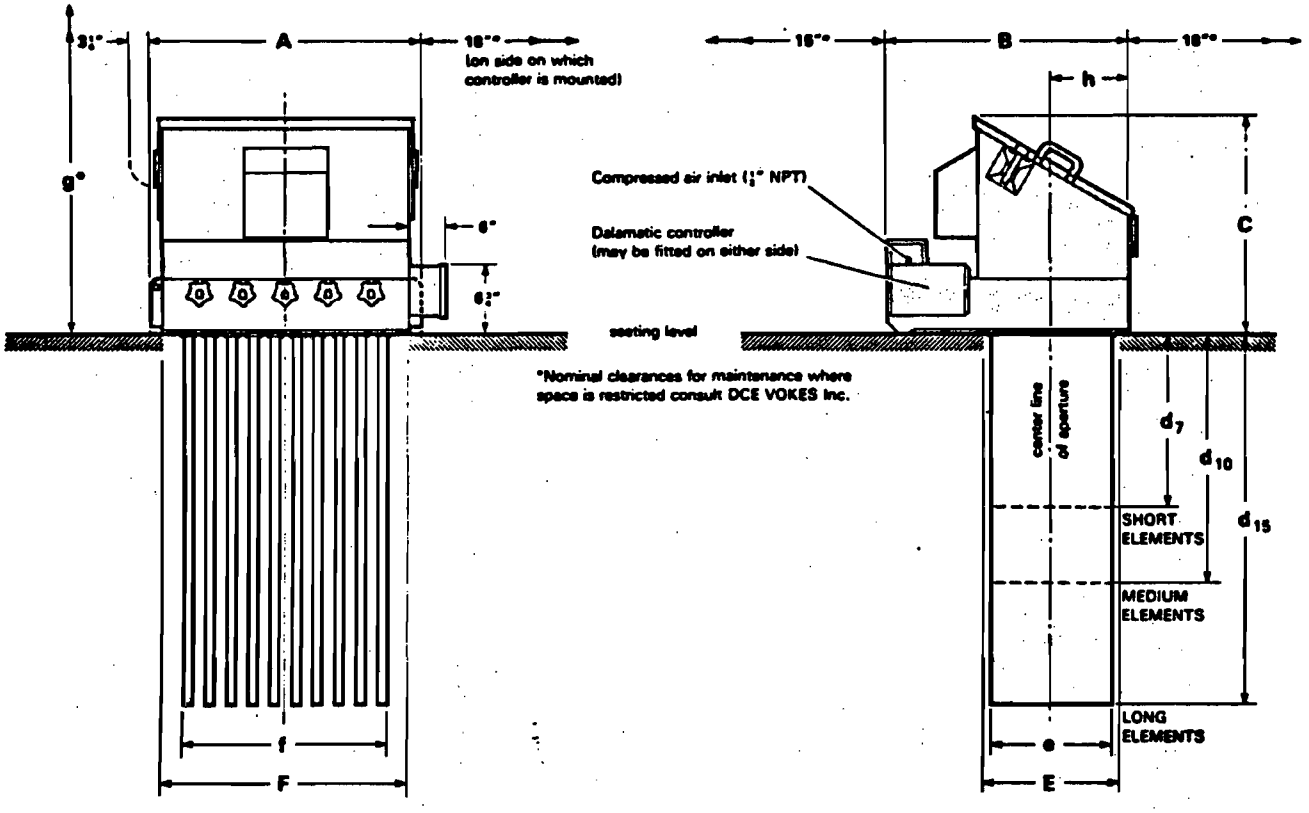


Fig. 3 Dalamatic Unit

Model DU204F6AD illustrated, having a total filtration area of 20m² (210ft²)

Dalamatic Insertable Filter Series DLM-V, Type W

Please note our new name:
DCE, Inc.



Size DLM-V15/15W illustrated, broken lines representing DLM-V7/7W & DLM-V10/10W

MODEL	DIMENSIONS (Tolerance ±¼" on main dimensions)												Approx. net weight
	A	B	C	d_7	d_{10}	d_{15}	E	e	F	f	g*	h	
DLM-V4/7W	2'3¼"	3'2½"	2'8¼"	2'3¼"	–	–	20½"	19"	23½"	18½"	3'9½"	12¼"	300lb
DLM-V6/10W	2'3¼"	3'2½"	2'8¼"	–	3'3¼"	–	20½"	19"	23½"	18½"	4'9½"	12¼"	320lb
DLM-V9/15W	2'3¼"	3'2½"	2'8¼"	–	–	4'11"	20½"	19"	23½"	18½"	6'5"	12¼"	340lb
DLM-V7/7W	3'7¼"	3'2½"	2'10"	2'3¼"	–	–	20½"	19"	3'3½"	2'8½"	3'9½"	12¼"	440lb
DLM-V10/10W	3'7¼"	3'2½"	2'10"	–	3'3¼"	–	20½"	19"	3'3½"	2'8½"	4'9½"	12¼"	485lb
DLM-V15/15W	3'7¼"	3'2½"	2'10"	–	–	4'11"	20½"	19"	3'3½"	2'8½"	6'5"	12¼"	530lb
DLM-V8/7W	2'3¼"	5'2¼"	2'11¼"	2'3¼"	–	–	3'5¼"	3'3½"	23½"	18½"	3'9½"	22½"	475lb
DLM-V12/10W	2'3¼"	5'2¼"	2'11¼"	–	3'3¼"	–	3'5¼"	3'3½"	23½"	18½"	4'9½"	22½"	520lb
DLM-V18/15W	2'3¼"	5'2¼"	2'11¼"	–	–	4'11"	3'5¼"	3'3½"	23½"	18½"	6'5"	22½"	570lb
DLM-V14/7W	3'7¼"	5'2¼"	2'11¼"	2'3¼"	–	–	3'5¼"	3'3½"	3'3½"	2'8½"	3'9½"	22½"	740lb
DLM-V20/10W	3'7¼"	5'2¼"	2'11¼"	–	3'3¼"	–	3'5¼"	3'3½"	3'3½"	2'8½"	4'9½"	22½"	815lb
†DLM-V30/15W	3'7¼"	5'2¼"	2'11¼"	–	–	4'11"	3'5¼"	3'3½"	3'3½"	2'8½"	6'5"	22½"	925lb
†DLM-V21/7W	3'7¼"	7'2"	3'6"	2'3¼"	–	–	5'5"	5'3½"	3'3½"	2'8½"	3'9½"	2'10½"	1025lb
†DLM-V30/10W	3'7¼"	7'2"	3'6"	–	3'3¼"	–	5'5"	5'3½"	3'3½"	2'8½"	4'9½"	2'10½"	1125lb
†DLM-V45/15W	3'7¼"	7'2"	3'6"	–	–	4'11"	5'5"	5'3½"	3'3½"	2'8½"	6'5"	2'10½"	1255lb

†A separate solenoid terminal box is used on these units, and should be fitted to the side opposite the controller

over

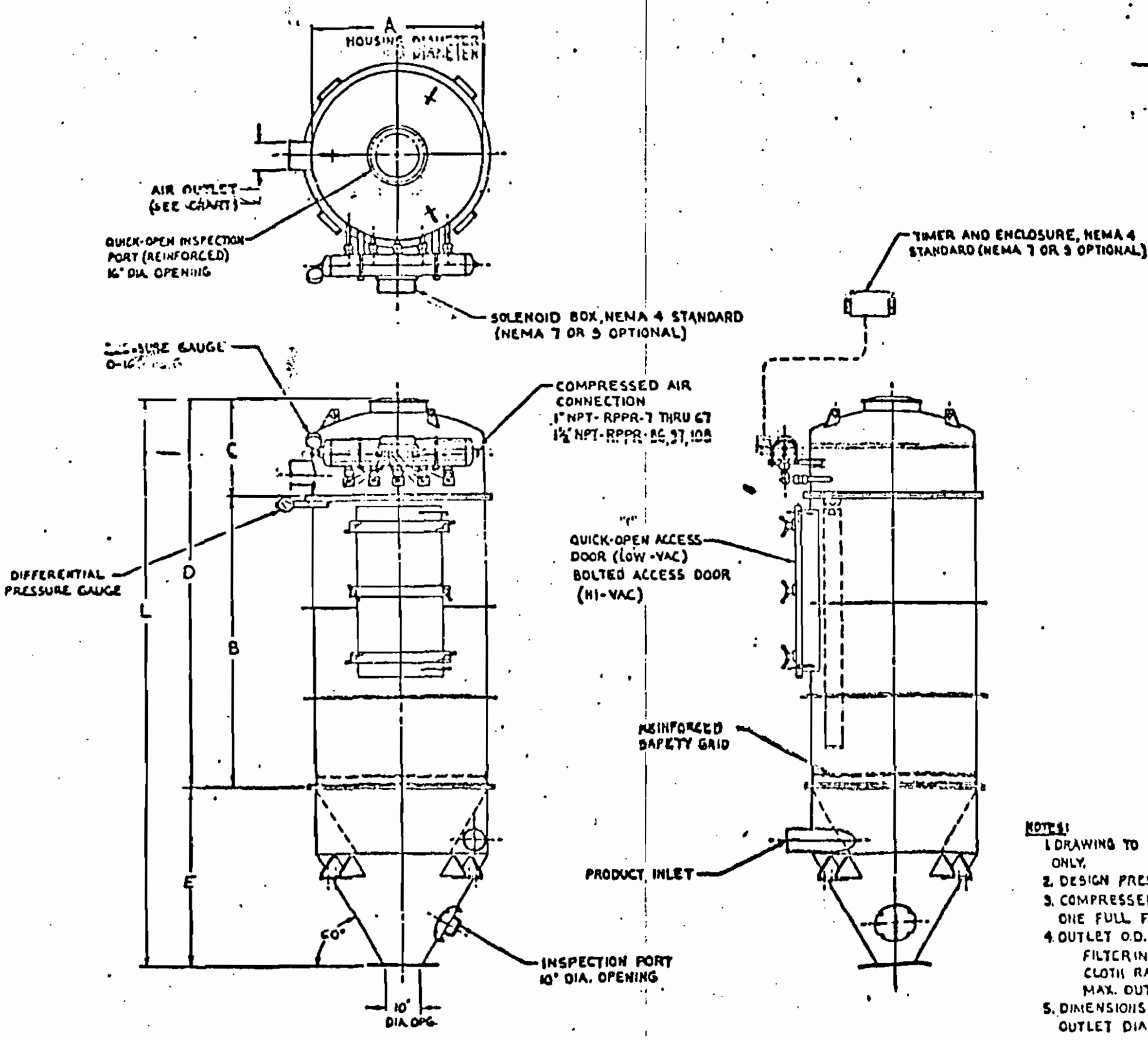
ATTACHMENT 11-G

VENDOR DATA

EMISSION POINT NO. 7

BAGHOUSE

Best Available Copy



DATA						DIMENSIONS (INCHES)				SEE NOTES				
MODEL No.	FILTER AREA (FT²)	NO. OF BAGS	BAG LENGTH (FT)	NO. OF [illegible] VALVES	[illegible]	A	B	C	D	E	L	[illegible]	[illegible]	[illegible]
RPPR-7/2	19	7	2	3	1.4	30	33	20	53	34	61	[illegible]	3	655
RPPR-7/3	30	7	3	3	1.6	30	45	20	65	[illegible]	[illegible]	[illegible]	3½	706
RPPR-7/4	40	[illegible]	[illegible]	[illegible]	[illegible]	30	[illegible]	[illegible]	[illegible]	[illegible]	111	[illegible]	4	757
RPPR-7/6	62	7	6	3	1.9	30	81	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5	814
RPPR-10/2	27	10	2	3	2.0	36	33	22	55	33	[illegible]	[illegible]	3	795
RPPR-10/3	42	10	3	3	2.2	36	45	22	67	39	[illegible]	[illegible]	4	817
RPPR-10/4	58	10	4	3	2.4	36	57	22	79	39	113	[illegible]	5	[illegible]
RPPR-10/6	89	10	6	3	2.7	36	81	22	103	39	142	[illegible]	6	1091
RPPR-10/8	119	10	8	[illegible]	[illegible]	36	105	[illegible]	127	39	[illegible]	[illegible]	7	1203
RPPR-14/3	59	14	3	4	3.1	36	45	22	67	[illegible]	[illegible]	[illegible]	5	[illegible]
RPPR-14/4	81	14	4	4	3.4	36	57	22	79	[illegible]	118	[illegible]	6	[illegible]
RPPR-14/6	124	14	6	4	3.8	36	81	22	103	39	142	[illegible]	7	1134
RPPR-14/8	167	14	8	4	4.2	36	105	22	127	39	[illegible]	[illegible]	8	[illegible]
RPPR-18/4	104	18	4	4	[illegible]	42	57	25	82	43	[illegible]	[illegible]	6	[illegible]
RPPR-18/6	[illegible]	18	6	[illegible]	4.9	[illegible]	[illegible]	25	[illegible]	43	154	[illegible]	8	[illegible]
RPPR-18/8	[illegible]	18	[illegible]	4	5.4	42	105	25	[illegible]	[illegible]	[illegible]	[illegible]	9	[illegible]
RPPR-24/4	[illegible]	[illegible]	[illegible]	5	5.8	48	57	26	83	53	136	[illegible]	7	[illegible]
RPPR-24/6	213	24	6	5	6.5	48	81	26	107	53	160	[illegible]	9	[illegible]
RPPR-24/8	287	24	8	5	[illegible]	48	105	26	131	53	[illegible]	[illegible]	10	[illegible]
RPPR-30/4	173	30	4	6	7.2	54	57	30	87	59	165	[illegible]	8	[illegible]
RPPR-30/6	[illegible]	30	6	6	8.1	54	81	30	111	59	[illegible]	[illegible]	10	[illegible]
RPPR-30/8	[illegible]	[illegible]	8	[illegible]	9.0	54	[illegible]	30	135	59	[illegible]	[illegible]	12	[illegible]
RPPR-41/4	237	41	[illegible]	[illegible]	[illegible]	60	57	[illegible]	90	69	[illegible]	[illegible]	10	[illegible]
RPPR-41/6	363	41	6	[illegible]	[illegible]	[illegible]	81	33	[illegible]	69	[illegible]	[illegible]	12	[illegible]
RPPR-41/8	490	41	8	7	12.3	60	[illegible]	33	138	69	[illegible]	[illegible]	14	[illegible]
RPPR-48/6	425	48	6	7	13.0	66	81	34	[illegible]	74	[illegible]	[illegible]	12	[illegible]
RPPR-48/8	573	48	8	7	14.4	66	105	34	139	[illegible]	[illegible]	[illegible]	14	[illegible]
RPPR-56/6	496	56	6	8	15.1	72	81	37	118	92	[illegible]	[illegible]	14	[illegible]
RPPR-56/8	669	56	8	8	16.8	72	105	37	142	92	234	[illegible]	16	[illegible]
RPPR-67/6	594	67	6	9	18.1	78	81	40	121	97	218	[illegible]	16	[illegible]
RPPR-67/8	800	67	8	9	20.1	78	105	40	145	97	[illegible]	[illegible]	18	4412
RPPR-86/6	[illegible]	86	6	11	23.2	84	81	43	124	102	[illegible]	[illegible]	18	[illegible]
RPPR-86/8	1027	86	8	11	25.8	84	105	43	148	102	250	[illegible]	20	[illegible]
RPPR-97/8	1156	97	8	11	29.1	90	105	44	149	109	257	[illegible]	20	5757
RPPR-108/8	1290	108	8	11	32.4	96	105	46	151	113	[illegible]	[illegible]	22	[illegible]

NOTES:
1. DRAWING TO BE USED FOR GENERAL ARRANGEMENT ONLY.
2. DESIGN PRESSURE = ± 17" MERCURY COLUMN
3. COMPRESSED AIR REQUIREMENTS BASED ON ONE FULL FILTER CLEANING CYCLE PER MINUTE.
4. OUTLET O.D. CALCULATIONS BASED ON:
   FILTERING VELOCITY = 8 FT./MIN. (AIR TO CLOTH RATIO 8:1)
   MAX. OUTLET VELOCITY = 4000 FT/MIN.
5. DIMENSIONS E & L ARE BASED ON A PRODUCT OUTLET DIAMETER OF OF 10".

REVERSE PULSE PRODUCT RECEIVER
GENERAL DATA (TANGENTIAL INLET)

BUHLER-MIAG, INC.
MINNEAPOLIS, MINNESOTA

AUPF-41152

A REPORT ON
PARTICULATE EMISSIONS TESTS

MAXWELL HOUSE COFFEE DIVISION
GENERAL FOODS CORPORATION

Jacksonville, Florida

Prepared by:

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.
Gainesville, Florida

ESE No. 80-107-100

April 1981

ATTACHMENT 12

Table 1. Emission Inventory: Maxwell House Coffee, Jacksonville, Florida (Continued, Page 2 of 2)

Flow Diagram Location	Source	Stack Dimension (ft)	Flow Rate (SCFMD)	Stack Temp. (°F)	Moisture (%)	Emission Rate (lb/hr)	No. Units
	Regular Coffee Roasting Process, Permit No. AO 16 2408 (Continued)						
X	Cold Chaff Thermalo Cyclone	1.17 ID	850	75.8	1.7	0.154	1
XI	Thermalo Cooling Car Cyclone	2.0 ID	5,334	84.7	1.3	0.270	2
XII	Thermalo Stoner Cyclone	2.0 ID	5,780	80.1	1.3	0.190	2
XIII	Thermalo Regular Coffee Scale Cyclone	1.67 ID	1,000*	86.9	2.6	0.090	1
XIV	Regular Coffee Scale and Airveyor Cyclone	1.67 ID	1,000*	57.5	1.8	0.097	15
	Green Bean Bulk Handling Process, Permit No. AO 16 2407 (Figure 3)						
I	Fuller Baghouse (4th level)	1.0x1.0	3,674	80.6	1.0	0.017	1
II	Fuller Baghouse (roof)	0.63 ID	964	200.1	1.2	0.057	3
III	Gooseneck Bunker Vent	0.50 ID	319	65.6	1.4	0.164	18
	Soluble Spray Dryer No. 2, Permit No. AO 16 2366 (Figure 4)						
I	Spray Dryer No. 2	3.50 ID	21,652	259.7	8.4	1.931	1
	Soluble Spray Dryer No. 1, Permit No. AO 16 2445 (Figure 5)						
I	Spray Dryer No. 1	3.50 ID	25,574	241.3	8.4	1.357	1
	Agglomerating Process, Permit No. AO 16 2404 (Figure 6)						
I	Spray Dryer	3.33 ID	20,633	217.8	9.3	0.893	1

Source: Environmental Science and Engineering, Inc., 1980.

* Due to poor sampling locations, measured flow rates are considered to be in error. Design flow rates furnished by Maxwell House have been substituted based on transport velocity and duct areas.

† Emission parameters are the same as soluble coffee roasting thermalo roaster afterburner.

Table 20

PLANT NAME = MAXWELL HOUSE LOCATION =

STACK ID = THERMALO STORER CYCLONE SAMPLING TRAIN = PARTICULATES

= E N G L I S H UNITS =

		RUN 001	RUN 002	RUN 003	AVG
DATE		2/ 8/80	2/ 8/80	2/ 8/80	
STARTING TIME		916	1134	1338	
ENDING TIME		1034	1252	1452	
MINUTES		68.	70.	66.	
NUMBER OF POINTS		34.	35.	33.	
Pb	(IN HG)	30.42	30.42	30.42	
PS	(IN HG)	30.42	30.42	30.42	
CP		0.840	0.840	0.840	
METER BOX NO.		4	4	4	
Y-FACTOR		1.0000	1.0000	1.0000	
AS	(SF)	3.14	3.14	3.14	
AS'	(SF)	2.22	2.29	2.16	
DN	(IN)	0.2550	0.2550	0.2550	
AN	(SF)	0.000355	0.000355	0.000355	
TM	(DEG R)	515.1	521.9	521.5	
TS	(DEG R)	539.2	540.5	540.6	540.11
VM	(ACF)	51.698	55.581	58.167	
VMSTD	(SCFD)	54.438	57.787	60.601	
CONDENSATE	(ML)	16.1	15.7	14.4	
% H2O SPECIFIED		0.00	0.00	0.00	
CALC % H2O		1.38	1.27	1.11	1.26
% H2O @ SATURATION		3.31	3.45	3.46	3.41
% CO2		0.0	0.0	0.0	0.00
% O2		21.0	21.0	21.0	21.00
% CO		0.0	0.0	0.0	0.00
MWD	(LB/LB-MOLE)	28.84	28.84	28.84	28.84
MWW	(LB/LB-MOLE)	28.69	28.70	28.72	28.70
DELTA H AVG	(IN H2O)	2.781	2.988	3.556	
SQRT DELTA P AVG	(IN H2O)	0.735	0.760	0.844	
VS	(F/S)	41.48	42.96	47.65	44.03
QS'	(ACFM)	5526.	5903.	6175.	5806.
QS''	(ACFMD)	5449.	5828.	6108.	5795.
QS	(SCFMD)	5445.	5809.	6085.	5780.
QS SPEC.	(SCFMD)	5445.	5809.	6085.	
% ISO		92.05	91.78	91.92	91.92
TOTAL FILTER CATCH	(MG)	11.10	17.30	4.00	
TOTAL WASH CATCH	(MG)	2.30	7.00	1.30	
TOTAL CATCH	(MG)	13.40	24.30	5.30	
CONCENTRATION	(GR/ACF)	0.0037	0.0064	0.0013	~~0.0038~~
CONCENTRATION	(GR/SCFD)	0.0038	0.0065	0.0013	0.0039
EMISSION RATE	(LB/HR)	0.18	0.32	0.07	~~0.1905~~

A REPORT ON
PARTICULATE EMISSIONS TESTS

MAXWELL HOUSE COFFEE DIVISION
GENERAL FOODS CORPORATION

Jacksonville, Florida

Prepared by:

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.
Gainesville, Florida

ESE No. 80-107-100

April 1981

ATTACHMENT 13

Table 1. Emission Inventory: Maxwell House Coffee, Jacksonville, Florida

Flow Diagram Location	Source	Stack Dimension (ft)	Flow Rate (SCFMD)	Stack Temp. (°F)	Moisture (%)	Emission Rate (lb/hr)	No. Units
	Soluble Coffee Roasting Process, Permit No. AO 16 2365 (Figure 1)						
I	Dracco Baghouse	0.50 ID	655	89.1	4.6	0.012	1
II	"C" Airveyor Cyclone	0.50 ID	730	94.4	1.5	0.370	2
III	Thermalo Roaster Afterburner	2.0x3.0	2,590	960.1	22.2	0.255	3
IV	Thermalo Cooling Car Cyclone	1.83 ID	5,678	87.3	4.1	0.132	3
V	Thermalo Stoner Cyclone	1.83 ID	7,977	96.9	1.2	0.218	3
VI	Cake Airveyor Cyclone	0.50 ID	596	179.8	1.3	0.014	1
VII	Pellet Airveyor Cyclone	0.50 ID	600	111.7	1.3	0.002	2
	Regular Coffee Roasting Process, Permit No. AO 16 2408 (Figure 2)						
I	Green Coffee Silo Feed Cyclone	1.0 ID	1,446	79.8	1.2	0.350	4
II	Probat Feed Cyclone	1.0 ID	400*	78.0	1.0	0.089	10
III	Probat Afterburner	1.5 ID	1,888	889.5	20.4	0.205	10
IV	Hot Chaff Afterburner	2.50 ID	2,570	1,270.1	9.1	0.106	1
V	Probat Stoner Cyclone	2.0 ID	5,000*	83.2	1.3	0.056	10
VI	Cold Chaff Probat Cyclone	1.17 ID	1,500*	68.2	1.6	0.041	1
VII	Probat Regular Coffee Scale Cyclone	1.0 ID	489	102.2	1.7	0.007	3
VIII	Dracco Baghouse	0.50 ID	931	123.1	1.5	0.057	1
IX	Thermalo Roaster Afterburner	—†	—†	—†	—†	—†	2

Table 17

PLANT NAME = MAXWELL HOUSE @ JAX LOCATION =

STACK ID = DRACO BAGHOUSE OUTLET SAMPLING TRAIN = PARTICULATES

= E N G L I S H UNITS =

		RUN 001	RUN 002	RUN 003	AVG
DATE		1/29/80	1/29/80	1/29/80	
STARTING TIME		1345	1513	1600	
ENDING TIME		1500	1546	1633	
MINUTES		30.	30.	30.	
NUMBER OF POINTS		6	6.	6.	
PB	(IN HG)	30.15	30.15	30.15	
PS	(IN HG)	30.15	30.15	30.15	
CP		0.840	0.840	0.840	
METER BOX NO.		4	4	4	
Y-FACTOR		1.0000	1.0000	1.0000	
AS	(SF)	0.20	0.20	0.20	
AS'	(SF)	0.20	0.20	0.20	
DN	(IN)	0.1860	0.1860	0.1860	
AN	(SF)	0.000189	0.000189	0.000189	
TM	(DEG R)	538.8	544.5	548.5	
TS	(DEG R)	581.3	585.5	582.5	583.11
VM	(ACF)	27.126	27.220	24.795	
VMSTD	(SCFD)	27.083	26.913	24.293	
CONDENSATE	(ML)	9.0	10.0	7.0	
% H2O SPECIFIED		0.00	0.00	0.00	
CALC % H2O		1.55	1.73	1.35	1.54
% H2O @ SATURATION		11.85	13.30	12.25	12.47
% CO2		0.0	0.0	0.0	0.00
% O2		21.0	21.0	21.0	21.00
% CO		0.0	0.0	0.0	0.00
MWD	(LB/LB-MOLE)	28.84	28.84	28.84	28.84
MWW	(LB/LB-MOLE)	28.67	28.65	28.69	28.67
DELTA H AVG	(IN H2O)	3.083	3.250	2.033	
SQRT DELTA P AVG	(IN H2O)	1.520	1.548	1.401	
VS	(F/S)	89.49	91.40	82.52	87.80
QS'	(ACFM)	1052.	1075.	970.	1033.
QS''	(ACFMD)	1036.	1056.	957.	1017.
QS	(SCFMD)	952.	963.	878.	931.
QS SPEC.	(SCFMD)	952.	963.	878.	
% ISO		98.56	96.75	95.86	97.06
TOTAL FILTER CATCH	(MG)	6.50	6.20	5.30	
TOTAL WASH CATCH	(MG)	6.00	7.00	5.10	
TOTAL CATCH	(MG)	12.50	13.20	10.40	
CONCENTRATION	(GR/ACF)	0.0064	0.0068	0.0066	0.0066
CONCENTRATION	(GR/SCFD)	0.0071	0.0076	0.0066	0.007
EMISSION RATE	(LB/HR)	0.06	0.06	0.05	0.0566

SOURCE TEST REPORT
PARTICULATE
and
VISIBLE EMISSIONS TESTING
MAXWELL HOUSE COFFEE
JACKSONVILLE, FLORIDA

AUGUST 14 - OCTOBER 22, 1985
(V O L U M E 1 OF 2)

PREPARED BY:

TECHNICAL SERVICES, INC.
2471 SWAN STREET
P.O. Box 52329
JACKSONVILLE, FLORIDA 32201

ATTACHMENT 14

TABLE 1

EMISSION SUMMARY

#3 PROBAT SCALE CYCLONE

DATE	RUN NO.	PARTICULATE EMISSION GR/SCF	PARTICULATE EMISSION LBS/HR	VOLUMETRIC FLOW ACFM	VOLUMETRIC FLOW SCFMD	% H_2O	% ISOKINETIC
10/02/85	1	0.01378	0.21	1977	1806	2.2	100.9
	2	0.01254	0.21	2152	1973	1.8	96.6
	3	0.0148	0.24	2070	1897	1.7	98.1
	MEAN	0.01371	0.22	2066	1892	1.9	98.5

TABLE I

EMISSION SUMMARY

#3 PROBAT SCALE CYCLONE

DATE	RUN NO.	PARTICULATE EMISSION GR/SCF	PARTICULATE EMISSION LBS/HR	VOLUMETRIC FLOW ACFM	VOLUMETRIC FLOW SCFMD	% H_2O	% ISOKINETIC
10/02/85	1	0.01378	0.21	1977	1806	2.2	100.9
	2	0.01254	0.21	2152	1973	1.8	96.6
	3	0.0148	0.24	2070	1897	1.7	98.1
	MEAN	0.01371	0.22	2066	1892	1.9	98.5

Tel. (904) 353-5761

TECHNICAL SERVICES, INC.

ENVIRONMENTAL CONSULTANTS

Air and Water Pollution Sampling, Surveys, Testing and Analytical Services

2471 SWAN STREET
P. O. BOX 52329
JACKSONVILLE, FLORIDA 32201

PLANT - MAXWELL HOUSE COFFEE — DATE - 10/2/85
STACK - #3 Probat Scale Cyclone — RUN - 1 — FROM - 1020-1122
WEATHER CONDITIONS - Clear, 86°F — PB- 30.01 IN. HG — PS- 29.97 IN. HG
AS'- 0.7854 SQ. FT. — TS- 566.5 °R — TM- 550.9 °R
$\sqrt{H}$ 0.7194 IN H_2O — ΔH -1.217 IN H_2O — AN- 0.0002315 SQ. FT. — CP-0.84
VM- 16.722 CF — VC- 7.6 ML — TOTAL TIME- 30 MIN. — NPTS- 12
ORSAT: CO_2 0 % — O_2 21 % — CO - % — N_2 79 %

1.	VOLUME WATER VAPOR	1.	0.359	SCF
2.	GAS VOLUME SAMPLED - STPD	2.	16.125	SCFD
3.	TOTAL VOLUME	3.	16.484	SCF
4.	MOISTURE IN STACK GAS - VOLUME FRACTION	4.	0.022	
5.	DRY STACK GAS - VOLUME FRACTION	5.	0.978	
6.	ASSUMED MOISTURE IN STACK GAS - VOLUME FRACTION	6.	0.05	
7.	MOLECULAR WEIGHT OF STACK GAS - DRY BASIS	7.	28.84	
8.	MOLECULAR WEIGHT OF STACK GAS - STACK CONDITIONS	8.	28.604	
9.	SPECIFIC GRAVITY OF STACK GAS RELATIVE TO AIR	9.	0.987	
10.	EXCESS AIR - PERCENT	10.		%
11.	AVERAGE OF FACTOR ($\sqrt{H}$ X TS)	11.		
12.	AVERAGE STACK VELOCITY	12.	2517	FPM
13.	ACTUAL STACK GAS FLOW RATE	13.	1977	ACFM
14.	ACTUAL STACK GAS FLOW RATE DRY	14.	1934	CFMD
15.	STACK GAS FLOW RATE - STPD	15.	1806	SCFMD
16.	PERCENT ISOKINETIC	16.	100.9	%

MG		GR/SCF	GR/ACF	LBS/HR
Filter	0.5			
Prefilter	13.9			
Total	14.4	0.01378		0.21

Comments: _____

Tests Conducted By: _____

Tel. (904) 353-5761

TECHNICAL SERVICES, INC.
ENVIRONMENTAL CONSULTANTS

Air and Water Pollution Sampling, Surveys, Testing and Analytical Services

2471 SWAN STREET
P. O. BOX 52329
JACKSONVILLE, FLORIDA 32201

PLANT - MAXWELL HOUSE COFFEE — DATE - 10/2/85
STACK - #3 Probat Scale Cyclone — RUN -2 — FROM -1141-1242
WEATHER CONDITIONS - Clear, 90°F — PB- 30.01 IN. HG — PS-29.97 IN. HG
AS'- 0.7854 SQ. FT. — TS- 566.5 °R — TM-555.4 °R
$\sqrt{H}$-0.7836 IN H_2O — ΔH -1.433 IN H_2O — AN- 0.0002315 SQ. FT. — CP-0.84
VM- 17.612 CF — VC- 6.6 ML — TOTAL TIME- 30 MIN. — NPTS-12
ORSAT: CO_2 0 % — O_2 21 % — CO - % — N_2 79 %

1.	VOLUME WATER VAPOR	1.	0.312	SCF
2.	GAS VOLUME SAMPLED - STPD	2.	16.855	SCFD
3.	TOTAL VOLUME	3.	17.167	SCF
4.	MOISTURE IN STACK GAS - VOLUME FRACTION	4.	0.018	
5.	DRY STACK GAS - VOLUME FRACTION	5.	0.982	
6.	ASSUMED MOISTURE IN STACK GAS - VOLUME FRACTION	6.	0.05	
7.	MOLECULAR WEIGHT OF STACK GAS - DRY BASIS	7.	28.84	
8.	MOLECULAR WEIGHT OF STACK GAS - STACK CONDITIONS	8.	28.64	
9.	SPECIFIC GRAVITY OF STACK GAS RELATIVE TO AIR	9.	0.988	
10.	EXCESS AIR - PERCENT	10.		%
11.	AVERAGE OF FACTOR ($\sqrt{H}$ X TS)	11.		
12.	AVERAGE STACK VELOCITY	12.	2740	FPM
13.	ACTUAL STACK GAS FLOW RATE	13.	2152	ACFM
14.	ACTUAL STACK GAS FLOW RATE DRY	14.	2113	CFMD
15.	STACK GAS FLOW RATE - STPD	15.	1973	SCFMD
16.	PERCENT ISOKINETIC	16.	96.6	%

MG		GR/SCF	GR/ACF	LBS/HR
Filter	0.8			
Prefilter	12.9			
Total	13.7	0.01254		0.21

Comments: _____

Tests Conducted By: _____

Tel. (904) 353-5761

TECHNICAL SERVICES, INC.

ENVIRONMENTAL CONSULTANTS

Air and Water Pollution Sampling, Surveys, Testing and Analytical Services

2471 SWAN STREET
P. O. BOX 52329
JACKSONVILLE, FLORIDA 32201

PLANT - MAXWELL HOUSE COFFEE — DATE - 10/2/85
STACK - #3 Probat Scale Cyclone — RUN - 3 — FROM - 1301-1402
WEATHER CONDITIONS - Clear, 92°F — PB-30.01 IN. HG — PS-29.97 IN. HG
AS'-0.7854 SQ. FT. — TS-567.7 °R — TM- 558.3 °R
$\sqrt{H}$- 0.7532 IN H_2O — ΔH -1.358 IN H_2O — AN-0.0002315 SQ. FT. — CP-0.84
VM- 17.275 CF — VC- 5.9 ML — TOTAL TIME-30 MIN. — NPTS-12
ORSAT: CO_2 0 % — O_2 21 % — CO - % — N_2 79 %

1.	VOLUME WATER VAPOR	1. 0.278	SCF
2.	GAS VOLUME SAMPLED - STPD	2. 16.445	SCFD
3.	TOTAL VOLUME	3. 16.723	SCF
4.	MOISTURE IN STACK GAS - VOLUME FRACTION	4. 0.017	
5.	DRY STACK GAS - VOLUME FRACTION	5. 0.983	
6.	ASSUMED MOISTURE IN STACK GAS - VOLUME FRACTION	6. 0.05	
7.	MOLECULAR WEIGHT OF STACK GAS - DRY BASIS	7. 28.84	
8.	MOLECULAR WEIGHT OF STACK GAS - STACK CONDITIONS	8. 28.66	
9.	SPECIFIC GRAVITY OF STACK GAS RELATIVE TO AIR	9. 0.989	
10.	EXCESS AIR - PERCENT	10.	%
11.	AVERAGE OF FACTOR ($\sqrt{H}$ X TS)	11.	
12.	AVERAGE STACK VELOCITY	12. 2636	FPM
13.	ACTUAL STACK GAS FLOW RATE	13. 2070	ACFM
14.	ACTUAL STACK GAS FLOW RATE DRY	14. 2036	CFMD
15.	STACK GAS FLOW RATE - STPD	15. 1897	SCFMD
16.	PERCENT ISOKINETIC	16. 98.1	%

MG		GR/SCF	GR/ACF	LBS/HR
Filter	1.1			
Prefilter	14.7			
Total	15.8	0.0148		0.24

Comments: _____

Tests Conducted By: _____

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS

MAXWELL HOUSE DIVISION
GENERAL FOODS CORPORATIION

JACKSONVILLE, FLORIDA

PARTICULATES

Contributions to Contemporaneous Emissions are:

Coffee Processor (Permit A016-110490)

	Lbs/Hr	
Emission Point #1	0.51	(Allowable, Minor Emission)
Emission Point #2	0.26	(Allowable, Minor Emission)
Emission Point #3	0.53	(Allowable, Minor Emission)
Emission Point #4	1.46	(TSI Test Dated 10/22/85)
Emission Point #5	0.238	(RACT Exempt Value)
	2.998	

$$\frac{2.998 \text{ lbs/hr} \times 8400 \text{ hrs/year}}{2000 \text{ lbs/ton}} = \mathbf{12.59 \text{ tons/year}}$$

Proposed Continuous Roasting Process (Permit AC16-121136)

	Lbs/Hr	
Emission Point #1	0.238	
Emission Point #2	2.57	
Emission Point #3	2.57	
Emission Point #4	0.238	
Emission Point #5	0.238	
Emission Point #6	0.238	
Emission Point #7	0.238	
	6.33	lbs/hr allowable

$$\frac{6.33 \text{ lbs/hr} \times 8400 \text{ hrs/yr}}{2000 \text{ lbs/ton}} = \mathbf{26.59 \text{ tons/year}}$$

Green Bean Steamer and Dryer [A016-31483]

This permit expired 6/85 - Refer to Appendix "B". The process has been totally dismantled as documented on page 3 of the letter in Appendix "C".

Contemporaneous Emission Calculation

(A) Increases

32.8 (est) Coffee Processor (AO16-110490)

26.6 Conti Coffee Roasting (AC16-121136)

+59.4 TPY PM increase at facility since NSRNAA Reg. apply

(B) Reductions

14.2 TPY Green Bean Steamer + Dryer (AO16-314831) - ok

5.7 TPY G-BAR Cyclone (AO16-107012) - NEED TO CHECK

(-) 19.9 TPY

CONTI EMISSION REDUCTION NEEDED TO AVOID NSRNAA

(C) (+) 59.4
(-) 19.9
39.5 TPY increase as proposed now
25 TPY SIGN NET INCREASE
14.5 TPY ABOVE SIGNIF.

(D) REDUCTION REQ'D. OF DRYER AT COFFEE ROASTER IF it IS USED

14.5 TPY · 2000#/T / 8400 hrs/yr ≅ 3.5 lbs red. req'd.

(E) Emission after reduction from Dryer

6.28 lb/hr permitted
-3.5 lb/hr reduction req'd
2.78 #/hr

(F) If [illegible] to 2.78 lb/hr allowable from dryer ok. (Test showed 1.461 lb/hr)

APPENDIX A

CONTEMPORANEOUS EMMISSIONS CALCULATIONS
(Continued)

Although the old process was permitted according to the process weight table, the credit for contemporaneous emissions is calculated according to the more current RACT limit. The allowable limit is used for this calculation because the emissions were never tested.

Allowable Emission:

$$30{,}000 \text{ ACFM} \times \frac{532°R}{680°R} \times 0.03 \text{ gr/DSCF} \times 60 \text{ min./hr} \times \frac{1}{7000} \text{ gr/lb} =$$

6.04 lbs/hr.

$$\frac{6.04 \text{ lbs/hour} \times 4 \text{ days} \times 24 \text{ hrs/day} \times 49 \text{ weeks/year}}{2000 \text{ lbs/ton}} = \mathbf{14.2 \text{ tons/year}}$$

Regular Coffee Roasting (A016-107012)

Six BAR cyclones (Refer to Permit A016-107102) will be ducted to a baghouse, listed as Emission Point 7 on the Process Flow Diagram. There is a contemporaneous emissions credit for this reduction based upon the actual emissions for these cyclone emission sources.

$$6 \text{ cyclones} \times \frac{0.942 \text{ tons}}{(\text{year})(\text{cyclone})} = \mathbf{5.65 \text{ tons/year}}$$

Total Contemporaneous Particulate Emissions:

12.59 tons/year + 26.59 tons/year - 14.2 tons/year - 5.65 tons/year =

19.33 tons/year

SULFUR DIOXIDE

Natural Gas

Afterburner:

SO_2 = 0.6 lbs/MMCF Burned *

0.6 lbs/MMCF x 0.0304 MMCF/hr x 8400 hrs/yr = 153.22 lbs/hr

$$153.22 \text{ lbs/hr} \times \frac{1}{2000 \text{ lbs/ton}} = \mathbf{0.0766 \text{ tons/yr } SO_2}$$

APPENDIX A

CONTEMPORANEOUS EMISISONS CALCULATIONS
(Continued)

Roaster:

SO_2 = 0.6 lbs/MMCF Burned*

10.5 MM Btu/hr = Project Design Data

8 MM Btu/hr = Normal Operating Rate

$$\frac{10{,}500{,}000 \text{ Btu/hr}}{1040 \text{ Btu/SCF}} = 10{,}096.2 \text{ CF/hr}$$

$$\frac{10{,}096.2 \text{ CF/hr}}{1{,}000{,}000} = 0.01 \text{ MMCF/hr}$$

0.6 Lbs SO_2/MMCF X 0.01 MMCF/hr X 8400 hr/yr = 50.4 lbs/yr

$$50.4 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{\mathbf{0.0252 \text{ tons/yr } SO_2}}$$

NITROGEN OXIDES

Natural Gas

Afterburner:

NO_x = 140.0 lbs/MMCF Burned *

140 lbs/MMCF x 0.0304 MMCF/hr x 8400 = 35,750 lbs/year

$$35{,}750 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{\mathbf{17.88 \text{ tons/yr } NO_x}}$$

Roaster:

NO_x = 140.0 lbs/MMCF Burned *

140 lbs/MMCF X 0.01 MMCF/hr X 8400 hr/yr = 11,760 lbs/yr

$$11{,}760 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{\mathbf{5.88 \text{ tons/yr } NO_x}}$$

* Source: NEDS Source Classification Codes and Emission Factor Listing, USEPA, October 1985.

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS
(Continued)

TOTAL EMISSIONS SUMMARY

PARTICULATES	TONS/YEAR
Coffee Processor	12.59 Low
Proposed Continuous Roasting Process	26.59
Credit: Green Bean Steamer and Dryer	-14.20
Credit: BAR Cyclones (POINTS 103-109)	-5.65
	19.33

SO_2

Natural Gas:	
Afterburner	0.0766
Roaster	0.0252
	0.1018

NO_x

Natural Gas:	
Afterburner	17.88
Roaster	5.88
	23.76

According to F.A.C. 17-2.500(2)(e)2, the Net Significant Emissions increases for the various pollutants which would expose the application to a New Source Review are:

25 tons/year	Particulates
40 tons/year	Sulfur Dioxide
40 tons/year	Nitrogen Oxides

It is clear from the Total Emissions Summary that none of these limits are exceeded.

APPENDIX B

3426 BILLS ROAD
JACKSONVILLE, FLORIDA 32207

BOB GRAHAM
GOVERNOR

JACOB D. VARN
SECRETARY

G. DOUG DUTTON
SUBDISTRICT MANAGER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER SUBDISTRICT

November 3, 1980

Mr. E. G. Ballance, Plant Manager
Maxwell House Division
General Foods Corporation
Post Office Box 2010
Jacksonville, Florida 32203

Dear Mr. Ballance:

Duval County - AP
Maxwell House Coffee
Green Bean Steamer and Dryer

Enclosed is Permit Number A016-31483 , dated November 3, 1980 , to operate the subject pollution source, issued pursuant to Section 403.061(14), Florida Statutes.

Should you object to this permit, including any and all of the conditions contained therein, you may file an appropriate petition for administrative hearing. This petition must be filed within fourteen (14) days of the receipt of this letter. Further, the petition must conform to the requirements of Section 28-5.201, Florida Administrative Code (see reverse side). The petition must be filed with the Office of General Counsel, Department of Environmental Regulation, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32301.

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

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

Sincerely,

Frank Watkins Jr.

Frank Watkins, Jr., P.E.
Subdistrict Engineer

FW:vk

cc: Records Center, Tallahassee
P. E. Laney, P.E.
BES

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION

Maxwell House Division
735 East Bay Street
Jacksonville, Florida 32202

OPERATION
PERMIT

NO. A016-31483

Green Bean Steamer and Dryer

DATE OF ISSUANCE

November 3, 1980

G. Doug Dutton
Sub-District Manager

DATE OF EXPIRATION

June 30, 1985

Walter W. Honour, Chief
Bio-Environmental Services
City of Jacksonville

DER FORM PERM 11-40

3426 BILLS ROAD
JACKSONVILLE, FLORIDA 32207

BOB GRAHAM
GOVERNOR

JACOB D. VARN
SECRETARY

G. DOUG DUTTON
SUBDISTRICT MANAGER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER SUBDISTRICT

APPLICANT: Mr. E. G. Ballance, Plant Manager
Maxwell House Division
General Foods Corporation
P.O. Box 2010
Jacksonville, Florida 32203

PERMIT/CERTIFICATION NO. A016-31483

COUNTY: Duval

PROJECT: Green Bean Steame And Dryer 17.2

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter 17.4 and 17.4, Florida Administrative Code. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the approved drawing(s), plans, documents, and specifications attached hereto and made a part hereof and specifically described as follows:

Source: Green Bean Steamer, 5,000 lb/hr and Dryer, 48.33 MBtu/hr, with a Cyclone (Aeroglide, Model T1-72-34), 30,000 ACFM.

In accordance with applications received June 2, 1980, with additional information received July 30, 1980, and October 23, 1980

UTM: E - 7437.548
N - 3354.714

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions:, and as such are binding upon the permittee and enforceable pursuant to the authority of Section 403.161(1), Florida Statutes. Permittee is hereby placed

PERMIT NO.: A016-31483
APPLICANT: Maxwell House Division
Source: Green Bean Steamer and Dryer

on notice that the department will review this permit periodically and may initiate court action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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

3. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information: (a) a description of and cause of non-compliance; and (b) the period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.

4. As provided in subsection 403.087(6), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

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

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

7. In the case of an operation permit, permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or department rules.

8. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant, or aquatic life or property and penalities therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.

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

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

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

12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

13. This permit also constitutes:

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

SPECIFIC CONDITIONS:

PERMIT NO.: A016 31483
APPLICANT: Maxwell House Division
Source: Green Bean Steamer and Dryer

1. Supporting documents are retained in file of office to which they were submitted and not attached as stated in the leading paragraph and General Condition No. 2. They are as follows:

A. Permit Application
B. Plot Plans

2. Testing of emissions must be accomplished at ± 10% of the rate stated in the permit.

3. Test the emissions for the following pollutant(s) at intervals indicated from the date of June 1, 1980 and submit a copy of the test report to the Jacksonville Bio-Environmental Services Division and a summary to this office within 15 days after completion of the testing: *

Particulates - on request (Visible Emissions test results may be substituted.)

* (Notify this office 2 weeks prior to testing)

4. Submit an annual operation report for this source on the form supplied by the Department for each calendar year on or before March 1.

5. Any revision(s) to a permit (and application) must be submitted and approved prior to implementation.

6. The maximum allowable emission rate for each pollutant is as follows:

Pollutant	Emission Rate	Maximum Allowable Emission
Particulates	17-2.05(2) Process Weight Table	6.34 lb/hr, 14.9 T/yr

Expiration Date: June 30, 1985

W. W. Honour

Walter W. Honour, Division Chief
Bio-Environmental Services
City of Jacksonville

Issued this 3rd day of November, 19 80.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

G. Doug Dutton
Sub-District Manager

APPENDIX C

REYNOLDS, SMITH AND HILLS
ARCHITECTS · ENGINEERS · PLANNERS
INCORPORATED

DIRECTORS:
IVAN H. SMITH, FAIA
RALPH W. HEIM, PE
JAMES F. SHIVLER, JR., PE
WILLIAM J. WEBBER, AIA
ROBERT F. DARBY, AIA
BOB ALLIGOOD, AIA
BEN BUCALO, PE
GEORGE M. BARSOM, Sc D, PE
K. N. HENDERSON, PE
HOWARD B. BOCHIARDY, FAIA
HENRY LUKE, PE
JOHN E. COOK

April 4, 1986

Steve Smallwood, P.E., Chief
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

Subject: 1985 Annual Operating Report Forms
Maxwell House Division
General Foods Corporation
Jacksonville, Florida

Re: Letter from Steve Smallwood, FDER, dated January 31, 1986

Dear Mr. Smallwood:

We are pleased to provide three copies of the 1985 Annual Operating Report package. This package has been prepared on behalf of Maxwell House Division of General Foods Corporation. The requested information is provided for the following permitted sources:

Tab	FDER Permit No.	Source I.D. No.	Source Description
1	A016-31487	31160004 01	Agglomerating Process
2	A016-31480	31160004 02	Regular Coffee Roasting Process
3	A016-27329	31160004 03	Boiler # 1
4	A016-27330	31160004 04	Boiler # 2
5	A016-31485	31160004 05	Green Bean Bulk Handling Process

Tab	FDER Permit No.	Source I.D. No.	Source Description
6	A016-31490	31160004 06	Soluble Coffee Extraction Process
7	A016-27397	31160004 07	Soluble Coffee Roasting Process
8	A016-31135	31160004 08	Soluble Coffee Spray Dryer #1
9	A016-27398	31160004 09	Soluble Coffee Spray Dryer #2
10	A016-27396	31160004 12	Ground Coffee Packing Operation (SIG-VAC)
11	AC16-90996	31160004 14	Flex Kleen PVTL-16 Baghouse
12	AC16-90996	31160004 15	Coastal Kinetics FR7-10 Baghouse
13	AC16-90996	31160004 16	Carter Day Vent
14	AC16-90996	31160004 17	Ducon 810 Cyclone on Dryer
15	AC16-90996	31160004 18	4 Cyclones on 3 Storage Bunkers
16	AC16-90996	31160004 19	Condensor Vent on Bean Processor

The Source I.D. Numbers for Tabs 11-16 are for the same permit (Permit Number AC16-90996, Coffee Processing). The FDER computer assigned a separate Source I.D. Number for each emission point and control device in the coffee processing system.

There are also four sources which were included on the printout that are not addressed in this package. These are summarized as follows:

Permit No.	Source I.D. No.	Source Desc.	Reason Not Addressed
A016-32096	31160004 11	Can Assembly Lines 1,2,3	Facility redesigned to eliminate emissions. Baghouse taken out of commission.
A016-31483	31160004 10	Green Bean Steamer & Dryer	Dismantled. Superseded by coffee processing system.
AC16-53171	31160004 13	Gas Turbine Generator	Source never constructed.
A016-43643	311160004 4	No. 4 Glass Furnace	Not a Maxwell House service.

The information submitted in this package was developed from FDER permits, actual test data and the NEDS Source Classification Codes and Emission Factor Listing. If you have questions on any of the information provided in this package, please feel free to call me at (904)739-2000.

Very truly yours,

Lloyd H. Stebbins, P.E., Head
Chemical and Process Engineering Department
Environmental Engineering Division

LHS/ma

Enclosure(s)

ESE
AN RUST COMPANY
ENVIRONMENTAL SCIENCE
AND ENGINEERING, INC.

October 31, 1986
86026-0000

DER
NOV 3 1986
BAQM

Mr. C. H. Fancy, P.E., Deputy Chief
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Subject: Continuous Roaster, Permit No. AC16-121136
Maxwell House Division, General Foods Corporation
Jacksonville, Florida

Dear Mr. Fancy:

Enclosed is the original Green Bean Steamer and Dryer Permit, Number AO16-31483. The permit is being returned, as requested, to satisfy the requirements of Specific Condition 11 of the subject permit.

Please feel free to call me if you have any questions.

Very truly yours,

George L. Whitmer
Environmental Compliance Manager
Environmental Engineering Division

GLW/ksr 1602-1
Enclosure
cc: J. R. Hellier, Maxwell House Division

904/739-2007 • 6737 Southpoint Drive, South • Post Office Box 4943 • Jacksonville, Florida 32201

3426 BILLS ROAD
JACKSONVILLE, FLORIDA 32207

BOB GRAHAM
GOVERNOR

JACOB D. VARN
SECRETARY

G. DOUG DUTTON
SUBDISTRICT MANAGER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER SUBDISTRICT

November 3, 1980

Mr. E. G. Ballance, Plant Manager
Maxwell House Division
General Foods Corporation
Post Office Box 2010
Jacksonville, Florida 32203

Dear Mr. Ballance:

Duval County - AP
Maxwell House Coffee
Green Bean Steamer and Dryer

Enclosed is Permit Number A016-31483 , dated November 3, 1980 , to operate the subject pollution source, issued pursuant to Section 403.061(14), Florida Statutes.

Should you object to this permit, including any and all of the conditions contained therein, you may file an appropriate petition for administrative hearing. This petition must be filed within fourteen (14) days of the receipt of this letter. Further, the petition must conform to the requirements of Section 28-5.201, Florida Administrative Code (see reverse side). The petition must be filed with the Office of General Counsel, Department of Environmental Regulation, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32301.

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

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

RECEIVED ENGR. MGR
FILE
NOV 4 1980
FOLLOW UP
FORWARD TO

Sincerely,

Frank Watkins, Jr., P.E.
Subdistrict Engineer

RECEIVED BOB MAREK
FILE
NOV 4 1980
FORWARD TO
BRING UP

FW:vk

cc: ~~Records Center, Tallahassee~~
P. E. Laney, P.E.
BES

3426 BILLS ROAD
JACKSONVILLE, FLORIDA 32207

BOB GRAHAM
GOVERNOR

JACOB D. VARN
SECRETARY

G. DOUG DUTTON
SUBDISTRICT MANAGER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER SUBDISTRICT

APPLICANT: Mr. E. G. Ballance, Plant Manager
Maxwell House Division
General Foods Corporation
P.O. Box 2010
Jacksonville, Florida 32203

PERMIT/CERTIFICATION NO. A016-31483

COUNTY: Duval

PROJECT: Green Bean Steame And Dryer 17.2

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter 17.2 and 17.4, Florida Administrative Code. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the approved drawing(s), plans, documents, and specifications attached hereto and made a part hereof and specifically described as follows:

Source: Green Bean Steamer, 5,000 lb/hr and Dryer, 48.33 MBtu/hr, with a Cyclone (Aeroglide, Model T1-72-34), 30,000 ACFM.

In accordance with applications received June 2, 1980, with additional information received July 30, 1980, and October 23, 1980

UTM: E - 7437.548
N - 3354.714

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions:, and as such are binding upon the permittee and enforceable pursuant to the authority of Section 403.161(1), Florida Statutes. Permittee is hereby placed

PERMIT NO.: A016 31483
APPLICANT: Maxwell House Division
Source: Green Bean Steamer and Dryer

1. Supporting documents are retained in file of office to which they were submitted and not attached as stated in the leading paragraph and General Condition No. 2. They are as follows:

A. Permit Application
B. Plot Plans

2. Testing of emissions must be accomplished at ± 10% of the rate stated in the permit.

3. Test the emissions for the following pollutant(s) at intervals indicated from the date of June 1, 1980 and submit a copy of the test report to the Jacksonville Bio-Environmental Services Division and a summary to this office within 15 days after completion of the testing: *

Particulates - on request (Visible Emissions test results may be substituted.)

* (Notify this office 2 weeks prior to testing)

4. Submit an annual operation report for this source on the form supplied by the Department for each calendar year on or before March 1.

5. Any revision(s) to a permit (and application) must be submitted and approved prior to implementation.

6. The maximum allowable emission rate for each pollutant is as follows:

Pollutant	Emission Rate	Maximum Allowable Emission
Particulates	17-2.05(2) Process Weight Table	6.34 lb/hr, 14.9 T/yr

Expiration Date: June 30, 1985

Issued this 3rd day of November, 19 80.

W. W. Honour

Walter W. Honour, Division Chief
Bio-Environmental Services
City of Jacksonville

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

G. Doug Dutton

G. Doug Dutton
Sub-District Manager

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION

Maxwell House Division
735 East Bay Street
Jacksonville, Florida 32202

OPERATION
PERMIT

NO. A016-31483

Green Bean Steamer and Dryer

DATE OF ISSUANCE

November 3, 1980

G. Doug Dutton
Sub-District Manager

DATE OF EXPIRATION

June 30, 1985

Walter W. Honour, Chief
Bio-Environmental Services
City of Jacksonville

Best Available Copy

PERMITTED
BY
LOWER ST. JOHNS RIVER SUB DISTRICT
DEPARTMENT OF ENVIRONMENTAL REGULATION
PERMIT NO. AO16-31483
DATE 11/3/80

ST. JOHNS RIVER
RECEIVED
OCT 29 1980
SUB DISTRICT

MAY 30 1980
AIR & [illegible]
CONTROL
JACKSONVILLE

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

AO16-2010

SOURCE TYPE: Coffee Processing [ ] New[1] [X] Existing[1]

APPLICATION TYPE: [ ] Construction [X] Operation [ ] Modification

COMPANY NAME: Maxwell House Division, General Foods Corp. COUNTY: Duval

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2 Gas Fired) Green Bean Steam & Drying Operation

SOURCE LOCATION: Street 735 E. Bay Street City Jacksonville

UTM: East 437,548 m North 3,354,714 m

Latitude 30 ° 19 ' 27 "N Longitude 81 ° 39 ' 0 "W

APPLICANT NAME AND TITLE: Edward G. Ballance, Plant Manager

APPLICANT ADDRESS: 735 E. Bay Street, Jacksonville, FL 32202

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Maxwell House Division, General Foods Corp.

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

*Attach letter of authorization

Signed: Edward G. Ballance

Edward G. Ballance, Plant Manager
Name and Title (Please Type)

Date: _____ Telephone No. 904/358-3251

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 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.

(Affix Seal)

Signed: P. E. Laney

P. E. Laney, P.E.
Name (Please Type)

Reynolds, Smith & Hills
Company Name (Please Type)

P. O. Box 4850, Jacksonville, FL 32201
Mailing Address (Please Type)

Florida Registration No. 17457 Date 5/19/80 Telephone No. 904/396-2011

[1] See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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.

Refer to the flow diagram. Green beans are fed to the digester where they are steamed and then fed to a dryer where heated air removes moisture and picks up some particulates. This stream goes to a cyclone dust collector where the particulates are removed. The process, if used, will continue to be in compliance. Equipment is not now in operation.

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

Start of Construction _____ Completion of Construction _____

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

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

A016-2405 issued June 18, 1975. Expires May 31, 1980.

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? ____ Yes X No

F. Normal equipment operating time: hrs/day 24 ; days/wk 4 ; wks/yr 49 ; if power plant, hrs/yr _____ ;

if seasonal, describe: _____

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

1. Is this source in a non-attainment area for a particular pollutant? _____

   a. If yes, has "offset" been applied? _____

   b. If yes, has "Lowest Achievable Emission Rate" been applied? _____

   c. If yes, list non-attainment pollutants.

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

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirements apply to this source? If yes, see Sections VI and VII. _____

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? _____

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? _____

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

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Green Coffee Beans	Particulate	0.3%	5,000	A
Steam	-	-	5,000	B

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

1. Total Process Input Rate (lbs/hr): 5,000

2. Product Weight (lbs/hr): 4,400

C. Airborne Contaminants Emitted:

Note: This process is presently not operating; inactive during 1979

Name of Contaminant	Emission[1]		Allowed Emission[2] Rate per Ch. 17-2, F.A.C.	Allowable[3] Emission lbs/hr	Potential Emission[4]		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulates	1.54	3.62	17-2.05 (2)	6.34	15.4	36.2	E
			$E=(3.5)\left(\frac{5,000}{2,000}\right)^{0.62}$				
			= 6.34 lb/hr				

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles[5] Size Collected (in microns)	Basis for Efficiency (Sec. V, It[5])
Cyclone - Aeroglide	Particulates	90%		
Model TI-72-34				
MGC 10'-10" Diam.				

[1] See Section V, Item 2.

[2] *Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 0.1 pounds per million BTU heat input)*

[3] Calculated from operating rate and applicable standard

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

[5] If Applicable

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	0.0483		48.33

*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating. Annual Average _____ Maximum _____

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

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

Stack Height: 50 ft. Stack ~~Diameter~~ Dimensions: 5'x3.33' ft.

Gas Flow Rate: 30,000 ACFM Gas Exit Temperature: 220 °F.

Water Vapor Content: _____ % Velocity: 30 FPS

SECTION IV: INCINERATOR INFORMATION

N/A

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

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ days/week _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		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.):

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight — show derivation.
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, 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 8½" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8½" 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 8½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. An application fee of $20, unless exempted by Section 17-4.05(3), F.A.C. 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

N/A

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?
[ ] Yes [X] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy) [ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:
5. Useful Life:
6. Operating Costs:
7. Energy:
8. Maintenance Cost:
9. Emissions:

Contaminant	Rate or Concentration

*Explain method of determining D 3 above.

10. Stack Parameters

a. Height: ft. b. Diameter: ft.

c. Flow Rate: ACFM d. Temperature: °F

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy*: h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy**: h. Maintenance Costs:

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:

*Explain method of determining efficiency.

**Energy to be reported in units of electrical power – KWH design rate.

3.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Life: f. Operating Cost:

g. Energy: h. Maintenance Cost:

*Explain method of determining efficiency above.

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*:

d. Capital Cost:

e. Life:

f. Operating Cost:

g. Energy:

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency*:

3. Capital Cost:

4. Life:

5. Operating Cost:

6. Energy:

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

*Explain method of determining efficiency above.

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

b.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

10. Reason for selection and description of systems:

*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII – PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____ no sites _____ TSP _____ ( ) SO^2* _____ Wind spd/dir

Period of monitoring ___/___/___ (month day year) to ___/___/___ (month day year)

Other data recorded _____

Attach all data or statistical summaries to this application.

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 ___/___/___ (month day year) to ___/___/___ (month day year)

2. Surface data obtained from (location) _____

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

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

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

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

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO^2	_____ grams/sec

E. Emission Data Used in Modeling

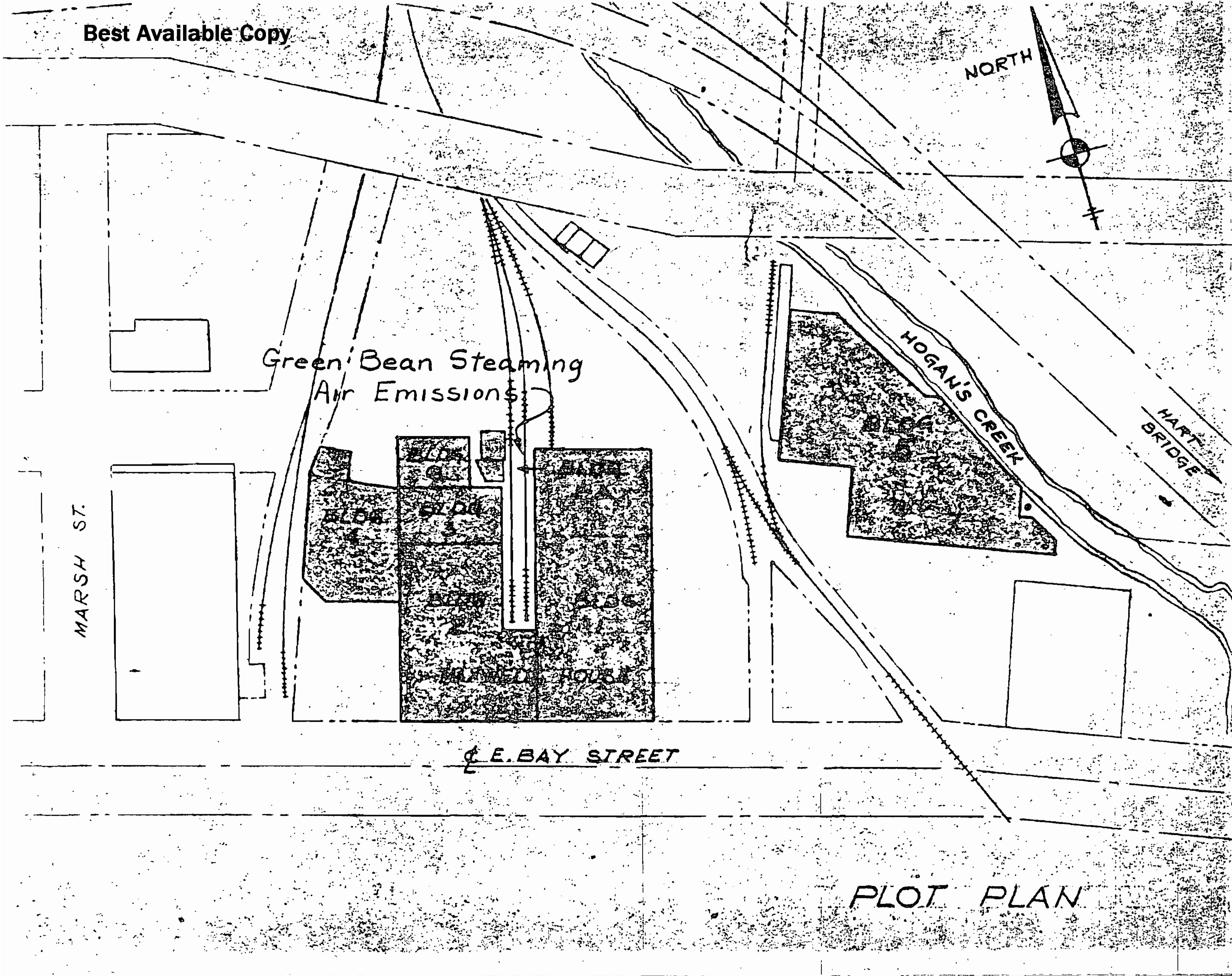
Attach list of emission sources. Emission data required is source name, description on point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

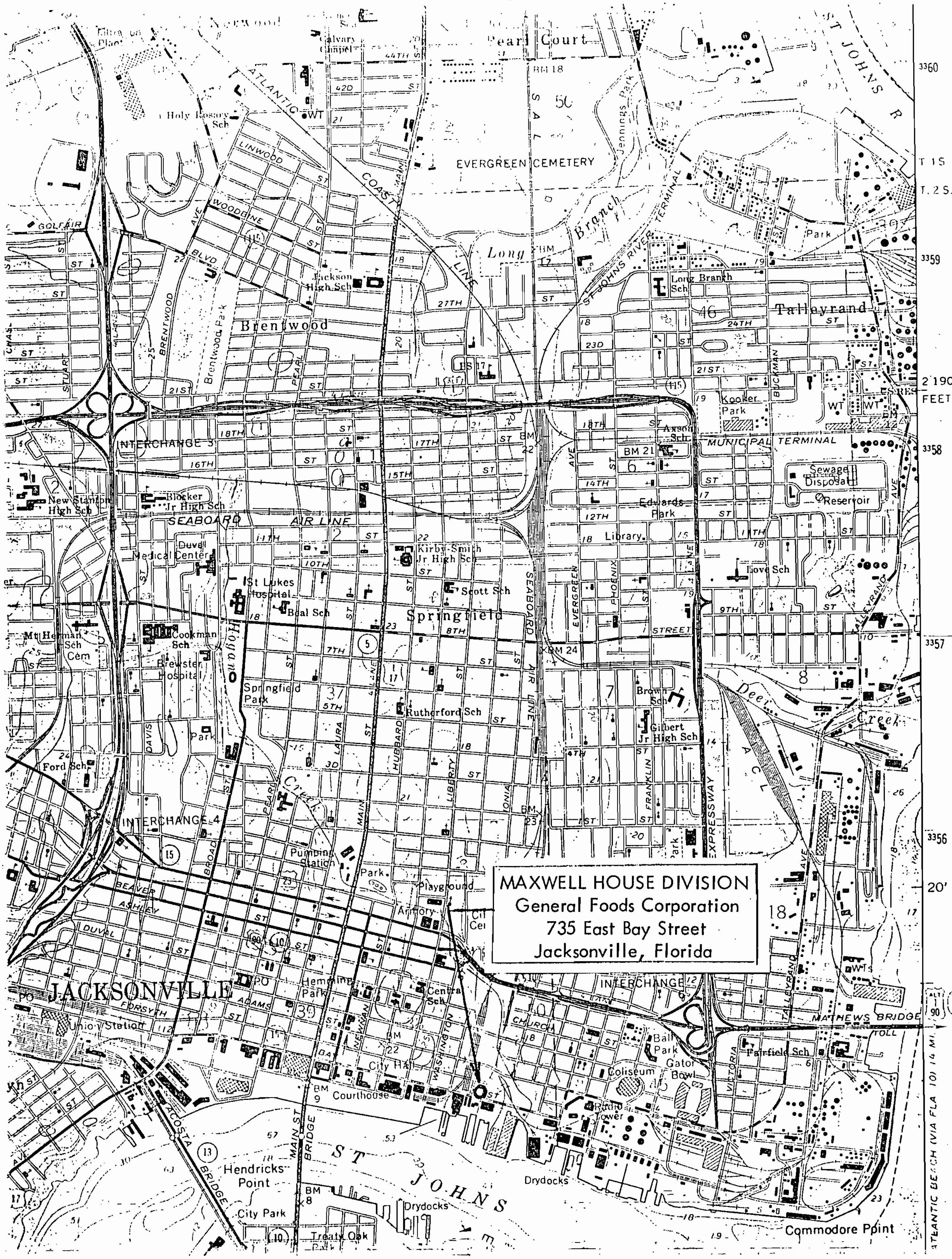
F. Attach all other information supportive to the PSD review.

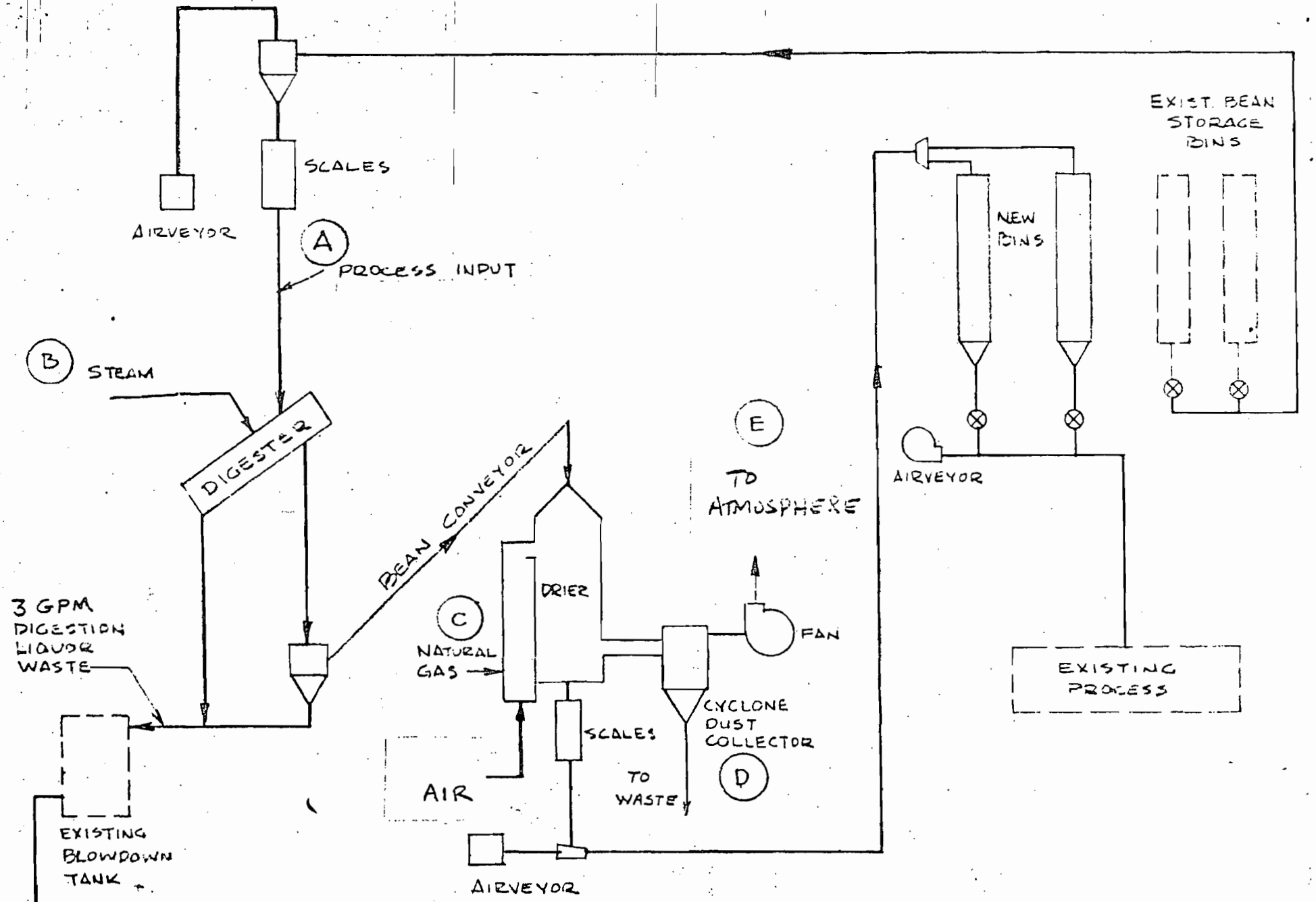
*Specify bubbler (B) or continuous (C).

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.







PROCESS FLOW DIAGRAM

STEAMING & DRYING FACILITIES
MAXWELL HOUSE DIVISION - GENERAL FOODS

P 408 532 081

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
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PS Form 3800, Feb. 1982

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Maxwell House Division
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OCT

Specific Card
Reduce Processor
#10 Source #4 from 6.28 to 1.46
#6 Lists 7 sources

Prelim – Discussed
24.98 TOY ...
No 5.65 asked for

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

Mr. Donald A. Butte
Plant Manager
Maxwell House Division
General Foods Corporation
Post Office Box 2010
Jacksonville, Florida 32203

October 3, 1986

Enclosed is Permit Number AC 16-121136 to Maxwell House Division, General Foods Corporation which authorizes the construction of a new continuous roasting process at your facility in Jacksonville, Duval County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

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

Copies furnished to:

Lloyd H. Stebbins, P.E.
Peter C. Cunningham
Khurshid Mehta
Johnny Cole

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on Oct. 3, 1986 to the listed persons.

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

Patricia G. Adams — Clerk

Oct. 3, 1986 — Date

Final Determination

Maxwell House Division, General Foods Corporation
Jacksonville, Florida
Duval County

Continuous Roasting Process
Permit No. AC 16-121136

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

September 25, 1986

Final Determination

The Technical Evaluation and Preliminary Determination for the proposed continuous roasting process at the Maxwell House plant in Jacksonville was distributed on August 4, 1986. Copies of the evaluation were available for public inspection at Duval County's Bio-Environmental Services Division (BESD) and the department's offices in Jacksonville and Tallahassee. The Notice of Proposed Agency Action on the permit application was published in the Florida Times-Union on August 11, 1986.

BESD and Environmental Science Engineering, Inc. (ESE) submitted comments on the Technical Evaluation and Preliminary Determination. The department's response to the comments listed in their letters are discussed below:

BESD Comments

(A) BESD noted that the green bean steamer and dryer system was shutdown in the early 1980's. Maxwell House is taking credit (17-2.500(2)(e)) for the reduction in the actual emissions from this discontinued operation as part of the proposed project. See (C), below, on how the department will address this matter.

(B) The permit to operate the existing coffee processing system, which contributes to a creditable emissions change, will be AO 16-110490 (not 40490). The permit number in Specific Condition No. 10 is corrected. BESD requested a stack test be required to verify this source complies with the lower allowable emissions. The department has required the applicant to modify the permit to operate the coffee processing system and submit a recent emissions test report on this system as a condition of the proposed permit to construct. The appropriate document for the testing requirements to routinely verify emissions from the coffee processing system is the revised permit to operate (AO 16-110490).

(C) BESD noted that the green bean steamer and dryer did not have a federally enforceable permit condition requiring it to cease operations. Specific Condition No. 11 of the proposed permit to construct is revised to meet this requirement.

(D) The description of the source for company I.D. point No. 4 is changed for clarification in Specific Condition No. 6.

(E) Specific Condition No. 13 is revised to require 15 days notice prior to compliance tests.

(F) Specific Condition No. 15 is reworded to indicate that several fees may be required with the application for permit to operate.

ESE Comments

Specific Condition No. 5 requires the temperature of the afterburner to be recorded continuously. ESE commented this was unnecessarily burdensome. The department believes that some means is needed for the company or a field inspector to determine the afterburner is operating properly (Rule 17-4.14, FAC). A continuous recording of the afterburner temperature would indicate the operating status of the afterburner. This can also be accomplished by other methods. The department will accept a permanently mounted instrument to measure the temperatures in the afterburner or stack in lieu of a continuous temperature recorder. The normal temperature of the instrument will be established during the compliance tests. This reading could then be used as a baseline to confirm the afterburner is operating at conditions similar to those that existed during the compliance tests. Specific Condition No. 5 is modified to allow other means to monitor the operation of the afterburner.

Specific Condition No. 10 requires the allowable emissions for the coffee processor to be reduced. If the allowable emissions from the plant are not reduced, the emissions from the coffee roaster project will result in a significant emission rate increase and subject this project to new source review for nonattainment areas (Rule 17-2.510, FAC). The company engineer disagrees with the department's interpretation of the rule. The allowable emissions must be reduced to be creditable (Rule 17-2.510(2)(e)4.). Specific Condition No. 10 is modified to be consistant with the regulations.

Specific Condition No. 15 requires the applicant to test the emissions from the coffee processor as a condition of the permit to construct the coffee roaster. The company engineer believes the test requirements for the coffee processor should be in its permit to operate (AO 16-110490). Because a creditable emissions decrease of the coffee processor is a condition of the permit to construct the coffee roaster, the department believes a recent emissions test report on the coffee processor that confirmed the lower allowable emission limit is being met is needed prior to issuing any permit to operate the coffee roaster. After the initial compliance tests for the coffee roaster, all testing requirements for the coffee processor will be in its permit to operate (AO 16-110490). See BESD comment (B) and (F).

The final action of the department will be to issue the permit to construct with the changes noted above.

Attachment:

BESD letter dated August 27, 1986.

ESE letter dated September 12, 1986.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
General Foods Corporation
Maxwell House Division
Post Office Box 2010
Jacksonville, Florida 32203

Permit Number: AC 16-121136
Expiration Date: March 1, 1988
County: Duval
Latitude/Longitude: 30° 19' 27" N
81° 39' 00" W
Project: Continuous Roaster

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 5 TPH (green bean) continuous roaster at Maxwell House's existing coffee processing plant located at 735 East Bay Street, Jacksonville, Duval County, Florida. The UTM coordinates of this site are zone 17, 437.5 km East and 3354.7 km North.

Major components of the coffee roaster are: a green bean feed system consisting of a cyclone, two surge bins, scale, and baghouse; a natural gas fired continuous roaster, three cyclones, and an afterburner; a stoner system that includes two cyclones, two surge bins, a scale, and two baghouses; a product storage system consisting of three baghouses and three bunkers; two cyclones connected to the existing BAR system; and associated equipment that includes pneumatic conveying systems, blowers, ducts, stacks, etc.

The installation shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the determination or permit.

Attachments:

1. Application dated May 27, 1986
2. DER letter dated June 27, 1986
3. ESE letter dated July 14, 1986

PERMITTEE:
General Foods Corporation

Permit Number: AC 16-121136
Expiration Date: March 1, 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 enforceable action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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

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

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

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

GENERAL CONDITIONS

6. The permittee shall at all times properly operate and maintain the facility and system 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 the 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:
General Foods Corporation

Permit Number: AC 16-121136
Expiration Date: March 1, 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 reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or department rules.

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS

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

c. Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. Only natural gas shall be used for fuel in the roaster and afterburner. Fuel consumption by the afterburner is limited to 0.016 MMCF/hr of natural gas. Fuel consumption in the roaster is limited to 0.01 MMCF/hr of natural gas. The permittee shall keep a log of the fuel meter readings.

2. The continuous coffee roaster system may operate 24 hr/day, 7 days/wk, and up to 50 weeks/year.

SPECIFIC CONDITIONS:

3. Green bean input to the plant shall not exceed the current permitted rate and 48,500 lbs/hr. Inventory records shall be available to show this limit is not exceeded.

4. Green bean input to the continuous roaster system shall not exceed 10,000 lbs/hr. Production shall not exceed 8,500 lbs/hr. Compliance with this condition shall be determined from the green bean and product scales data.

5. The continuous roaster process shall not allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. The process shall not be operated unless the temperature in the combustion chamber of the afterburner is at least 1,500 °F. The unit shall be equipped with instruments to measure its temperature.

6. Particulate matter emissions from the continuous roaster process shall not exceed the following:

Co. ID	Source	lbs/hr	gr/dscf	TPY	% Opacity
1.	Green bean feed system	0.238	--	0.99	5
2.	Roaster afterburner	2.57	0.03	10.79	5
3.	Cooling section of the roaster	2.57	0.03	10.79	5
4.	Stoner product handling system	0.238	--	0.99	5
5.	Pollutant from the stoner	0.238	--	0.99	5
6.	Product bunker	0.238	--	0.99	5
7.	Product to the BAR System	0.238	--	0.99	5

Compliance with these standards shall be determined by Reference Methods 1, 2, 3, 5, and 9 or EPA approved alternative methods as described in 40 CFR 60, Appendix A.

7. Only 1 of the 3 baghouses to the product bunker (Co. ID No. 6) shall be in service at any given time.

8. Only 1 of the 2 cyclones to the existing BAR system (Co. ID No. 7) shall be in service at any given time.

9. All waste generated by this operation shall be disposed of in an environmentally sound manner that complies with all applicable regulations.

PERMITTEE:
General Foods Corporation

Permit Number: AC 16-121136
Expiration Date: March 1, 1988

SPECIFIC CONDITIONS:

10. Prior to the operation of the continuous roaster process, the permittee shall obtain a revision to the permit for the coffee processor (AO 16-110490) that lowers the allowable particulate matter emissions from all 5 emission points to 3.0 lb/hr and 12.6 TPY.

11. The green bean steamer and dryer (AO 16-31482) shall cease all operations prior to commencement of construction of the continuous roasting process and all permits for this process shall be returned to the department.

12. Prior to construction of the afterburner and BAR cyclones, the permittee shall submit specifications on the equipment selected, and a guarantee from the manufacturer that the afterburner will destroy all of the combustible material entering it.

13. Jacksonville BESD shall be notified 15 days in advance of any compliance tests. Copies of the test report(s) shall be submitted to BESD within 45 days after completion of tests.

14. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, he must notify the Department in writing 90 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (FAC Rule 17-4.09)

15. 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 all applicable application fees along with test results of the coffee roaster and processor operations and Certificate of Completion to Jacksonville's BESD 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rules 17-4.22 and 17-4.23)

PERMITTEE:
General Foods Corporation

Permit Number: AC 16-121136
Expiration Date: March 1, 1988

SPECIFIC CONDITIONS:

16. Commercial operation of the process is prohibited unless all sources are in compliance with the conditions of this permit. If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (FAC Rule 17-4.10)

17. Any permit to operate issued for this process shall require, as a minimum, annual visible emissions test report(s) and, on renewal of the permit to operate (every 5 years), particulate matter emissions test report(s).

Issued this 30 day of September 1986.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Victoria J. Tschinkel

Victoria J. Tschinkel, Secretary

_____ pages attached.

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE

To: Clair Fancy Loctn: _____

To: _____ Loctn: _____

To: _____ Loctn: _____

From: _____ Date: _____

TO: Victoria J. Tschinkel

FROM: Clair Fancy

DATE: September ~~25~~ 30, 1986

SUBJ: Approval of Air Construction Permit

Attached for your approval and signature is one air construction permit for Maxwell House Division, General Foods Corporation for a proposed continuous roasting process at the Maxwell House plant in Jacksonville, Duval County, Florida.

Day 90, after which the permit would be issued by default, is November 5, 1986.

The Bureau recommends your approval and signature.

CF/pa

Attachment

ESE.

AN RSH. COMPANY

ENVIRONMENTAL SCIENCE
AND ENGINEERING, INC.

DER

SEP 15 1986

BAQM

September 12, 1986

9/15

~~Bill~~ Hillard has a copy - Please return for file - Patty

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management
State of Florida
Department of Environmental Regulation
Twin Towers Office Bldg.
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

SUBJECT: Permit No: AC 16-121136
Continuous Roaster
Maxwell House Division
General Foods Corporation
Jacksonville, Florida

Dear Mr. Fancy:

Pursuant to the Public Notice Provision of the regulations, we have prepared several comments regarding the draft construction permit on behalf of Maxwell House.

These comments are related to certain specific conditions in the draft permit and are numbered accordingly:

SPECIFIC CONDITION NO. 5: The afterburner is designed to operate at at least 1500° F. Since it is a continuously operated device which is designed to operate under steady state conditions, the requirement to continuously record its temperature is considered to be unnecessarily burdensome.

SPECIFIC CONDITION NO. 10: This item is related to the contemporaneous emissions calculation. The instructions for performing this calculation are found in FAC 17-2.510(2)(e)3. The regulations clearly state that **actual emissions** (not allowable) will be used for the calculation. In the calculations presented as Appendix A to the permit application package, **actual emissions** were used for the contemporaneous emissions calculation wherever possible. However, where test results were not available, **allowable emissions** figures were used simply because no other data was available. The contemporaneous emissions calculation is an administrative procedure which is used to determine whether or not a Preconstruction Review will be required. This calculation is in no way tied to the conditions in the permit for the Coffee Processor (AO-16-40490). Therefore, it is not necessary to reduce the allowable emissions on the Coffee Processor to a level equal to the tested actual emissions.

904/739-2007 • 6737 Southpoint Drive, South • Post Office Box 4943 • Jacksonville, Florida 32201

SPECIFIC CONDITION NO. 15: The testing requirements for obtaining an operating permit for the Continuous Coffee Roaster should be limited to the Continuous Coffee Roaster. The Coffee Processor will be tested according to the testing requirements in that permit.

We are very anxious to proceed with this permitting process. If you have any questions regarding the above comments, please give me a call at (904) 739-2007.

Very truly yours,

Lloyd H. Stebbins, Head
Chemical and Process Engineering
Environmental Engineering Division

LHS/kr

P 408 532 114

RECEIPT FOR CERTIFIED MAIL

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P.O., State and ZIP Code Jax, Fl 32203	
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TOTAL Postage and Fees	$
Postmark or Date	

PS Form 3800, Feb. 1982

PS Form 3811, July 1983 447-845

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

3. Article Addressed to:
Donald Butte, General Foods Corp.
P.O. Box 2010
Jacksonville, Fl 32203

4. Type of Service:	Article Number
☑ Registered ☐ Insured ☑ Certified ☐ COD ☐ Express Mail	P408532114

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery
JUN 30 1986

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

DOMESTIC RETURN RECEIPT

DER

SEP 2 - 1986

BAQM

file

DEPARTMENT OF HEALTH, WELFARE
& BIO-ENVIRONMENTAL SERVICES
Bio-Environmental Services Division
Air and Water Pollution Control

August 27, 1986

Mr. Bill Thomas, P.E.
Bureau of Air Quality Management
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301-8241

Re: Duval County - AP
Maxwell House Continuous Roasting Process
Preliminary Determination and Technical Evaluation

Dear Mr. Thomas:

Bio-Environmental Services Division (BESD) offers the following comments on the captioned item:

(A) In part I.C. of the preliminary determination, it is noted that the existing green bean steamer and dryer will be shut down. This system was shut down in the early 1980s. This fact may have some impact on the calculation of contemporaneous increases/decreases. The coffee processor permit A016-110490 (not 40490) is not yet final due to a request for a delay in filing an Administrative Hearing by Maxwell House. Issues involved should be resolved, but as of yet, they are not.

(B) The statement in the preliminary determination to reduce the allowable emissions in the coffee processing permit A016-110490, APIS Point No. 31-16-0003-17 from 6.28 lbs/hr to 1.46 lbs/hr needs verification through a stack test.

(C) As mentioned in (A) above, the green bean steamer and dryer was shut down in the early 1980s. Although this is within the five year comtemporaneous increase/decrease period, the decrease was not through a federally enforceable permit condition as required by Rule 17-2.510(2)(e)3., Florida Administrative Code (FAC). Your attention to this matter is appreciated.

(D) In the permit AC16-121136, Specific Condition No. 6, it is not clear if company I.D. points 4 and 5 are separate or combined. Point No. 4 is listed as emitted product, and Point No. 5 as emitting pollutant. Please clarify.

(E) In the permit Specific Condition No. 13 should provide for 15 days notification of testing in accordance with Rule 17-2.700(2)(a)5., FAC.

(F) In the permit Specific Condition No. 15 should read: "...permit, including the state and local processing and review fees, along with...".

If BESD may be of further assistance, please advise.

Very truly yours,

Jerry E. Woosley
Associate Pollution Control Engineer

cc: Mr. Bill Stewart, P.E., DER
BESD File 1820 R
Mr. Jim Hellier, Maxwell House

JEW/bgm

ESE
AN R&H COMPANY
ENVIRONMENTAL SCIENCE
AND ENGINEERING, INC.

August 12, 1986
86026 0000

DER
AUG 13 1986
BAQM

C. H. Fancy, P. E.
Deputy Chief
Bureau of Air Quality Management
Florida Department of Air Quality Management
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Subject: Construction Permit Application
Continuous Roasting Process, AC16-121136
Maxwell House Division
General Foods Corporation

Dear Mr. Fancy:

The State of Florida, FDER, Notice of Issue for the subject permit was published in the Monday, August 11, 1986, Florida Times-Union, Jacksonville, Florida, as required by Section 403.815 F.S. and DER Rule 17-103.150 F.A.C. The affidavit certifying proof of publication is attached.

We would like to express our appreciation for expediting the permit review process. The continuous roaster process is an extremely high priority item in Maxwell House's overall plan and the cooperation by your department is sincerely appreciated.

Please feel free to call me if you have any questions or need further information.

Very truly yours,

George L. Whitmer/a.o.h.

George L. Whitmer
Environmental Compliance Manager
Environmental Engineering Division

GLW:adh
Attachment
cc: J. R. Hellier

The Florida Times-Union Jacksonville Journal

FLORIDA PUBLISHING COMPANY

Publishers

JACKSONVILLE, DUVAL COUNTY, FLORIDA

STATE OF FLORIDA }
COUNTY OF DUVAL }

Before the undersigned authority personally appeared George A. Dan

who on oath says that he is

Retail Advertising Manager of The Florida Times-Union, and

Jacksonville Journal, daily newspapers published at Jacksonville in Duval County,

Florida; that the attached copy of advertisement, being a

Legal Notice

in the matter of Notice of Intent

in the Court,

was published in The Florida Times Union

in the issues of August 11

Affiant further says that the said The Florida Times-Union and Jacksonville Journal are each newspapers published at Jacksonville, in said Duval County, Florida, and that the said newspapers have each heretofore been continuously published in said Duval County, Florida, The Florida Times-Union each day, and Jacksonville Journal each day except Sundays, and each has been entered as second class mail matter at the postoffice in Jacksonville, in said Duval County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in said newspaper.

Sworn to and subscribed before me
this 11th day of
August A.D. 1986

Notary Public,
State of Florida at Large.

My Commission Expires

NOTARY PUBLIC, STATE OF FLORIDA
My commission expires Feb. 19, 1989

DA 444

State of Florida
Department of Environmental Regulation
Notice of Intent

The Department gives notice of its intent to issue a permit to Maxwell House Division, General Foods Corporation to construct a new continuous roasting process at Maxwell House Division's existing coffee processing plant located at 735 East Bay Street, Jacksonville, Duval County, Florida. A determination of best available control technology (BACT) was not required.

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

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

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

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

Dept. of Environmental Regulation
Northeast District
3426 Bills Road
Jacksonville, Florida 32207

Duval County Dept. of Health, Welfare and
Bio-Environmental Services
515 West 6th Street
Jacksonville, Florida 32206

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

P 408 532 033

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

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

PS Form 3800, Feb. 1982

PS Form 3811, July 1983 447-845

● **SENDER: Complete items 1, 2, 3 and 4.**

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

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

3. Article Addressed to:
Mr. Donald A. Rutte
Maxwell House Div.
P. O. Box 2010
Jacksonville, FL 32203

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

Article Number
P 408 532 033

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

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery AUG 6 1986

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

DOMESTIC RETURN RECEIPT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

August 1, 1986

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Donald A. Rutte
Plant Manager
Maxwell House Division
General Foods Corporation
Post Office Box 2010
Jacksonville, Florida 32203

Dear Mr. Rutte:

Attached is one copy of the Technical Evaluation and Preliminary Determination, and proposed permit to construct a new continuous roasting process at your facility in Jacksonville, Duval County, Florida.

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

Sincerely,

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

CHF/pa

Attachments

cc: Lloyd H. Stebbins, P.E.
Peter C. Cunningham
Khurshid Mehta
Johnny Cole

State of Florida
Department of Environmental Regulation
Notice of Intent

The Department gives notice of its intent to issue a permit to Maxwell House Division, General Foods Corporation to construct a new continuous roasting process at Maxwell House Division's existing coffee processing plant located at 735 East Bay Street, Jacksonville, Duval County, Florida. A determination of best available control technology (BACT) was not required.

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

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

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

Dept. of Environmental Regulation
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Jacksonville, Florida 32207

Duval County Dept. of Health, Welfare and
Bio-Environmental Services
515 West 6th Street
Jacksonville, Florida 32206

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

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

Maxwell House Division
General Foods Corporation
Post Office Box 2010
Jacksonville, Florida 32203

DER File No. AC 16-121136

INTENT TO ISSUE

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

The applicant, Maxwell House Division, General Foods Corporation applied on June 5, 1986, to the Department of Environmental Regulation for a permit to construct a new continuous roasting process at Maxwell House's existing coffee processing plant in Jacksonville, Duval County, Florida.

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

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

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

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

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

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

Copies furnished to:

Lloyd H. Stebbins, P.E.
Peter C. Cunningham
Khurshid Mehta
Johnny Cole

CERTIFICATE OF SERVICE

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

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

Patricia G. Adams
Clerk

Aug. 4, 1986
Date

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

28-5.15 Requests for Formal and Informal Proceedings

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) any notices issued or published; and

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

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

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

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

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

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

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

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

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

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

Technical Evaluation
and
Preliminary Determination

Maxwell House Division, General Foods Corporation
Jacksonville, Florida
Duval County

Continuous Roasting Process
File No. AC 16-121136

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

August 1, 1986

I. Application

A. Applicant

General Foods Corporation
Maxwell House Division
Post Office Box 2010
Jacksonville, Florida 32203

B. Request

On June 5, 1986, Mr. Peter Cunningham, attorney, submitted an application for permit to construct a new continuous roasting process at Maxwell House's existing coffee processing plant (SIC 2095). The application was considered complete on July 16, 1986, when additional information (July 14, 1986, letter) on the proposed project was received.

C. Project and Location

Maxwell House proposes to install a new 5 TPH (green bean) continuous coffee roasting process at their existing plant located at 735 East Bay Street in Jacksonville, Duval County, Florida. The UTM coordinates of this site are zone 17, 437.5 km E and 3354.7 km N.

The new process will use the existing green coffee bean bunkers and BAR system. Following is a list of the new process equipment to be installed.

1. Green coffee bean feed system consisting of a cyclone, two surge bins, and a scale with the emissions controlled by a baghouse.

2. A continuous coffee roaster, which will use natural gas for fuel (use of oil not authorized) and three cyclones with emissions controlled by an afterburner.

3. A stoner system that includes two cyclones, two surge bins, a scale, and two baghouses.

4. A product storage system consisting of three baghouses and three bunkers. Only one baghouse and bunker is in service at any given time.

5. Two cyclones connected to the existing BAR system. Only one cyclone is in service at any given time.

6. Associated equipment that includes pneumatic conveying systems, blowers, ducts, stacks, etc.

The existing green bean steamer and dryer will be shutdown and dismantled as part of this project. The allowable emissions of the coffee processor (AO16-40490) will also be reduced as part of the project.

D. Air Pollutant Emissions

Coffee chaff and fines are released during the handling of the green beans and roasted coffee. Particulate matter emissions are controlled by cyclones (90 percent efficient), baghouses (98 percent efficient) and an afterburner (80 percent efficient). The afterburner will also destroy all organic material released during the roasting process.

The following table lists the actual particulate matter emissions estimated by the applicant and the allowable emissions requested by the applicant.

Table 1
Particulate Matter Emissions

Co. ID	Source	Control	Actual	Allowable	
			lb/hr	lb/hr	TPY
1	Green bean feed system	Baghouse	0.058	0.238	0.9996
2	Roaster	Afterburner	2.57	2.57	10.794
3	Cooling section of the roaster	Cyclone	0.33	2.57	10.794
4	Product from the stoner	Baghouse	0.03	0.238	0.9996
5	Pollutant from the stoner	Baghouse	0.036	0.238	0.9996
6	Product bunker	Baghouse (1 of 3 used at a time)	0.06	0.238	0.9996
7	Product to BAR System	Cyclone (1 of 2 used at a time)	0.06	0.238	0.9996
Total			3.144	6.33	26.586

The allowable emissions for sources with company ID's 1, 4, 5, 6, and 7 are based on the discharged being below 1 TPY so as

not to be subject the source to the RACT regulations. The allowable emissions from sources 2 and 3 are based on the RACT emission standard of 0.03 gr/dscf.

To avoid new source review for nonattainment areas, the project includes decreases in emissions from two existing processes at this facility. The green bean steamer process (AO16-31483) has been shut down and dismantled. Actual emissions from this process were estimated to be 6.04 lbs/hr and 14.20 TPY.

The allowable emissions from the recently permitted (November, 1984) coffee processor dryer (emission point No. 4 of AO 16-40490) is being reduced to 1.46 lb/hr. This reduces the allowable emissions from all five sources in this process to 2.998 lb/hr and 12.59 TPY. The company will be given option of substituting other federally enforceable contemporaneous emission reductions for this emission point prior to the expiration date of the construction permit.

The contemporaneous emission increase of the facility is:

12.59 TPY (coffee processor)* + 26.59 TPY (coffee roaster)
- 14.20 TPY (green bean steamer and dryer)
= 24.98 TPY total PM increase

The significant emission rate for particulate matter is 25 TPY.

The consultant claims all organic material is destroyed by the afterburner, thus, no organic (VOC) material is emitted.

*Based on 1.46 lb/hr maximum allowable emissions from point No. 4 of the coffer processor.

II. Rule Applicability

The proposed project, installation of a continuous coffee roaster process, is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code.

The project is located in an area designated nonattainment for ozone and particulate matter (17-2.410), unclassifiable for sulfur dioxide (17-2.430), and attainment for the other criteria pollutants (17-2.420).

Coffee processing plants are not listed on Table 500-1, Major Facility Categories (List of 28). The plant is a major facility (17-2.100) because the permitted emissions of particulate matter exceed 250 TPY. The contemporaneous emissions increase of the pollutants associated with this project do not exceed the significant emission rates listed in Table 500-2.

The project is not subject to new source review for nonattainment areas (17-2.510) because the increase in emissions will not exceed the significant emission rates for particulate matter and volatile organic compounds (17-2.510(2)(d)4.a.).

The project is not subject to review under 17-2.500, PSD, because the increase in emissions of the other criteria pollutants do not exceed the significant emission rates.

The project will be reviewed under 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements. Emission standards shall be based on 17-2.650(2), Reasonably Available Control Technology (RACT).

Higher particulate matter emissions for any of the seven sources in this project or the coffee processor could subject the complete project to 17-2.510, New Source Review for Nonattainment Areas.

III. Technical Evaluation

Maximum emissions from the baghouses and most of the cyclones were based on tests of similar equipment at this plant. The consultant estimates the emissions from each source will be less than 1 TPY. Sources whose emissions are less than 1 TPY are exempt from the RACT regulations (17-2.650(2)(b)(3.).

The afterburner serving the roaster is designed to meet the RACT standard for miscellaneous manufacturing process operations (17-2.650(2)(c)12.) of 0.03 gr/dscf and 5 percent opacity. the consultant claims all combustionable material will be destroyed by the afterburner. The afterburner will operate at a temperature above 1500°F. At these temperatures, all organic material that could cause objectionable odors will be destroyed.

The emissions from the cyclone controlling the roaster cooling section are estimated to be above 1 TPY but less than the RACT standard of 0.03 gr/dscf. This control device will be permitted to emit 0.03 gr/dscf, 5 percent opacity, and 10.79 TPY particulate matter. This emission is in compliance with the RACT regulations (17-2.650(2)(c)12.).

To avoid new source review for nonattainment areas, the company must commit existing sources to contemporaneous emission reductions. Two sources are being committed as part of this project. One is the green bean steamer and dryer. The permit to operate (AO 16-31483) expired in June, 1985, and will not be reissued. Actual particulate matter emissions, estimated to be 14.2 TPY, are available for use as contemporaneous emission reduction.

The other source is the coffee processor. Its allowable particulate matter emissions are being reduced to 12.59 TPY. The

company will have the option to substitute other contemporaneous emission reductions for this one prior to the expiration date of the construction permit.

IV. Ambient Air Impact

No ambient air monitoring or modeling by the applicant was required. Based on experience, the department has reasonable assurance that this minor increase in particulate matter emissions will not interfere with reasonable further progress toward attainment of ambient air quality standards.

V. Conclusion

Based on the data submitted by Maxwell House, the department has concluded that if the continuous roaster process is designed, constructed, operated, and maintained properly, the emissions will comply with the air pollution control regulations.

The General and Specific Conditions in the proposed permit (draft attached) will assure compliance of the new source with the air pollution control regulation.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
General Foods Corporation
Maxwell House Division
Post Office Box 2010
Jacksonville, Florida 32203

Permit Number: AC 16-121136
Expiration Date: March 1, 1988
County: Duval
Latitude/Longitude: 30° 19' 27" N
81° 39' 00" W
Project: Continuous Roaster

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 5 TPH (green bean) continuous roaster at Maxwell House's existing coffee processing plant located at 735 East Bay Street, Jacksonville, Duval County, Florida. The UTM coordinates of this site are zone 17, 437.5 km East and 3354.7 km North.

Major components of the coffee roaster are: a green bean feed system consisting of a cyclone, two surge bins, scale, and baghouse; a natural gas fired continuous roaster, three cyclones, and an afterburner; a stoner system that includes two cyclones, two surge bins, a scale, and two baghouses; a product storage system consisting of three baghouses and three bunkers; two cyclones connected to the existing BAR system; and associated equipment that includes pneumatic conveying systems, blowers, ducts, stacks, etc.

The installation shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the determination or permit.

Attachments:

1. Application dated May 27, 1986
2. DER letter dated June 27, 1986
3. ESE letter dated July 14, 1986

PERMITTEE:
General Foods Corporation

Permit Number: AC 16-121136
Expiration Date: March 1, 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 Statues. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforceable 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 Statues, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

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

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

GENERAL CONDITIONS

6. The permittee shall at all times properly operate and maintain the facility and system 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 the 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 acitvity is located or conducted for the purpose of:

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.

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

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

a. a description of and cause of non-compliance; and

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

GENERAL CONDITIONS:

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construciton 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 Statues.

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

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS:

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibrat on 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 cmplete 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 detemine 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. Only natural gas shall be used for fuel in the roaster and afterburner. Fuel consumption by the afterburner is limited to 0.016 MMCF/hr of natural gas. Fuel consumption in the roaster is limited to 0.01 MMCF/hr of natural gas. The permittee shall keep a log of the fuel meter readings.

2. The continuous coffee roaster system may operate 24 hr/day, 7 days/wk, and up to 50 weeks/year. The permittee shall maintain a log to show these limits are not exceeded.

PERMITTEE:
General Foods Corporation

Permit Number: AC 16-121136
Expiration Date: March 1, 1988

SPECIFIC CONDITIONS:

3. Green bean input to the plant shall not exceed the current permitted rate and 48,500 lbs/hr. Inventory records shall be available to show this limit is not exceeded.

4. Green bean input to the continuous roaster system shall not exceed 10,000 lbs/hr. Production shall not exceed 8,500 lbs/hr. Compliance with this condition shall be determined from the green bean and product scales data.

5. The continuous roaster process shall not allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. The process shall not be operated unless the temperature in the combustion chamber of the afterburner is at least 1,500 °F. The afterburner shall be equipped with instruments to measure and record its temperature.

6. Particulate matter emissions from the continuous roaster process shall not exceed the following:

Co. ID	Source	lbs/hr	gr/dscf	TPY	% Opacity
1.	Green bean feed system	0.238	--	0.99	5
2.	Roaster afterburner	2.57	0.03	10.79	5
3.	Cooling section of the roaster	2.57	0.03	10.79	5
4.	Product from the stoner	0.238	--	0.99	5
5.	Pollutant from the stoner	0.238	--	0.99	5
6.	Product bunker	0.238	--	0.99	5
7.	Product to the BAR System	0.238	--	0.99	5

Compliance with these standards shall be determined by Reference Methods 1, 2, 3, 5, and 9 as described in 40 CFR 60, Appendix A.

7. Only 1 of the 3 baghouses to the product bunker (Co. ID No. 6) shall be in service at any given time.

8. Only 1 of the 2 cyclones to the existing BAR system (Co. ID No. 7) shall be in service at any given time.

9. All waste generated by this operation shall be disposed of in an environmentally sound manner that complies with all applicable regulations.

PERMITTEE:
General Foods Corporation

Permit Number: AC 16-121136
Expiration Date: March 1, 1988

SPECIFIC CONDITIONS:

10. Prior to the operation of the continuous roaster process, the permittee shall obtain a revision to the permit for the coffee processor (AO-16-40490) that lower the allowable particulate matter emissions from all 5 emission points to 2.998 lb/hr and 12.59 TPY. Prior to the expiration date of this construction permit and by amendment to this construction permit, the company may substitute other contemporaneous emission reductions for the specified ones which prevent the contemporaneous emissions increase by the plant from exceeding 24.98 TPY.

11. All permits for the green bean steamer and dryer (AO 16-31482) shall be returned to the department.

12. Prior to construction of the afterburner and BAR cyclones, the permittee shall submit specifications on the equipment selected, and a guarantee from the manufacturer that the afterburner will destroy all of the combustible material entering it.

13. Jacksonville (BESD) shall be notified 14 days in advance of any compliance tests. Copies of the test report(s) shall be submitted to BESD within 45 days after completion of tests.

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

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

PERMITTEE:
General Foods Corporation

Permit Number: AC 16-121136
Expiration Date: March 1, 1988

SPECIFIC CONDITIONS:

16. Commercial operation of the process is prohibited unless all sources are in compliance with the conditions of this permit. If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (FAC Rule 17-4.10)

17. Any permit to operate issued for this process shall require, as a minimum, annual visible emissions test report(s) and, on renewal of the permit to operate (every 5 years), particulate matter emissions test report(s).

Issued this_____day of _____
19___.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
Victoria J. Tschinkel, Secretary

_____pages attached.

ESE
AN RSH COMPANY
ENVIRONMENTAL SCIENCE
AND ENGINEERING, INC.

Received 7/16/86
mdl

July 14, 1986
86026 0002

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Subject: **Maxwell House Division**
General Foods Corporation
Construction Permit Application
Continuous Roasting Process
ESE No. 86026 0002

Re: Letter from C. H. Fancy, FDER, to
D.A. Butte, Maxwell House,
dated June 27, 1986

Dear Mr. Fancy:

This package has been prepared on behalf of Maxwell House Division of General Foods Corporation in response to the referenced letter. For convenience, we have reproduced your questions and responded accordingly in each subsequent paragraph.

EXISTING CAPACITY

1. What is the existing green bean bulk handling capacity and roasted coffee product handling capacity at this plant?

RESPONSE:

a. Existing green bean bulk handling capacity is 48,500 lbs/hr.

b. Existing roasted coffee product handling capacity is 60,250 lbs/hr.

MATERIAL BALANCE

2. Please provide a detailed material balance for the roaster and afterburner. Include in the balance calculations the 91.7 lb/hr coffee fines, 20 percent ash content in the coffee, 80 percent efficiency of the incinerator, and particulate matter emissions from No. 2 fuel oil combustion.

RESPONSE:

Refer to Attachment 1 for the detailed material balance for the roaster and afterburner. No particulate matter emissions from No. 2 fuel oil have been included. We request that the permit be issued at this time without provisions for fuel oil usage. The burner package will be purchased but will not be connected.

CHAFF DISPOSAL/PARTICULATE EMISSIONS

3. How is the chaff from the stoner cyclone and baghouse that is placed in drums disposed of and are there any particulate matter emissions associated with handling it? What is the increase in actual emissions from the furnaces that burn the chaff from this process?

RESPONSE:

Chaff from the stoner cyclone and baghouse will be placed in drums and transported to a sanitary landfill (North Sanitary Landfill, Jacksonville, Florida). No particulate emissions are associated with handling the chaff. No increase in actual emissions will result as no chaff will be burned. The appropriate change has been made to the flow diagram. Attachment 1 shows that chaff will be airveyed to drum off.

EMERGENCY USE OF FUEL OIL

4. In what emergency situation would fuel oil be used in the continuous roasting process? How often has this situation occurred in the past?

RESPONSE:

This question is no longer applicable because the process will not be permitted for any any use of fuel oil.

EQUIPMENT SPECIFICATIONS

5. Please provide a description or the specifications for the proposed baghouses and cyclones. Include the stack diameters (or equivalent diameters) and elevation of all discharge points associated with the continuous roaster.

RESPONSE:

Refer to Attachment 2 for equipment specifications and Attachment 3 for stack diameters and elevations. Cyclones for emission point 7 have not yet been selected. Actual specifications and stack height and diameter for emission point 7 will be provided when available. The information provided in Attachment 3 for this emission point is based on similar Ducon cyclones presently installed at the plant.

STACK TESTING

6. Will the afterburner stack have test facilities? How does the company propose to determine the compliance status of the afterburner, cyclones and baghouses?

RESPONSE:

The afterburner stack will have test facilities. Compliance testing of the afterburner, cyclones and baghouses is proposed to be by EPA Method 5 every five (5) years.

EMISSIONS CALCULATIONS

7. The emission standard for point No. 4 (dryer) of the coffee processor is 6.28 lb PM/hr (26.38 TPY). The contemporaneous emission calculations (Appendix 15) used the tested emission rate of 1.46 lb/hr to calculate the increased emissions associated with the roaster. Please clarify if you are proposing to lower the allowable emissions for this source. If not, or if any of the proposed emissions from the various discharge points associated with the proposed project change, recalculate the contemporaneous emission change.

RESPONSE:

The calculation of contemporaneous emissions was performed utilizing actual emissions where available as required by Chapter 17-2.510(2)(e)3., FAC. This does not affect the permitted allowable emissions standard of 6.28 lbs/hr particulates (26.38 TPY) for coffee processing.

NEW EQUIPMENT

8. Are all the units shown on the process flow diagram, other than the existing bunkers and BAR system, new equipment?

RESPONSE:

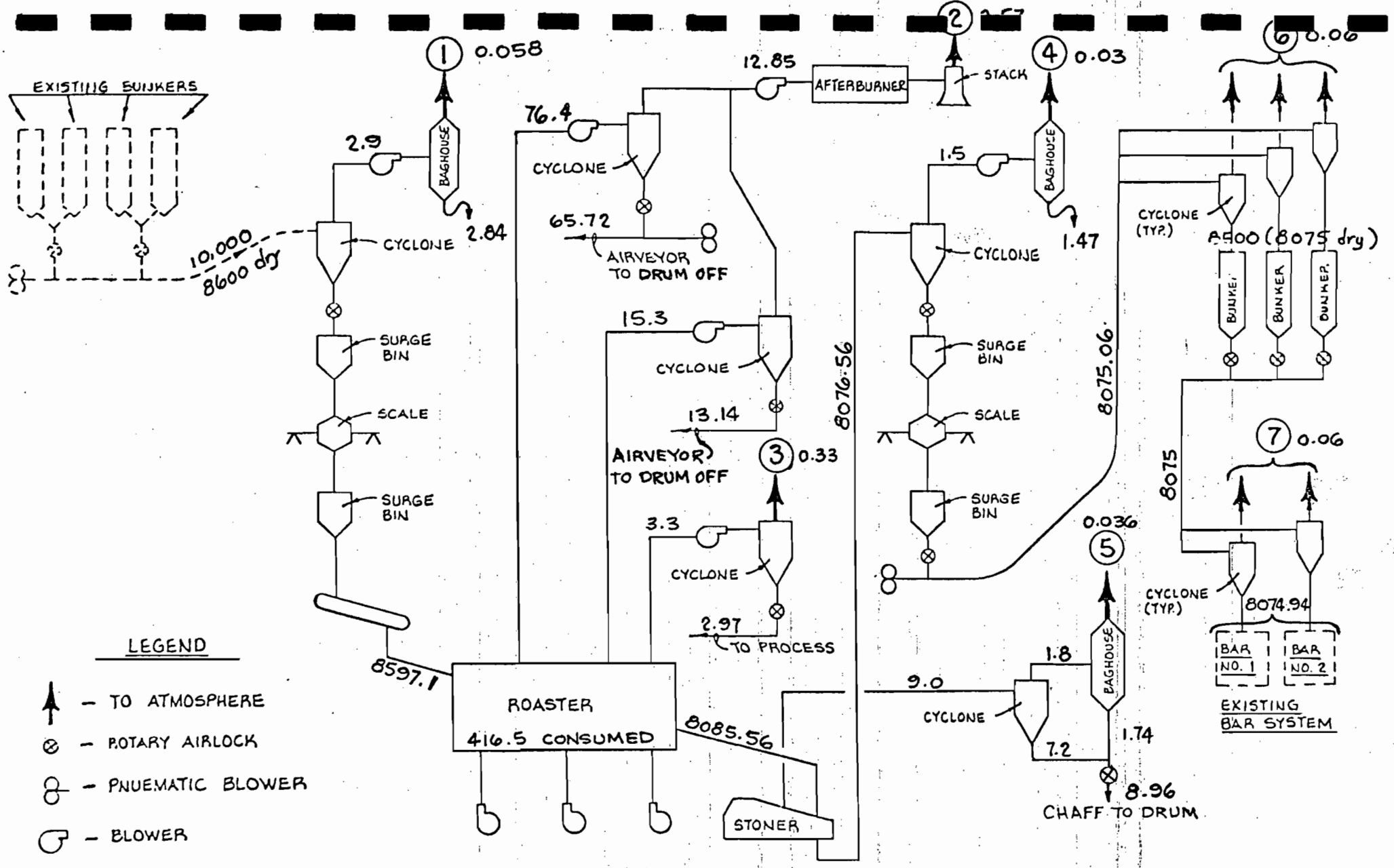
All equipment in the process, with the exception of the existing bunkers and BAR system, is new.

We have addressed each of your questions concerning Maxwell House's Construction Permit Application to the best of our knowledge and available information. Please contact me should you have any questions.

Very truly yours
ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

for Lloyd H. Stebbins, P.E.
Manager, Industrial Environmental Department
Environmental Engineering Division

LHS/adh
Attachments
cc: Jim Hellier, Maxwell House
Jerry Woosley, BESD
Johnny Cole, FDER, Northeast District
Peter Cunningham, Hopping, Boyd, Green & Sams



ATTACHMENT 1

MATERIAL BALANCE

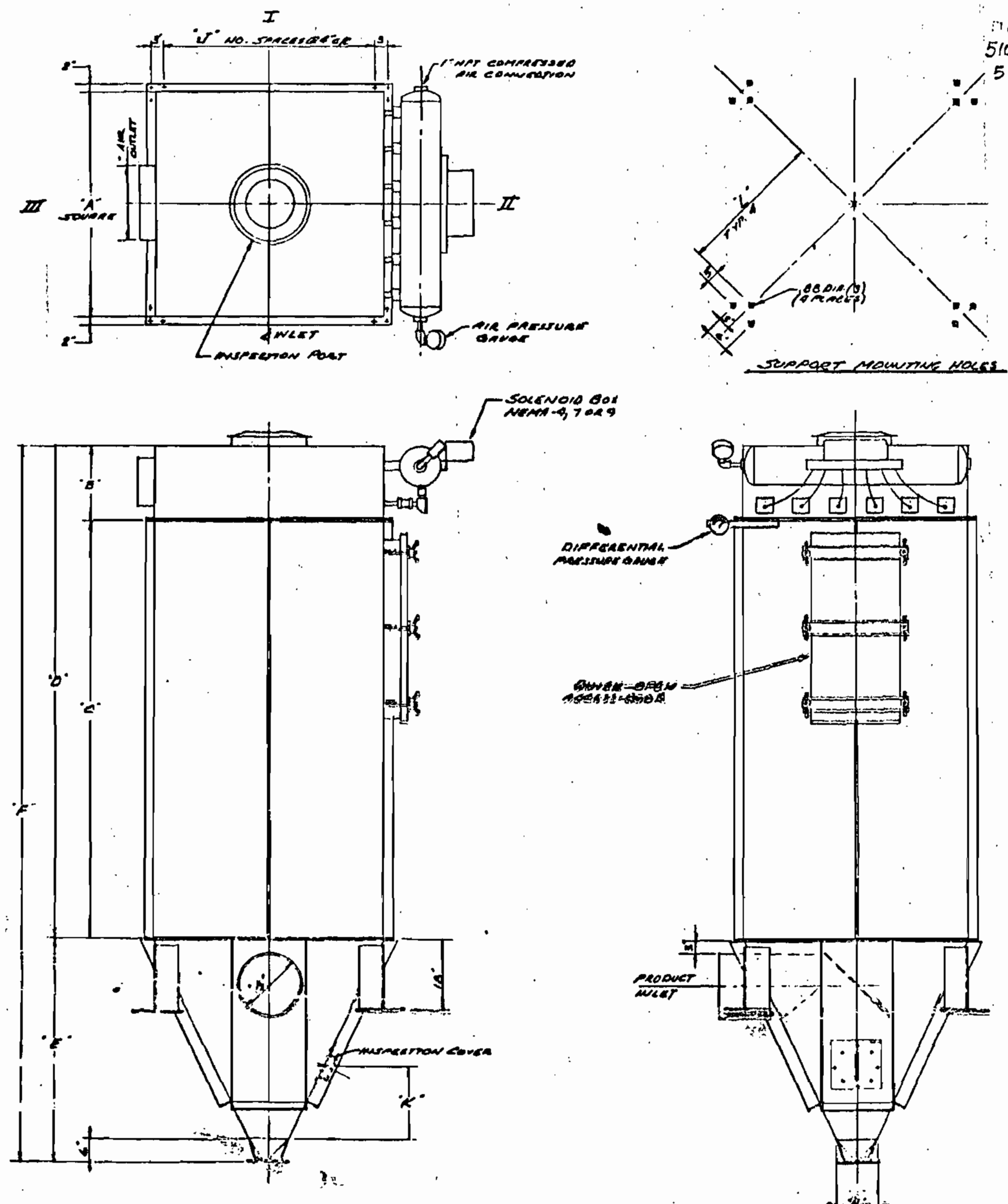
CONTINUOUS ROASTING PROCESS

MAXWELL HOUSE DIV. - GENERAL FOODS CORP.

NOTE: ALL UNITS IN lbs./hr.

Best Available Copy

EMISSION POINTS 1 & 5



ITEM NO*	DIMENSIONS (IN INCHES)														
	MODEL NO.	A	B	C	D	E	F	G	H	J	K	L	DOOR OPG.	OUTLET O.D. (MIN)	GROSS WEIGHT (LBS)
510-671	RPDC-9/4	24	16	57	73	23.5	96.5	4	8	6	—	13.75	20×24	8	680
510-694	RPDC-49/8	54	18	105	123	53.5	178.5	16	10	12	18	34.25	20×44	12×18	2990

NOTES:

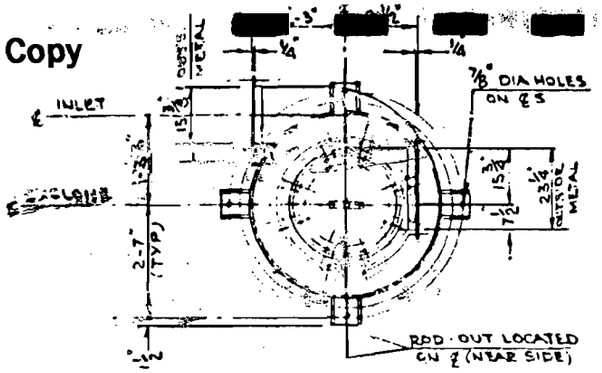
1- ALL DIMENSIONS ARE IN INCHES.
2- DRAWING TO BE USED FOR GENERAL ARRANGEMENT ONLY.
3- COMPRESSED AIR REQUIREMENTS BASED ON ONE FULL FILTER CLEANING CYCLE PER MINUTE.
4- OUTLET O.D. CALCULATIONS BASED ON:
FILTERING VELOCITY = 8FT./MIN.
(AIR TO CLOTH RATIO 8:1)
MAX. OUTLET VELOCITY = 4000 FT./MIN.
5- STANDARD BILL OF MATERIALS AVAILABLE FOR MILD STEEL, STAINLESS STEEL PRODUCT AREA AND STAINLESS STEEL FILTERS FOR SIZES LISTED.
6- CAGES AVAILABLE IN MILD STEEL, EPOXY COATED MILD STEEL AND STAINLESS STEEL. PRODUCT AREA S/S FILTERS DO NOT REQUIRE S/S CAGES.

*[illegible] 7570-[illegible]

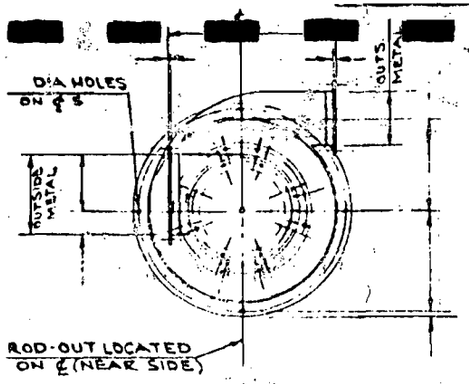
REVERSE PULSE DUST COLLECTOR

BUHLER-MIAG, INC.
MINNEAPOLIS, MINNESOTA

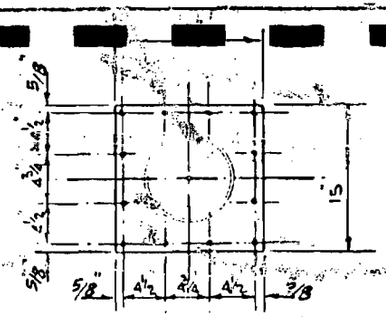
[illegible] 3091



PLAN
CLOCKWISE ROTATION



PLAN
COUNTER - CLOCKWISE ROTATION



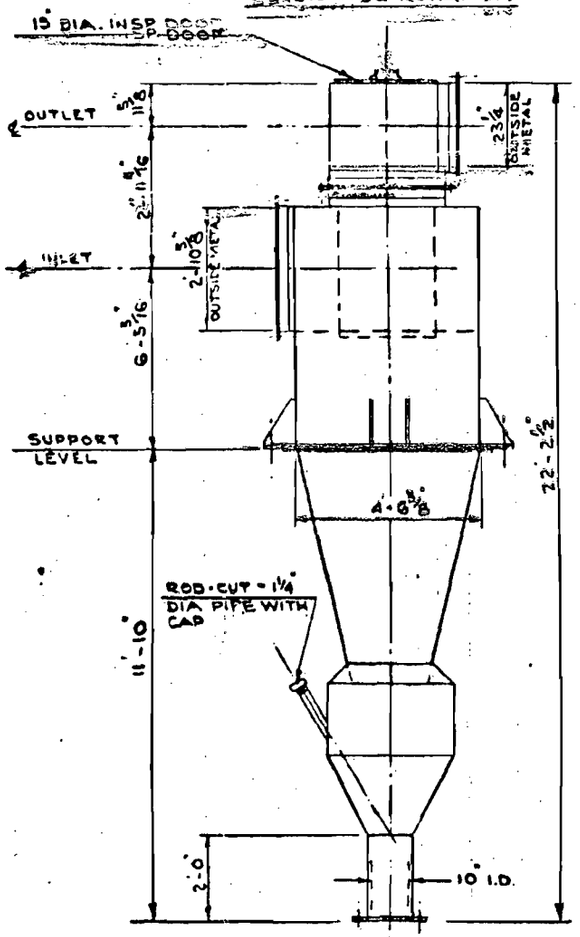
SPECIFICATIONS
CONSTRUCTION MATERIAL
CYCLONE COLLECTOR TO BE FABRICATED FROM 11 GA. SS TYPE 304
EXTERNAL BOLTS TO BE C.S.-ZINC PLD
GASKETS TO BE ¼ THK

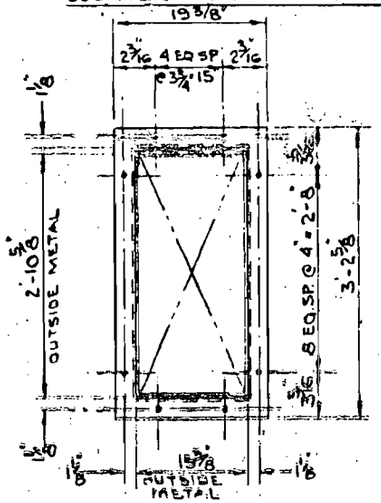
GENERAL NOTE
1 DUST DISCHARGE DRILLING TO SATISFY DESIRED ROTARY GATE

DESIGN DATA
CAPACITY - 13,700 ACFM
TEMPERATURE - °F
APPROX WEIGHT - 1975 LBS

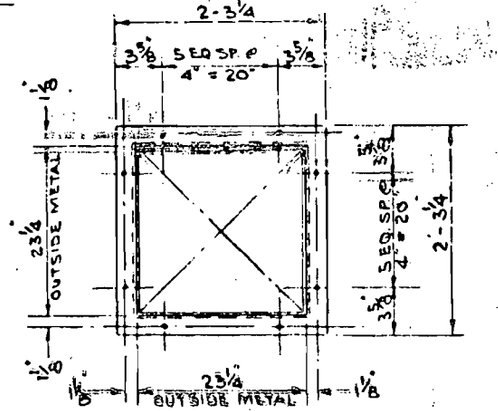
WELDING NOTE
INTERNAL BUTT WELDS TO BE GROUND WITH 80 GRIT FLAPPER WHEEL

Nº OF UNITS REQD. - ONE (1)





INLET FLANGE
9/16 DIA - 28 HOLES



OUTLET FLANGE
9/16 DIA - 24 HOLES

JUL 2 1986

O.A. LENGTH + 15" FOR ROTARY LOCK

PLAN VIEW ORIENTATIONS

	FIG 1	FIG 2	FIG 3	FIG 4	FIG 5	FIG 6	FIG 7	FIG 8
CLOCKWISE ROTATION								
	FIG 9	FIG 10	FIG 11	FIG 12	FIG 13	FIG 14	FIG 15	FIG 16
COUNTER CLOCKWISE ROTATION								

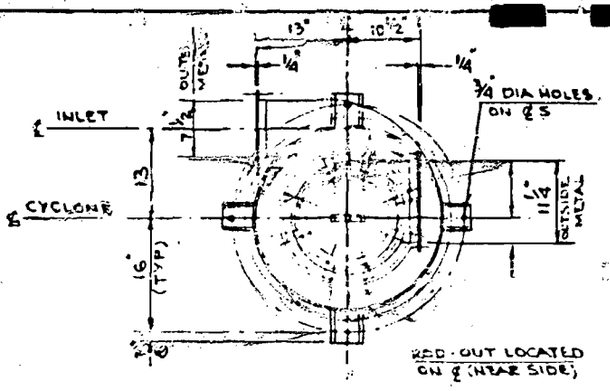
FOR
GENERAL FOODS - SOMERSET
ROASTER EXHAUST
DUCON PROPOSAL Nº P86-272

REV	BY	DATE	DESCRIPTION

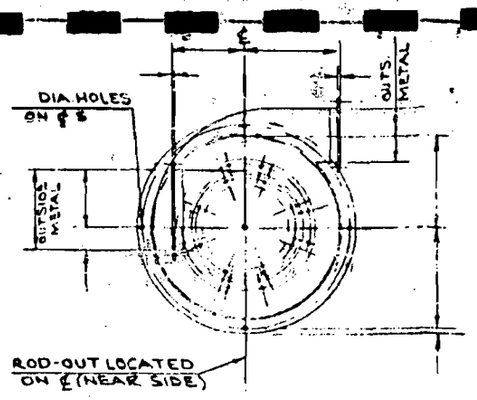
THE DUCON COMPANY INC.

CYCLONE COLLECTOR
SIZE 355 TYPE 'VME'
MODEL 810/94

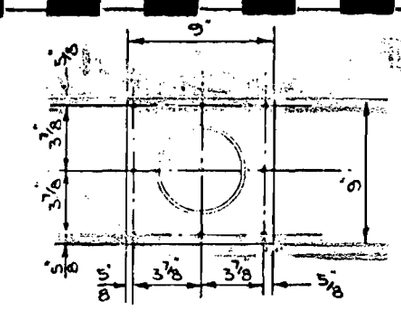
DR. BY FW
SCALE
BP86-272-1
REV



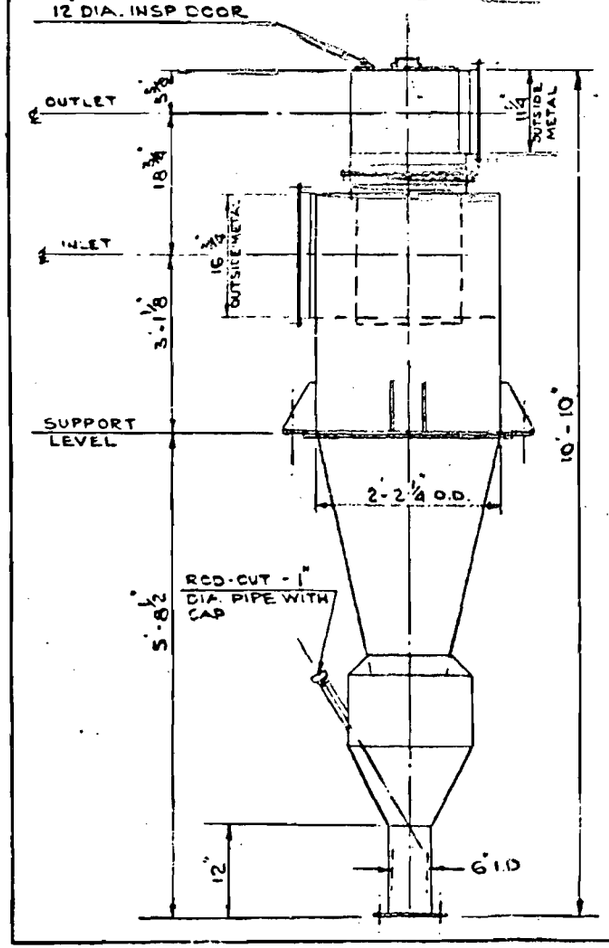
PLAN
CLOCKWISE ROTATION

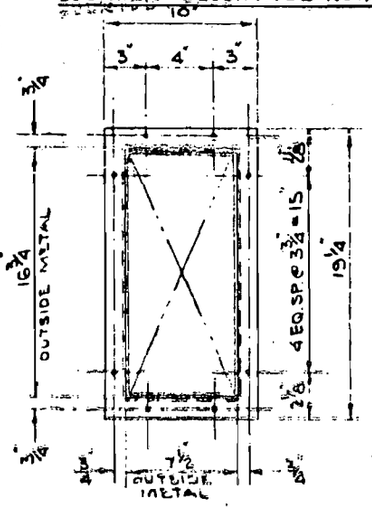


PLAN
COUNTER - CLOCKWISE ROTATION

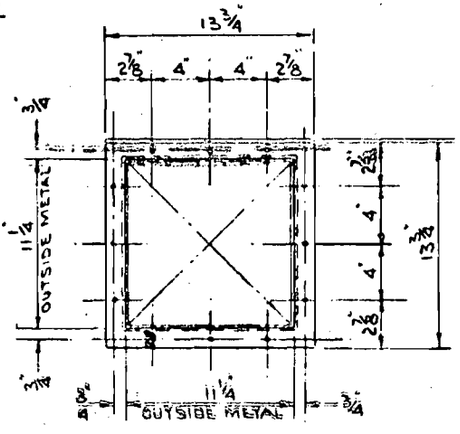


DUST DISCHARGE FLG.
9/16 DIA - 8 HOLES
SEE NOTE 1





INLET FLANGE
9/16 DIA. 14 HOLES



OUTLET FLANGE
9/16 DIA. 12 HOLES

JUL 2 1986

O.A. LENGTH + 13" FOR ROTARY LOCK

PLAN VIEW ORIENTATIONS

	FIG 1	FIG 2	FIG 3	FIG 4	FIG 5	FIG 6	FIG 7	FIG 8
CLOCKWISE ROTATION								
	FIG 9	FIG 10	FIG 11	FIG 12	FIG 13	FIG 14	FIG 15	FIG 16
COUNTER CLOCKWISE ROTATION								

SPECIFICATIONS
CONSTRUCTION MATERIAL
CYCLONE COLLECTOR TO BE FABRICATED FROM [illegible] EXTERNAL BOLTS TO BE G.S. ZINC PLD GASKETS TO BE 1/4 THK.

GENERAL NOTE
1 DUST DISCHARGE DRILLING TO SATISFY DESIRED ROTARY GATE

DESIGN DATA
CAPACITY - 3200 ACFM
TEMPERATURE - °F
APPROX WEIGHT - 532 LBS

WELDING NOTE
INTERNAL BUTT WELDS TO BE GROUND WITH 36 GRIT FLAPPER WHEEL

Nº OF UNITS REQD. ONE (1)

CYCLONE EXHAUST

FOR
GENERAL FOODS - SOMERSET

DUCON PROPOSAL Nº PBG-272

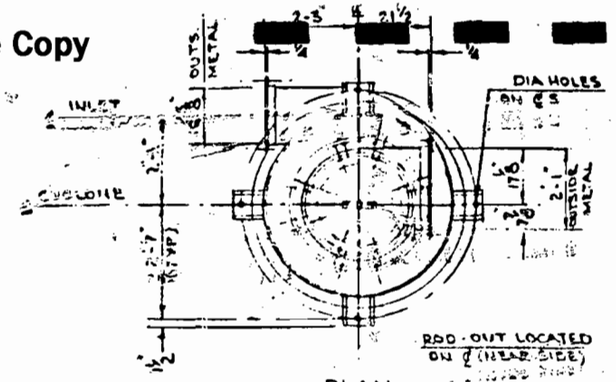
REV	BY	DATE	DESCRIPTION

THE DUCON COMPANY INC.
[illegible] NEW YORK

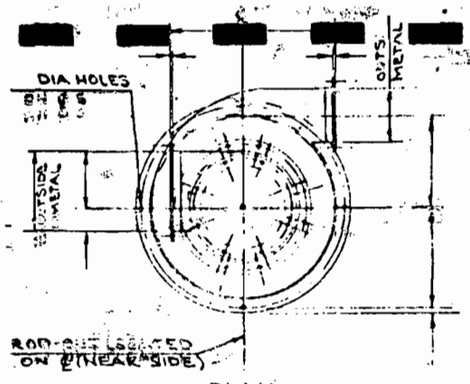
CYCLONE COLLECTOR
SIZE 85 TYPE VME
MODEL 810/100

DR BY F.W
SCALE
BP86-272-2
REV

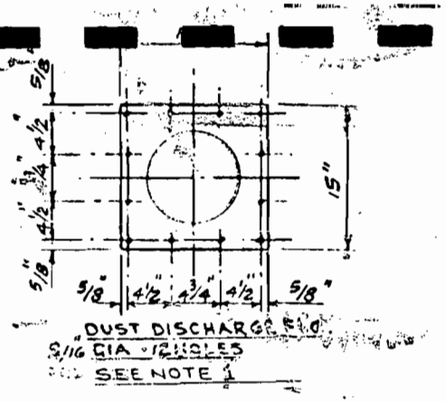
EMISSION POINT 2

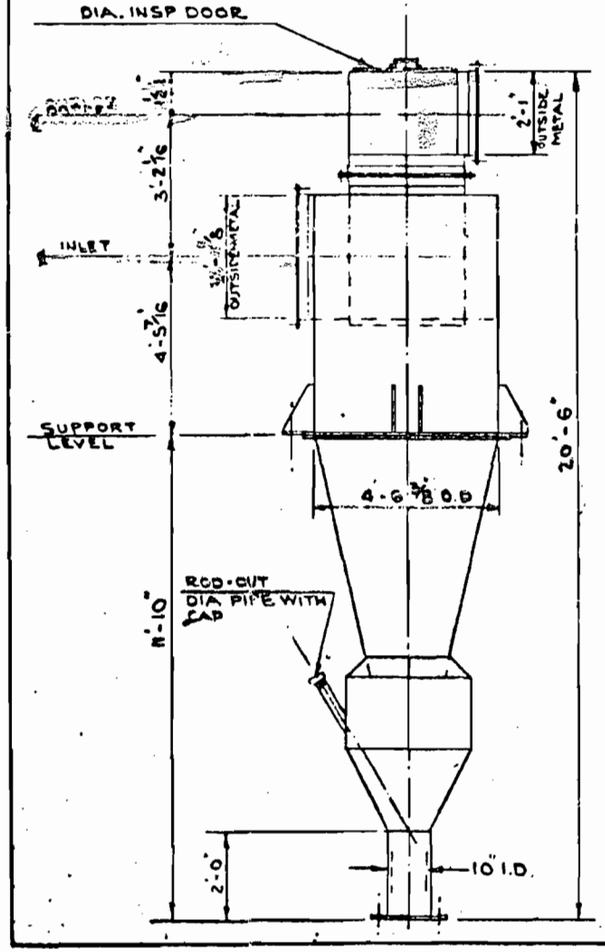


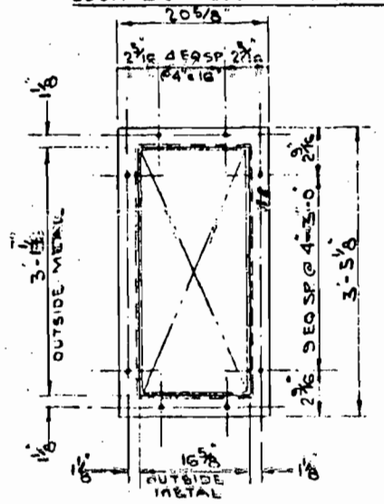
PLAN
CLOCKWISE ROTATION



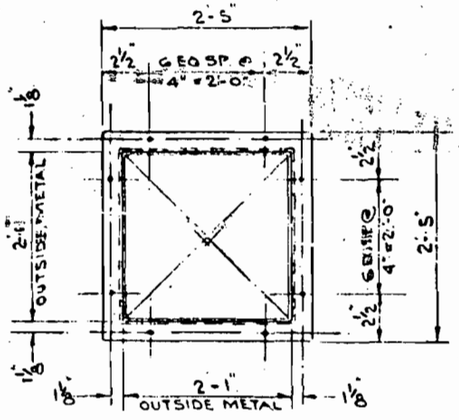
PLAN
COUNTER-CLOCKWISE ROTATION







INLET FLANGE
9/16 DIA - 30 HOLES



OUTLET FLANGE
9/16 DIA - 28 HOLES

SPECIFICATIONS
CONSTRUCTION MATERIAL
FLGS. CUT FROM 1/4" GA. SS TYPE 304
EXTERNAL BOLTS TO BE C.S-ZINC PLD
GASKETS TO BE 1/4 THK

GENERAL NOTE
DUST DISCHARGE DRILLING TO SATISFY DESIRED ROTARY GATE

DESIGN DATA
CAPACITY - 15,100 ACFM
TEMPERATURE - F
APPROX WEIGHT - 2044 LBS

WELDING NOTE
INTERNAL BUTT WELDS TO BE GROUND WITH 80 GRIT FLAPPER WHEEL

Nº OF UNITS REQD. - ONE (1)

COOLER EXHAUST

FOR
GENERAL FOODS - SOMERSET

DUCON PROPOSAL Nº. P86-272

JUL 2 1986

O.A. LENGTH = 15" FOR ROTARY LOCK

PLAN VIEW ORIENTATIONS

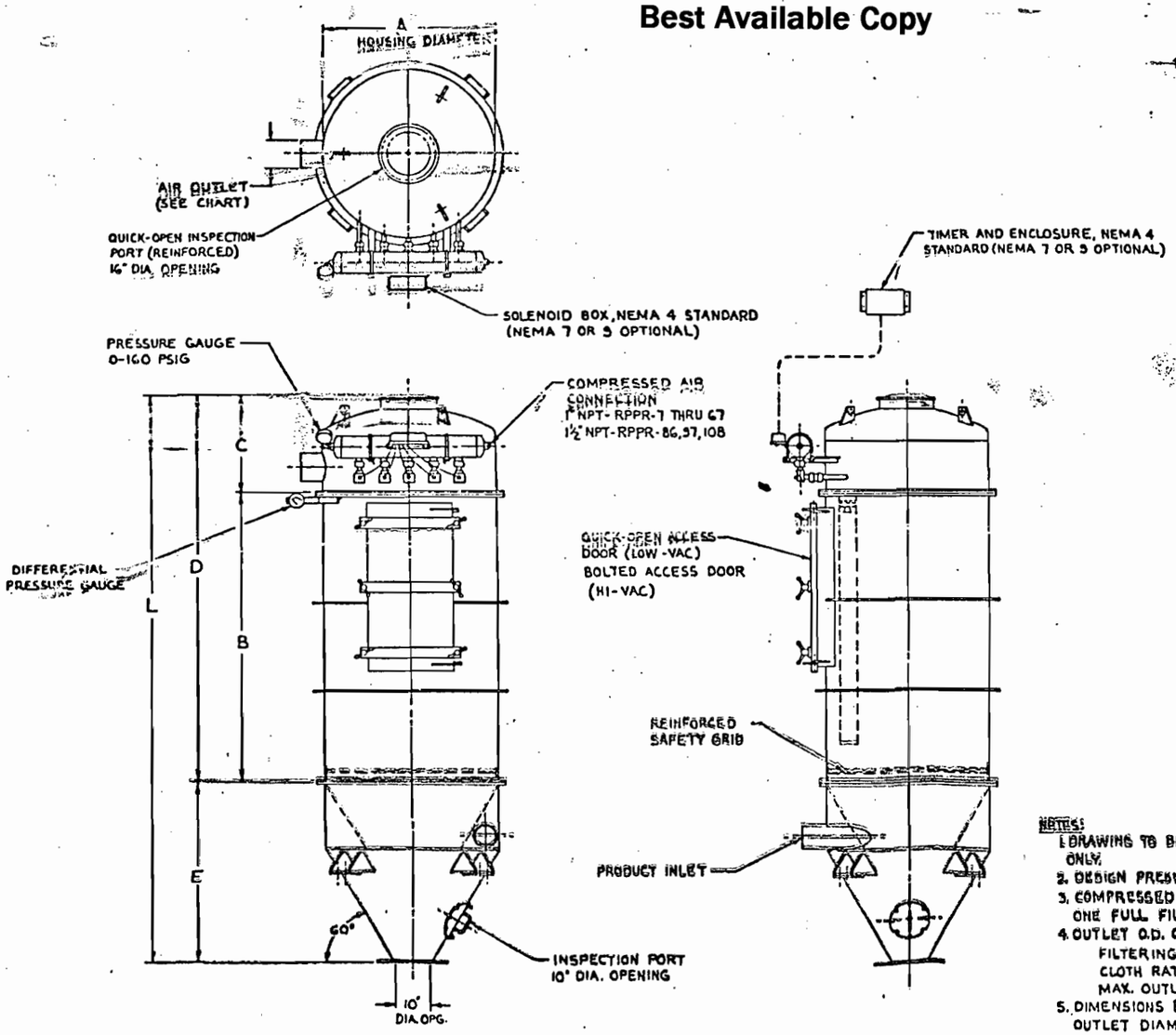
	FIG 1	FIG 2	FIG 3	FIG 4	FIG 5	FIG 6	FIG 7	FIG 8
CLOCKWISE ROTATION								
	FIG 9	FIG 10	FIG 11	FIG 12	FIG 13	FIG 14	FIG 15	FIG 16
COUNTER CLOCKWISE ROTATION								

REV.	BY	DATE	DESCRIPTION

THE DUCON COMPANY INC.
HAUPPAUGE NEW YORK

CYCLONE COLLECTOR
SIZE 415 TYPE VM
MODEL 700/150

DR BY FW
SCALE
BP 86-272-3
REV.



MODEL No.	DATA: FILTER AREA (FT²)	NO. OF BAGS	BAG LENGTH (FT.)	NO. SOLENOID VALVES	COMP. AIR REQ'D NOM. AT 90 PSIG	DIMENSIONS (INCHES) & SEE NOTES: A	B	C	D	E	L	ACCESS DOOR OPTIONAL	OUTLET O.D. (NOM.)	GROSS WEIGHT (LBS.)
RPPR-7/2	15	7	2	3	1.4	30	33	20	53	34	61	20×24	3	655
RPPR-7/3	30	7	3	3	1.6	30	45	20	65	46	73	20×24	3½	706
RPPR-7/4	40	7	4	3	1.7	30	57	20	77	58	111	20×44	4	767
RPPR-7/6	62	7	6	3	1.9	30	81	20	101	34	135	20×44	5	874
RPPR-10/2	27	10	2	3	2.0	36	33	22	55	39	94	20×24	3	796
RPPR-10/3	42	10	3	3	2.2	36	45	22	67	39	106	20×24	4	877
RPPR-10/4	58	10	4	3	2.4	36	57	22	79	39	118	20×24	5	940
RPPR-10/6	85	10	6	3	2.7	36	81	22	103	39	142	20×44	6	1081
RPPR-10/8	119	10	8	3	3.0	36	105	22	127	39	166	20×44	7	1205
RPPR-14/3	59	14	3	4	3.1	36	45	22	67	39	106	20×24	5	918
RPPR-14/4	81	14	4	4	3.4	36	57	22	79	39	118	20×24	6	985
RPPR-14/6	124	14	6	4	3.8	36	81	22	103	39	142	20×44	7	1134
RPPR-14/8	167	14	8	4	4.2	36	105	22	127	39	166	20×44	8	1268
RPPR-18/4	104	18	4	4	4.3	42	57	25	82	48	130	20×24	6	1270
RPPR-18/6	160	18	6	4	4.9	42	81	25	106	48	154	20×44	8	1490
RPPR-18/8	215	18	8	4	5.4	42	105	25	130	48	178	20×44	9	1694
RPPR-24/4	139	24	4	5	5.8	48	57	26	83	53	136	20×24	7	1530
RPPR-24/6	213	24	6	5	6.5	48	81	26	107	53	160	20×44	9	1784
RPPR-24/8	287	24	8	5	7.2	48	105	26	131	53	184	20×44	10	2024
RPPR-30/4	173	30	4	6	7.1	54	57	30	87	58	145	20×24	8	1851
RPPR-30/6	266	30	6	6	8.1	54	81	30	111	58	169	20×44	10	2143
RPPR-30/8	358	30	8	6	9.0	54	105	30	135	58	193	20×44	12	2419
RPPR-41/4	237	41	4	7	9.9	60	57	33	90	69	159	20×24	10	2243
RPPR-41/6	363	41	6	7	11.1	60	81	33	114	69	183	20×44	12	2523
RPPR-41/8	490	41	8	7	12.3	60	105	33	138	69	207	20×44	14	2898
RPPR-48/6	425	48	6	7	13.0	66	81	34	115	74	189	20×44	12	2892
RPPR-48/8	573	48	8	7	14.4	66	105	34	138	74	213	20×44	14	3252
RPPR-56/6	496	56	6	8	16.1	72	81	37	118	92	210	20×44	14	3482
RPPR-56/8	669	56	8	8	16.8	72	105	37	142	92	234	20×44	16	3883
RPPR-67/6	594	67	6	9	18.1	78	81	40	121	97	218	20×44	16	4028
RPPR-67/8	800	67	8	9	20.1	78	105	40	145	97	242	20×44	18	4472
RPPR-86/6	762	86	6	11	23.2	84	81	43	124	102	226	20×44	18	4729
RPPR-86/8	1027	86	8	11	25.8	84	105	43	148	102	250	20×44	20	5237
RPPR-97/8	1158	97	8	11	29.1	90	105	44	149	108	257	20×44	20	5757
RPPR-108/8	1290	108	8	11	32.4	96	105	46	151	113	264	20×44	22	6298

NOTES:
1. DRAWING TO BE USED FOR GENERAL ARRANGEMENT ONLY.
2. DESIGN PRESSURE = 3 in. MERCURY COLUMN.
3. COMPRESSED AIR REQUIREMENTS BASED ON ONE FULL FILTER CLEANING CYCLE PER MINUTE.
4. OUTLET O.D. CALCULATIONS BASED ON:
   FILTERING VELOCITY = 8 FT./MIN. (AIR TO CLOTH RATIO 8:1)
   MAX. OUTLET VELOCITY = 4000 FT./MIN.
5. DIMENSIONS E & L ARE BASED ON A PRODUCT OUTLET DIAMETER OF OF 10".

REVERSE PULSE PRODUCT RECEIVER

GENERAL DATA (TANGENTIAL INLET)

BUHLER-MIAG, INC.
MINNEAPOLIS, MINNESOTA

AUPF-41152

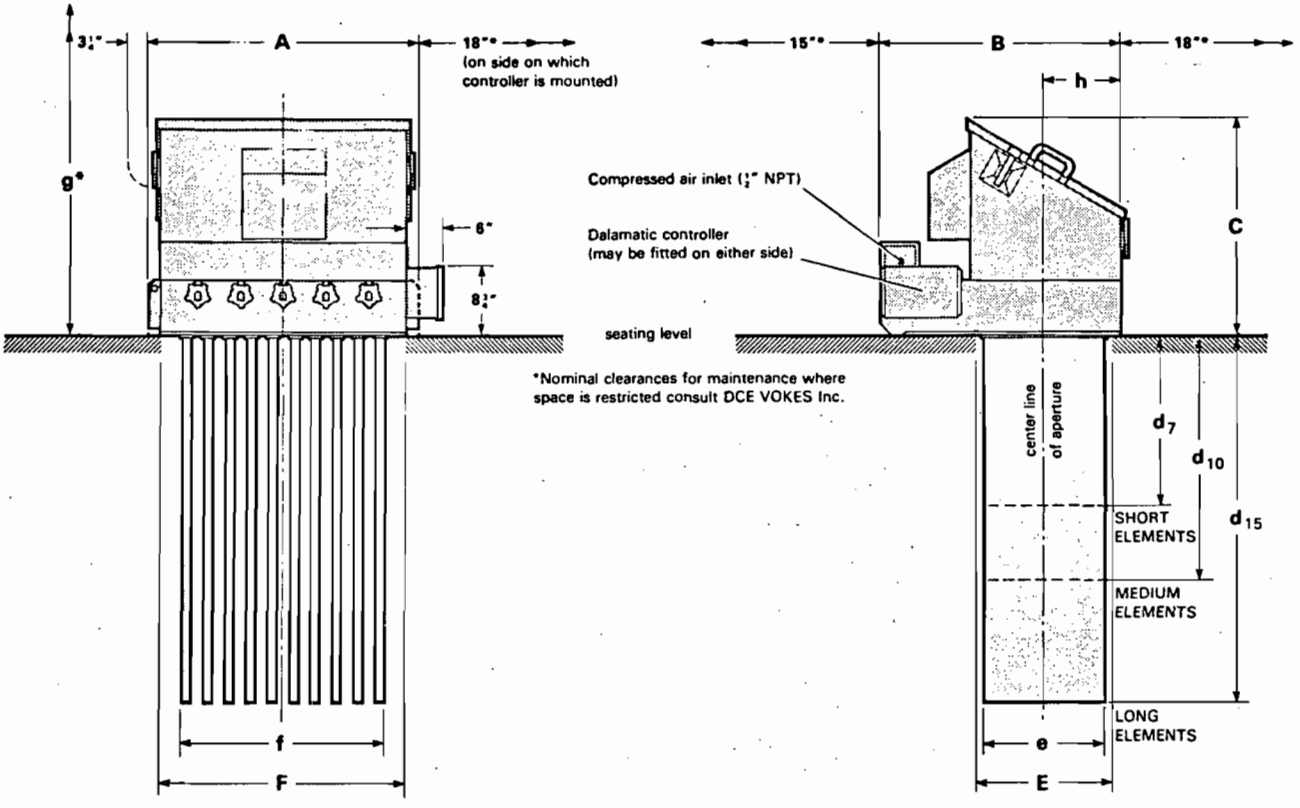
EMISSION Point 4

EMISSION POINT 6

DATA SHEET 358C

Dalamatic Insertable Filter Series DLM-V, Type W

Please note our new name:
DCE, Inc.



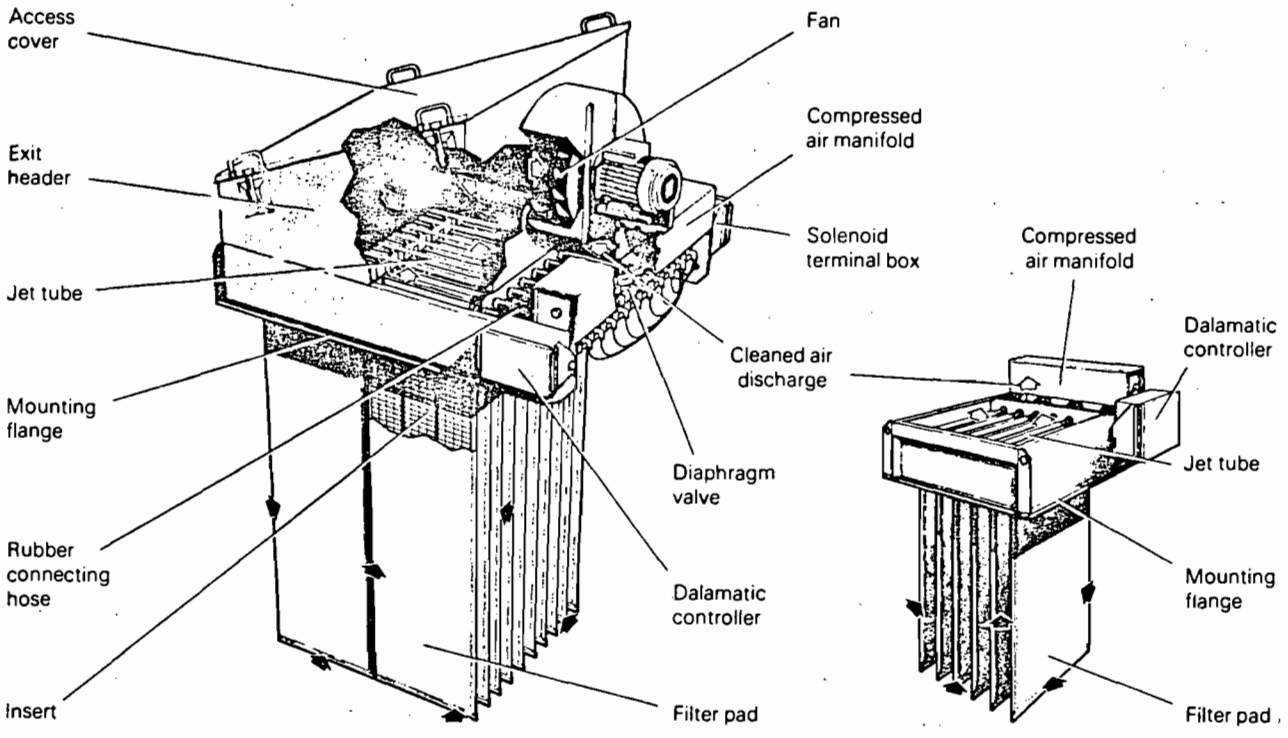
Size DLM-V15/15W illustrated, broken lines representing DLM-V7/7W & DLM-V10/10W

MODEL	DIMENSIONS (Tolerance ±½" on main dimensions) A	B	C	d_7	d_{10}	d_{15}	E	e	F	f	g*	h	Approx. net weight
DLM-V4/7W	2'3½"	3'2½"	2'8¼"	2'3½"	–	–	20½"	19"	23½"	18½"	3'9½"	12¼"	300lb
DLM-V6/10W	2'3½"	3'2½"	2'8¼"	–	3'3½"	–	20½"	19"	23½"	18½"	4'9½"	12¼"	320lb
DLM-V9/15W	2'3½"	3'2½"	2'8¼"	–	–	4'11"	20½"	19"	23½"	18½"	6'5"	12¼"	340lb
DLM-V7/7W	3'7½"	3'2½"	2'10"	2'3½"	–	–	20½"	19"	3'3¼"	2'8½"	3'9½"	12¼"	440lb
DLM-V10/10W	3'7½"	3'2½"	2'10"	–	3'3½"	–	20½"	19"	3'3¼"	2'8½"	4'9½"	12¼"	485lb
DLM-V15/15W	3'7½"	3'2½"	2'10"	–	–	4'11"	20½"	19"	3'3¼"	2'8½"	6'5"	12¼"	530lb
DLM-V8/7W	2'3½"	5'2½"	2'11¾"	2'3½"	–	–	3'5¼"	3'3½"	23½"	18½"	3'9½"	22⅝"	475lb
DLM-V12/10W	2'3½"	5'2½"	2'11¾"	–	3'3½"	–	3'5¼"	3'3½"	23½"	18½"	4'9½"	22⅝"	520lb
DLM-V18/15W	2'3½"	5'2½"	2'11¾"	–	–	4'11"	3'5¼"	3'3½"	23½"	18½"	6'5"	22⅝"	570lb
DLM-V14/7W	3'7½"	5'2½"	2'11¾"	2'3½"	–	–	3'5¼"	3'3½"	3'3¼"	2'8½"	3'9½"	22⅝"	740lb
DLM-V20/10W	3'7½"	5'2½"	2'11¾"	–	3'3½"	–	3'5¼"	3'3½"	3'3¼"	2'8½"	4'9½"	22⅝"	815lb
†DLM-V30/15W	3'7½"	5'2½"	2'11¾"	–	–	4'11"	3'5¼"	3'3½"	3'3¼"	2'8½"	6'5"	22⅝"	925lb
†DLM-V21/7W	3'7½"	7'2"	3'6"	2'3½"	–	–	5'5"	5'3¼"	3'3¼"	2'8½"	3'9½"	2'10½"	1025lb
†DLM-V30/10W	3'7½"	7'2"	3'6"	–	3'3½"	–	5'5"	5'3¼"	3'3¼"	2'8½"	4'9½"	2'10½"	1125lb
†DLM-V45/15W	3'7½"	7'2"	3'6"	–	–	4'11"	5'5"	5'3¼"	3'3¼"	2'8½"	6'5"	2'10½"	1255lb

†A separate solenoid terminal box is used on these units, and should be fitted to the side opposite the controller

over

EMISSION POINT 6



Model DLM V30/15 Type F illustrated, having a total filtration area of 30 m² (315 ft²)

Model DLM V4/7 Type B illustrated, having a total filtration area of 4 m² (43 ft²)

Fig. 2 Dalamatic Insertables

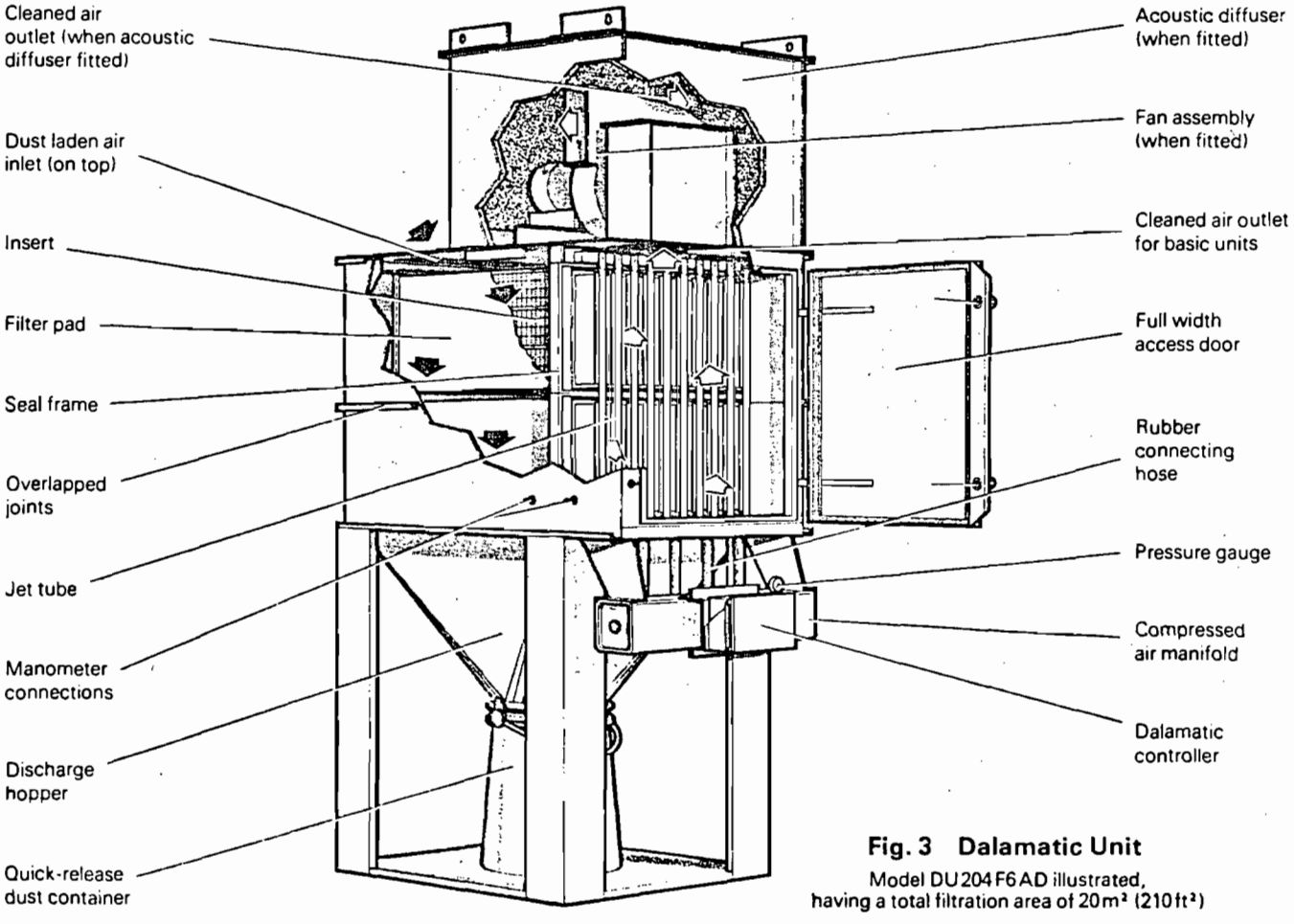


Fig. 3 Dalamatic Unit

Model DU 204 F6 AD illustrated, having a total filtration area of 20 m² (210 ft²)

ATTACHMENT 3

III. H. Emission Stack Geometry and Flow Characteristics:

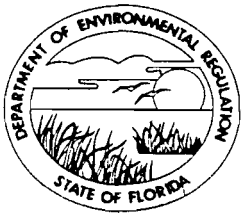
SOURCE	STACK HEIGHT (FT)	STACK DIAMETER	FLOW (ACFM)	FLOW (DSCFM)	EXIT TEMP. (°F)
1.	93' 8.25"	12" x 8"	1,196	964	200°
2.	118' 0.75"	3' 11.625"	19,925	10,000	600°
3.	99' 0.25"	2' 1"	10,902	10,000	120°
4.	88' 1.75"	3' 6"	526	500	100°
5.	86' 11.25"	8"	654	600	120°
6.	97' 7.25"	11.25"	545	500	120°
7.	120' 6.75"	1' 6"	545	500	120°

Sent out
your copy -

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

June 27, 1986

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Donald Butte, Plant Manager
General Foods Corporation
Maxwell House Division
Post Office Box 2010
Jacksonville, Florida 32203

Dear Mr. Butte:

Re: Continous Roaster

The department has received your application for permit to construct a continuous roaster. After our initial review, we have deemed this application incomplete. The following information is needed to process this application.

1. What is the existing green bean bulk handling capacity and roasted coffee product handling capacity at this plant?

2. Please provide a detailed material balance for the roaster and afterburner. Include in the balance calculations the 91.7 lb/hr coffee fines, 20 percent ash content in the coffee, 80 percent efficiency of the incinerator, and particulate matter emissions from No. 2 fuel oil combustion.

3. How is the chaff from the stoner cyclone and baghouse that is placed in drums disposed of and are there any particulate matter emissions associated with handling it? What is the increase in actual emissions from the furnaces that burn the chaff from this process?

4. In what emergency situation would fuel oil be used in the continuous roasting process? How often has this situation occurred in the past?

5. Please provide a description or the specifications for the proposed baghouses and cyclones. Include the stack diameters (or equivalent diameters) and elevation of all discharges points associated with the continuous roaster.

6. Will the afterburner stack have test facilities? How does the company propose to determine the compliance status of the afterburner, cyclones and baghouses?

7. The emission standard for point No. 4 (dryer) of the coffee processor is 6.28 lb PM/hr (26.38 TPY). The contemporaneous emission calculations (Appendix 15) used the tested emission rate of 1.46 lb/hr to calculate the increased emissions associated with the roaster. Please clarify if you are proposing to lower the allowable emissions for this source. If not, or if any of the proposed emissions from the various discharge points associated with the proposed project change, recalculate the contemporaneous emission change.

8. Are all the units shown on the process flow diagram, other than the existing bunkers and BAR system, new equipment?

When all the requested information is received, we will resume processing your application. If you have questions on its status, please call Willard Hanks, review engineer, at (904)488-1344 or write to me at the above address.

Sincerely,

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

CHF/WH/s

cc: J. Woosley, BES
J. Cole, NE District
L. Stebbins, Consultant
P. Cunningham, Attorney

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 76125

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Maxwell House Div., General Foods Date June 12, 1986

Address P.O. Box 2010, Jacksonville, FL 32203 Dollars $ 100.00

Applicant Name & Address Same as above

Source of Revenue

Revenue Code 001031 Application Number AC 16- 121136

By Patricia B. Adams

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND - NOT A WHITE BACKGROUND

MAXWELL HOUSE DIVISION

General Foods Manufacturing Corporation
P.O. BOX 2010 • JACKSONVILLE, FLORIDA 32203

64-1327
611

DATE 5/19/86

*******100.00 DOLLARS CTS.

CHECK NUMBER 078562

PAY TO THE ORDER OF DEPARTMENT OF ENVIRONMENTAL REGULATION
1600 BLAIR STONE ROAD
TALLAHASSEE FL 32301

FIRST ATLANTA
THE FIRST NATIONAL BANK OF ATLANTA
AUGUSTA, GEORGIA

BY

THE BACK OF THIS DOCUMENT CONTAINS AN ARTIFICIAL WATERMARK - HOLD AT AN ANGLE TO VIEW

HOPPING BOYD GREEN & SAMS

ATTORNEYS AND COUNSELORS

SUITE 420, FIRST FLORIDA BANK BUILDING
POST OFFICE BOX 6526
TALLAHASSEE, FLORIDA 32314
(904) 222-7500

CARLOS ALVAREZ
BRIAN H. BIBEAU
WILLIAM L. BOYD, IV
PETER C. CUNNINGHAM
WILLIAM H. GREEN
WADE L. HOPPING
RICHARD D. MELSON
WILLIAM D. PRESTON
GARY P. SAMS
ROBERT P. SMITH, JR.

JAMES S. ALVES
KATHLEEN BLIZZARD
ELIZABETH C. BOWMAN
RICHARD S. BRIGHTMAN
ANNE W. CLAUSSEN
FRANK E. MATTHEWS
STEVEN A. MEDINA
CAROLYN S. RAEPPLE

OF COUNSEL
W. ROBERT FOKES

June 4, 1986

DER

JUN 5 1986

BAQM

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management
Florida Department of Environmental
Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

Re: Application to Construct Air Source
Continuous Roasting Process
Maxwell House Division, General Foods Corporation
Jacksonville, Florida

Dear Clair:

Enclosed for filing please find four original air construction permit applications for a new continuous roasting process to be added at the Maxwell House plant in Jacksonville, along with the Company's check in the amount of $100.00 (check number 078562) to cover the Department's application fee. A copy of the application is also being provided to the Bio-Environmental Services Division in Jacksonville.

As indicated in the application document, the addition of this new process will not result in a significant net increase in emissions of any pollutant when considered in conjunction with the other contemporaneous increases and decreases in emissions at the facility. We therefore hope that the construction permit can be issued expeditiously, as the project must move forward on a very fast track.

Your consideration in this matter is much appreciated, as is anything you can do to expedite the processing of this permit application. If you or members of your staff have any questions about the application, please do not hesitate to call me.

Sincerely,

James S. Allen for

Peter C. Cunningham

PCC/gb

Enclosures

cc: (without enclosures)
Ed Svec - DER
Khurshid Mehta - BESD
Bob Cerosky
Jim Hellier
Lloyd Stebbins

APPLICATION TO CONSTRUCT
AIR POLLUTION SOURCE

CONTINUOUS ROASTING PROCESS

MAXWELL HOUSE DIVISION
GENERAL FOODS CORPORATION

Prepared by

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

May 27, 1986

GENERAL FOODS MANUFACTURING CORP. / *P. O. Box 2010, Jacksonville, FL 32203*

MAXWELL HOUSE DIVISION

May 27, 1986

C. H. Fancy, Deputy Chief
Bureau of Air Quality Management
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

Subject: **Construction Permit Application**
Continuous Roasting Process

Dear Mr. Fancy:

We are currently involved in a modernization program designed to upgrade our coffee roasting facilities, improve our ability to control emissions to the environment, and stabilize employment in the Jacksonville area.

One element of the modernization program includes installation of a new continuous coffee roasting process. Although this package indicates an apparent increase in particulate emissions, the overall plant emissions will not increase.

The new continuous roasting process will add "roasting capacity" but total plant production will be limited by existing green bean bulk handling capability and also by roasted coffee product handling capability. As a result, certain batch roasters will sit idle. We cannot retire any of these units at this time because they are required for producing special coffee blends. Consequently, they must be maintained to preserve operating flexibility.

We are anxious to permit the facility as quickly as possible to reassure our Board of Directors of the feasibility of the project and to expedite realization of the associated benefits.

We would greatly appreciate your help in streamlining the permitting process. To that end, our staff has been directed to assist you on a priority basis.

Very truly yours,

Donald A Butte

MAXWELL HOUSE DIVISION

Donald Butte
Plant Manager

ma

TABLE OF CONTENTS

CONTINUOUS ROASTING PROCESS

MAXWELL HOUSE DIVISION
GENERAL FOODS CORPORATION

TABLE OF CONTENTS (Continued)

ESE

AN R&H COMPANY

ENVIRONMENTAL SCIENCE
AND ENGINEERING, INC.

May 27, 1986
ESE Project No. 86026-0002

Mr. C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
1600 Blair Stone Road
Tallahassee, Florida 32301

SUBJECT: **Application to Construct/Air Pollution Source**
Continuous Roasting Process
Maxwell House Division, General Foods Corporation
Jacksonville, Florida

Dear Mr. Fancy:

The enclosed construction permit application has been prepared for a Continuous Coffee Roasting Facility at Maxwell House. When issued, the permit will allow Maxwell House to install a modern, efficient, continuous coffee roasting process. It has been designed with state of the art pollution control technology.

Enclosed is a check for $100.00, payable to the Florida Department of Environmental Regulation to cover the application processing fee. A check for $150.00, payable to Tax Collector, City of Jacksonville, has been sent under separate cover to the Bio-Environmental Services Division to cover their review fee.

There are several contributors to the contemporaneous emissions of particulates as indicated in Appendix "A". The allowable particulate emissions for the new coffee roasting process total 26.59 tons/yr. Based on test results for the coffee processor, the total actual particulate emissions for that process is 12.59 tons/yr. Shutdown and dismantling of the old green bean steamer and dryer allows a credit of 14.2 tons/yr. Therefore, the net total contemporaneous emissions becomes 24.98 tons/yr.

Although the proposed process is the only contemporaneous source of sulfur dioxide and nitrogen oxides, these emissions must be evaluated for both the roaster and the afterburner. Appendix "A" demonstrates that these emissions will be 0.0425 tons/yr and 15.29 tons/yr, respectively, for natural gas.

On an emergency basis, No. 2 fuel oil may occasionally be used as an alternate fuel. The annual emission rate of SO_2 is then 58 tons/yr and NO_x is 16.45 tons/yr.

The only emission rate which could expose this application to a New Source Review is SO_2 from the combustion of fuel oil. However, the fuel oil is an emergency alternate fuel. The emissions can readily be limited to less than 40 tons/yr by restricting the operating hours on No. 2 fuel oil to 5790 hrs/year as demonstrated in Appendix "A".

We are very anxious to implement this modernization program and will appreciate any efforts by your office to expedite the processing of this permit application.

Meanwhile, if you have any questions or require additional information, please feel free to call me at (904)739-2007.

Very truly yours,

Lloyd H. Stebbins, P.E.
Manager
Industrial Environmental Department

ma

Enclosure(s)

STATE OF FLORIDA AC 16-121136

DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHEAST DISTRICT
3426 BILLS ROAD
JACKSONVILLE, FLORIDA 32207

DER

JUN 5 1986

BAQM

BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY
G. DOUG DUTTON
DISTRICT MANAGER

APPLICATION TO CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: CONTINUOUS ROASTER [XX] New[1] [ ] Existing[1]

APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification

COMPANY NAME: MAXWELL HOUSE DIVISION, GENERAL FOODS CORPORATION COUNTY: DUVAL

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) CONTINUOUS ROASTER

SOURCE LOCATION: Street 735 East Bay Street City Jacksonville

UTM: East 437.548 North 3.354.714

Latitude 30 ° 19 ' 27 "N Longitude 81 ° 39 ' 00 "W

APPLICANT NAME AND TITLE: Donald A. Butte, Plant Manager

APPLICANT ADDRESS: 735 East Bay Street, Jacksonville, Florida

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Maxwell House Division, General Foods Corporation

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
REFER TO ATTACHMENT 1

Signed: Donald A. Butte

Donald A. Butte, Plant Manager
Name and Title (Please Type)

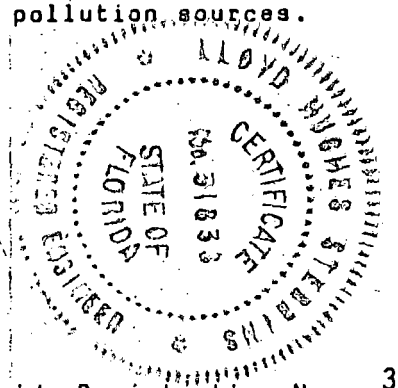
Date: 5/30/86 Telephone No. (904) 358-3251

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

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

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

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



Signed _____

Lloyd H. Stebbins

Name (Please Type)

Environmental Science and Engineering, Incorporated

Company Name (Please Type)

Post Office Box 4943, Jacksonville, Florida 32201

Mailing Address (Please Type)

Florida Registration No. 31838 Date: 5-26-86 Telephone No. (904)739-2007

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.

Refer to the Process Description (ATTACHMENT 2) and the Flow Diagram (ATTACHMENT 7)

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

Start of Construction July 1986 Completion of Construction February 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.)

1-Baghouse	$ 9,640	5-Baghouse	$ 6,000
2-Afterburner	258,000	6-Cyclones - 3 x 1,750	5,250
3-Cyclone	17,500	7-Cyclones - 2 x 1,750	3,500
4-Baghouse	5,000	Total	$304,890

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

DOES NOT APPLY

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 50 ;

if power plant, hrs/yr N/A ; if seasonal, describe: _____

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

1. Is this source in a non-attainment area for a particular pollutant? YES

   a. If yes, has "offset" been applied? NO *

   b. If yes, has "Lowest Achievable Emission Rate" been applied? NO

   c. If yes, list non-attainment pollutants. OZONE, PARTICULATES

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. NO

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

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

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

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? YES **

   a. If yes, for what pollutants? OZONE AND PARTICULATE MATTER

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

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

* Offset is not required because the net increase in emissions is not sufficient to expose this application to a New Source Review.

** Most sources of particulate emissions documented in this application are exempt from RACT requirements according to Rule 17-2.650(2)(b)3. Those sources emit less than one ton of particulates per year. The exceptions are sources 2 and 3 which are treated as RACT SOURCES.

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

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

**** REFER TO ATTACHMENT 3A ****

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)****REFER TO ATTACHMENT 3B****

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

2. Product Weight (lbs/hr): _____

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

**** REFER TO ATTACHMENT 4 A ****

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

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard.

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

**** REFER TO ATTACHMENT 4 B ****

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)

E. Fuels **** SEE ATTACHMENT 5 ****

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	0.016 MMCF	0.016 MMCF	17.105
Coffee fines	12.85 lbs	12.85 lbs	0.069
#2 Fuel Oil*	121.3 Gal.	121.3 Gal.	17.105

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.
* Back-up fuel - to be used in emergencies only.

Fuel Analysis:

Percent Sulfur: 0.5 (#2 F.O.) Percent Ash: N/A

Density: 7.055 (#2 F.O.) lbs/gal Typical Percent Nitrogen: Not Available

Heat Capacity: 19,860(HHV) (#2 F.O.), 18,680 (LHV) (#2 F.O.) BTU/lb N/A BTU/gal

Other Fuel Contaminants (which may cause air pollution): N/A

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

Annual Average N/A Maximum N/A

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

Chaff from the cyclones ahead of the afterburner is airveyed to a furnace. Chaff from the cyclone and baghouse above the stoner drops into a drum. No other solid or liquid wastes are generated by this process.

**** SEE ATTACHMENT 6 ****

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

Stack Height: _____ ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION N/A

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

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

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

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

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

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

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

_____

_____

_____

_____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

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

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY N/A

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION N/A

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO^2* _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

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

2. Instrumentation, Field and Laboratory

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

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from ____/____/____ to ____/____/____
month day year month day year

2. Surface data obtained from (location)_____

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

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

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

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

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

E. Emission Data Used in Modeling

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

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

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

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

GENERAL FOODS MANUFACTURING CORPORATION / *250 North Street, White Plains, N.Y. 10625*

March 18, 1985

State of Florida
Department of Environmental Regulations
2600 Blair Stone Road
Tallahassee, Florida 32301

Gentlemen:

This is to advise your office that Donald A. Butte, Plant Manager, Maxwell House Division, Jacksonville, Florida is designated to sign as authorized representative for air and water permit applications and reports for the Jacksonville General Foods Manufacturing Corporation facility.

Very truly yours,

H. A. Golle

H. A. Golle
Chairman

HAG:jg

bc: Messrs. R. E. Cerosky
J. Hellier

ATTACHMENT 1

ATTACHMENT 2

PROCESS DESCRIPTION

CONTINUOUS ROASTING PROCESS
MAXWELL HOUSE DIVISION, GENERAL FOODS CORPORATION
JACKSONVILLE, FLORIDA

Green coffee beans are airveyed from existing bunkers, shared with the Regular and Soluble Coffee Roasting Processes, to the surge bins and scale as shown on the flow diagram (Attachment 7, "Continuous Roasting Process"). A process cyclone separates the green coffee beans from the air stream. The particulates in the air stream are removed by a baghouse (EMISSION POINT NO 1). After weighing, the coffee beans are fed into the continuous roaster. Off-gases and chaff are drawn off through process cyclones and incinerated in an afterburner (EMISSION POINT NO. 2). A cyclone is used to remove particulates from the vented cooling section of the roaster (EMISSION POINT NO. 3). The roaster is followed by a stoner. A vented air stream is controlled with a cyclone and a baghouse (EMISSION POINT NO. 4). The roasted and cooled coffee beans are airveyed to the surge bins and scale for product weighing. Another process cyclone separates the roasted beans from the air stream. The particulates in this air stream are also removed by a baghouse (EMISSION POINT NO. 5). After weighing, the roasted coffee is airveyed to one of three existing bunkers. Each bunker is equipped with a cyclone (EMISSION POINT NO. 6) to release air from the airveyors. Only one cyclone will be operating at any given time depending upon which bunker is being filled. Similarly, the two airveyors to the existing BAR system are each equipped with a cyclone (EMISSION POINT NO. 7). Only one of these airveyors will operate at a time.

ATTACHMENT 3A

A. RAW MATERIALS AND CHEMICALS USED IN YOUR PROCESS, IF APPLICABLE:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Green Coffee	N/A	N/A	10,000	A

ATTACHMENT 3B

B. PROCESS RATE, IF APPLICABLE:

1. Total Process Input Rate (lbs/hr): 10,000

2. Product Weight (lbs/hr): 8,500 (Moisture difference)

ATTACHMENT 4 A

III.D. Airborne Contaminants Emitted

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Particulates	0.058	0.243	RACT Exempt	0.238	1,982	0.99	(1)
Particulates	2.57	10.79	0.03 gr/DSCF	2.57	21,588	10.79	(2)
Particulates	0.33	1.39	0.03 gr/DSCF	2.57	21,588	10.79	(3)
Particulates	0.03	0.126	RACT Exempt	0.238	1,982	0.99	(4)
Particulates	0.036	0.151	RACT Exempt	0.238	1,982	0.99	(5)
Particulates	0.06	0.252	RACT Exempt	0.238	1,982	0.99	(6)
Particulates	0.06	0.252	RACT Exempt	0.238	1,982	0.99	(7)

III C. Control Devices

ATTACHMENT 4 B

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
1. BAGHOUSE	Particulates	98%	40-800	Industrial Standard
2. ROSS-WALDRON 10,000 SCFM AFTERBURNER	Particulates	80%	40-800	Industrial Standard
3. CYCLONE	Particulates	90%	40-800	Industrial Stds.
4. BAGHOUSE	Particulates	98%	40-800	Industrial Standards
5. BAGHOUSE	Particulates	98%	40-800	Industrial Stds.
6. CYCLONES	Particulates	90%	40-800	Industrial Standards
7. CYCLONES	Particulates	90%	40-800	Industrial Standards

ATTACHMENT 4

SECTION III, C

CALCULATIONS OF EMISSIONS FOR CONTINUOUS ROASTING PROCESS

MAXWELL HOUSE DIVISION - GENERAL FOODS CORPORATION JACKSONVILLE, FLORIDA

EMISSION POINT NO. 1 - GREEN BEAN AIRVEYOR BAGHOUSE

EMISSIONS

REF. ESE Baghouse Test dated 4/17/81 (TAB 10)
Tested Emissions = 0.007 Grains/SCFD

System design flow rate = 970 SCFM

Therefore, the calculated actual emission rate becomes,
970 SCFM x 0.007 gr/DSCF x 60 min/hr x 1/7000 gr/lb = **0.058 LBS/HR**

$$0.058 \text{ LBS/HR} \times 8400 \text{ HRS/YR} \times \frac{1}{2000} \text{ LBS/TON} = \textbf{0.243 TONS/YR}$$

ALLOWABLE EMISSIONS

According to the test results for a similar source, this emission point qualifies for a RACT Exemption. Emissions will be less than **0.238 LBS/HR** and **0.99 TONS/YR**

POTENTIAL EMISSIONS *

Hourly Emission Rate = 0.238 LBS/HR x 8400 HRS/YR = **1,982 LBS/YR**

Annual Emission Rate = 1,982 LBS/YR x 1/2000 = **0.99 TONS/YR**

* According to 17-2.100(127), the revised definition of potential emissions refers to emissions after the control device.

EMISSION POINT NO. 2 - CONTINUOUS ROASTER AFTERBURNER

EMISSIONS

The afterburner will be designed to meet the allowable emissions limit.

ALLOWABLE EMISSIONS

The allowable emissions rate is limited by the RACT Rule (0.03 gr/DSCF), FAC 17-2.650(2)(c)12.b.

Afterburner Design Flow Rate = 10,000 SCFM (Page 2 of Ross-Waldron's Data, Refer to TAB 11)

Allowable Emissions Rate = 10,000 SCFM x 60 min/hr x 0.03 gr/DSCF x 1/7000 gr/LB = **2.57 LBS/HR**

$$2.57 \text{ LBS/HR} \times 8400 \text{ HRS/YR} \times \frac{1}{2000} \text{ LBS/TON} = \textbf{10.79 TONS/YR}$$

POTENTIAL EMISSIONS *

Hourly Emission Rate = 2.57 LBS/HR x 8400 HRS/YR = **21,588 LBS/YR**

Annual Emission Rate = 21,588 LBS/YR x 1/2000 = **10.79 TONS/YR**

* According to 17-2.100(127), the revised definition of potential emissions refers to emissions after the control device.

EMISSION POINT NO. 3 - COOLER CYCLONE

EMISSIONS

REF. ESE Thermolo Stoner Cyclone Test dated 4/17/81 (TAB 12)

Tested Emissions = 0.0038 + 0.0065 + 0.0013/3 = 0.0039 Grains/DSCF

System Design Flow Rate = 10,000 SCFM

Therefore, the calculated actual emission rate becomes,

10,000 DSCFM x 0.0039 gr/DSCF x 60 min/hr x 1/7000 gr/lb = **0.33 LBS/HR**

0.33 LBS/HR x 8400 HRS/YR x $\frac{1}{2000}$ LBS/TON = **10.79 TONS/YR**

ALLOWABLE EMISSIONS

The allowable emissions rate is limited by the RACT Rule, (0.03 gr/DSCF), FAC 17-2.650(2)(c)12.b.

10,000 DSCFM x 0.03 gr/DSCF x 60 min/hr x 1/7000 gr/lb = **2.57 LBS/HR**

2.57 LBS/HR x 8400 HRS/YR x $\frac{1}{2000}$ LBS/TON = **10.79 TONS/YR**

POTENTIAL EMISSIONS *

Hourly Emission Rate = 2.57 LBS/HR x 8400 HRS/YR = **21,588 LBS/YR**

Annual Emission Rate = 21,588 LBS/YR x 1/2000 = **10.79 TONS/YR**

* According to 17-2.100(127), the revised definition of potential emissions refers to emissions after the control device.

EMISSION POINT NO. 4 - AIRVEYOR TO WEIGH STATION BAGHOUSE

EMISSIONS

REF. ESE Baghouse Test dated 4/17/81 (TAB 13)

Tested Emissions = 0.007 Grains/DSCF

System Design Flow Rate = 500 SCFM

Therefore, the calculated actual emission rate becomes,
500 SCFM x 0.007 gr/DSCF x 60 min/hr x 1/7000 gr/lb = **0.03 LBS/HR**

$$0.03 \text{ LBS/HR} \times 8400 \text{ HRS/YR} \times \frac{1}{2000} \text{ LBS/TON} = \textbf{0.126 TONS/YR}$$

ALLOWABLE EMISSIONS

According to the test results for a similar source, this emission point qualifies for a RACT Exemption. Emissions will be less than **0.238 LBS/HR** and **0.99 TONS/YR.**

POTENTIAL EMISSIONS *

Hourly Emission Rate = 0.238 LBS/HR x 8400 HR/YR = **1,982 LBS/YR**

Annual Emission Rate = 1,982 LBS/YR x 1/2000 = **0.99 TONS/YR**

* According to 17-2.100(127), the revised definition of potential emissions refers to emissions after the control device.

EMISSION POINT NO. 5 - STONER BAGHOUSE

EMISSIONS

REF. ESE Baghouse Test dated 4/17/81 (TAB 13)

Tested emissions = 0.007 Grains/DSCF

System Design Flow Rate = 600 SCFM

Therefore, the calculated actual emission rate becomes,
600 SCFM x .007 gr/DSCF x 60 min/hr x 1/7000 gr/lb = **0.036 LBS/HR**

$$0.036 \text{ LBS/HR} \times 8400 \text{ HRS/YR} \times \frac{1}{2000} \text{ LBS/TON} = \textbf{0.151 TONS/YR}$$

ALLOWABLE EMISSIONS

According to the test results for a similar source, this emission point qualifies for a RACT Exemption. Emissions will be less than **0.238 LBS/HR** and **0.99 TONS/YR**

POTENTIAL EMISSIONS*

Hourly Emission Rate = 0.238 LBS/HR x 8400 HR/YR = **1,982 LBS/YR**

Annual Emission Rate = 1,982 LBS/YR x 1/2000 = **0.99 TONS/YR**

* According to 17-2.100(127), the revised definition of potential emissions refers to emissions after the control device.

EMISSION POINT NO. 6 - PRODUCT STORAGE BUNKER CYCLONE

EMISSIONS

REF. TSI Test dated 10/22/85 (TAB 14)

Tested emissions = 0.014 Grains/DSCF

System Design Flow Rate = 500 SCFM

Therefore, the calculated actual emission rate becomes,
500 SCFM x 0.014 gr/DSCF x 60 min/hr x 1/7000 gr/lb = **0.06 LBS/HR**

$$0.06 \text{ LBS/HR} \times 8400 \text{ HRS/YR} \times \frac{1}{2000} \text{ LBS/TON} = \textbf{0.252 TONS/YR}$$

ALLOWABLE EMISSIONS

According to the test results for a similar source, this emission point qualifies for a RACT Exemption. Emissions will be less than **0.238 LBS/HR** and **0.99 TONS/YR**.

POTENTIAL EMISSIONS*

Hourly Emission Rate = 0.238 LBS/HR x 8400 HR/YR = **1,982 LBS/YR**

Annual Emission Rate = 1,982 LBS/YR x 1/2000 = **0.99 TONS/YR**

* According to 17-2.100(127), the revised definition of potential emissions refers to emissions after the control device.

EMISSION POINT NO. 7 - AIRVEYOR TO BAR CYCLONE

EMISSIONS

REF. TSI Test dated 10/22/85 (TAB 14)

Tested emissions = 0.014 Grains/DSCF

System Design Flow Rate = 500 SCFM

Therefore, the calculated actual emission rate becomes,
500 SCFM x 0.014 gr/DSCF x 60 min/hr x 1/7000 gr/lb = **0.06 LBS/HR**

0.06 LBS/HR x 8400 HRS/YR x $\frac{1}{2000}$ LBS/TON = **0.252 TONS/YR**

ALLOWABLE EMISSIONS

According to the test results for a similar source, this emission point qualifies for a RACT Exemption. Emissions will be less than **0.238 LBS/HR** and **0.99 TONS/YR**

POTENTIAL EMISSIONS*

Hourly Emission Rate = 0.238 LBS/HR x 8400 HR/YR = **1,982 LBS/YR**

Annual Emission Rate = 1,982 LBS/YR x 1/2000 = **0.99 TONS/YR**

* According to 17-2.100(127), the revised definition of potential emissions refers to emissions after the control device.

ATTACHMENT 5

SECTION B: FUELS
CALCULATION OF FUEL CONSUMPTION
AND
HEAT INPUT RATE

MAXWELL HOUSE DIVISION
GENERAL FOODS CORPORATION

JACKSONVILLE, FLORIDA

NATURAL GAS

Afterburner Manufacturer's Design Data

Energy Available from Coffee Fines	=	495,180 Btu/hr
Coffee Fines from Process	=	91.7 lbs/hr
Gross Fuel Energy Required	=	17,174,700 Btu/hr

Detailed Fuel Calculation

Using manufacturer's data, calculate the available heat in coffee fines

$$\frac{495{,}180 \text{ Btu/hr}}{91.7 \text{ Lbs/hr}} = 5400 \text{ Btu/lb Available Heat}$$

Since coffee fines have an ash content of 20%, find the maximum coffee fines input rate such that the maximum allowable emissions rate will not be exceeded.

$$\frac{2.57 \text{ lbs ash emitted/hr [Allowable Emissions Rate]}}{0.20} = \textbf{12.85 lbs fines/hr}$$

Find the maximum heat available from coffee fines.

12.85 lbs coffee fines/hr x 5400 Btu/lb = 69,390 Btu/hr

By difference, determine the heat required from natural gas.

17,174,700 Btu/hr gross fuel energy required -
69,390 Btu/hr fuel energy from coffee fines = 17,105,310 Btu/hr fuel energy from natural gas

Calculate the consumption rate of natural gas.

$$\frac{17{,}105{,}310 \text{ Btu/hr}}{1{,}040 \text{ Btu/SCF}} \text{ natural gas} = 16{,}477.4 \text{ CF/hr}$$

$$\frac{16{,}447.4 \text{ CF/hr}}{1{,}000{,}000} = \textbf{0.016 MMCF/hr natural gas}$$

ATTACHMENT 5

SECTION B: FUELS
CALCULATION OF FUEL CONSUMPTION
AND
HEAT INPUT RATE

(Continued)

NO. 2 FUEL OIL

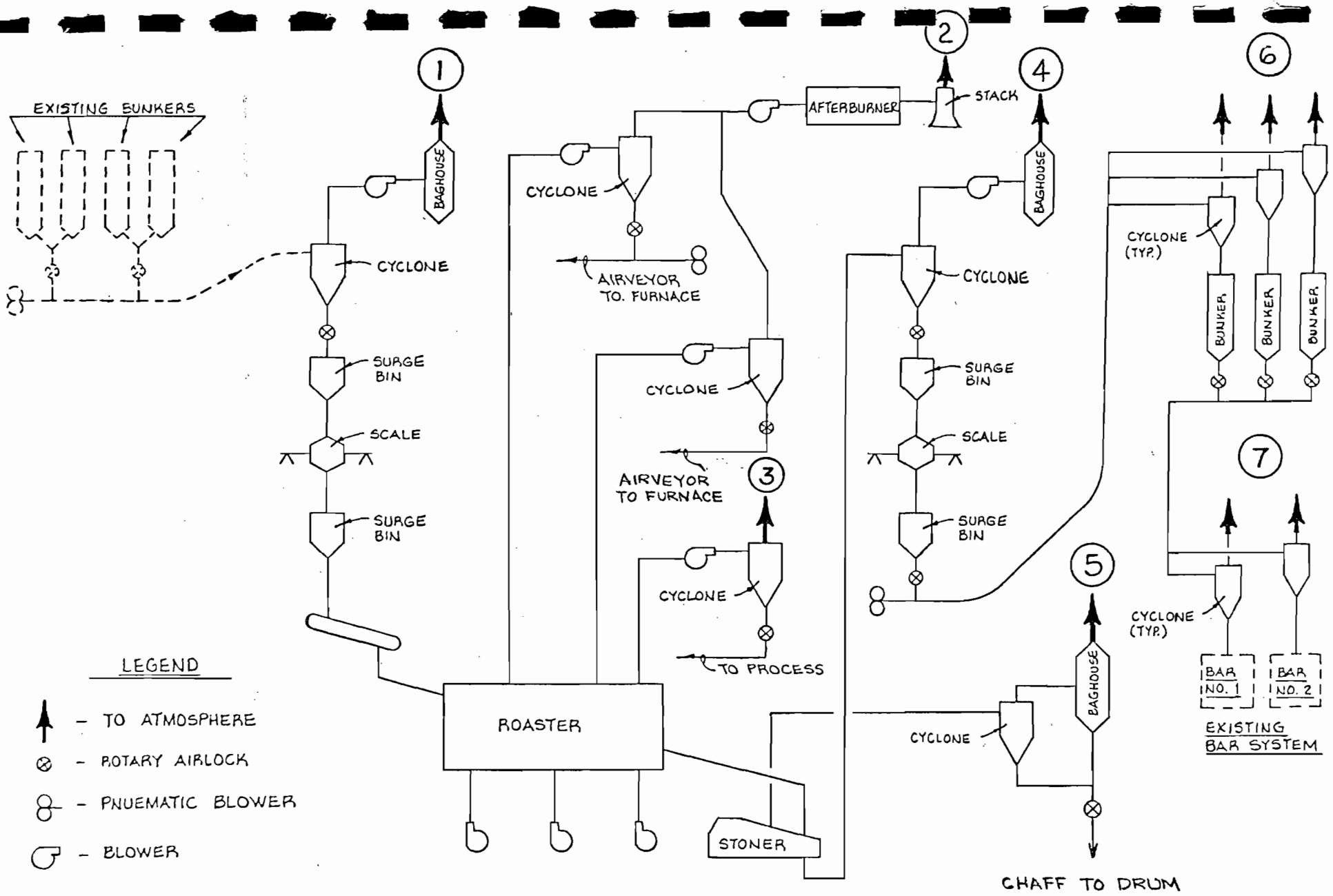
No. 2 fuel oil will only be used as an emergency backup fuel. Calculating the quantity of No. 2 fuel oil required during emergency situations yields,

$$\frac{17{,}105{,}310 \text{ Btu/hr}}{141{,}000 \text{ Btu/gal}} = \textbf{121.3 gal/hr, \#2 fuel oil}$$

ATTACHMENT 6

III. H. Emission Stack Geometry and Flow Characteristics:

SOURCE	STACK HEIGHT (FT)	STACK DIAMETER	FLOW (ACFM)	FLOW (DSCFM)	EXIT TEMP. (°F)
1.	N/A	N/A	1,196	964	200°
2.	N/A	N/A	19,925	10,000	600°
3.	N/A	N/A	10,902	10,000	120°
4.	N/A	N/A	526	500	100°
5.	N/A	N/A	654	600	120°
6.	N/A	N/A	545	500	120°
7.	N/A	N/A	545	500	120°



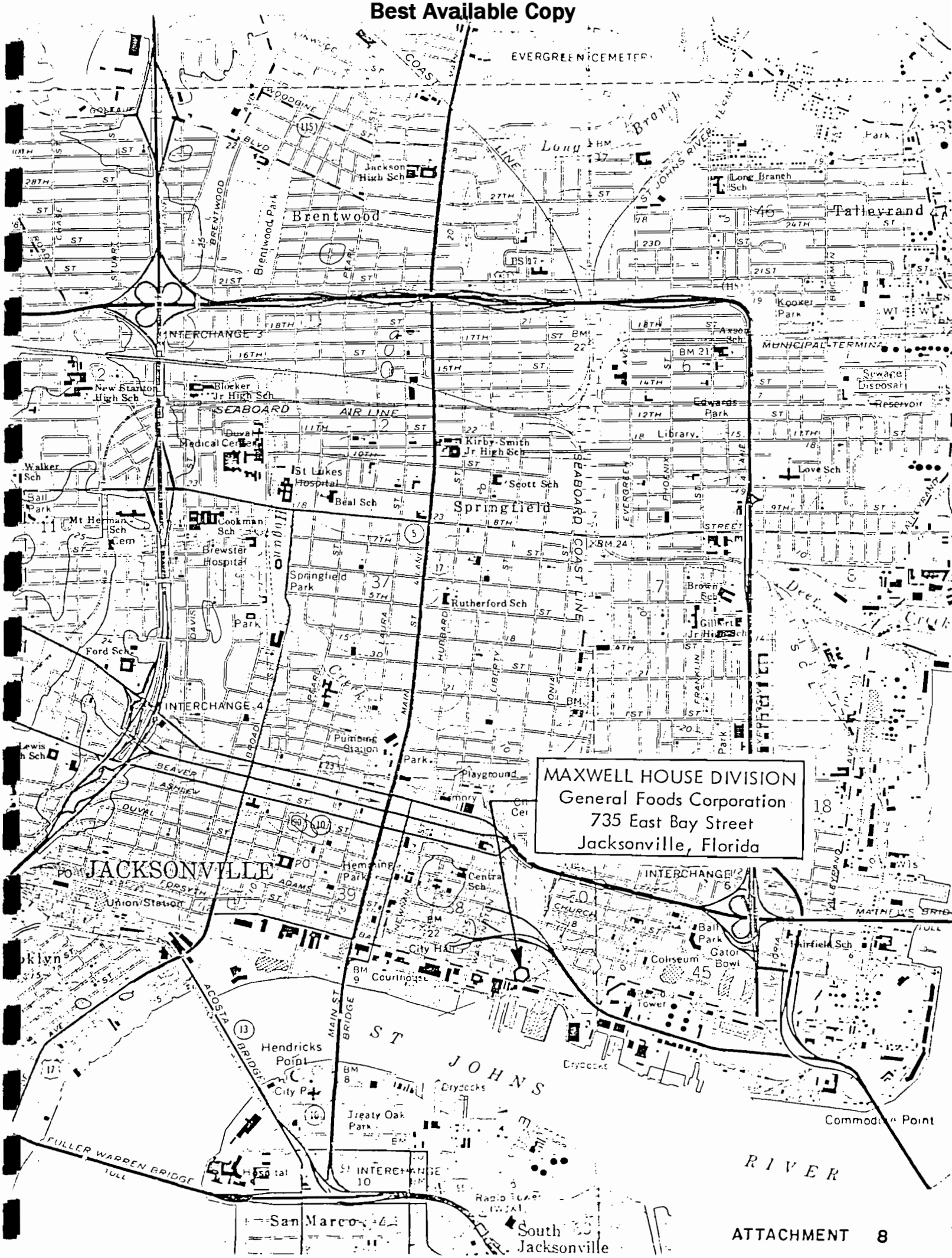
ATTACHMENT 7

PROCESS FLOW DIAGRAM

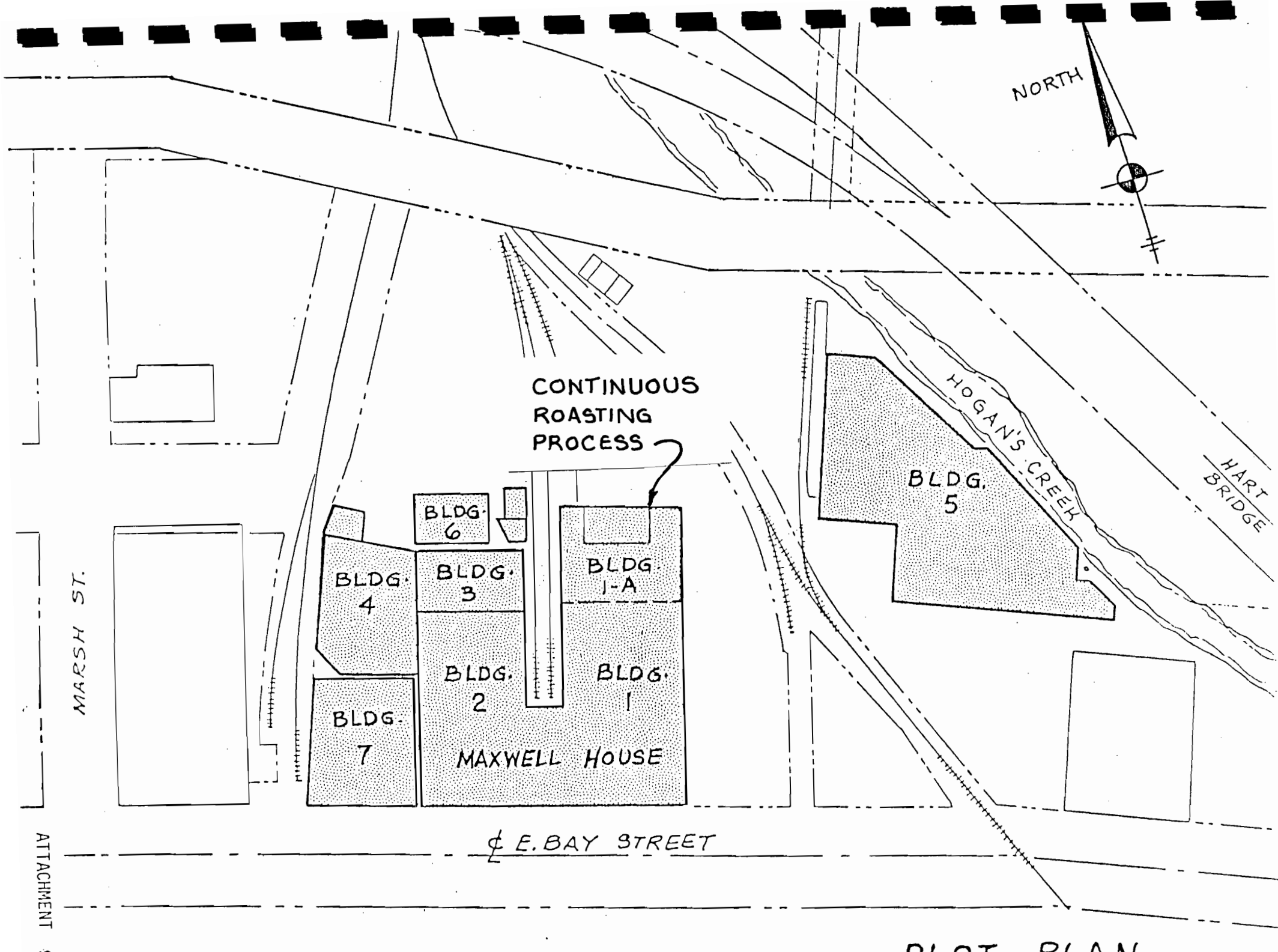
CONTINUOUS ROASTING PROCESS

MAXWELL HOUSE DIV. - GENERAL FOODS CORP.

Best Available Copy



ATTACHMENT 8



PLOT PLAN

ATTACHMENT 9

A REPORT ON
PARTICULATE EMISSIONS TESTS

MAXWELL HOUSE COFFEE DIVISION
GENERAL FOODS CORPORATION

Jacksonville, Florida

Prepared by:

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.
Gainesville, Florida

ESE No. 80-107-100

April 1981

ATTACHMENT 10

Table 1. Emission Inventory: Maxwell House Coffee, Jacksonville, Florida (Continued, Page 2 of 2)

Flow Diagram Location	Source	Stack Dimension (ft)	Flow Rate (SCFMD)	Stack Temp. (°F)	Moisture (%)	Emission Rate (lb/hr)	No. Units
	Regular Coffee Roasting Process, Permit No. AO 16 2408 (Continued)						
X	Cold Chaff Thermalo Cyclone	1.17 ID	850	75.8	1.7	0.154	1
XI	Thermalo Cooling Car Cyclone	2.0 ID	5,334	84.7	1.3	0.270	2
XII	Thermalo Stoner Cyclone	2.0 ID	5,780	80.1	1.3	0.190	2
XIII	Thermalo Regular Coffee Scale Cyclone	1.67 ID	1,000*	86.9	2.6	0.090	1
XIV	Regular Coffee Scale and Airveyor Cyclone	1.67 ID	1,000*	57.5	1.8	0.097	15
	Green Bean Bulk Handling Process, Permit No. AO 16 2407 (Figure 3)						
I	Fuller Baghouse (4th level)	1.0x1.0	3,674	80.6	1.0	0.017	1
II	Fuller Baghouse (roof)-	0.63 ID	964	200.1	1.2	0.057	3
III	Gooseneck Bunker Vent	0.50 ID	319	65.6	1.4	0.164	18
	Soluble Spray Dryer No. 2, Permit No. AO 16 2366 (Figure 4)						
I	Spray Dryer No. 2	3.50 ID	21,652	259.7	8.4	1.931	1
	Soluble Spray Dryer No. 1, Permit No. AO 16 2445 (Figure 5)						
I	Spray Dryer No. 1	3.50 ID	25,574	241.3	8.4	1.357	1
	Agglomerating Process, Permit No. AO 16 2404 (Figure 6)						
I	Spray Dryer	3.33 ID	20,633	217.8	9.3	0.893	1

Source: Environmental Science and Engineering, Inc., 1980.

* Due to poor sampling locations, measured flow rates are considered to be in error. Design flow rates furnished by Maxwell House have been substituted based on transport velocity and duct areas.

† Emission parameters are the same as soluble coffee roasting thermalo roaster afterburner.

Source 1

Table 24

PLANT NAME - MAXWELL HOUSE COFFEE LOCATION -

STACK ID - REG COFFEE ROLLER BAGHSE SAMPLING TRAIN - PARTICULATES

- E N G L I S H UNITS -

		RUN 001	RUN 002	RUN 003	AVG
DATE		2/26/80	2/26/80	2/26/80	
STARTING TIME		1308	1438	1600	
ENDING TIME		1408	1538	1704	
MINUTES		60.	60.	60.	
NUMBER OF POINTS		12.	12.	12.	
PB	(IN HG)	30.40	30.40	30.40	
PS	(IN HG)	30.40	30.40	30.40	
CP		0.840	0.840	0.840	
METER BOX NO.		3	3	3	
Y-FACTOR		1.0000	1.0000	1.0000	
AS	(SF)	0.31	0.31	0.31	
AS'	(SF)	0.31	0.31	0.31	
DN	(IN)	0.1860	0.1860	0.1860	
AN	(SF)	0.000189	0.000189	0.000189	
TM	(DEG R)	513.6	512.3	512.0	
TS	(DEG R)	652.5	680.0	647.9	660.14
VM	(ACF)	33.943	33.377	33.862	
VMSTD	(SCFD)	35.072	35.166	35.099	
CONDENSATE	(ML)	9.1	9.3	9.2	
% H2O SPECIFIED		0.00	0.00	0.00	
CALC % H2O		1.19	1.24	1.21	1.21
% H2O @ SATURATION		55.98	100.00	59.80	75.26
% CO2		0.0	0.0	0.0	0.00
% O2		21.0	21.0	21.0	21.00
% CO		0.0	0.0	0.0	0.00
MWD	(LB/LB-MOLE)	28.84	28.84	28.84	28.84
MWW	(LB/LB-MOLE)	28.71	28.71	28.71	28.71
DELTA H AVG	(IN H2O)	1.042	1.080	1.072	
SQRT DELTA P AVG	(IN H2O)	1.034	1.055	1.035	
VS	(F/S)	64.17	66.90	64.03	65.04
QS'	(ACFM)	1182.	1232.	1176.	1197.
QS''	(ACFMD)	1168.	1217.	1161.	1182.
QS	(SCFMD)	964.	964.	965.	964.
QS SPEC.	(SCFMD)	964.	964.	965.	
% ISO		100.39	98.98	99.99	99.79
TOTAL FILTER CATCH	(MG)	14.50	8.90	12.20	
TOTAL WASH CATCH	(MG)	3.31	4.95	3.01	
TOTAL CATCH	(MG)	17.81	13.85	15.81	
CONCENTRATION	(GR/ACF)	0.0003	0.0047	0.0056	0.0055
CONCENTRATION	(GR/SCFD)	0.0077	0.0061	0.0068	0.007
EMISSION RATE	(LB/HR)	0.06	0.05	0.06	0.0567

ROSS-WALDRON

ROSS-WALDRON

ROSS-WALDRON

ROSS-WALDRON

CUSTOM ENGINEERED SYSTEMS

ROSS-WALDRON

ROSS-WALDRON

ATTACHMENT 11

SOMERSET TECHNOLOGIES, INC.

PROPOSAL NO. IN6011025-1

For

GENERAL FOODS CORPORATION

ONE (1) 10,000 SCFM AFTERBURNER

APRIL 18, 1986

10,000 SCFM AFTERBURNER
ROSS-WALDRON PROPOSAL NO. IN6011025-1

GENERAL FOODS CORPORATION
APRIL 18, 1986

GENERAL DESCRIPTION

The Afterburner System described in this proposal is intended to be used at Maxwell House's facility located at Jacksonville, Florida.

The system will collect fumes from a Isothermal Coffee Roaster. The Direct Fired Afterburner will be located outside of the building braced and supported by others. The unit is a complete vertical section.

DESIGN DATA - AFTERBURNER

Maximum Contaminated Volume:	10,000 SCFM
Contaminated Air Temperature:	400°F to 800°F
Afterburner Operating Temperature:	Up to 1700°F
Pressure Drop through Afterburner:	2" at 70°F
Contamination Source:	Coffee Roasting Process
Heat Release from Contaminants:	5,400 Btu/lb.
Burner Capacity:	25.0 MM BTU/Hr.
Fuel Source:	Natural Gas/#2 Oil
Electrical:	480/3/60
Insurance Design:	F.M. - I.R.I.
Reference Sketch:	1025-A
Alternate Arrangement:	1025-B

10,000 SCFM AFTERBURNER
ROSS-WALDRON PROPOSAL NO. IN6011025-1

GENERAL FOODS CORPORATION
APRIL 18, 1986

REGENERATIVE INCINERATION SYSTEM ENERGY CALCULATIONS

Contaminant rate:	91.7 #/Hr
Exhaust Volume:	10,000 SCFM
Destruction temperature:	1,500 Deg. F..
Exhaust temperature with contaminants:	1,500 Deg. F
Exhaust temperature with no contaminants:	1,500 Deg. F
Process exhaust temperature:	500 Deg. F
Temperature increase, with no contaminants:	1,000 Deg. F
Energy required:	10,,800,000 Btu/Hr.
Net energy available from contaminants (gross less 10% latent heat loss):	495,180 Btu/Hr.
Net fuel energy required:	10,304,820 Btu/Hr.
Available energy (latent and sensible heat loss correction factor):	60 %
Gross fuel energy required:	17,174,700 Btu/Hr.
Hourly fuel cost @ $5.00/MM Btu:	$85.87/Hr.
Hours per year in operation:	9,900 Hours
TOTAL ANNUAL FUEL COSTS	$850,148 Yr.

GENERAL DESCRIPTION

The Ross Stack Fume Afterburner is designed to pass air from coffee roasting process through a combustion burner which raising the contaminants and holds it at the afterburner temperature for approximately 0.5 seconds. Contaminants are thereby consumed and the cleaned air is discharged to the atmosphere.

The operating temperature of the afterburner depends upon the type and nature of the contaminants and the control regulations for the area in which the afterburner is operating. The minimum temperature at which the unit is usually operated is that at which 90% or more of the contaminants are reduced to harmless water vapor or carbon dioxide and thus maintaining the level of contaminants exhausted within acceptable limits.

When the contaminants contain volatiles and the volatile laden air is passed through the burner flame, the volatiles are ignited, providing an additional source of heat energy which will allow automatic throttling back of the gas supply to the burner to conserve gas. The burners then continue to modulate to maintain the Afterburner temperature according to the amount of combustible volatiles in the exhaust air, taking full advantage of the energy released by the volatiles. This permits lowest possible operating costs and maximum efficiency using the direct afterburner design.

The afterburner is designed to destroy contaminants containing only he elements of carbon, hydrogen, oxygen and nitrogen (in air). It is assumed that the contaminates and fuel are volatiles which upon oxidation will produce harmless products of combustion, namely, water vapor and carbon dioxide. However, the contaminants and fuel may have other substances besides hydrocarbons which might form products of combustion other than H_2O and CO_2. Therefore, it should be remembered that these impurities should be kept to a minimum so as not to violate any regulations.

MATERIALS OF CONSTRUCTION

The afterburner will be constructed of preassembled sections having an interior lining of high temperature refractory with outer casing of heavy gauge metal. Necessary drawbands and cement are included. An access door will be provided in the dwell chamber for inspection of the Afterburner and periodic maintenance. A sight port will be provided for observation of burner and pilot.

The Afterburner is mounted on skid steel for shipping and field setting. No platforms, walkways, handrails, or ladders are included.

It is assumed the afterburner will be erected on a concrete pad or a steel base furnished by purchaser.

The afterburner will be approximately 36'-0" high x 72" outside diameter. The approximate erected weight will be 18,000 lbs.

BURNERS AND CONTROLS

As part of the afterburner system, we will provide the complete burner, safety control and temperature control system. The burner will be a gas/oil packaged type of special design. The purchaser is to supply the required volume of fuel at the required pressure for efficient burner operation. The set of insurance safety equipment will be provided with the necessary interlocks to the roaster control system.

The burner is mounted on the face of the afterburner combustion chamber. No piping or wiring of the fuel valve train is included. This burner train equipment will be shipped direct to the field, for customer's field installation.

INSTRUMENTATION

One (1) Barber Colman temperature controller will be furnished. The temperature controller is complete with thermocouples and necessary T/C extension wire.

All afterburner controls will be mounted in a NEMA 12 electrical control panel located indoors.

FAN AND MOTOR

We will furnish one (1) centrifugal type fan capable of handling 18,120 CFM at 3.5 S.P. cold.

The fan will be driven by a 15 HP, 1800 RPM, totally enclosed fan cooled motor, drive, vortex damper and remote manual operator.

DRAWINGS AND DATA

Ross-Waldron shall furnish three (3) complete sets of drawings as follows:

Spare Parts List
Instruction Manuals
Maintenance Manuals
Outline Dimensions Drawings
Assembly Drawing
Wiring Drawings

ERECTION AND STARTUP

No erection, erection coordination of field start-up services are included in this proposal.

SAFETY CONTROLS AND OTHER FEATURES

All safety controls and other features incorporated in this proposal are specified on the basis of generally accepted insurance standards as known to us. Additional safety controls and other features required by the purchaser or by any law, regulation, ordinance, insurance agency or special requirement such as U.L. approval, will be furnished at additional cost.

OSHA

Compliance with OSHA under the law is the responsibility of each employer.

Somerset Technologies, Inc., endeavors to comply with the purposes and the applicable standards of OSHA. The prices quoted herein do not include any special charges for OSHA compliance. In no event shall Somerset Technologies, Inc., be liable for direct, incidental, or consequential damages arising out of or resulting from the operation of Somerset Technologies, Inc., equipment or accessories.

In the event that the items quoted herein are found not to comply with OSHA, at the customer's request, and at his expense, Somerset Technologies, Inc., will endeavor to make improvement, if technically feasible.

EQUIPMENT NOISE LEVEL

We do not include system noise abatement equipment since the noise level of the equipment operating in conjunction with the equipment's environment, cannot be predetermined.

If the noise level exceeds standards, we will furnish, at additional cost the necessary sound absorption materials required.

CONFIDENTIALITY INFORMATION

All drawings, specifications, technical data, including this proposal, and other information we provide, is considered confidential, and the exclusive property of Somerset Technologies, Inc. The information may be used only for the purpose for which material was expressly loaned and shall not be reproduced, copied or used in any way detrimental to the interest of Somerset Technologies, Inc.

SHIPMENT

Our present schedule for shipping the proposed equipment is approximately fourteen (14) to sixteen (16) weeks after receipt of formal purchase order. This projection is based on receipt of all engineering information at the time of order and customer approval to release equipment for manufacturing prior to drawing approval. Some partial and direct shipments will be made earlier.

ITEMS TO BE PROVIDED BY OTHERS UNLESS DESCRIBED IN THIS PROPOSAL

Claims for damages in transit to the transportation company.

Labor and material to unload and move equipment from the delivery carrier to the installation site, including suitable storage and protection for all components and delivery to installation site when equipment is required for installation.

Suitable location and preparations of foundations, including anchor bolts, shimming and grouting, along with buildings and building alterations required.

Labor and supervision for the proper installation of the equipment, including field cutting, welding and bolting as noted.

Permits and approvals as may be required by any and all insurance, governmental, or local authorities.

Applicable sales, use, excise or similar taxes.

Additional costs incurred for fees and/or preparation of drawings or data for approval by insurance, governmental or local agencies.

Utilities as required for installation and operation of the equipment.

Electrical, pneumatic, hydraulic interconnecting wiring and piping including material and labor, except for those items specifically described as piped and wired in this proposal.

Lighting and equipment grounding protections.

Fire protection equipment.

Field painting.

Insulation of exposed surfaces of equipment.

Material handling, equipment such as hoists, dollies, pumps, etc.

Costs incurred in obtaining Underwriters Laboratories approval shall be borne by the Purchaser.

Services and equipment not specifically described.

EQUIPMENT PRICING

ITEM	DESCRIPTION	PRICE
Base	Provide one (1) 10,000 SCFM Direct Fired Afterburner System as described in this proposal	
	(ONE HUNDRED TWENTY-EIGHT THOUSAND SIX HUNDRED EIGHTY-FIVE DOLLARS)	$128,685

All prices F.O.B. Shipping Points, Freight Collect

FREIGHT

If the purchaser desires the freight 'Prepay and Bill', the freight charges will be accumulated monthly and invoiced at cost. A service charge of 5% of the freight bill, with a minimum charge of $60.00 will be added to each monthly invoice.

TERMS

25% cash with purchase order.

65% progress billings based on sales value of engineering and/or material and labor consumed during the previous month, payable net 30 days.

Final 10% of sales value issued upon shipment of all major components or completion of services as contracted, payable net 30 days.

NOTE: A service charge of 1% per month applies after payment due date.

The equipment quoted is subject to the attached Terms and Conditions of Sale, Form #SA-6 of 4/82.

SOMERSET TECHNOLOGIES, INC.

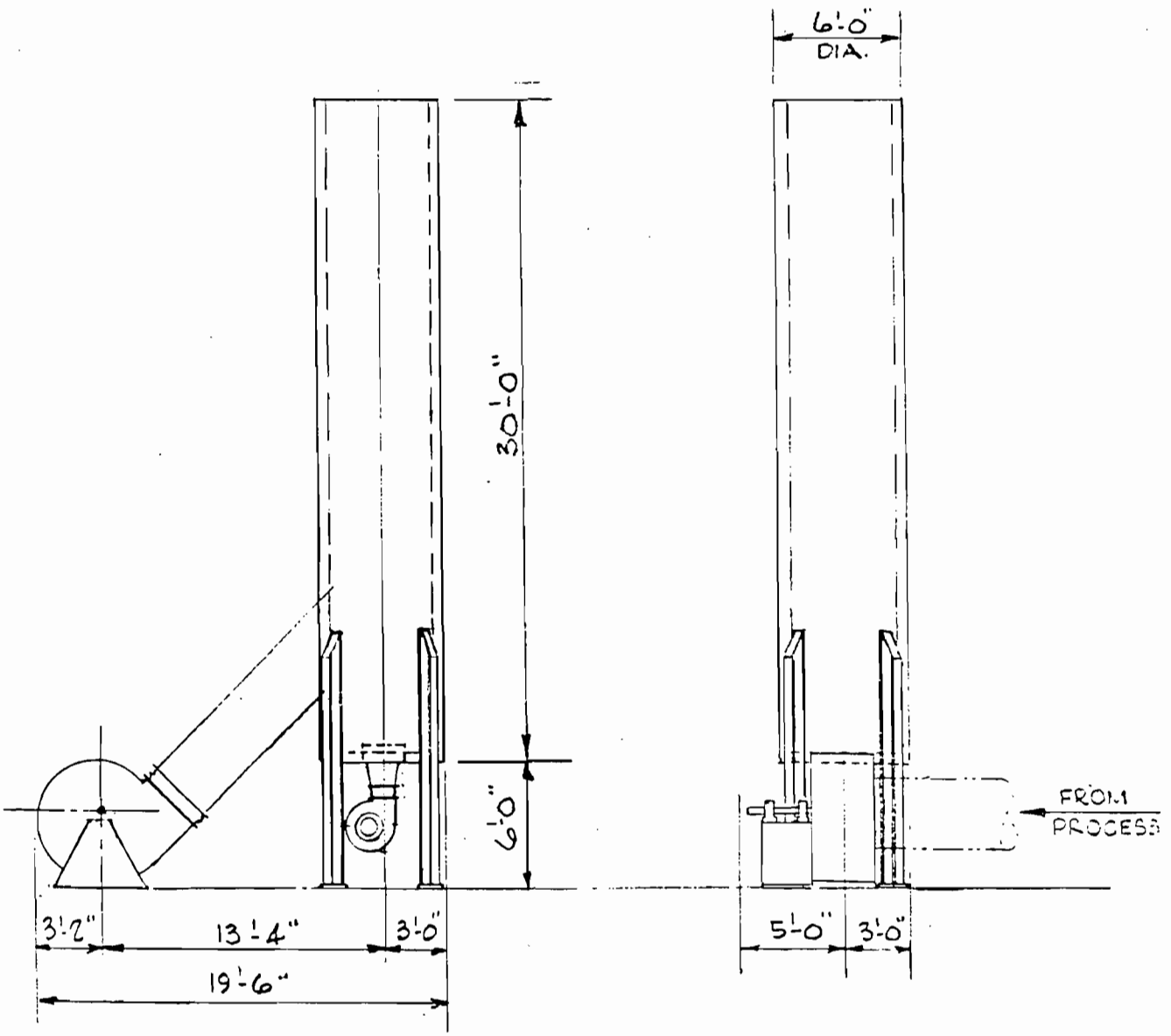
ROSS - WALDRON

DRAWN BY: JG.
DATE: 4/16/86
REF. DWG.: —

CONTRACT #: —

SKETCH #: 1025-A
FOR: GENERAL FOODS
JACKSONVILLE, FLA.

NOTE!!
1. ALL DIMENSIONS APPROX.



SIDE ELEVATION

END ELEVATION

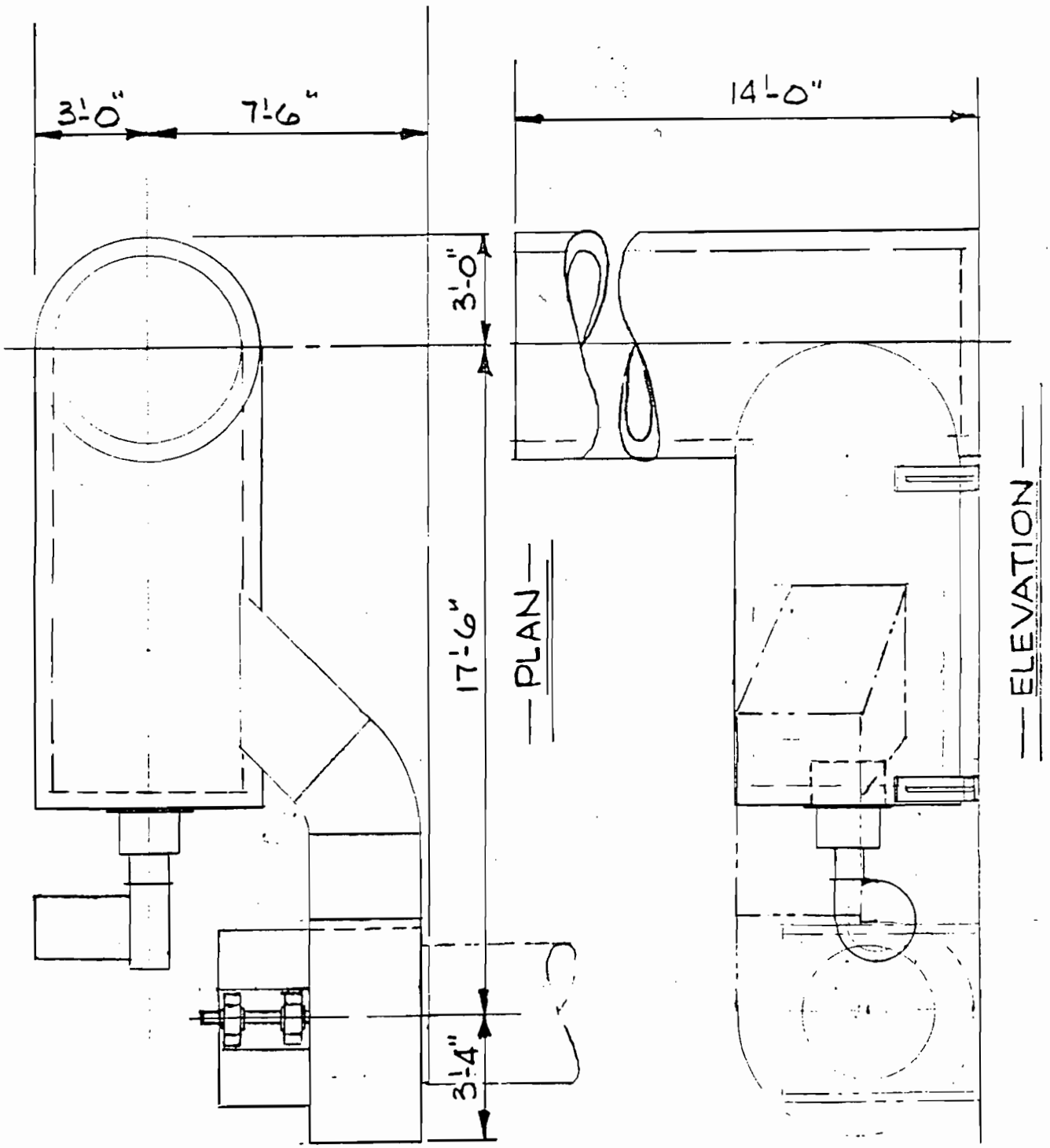
SOMERSET TECHNOLOGIES, INC.

ROSS - WALDRON

DRAWN BY: JG
DATE: 4/17/86
REF. DWG.: —

CONTRACT #: —

SKETCH #: 1025-B
FOR: GENERAL FOODS
JACKSONVILLE, FLA.



TERMS AND CONDITIONS OF SALE

Seller is not bound by any terms and conditions of sale unless agreed to in writing by Seller's authorized representative at its divisional home office. The terms and conditions contained herein and any other terms and conditions stated in Seller's proposal or specifications attached hereto shall constitute the complete agreement between the Seller and Purchaser and shall supersede all prior understandings, transactions and communications, whether oral or written, with respect to the matters referred to herein and form the complete contract between the Seller and Purchaser, and shall be binding upon and accrue to the benefit of the successors and assigns of the parties hereto. No modification, alterations or amendment of the terms and conditions of sale herein whether by conditions in Purchaser's order forms or in Purchaser's written communication shall be binding upon Seller unless agreed to in writing and signed by Seller's authorized representatives at Seller's home office. This contract shall be construed according to the laws of the State of NJ including, but not limited to, the Uniform Commercial Code as therein enacted.

The failure of Seller to object to any provision in conflict herewith, whether contained on the Purchaser's purchase order or otherwise, shall not be construed as a waiver of the provisions hereof or as an acceptance of the Purchaser's terms.

PROPOSALS

Until accepted by the Purchaser and countersigned by Seller, any quote or proposal submitted to Purchaser herein is subject to change or cancellation upon written notice to the Purchaser and is void unless so accepted by Purchaser within thirty days of the date of said quote or proposal and subsequently countersigned on behalf of Seller.

WARRANTY

Except as hereinafter in this section set forth, all equipment sold by Seller is warranted for a period of one year from the date of shipment to the Purchaser to be free from latent defects in material and workmanship disclosed under normal use and service. If the Purchaser within this period notifies Seller in writing of any claimed defect in any equipment delivered by Seller and such equipment is found by Seller, after appropriate tests and inspection by Seller, not to be in conformity with this warranty, Seller will at its option and expense either repair the same or provide a replacement therefore, F.O.B. Seller's shipping point. THE WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR PARTICULAR USE.

LIABILITY LIMITATION

In the event of a breach or repudiation of this contract or any of the provisions by the Seller, Purchaser shall not be entitled to recover incidental or consequential damages including those arising upon breach of IMPLIED WARRANTY OF MERCHANTABILITY or any losses, costs, expenses, liabilities and damages (including, but without limitation to, loss of use or profits, damages to property, all liabilities of the Purchaser to its customers or third persons, and all other special or consequential damages) whether direct or indirect, and whether or not resulting from, or contributed to by the default or negligence of Seller, its agents, employees, or subcontractors, which might be claimed as the result of the use or failure of the equipment delivered. Nor shall the Purchaser be entitled to recover any costs for materials expended or used, initiated at the request of the Buyer or Purchaser. Seller's liability on its warranty shall in no event exceed its cost of correcting the defects in the equipment sold or replacing the same with non-defective equipment.

SUBSTITUTION OF MATERIALS:

In the event that Seller is unable to obtain any specified materials or parts in time to meet the scheduled delivery date, Seller reserves the right to substitute other materials or parts which will not in Seller's judgment impair the essential functions, strength or life of the equipment.

SHIPMENTS

All equipment will be shipped F.O.B. Seller's point of shipment. Unless special shipping instructions are received from the Purchaser substantially before the shipment date, Seller will use its reasonable judgment as to the best means of shipment and routing consistent with the nature of the equipment shipped and the delivery schedule.

TAXES

The price herein does not include any applicable sales, use, excise or similar taxes, now or hereafter in effect. The amount of any such taxes which Seller may be required to pay or to collect from the Purchaser will be added to each invoice unless the Purchaser has furnished Seller with an appropriate tax exemption certificate acceptable to Seller. Seller will further invoice the Purchaser for, and the Purchaser will pay to Seller any other tax or charge hereafter imposed by any governmental authority upon any part of the equipment described herein or the production, sales, transportation or delivery thereof, or upon any other feature of this transaction.

TITLE AND SECURITY

Seller shall retain title and a Security interest to all equipment sold as described herein until the purchase price shall be fully paid. And it is agreed that all equipment shall retain its personal character, and shall not become a fixture by being annexed or affixed in any manner to any land, machinery, foundation or building of any sort; and that if it be placed on any property subject to mortgage or encumbrance, it shall not be subject to such mortgage or encumbrance. Until fully paid for in cash, the Purchaser shall keep all equipment free and clear of all taxes, liens and encumbrances of any nature whatsoever or howsoever arising and shall provide and maintain adequate insurance thereon (for the full value thereof as shown by the contract price herein plus all installation costs) against loss or damage caused by fire or other casualty customarily insured against all losses under said policies to be payable to Seller or Purchaser as interest may appear. Upon default in the payment of any part of the purchase price, Seller shall have the right at its election to take possession of all equipment and remove the same, without legal process or hindrance or to enter upon Buyer's premises and render such equipment unuseable, and to retain all payments previously made as compensation for its use and wear. Upon demand of Seller, the Purchaser shall execute and deliver to Seller such further documents and other instruments (including the assent or agreement of any persons having interests in or liens upon the property upon which the equipment is placed) in form satisfactory to Seller, which Seller may reasonably require to secure to Seller the rights conferred upon it under this section.

ADDITIONAL TERMS OF SALE

If Seller in its judgment at any time, whether before or after acceptance of an order, deems that the continuance of production or delivery on the foregoing terms is not justified, or if the Seller reasonably deems his Security to be in jeopardy, he may require full or partial payment in advance.

Seller shall not be held responsible for loss or damages or excess cost resulting from the means of shipment or routing used or for any other losses or damages arising while in transit, and the Purchaser agrees to make any claim therefor directly against the carrier.

TIME OF DELIVERY AND INSTALLATION

Seller will use all reasonable diligence to meet the schedule dates for shipment, delivery, and installation but cannot guarantee any delivery or completion date. Seller shall not be liable for any loss, damage, expense or charge of any kind resulting from delay in delivery, installation or attainment of operational status of the machinery.

APPLICABLE LAW

Seller agrees that, in the performance of all work hereunder, it will comply with those laws, regulations, and ordinances of the United States, State and local governments and of all agencies of any such government, which are specifically brought to its attention, negotiated, and specifically agreed to, in writing, by the Seller. However, to the extent that such laws and regulations are changed after the date of Seller's original proposal herein and to the extent that such changes will increase Seller's cost in the performance such additional cost, if determined by Seller, will be borne by Purchaser.

The foregoing condition does not cover, and the Seller makes no warranty with respect to:

(a) Compliance with laws taking effect after execution of this contract;

(b) Compliance with laws not specifically brought to Seller's attention by Purchaser, negotiated, and specifically agreed to, in writing, by Seller.

If any provision hereof becomes unenforceable by reason of any such law, rule, regulation, ordinance or order, the same shall not affect the validity of the remainder hereof if performance of the order may still be carried out.

CANCELLATION OR CHANGES REQUIRED BY PURCHASER:

No order is subject to cancellation or to change unless requested by the Purchaser and accepted in writing by Seller. In the event of any cancellation, the Purchaser shall pay to Seller within thirty days of such cancellation all contract costs and other expenses incurred by Seller prior to receipt of the request for cancellation (including, but not limited to, engineering expenses and all commitments to its supplier, sub-contractors and others), plus an amount equal to 15% to cover general and administrative expenses plus 10% of the total to cover profit lost by reason of cancellation. In the event of any change, Seller shall be entitled to revise its price and delivery schedules to reflect such change.

PATENTS

Subject to the conditions hereinafter provided, in the event that any claim is made or action brought against the Purchaser so far as based on a claim that any apparatus or any part thereof constitutes an infringement of any U.S. Letters Patent, the Purchaser is to notify Seller immediately thereof. Seller shall have the right with the Purchaser's assistance, if required, but at Seller's expense, to conduct settlement negotiations or any litigation and Seller shall pay all damages awarded against the Purchaser. In case said apparatus or any part is in such action held to be an infringement and the use is enjoined or if as a result of a settlement, Seller deems the continued use inadvisable, then provided that the Purchaser has given the immediate notice provided for above and has used the apparatus or parts only in accordance with the provisions of this contract and shall not have altered or changed them in any material way, Seller shall at its option and expense, either procure for the Purchaser the right to continue using said apparatus or part; or replace same with non-infringing apparatus or part; or remove same and refund the purchase price less reasonable depreciation; provided, however, that in the event that any equipment, article, or component is manufactured by the Seller in accordance with Buyer's designs, blueprints, samples or specifications, Seller shall have no obligations as to infringement and Buyer shall indemnify and save Seller harmless from any and all expenses, injury or loss arising out of claims of patent, design and trademark infringement because of the manufacture, use or sale thereof; and provided further, no license or right to Buyer, express or implied, is granted hereunder by the Seller under any patent or patent application, design patent or trademark owned or controlled by the Seller except to the extent necessary to permit the Buyer to use the equipment or products manufactured by the Seller. The foregoing states Seller's entire liability for patent infringement by said apparatus or any part.

SOMERSET TECHNOLOGIES INC.

- ☐ Cameron Machine Division
- ☐ Hartig Plastics Machinery Division
- ☒ Ross-Waldron Division
- ☐ Kathabar Systems Division

Proposed by James E. Caffrey
For the Sales Department

Buyer _____

Approved by _____

Title _____

Date _____

Final Acceptance:

By _____

Title _____

Date _____

A REPORT ON
PARTICULATE EMISSIONS TESTS

MAXWELL HOUSE COFFEE DIVISION
GENERAL FOODS CORPORATION

Jacksonville, Florida

Prepared by:

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.
Gainesville, Florida

ESE No. 80-107-100

April 1981

ATTACHMENT 12

Table 1. Emission Inventory: Maxwell House Coffee, Jacksonville, Florida (Continued, Page 2 of 2)

Flow Diagram Location	Source	Stack Dimension (ft)	Flow Rate (SCFMD)	Stack Temp. (°F)	Moisture (%)	Emission Rate (lb/hr)	No. Units
	Regular Coffee Roasting Process, Permit No. AO 16 2408 (Continued)						
X	Cold Chaff Thermalo Cyclone	1.17 ID	850	75.8	1.7	0.154	1
XI	Thermalo Cooling Car Cyclone	2.0 ID	5,334	84.7	1.3	0.270	2
XII	Thermalo Stoner Cyclone	2.0 ID	5,780	80.1	1.3	0.190	2
XIII	Thermalo Regular Coffee Scale Cyclone	1.67 ID	1,000*	86.9	2.6	0.090	1
XIV	Regular Coffee Scale and Airveyor Cyclone	1.67 ID	1,000*	57.5	1.8	0.097	15
	Green Bean Bulk Handling Process, Permit No. AO 16 2407 (Figure 3)						
I	Fuller Baghouse (4th level)	1.0x1.0	3,674	80.6	1.0	0.017	1
II	Fuller Baghouse (roof)	0.63 ID	964	200.1	1.2	0.057	3
III	Gooseneck Bunker Vent	0.50 ID	319	65.6	1.4	0.164	18
	Soluble Spray Dryer No. 2, Permit No. AO 16 2366 (Figure 4)						
I	Spray Dryer No. 2	3.50 ID	21,652	259.7	8.4	1.931	1
	Soluble Spray Dryer No. 1, Permit No. AO 16 2445 (Figure 5)						
I	Spray Dryer No. 1	3.50 ID	25,574	241.3	8.4	1.357	1
	Agglomerating Process, Permit No. AO 16 2404 (Figure 6)						
I	Spray Dryer	3.33 ID	20,633	217.8	9.3	0.893	1

Source: Environmental Science and Engineering, Inc., 1980.

* Due to poor sampling locations, measured flow rates are considered to be in error. Design flow rates furnished by Maxwell House have been substituted based on transport velocity and duct areas.

† Emission parameters are the same as soluble coffee roasting thermalo roaster afterburner.

Table 20

PLANT NAME - MAXWELL HOUSE LOCATION -

STACK ID - THERMALO STORER CYCLONE SAMPLING TRAIN - PARTICULATES

- E N G L I S H UNITS -

		RUN 001	RUN 002	RUN 003	AVG
DATE		2/ 8/80	2/ 8/80	2/ 8/80	
STARTING TIME		916	1134	1338	
ENDING TIME		1034	1252	1452	
MINUTES		68.	70.	66.	
NUMBER OF POINTS		34.	35.	33.	
PB	(IN HG)	30.42	30.42	30.42	
PS	(IN HG)	30.42	30.42	30.42	
CP		0.840	0.840	0.840	
METER BOX NO.		4	4	4	
Y-FACTOR		1.0000	1.0000	1.0000	
AS	(SF)	3.14	3.14	3.14	
AS'	(SF)	2.22	2.29	2.16	
DN	(IN)	0.2550	0.2550	0.2550	
AN	(SF)	0.000355	0.000355	0.000355	
TM	(DEG R)	515.1	521.9	521.5	
TS	(DEG R)	539.2	540.5	540.6	540.11
VM	(ACF)	51.698	55.581	58.167	
VMSTD	(SCFD)	54.438	57.787	60.601	
CONDENSATE	(ML)	16.1	15.7	14.4	
% H2O SPECIFIED		0.00	0.00	0.00	
CALC % H2O		1.38	1.27	1.11	1.26
% H2O @ SATURATION		3.31	3.45	3.46	3.41
% CO2		0.0	0.0	0.0	0.00
% O2		21.0	21.0	21.0	21.00
% CO		0.0	0.0	0.0	0.00
MMD	(LB/LB-MOLE)	28.84	28.84	28.84	28.84
MWW	(LB/LB-MOLE)	28.69	28.70	28.72	28.70
DELTA H AVG	(IN H2O)	2.781	2.988	3.556	
SQRT DELTA P AVG	(IN H2O)	0.735	0.760	0.844	
VS	(F/S)	41.48	42.96	47.65	44.03
QS'	(ACFM)	5526.	5903.	6175.	5868.
QS''	(ACFMD)	5449.	5828.	6106.	5795.
QS	(SCFMD)	5445.	5809.	6085.	5780.
QS SPEC.	(SCFMD)	5445.	5809.	6085.	
% ISO		92.05	91.78	91.92	91.92
TOTAL FILTER CATCH	(MG)	11.10	17.30	4.00	
TOTAL WASH CATCH	(MG)	2.30	7.00	1.30	
TOTAL CATCH	(MG)	13.40	24.30	5.30	
CONCENTRATION	(GR/ACF)	0.0037	0.0064	0.0013	0.0038
CONCENTRATION	(GR/SCFD)	0.0038	0.0065	0.0013	0.0039
EMISSION RATE	(LB/HR)	0.18	0.32	0.07	0.1903

A REPORT ON
PARTICULATE EMISSIONS TESTS

MAXWELL HOUSE COFFEE DIVISION
GENERAL FOODS CORPORATION

Jacksonville, Florida

Prepared by:

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.
Gainesville, Florida

ESE No. 80-107-100

April 1981

ATTACHMENT 13

Table 1. Emission Inventory: Maxwell House Coffee, Jacksonville, Florida

Flow Diagram Location	Source	Stack Dimension (ft)	Flow Rate (SCFMD)	Stack Temp. (°F)	Moisture (%)	Emission Rate (lb/hr)	No. Units
	Soluble Coffee Roasting Process, Permit No. AO 16 2365 (Figure 1)						
I	Dracco Baghouse	0.50 ID	655	89.1	4.6	0.012	1
II	"C" Airveyor Cyclone	0.50 ID	730	94.4	1.5	0.370	2
III	Thermalo Roaster Afterburner	2.0x3.0	2,590	960.1	22.2	0.255	3
IV	Thermalo Cooling Car Cyclone	1.83 ID	5,678	87.3	4.1	0.132	3
V	Thermalo Stoner Cyclone	1.83 ID	7,977	96.9	1.2	0.218	3
VI	Cake Airveyor Cyclone	0.50 ID	596	179.8	1.3	0.014	1
VII	Pellet Airveyor Cyclone	0.50 ID	600	111.7	1.3	0.002	2
	Regular Coffee Roasting Process, Permit No. AO 16 2408 (Figure 2)						
I	Green Coffee Silo Feed Cyclone	1.0 ID	1,446	79.8	1.2	0.350	4
II	Probat Feed Cyclone	1.0 ID	400*	78.0	1.0	0.089	10
III	Probat Afterburner	1.5 ID	1,888	889.5	20.4	0.205	10
IV	Hot Chaff Afterburner	2.50 ID	2,570	1,270.1	9.1	0.106	1
V	Probat Stoner Cyclone	2.0 ID	5,000*	83.2	1.3	0.056	10
VI	Cold Chaff Probat Cyclone	1.17 ID	1,500*	68.2	1.6	0.041	1
VII	Probat Regular Coffee Scale Cyclone	1.0 ID	489	102.2	1.7	0.007	3
VIII	Dracco Baghouse	0.50 ID	931	123.1	1.5	0.057	1
IX	Thermalo Roaster Afterburner	—†	—†	—†	—†	—†	2

Table 17

PLANT NAME - MAXWELL HOUSE @ JAX LOCATION -

STACK ID - DRACO BAGHOUSE OUTLET SAMPLING TRAIN - PARTICULATES

- E N G L I S H UNITS -

		RUN 001	RUN 002	RUN 003	AVG
DATE		1/29/80	1/29/80	1/29/80	
STARTING TIME		1345	1513	1000	
ENDING TIME		1500	1546	1033	
MINUTES		30.	30.	30.	
NUMBER OF POINTS		6	6.	6.	
PB	(IN HG)	30.15	30.15	30.15	
PS	(IN HG)	30.15	30.15	30.15	
CP		0.840	0.840	0.840	
METER BOX NO.		4	4	4	
Y-FACTOR		1.0000	1.0000	1.0000	
AS	(SF)	0.20	0.20	0.20	
AS'	(SF)	0.20	0.20	0.20	
DN	(IN)	0.1860	0.1860	0.1860	
AN	(SF)	0.000189	0.000189	0.000189	
TM	(DEG R)	538.8	544.5	548.5	
TS	(DEG R)	581.3	585.5	582.5	583.11
VM	(ACF)	27.126	27.220	24.795	
VMSTD	(SCFD)	27.083	26.913	24.293	
CONDENSATE	(ML)	9.0	10.0	7.0	
% H2O SPECIFIED		0.00	0.00	0.00	
CALC % H2O		1.55	1.73	1.35	1.54
% H2O @ SATURATION		11.85	15.30	12.25	12.47
% CO2		0.0	0.0	0.0	0.00
% O2		21.0	21.0	21.0	21.00
% CO		0.0	0.0	0.0	0.00
MWD	(LB/LB-MOLE)	28.84	28.84	28.84	28.84
MWW	(LB/LB-MOLE)	28.67	28.65	28.69	28.67
DELTA H AVG	(IN H2O)	3.083	3.250	2.633	
SQRT DELTA P AVG	(IN H2O)	1.520	1.548	1.401	
VS	(F/S)	89.49	91.40	82.52	87.80
QS'	(ACFM)	1052.	1075.	970.	1033.
QS''	(ACFMD)	1030.	1056.	957.	1017.
QS	(SCFMD)	952.	963.	878.	931.
QS SPEC.	(SCFMD)	952.	963.	878.	
% ISO		98.56	96.75	95.66	97.00
TOTAL FILTER CATCH	(MG)	6.50	6.20	5.30	
TOTAL WASH CATCH	(MG)	6.00	7.00	5.10	
TOTAL CATCH	(MG)	12.50	13.20	10.40	
CONCENTRATION	(GR/ACF)	0.0004	0.0008	0.0006	0.0006
CONCENTRATION	(GR/SCFD)	0.0071	0.0076	0.0066	0.007
EMISSION RATE	(LB/HR)	0.06	0.08	0.05	0.0566

SOURCE TEST REPORT
PARTICULATE
and
VISIBLE EMISSIONS TESTING
MAXWELL HOUSE COFFEE
JACKSONVILLE, FLORIDA

AUGUST 14 - OCTOBER 22, 1985
(V O L U M E 1 OF 2)

PREPARED BY:

TECHNICAL SERVICES, INC.
2471 SWAN STREET
P.O. Box 52329
JACKSONVILLE, FLORIDA 32201

ATTACHMENT 14

TABLE I

EMISSION SUMMARY

#3 PROBAT SCALE CYCLONE

DATE	RUN NO.	PARTICULATE EMISSION GR/SCF	PARTICULATE EMISSION LBS/HR	VOLUMETRIC FLOW ACFM	VOLUMETRIC FLOW SCFMD	% H_2O	% ISOKINETIC
10/02/85	1	0.01378	0.21	1977	1806	2.2	100.9
	2	0.01254	0.21	2152	1973	1.8	96.6
	3	0.0148	0.24	2070	1897	1.7	98.1
	MEAN	0.01371	0.22	2066	1892	1.9	98.5

Tel. (904) 353-5761

TECHNICAL SERVICES, INC.

ENVIRONMENTAL CONSULTANTS

Air and Water Pollution Sampling, Surveys, Testing and Analytical Services

2471 SWAN STREET
P. O. BOX 52329
JACKSONVILLE, FLORIDA 32201

PLANT - MAXWELL HOUSE COFFEE — DATE - 10/2/85
STACK - #3 Probat Scale Cyclone — RUN - 1 — FROM - 1020-1122
WEATHER CONDITIONS - Clear, 86°F — PB- 30.01 IN. HG — PS- 29.97 IN. HG
AS'- 0.7854 SQ. FT. — TS- 566.5 °R — TM- 550.9 °R
$\sqrt{H}$ 0.7194 IN H_2O — ΔH -1.217 IN H_2O — AN- 0.0002315 SQ. FT. — CP 0.84
VM- 16.722 CF — VC- 7.6 ML — TOTAL TIME- 30 MIN. — NPTS- 12
ORSAT: CO_2 0 % — O_2 21 % — CO - % — N_2 79 %

1.	VOLUME WATER VAPOR	1.	0.359	SCF
2.	GAS VOLUME SAMPLED - STPD	2.	16.125	SCFD
3.	TOTAL VOLUME	3.	16.484	SCF
4.	MOISTURE IN STACK GAS - VOLUME FRACTION	4.	0.022	
5.	DRY STACK GAS - VOLUME FRACTION	5.	0.978	
6.	ASSUMED MOISTURE IN STACK GAS - VOLUME FRACTION	6.	0.05	
7.	MOLECULAR WEIGHT OF STACK GAS - DRY BASIS	7.	28.84	
8.	MOLECULAR WEIGHT OF STACK GAS - STACK CONDITIONS	8.	28.604	
9.	SPECIFIC GRAVITY OF STACK GAS RELATIVE TO AIR	9.	0.987	
10.	EXCESS AIR - PERCENT	10.		%
11.	AVERAGE OF FACTOR ($\sqrt{H}$ X TS)	11.		
12.	AVERAGE STACK VELOCITY	12.	2517	FPM
13.	ACTUAL STACK GAS FLOW RATE	13.	1977	ACFM
14.	ACTUAL STACK GAS FLOW RATE DRY	14.	1934	CFMD
15.	STACK GAS FLOW RATE - STPD	15.	1806	SCFM
16.	PERCENT ISOKINETIC	16.	100.9	%

MG		GR/SCF	GR/ACF	LBS/HR
Filter	0.5			
Prefilter	13.9			
Total	14.4	0.01378		0.21

Comments: _____

Tests Conducted By: _____

Tel. (904) 353-5761

TECHNICAL SERVICES, INC.
ENVIRONMENTAL CONSULTANTS

Air and Water Pollution Sampling,
Surveys, Testing and
Analytical Services

2471 SWAN STREET
P. O. BOX 52329
JACKSONVILLE, FLORIDA 32201

PLANT - MAXWELL HOUSE COFFEE — DATE - 10/2/85
STACK - #3 Probat Scale Cyclone — RUN -2 — FROM -1141-1242
WEATHER CONDITIONS - Clear, 90°F — PB- 30.01 IN. HG — PS-29.97 IN. HG
AS'- 0.7854 SQ. FT. — TS- 566.5 °R — TM-555.4 °R
$\sqrt{H}$-0.7836 IN H_2O — ΔH -1.433 IN H_2O — AN- 0.0002315 SQ. FT. — CP-0.84
VM- 17.612 CF — VC- 6.6 ML — TOTAL TIME- 30 MIN. — NPTS-12
ORSAT: CO_2 0 % — O_2 21 % — CO - % — N_2 79 %

1.	VOLUME WATER VAPOR	1.	0.312	SCF
2.	GAS VOLUME SAMPLED - STPD	2.	16.855	SCFD
3.	TOTAL VOLUME	3.	17.167	SCF
4.	MOISTURE IN STACK GAS - VOLUME FRACTION	4.	0.018	
5.	DRY STACK GAS - VOLUME FRACTION	5.	0.982	
6.	ASSUMED MOISTURE IN STACK GAS - VOLUME FRACTION	6.	0.05	
7.	MOLECULAR WEIGHT OF STACK GAS - DRY BASIS	7.	28.84	
8.	MOLECULAR WEIGHT OF STACK GAS - STACK CONDITIONS	8.	28.64	
9.	SPECIFIC GRAVITY OF STACK GAS RELATIVE TO AIR	9.	0.988	
10.	EXCESS AIR - PERCENT	10.		%
11.	AVERAGE OF FACTOR ($\sqrt{H}$ X TS)	11.		
12.	AVERAGE STACK VELOCITY	12.	2740	FPM
13.	ACTUAL STACK GAS FLOW RATE	13.	2152	ACFM
14.	ACTUAL STACK GAS FLOW RATE DRY	14.	2113	CFMD
15.	STACK GAS FLOW RATE - STPD	15.	1973	SCFMD
16.	PERCENT ISOKINETIC	16.	96.6	%

MG		GR/SCF	GR/ACF	LBS/HR
Filter	0.8			
Prefilter	12.9			
Total	13.7	0.01254		0.21

Comments: _____

Tests Conducted By: _____

Tel. (904) 353-5761

TSI

TECHNICAL SERVICES, INC.

ENVIRONMENTAL CONSULTANTS

Air and Water Pollution Sampling, Surveys, Testing and Analytical Services

2471 SWAN STREET
P. O. BOX 52329
JACKSONVILLE, FLORIDA 32201

PLANT - MAXWELL HOUSE COFFEE — DATE - 10/2/85
STACK - #3 Probat Scale Cyclone — RUN - 3 — FROM - 1301-1402
WEATHER CONDITIONS - Clear, 92°F — PB- 30.01 IN. HG — PS- 29.97 IN. HG
AS'- 0.7854 SQ. FT. — TS- 567.7 °R — TM- 558.3 °R
$\sqrt{H}$- 0.7532 IN H_2O — ΔH -1.358 IN H_2O — AN- 0.0002315 SQ. FT. — CP- 0.84
VM- 17.275 CF — VC- 5.9 ML — TOTAL TIME- 30 MIN. — NPTS- 12
ORSAT: CO_2 0 % — O_2 21 % — CO - % — N_2 79 %

1.	VOLUME WATER VAPOR	1.	0.278	SCF
2.	GAS VOLUME SAMPLED - STPD	2.	16.445	SCFD
3.	TOTAL VOLUME	3.	16.723	SCF
4.	MOISTURE IN STACK GAS - VOLUME FRACTION	4.	0.017	
5.	DRY STACK GAS - VOLUME FRACTION	5.	0.983	
6.	ASSUMED MOISTURE IN STACK GAS - VOLUME FRACTION	6.	0.05	
7.	MOLECULAR WEIGHT OF STACK GAS - DRY BASIS	7.	28.84	
8.	MOLECULAR WEIGHT OF STACK GAS - STACK CONDITIONS	8.	28.66	
9.	SPECIFIC GRAVITY OF STACK GAS RELATIVE TO AIR	9.	0.989	
10.	EXCESS AIR - PERCENT	10.		%
11.	AVERAGE OF FACTOR ($\sqrt{H} \times TS$)	11.		
12.	AVERAGE STACK VELOCITY	12.	2636	FPM
13.	ACTUAL STACK GAS FLOW RATE	13.	2070	ACFM
14.	ACTUAL STACK GAS FLOW RATE DRY	14.	2036	CFMD
15.	STACK GAS FLOW RATE - STPD	15.	1897	SCFMD
16.	PERCENT ISOKINETIC	16.	98.1	%

MG		GR/SCF	GR/ACF	LBS/HR
Filter	1.1			
Prefilter	14.7			
Total	15.8	0.0148		0.24

Comments: _____

Tests Conducted By: _____

ATTACHMENT #15

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS

MAXWELL HOUSE DIVISION
GENERAL FOODS CORPORATION

JACKSONVILLE, FLORIDA

PARTICULATES

Contributors to Contemporaneous Emissions are:

Coffee Processor [Permit A016-40490]

	Lbs/Hr	
Emission Point #1	0.51	(Allowable, Minor Emission)
Emission Point #2	0.26	(Allowable, Minor Emission)
Emission Point #3	0.53	(Allowable, Minor Emission)
Emission Point #4	1.46	(TSI Test Dated 10/22/85)
Emission Point #5	0.238	(RACT Exempt Valve)
	2.998	

$$\frac{2.998 \text{ lbs/hr} \times 8400 \text{ hrs/yr}}{2000 \text{ lbs/ton}} = 12.59 \text{ tons/year}$$

Proposed Continuous Roasting Process

	Lbs/Hr	
Emission Point #1	0.238	
Emission Point #2	2.57	
Emission Point #3	2.57	
Emission Point #4	0.238	
Emission Point #5	0.238	
Emission Point #6	0.238	
Emission Point #7	0.238	
	6.33 lbs/hr	Allowable

$$\frac{6.33 \text{ lbs/hr} \times 8400 \text{ hrs/yr}}{2000 \text{ lbs/ton}} = 26.59 \text{ tons/year}$$

Green Bean Steamer and Dryer [A016-31483]

This permit expired 6/85 - Refer to Appendix "B". The process has been totally dismantled as documented on page 3 of the letter in Appendix "C".

Although the old process was permitted according to the process weight table, the credit for contemporaneous emissions is calculated according to the more current RACT limit. The allowable limit is used for this calculation because the emissions were never tested.

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS (Continued)

Allowable Emissions:

$$30{,}000 \text{ ACFM} \times \frac{532^\circ \text{ R}}{680^\circ \text{ R}} \times 0.03 \text{ gr/DSCF} \times 60 \text{ min/hr} \times \frac{1}{7000} \text{ gr/lb} =$$

$$\frac{6.04 \text{ lbs/hr} \times 4 \text{ days (24 hrs)(49 wks)}}{2000 \text{ lbs/ton}} = 14.20 \text{ tons/yr}$$

Therefore, the Total Contemporaneous Particulate Emissions =

12.59 tons/yr + 26.59 tons/yr - 14.20 tons/yr =

24.98 tons/yr.

SULFUR DIOXIDE

Natural Gas

Afterburner

SO_2 = 0.6 lbs/MMCF Burned*

0.6 lbs/MMCF x 0.016 MMCF/HR x 8400 HR/YR =

$$8.064 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \mathbf{0.04 \text{ tons/yr } SO_2}$$

Roaster

SO_2 = 0.06 lbs/MMCF Bubned*

10.5 MM Btu/hr = Project Design Data

8 MM Btu/hr = Normal Operating Rate

$$\frac{10{,}500{,}000 \text{ Btu/hr}}{1040 \text{ Btu/SCF}} = 10{,}096.2 \text{ CF/HR}$$

$$\frac{10{,}096.2 \text{ CF/Hr}}{1{,}000{,}000} = 0.01 \text{ MMCF/HR}$$

0.06 lbs/MMCF x 0.01 MMCF/HR x 8400 HR/YR =

$$5.04 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \mathbf{0.0025 \text{ tons/yr } SO_2}$$

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS (Continued)

Fuel Oil

Afterburner

SO_2 = 7.055 lbs/gal SO_2**

Gal/hr x lbs/gal x % x SO_2/S = lbs/hr SO_2

$$121.3 \text{ gal/hr} \times 7.055 \text{ lbs/gal} \times 0.005 \times \frac{64}{32} = 8.56 \text{ lbs/hr } SO_2$$

$$8.56 \text{ lbs/hr} \times 8400 \text{ hrs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{\mathbf{35.95 \text{ tons/yr } SO_2}}$$

Roaster

SO_2 = 7.055 lbs/gal SO_2

$$\frac{10{,}500{,}000 \text{ Btu/hr}}{141{,}000 \text{ Btu/gal}} = 74.47 \text{ gal/hr}$$

$$74.47 \text{ gal/hr} \times 7.055 \text{ lbs/gal} \times 0.005 \times \frac{64}{32} = 5.25 \text{ lbs/hr } SO_2$$

$$5.25 \text{ lbs/hr} \times 8400 \text{ hrs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{\mathbf{22.05 \text{ tons/yr } SO_2}}$$

Nitrogen Oxides

Natural Gas

Afterburner

NO_x = 140.0 lbs/MMCF Burned*

140 lbs/MMCF x 0.016 MMCF/Hr x 8400 hr/yr =

$$18.816 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{\mathbf{9.41 \text{ tons/yr } NO_x}}$$

Roaster

NO_x = 140.0 lbs/MMCF Burned*

140 lbs/MMCF x 0.01 MMCF/Hr x 8400 hr/yr =

$$11{,}760 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \underline{\mathbf{5.88 \text{ tons/yr } NO_x}}$$

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS (Continued)

Fuel Oil

Afterburner

NO_X = 20.0 lbs/1000 gal Burned*

$$\frac{20 \text{ lbs}/1000 \text{ gal} \times 121.3 \text{ gal/hr} \times 8400 \text{ hr/yr}}{1000 \text{ gal}} =$$

$$20{,}378.4 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \mathbf{10.19 \text{ tons/yr } NO_X}$$

Roaster

NO_X = 20.0 lbs/1000 gal Burned*

$$\frac{20 \text{ lbs}/1000 \text{ gal} \times 74.47 \text{ gal/hr} \times 8400 \text{ hr/yr}}{1000 \text{ gal}} =$$

$$12{,}511 \text{ lbs/yr} \times \frac{1}{2000} \text{ lbs/ton} = \mathbf{6.26 \text{ tons/yr } NO_X}$$

* Source: NEDS Source Classification Codes and Emission Factor Listing, USEPA, October 1985

**Source: Eastern Seaboard Petroleum Co. Oil Analysis

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS (Continued)

TOTAL EMISSIONS SUMMARY

SO_2	Tons/yr
Natural Gas	
Afterburner	0.04
Roaster	0.0025
	0.0425
#2 Fuel Oil	
Afterburner	35.95
Roaster	22.05
	58.00
NO_x	
Natural Gas	
Afterburner	9.41
Roaster	5.88
	15.29
#2 Fuel Oil	
Afterburner	10.19
Roaster	6.26
	16.45

According to F.A.C. 17-2.500(2)(e)2, the Net Significant Emissions increases for the various pollutants which would expose this application to a New Source Review are:

25 tons/yr Particulates

40 tons/yr Sulfur Dioxide

40 tons/yr Nitrogen Oxides

It is clear from the Total Emissions Summary that none of these limits are exceeded except for the SO_2 emissions related to burning No. 2 fuel oil. Since the fuel oil is intended to be an emergency alternate fuel, the emissions can be limited to less than 40 tons/yr by restricting the allowable operating hours according to the following calculation:

APPENDIX A

CONTEMPORANEOUS EMISSIONS CALCULATIONS (Continued)

Consider SO_2 emissions from the combustion of No. 2 fuel oil.

Let X = Afterburner Emissions

and Y = Roaster Emissions

The total of afterburner and roaster emissions must be less than 40 tons/yr.

Therefore, $X + Y = 39.99$

The ratio of afterburner and roaster emissions is established by the previous calculation.

$$\frac{X}{Y} = \frac{35.95}{22.05} = 1.63$$

By substitution,

$X = 1.63\ Y$

$1.63 + Y = 39.99$

$2.63\ Y = 39.99$

$Y = \frac{39.99}{2.63} = 15.21$ Tons SO_2/yr Maximum Allowable Emissions from the Roaster

Determine "X" by difference.

$X = 39.99 - Y$

$= 39.99 - 15.21 = 24.78$ tons SO_2/yr Maximum Allowable Emissions from the Afterburner

Calculate the operating hours corresponding to the above emission rates:

$$\frac{15.21 \text{ tons } SO_2/yr\ (2000)}{5.25 \text{ lbs/hr}} = 5794 \text{ hrs/yr}$$

$$\frac{24.78 \text{ tons } SO_2/yr\ (2000)}{8.56 \text{ lbs/hr}} = 5790 \text{ hrs/yr}$$

By limiting the operating hours using No. 2 fuel oil to 5790 hr/yr, the total emissions of SO_2 will be less than 40 tons/year.

APPENDIX B

3426 BILLS ROAD
JACKSONVILLE, FLORIDA 32207

BOB GRAHAM
GOVERNOR

JACOB D. VARN
SECRETARY

G. DOUG DUTTON
SUBDISTRICT MANAGER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER SUBDISTRICT

November 3, 1980

Mr. E. G. Ballance, Plant Manager
Maxwell House Division
General Foods Corporation
Post Office Box 2010
Jacksonville, Florida 32203

Dear Mr. Ballance:

Duval County - AP
Maxwell House Coffee
Green Bean Steamer and Dryer

Enclosed is Permit Number A016-31483 , dated November 3, 1980 , to operate the subject pollution source, issued pursuant to Section 403.061(14), Florida Statutes.

Should you object to this permit, including any and all of the conditions contained therein, you may file an appropriate petition for administrative hearing. This petition must be filed within fourteen (14) days of the receipt of this letter. Further, the petition must conform to the requirements of Section 28-5.201, Florida Administrative Code (see reverse side). The petition must be filed with the Office of General Counsel, Department of Environmental Regulation, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32301.

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

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

Sincerely,

Frank Watkins Jr

Frank Watkins, Jr., P.E.
Subdistrict Engineer

FW:vk

cc: Records Center, Tallahassee
P. E. Laney, P.E.
BES

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION

Maxwell House Division
735 East Bay Street
Jacksonville, Florida 32202

OPERATION
PERMIT

NO. A016-31483

Green Bean Steamer and Dryer

DATE OF ISSUANCE

November 3, 1980

G. Doug Dutton
Sub-District Manager

DATE OF EXPIRATION

June 30, 1985

Walter W. Honour, Chief
Bio-Environmental Services
City of Jacksonville

DER FORM PERM 11-40

3426 BILLS ROAD
JACKSONVILLE, FLORIDA 32207

BOB GRAHAM
GOVERNOR

JACOB D. VARN
SECRETARY

G. DOUG DUTTON
SUBDISTRICT MANAGER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER SUBDISTRICT

APPLICANT: Mr. E. G. Ballance, Plant Manager
Maxwell House Division
General Foods Corporation
P.O. Box 2010
Jacksonville, Florida 32203

PERMIT/CERTIFICATION NO. A016-31483

COUNTY: Duval

PROJECT: Green Bean Steame And Dryer 17.2

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter 17.4, Florida Administrative Code. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the approved drawing(s), plans, documents, and specifications attached hereto and made a part hereof and specifically described as follows:

Source: Green Bean Steamer, 5,000 lb/hr and Dryer, 48.33 MBtu/hr, with a Cyclone (Aeroglide, Model T1-72-34), 30,000 ACFM.

In accordance with applications received June 2, 1980, with additional information received July 30, 1980, and October 23, 1980

UTM: E - 7437.548

N - 3354.714

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions:, and as such are binding upon the permittee and enforceable pursuant to the authority of Section 403.161(1), Florida Statutes. Permittee is hereby placed

PERMIT NO.: A016-31483
APPLICANT: Maxwell House Division
Source: Green Bean Steamer and Dryer

on notice that the department will review this permit periodically and may initiate court action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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

3. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information: (a) a description of and cause of non-compliance; and (b) the period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.

4. As provided in subsection 403.087(6), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

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

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

7. In the case of an operation permit, permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or department rules.

8. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant, or aquatic life or property and penalities therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.

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

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

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

12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

13. This permit also constitutes:

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

SPECIFIC CONDITIONS:

PERMIT NO.: A016 31483
APPLICANT: Maxwell House Division
Source: Green Bean Steamer and Dryer

1. Supporting documents are retained in file of office to which they were submitted and not attached as stated in the leading paragraph and General Condition No. 2. They are as follows:

A. Permit Application
B. Plot Plans

2. Testing of emissions must be accomplished at ± 10% of the rate stated in the permit.

3. Test the emissions for the following pollutant(s) at intervals indicated from the date of June 1, 1980 and submit a copy of the test report to the Jacksonville Bio-Environmental Services Division and a summary to this office within 15 days after completion of the testing: *

Particulates - on request (Visible Emissions test results may be substituted.)

* (Notify this office 2 weeks prior to testing)

4. Submit an annual operation report for this source on the form supplied by the Department for each calendar year on or before March 1.

5. Any revision(s) to a permit (and application) must be submitted and approved prior to implementation.

6. The maximum allowable emission rate for each pollutant is as follows:

Pollutant	Emission Rate	Maximum Allowable Emission
Particulates	17-2.05(2) Process Weight Table	6.34 lb/hr, 14.9 T/yr

Expiration Date: June 30, 1985

W. W. Honour

Walter W. Honour, Division Chief
Bio-Environmental Services
City of Jacksonville

Issued this 3rd day of November, 19 80.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

G. Doug Dutton
Sub-District Manager

APPENDIX C

REYNOLDS, SMITH AND HILLS
ARCHITECTS · ENGINEERS · PLANNERS
INCORPORATED

April 4, 1986

Steve Smallwood, P.E., Chief
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

Subject: 1985 Annual Operating Report Forms
Maxwell House Division
General Foods Corporation
Jacksonville, Florida

Re: Letter from Steve Smallwood, FDER, dated January 31, 1986

Dear Mr. Smallwood:

We are pleased to provide three copies of the 1985 Annual Operating Report package. This package has been prepared on behalf of Maxwell House Division of General Foods Corporation. The requested information is provided for the following permitted sources:

Tab	FDER Permit No.	Source I.D. No.	Source Description
1	A016-31487	31160004 01	Agglomerating Process
2	A016-31480	31160004 02	Regular Coffee Roasting Process
3	A016-27329	31160004 03	Boiler # 1
4	A016-27330	31160004 04	Boiler # 2
5	A016-31485	31160004 05	Green Bean Bulk Handling Process

Tab	FDER Permit No.	Source I.D. No.	Source Description
6	A016-31490	31160004 06	Soluble Coffee Extraction Process
7	A016-27397	31160004 07	Soluble Coffee Roasting Process
8	A016-31135	31160004 08	Soluble Coffee Spray Dryer #1
9	A016-27398	31160004 09	Soluble Coffee Spray Dryer #2
10	A016-27396	31160004 12	Ground Coffee Packing Operation (SIG-VAC)
11	AC16-90996	31160004 14	Flex Kleen PVTL-16 Baghouse
12	AC16-90996	31160004 15	Coastal Kinetics FR7-10 Baghouse
13	AC16-90996	31160004 16	Carter Day Vent
14	AC16-90996	31160004 17	Ducon 810 Cyclone on Dryer
15	AC16-90996	31160004 18	4 Cyclones on 3 Storage Bunkers
16	AC16-90996	31160004 19	Condensor Vent on Bean Processor

The Source I.D. Numbers for Tabs 11-16 are for the same permit (Permit Number AC16-90996, Coffee Processing). The FDER computer assigned a separate Source I.D. Number for each emission point and control device in the coffee processing system.

There are also four sources which were included on the printout that are not addressed in this package. These are summarized as follows:

Permit No.	Source I.D. No.	Source Desc.	Reason Not Addressed
A016-32096	31160004 11	Can Assembly Lines 1,2,3	Facility redesigned to eliminate emissions. Baghouse taken out of commission.
A016-31483	31160004 10	Green Bean Steamer & Dryer	Dismantled. Superseded by coffee processing system.
AC16-53171	31160004 13	Gas Turbine Generator	Source never constructed.
A016-43643	311160004 4	No. 4 Glass Furnace	Not a Maxwell House service.

The information submitted in this package was developed from FDER permits, actual test data and the NEDS Source Classification Codes and Emission Factor Listing. If you have questions on any of the information provided in this package, please feel free to call me at (904)739-2000.

Very truly yours,

Lloyd H. Stebbins, P.E., Head
Chemical and Process Engineering Department
Environmental Engineering Division

LHS/ma

Enclosure(s)