

Xtra Copy



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

July 11, 1989

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Norvell W. Hunt
Director of Technical Services
Lykes Pasco, Inc.
Post Office Box 97
Dade City, Florida 33525

Dear Mr. Hunt:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit for Lykes Pasco, Inc. to construct/install a new coffee bean roaster and extractor line (No. 2) at the applicant's existing facility located on the east side of Highway 301 North, Dade City, Pasco County, Florida.

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

Sincerely,

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

CHF/kt

Attachments

cc: H. Kerns, SW District
J. Koogler, P.E., K & A

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

Lykes Pasco, Inc.
P. O. Box 97
Dade City, FL 33525

DER File No. AC 51-156207

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, Lykes Pasco, Inc., applied on October 10, 1988, to the Department of Environmental Regulation for a permit to construct/install a new coffee bean roaster and extractor line (No. 2) at the applicant's existing facility located on the east side of Highway 301 North, Dade City, Pasco 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 is required for the proposed work.

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

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

BEST AVAILABLE COPY

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

The Petition shall contain the following information;

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

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

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

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

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

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

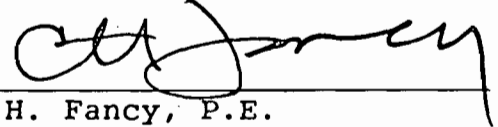
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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

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

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



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

Copies furnished to:

N. Hunt, LPI
H. Kerns, SW District
J. Koogler, P.E., K & A

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 7-11-89.

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

Martha J. Wise
Clerk

7-11-89
Date

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

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to Lykes Pasco, Inc., Post Office Box 97, Dade City, Florida, 33525, to construct/install a new coffee bean roaster and extractor line (No. 2) at the applicant's existing facility located on the east side of Highway 301 North, Dade City, Pasco County, Florida. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

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

The Petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the

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

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

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

Department of Environmental Regulation
Southwest District Office
4520 Oak Fair Blvd.
Tampa, Florida 33610-7347

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

Technical Evaluation
and
Preliminary Determination

Lykes Pasco, Inc.
Pasco County
Dade City, Florida

Construction Permit No. AC 51-156207

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

July 11, 1989

I. Application

A. Applicant

Lykes Pasco, Inc.
P. O. Box 97
Dade City, Florida 33525

B. Project Description and Location

The applicant intends to construct/install a new coffee bean roaster and extractor line (No. 2) at the applicant's existing facility located on the east side of Highway 301 North, Dade City, Pasco County, Florida.

The UTM coordinates are Zone 17, 383.5 km East and 3139.2 km North.

C. Process and Controls

The proposed new green coffee bean roaster (No. 2) will be a 300 pound batch unit and capable of 2.5 batches per hour, which is the same rate as the existing No. 1 roaster. The new roaster will be direct-fired with natural gas at a maximum of 1000 cf/hr (1 MMBtu/hr heat input). During the roasting cycle, a new chaff cyclone collection system will be constructed/installed to control emissions of particulate matter (PM) and visible emissions (VE). Estimated collection efficiency is 66 percent (consultant). Besides PM emissions and VE, the gas stream discharged from the roaster includes the products of combustion, aldehydes and organics.

At the end of a roasting cycle, the roasted coffee beans will be pneumatically conveyed to a new bean cooler (No. 2), which is a cyclonic device. The new bean cooler will have a maximum through-put rate of 640 lbs/hr, the same rate as the existing No. 1 bean cooler. The gas stream discharged includes emissions of PM and visible emissions.

From the bottom of the roasted bean cooler, which will be an inclined chute, the beans will be transferred to a new stoner bin via the incline chute and an air-lift leg. The light-weighted beans will be lifted up in the leg and the heavy debris and stones will remain at the bottom of the leg, which will be periodically removed. The stoner bin will have a maximum through-put rate of 640 lbs/hr, which is the same rate as the existing No. 1 stoner bin. The gas stream will be discharged through vents in the stoner bin and emissions are projected to be negligible.

The roasted coffee beans will then be transferred to the existing roasted bean storage bins (4), which have an associated blender system. Each existing roasted coffee bean storage bin has a maximum storage capacity of 825 cubic feet (10 tons at a density of 22-26 pounds per cubic foot). The existing roasted coffee bean blender will discharge a predetermined quantity of roasted coffee beans from one or more of the four roasted bean storage bins and will support both the Nos. 1 (existing) and 2 (new) extractors.

From the blender, the beans will be ground in the existing roasted coffee bean grinder and transferred to the existing No. 1 extractor line and/or the new No. 2 extractor line, which will consist of six vessels connected in series. In the vessels, the coffee will be extracted from the ground roasted coffee beans under elevated temperature and pressure. The existing No. 1 extractor line has a maximum processing capacity of 640 lbs/hr and the new extractor line (No. 2) will have a maximum processing capacity of 450 lbs/hr.

The existing roasted coffee bean grinder has a grinding capacity of 1800 lbs/hr. The grinder will be limited to a maximum grinding rate of 1090 lbs/hr, the total of the maximum processing rate for the existing No. 1 extractor and the No. 2 extractor.

At the end of the extraction cycle, the coffee concentrate will be withdrawn and the final extractor will be opened to expel the grounds. The grounds and steam will be discharged through an existing cyclone separator. The grounds will be retained in the separator hopper for subsequent collection and on-site disposal. The steam will be discharged into the atmosphere.

D. General

The Source Classification Codes are:

- o Coffee Roasting - 2095:

1) 3-02-002-01	Direct Fired Roaster	Tons Green Beans
2) 3-02-002-03	Stoner/Cooler	Tons Green Beans
3) 3-02-002-99	Extractor	Tons Product

- o Food and Agriculture-Fuel Fired Equipment

1) 3-02-900-3	Process Heaters-Natural Gas	10 ⁶ ft ³ Burned
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II. Rule Applicability

The proposed modification is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4.

The application package was deemed complete on May 25, 1989.

The existing facility is located in an area designated attainment for all pollutants.

Since the facility is not one of those contained in Table 500-1, F.A.C. Chapter 17-2, the pollutant threshold for triggering new source review pursuant to F.A.C. Rule 17-2.500(5) is 250 TPY.

The following table presents the existing facility's allowable pollutant emissions in tons per year (TPY):

Table 1

Source/ Permit # AO 51-	Operating Hrs.	Allowable Pollutant Emissions (TPY)				
		PM	SO ₂	NO _x	CO	VOC
1. 152577	4896	139	242	45		
2. 152578	4896	69	471	37		
3. 129456	8760	4	<1	105	26	>1
4. 129457	8760	2	<1	57	14	>1
5. 129458	5040	5	<1	149	37	>1
6. CPD#D-3	4896	15				
7. CPD#D-4	4896	15				
8. CPD#D-5	4896	15				
9. 152582	4896	15				
10. 152583	4896	15				
11. CPD#D-8	4896	15				
12. 152585	4896	15				
13. CPD#D-10	4896	15				
14. CPD#D-11	4896	15				
15. 152588	4896	15				
16. 152589	4896	15				
17. CPD#D-14	4896	15				
18. CPD#D-15	4896	15				
19. CPD#D-16	4896	15				
20. CPD#D-17	4896	15				
21. 152594	4896	15				
22. 149866	8760	15				
23. 115788	8760	9				
24. 115788	8760	17				
25. 115790	8760	17				
26. 115791	8760	17				
27. 136667	2000					6
Total:		536	716	393	77	9

Note: o Based on APIS printout.
o CPD - citrus peel dryer

The following table presents the projected potential pollutant emissions from the proposed modification in TPY:

Table 2

Source	Potential Pollutant Emissions (TPY)			
	PM	NOx	Aldehydes	Organics
Roaster No. 2	8.5	0.2	0.3	1.3
Extractor No. 2	6.2			
Total:	14.7	0.2	0.3	1.3

Note: o Hours of operation at 8,760

o Pollutant emissions based on:

1. PM - F.A.C. Rule 17-2.610(1)
 - a. Roaster - 750 lbs/hr input rate
 - b. Extractor - 450 lbs/hr input rate
2. NOx - Table 6.2-1, AP-42, Vol. 1 4th ed.
 - a. Roaster - 0.1 lb/ton
3. Aldehydes - Table 6.2-1, AP-42, Vol. 1, 4th ed.
 - a. Roaster - 0.2 lb/ton
4. Organic acids - Table 6.2-1, AP-42, 4th ed.
 - a. Roaster - 0.9 lb/ton

Based on Tables 1 and 2, the proposed project is a minor modification to a major facility and the potential emissions are not subject to new source review pursuant to F.A.C. Rule 17-2.500, Prevention of Significant Deterioration (PSD). Therefore, review of the potential pollutant emissions shall be in accordance with F.A.C. Rule 17-2.520, Sources Not Subject to PSD or Nonattainment Requirements.

The existing grinder, blender, and four (4) roasted coffee bean storage bins are capable of accommodating additional line production increases without a physical modification. Based on this and U.S. EPA's letter of August 15, 1983, relating to de minimis modifications, the Department will review subsequent modifications to the existing coffee bean processing facility as if it had never been constructed in accordance with F.A.C. Rule 17-2.500, PSD.

Since there are no specific emission limiting standards contained in F.A.C. Rules 17-2.600 and 17-2.660, the roaster and extractor are subject to the provisions of F.A.C. Rule 17-2.610, General Particulate Emission Limiting Standards.

The proposed project is subject to the provisions of F.A.C. Rule 17-2.620(2), General Pollutant Emission Limiting Standards-Objectionable Odor Prohibited.

The proposed project is subject to the provisions of F.A.C. Rules 17-2.240: Circumvention; 17-2.250: Excess Emissions; and, 17-4.130: Plant Operation-Problems. Also, the proposed project is subject to the applicable provisions of F.A.C. Chapters 17-2 and 17-4.

III. Summary of Emissions of Air Quality Analysis

A. Emission Limitations

Limitations of PM and visible emissions are applicable to the following sources/operations:

Table 3

<u>Source</u>	<u>Allowable Emission Limitations</u>	
Roaster	PM	2.0 lbs/hr; 8.5 TPY (total)
	VE	less than 20 percent opacity (2 points)
Extractor	PM	1.4 lbs/hr; 6.2 TPY
	VE	less than 20 percent opacity

Note: o Hours of operation at 8760 hrs/yr.

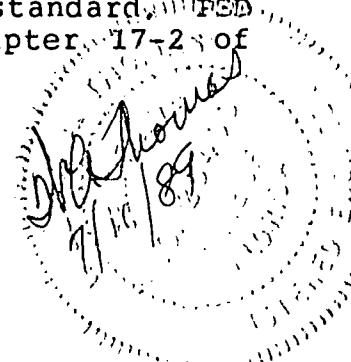
- o The PM emissions from the roaster reflect the total emissions from the chaff cyclone and the "cooler," which is also a cyclone device; and, in accordance with F.A.C. Rule 17-2.610(1) and a maximum processing rate of 750 lbs/hr of coffee beans.

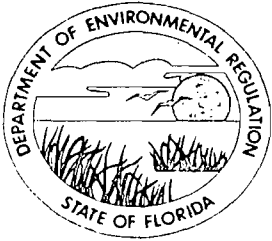
B. Air Quality Analysis

From a review of the application package and supplemental information, and air quality analysis was not required.

IV. Conclusion

Based on the information provided by Lykes Pasco, Inc., the Department has reasonable assurance that the proposed construction/installation of a new coffee bean roaster and extractor line (No. 2), as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, FPD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.





Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE:

Lykes Pasco, Inc.
P. O. Box 97
Dade City, Florida 33525

Permit Number: AC 51-156207
Expiration Date: June 30, 1990
County: Pasco
Latitude/Longitude: 28°22'32"N
82°11'20"W

Project: No. 2 Coffee Bean
Line: Roaster and Extractor
and Associated Appurtenances

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

For the construction/installation of a new coffee bean line (No. 2), consisting of a coffee bean roaster, extractor, and associated appurtenances. The roaster will have two emission points, a chaff cyclone system and a "cooler," which is a cyclone system. The No. 2 extractor will use the existing cyclone system associated with the existing No. 1 extractor. The No. 2 line will also utilize other equipment that is existing and mutual to the two lines, Nos. 1 and 2, which are the roasted coffee bean storage bins (4), the blender and the grinder. The project will take place at the permittee's existing facility located on Highway 301 North in Dade City, Florida. The UTM coordinates are Zone 17, 383.5 km East and 3139.2 km North.

The Source Classification Codes are:

1. Coffee Roasting - 2095:
 - o 3-02-002-02 Direct Fired Roaster Tons Green Beans
 - o 3-02-002-03 Stoner/Cooler Tons Green Beans
 - o 3-02-002-99 Extractor Tons Product
2. Food and Agriculture-Fuel Fired Equipment
 - o 3-02-900-3 Process Heaters-Natural Gas 10⁶ ft³ Burned

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

Attachments are listed below:

1. Application to Construct Air Pollution Sources, DER Form 17-1.202(16), received October 10, 1988.
2. Mr. C. H. Fancy's letter dated November 16, 1988.
3. Dr. John B. Koogler's letter with enclosure received November 23, 1988.

PERMITTEE:
Lykes Pasco, Inc.

Permit No. AC 51-156207
Expiration Date: June 30, 1990

Attachments Continued:

4. Mr. C. H. Fancy's letter dated December 22, 1988.
5. Dr. John B. Koogler's letter received February 20, 1989.
6. Mr. C. H. Fancy's letter dated March 24, 1989.
7. Dr. John B. Koogler's letter received May 25, 1989.
8. Mr. James T. Wilburn's letter dated August 15, 1983.
9. Technical Evaluation and Preliminary Determination dated July 11, 1989.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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. Neither 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 is not 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, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:
Lykes Pasco, Inc.

Permit No. AC 51-156207
Expiration Date: June 30, 1990

GENERAL CONDITIONS:

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

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

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor 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 provide the Department with the following information:

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

PERMITTEE:
Lykes Pasco, Inc.

Permit No. AC 51-156207
Expiration Date: June 30, 1990

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 for 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., 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 or a copy thereof shall be kept at the work site of the permitted activity.

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:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

PERMITTEE:
Lykes Pasco, Inc.

Permit No. AC 51-156207
Expiration Date: June 30, 1990

GENERAL CONDITIONS:

- b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained 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 dates 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 corrected promptly.

SPECIFIC CONDITIONS:

A. No. 2 Coffee Bean Roaster

1. The source may operate continuously (i.e., 8,760 hrs/year).
2. The maximum total process input rate shall not exceed 750 lbs/hr and 3285 tons/yr of green coffee beans, which is based on a maximum total process input rate of 300 lbs/batch of green coffee beans and 2.5 batches/hr.
3. The maximum total allowable particulate matter emissions from the chaff cyclone and cooler cyclone shall not exceed 2.0 lbs/hr and 8.5 tons/yr, based on F.A.C. Rule 17-2.610(1) and 750 lbs/hr processing rate of green coffee beans. EPA Reference Method 5 shall be used to test the chaff and cooler cyclones in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

PERMITTEE:
Lykes Pasco, Inc.

Permit No. AC 51-156207
Expiration Date: June 30, 1990

SPECIFIC CONDITIONS:

4. Visible emissions from the chaff and cooler cyclones shall be less than 20% opacity. EPA Reference Method 9 shall be used to test the chaff and cooler cyclones in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

5. Compliance tests for particulate matter and visible emissions shall be conducted concurrently.

B. No. 2 Extractor

1. The source may operate continuously (i.e., 8,760 hrs/yr).

2. The maximum total process input rate shall not exceed 450 lbs/hr and 1971 tons/yr of ground roasted coffee beans.

3. The maximum allowable particulate matter emissions from the extractor cyclone shall not exceed 1.4 lbs/hr and 6.2 tons/yr, based on F.A.C. Rule 17-2.610(1) and 450 lbs/hr processing rate of ground roasted coffee beans. EPA Reference Method 5 shall be used to test the extractor cyclone in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

4. Visible emissions from the extractor cyclone shall be less than 20% opacity. EPA Reference Method 9 shall be used to test the extractor cyclone in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

5. Compliance tests for particulate matter and visible emissions shall be conducted concurrently.

C. Nos. 1 and 2 Extractors

1. The sources may operate continuously (i.e., 8,760 hrs/yr).

2. The maximum total process input rate shall not exceed 640 lbs/hr (No. 1) and 450 lbs/hr (No. 2) of ground roasted coffee beans.

3. Simultaneous extractor blows to the extractor cyclone are prohibited.

D. Roasted Coffee Bean Grinder

1. The roasted coffee bean grinder may operate continuously (i.e., 8,760 hrs/year).

PERMITTEE:
Lykes Pasco, Inc.

Permit No. AC 51-156207
Expiration Date: June 30, 1990

SPECIFIC CONDITIONS:

2. The roasted coffee bean grinder's maximum total process input rate shall not exceed 1090 lbs/hr and 4774.2 tons/yr of roasted coffee beans.

E. Four (4) Roasted Coffee Bean Storage Bins

1. The maximum storage capacity of each roasted coffee bean storage bin is 825 cubic feet or 10 tons of roasted coffee beans (at a density of 22-26 pounds per cubic foot).

F. General

1. The Department's Southwest District office shall be notified in writing at least 15 days prior to compliance testing. The test results shall be submitted to the Department's Southwest District office no later than 45 days after completion of the last test run.

2. The No. 2 Coffee Bean Line and associated appurtenances are subject to the applicable provisions of F.A.C Chapters 17-2 and 17-4.

3. The No. 2 Coffee Bean Line and associated appurtenances are subject to the provisions of F.A.C. Rules 17-2.240: Circumvention; 17-2.250: Excess Emissions; and, 17-4.130: Plant Operation-Problems.

4. Objectionable odors shall not be allowed off plant property.

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

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

PERMITTEE:
Lykes Pasco, Inc.

Permit No. AC 51-156207
Expiration Date: June 30, 1990

Issued this _____ day
of _____, 1989

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Dale Twachtmann, Secretary

ATTACHMENTS 1 - 7
Available Upon Request

ATTACHMENT 8



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

4AW-AM

AUG 15 1983

Mr. Harold E. Hodges, P.E., Director
Division of Air Pollution Control
Tennessee Department of Public Health
150 Ninth Avenue North
Nashville, Tennessee 37203

Dear Mr. Hodges:

This is in answer to a request made by Angie Pitcock to Roger Pfaff by telephone on July 21, regarding EPA's policy on accumulation of de minimis increases in emissions at major stationary sources.

As you know, EPA interprets the PSD and nonattainment new source review rules (40CFR 51.24, 40CFR 52.21, 40CFR 51 Appendix S, 40 CFR 51.18 (j), 40CFR 52.24) as allowing an unlimited number of de minimis increases at major stationary sources without subjecting the source to review. This policy is stated in a memorandum from Edward E. Reich to Charles Whitmore, January 22, 1981, and is further confirmed in EPA's June 2, 1983 summary of applicability determinations (PSD-138).

Although the policy outlined in these documents allows a series of de minimis modifications to escape review, it is important that the reviewing agency not allow a source owner to circumvent the regulations by splitting up what would normally be considered a single major modification into two or more de minimis increases. Two or more increases should be considered by the reviewing agency to be part of the same project if they are considered part of the same project in the corporate planning of the source owner or if the emission units being constructed or modified are interdependent. For example, if the company institutes a "debottlenecking" project or a plant-wide energy conservation project involving several independent facilities, the project should be considered to be a single modification. If a company constructs a new boiler to generate steam and also adds new steam-using equipment, such as an evaporator, these units should also be considered part of the same project.

In order to facilitate agency decisions regarding whether two or more increases constitute a single project, EPA Region IV is adopting a policy which allows an initial presumption based upon easily distinguishable criteria, with allowance for rebuttal of the presumption by the applicant. Region IV policy is to consider two or more increases as a single project if the permit application for the last increase is submitted before the first increase is operational. This is a reasonable dividing line because it is easily discernible and because it would prohibit two facilities from being considered separate projects if one could not operate without the other.

For example, suppose a company obtains a permit for a new boiler at a major source in an attainment area on June 1, 1983. The new boiler emits 30 tons per year of SO₂ and escapes PSD review as a de minimis increase. On October 1, 1983, while the first boiler is under construction, the company submits an application for a second, identical, boiler. The agency would initially presume that these two boilers were part of a single project causing a significant increase in SO₂. Both boilers would be subject to PSD, including retroactive BACT for the first boiler. However, if the company could show, through engineering analysis and internal documents, that the two boilers were planned during separate time frames and involve separate, independent facilities (such as separate product lines at a large chemical plant), the agency could allow the boilers to be treated as separate projects. Conversely, if you know that two actions are actually one project, but the source owner is able to build and operate the first one before applying for the second, solely to avoid review, you should use that knowledge to subject the project to review.

The initial presumption criteria are used for the purpose of simplifying your decision process for the more obvious cases. The final criteria should always be whether or not the source owner is circumventing the new source review rules by separating what would normally be considered one project into two or more projects.

Sincerely yours,

James T. Wilburn, Chief
Air Management Branch
Air and Waste Management Division

cc: Ed Reich
Mike Trutna
All state agencies

Final Determination

Lykes Pasco, Inc.
Pasco County
Dade City, Florida

Construction Permit No. AC 51-156207

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

August 17, 1989

Final Determination

The construction permit application and supplementary material have been reviewed by the Department. Public notice of the Department's Intent to Issue was published in The Tampa Tribune on July 24, 1989. The Technical Evaluation and Preliminary Determination were available for public inspection at the Department's Bureau of Air Quality Management (Bureau) office and Southwest District office.

Comments were received from Dr. John B. Koogler, P.E. of record, in letters received on July 27 and 28, 1989. The comments, which will be combined into one, will be addressed by the Bureau and the response follows:

Comment: For the roaster, cooler and extractor cyclones, the applicant is requesting an Alternate Standard Procedure (ASP) of "no visible emissions" (5% opacity) for demonstration of compliance in lieu of conducting a mass emissions test for particulate matter; and, it would also replace the general visible emissions standard imposed pursuant to F.A.C. Rule 17-2.610(2). The request would affect Specific Conditions Nos. A.3, A.4, B.3 and B.4. in the proposed permit.

Response: The Bureau has expeditiously begun processing the request for an ASP. Since the review process has not yet been completed, the recommendation will be to issue the construction permit as drafted and with the following revisions to the above referenced Specific Conditions:

Specific Conditions:

o No. A.3.:

From: The maximum total allowable particulate matter emissions from the chaff cyclone and cooler cyclone shall not exceed 2.0 lbs/hr and 8.5 tons/yr, based on F.A.C. Rule 17-2.610(1) and 750 lbs/hr processing rate of green coffee beans. EPA Reference Method 5 shall be used to test the chaff and cooler cyclones in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

To: The maximum total allowable particulate matter emissions from the chaff cyclone and cooler cyclone shall not exceed 2.0 lbs/hr and 8.5 tons/yr, based on F.A.C. Rule 17-2.610(1) and 750 lbs/hr processing rate of green coffee beans. For the chaff and cooler cyclones, initial and

subsequent compliance tests shall be conducted using EPA Reference Method 5 in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A, unless another methodology for compliance verification has been approved by the Department pursuant to F.A.C. Rule 17-2.700(3), Exceptions and Approval of Alternate Procedures and Requirements (ASP).

o No. A.4.:

From: Visible emissions from the chaff and cooler cyclones shall be less than 20% opacity. EPA Reference Method 9 shall be used to test the chaff and cooler cyclones in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

To: Visible emissions from the chaff and cooler cyclones shall be less than 20% opacity. For the initial and subsequent compliance tests, EPA Reference Method 9 shall be used to test the chaff and cooler cyclones in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A. If a visible emissions standard is approved as an ASP for Specific Condition No. A.3. and is more stringent than the standard contained in this Specific Condition, then the more stringent standard shall be applicable for compliance verification.

o No. B. 3:

From: The maximum allowable particulate matter emissions from the extractor cyclone shall not exceed 1.4 lbs/hr and 6.2 tons/yr, based on F.A.C. Rule 17-2.610(1) and 450 lbs/hr processing rate of ground roasted coffee beans. EPA Reference Method 5 shall be used to test the extractor cyclone in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

To: The maximum allowable particulate matter emissions from the extractor cyclone shall not exceed 1.4 lbs/hr and 6.2 tons/yr, based on F.A.C. Rule 17-2.610(1) and 450 lbs/hr processing rate of ground roasted coffee beans. For the extractor cyclone, initial and subsequent compliance tests shall be conducted using EPA Reference Method 5 in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A, unless another methodology for compliance verification has been approved by the Department pursuant to F.A.C. Rule 17-2.700(3), ASP.

o No. B.4.:

From: Visible emissions from the extractor cyclone shall be less than 20% opacity. EPA Reference Method 9 shall be used to test the extractor cyclone in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

To: Visible emissions from the extractor cyclone shall be less than 20% opacity. For the initial and subsequent compliance tests, EPA Reference Method 9 shall be used to test the extractor cyclone in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A. If a visible emissions standard is approved as an ASP for Specific Condition No. B.3. and is more stringent than the standard contained in this Specific Condition, then the more stringent standard shall be applicable for compliance verification.

Attachments to be Incorporated:

10. Dr. John B. Koogler's letter received July 27, 1989.
11. Dr. John B. Koogler's letter received July 28, 1989.

The Bureau will incorporate the revisions in the construction permit, as referenced above in the final determination. It is recommended that the construction permit be issued as drafted, with the above revisions and attachments incorporated.



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachmann, Secretary

John Shearer, Assistant Secretary

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF PERMIT

Mr. Norvell W. Hunt
Director of Technical Services
Lykes Pasco, Inc.
Post Office Box 97
Dade City, Florida 33525

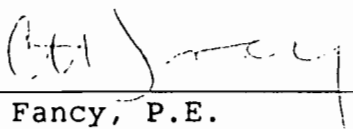
August 21, 1989

Enclosed is construction permit No. AC 51-156207 for Lykes Pasco, Inc. to construct a new coffee bean roaster, cooler and extractor (No. 2 line) at their existing facility in Dade City, Pasco County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



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

Copy furnished to:

H. Kerns, SW District
J. Koogler, P.E.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on August 23, 1989.

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

Martha J. Wise
Clerk

August 23, 1989
Date

Final Determination

Lykes Pasco, Inc.
Pasco County
Dade City, Florida

Construction Permit No. AC 51-156207

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

August 17, 1989

Final Determination

The construction permit application and supplementary material have been reviewed by the Department. Public notice of the Department's Intent to Issue was published in The Tampa Tribune on July 24, 1989. The Technical Evaluation and Preliminary Determination were available for public inspection at the Department's Bureau of Air Quality Management (Bureau) office and Southwest District office.

Comments were received from Dr. John B. Koogler, P.E. of record, in letters received on July 27 and 28, 1989. The comments, which will be combined into one, will be addressed by the Bureau and the response follows:

Comment: For the roaster, cooler and extractor cyclones, the applicant is requesting an Alternate Standard Procedure (ASP) of "no visible emissions" (5% opacity) for demonstration of compliance in lieu of conducting a mass emissions test for particulate matter; and, it would also replace the general visible emissions standard imposed pursuant to F.A.C. Rule 17-2.610(2). The request would affect Specific Conditions Nos. A.3, A.4, B.3 and B.4. in the proposed permit.

Response: The Bureau has expeditiously begun processing the request for an ASP. Since the review process has not yet been completed, the recommendation will be to issue the construction permit as drafted and with the following revisions to the above referenced Specific Conditions:

Specific Conditions:

o No. A.3.:

From: The maximum total allowable particulate matter emissions from the chaff cyclone and cooler cyclone shall not exceed 2.0 lbs/hr and 8.5 tons/yr, based on F.A.C. Rule 17-2.610(1) and 750 lbs/hr processing rate of green coffee beans. EPA Reference Method 5 shall be used to test the chaff and cooler cyclones in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

To: The maximum total allowable particulate matter emissions from the chaff cyclone and cooler cyclone shall not exceed 2.0 lbs/hr and 8.5 tons/yr, based on F.A.C. Rule 17-2.610(1) and 750 lbs/hr processing rate of green coffee beans. For the chaff and cooler cyclones, initial and

subsequent compliance tests shall be conducted using EPA Reference Method 5 in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A, unless another methodology for compliance verification has been approved by the Department pursuant to F.A.C. Rule 17-2.700(3), Exceptions and Approval of Alternate Procedures and Requirements (ASP).

o No. A.4.:

From: Visible emissions from the chaff and cooler cyclones shall be less than 20% opacity. EPA Reference Method 9 shall be used to test the chaff and cooler cyclones in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

To: Visible emissions from the chaff and cooler cyclones shall be less than 20% opacity. For the initial and subsequent compliance tests, EPA Reference Method 9 shall be used to test the chaff and cooler cyclones in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A. If a visible emissions standard is approved as an ASP for Specific Condition No. A.3. and is more stringent than the standard contained in this Specific Condition, then the more stringent standard shall be applicable for compliance verification.

o No. B. 3:

From: The maximum allowable particulate matter emissions from the extractor cyclone shall not exceed 1.4 lbs/hr and 6.2 tons/yr, based on F.A.C. Rule 17-2.610(1) and 450 lbs/hr processing rate of ground roasted coffee beans. EPA Reference Method 5 shall be used to test the extractor cyclone in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

To: The maximum allowable particulate matter emissions from the extractor cyclone shall not exceed 1.4 lbs/hr and 6.2 tons/yr, based on F.A.C. Rule 17-2.610(1) and 450 lbs/hr processing rate of ground roasted coffee beans. For the extractor cyclone, initial and subsequent compliance tests shall be conducted using EPA Reference Method 5 in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A, unless another methodology for compliance verification has been approved by the Department pursuant to F.A.C. Rule 17-2.700(3), ASP.

o No. B.4.:

From: Visible emissions from the extractor cyclone shall be less than 20% opacity. EPA Reference Method 9 shall be used to test the extractor cyclone in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

To: Visible emissions from the extractor cyclone shall be less than 20% opacity. For the initial and subsequent compliance tests, EPA Reference Method 9 shall be used to test the extractor cyclone in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A. If a visible emissions standard is approved as an ASP for Specific Condition No. B.3. and is more stringent than the standard contained in this Specific Condition, then the more stringent standard shall be applicable for compliance verification.

Attachments to be Incorporated:

10. Dr. John B. Koogler's letter received July 27, 1989.
11. Dr. John B. Koogler's letter received July 28, 1989.

The Bureau will incorporate the revisions in the construction permit, as referenced above in the final determination. It is recommended that the construction permit be issued as drafted, with the above revisions and attachments incorporated.

PM
7-27-89
Dade City, FL



Lykes Pasco, Inc.
Post Office Box 97
Dade City, FL 34297-0097
Telephone: (904) 567-5211

RECEIVED

JUL 31 1989

DER-BAQM

July 26, 1989.

Mr. Bill Thomas
Bureau of Air Quality Management
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee FL 32399-2400

Dear Mr. Thomas:

Attached is the proof of publication of the intent to issue notice as required by our construction permit number AC51-156207, for the construction of a new coffee roaster/extractor line at the Lykes Pasco, Inc. facility in Dade City, Florida. If you have any questions concerning the publication of this legal notice please feel free to call me.

Sincerely,

LYKES PASCO, INC.

M. J. Mulholland
Quality Assurance Project Manager

MJM:mw

XC: N. W. Hunt
J. Koogler
H. Kearns - S.W. District - DER

Attachment

Bruce 7-31-89

THE TAMPA TRIBUNE

Published Daily
Tampa, Hillsborough County, Florida

JUL 26 1989

State of Florida }
County of Hillsborough }

Before the undersigned authority personally appeared
G. T. Gleason, who on oath says that he is Controller of The Tampa Tribune, a daily
newspaper published at Tampa in Hillsborough County, Florida; that the attached copy
of advertisement being a

LEGAL NOTICE

in the matter of STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL
REGULATION
NOTICE OF INTENT TO ISSUE

was published in said newspaper in the issues of
July 24, 1989

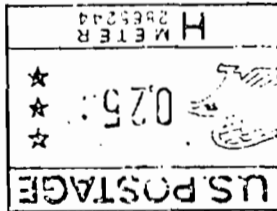
Affiant further says that the said The Tampa Tribune is a newspaper published at
Tampa, in said Hillsborough County, Florida, and that the said newspaper has
heretofore been continuously published in said Hillsborough County, Florida, each day
and has been entered as second class mail matter at the post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

G. T. Gleason

Sworn to and subscribed before me, this 24th day
of July, A.D. 19 89

Janyla Poole

(SEAL)



State of Florida
Department of
Environmental Regulation
Notice of Intent to Issue
The Department of Environ-
mental Regulation hereby
gives notice of its intent to
issue a permit to Lykes Pasco,
Inc., Post Office Box 97, Dade
City, Florida, 33525, to con-
struct/install a new coffee
bean roaster and extractor
line (No. 2) at the applicant's
existing facility located on the
east side of Highway 301
North, Dade City, Pasco Coun-
ty, Florida. A determination of
Best Available Control Tech-
nology (BACT) was not re-
quired. The Department is is-
suing this intent to issue for
the reasons stated in the Tech-
nical Evaluation and Prelimi-
nary Determination.
A person whose substantial
interests are affected by the
Department's proposed per-
mitting decision may petition
for an administrative proceed-
ing (hearing) in accordance
with Section 120.57, Florida
Statutes. The petition must
contain the information set
forth below and must be filed
(received) in the Office of Gen-
eral Counsel of the Depart-
ment at 2600 Blair Stone Road,
Tallahassee, Florida 32399-
2400, within fourteen (14) days
of publication of this notice.
Petitioner shall mail a copy of
the petition to the applicant at
the address indicated above,
at the time of filing. Failure to
file a petition within this time
period shall constitute a waiver
of any right such person
may have to request an ad-
ministrative determination
(hearing) under Section 120.57,
Florida Statutes.
The Petition shall contain
the following information:
(a) The name, address, and
telephone number of each
petitioner, the applicant's
name and address, the Depart-
ment Permit File Number and
the county in which the pro-
ject is proposed;
(b) A statement of how and
when each petitioner received
notice of the Department's ac-
tion or proposed action;
(c) A statement of how each
petitioner's substantial
interests are affected by the
Department's action or pro-
posed action;
(d) A statement of the mate-
rial facts disputed by
Petitioner, if any;
(e) A statement of facts
which petitioner contends
warrant reversal or modifica-
tion of the Department's ac-
tion or proposed action;
(f) A statement of which
rules or statutes petitioner
contends require reversal or
modification of the Depart-
ment's action or proposed ac-
tion; and
(g) A statement of the relief
sought by petitioner, stating
precisely the action petitioner
wants the Department to take
with respect to the Depart-
ment's action or proposed ac-
tion.
If a petition is filed, the ad-
ministrative hearing process
is designed to formulate agency
action. Accordingly, the
Department's final action may
be different from the position
taken by it in this Notice. Per-
sons whose substantial
interests will be affected by
any decision of the Depart-
ment with regard to the appli-
cation have the right to
petition to become a party to
the proceeding. The petition
must conform to the require-
ments specified above and be
filed (received) within 14 days
of publication of this notice in
the Office of General Counsel
at the above address of the
Department. Failure to
petition within the allowed
time frame constitutes a waiver
of any right such person has
to request a hearing under
Section 120.57, F.S., and to par-
ticipate as a party to this pro-
ceeding. Any subsequent inter-
vention will only be at the ap-
proval of the presiding officer
upon motion filed pursuant to
Rule 28-5.207, F.A.C.
The application is available
for public inspection during
normal business hours, 8:00
a.m. to 5:00 p.m., Monday
through Friday, except legal
holidays, at:
Department of
Environmental Regulation
Bureau of Air
Quality Management
2600 Blair Stone Road
Tallahassee,
Florida 32399-2400
Department of
Environmental Regulation
Southwest District Office
4520 Oak Fair Blvd.
Tampa, Florida 33610-7347
Any person may send writ-
ten comments on the pro-
posed action to Mr. Bill Thom-
as at the Department's Tal-
lahassee address. All comments
mailed within 14 days of the
publication of this notice will
be considered in the Depart-
ment's final determination.
3425 7/24/89



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE:
Lykes Pasco, Inc.
P. O. Box 97
Dade City, Florida 33525

Permit Number: AC 51-156207
Expiration Date: June 30, 1990
County: Pasco
Latitude/Longitude: 28°22'32"N
82°11'20"W

Project: No. 2 Coffee Bean
Line: Roaster and Extractor
and Associated Appurtenances

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

For the construction/installation of a new coffee bean line (No. 2), consisting of a coffee bean roaster, extractor, and associated appurtenances. The roaster will have two emission points, a chaff cyclone system and a "cooler," which is a cyclone system. The No. 2 extractor will use the existing cyclone system associated with the existing No. 1 extractor. The No. 2 line will also utilize other equipment that is existing and mutual to the two lines, Nos. 1 and 2, which are the roasted coffee bean storage bins (4), the blender and the grinder. The project will take place at the permittee's existing facility located on Highway 301 North in Dade City, Florida. The UTM coordinates are Zone 17, 383.5 km East and 3139.2 km North.

The Source Classification Codes are:

1. Coffee Roasting - 2095:
 - o 3-02-002-02 Direct Fired Roaster Tons Green Beans
 - o 3-02-002-03 Stoner/Cooler Tons Green Beans
 - o 3-02-002-99 Extractor Tons Product
2. Food and Agriculture-Fuel Fired Equipment
 - o 3-02-900-3 Process Heaters-Natural Gas 10⁶ ft³ Burned

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

Attachments are listed below:

1. Application to Construct Air Pollution Sources, DER Form 17-1.202(16), received October 10, 1988.
2. Mr. C. H. Fancy's letter dated November 16, 1988.
3. Dr. John B. Koogler's letter with enclosure received November 23, 1988.

PERMITTEE:
Lykes Pasco, Inc.

Permit No. AC 51-156207
Expiration Date: June 30, 1990

Attachments Continued:

4. Mr. C. H. Fancy's letter dated December 22, 1988.
5. Dr. John B. Koogler's letter received February 20, 1989.
6. Mr. C. H. Fancy's letter dated March 24, 1989.
7. Dr. John B. Koogler's letter received May 25, 1989.
8. Mr. James T. Wilburn's letter dated August 15, 1983.
9. Technical Evaluation and Preliminary Determination dated July 11, 1989.
10. Dr. John B. Koogler's letter received July 27, 1989.
11. Dr. John B. Koogler's letter received July 28, 1989.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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. Neither 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 is not 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, or plant life, or property caused by the construction or operation of this

PERMITTEE:
Lykes Pasco, Inc.

Permit No. AC 51-156207
Expiration Date: June 30, 1990

GENERAL CONDITIONS:

permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

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

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

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor 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 provide the Department with the following information:

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

PERMITTEE:
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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 for 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., 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 or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

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GENERAL CONDITIONS:

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 dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. 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 corrected promptly.

SPECIFIC CONDITIONS:

A. No. 2 Coffee Bean Roaster

1. The source may operate continuously (i.e., 8,760 hrs/year).
2. The maximum total process input rate shall not exceed 750 lbs/hr and 3285 tons/yr of green coffee beans, which is based on a maximum total process input rate of 300 lbs/batch of green coffee beans and 2.5 batches/hr.
3. The maximum total allowable particulate matter emissions from the chaff cyclone and cooler cyclone shall not exceed 2.0 lbs/hr and 8.5 tons/yr, based on F.A.C. Rule 17-2.610(1) and 750 lbs/hr processing rate of green coffee beans. For the chaff and cooler cyclones, initial and subsequent compliance tests shall be conducted using EPA Reference Method 5 in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A, unless another methodology for compliance verification has been approved by the Department pursuant to F.A.C. Rule 17-2.700(3), Exceptions and Approval of Alternate Procedures and Requirements (ASP).
4. Visible emissions from the chaff and cooler cyclones shall be less than 20% opacity. For the initial and subsequent compliance tests, EPA Reference Method 9 shall be used to test the chaff and cooler cyclones in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A. If a visible emissions standard is approved as an ASP for Specific Condition No. A.3. and is more stringent than the standard contained in this Specific Condition, then the more stringent standard shall be applicable for compliance verification.

PERMITTEE:
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Permit No. AC 51-156207
Expiration Date: June 30, 1990

SPECIFIC CONDITIONS:

5. Compliance tests for particulate matter and visible emissions shall be conducted concurrently.

B. No. 2 Extractor

1. The source may operate continuously (i.e., 8,760 hrs/yr).

2. The maximum total process input rate shall not exceed 450 lbs/hr and 1971 tons/yr of ground roasted coffee beans.

3. The maximum allowable particulate matter emissions from the extractor cyclone shall not exceed 1.4 lbs/hr and 6.2 tons/yr, based on F.A.C. Rule 17-2.610(1) and 450 lbs/hr processing rate of ground roasted coffee beans. For the extractor cyclone, initial and subsequent compliance tests shall be conducted using EPA Reference Method 5 in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A, unless another methodology for compliance verification has been approved by the Department pursuant to F.A.C. Rule 17-2.700(3), ASP.

4. Visible emissions from the extractor cyclone shall be less than 20% opacity. For the initial and subsequent compliance tests, EPA Reference Method 9 shall be used to test the extractor cyclone in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A. If a visible emissions standard is approved as an ASP for Specific Condition No. B.3. and is more stringent than the standard contained in this Specific Condition, then the more stringent standard shall be applicable for compliance verification.

5. Compliance tests for particulate matter and visible emissions shall be conducted concurrently.

C. Nos. 1 and 2 Extractors

1. The sources may operate continuously (i.e., 8,760 hrs/yr).

2. The maximum total process input rate shall not exceed 640 lbs/hr (No. 1) and 450 lbs/hr (No. 2) of ground roasted coffee beans.

3. Simultaneous extractor blows to the extractor cyclone are prohibited.

D. Roasted Coffee Bean Grinder

1. The roasted coffee bean grinder may operate continuously (i.e., 8,760 hrs/year).

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Expiration Date: June 30, 1990

SPECIFIC CONDITIONS:

2. The roasted coffee bean grinder's maximum total process input rate shall not exceed 1090 lbs/hr and 4774.2 tons/yr of roasted coffee beans.

E. Four (4) Roasted Coffee Bean Storage Bins

1. The maximum storage capacity of each roasted coffee bean storage bin is 825 cubic feet or 10 tons of roasted coffee beans (at a density of 22-26 pounds per cubic foot).

F. General

1. The Department's Southwest District office shall be notified in writing at least 15 days prior to compliance testing. The test results shall be submitted to the Department's Southwest District office no later than 45 days after completion of the last test run.

2. The No. 2 Coffee Bean Line and associated appurtenances are subject to the applicable provisions of F.A.C Chapters 17-2 and 17-4.

3. The No. 2 Coffee Bean Line and associated appurtenances are subject to the provisions of F.A.C. Rules 17-2.240: Circumvention; 17-2.250: Excess Emissions; and, 17-4.130: Plant Operation-Problems.

4. Objectionable odors shall not be allowed off plant property.

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

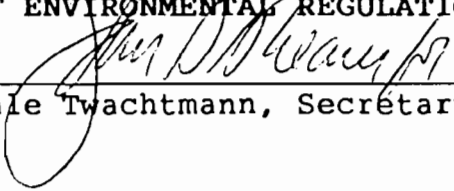
6. An application for an operation permit must be submitted to the Department's Southwest District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit,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

PERMITTEE:
Lykes Pasco, Inc.

Permit No. AC 51-156207
Expiration Date: June 30, 1990

Issued this 17th day
of August, 1989

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



Dale Twachtmann, Secretary

DEPARTMENT OF ENVIRONMENTAL REGULATION



RECEIVED

OCT 19 1988

APPLICATION TO ~~RENEW~~/CONSTRUCT AIR POLLUTION SOURCE

DER-BAQM

SOURCE TYPE: Coffee Roaster New¹ Existing¹

APPLICATION TYPE: Construction Operation Modification

COMPANY NAME: Lykes Pasco, Inc. COUNTY: Pasco

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) No. 2 Coffee Roaster/ Cooler/Extractor

SOURCE LOCATION: Street Highway 301 North City Dade City

UTM: East (17) 383.5 km North 3139.2 km

Latitude 28 ° 22 ' 32 "N Longitude 82 ° 11 ' 20 "W

APPLICANT NAME AND TITLE: Norvell W. Hunt, Director of Technical Services

APPLICANT ADDRESS: Lykes Pasco, Inc., P.O. Box 97, Dade City, Florida 33525

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Lykes Pasco, Inc.

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

*Attach letter of authorization

Signed: Norvell W. Hunt

Norvell W. Hunt, Dir. of Technical Services
Name and Title (Please Type)

Date: 10/6/88 Telephone No. 904/567-5211

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 ~~examined~~/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 _____

John B. Koogler, Ph.D., P.E.

Name (Please Type)

Koogler & Associates, Environmental Services

Company Name (Please Type)

4014 N.W. 13th Street, Gainesville, Florida 32609

Mailing Address (Please Type)

Florida Registration No. 12925 Date: 9/30/88 Telephone No. 904/377-5822

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.

See description on Page 2a of 12

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

Start of Construction November 1988 Completion of Construction February 1989

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

\$1500 - Chaff cyclone on roaster

\$2000 - Roasted coffee bean cyclone (cooler)

Extractor blowdown cyclone - use cyclone on existing extractor line.

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

Existing No. 1 Coffee Roaster/Extractor - AC51-62408; 4/21/83 - 9/25/83

" " = A051-71244; 9/27/83 - 9/10/88

" " - A051-149866; 8/29/88 - 8/25/93

SECTION II, A - GENERAL PROJECT INFORMATION

Lykes Pasco will install a second coffee roaster/extractor that will produce, as the final product, a concentrated liquid coffee extract that will be used in coffee vending machines. The system will be identical to a system that Lykes Pasco presently operates at this same facility and that is permitted under Permit A051-149866. In fact, the new system will use the existing roasted bean storage bin, blender and grinder (no emissions) and the existing extractor cyclone (particulate matter and steam).

The system will consist of a 300 pound batch coffee roaster supplied by Sivetz Coffee, Inc. The roaster will be direct-fired with natural gas at the rate of 1000 cubic feet per hour (one million BTU per hour heat input). The roaster has the capability of roasting 2.5 batches per hour; or is capable of a 750 pound per hour input rate of green coffee beans. The operation of the coffee roaster is described in Attachment 1.

During the roasting process, a process requiring approximately 20 minutes, the roaster is vented through a chaff cyclone. The gas stream discharged from the roaster includes the combustion products from the roaster combustion chamber, excess air supplied to the roaster, particles of chaff, and small quantities of aldehydes and organic gases that are released from the coffee beans. Visible emission observations conducted on the existing coffee roaster showed the average opacity of emissions to be 2.5 percent and the highest rolling six-minute average opacity to be five to six

percent. (Copies of visible emission observations conducted on the existing Lykes Pasco coffee roasting system in 1987 and 1988 are included in this application as Attachment 2.) It is estimated that the efficiency of the chaff cyclone for particulate matter control is 66 percent. It is further estimated that the particulate matter emission rate from the cyclone will be 1.0 pounds per hour.

At the end of the roasting cycle, a gate in the side of the coffee roaster is opened and the same blower that is used for supplying combustion air to the roaster pneumatically conveys the roasted coffee beans to a bean cooler. The bean cooler is a cyclonic device that discharges the cooling air through an 18 inch diameter stack to the atmosphere. Emissions from this cyclone include small quantities of particulate matter; estimated to be in the range of 0.2 pounds per hour.

The bottom of the bean cooler is an incline chute that transfers the coffee beans to an air-lift leg. The beans, which are quite light, are lifted up this leg and are discharged into a destoner bin. Stones and other heavy debris remain at the bottom of the air-lift leg and are removed periodically for disposal. The air stream that conveys the coffee beans up the air-lift leg and into the destoner bin is discharged through vents in the destoner bin. There are no significant emissions associated with this discharge.

From the destoner bin, the beans are transferred to the existing roasted bean storage bin and blender. From the blender, the beans are ground in the existing coffee grinder and transferred to the new second line coffee

extractors. The existing storage bin, blender and grinder are part of the existing coffee roasting system operated by Lykes Pasco (presently under permit A051-149866).

The extractors consist of a series of six vessels connected in a series. In these vessels, the coffee is extracted from a 450 pound batch of ground beans under elevated temperatures and pressures. The pressure in the final extractor is approximately 195 psig and the temperature is approximately 220°F. The total extraction cycle requires approximately 60 minutes. At the end of the cycle, the coffee concentrate is withdrawn from the final extractor and the extractor blow-down manifold is opened. The residual steam remaining in the final extractor (approximately 100 pounds of water vapor at a temperature of 220°F and a pressure of 195 psig) discharges the spent grounds to a spent grounds cyclone. This discharge occurs for only 10-15 seconds at the end of each one-hour extraction cycle. Visible emissions observations that have been conducted on the existing coffee line indicate no visible emissions (other than the steam plume) from the spent grounds cyclone during the blow-down period.

Since the blow-down period only requires 10-15 seconds at the end of each one-hour extraction cycle, the spent grounds cyclone on the existing coffee line (permitted under Permit A051-149866) will also be used for the new coffee line. The extraction cycles will be staggered so that only one extractor is blowing down at any one time.

The process flow diagram required by Section V. 6, shows the interconnection between the existing coffee line and the new coffee line.

Air pollutant emissions have been estimated for the new coffee line and are reported herein. The maximum annual emission rate of no single air pollutant exceeds the de minimus emission rates reported in Table 17-2.500-2,FAC. As a result, the proposed process does not require a PSD permit review. To facilitate the review of this permit application, and for consistency of permit requirements, a copy of the air permit for the existing coffee line is attached (Attachment 7).

The proposed coffee line will operate in compliance with all applicable emission limiting standards.

E. Requested permitted equipment operating time: hrs/day 24; days/wk 7; wks/yr 52; if power plant, hrs/yr _____; if seasonal, describe: Roaster and cooler could operate 8760 hrs/yr but will average about 7000 hrs/yr. The extractor will operate 8760 hrs/yr.

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? | <u>NO</u> |
| a. If yes, has "offset" been applied? | <u>-</u> |
| b. If yes, has "Lowest Achievable Emission Rate" been applied? | <u>-</u> |
| c. If yes, list non-attainment pollutants. _____ | <u>-</u> |
| 2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. | <u>NO*</u> |
| 3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. | <u>NO*</u> |
| 4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? | <u>NO</u> |
| 5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? | <u>NO</u> |
| H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? | <u>NO</u> |
| a. If yes, for what pollutants? _____ | <u>-</u> |
| 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.

* Emission rate of all pollutants less than de minimus emission rate.

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		
<u>Roaster/Cooler</u>				
Green Coffee Beans	Part. Matter	0.4	750	A
<u>Extractor</u>				
Ground Roasted Coffee Beans	None	0	450	B

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

1. Total Process Input Rate (lbs/hr): 750 lb/hr green beans to roaster; 640 lb/hr roasted beans to cooler; 450 lb/hr ground roasted beans to extractor.
2. Product Weight (lbs/hr): 640 lb/hr roasted beans from roaster; 640 lb/hr roasted beans from cooler; 450 lb/hr spent grounds and 100 lb/hr water vapor from extractor.

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

Name of Contaminant	Emission ¹		Allowed 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	
See Page 4a							

¹See Section V, Item 2.

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

³Calculated from operating rate and applicable standard.

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

SECTION III, C - AIRBORNE CONTAMINANTS

Source and Containment	<u>Expected Emissions</u>		Emission Standard	<u>Allowable P.M. Emissions (1)</u>		<u>Uncontrolled Emissions</u>		Relate to Flow Diagram
	(lb/hr)	(ton/yr)		(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	
Roaster								
Part. Matter	1.0	3.8	17-2.610(1)	1.95	8.5	2.9	10.9	4
Nitrogen Oxides	<0.1	0.2	NA	-	-	<0.1	0.2	4
Aldehydes	<0.1	0.3	NA	-	-	<0.1	0.3	4
Organic Acids	0.3	1.3	NA	-	-	0.3	1.3	4
Cooler								
Part. Matter	0.2	0.7	17-2.610(1)	(2)	(2)	0.5	2.0	5
Extractor								
Part. Matter	1.4	6.2	17-2.610(1)	1.42	6.2	NA (3)	NA (3)	3
TOTAL PART. MATTER	2.6	10.7		3.4	14.7			

(1) Allowable particulate matter emissions from the roaster and cooler combined were determined from Rule 17-2.610(1), FAC and are based on an input rate of 750 lb/hr of green beans to the roaster. The particulate matter emissions from the extractor are based on Rule 17-2.610(1), FAC and an input rate of 450 lb/hr of ground roasted beans.

(2) Included in allowable roaster emissions.

(3) See process description in Section V, 2/3.

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)
Cyclone on roaster	Part. Matter	66%	> 15 um	Estimate
Cyclone on cooler	Part. Matter	66%	> 15 um	Estimate
Cyclone on extractor	Part. Matter	99.7%*	> 15 um	Estimate
* See note in Section	V.2/3			

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural gas	1000 ft ³ /hr	1000 ft ³ /hr	1.0

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

Fuel Analysis:

Percent Sulfur: Nil Percent Ash: NA
 Density: NA lbs/gal Typical Percent Nitrogen: NA
 Heat Capacity: 1025 BTU/ft³ BTU/lb NA BTU/gal
 Other Fuel Contaminants (which may cause air pollution): None

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

Annual Average NA Maximum _____

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

Coffee grounds and chaff from the cyclones will be disposed of in the Lykes Pasco
 land-fill. Water from the extractor will be treated in the Lykes Pasco water
 treatment lagoons.

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

Stack Height: See Page 6a of 12 ft. Stack Diameter: _____ ft.
 Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.
 Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION
 (Not Applicable)

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

Description of Waste _____

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

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

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume (ft) 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) _____

SECTION III, H - STACK PARAMETERS

Stack	Height (ft)	Flow Rate		Moisture (%)	Diameter (ft)	Stack Gas	Velocity (fps)
		Acfm	Dscfm			Temp. (°F)	
Roaster Cyclone	54	7575	4000	8-10	1.3	450	90.9
Cooler Cyclone	54	3000	2530	2-3	1.5	150	28.3
Extractor Cyclone	54	2750	20	99	2.0	220	14.6

NOTE: The final extractor operates under a pressure of approximately 195 psi and a temperature of approximately 220°F. The complete extraction cycle requires approximately one hour. At the end of the cycle, the coffee concentrate is withdrawn and the final extractor is opened to expel the grounds. The grounds (450 pounds) and approximately 2750 actual cubic feet of steam are discharged through a cyclone separator. The grounds are retained in the separator for subsequent disposal and the steam is discharged to the atmosphere.

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

(See Page 7a)

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.

SECTION V - SUPPLEMENTAL INFORMATION

1. PROCESS RATE

Roaster (Batch operation @ 24 minutes per batch)

Input - 300 pounds of green coffee beans per batch
Batch Rate - 2.5 per hour (20 minute roast plus 4 minutes to transfer beans)
Input Rate = 300 lb/hr X 2.5 batches/hr
= 750 lb/hr of green coffee beans
Output Rate - Assume 15% weight loss during roasting
= 750 (1-0.15)
= 640 lb/hr roasted coffee beans

Cooler (Receives roasted beans from roaster at end of roast cycle)

Cooler Input = Cooler Output = 640 pounds per hour

Extractor (Batch operation @ 60 minutes per batch)

Extractor Input = 450 pounds per hour of ground roasted beans
Extractor Output = Coffee concentrate wet grounds (450 lb/hr dry wt. and 100 lb/hr steam)

2/3. CONTROLLED AND UNCONTROLLED EMISSIONS

HOURS OF OPERATION

Extractor - 8760 hr/yr; operation time
Bean Usage = 8760 hr/yr X 450 lb/hr X 1/2000
= 1971 tons/yr

Assume 10% Loss in destoner and grinder

= 1971/(1-0.10)
= 2200 tons/yr

Roaster/Cooler (at 640 lb/hr roasted beans)

$$\begin{aligned}\text{Operating Time} &= 2200 \text{ tpy} \times 2000 \text{ lb/ton}/640 \text{ lb/hr} \\ &= 6875 \text{ hr/yr} \\ &\text{Say } 7500 \text{ hr/yr}\end{aligned}$$

EMISSION RATES

Roaster (AP-42, Sect. 6.2, See Page 7e)

Particulate Matter

$$\begin{aligned}\text{Uncontrolled @ } 7.6 \text{ lb/ton of beans} \\ &= 7.6 \times (750/2000) \\ &= 2.9 \text{ lb/hr} \\ &\quad \times 7500 \text{ hr/yr} \times 1/2000 \text{ lb/ton} \\ &= 10.9 \text{ tpy}\end{aligned}$$

Controlled (Assume 66% efficiency)

$$\begin{aligned}&= 2.9 \text{ lb/hr} (1-0.66) \\ &= 1.0 \text{ lb/hr} \\ &\quad \times 7500/2000 \\ &= 3.8 \text{ tpy}\end{aligned}$$

Nitrogen Oxides

Controlled and Uncontrolled

$$\begin{aligned}&= 0.1 \times (750/2000) \\ &= 0.04 \text{ lb/hr} \\ &\quad \times 7500/2000 \\ &= 0.2 \text{ tpy}\end{aligned}$$

Aldehydes

Controlled and Uncontrolled

$$\begin{aligned} &= 0.2 \times (750/2000) \\ &= 0.08 \text{ lb/hr} \\ &\quad \times 7500/2000 \\ &= 0.3 \text{ tpy} \end{aligned}$$

Organic Acids

Controlled and Uncontrolled

$$\begin{aligned} &= 0.9 \times (750/2000) \\ &= 0.3 \text{ lb/hr} \\ &\quad \times 7500/2000 \\ &= 1.3 \text{ tpy} \end{aligned}$$

Cooler (AP-42, Section 6.2, See Page 5d)

Particulate Matter

Uncontrolled

$$\begin{aligned} &= 1.4 \text{ lb/ton} \times (750/2000) \\ &= 0.51 \text{ lb/hr} \\ &\quad \times 7500/2000 \\ &= 2.0 \text{ tpy} \end{aligned}$$

Controlled (Assume 66% efficiency)

$$\begin{aligned} &= 0.5 (1-0.66) \\ &= 0.2 \text{ lb/hr} \\ &\quad \times 7500/2000 \\ &= 0.7 \text{ tpy} \end{aligned}$$

Extractor

Particulate Matter

Approximately 450 pounds of wet coffee grounds are ejected from the extractor by steam at a pressure of approximately 195 psig at the end of each 60-minute extraction cycle. The release time is about 10-15 seconds; during which time the wet grounds and approximately 2750 cubic feet of steam at a temperature of 220°F are discharged to the extractor cyclone. The grounds are collected in the cyclone for subsequent disposal and the steam is released to the atmosphere.

Particulate matter emissions from the existing extractor blow-down are limited by an opacity standard of 20 percent or less and a mass particulate matter emission limit. A surrogate test method allows compliance with the emission limiting standards to be demonstrated by maintaining the opacity of emissions below five percent. Compliance tests have consistently demonstrated no visible emissions during the extraction cycle or during grounds blow-down (see 1987 and 1988 test results in Attachment 2). Based on the fact that no visible emissions have been observed, controlled particulate matter emissions have been estimated at 1.4 pounds per blow-down (equivalent to 1.4 lb/hr). This is a 99.7% cyclone efficiency for all grounds discharged into the cyclone.

Controlled Emissions

$$\begin{aligned} &= 1.4 \text{ lb/hr} \\ &\quad \times 8760/2000 \\ &= 6.2 \text{ tpy} \end{aligned}$$

4. CYCLONE SPECIFICATIONS (Attachment 3)

5. EFFICIENCIES

Chaff Cyclone - Estimated to be 66%

Roaster Cyclone - Estimated to be 66%

Extractor Cyclone - See Section 3 above

6. FLOW DIAGRAM (Attachment 4)

7. LOCATION MAP (Attachment 5)

8. PLOT PLAN (Attachment 6)

6.2 COFFEE ROASTING

6.2.1 Process Description^{1,2}

Coffee, which is imported in the form of green beans, must be cleaned, blended, roasted, and packaged before being sold. In a typical coffee roasting operation, the green coffee beans are freed of dust and chaff by dropping the beans into a current of air. The cleaned beans are then sent to a batch or continuous roaster. During the roasting, moisture is driven off, the beans swell, and chemical changes take place that give the roasted beans their typical color and aroma. When the beans have reached a certain color, they are quenched, cooled, and stoned.

6.2.2 Emissions^{1,2}

Dust, chaff, coffee bean oils (as mists), smoke, and odors are the principal air contaminants emitted from coffee processing. The major source of particulate emissions and practically the only source of aldehydes, nitrogen oxides, and organic acids is the roasting process. In a direct-fired roaster, gases are vented without recirculation through the flame. In the indirect-fired roaster, however, a portion of the roaster gases are recirculated and particulate emissions are reduced. Emissions of both smoke and odors from the roasters can be almost completely removed by a properly designed afterburner.^{1,2}

Particulate emissions also occur from the stoner and cooler. In the stoner, contaminating materials heavier than the roasted beans are separated from the beans by an air stream. In the cooler, quenching the hot roasted beans with water causes emissions of large quantities of steam and some particulate matter.³ Table 6.2-1 summarizes emissions from the various operations involved in coffee processing.

Table 6.2-1. EMISSION FACTORS FOR ROASTING PROCESSES WITHOUT CONTROLS
EMISSION FACTOR RATING: B

Type of process	Pollutant							
	Particulates ^a		NO _x ^b		Aldehydes ^b		Organic acids ^b	
	lb/ton	kg/MT	lb/ton	kg/MT	lb/ton	kg/MT	lb/ton	kg/MT
Roaster								
Direct-fired	7.6	3.8	0.1	0.05	0.2	0.1	0.9	0.45
Indirect-fired	4.2	2.1	0.1	0.05	0.2	0.1	0.9	0.45
Stoner and cooler ^c	1.4	0.7	—	—	—	—	—	—
Instant coffee spray dryer	1.4 ^d	0.7 ^d	—	—	—	—	—	—

^aReference 3.

^bReference 1.

^cIf cyclone is used, emissions can be reduced by 70 percent.

^dCyclone plus wet scrubber always used, representing a controlled factor.

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

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY
(Not Applicable)

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

Yes No

Contaminant	Rate or Concentration

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

Yes No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

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

*Explain method of determining

- 5. Useful Life:
- 7. Energy:
- 9. Emissions:
- 6. Operating Costs:
- 8. Maintenance Cost:

Contaminant	Rate or Concentration
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

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:

¹Explain method of determining efficiency.

²Energy 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:

¹Explain method of determining efficiency.

²Energy 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:

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

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

(Not Applicable)

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ () SO₂* _____ 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.

ATTACHMENT 1

Roasting Process Description

ROASTING PROCESS

U. S. PATENT 3,964,175

SIVETZ COFFEE, Inc.
COFFEE BEAN ROASTING MACHINES
ENGINEERING & CONSULTING
349 S.W. 4th ST
CORVALLIS, OREGON 97333 — U.S.A.
(503) 753-9713

After the equipment is mechanically and electrically installed, weigh in the 300 lbs green coffee beans, start the blower and heating. The beans will vigorously spout up along the wall and fall over away from the wall causing a smooth rotary motion with spouts moving back and forth along wall.

Since coffee bean sizes, shapes and density vary, and this is a continuing variable, do not vary other process conditions like inlet air temperature, loading weights, air flow damper positions, etc. and always be present to be sure beans are moving.

Stoppage of bean movement can cause overheating of the lower beans and fire. Procedures must be in place to deal with stoppage of bean movement and fires.

As the coffee beans warm up, they lose moisture, become lighter and spouting increases. Most moisture is lost by 350°F, and pyrolysis, or decomposition of sucrose in the bean begins at near 390°F, accompanied by great amount of chaff release, and bean expansion (up to 80%), up to 440°F and 470°F.

Refer to Roasting Process Chart.

Levitation of the beans is greater as they swell in size and become less dense, meanwhile levitation forces are less as inlet air temperature rises. Inlet air temperatures must not exceed 550°F at the end of the roast, and blower impeller may be warped and distorted if it's exposed to near 600°F.

An interlocking pressure switch on the inlet air stream blower inlet probe will prevent gas heating, unless the blower is working and creating air pressure. This is an essential safety interlock.

When the roasted beans reach the set temperature, the controller will automatically and immediately cut off the gas heat, and close the inlet air flow damper to reduce air flow so as not to blow out the lighter density and larger sized beans as inlet air cools and becomes denser.

A few minutes water cooling will stop the roast process within 15 seconds minimizing bean temp. over-ride over set point, and will rapidly reduce bean temperatures to below 300°F, preferably down to ^{below} 200°F before discharging the beans to the de-stoner cyclone for air cooling in transfer from boot to overhead bin.

All roasted beans must be blown out of roast chamber, before new ^{bean} batch ^{is} added. Roast weight losses measured are an important confirmation to end bean temp.

WJ 9-1-77

ATTACHMENT 2

Visible Emissions Observations Reports
For 1987 and 1988 on Existing Coffee Line

**KOOGLER AND ASSOCIATES ENVIRONMENTAL SERVICES
SUMMARY OF VISIBLE EMISSIONS**

PLANT : LYKES PASCO
SOURCE: BLOWDOWN DISCHARGE
DATE : 7-9-87
TIME : 1030-1100

MINUTES	VISIBLE EMISSION DATA				SIX-MINUTE AVG
1	0	0	0	0	0.00
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	0.00
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	0.00
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	0.00
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	0.00
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	



AVERAGE OPACITY: 0.0

HIGHEST ROLLING SIX-MINUTE AVERAGE: 0.0

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

THIS IS TO CERTIFY THAT

THOMAS E. BARTLEY HAS COMPLETED THE
STATE OF FLORIDA VISIBLE EMISSIONS EVALUATION TRAINING
EPA REFERENCE METHOD 9. Dec 2, 1987
THIS CERTIFICATE EXPIRES



 CERTIFICATE OFFICER BEARER'S SIGNATURE

KOGLER AND ASSOCIATES ENVIRONMENTAL SERVICES
SUMMARY OF VISIBLE EMISSIONS

PLANT : LYKES PASCO
SOURCE: COFFEE ROASTER
DATE : 7-9-87
TIME : 1100-1130

MINUTES	VISIBLE EMISSION DATA				SIX-MINUTE AVG
1	0	0	0	0	1.67
2	0	0	0	5	
3	0	5	0	0	
4	0	0	5	5	
5	5	0	5	5	
6	5	0	0	0	
7	0	0	5	5	5.42
8	5	5	5	5	
9	5	5	5	5	
10	5	10	5	5	
11	5	5	10	5	
12	5	5	10	10	
13	10	5	5	5	2.08
14	5	0	5	5	
15	5	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	5	0	0	0	
19	0	0	0	0	0.00
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	0.00
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

AVERAGE OPACITY: 1.8

HIGHEST ROLLING SIX-MINUTE AVERAGE: 6.0



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Judi Seaw CERTIFICATE OFFICER
Thomas E. Bartley BEARER'S SIGNATURE

KOGLER AND ASSOCIATES ENVIRONMENTAL SERVICES
 SUMMARY OF VISIBLE EMISSIONS

PLANT : LYKES PASCO
 SOURCE: COFFEE BEAN COOLER
 DATE : 7-9-87
 TIME : 1130-1200

MINUTES	VISIBLE EMISSION DATA				SIX-MINUTE AVG
1	0	0	0	0	0.00
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	0.00
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	0.00
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	0.00
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	0.00
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

AVERAGE OPACITY: 0.0

HIGHEST ROLLING SIX-MINUTE AVERAGE: 0.0



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 EPA REFERENCE METHOD 9. Dec 2, 1987
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Jodi Seaw CERTIFICATE OFFICER
Thomas E. Bartley BEARER'S SIGNATURE

KOGLER AND ASSOCIATES ENVIRONMENTAL SERVICES
SUMMARY OF VISIBLE EMISSIONS

PLANT : LYKES PASCO DADE CITY, FLA.
SOURCE: COFFEE BLOWDOWN
DATE : 2/10/88
TIME : 1540-1610

MINUTES	VISIBLE EMISSION DATA				SIX-MINUTE AVG
1	0	0	0	0	0.00
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	10.00
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	0.00
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	0.00
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	0.00
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

AVERAGE OPACITY: 0.0

HIGHEST ROLLING SIX-MINUTE AVERAGE: 0.0

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

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THOMAS E. BARTLEY has completed the STATE OF FLORIDA visible emissions evaluation training and is a qualified observer of visible emissions as specified by EPA reference method 9.

THIS CERTIFICATE EXPIRES Jun 1, 1988

Michael R. Clark
CERTIFICATE OFFICER

TE Bartley
BEARER'S SIGNATURE

KOGLER AND ASSOCIATES ENVIRONMENTAL SERVICES
SUMMARY OF VISIBLE EMISSIONS

PLANT : LYKES PASCO DADE CITY, FLA.
SOURCE: COFFEE ROASTER
DATE : 2/10/88
TIME : 1615-1645

MINUTES	VISIBLE EMISSION DATA			SIX-MINUTE AVG	
1	5	5	5	5	5.21
2	5	5	10	5	
3	5	5	5	5	
4	5	5	5	5	
5	5	5	5	5	
6	5	5	5	5	
7	10	5	5	5	5.21
8	5	5	5	5	
9	5	5	5	5	
10	5	5	5	5	
11	5	5	5	5	
12	5	5	5	5	
13	5	5	5	5	1.04
14	0	0	0	0	
15	0	0	0	0	
16	0	0	5	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	5	0.83
20	5	0	0	0	
21	0	0	0	0	
22	0	0	0	5	
23	0	5	0	0	
24	0	0	0	0	
25	0	0	0	0	0.00
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

AVERAGE OPACITY: 2.5

HIGHEST ROLLING SIX-MINUTE AVERAGE: 5.4



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THIS CERTIFICATE EXPIRES Jun 1, 1988

Michael R. Clark CERTIFICATE OFFICER
TE Bartley BEARER'S SIGNATURE

KOUGLER AND ASSOCIATES ENVIRONMENTAL SERVICES
SUMMARY OF VISIBLE EMISSIONS

PLANT : LYKES PASCO DADE CITY, FLA.
SOURCE: COFFEE BEAN COOLER
DATE : 2/11/88
TIME : 1346-1416

MINUTES	VISIBLE EMISSION DATA				SIX-MINUTE AVG
1	0	0	0	0	0.00
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	0.00
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	0.00
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	0.00
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	0.00
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

AVERAGE OPACITY: 0.0

HIGHEST ROLLING SIX-MINUTE AVERAGE: 0.0

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THOMAS E. BARTLEY has completed the STATE OF FLORIDA visible emissions evaluation training and is a qualified observer of visible emissions as specified by EPA reference method 9.

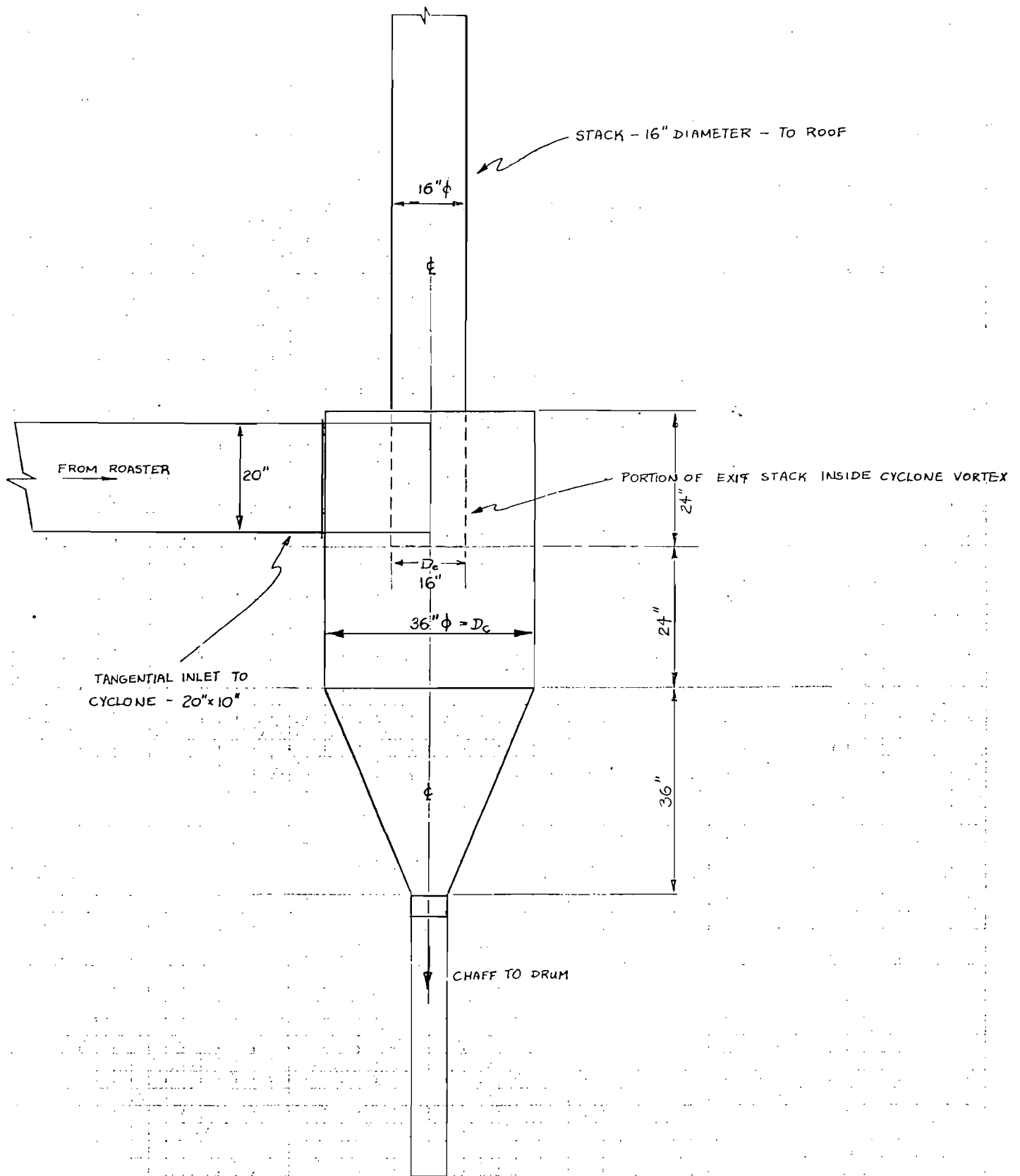
THIS CERTIFICATE EXPIRES Jun 1, 1988

Michael R. Clark
CERTIFICATE OFFICER

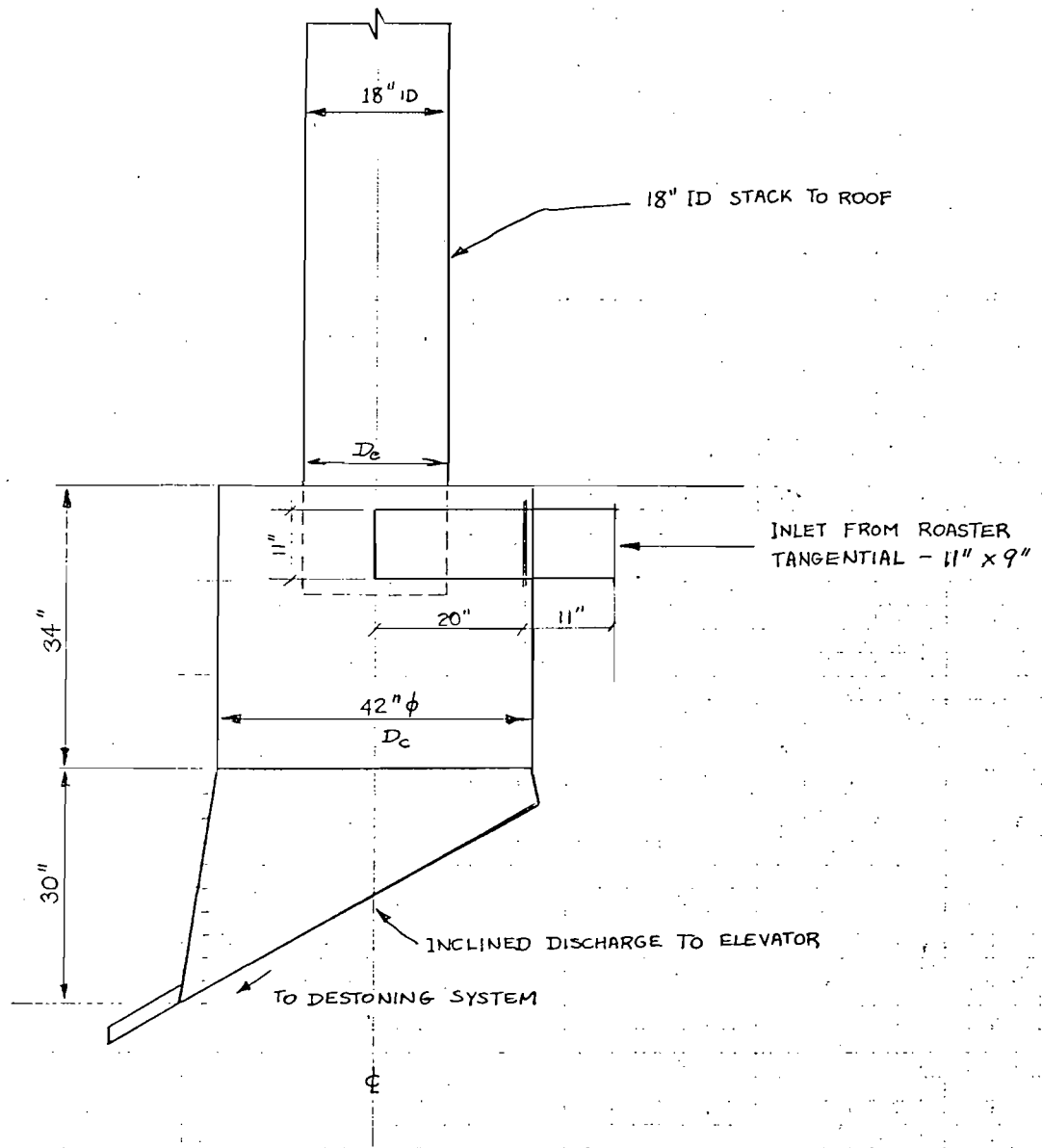
TE Bartley
BEARER'S SIGNATURE

ATTACHMENT 3

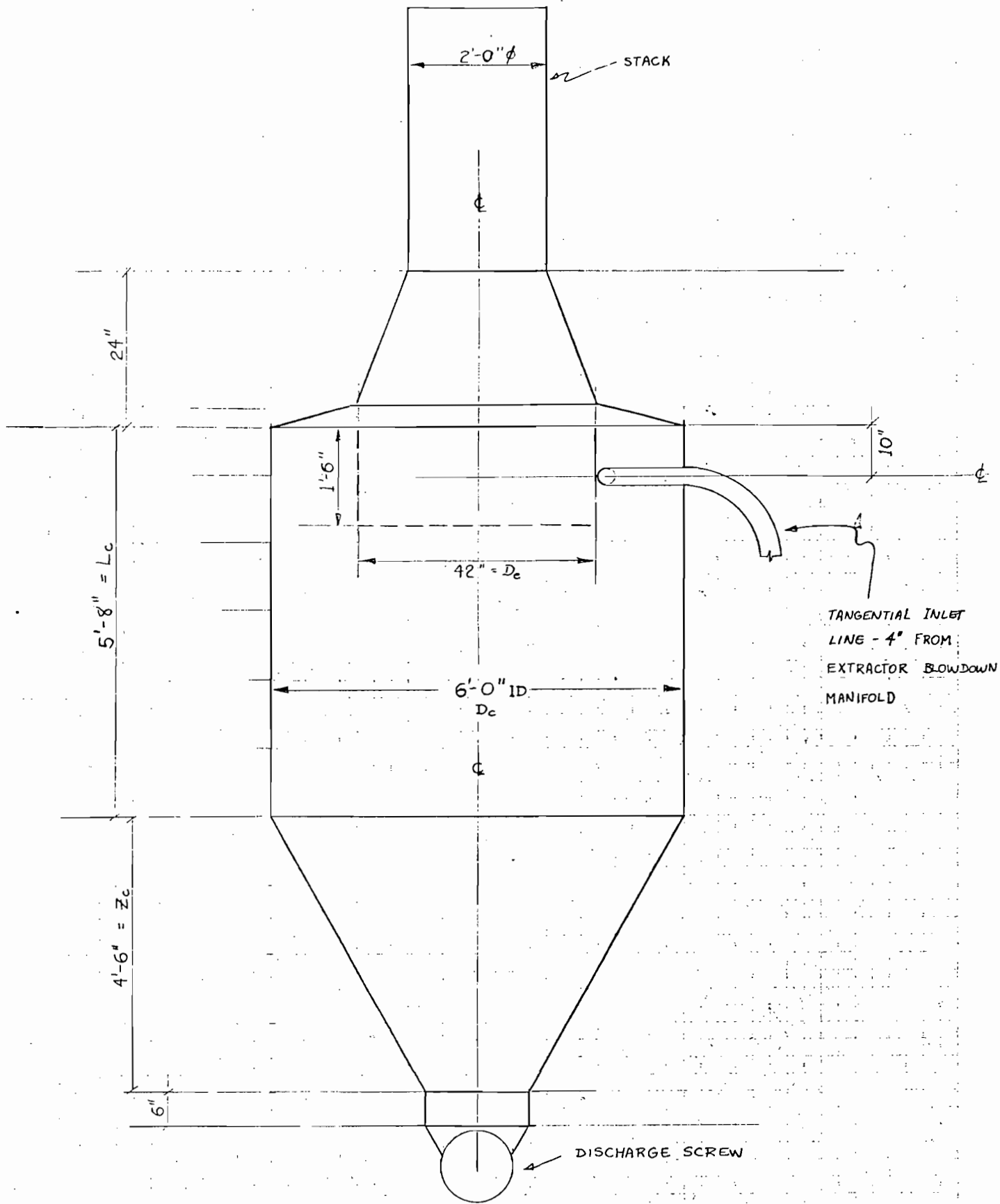
Cyclone Specifications
and Specifications for
Roaster Combustion Chamber Fan



ROASTER CHAFF CYCLONE



ROASTER COOLER CYCLONE



EXTRACT CYCLONE



The
New York Blower
Company

PERFORMANCE CURVE

CUSTOMER'S NO. 653

CUSTOMER SIVETZ COFFEE ENTERPRISES

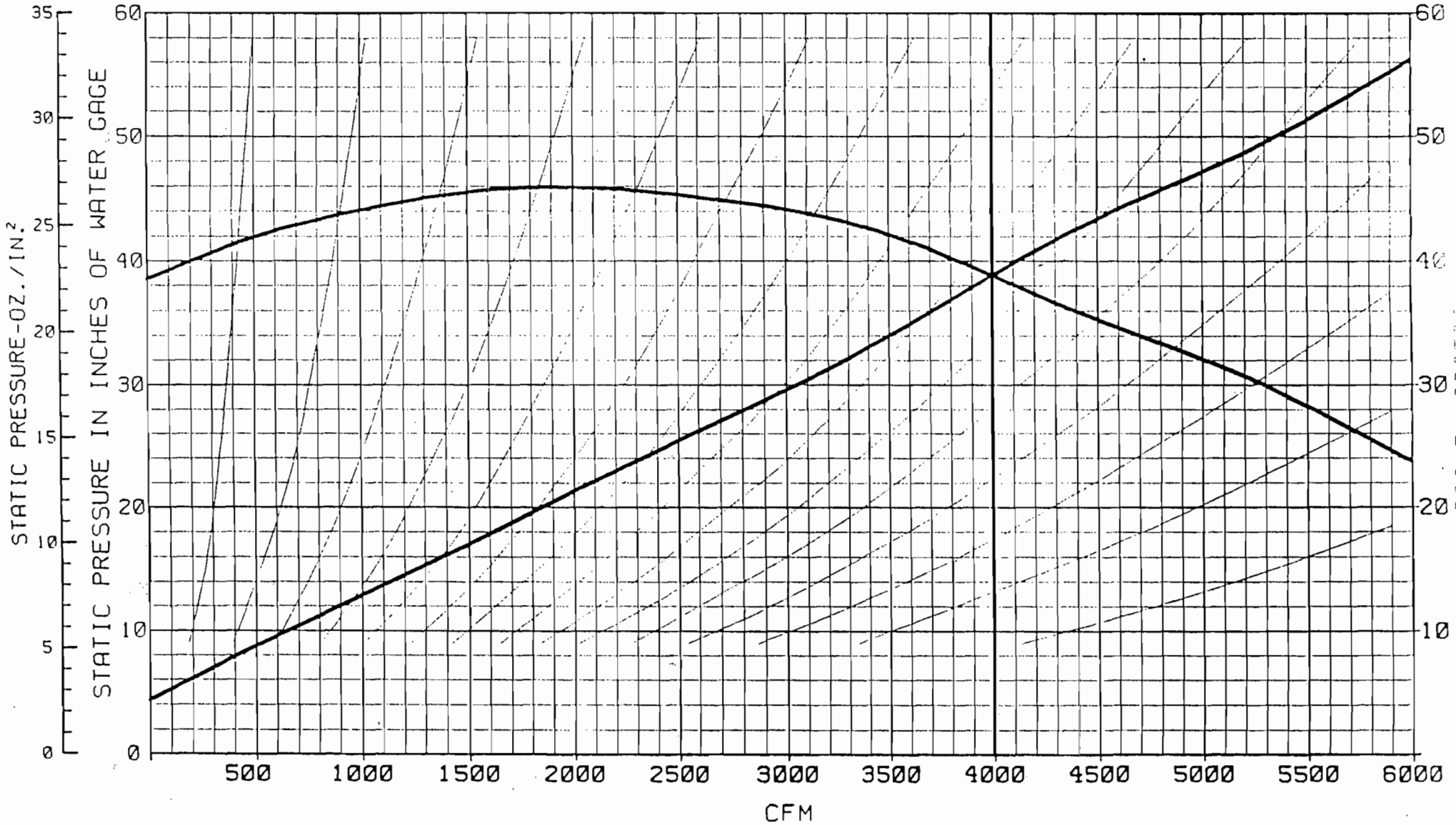
TAGGING _____

FILE NO. D-7221 DATE August 4, 1988

SIZE 2312S TYPE PRESSURE BLOWER

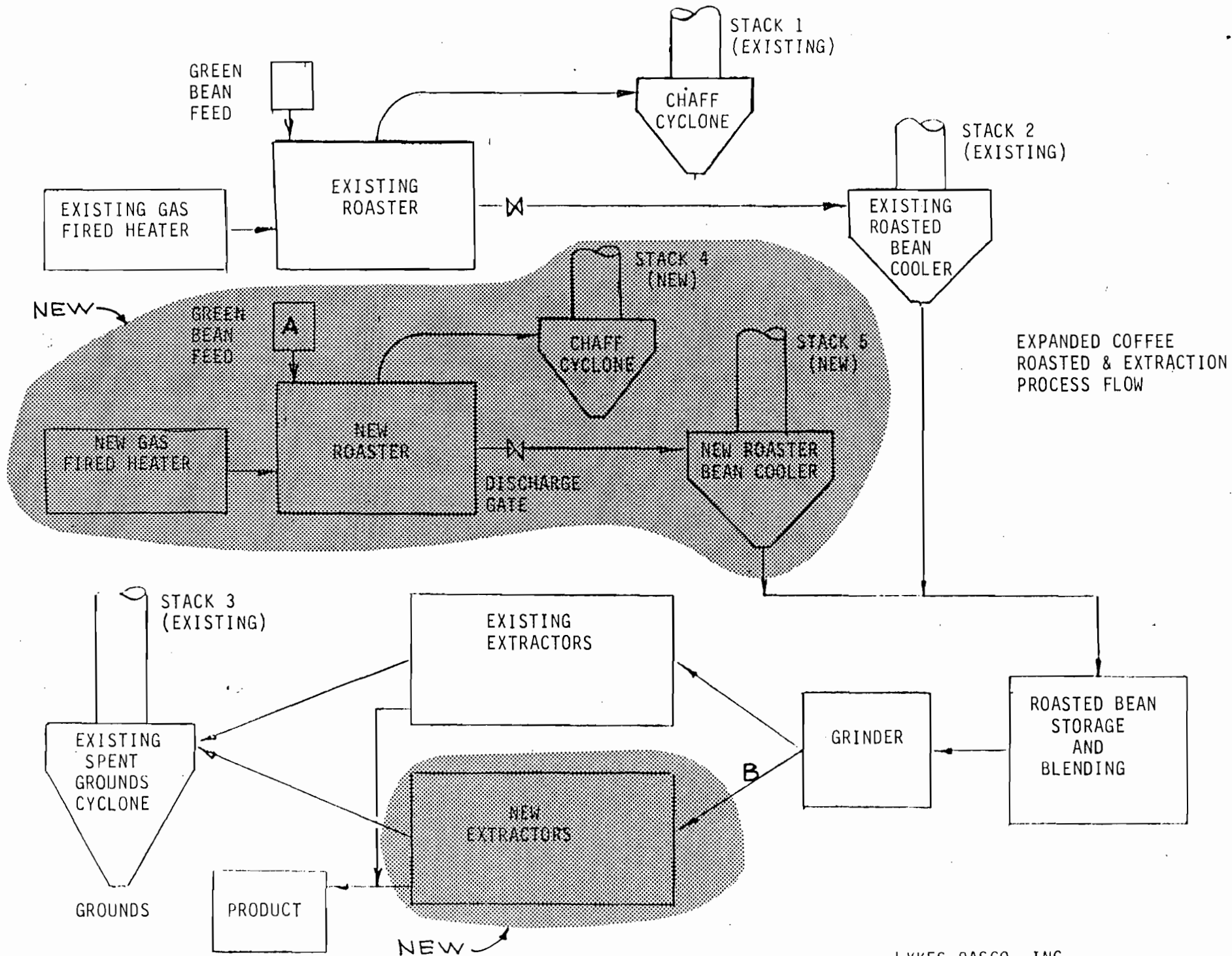
4000 CFM AT 39 *SP AT 70 F.

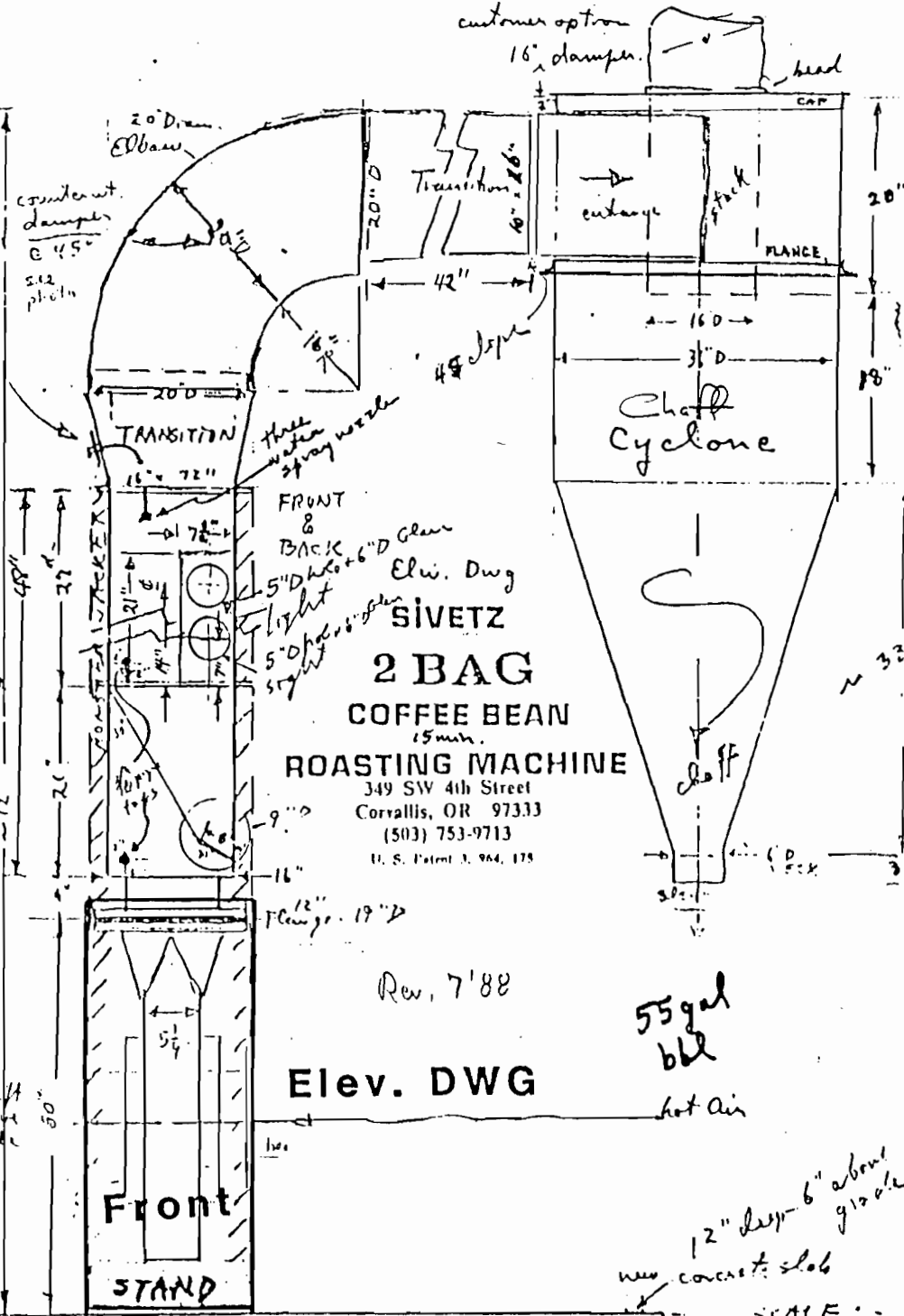
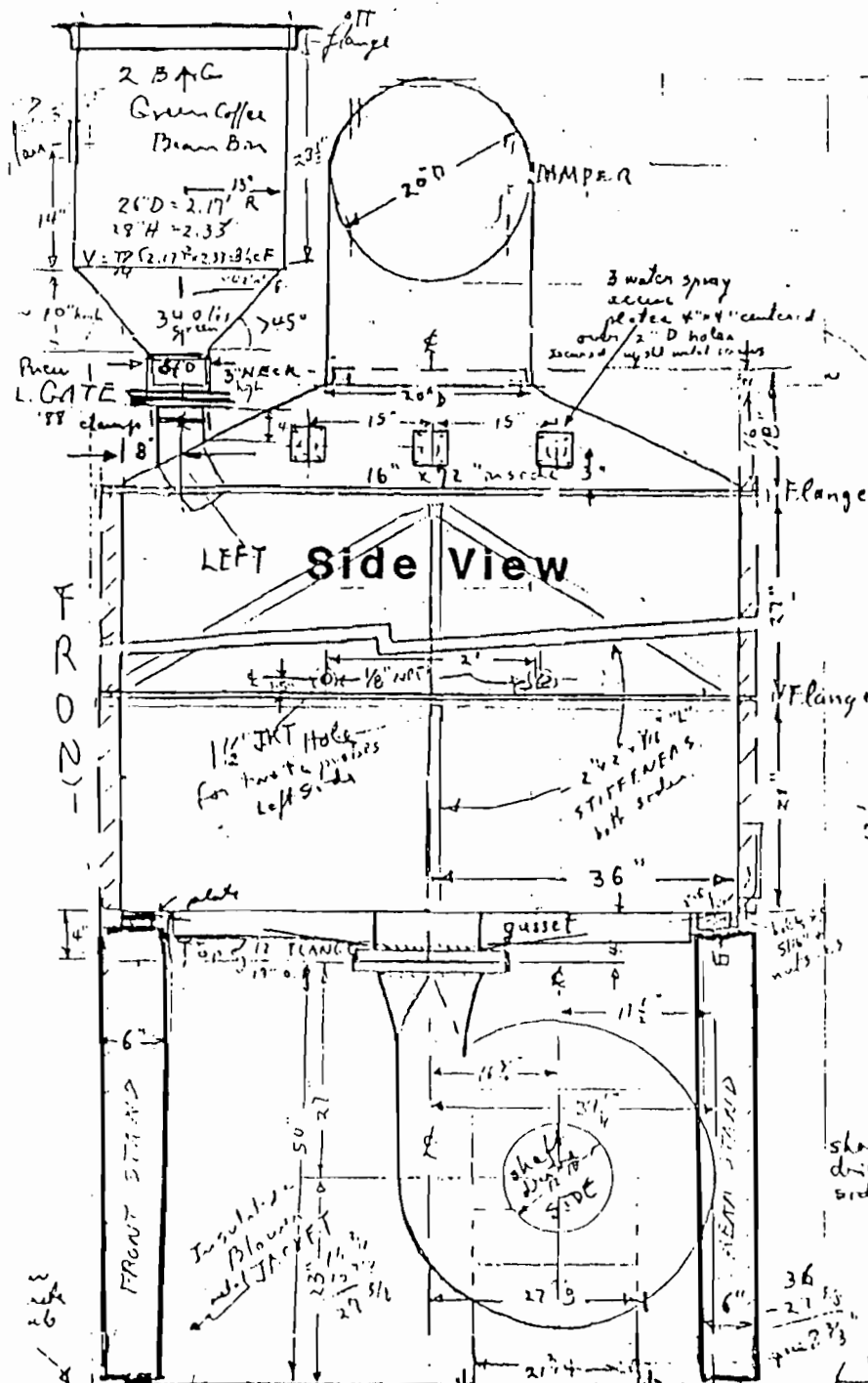
AT 3550 RPM AT 39 BHP



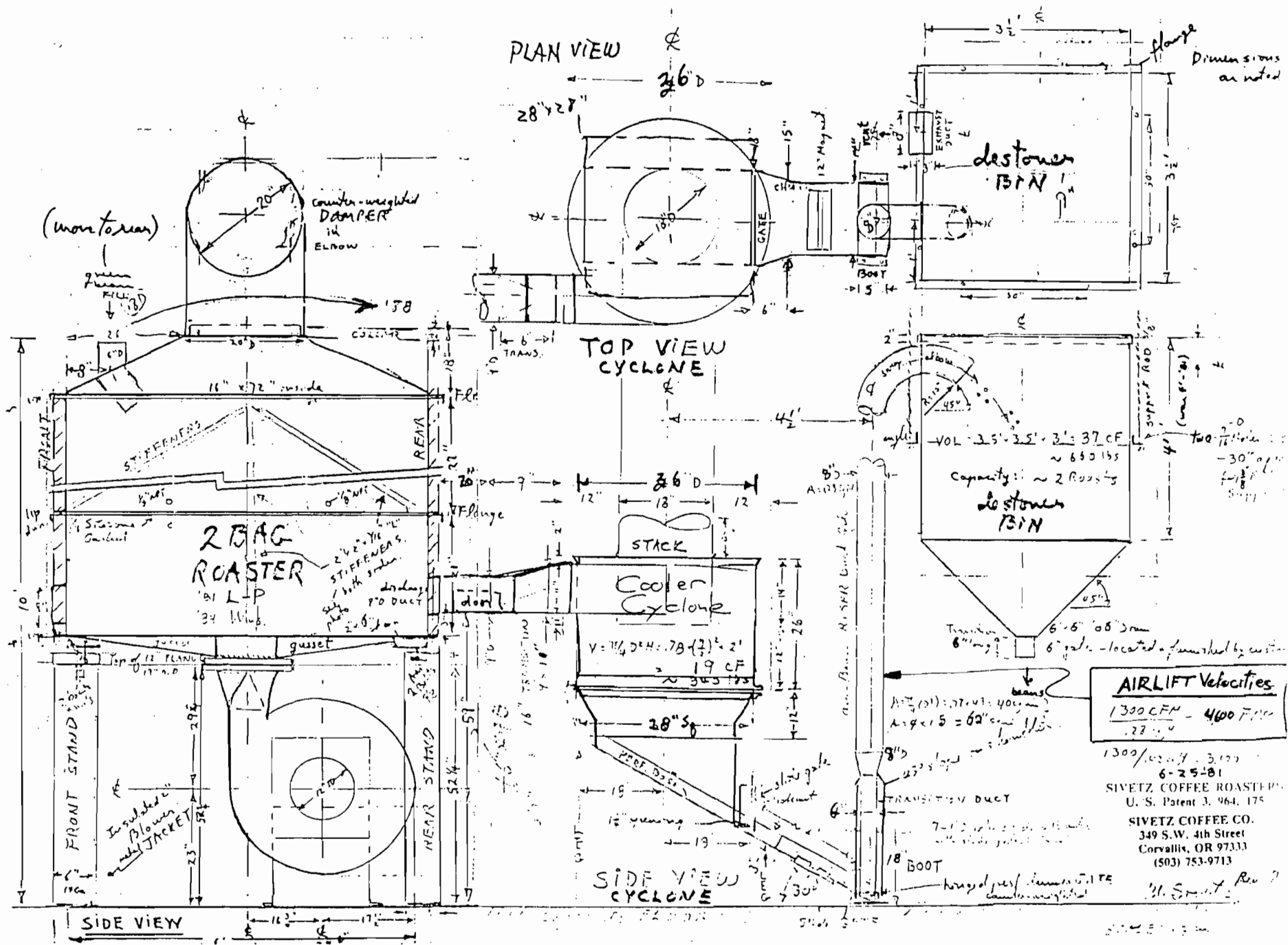
ATTACHMENT 4

Process Diagrams





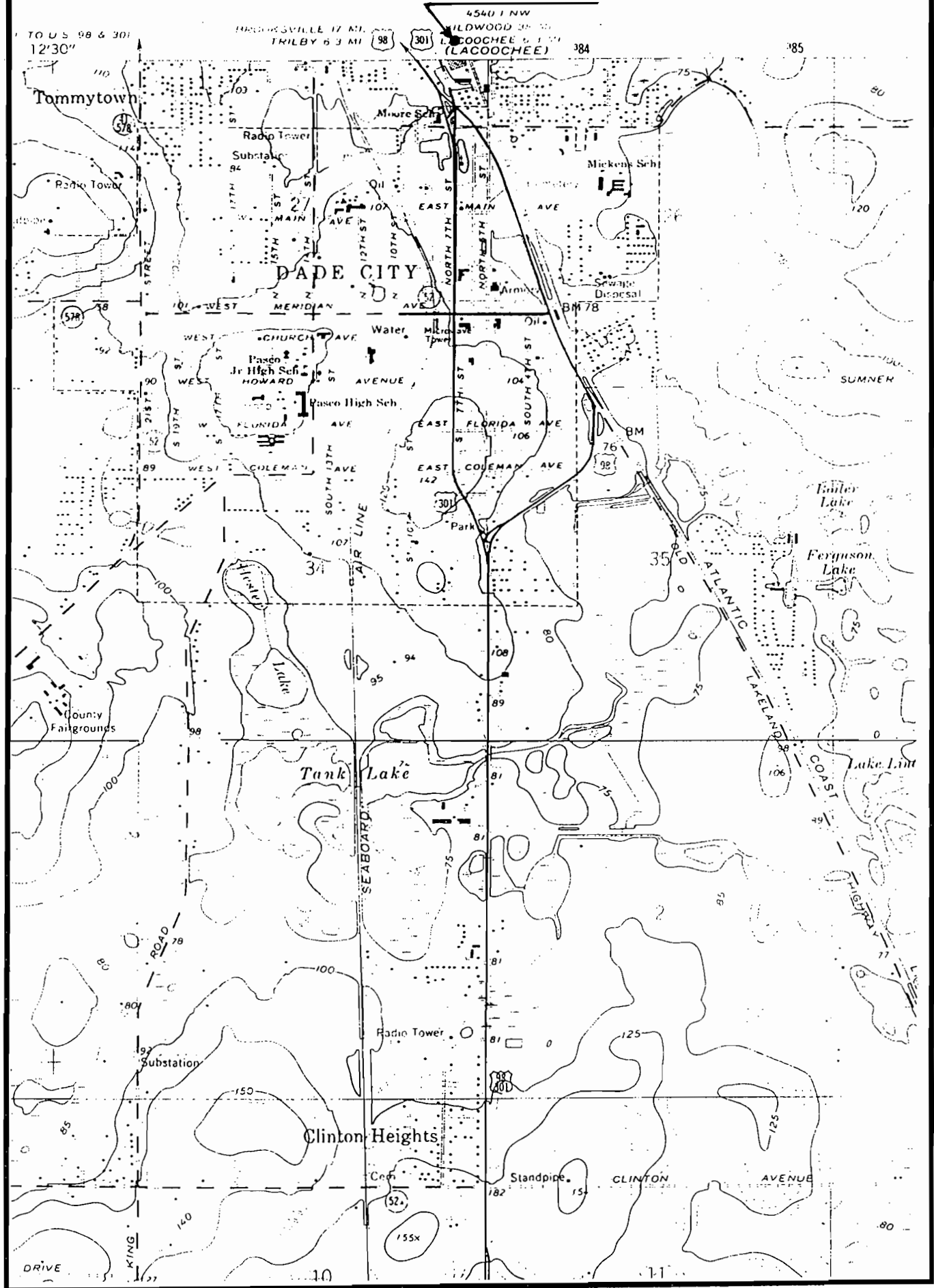
2 BAG ROASTER → ROAST BEAN CYCLO LIFT-COOLER & de-STONER
OVERHEAD ROAST BEAN BIN



ATTACHMENT 5

Location Map

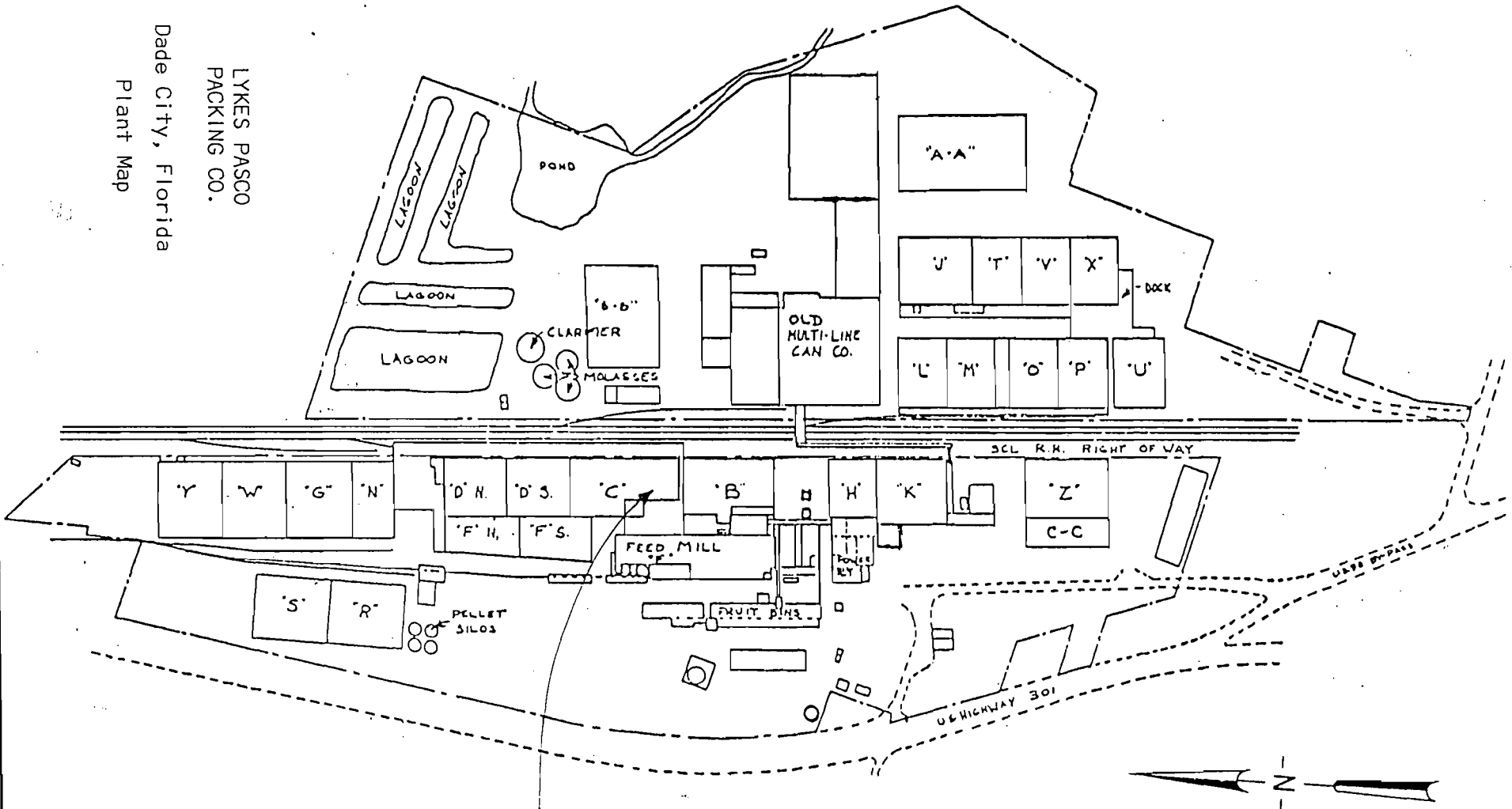
Source Location



ATTACHMENT 6

Site Map

LYKES PASCO
PACKING CO.
Dade City, Florida
Plant Map

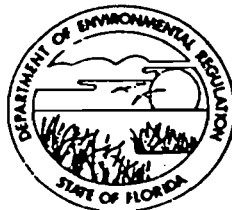


Coffee Line Location

ATTACHMENT 7

Permit for Existing Coffee Line

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION



SOUTHWEST DISTRICT

4520 OAK FAIR BLVD.
TAMPA, FLORIDA 33610-9544

813-623-5561
SunCom—552-7612

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

DR. RICHARD D. GARRITY
DEPUTY ASSISTANT SECRETARY

PERMITTEE:
Mr. N. W. Hunt
Vice President - Technical
Services
Lykes Pasco, Inc.
Post Office Box 97
Dade City, FL 33525

PERMIT/CERTIFICATION
Permit No.: A051-149866
County: Pasco
Expiration Date: 08/25/93
Project: Coffee Roaster, Bean
Cooler and Coffee Extractor

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

For the operation of a 300 pound batch coffee roaster (2.5 batches/hour) fired by natural gas, a bean cooler and a coffee extractor. Emissions from the roaster are vented through a Chaff Collection cyclone; bean cooler is vented through a Roasted Bean discharge cyclone and coffee extractor vented through Spent Grounds Blowdown cyclone.

Location: U.S. Highway 301 North, Dade City

UTM: 17-385.5E 3139.2N NEDS NO: 0002 Point ID: 26
32 and 33

Replaces Permit No.: A051-71244

PERMITTEE:
Lykes Pasco, Inc.

PERMIT NO: A051-149866
PROJECT: Coffee Roaster, Bean
Cooler and Coffee Extractor

SPECIFIC CONDITIONS:

1. A part of this permit is the attached 15 General Conditions.
2. Particulate emissions from the coffee roaster, bean cooler and coffee extractor shall not exceed 1.95 lbs./hour based on the process input rate of 0.375 tons/hour, pursuant to Subsection 17-2.610(1)(b), F.A.C. At lesser process rates, the allowable emission rates can be determined from the appropriate equation.
3. Visible emissions from the coffee roaster, bean cooler and coffee extractor shall not be equal to or greater than 20% opacity in accordance with Subsection 17-2.610(2)(a), F.A.C.
4. Test the emissions from the coffee roaster, bean cooler and coffee extractor for the following pollutant(s) at intervals of 12 months from the date of July 19, 1988 and submit a copy of test data to the Air section of the Southwest District of the Department of Environmental Regulation within 45 days of such testing, Subsection 17-2.700(2), Florida Administrative Code (F.A.C.).

(X) Particulates
(X) Opacity
5. Compliance with the emission limitations of Specific Conditions No. 2 and 3 shall be determined using EPA Methods 1, 2, 4, 5, and 9 contained in 40 CFR 60, Appendix A and adopted by reference in Section 17-2.700, F.A.C. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Section 17-2.700, F.A.C. and 40 CFR 60, Appendix A.
6. The maximum allowable emission rate for particulate matter for the coffee roaster, bean cooler, and coffee extractor is set by the Process Weight Table contained in Subsection 17-2.610(1), F.A.C. Because of the expense and complexity of conducting a stack test on minor sources of particulate matter, the Department pursuant to the authority granted under Subsection 17-2.610(2)(a)(3), F.A.C. hereby waives the requirement for a stack test. The alternative standard set forth by this provision establishes a visible emission limitation not to exceed an opacity of 5% as an indication of compliance.
7. No objectionable odors will be allowed, as per Subsection 17-2.620(2), F.A.C.

PERMITTEE:
Lykes Pasco, Inc.

PERMIT NO: A051-149866
PROJECT: Coffee Roaster, Bean
Cooler and Coffee Extractor

8. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provision in Subsection 17-2.610 (3), F.A.C.. These provisions are applicable to any source, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling.

9. Should the Department have reason to believe the particulate emission standard is not being met from the coffee roaster, bean cooler and coffee extractor, the Department may require that compliance with the particulate emission standards be demonstrated by testing in accordance with Section 17-2.700, F.A.C.

10. Testing of emissions must be accomplished at approximately the rates as stated in the application. Failure to submit the input rates while conducting the V.E. test or operation at conditions which do not reflect actual operating conditions may invalidate the data (Subsection 403.161(1)(c), F.S.).

11. The Southwest District Office of the Department of Environmental Regulation shall be notified in writing 15 days prior to compliance testing.

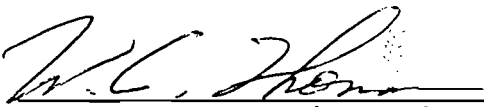
12. Submit for this source, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

- (A) Annual amount of materials and/or fuels utilized.
- (B) Annual emissions (note calculation basis).
- (C) Any changes in the information contained in the permit application.

13. An application to renew this operating permit shall be submitted to the Department sixty (60) days prior to the expiration date of this permit.

Issued this 29 day of August
1988

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION


For Richard D. Garrity, Ph.D.
Deputy Assistant Secretary