STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

August 10, 1983

Mr. R. L. Webb, Vice President
Union Camp Corporation
Post Office Box 60369
Jacksonville, Florida 32236

Dear Mr. Webb:

The bureau is in receipt of your request to extend the expiration date of the construction permit, No. AC 16-65833. Also, the question was raised about the Certificate of Completion being acceptable in lieu of the application to operate an air pollution source as found in "Specific Condition No. 7" of the Permit. The requests will be responded to separately and the changes to the permit will follow immediately:

Expiration Date:

From: December 31, 1983
To: April 30, 1984

After checking with General Counsel, the department as a policy requires an application to obtain construction and operating permits. Therefore, an application shall be required to obtain an operating permit.

"Specific Condition No. 7":

From: A Certificate of Completion shall be submitted to the DER's Northeast District Office or its designee (Duval County's Bio-Environmental Services) prior to receiving an operating permit or an application for an operating permit shall be submitted prior to 90 days before the expiration date of this permit. The permittee may continue to operate in compliance with all terms of this construction permit until its expiration date or the issuance of an operating permit.

To: An application for an operating permit shall be submitted prior to 90 days before the expiration date of this permit to the DER's Northeast District or its designee (Duval County's Bio-Environmental Services). The permittee may continue to operate in compliance with all terms of this

construction permit until its expiration date or the issuance of an operating permit.

Attachment to be incorporated is:

6. Mr. J. C. Bowers' letter dated August 1, 1983.

This letter and attachment must be attached to your permit, No. AC 16-65833, and shall become a part of that permit.

Sincerely,

Victoria J. Tschinkel
Secretary

VJT/bmm

cc: Jerry Woosley
John Ketteringham
Nancy Wright

ATTACHMENT 6

TERPENE AND AROMATICS DIVISION

P. O. BOX 60369, JACKSONVILLE, FLA. 32236 TELEPHONE (904) 783-2180 TELEX 808561

August 1, 1983

DER
AUG 03 1983
BAQM

Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301

Attn: Mr. C. H. Fancy, P.E.
Deputy Bureau Chief

Re: Permit No. AC16-65833

Dear Mr. Fancy:

The estimated starting and completion dates in the application for the above referenced permit were predicated upon the permit being issued by the end of May. As you know, the review period was extended by the request for additional information.

Also there were some unforeseen delays internally and actual construction will not start for several weeks.

Therefore, we request that the expiration date be extended to April 30, 1984. An extension to this date will allow enough time for the submission of a Certificate of Completion accompanied by the results of testing to demonstrate compliance with Specific Condition No. 3. It is our understanding that such a submission will be acceptable in lieu of an application for an Operation Permit.

Your favorable consideration of this request will be greatly appreciated.

Very truly yours,

J. C. Bowers
Assistant to the Vice President

JCB/nr

cc: W. J. deGroot
John Ketteringham
Jerry Woosley

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

July 19, 1983

Mr. R. L. Webb, Vice President
Union Camp Corporation
P. O. Box 60369
Jacksonville, Florida 32236

Dear Mr. Webb:

Enclosed is Permit Number AC 16-65833 dated July 15, 1983, to Union Camp Corporation, issued pursuant to Section 403, Florida Statutes.

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

Sincerely,

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

CHF/bjm

Enclosure

cc: W. J. DeGroot, Union Camp Corporation
John Ketteringham, DER Northeast District
Jerry Woosley, Duval County Bio-Environmental Services Division

FINAL DETERMINATION

Humate Material Processing Project
Union Camp Corporation
Jacksonville, Florida

Application Number
AC 16-65833

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

Final Determination
Union Camp Corporation
Humate Spray Drier, Storage, Bagging and Load-out Operation

The construction permit application has been reviewed by the department. Public notice of the department's intent to issue was published in the Florida-Times Union on June 7, 1983. The preliminary determination and technical evaluation was available for public inspection at the Duval County's Bio-Environmental Services (BES) office, the DER's Northeast District office and Bureau of Air Quality Management (BAQM) office.

Comments (Attachment 5) were received from Mr. Jerry E. Woosley with BES on June 27, 1983. The bureau will make the following revisions to the "Specific Conditions" and they will read:

Specific Conditions:

Comment: Chapter 17-2.650(2)(c)12.b., FAC, limits emissions to 5% opacity or 0.03 gr/dscf.

BAQM
Comment: Since there is doubt to the legal interpretation as to whether "or" means inclusive, the humate spray drier emission limits will be issued as drafted.

Comment: Chapter 17-2.650(2)(c)11.b., FAC, limits a loadout sleeve being removed from a ship's hold to 10% opacity.

From:

3. Maximum allowable pollutant emissions from the proposed project are:

Source	Pollutant	Maximum Allowable Emissions
Humate Spray Drier	VE	no visible emissions (no greater than 5% opacity)
Bagging Operation	VE	must be vented to the HSDB
Cyclone Separator	VE	must be vented to the HSDB
Product Storage Tank	VE	must be vented to the HSDB
Vehicle Loading Operation	VE	no visible emissions (no greater than 5% opacity) except 10% opacity when removing the load-out sleeve from the vehicle hold

To:

3. Maximum allowable pollutant emissions from the proposed project are:

Source	Pollutant	Maximum Allowable Emissions
Humate Spray Drier	VE	no visible emissions (no greater than 5% opacity)
Bagging Operation	VE	must be vented to the HSDB
Cyclone Separator	VE	must be vented to the HSDB
Product Storage Tank	VE	must be vented to the HSDB
Vehicle Loading Operation	VE	no visible emissions (no greater than 5% opacity)

From:

4. Compliance tests required shall be EPA Method 9 for VE. Source testing and reporting requirements shall be in accordance with Chapter 17-2.700, FAC. Compliance test reports must be filed with the DER Northeast District office or its designee (Duval County's Bio-Environmental Services). Compliance tests shall be conducted at 95-100 percent of the allowed process input rate.

To:

4. Compliance tests shall be required using EPA Method 9 (DER Method 9) for VE. Source testing and reporting requirements shall be in accordance with Chapter 17-2.700, FAC. Compliance test reports must be filed with the DER's Northeast District office or its designee (Duval County's Bio-Environmental Services). Compliance tests shall be conducted with all operations utilizing the baghouse operating simultaneously at 90-100% of their input feed rates in order to simulate maximum potential loading into the baghouse. Operations not utilizing the baghouse shall compliance test at 90-100% of their maximum input feed rates.

Attachments to be incorporated are:

5. Mr. Jerry E. Woosley's letter dated June 23, 1983.

It is recommended that the construction permit be issued as drafted, with the above revisions and attachments incorporated.

ATTACHMENT 5

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

June 23, 1983

Mr. Bill Thomas
Bureau of Air Quality Management
Dept. of Environmental Regulation
2600 Blairstone Road
Tallahassee, Florida 32301

DER
JUN 27 1983
BAQM

Re: Humate Spray Drier Operation
Application No. AC16-65833
Union Camp Corporation

Dear Mr. Thomas:

Bio-Environmental Services Division provides the following comments concerning the referenced application:

(1) Technical Evaluation and Preliminary Determination, Part II - Rule Applicability, Paragraph 6 states an applicable emission limit of 5% is set in accordance with Chapter 17-2.650(2)(c)12.b, Florida Administrative Code (FAC). It is my understanding from a previous discussion with Nancy Wright of your legal staff, that the appropriate emission limit would include 0.03 gr/dscf and 5% opacity, because the "or" in the referenced section of the FAC is inclusive. Since the mass emission limit is applicable, the appropriate mass emission test is warranted.

(2) Paragraph 8 of the above mentioned references the loadout arm as being subject to the 5% opacity limit in accordance with Chapter 17-2.650(2)(c)11.b., FAC, and subject to the 10% opacity limit when the loadout sleeve is being removed from the vehicle hold. It is my understanding that the 10% opacity limit is only applicable for loading operations into ships pursuant to the referenced chapter.

(3) The Construction Permit should specify that during testing (VE, particulate, or both), the spray drier, bagging operation, cyclone separator, and product storage tank be in operation to simulate maximum potential loading into the baghouse. If both compliance tests are required, they should be performed concurrently.

Your consideration of these items is appreciated.

Very truly yours,

Jerry E. Woosley
Assistant Engineer

JEW/vj
cc: Doug Dutton, DER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
P. O. Box 60369
Jacksonville, Florida 32236

Permit Number: AC 16-65833
Expiration Date: December 31, 1983
County: Duval
Latitude/Longitude: 30° 20' 53"N/ 81° 45' 05"W
Project: Humate Spray Drier, cyclone separator, storage tanks, bagging operation unit, vehicle load-out arm, and an associated baghouse

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

For the construction of a humate spray drier using flue gas heat from steam generating boilers Nos. 2 and 3, a cyclone separator, humate slurry and product storage tanks, a product bagging operation, a vehicle load-out arm, and an associated baghouse at the permittee's existing facility located at the above address. The UTM coordinates are Zone 17-427.65 km East and 3357.35 km North.

Construction shall be in accordance with the permit application and plans, documents, amendments, and drawings except as otherwise noted on pages 5-7 of the "Specific Conditions".

Attachments are as follows:

1. Application to consruct Air Pollution Sources, DER Form 17-1.122(16).
2. Jerry E. Woosley's letter dated February 4, 1983.
3. C. H. Fancy's letter of incompleteness dated March 2, 1983.
4. R. L. Webb's letter of response dated March 25, 1983.
5. Jerry E. Woosley's letter dated June 23, 1983.

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
Jacksonville, FL 32236

I. D. Number:
Permit Number: AC 16-65833
Expiration Date: December 31, 1983

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, unless specifically authorized by an order from the department.

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
Jacksonville, FL 32236

I. D. Number:
Permit Number: AC 16-65833
Expiration Date: December 31, 1983

GENERAL CONDITIONS:

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

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

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information:

a. a description of and cause of non-compliance; and

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

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
Jacksonville, FL 32236

I. D. Number:
Permit Number: AC 16-65833
Expiration Date: December 31, 1983

GENERAL CONDITIONS:

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

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

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

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS:

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. Maximum total process input rate into the humate spray drier (HSD) shall not exceed 11,800 pounds per hour (lbs/hr) of humate slurry, which consists of 9600 lbs/hr water and 2200 lbs/hr solids.

2. The HSD will utilize flue gases from Nos. 2 and 3 steam generating boilers for its heat. There are no combustible fuels associated with the HSD.

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
Jacksonville, FL 32236

I. D. Number:
Permit Number: AC 16-65833
Expiration Date: December 31, 1983

SPECIFIC CONDITIONS:

3. Maximum allowable pollutant emissions from the proposed project are:

Source	Pollutant	Maximum Allowable Emissions
Humate Spray Drier	VE	no visible emissions (no greater than 5% opacity)
Bagging Operation	VE	must be vented to the HSDB
Cyclone Separator	VE	must be vented to the HSDB
Product Storage Tank	VE	must be vented to the HSDB
Vehicle Loading Operation	VE	no visible emissions (no greater than 5% opacity)

4. Compliance tests shall be required using EPA Method 9 (DER Method 9) for VE. Source testing and reporting requirements shall be in accordance with Chapter 17-2.700, FAC. Compliance test reports must be filed with the DER's Northeast District office or its designee (Duval County's Bio-Environmental Services). Compliance tests shall be conducted with all operations utilizing the baghouse operating simultaneously at 90-100% of their input feed rates in order to simulate maximum potential loading into the baghouse. Operations not utilizing the baghouse shall compliance test at 90-100% of their maximum input feed rates.

5. No objectionable odor shall be allowed on off-plant property.

6. If fugitive PM emissions do occur with this modification they must be quantified and shall be used in PSD pollutant emissions inventory.

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
Jacksonville, FL 32236

I. D. Number:
Permit Number: AC 16-65833
Expiration Date: December 31, 1983

SPECIFIC CONDITIONS:

7. A Certificate of Completion shall be submitted to the DER's Northeast District Office or its designee (Duval County's Bio-Environmental Services) prior to receiving an operating permit or an application for an operating permit shall be submitted prior to 90 days before the expiration date of this permit. The permittee may continue to operate in compliance with all terms of this construction permit until its expiration date or the issuance of an operating permit.

Issued this 15 day of July, 1983

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

June 1, 1983

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. R. L. Webb
Vice President
Union Camp Corporation
Post Office Box 60369
Jacksonville, Florida 32236

Dear Mr. Webb:

Attached is one copy of the Technical Evaluation and Preliminary Determination, and proposed permit for the construction of a humate spray drier and baghouse at your existing facility in Jacksonville, Duval County, Florida.

Before final action can be taken on your proposed permit, you are required by Florida Administrative Code Rule 17-1.62(3) to publish the attached Notice of Proposed Agency Action in the legal advertising section of a newspaper of general circulation in Duval County no later than fourteen days after receipt of this letter. The department must be provided with proof of publication within seven days of the date the notice is published. Failure to publish the notice will be grounds for denial of the permits.

The Preliminary Determination and proposed permit constitute a proposed action of the department and are subject to administrative hearing under the provisions of Chapter 120, Florida Statutes, if requested within fourteen days from receipt of this letter. Any petition for hearing must comply with the requirements of Florida Administrative Code Rule 28-5.201 and be filed with the Office of General Counsel, Florida Department of Environmental Regulation, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to file a request for hearing within fourteen days shall constitute a waiver of your right to a hearing. Filing is deemed complete upon receipt by the Office of General Counsel.

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

Sincerely,

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

CHF/pa

Attachments

cc: W. J. DeGroot, Union Camp Corporation
John Ketteringham, DER Northeast District
Jerry Woosley, Duval County Bio-Environmental Services Division

Technical Evaluation
and
Preliminary Determination

Humate Material Processing Project
Union Camp Corporation
Jacksonville, Florida

Application Number
AC 16-65833

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

NOTICE OF PROPOSED AGENCY ACTION

The Department of Environmental Regulation gives notice of its intent to issue a permit to Union Camp Corporation for the construction of a humate spray drier, a cyclone separator, humate slurry and product storage tanks, a bagging operation unit, a vehicle load-out arm, and an associated baghouse at their existing facility in Jacksonville, Duval County, Florida. A determination of Best Available Control Technology (BACT) was not required.

A person who is substantially affected by the Department's proposed permitting decision may request a hearing in accordance with Section 120.57, Florida Statutes, and Chapters 17-1 and 28-5, Florida Administrative Code. The request for hearing must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a request for hearing within this time period shall constitute a waiver of any right such person may have to request a hearing under Section 120.57, Florida Statutes.

The application, technical evaluation and department intent are available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at the following locations:

DER Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, FL 32301

DER Northeast District
3426 Bills Road
Jacksonville, Florida 32207

Department of Health, Welfare and Bio-Environmental Services
Bio-Environmental Services Division
Air and Water Pollution Control
515 West 6th Street
Jacksonville, Florida 32206-4397

Comments on this action shall be submitted in writing to Bill Thomas of Tallahassee office within thirty (30) days of this notice.

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

28-5.15 Requests for Formal and Informal Proceedings

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

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

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

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

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

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

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

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

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

I. PROJECT DESCRIPTION

A. Applicant

Union Camp Corporation
P. O. Box 60369
Jacksonville, Florida 32236

B. Project Description and Location

The applicant intends to construct a humate spray drier, a cyclone separator, humate slurry and product storage tanks, a bagging operation unit, a vehicle load-out arm, and an associated baghouse at the Union Camp Corporation's existing major facility.

The new sources will be located at 2051 North Lane Avenue in Jacksonville, Duval County, Florida. The UTM coordinates are Zone 17-742.765 km East and 3357.350 km North.

C. Process and Controls

The raw material, humate slurry, will be delivered to the existing plant in tank trucks and stored in storage tanks. The humate slurry is slightly greater than 80 percent water and is an organic by-product of titanium ore mining operations. Humate is a naturally occurring substance resulting from the degradation of plant and animal life.

From the storage tanks, the humate slurry will be conveyed in an enclosed device to a completely enclosed drier, which will utilize flue gas heat from the existing boilers No. 2 (AO 16-20814) or No. 3 (AO 16-36783). The humate slurry will be sprayed into the drier chamber and dried by the flue gas heat. Therefore, no combustion fuel will be required for this new source.

The dried product will be conveyed from the drying operation through a cyclone separator and then to a storage tank by an enclosed conveying device. The cyclone separator and storage tank will be vented to the control device, a baghouse. The baghouse will be a modified 2 G 4 Mikro-Pulsaire with a particulate matter (PM) collection efficiency of 99.5 percent.

An enclosed conveying device will also be utililzed to load the dried product into bulk carriers. The loading arm, which will be inserted into the vehicle tank, will be equipped with a sleeve that will retain any PM emissions which might result while loading.

Some of the dried product will be packaged in bags. The bagging operation unit will utilize a properly designed hood and

vented to the baghouse.

II. RULE APPLICABILITY

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

The proposed project is estimated to emit 3.942 tons per year (TPY) of the pollutant PM, which by definition would be a minor source in accordance with Chapter 17-2.100(101), FAC.

Union Camp Corporation (UCC) is located in the Duval County Nonattainment Area for the pollutant ozone (O_3) in accordance with Chapter 17-2.410(1)(a)3., FAC. UCC is also located in the area of influence of the Duval County Particulate Matter Nonattainment Area in accordance with Chapter 17-2.100(14), FAC. Therefore, the proposed project will be reviewed in accordance with Chapter 17-2.510, FAC, New Source Review for Nonattainment Areas.

UCC is an existing major facility for the pollutant SO_2 (sulfur dioxide) in accordance with Chapter 17-2.100(95), FAC. The facility is permitted to emit greater than 250 TPY of SO_2. Therefore, the proposed project will be a minor modification to a major facility and subject to Chapter 17-2.510(2)(d)4.a., FAC, Modifications to Major Facilities. According to this section, the proposed project will be exempt from Chapter 17-2.510(4), FAC, Preconstruction Review Requirements, because the modification will not result in a significant net emissions increase (as set forth in Chapter 17-2.510(2)(e)2., FAC) of the affected pollutant.

Being in a nonattainment area for the pollutant ozone and in an area of influence for the pollutant particulate matter (PM), any emissions increase of the affected pollutant from a proposed modification and new source construction would be subject to any applicable section(s) of Chapter 17-2.650, FAC, Reasonably Available Control Technology (RACT).

The humate spray drier (HSD) is subject to Chapter 17-2.650(2)(c)12., FAC, Miscellaneous Manufacturing Process Operations. The drier will use a modified baghouse as its control device. The potential PM emissions are 1 pound per hour and 3.942 tons per year, based on 2200 lbs/hr total process solids input rate, 8760 annual hours of operation, a cyclone separator, and a modified baghouse with a projected efficiency of 99.5 percent (these emissions will be used for facility PSD pollutant emissions inventory tracking). Therefore, the emissions limitation shall be "no visible emissions (no greater than 5 percent opacity)" in accordance with Chapter 17-2.650(2)(c)12. b., FAC. Compliance test method shall be EPA Method 9 in

accordance with Chapter 17-2, Table 1, FAC, Applicable Test Procedures For Point Source Compliance Tests. Compliance test procedures shall be in accordance with Chapter 17-2.700, FAC, Stationary Point Source Emissions Test Procedures.

Since the PM emissions from the cyclone separator, the dried humate product storage tank, and the dried humate product bagging operation will be controlled by the HSD baghouse, the emissions limitation, the compliance test method and procedures will be the same as the preceding paragraph.

The dried product humate vehicle load-out arm is subject to Chapter 17-2.650(2)(c)11., FAC, Materials Handling, Sizing, Screening, Crushing and Grinding Operations. Since the applicant assumes the potential PM emissions to be "nil", the emissions limitation shall be "no visible emissions (not greater than 5 percent opacity) during the loading operation except when removing the load-out sleeve from the vehicle hold, then 10 percent opacity will be allowed" in accordance with Chapter 17-2.650(2)(c)11. b., FAC. Compliance test method shall be EPA Method 9 in accordance with Chapter 17-2, Table 1, FAC. Compliance test procedures shall be in accordance with Chapter 17-2.700, FAC.

In accordance with Chapter 17-2.620(2), FAC, no person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance according to Chapter 17-2.100(108), FAC.

III. SUMMARY OF EMISSIONS

A. Emission Limitations

The regulated pollutant emissions from this modification to the existing facility are visible emissions (VE) in accordance with Chapter 17-2.650(2)(c)11., FAC, and Chapter 17-2.650(2)(c) 12., FAC.

Source	Pollutant	Maximum Allowable Emissions
Humate Spray Drier Baghouse (HSDB)	VE	no visible emissions (no greater than 5% opacity)
Bagging Operation	VE	must be vented to the HSDB
Cyclone Separator	VE	must be vented to the HSDB
Product Storage Tank	VE	must be vented to the HSDB
Vehicle Loading Operation	VE	no visible emissions (no greater than 5% opacity) except 10% opacity when removing the load-out sleeve from the vehicle hold

The permitted emissions are in compliance with all requirements of Chapter 17-2, FAC.

B. Air Quality Impacts

From a technical review of the application and amendments, the bureau has determined that the construction and operation of this proposed project will not have an impact on Florida's ambient air quality standards.

IV. CONCLUSIONS

The maximum allowable emissions from this proposed project should not cause any violation to Florida's ambient air quality standards. However, if problems do occur with the operation of any of the proposed sources, corrective action must be approved by the DER's Northeast District office or its designee (Duval County Bio-Environmental Services) and then implemented by the applicant.

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

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
P. O. Box 60369
Jacksonville, Florida 32236

Permit Number: AC 16-65833
Expiration Date: December 31, 1983
County: Duval
Latitude/Longitude: 30° 20' 53"N/ 81° 45' 05"W
Project: Humate Spray Drier, cyclone separator, storage tanks, bagging operation unit, vehicle load-out arm, and an associated baghouse

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

For the construction of a humate spray drier using flue gas heat from steam generating boilers Nos. 2 and 3, a cyclone separator, humate slurry and product storage tanks, a product bagging operation, a vehicle load-out arm, and an associated baghouse at the permittee's existing facility located at the above address. The UTM coordinates are Zone 17-427.65 km East and 3357.35 km North.

Construction shall be in accordance with the permit application and plans, documents, amendments, and drawings except as otherwise noted on pages 5-7 of the "Specific Conditions".

Attachments are as follows:

1. Application to consruct Air Pollution Sources, DER Form 17-1.122(16).
2. Jerry E. Woosley's letter dated February 4, 1983.
3. C. H. Fancy's letter of incompleteness dated March 2, 1983.
4. R. L. Webb's letter of response dated March 25, 1983.

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
Jacksonville, FL 32236

I. D. Number:
Permit Number: AC 16-65833
Expiration Date: December 31, 1983

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, unless specifically authorized by an order from the department.

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
Jacksonville, FL 32236

I. D. Number:
Permit Number: AC 16-65833
Expiration Date: December 31, 1983

GENERAL CONDITIONS:

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

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

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information:

a. a description of and cause of non-compliance; and

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

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
Jacksonville, FL 32236

I. D. Number:
Permit Number: AC 16-65833
Expiration Date: December 31, 1983

GENERAL CONDITIONS:

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

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

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

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS:

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. Maximum total process input rate into the humate spray drier (HSD) shall not exceed 11,800 pounds per hour (lbs/hr) of humate slurry, which consists of 9600 lbs/hr water and 2200 lbs/hr solids.

2. The HSD will utilize flue gases from Nos. 2 and 3 steam generating boilers for its heat. There are no combustible fuels associated with the HSD.

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
Jacksonville, FL 32236

I. D. Number:
Permit Number: AC 16-65833
Expiration Date: December 31, 1983

SPECIFIC CONDITIONS:

3. Maximum allowable pollutant emissions from the proposed project are:

Source	Pollutant	Maximum Allowable Emissions
Humate Spray Drier	VE	no visible emissions (no greater than 5% opacity)
Bagging Operation	VE	must be vented to the HSDB
Cyclone Separator	VE	must be vented to the HSDB
Product Storage Tank	VE	must be vented to the HSDB
Vehicle Loading Operation	VE	no visible emissions (no greater than 5% opacity) except 10% opacity when removing the load-out sleeve from the vehicle hold

4. Compliance tests required shall be EPA Method 9 for VE. Source testing and reporting requirements shall be in accordance with Chapter 17-2.700, FAC. Compliance test reports must be filed with the DER Northeast District office or its designee (Duval County's Bio-Environmental Services). Compliance tests shall be conducted at 95-100 percent of the allowed process input rate.

5. No objectionable odor shall be allowed on off-plant property.

6. If fugitive PM emissions do occur with this modification they must be quantified and shall be used in PSD pollutant emissions inventory.

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
Jacksonville, FL 32236

I. D. Number:
Permit Number: AC 16-65833
Expiration Date: December 31, 1983

SPECIFIC CONDITIONS:

7. A Certificate of Completion shall be submitted to the DER's Northeast District Office or its designee (Duval County's Bio-Environmental Services) prior to receiving an operating permit. An application for an operating permit shall be applied for prior to 90 days before the expiration date of this permit. The permittee may continue to operate in compliance with all terms of this construction permit until its expiration date or the issuance of an operating permit.

Issued this ___ day of_____, 1983

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

_____
VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

ATTACHMENT 1

TERPENE &
AROMATICS
DIVISION

P. O. BOX 60369, JACKSONVILLE, FLA. 32205 TELEPHONE (904) 783-2180 TWX (810) 827-0398

January 28, 1983

Mr. J. E. Woosley
Assistant Engineer
Bio-Environmental Services Division
515 West 6th Street
Jacksonville, FL 32206

Dear Mr. Woosley:

Enclosed are the original and four copies of an application to construct a spray drier and bag house.

Also enclosed is a check for the $100.00 application fee.

If there are any questions concerning this application please advise.

Very truly yours,

J. C. Bowers
Assistant to the Vice President

JCB/nr

Attachments

Best Available Copy

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Air Pollution [X] New[1] [ ] Existing[1]

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

COMPANY NAME: Union Camp Corporation COUNTY: Duval

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Humate spray drier equipped with bag house.

SOURCE LOCATION: Street 2051 N. Lane Avenue City Jacksonville

UTM: East 7427650 North 3357350

Latitude 30 ° 20 ' 53 "N Longitude 81 ° 45 ' 05 "W

APPLICANT NAME AND TITLE: R. L. Webb - Vice President

APPLICANT ADDRESS: P.O. Box 60369 Jacksonville, FL 32236

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Union Camp Corporation

I certify that the statements made in this application for a Construction Permit 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: R. L. Webb

R. L. Webb - Vice President
Name and Title (Please Type)

Date: Jan. 25, 1983 Telephone No. (904) 783-2180

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

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

(Affix Seal)

Signed: _____

W. J. deGroot
Name (Please Type)

Union Camp Corporation
Company Name (Please Type)

P.O. Box 60369, Jacksonville, FL 32236
Mailing Address (Please Type)

Florida Registration No. 13026 Date: Jan. 25, 1983 Telephone No. (904) 783-2180

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

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

The proposed unit will spray dry Humate, an organic by-product of titanium ore mining operations. Humate is a naturally occurring substance resulting from degradation of plant and animal life. Heat for the drying will be recovered from boiler flue gasses. Majority of product will be shipped in covered railroad hopper cars. Any bagging operatio will be equipped with hood and fan to minimize fugitive emissions.

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

Start of Construction June 1, 1983 Completion of Construction December 31, 1983

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.)

$144,000 - Modified bag house

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

Boiler operating permits: A016-20814 - Issued 7/13/79; expires 5/31/86
A016-36783 - Issued 7/29/81; expires 6/30/86
A016-48160 - Issued 11/24/81; expires 10/31/86

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

F. Normal equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ; if power plant, hrs/yr ____ ; if seasonal, describe: Estimated service factor - 90%

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

1. Is this source in a *non*-attainment area for a particular pollutant? Yes
   a. If yes, has "offset" been applied? N/A
   b. If yes, has "Lowest Achievable Emission Rate" been applied? N/A
   c. If yes, list non-attainment pollutants.
      ozone
2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No
3. Does the State "Prevention of Significant Deterioriation" (PSD) requirements apply to this source? If yes, see Sections VI and VII. No
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

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

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Humate Slurry	TSP	18.6	2,200	1

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

1. Total Process Input Rate (lbs/hr): 2206

2. Product Weight (lbs/hr): 2205

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission[1]		Allowed Emission[2] Rate per Ch. 17-2, F.A.C.	Allowable[3] Emission lbs/hr	Potential Emission[4]		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
TSP	1	3.942	3.81 lbs/hour	3.81	216	756.86	2
			17-2.610 Table 610-1				

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles[5] Size Collected (in microns)	Basis for Efficiency (Sec. V, It[5])
2G4 Mikro-Pulsaire	TSP	99.5 + %		See
with modified baghouse				Attachment
See attachment				

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard

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

[5]If Applicable

E. Fuels N/A

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

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

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

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

_____

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

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

_____

_____

_____

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

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

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

Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION N/A

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ days/week _____

Manufacturer _____

Date Constructed _____ Model No. _____

Section III B.

Feed to process - Humate slurry - 11,800 lbs/hr.

Water - 9,600 lbs/hr.

Solids - 2,200 lbs/hr.

* Boiler Flue Gas - 39,000 cu.ft./min.

0.1 lbs solids per MM BTU heat input - 6 lbs/hr

2206 lbs/hr.

Product - 90%+ removal of solids in cyclone - 2160 lbs/hr.

water - 170 lbs/hr.

Solids Recovered - 1990 lbs/hr.

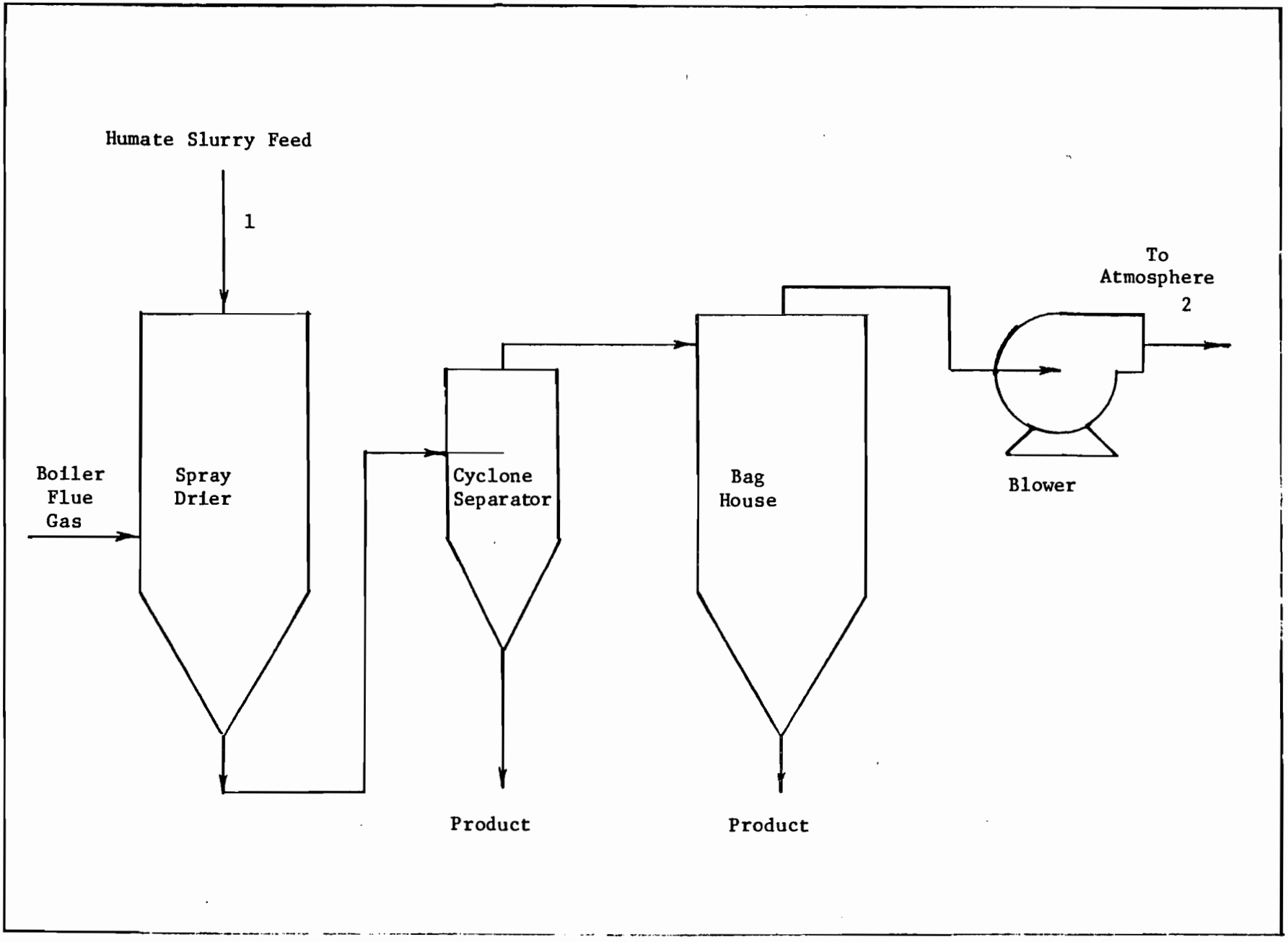
Solids to Bag House - 216 lbs/hr.

95%+ removal of solids in Bag House - 215 lbs/hr.

** Solids emissions to Atmosphere - 1 lb/hr.

* When firing boiler with No. 6 fuel oil

** This represents net reduction of 5 lbs/hr. TSP emissions over normal boiler operation.


Humate Slurry Feed
1
Boiler
Flue
Gas
Spray
Drier
Cyclone
Separator
Bag
House
To
Atmosphere
2
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Product
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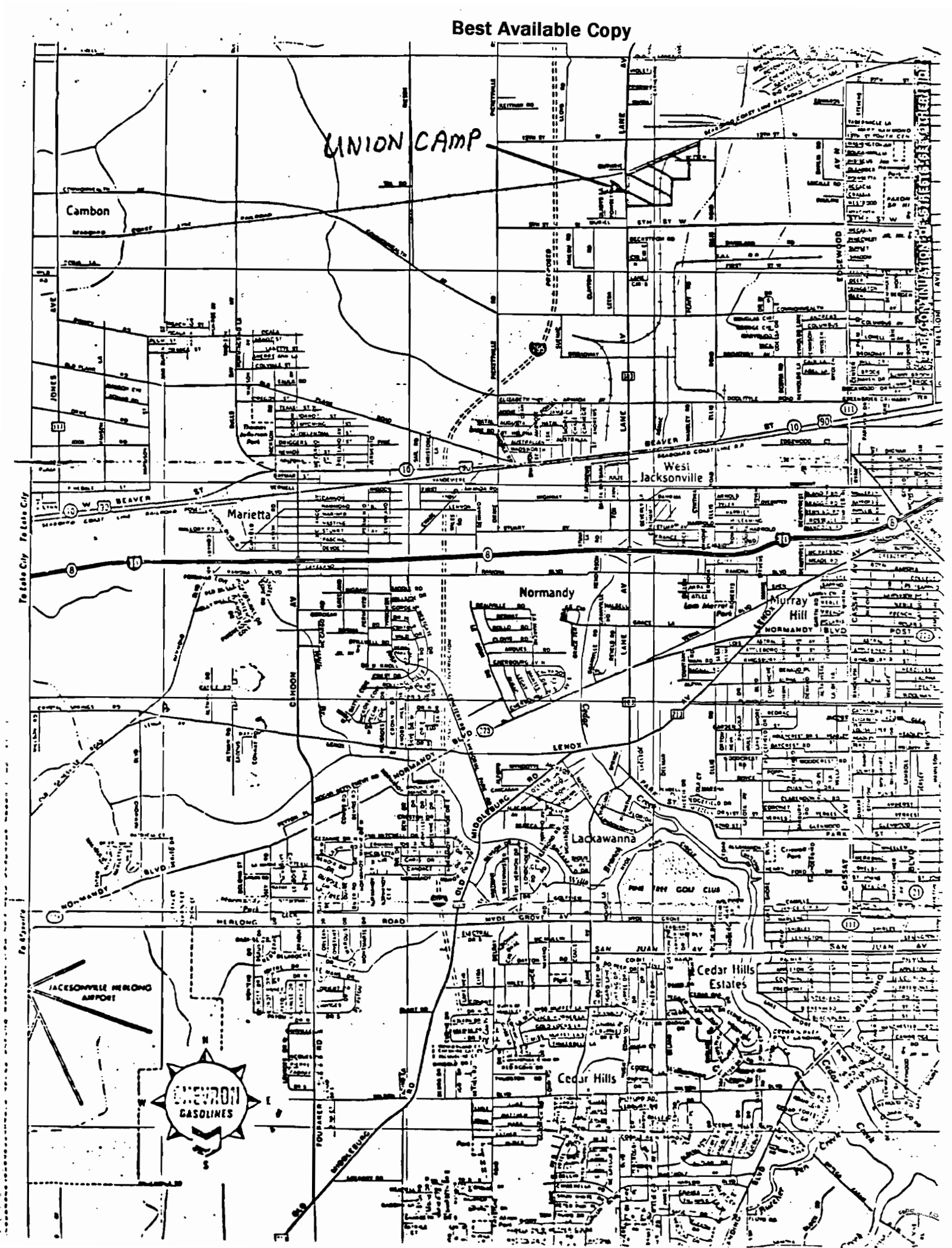

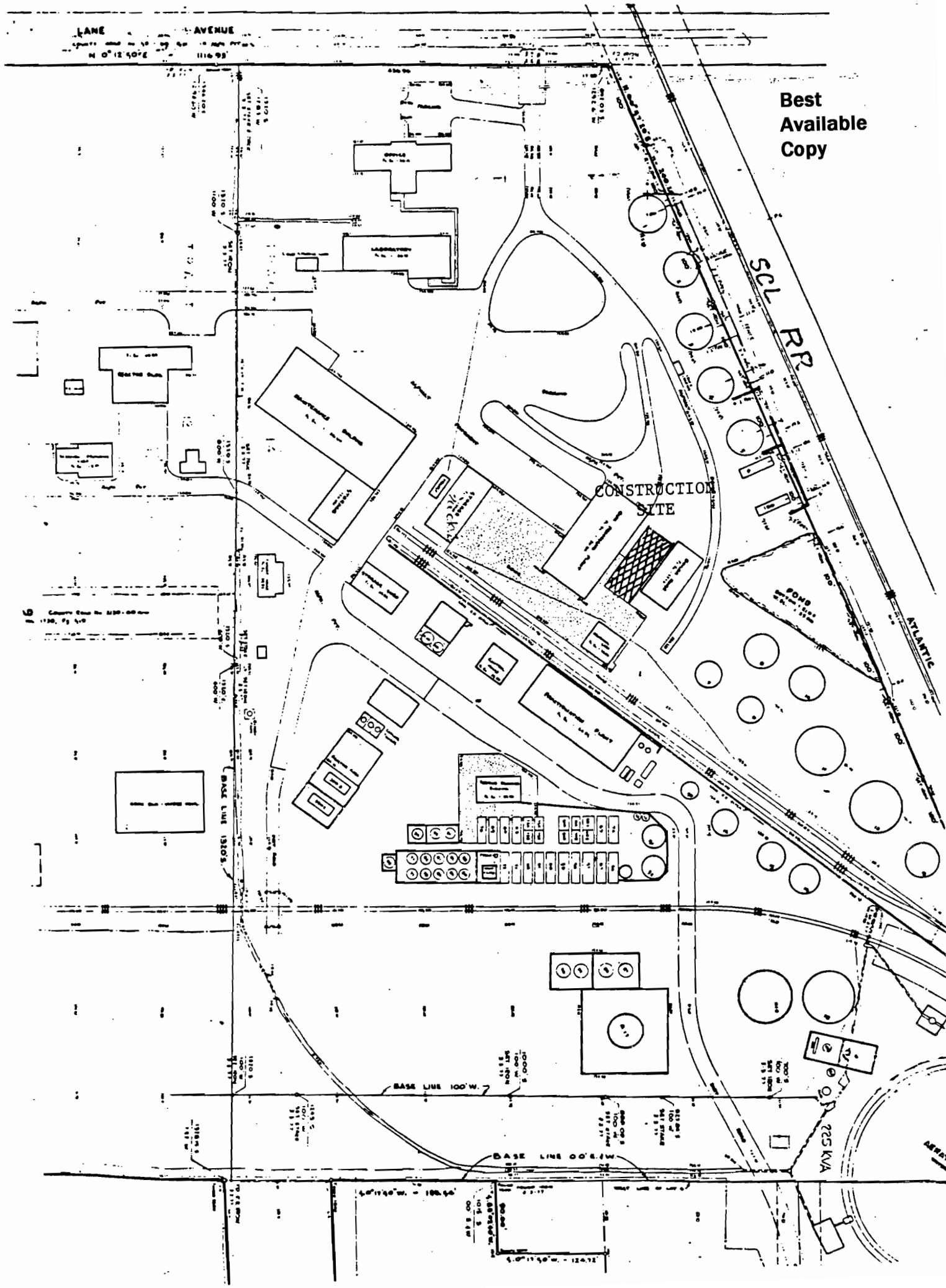

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	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (^oF)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

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

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

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

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner [ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation.
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.,) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, etc.).
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3, and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8½" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8½" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. An application fee of $20, unless exempted by Section 17-4.05(3), F.A.C. The check should be made payable to the Department of Environmental Regulation.

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

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

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

Contaminant	Rate or Concentration

*Explain method of determining D 3 above.

10. Stack Parameters

a. Height: ft. b. Diameter: ft.

c. Flow Rate: ACFM d. Temperature: °F

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy*: h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy**: h. Maintenance Costs:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

*Explain method of determining efficiency.

**Energy to be reported in units of electrical power – KWH design rate.

3.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Life: f. Operating Cost:

g. Energy: h. Maintenance Cost:

*Explain method of determining efficiency above.

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device

b. Operating Principles:

c. Efficiency*:

d. Capital Cost:

e. Life:

f. Operating Cost:

g. Energy:

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency*:

3. Capital Cost:

4. Life:

5. Operating Cost:

6. Energy:

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

*Explain method of determining efficiency above.

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

b.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

10. Reason for selection and description of systems:

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

SECTION VII – PREVENTION OF SIGNIFICANT DETERIORATION N/A

A. Company Monitored Data

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

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

Other data recorded _____

Attach all data or statistical summaries to this application.

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 on point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

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

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

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

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

MikroPul
CORPORATION

Spray Dried Humate
Union Camp Corporation
Filter Rate Test #82-4

Introduction

A filter rate test was conducted on spray dried humate. Union Camp has purchased a spray drying system for this product that is equipped with a 2G4 Mikro-Pulsaire (576 eight foot bags, 5,426 sq. ft. of cloth). Union Camp requested the filter rate test to determine if this collector is large enough to handle 28,500 ACFM at 200°F with an anticipated material loading of about 1 grain/SCF. To simulate actual collector operation, the test dust supplied was the fines from a test collector rather than product from the initial cyclone.

Description of Test Equipment

Figure 1 illustrates the schematic of the test set up.

Total Filter Area:	113.12 sq. ft.
Number of Bags:	16
Bag Diameter:	4.5" Nominal
Bag Length:	72"
Bag Material:	Polyester, 16 oz./yd.^{2}, HCE II
Cleaning Pulse Pressure:	60 PSIG
Cleaning Cycle:	One Minute
Venturi Type:	1-7/8" D, Long Throat
Average Air Temperature:	65°F.
Relative Humidity:	82%
Dust Dispersion:	Pneumatic
Length of Test Run:	50 hours plus

Results

Figure 2 summarizes the filter rate characteristic of the humate material. The test was straight forward except for seepage of the material through the bags (discussed below). There wasn't any bridging of material between bags nor any material buildup in the hopper.

MikroPul
CORPORATION

Discussion and Recommendations

The performance of a full scale Pulsaire filtering this material will be at a lower filter rate than indicated in Figure 2 since operating conditions cannot be reproduced in the laboratory. Factors such as temperature and the application must be considered.

Based on the data from the Mikro Products Reference Tables, I have selected a temperature factor of 0.75 and an application factor of 0.8 for a combined factor of 0.6. Extrapolating the filter rate curve (Figure 2), we obtain a laboratory filter rate of 5.75. Multiplied by 0.6 results in a design filter rate of 3.45:1. The present 2G4 Mikro-Pulsaire, when filtering 28,500 ACFM, would be operating at 5.25:1. This means that the collector is undersized. Using a less conservative approach in recognition of the anticipated grain loading of 1 grain/SCF or less, the lab filter rate at 5 grains/SCF, 7.0:1, can be used for the design basis. 7.0 x 0.6 = 4.2:1, still about 20% lower than the collector's operation at 5.25:1. This is too great a difference. However, if the present collector is altered to accept 10 foot bags, resulting in a 25% increase of cloth area, the resulting filter rate will be 4.2:1, right on the button. Unfortunately, such an alteration would be expensive. An additional collector with enough filter area to increase the total area to the required amount would probably cost only $12-13,000. If the ductwork was arranged to accept this add-on unit, the present collector might be run as is in order to see if its operation is acceptable.

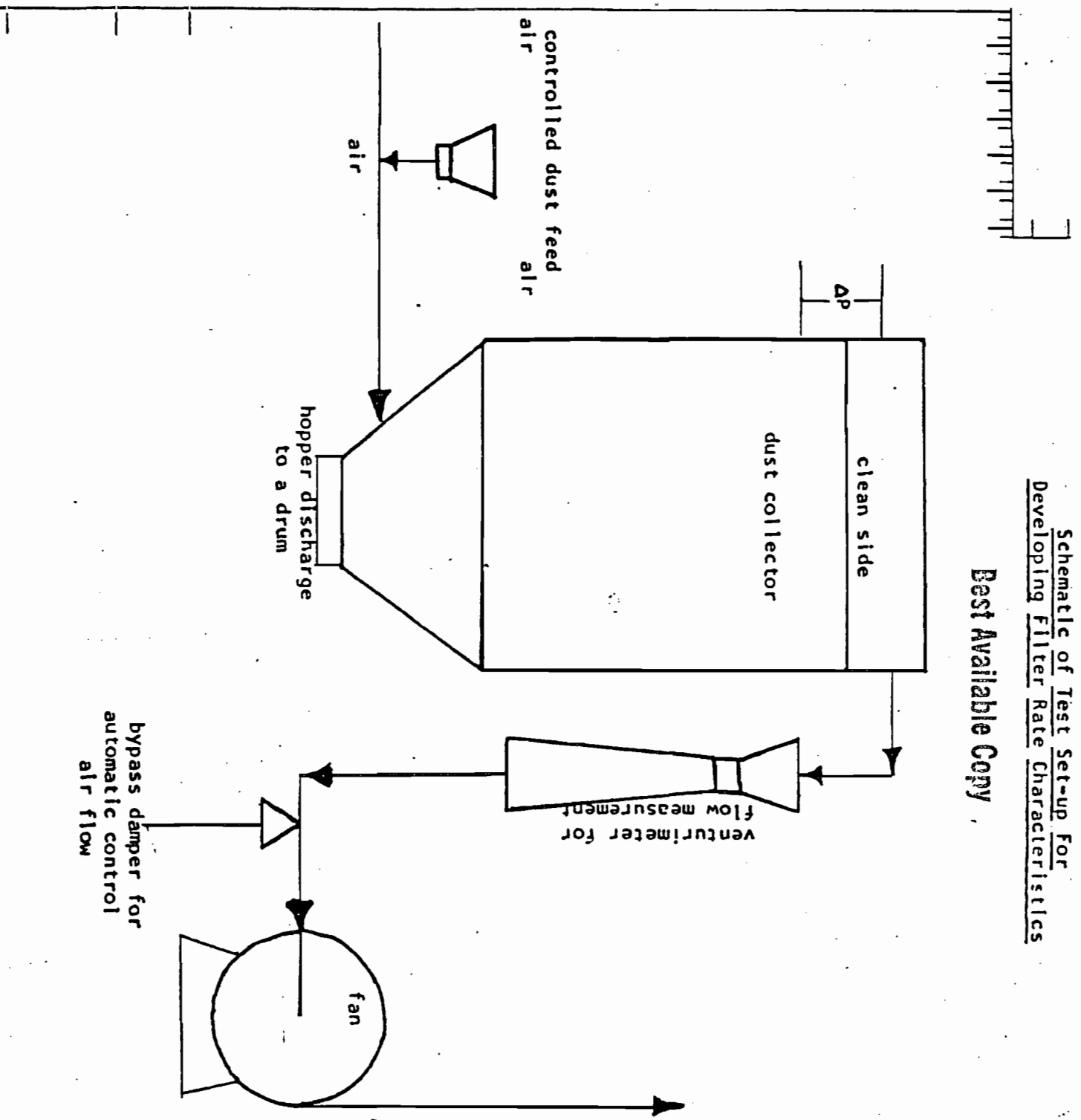
Regarding the problem of material seepage through the filter bags, a comparative efficiency test was conducted using the standard 16 oz./yd.^{2} polyester felt (with HCE II) and comparing its humate collection efficiency with the efficiencies produced by a number of other filter medias. Among the medias tested were Nomex E23, Goretex/polyester, polyester/glass, and polyester with Tuflex treatment (see Figure 3 for full results). Of these four, the polyester/glass material had the best efficiency, then Goretex/polyester, Nomex E23, and polyester with Tuflex. The Tuflex treated polyester had half the dust emission that the standard polyester did and the polyester/glass material had less than 1% of the standard polyester's emission. Frankly, I expected better performance from the Goretex material since in previous testing, it has been the most efficient. The other medias performed as expected. Selection of the filter media for this application should be from the four mentioned above, with price a primary concern.

One possible benefit some of these premium filter media provide is the ability to filter at lower pressure drops or at a higher filter rate than standard media. At various times I have seen this tendency from all of the selected four medias though not with all dusts and not at all times. It is possible that with a low dust load and a premium media, the present collector might just work.

Observations

A. Bridging of material between bags or in the collector's hopper was not observed.

B. Material seepage was excessive. Higher efficiency filter media will be necessary for the full scale collector.



Schematic of Test Set-up For Developing Filter Rate Characteristics

Figure 1
Model Test Set up for Pulsaires

USED ON ASSEMBLY
Project no. 770810

TOLERANCES
DECIMALS ± .005
FRACTIONS ± 1/16 ANGLES ± 1°
UNLESS OTHERWISE NOTED

DRAWN	DATE	CHECKED	DATE	APPROVED	DATE	DRAWING NO.	SIZE	RI
						Fig. 1		-A-

MikroPul
FORMERLY PULVERIZING MACHINERY

DIVISION OF
THE SLICK CORPORATION
SUMMIT, NEW JERSEY 07901

DEFIANCE 1020 B-2114

FIGURE 2

MikroPul CORPORATION R & D Dept.

Filter Rate Curve

TEST NO. #82-4 DATE

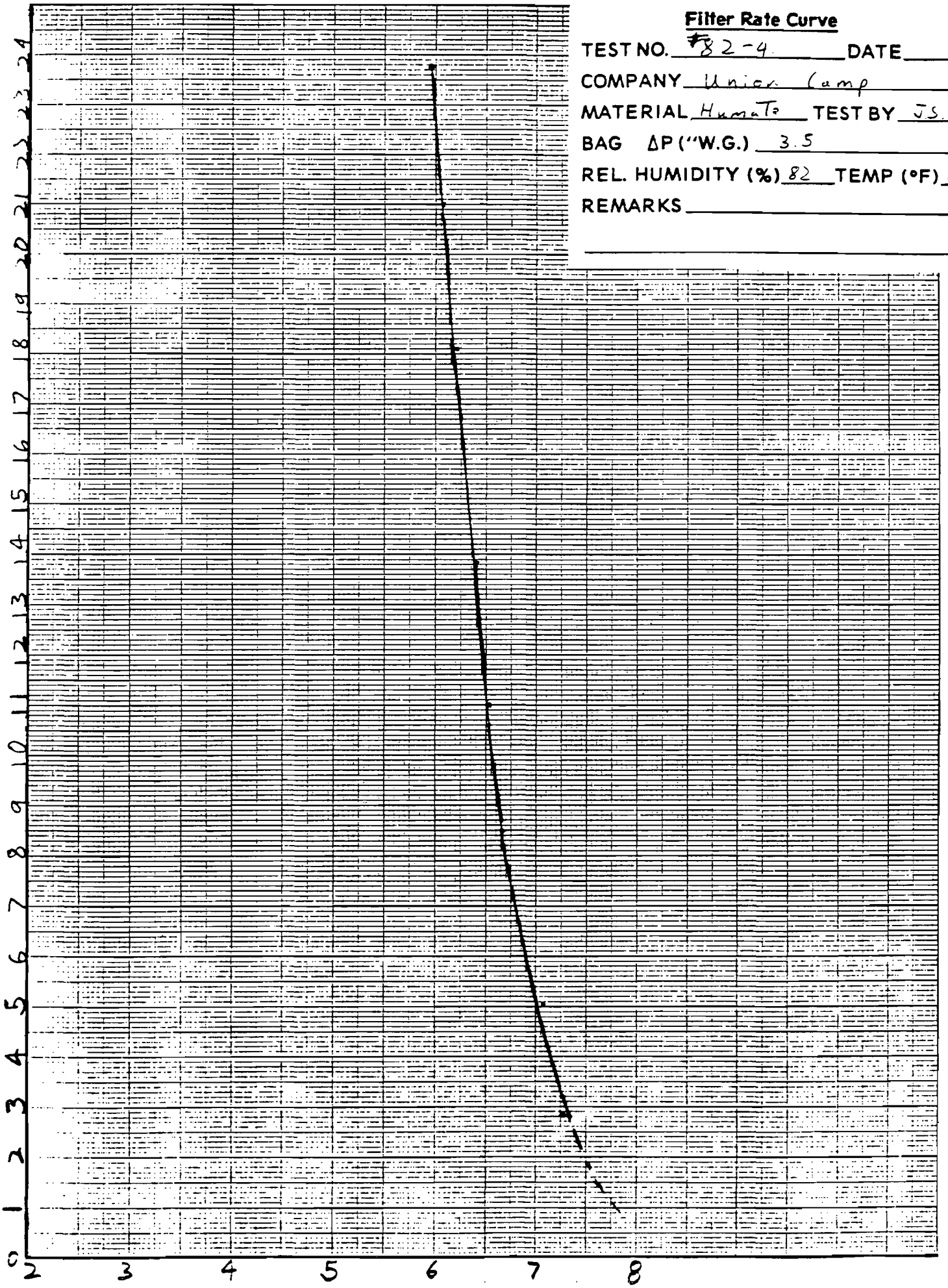
COMPANY Union Camp

MATERIAL HumaTo TEST BY JS

BAG ΔP ("W.G.) 3.5

REL. HUMIDITY (%) 82 TEMP (°F) 65

REMARKS



MikroPul
CORPORATION

Figure 3
Filter Media Collection Efficiency Test Results

Media	Average Dust Emission	Average Collection Efficiency	Average Initial Perm	Average Final Perm.	Average Final Perm.
Polyester Felt with HCE	0.000565 GR/ACF	99.9945%	22.64	11.52	.245
Polyester with Tuflex	0.00023 GR/ACF	99.9975%	17.65	7.51	.40
Nomex E23	0.00015 GR/ACF	99.998%	23.27	18.51	.14
Poly-Glass	0.0000020 GR/ACF	99.99999%	6.71	4.07	.89
Poly-Geon	0.00040 GR/ACF	99.9955%	21.03	9.57	.34
Gortex/Polyester	0.00012 GR/ACF	99.9988%	7.26	3.90	1.02
Poly with NEX 90B Teflon	0.00044 GR/ACF	99.9965%	27.51	7.22	.60

Test Dust - Humus
Perm measured at 0.5" w.g.

ATTACHMENT 2

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

February 4, 1983

Bill

DER

FEB 08 1983

BAQM

Mr. Clair Fancy, Deputy Director
Central Air Permitting Section
Department of Environmental Regulation
2600 Blairstone Road
Tallahassee, Florida 32301

Dear Mr. Fancy:

Enclosed is a Construction Permit application and $100.00 processing fee (Check No. 36125) for Union Camp Corporation's Humate Spray Drier. The permit application is being forwarded to your office for processing pursuant to the guidelines available to this Agency.

The following comments are provided for your reference:

(1) Section III H. is not completed.
(2) Which boiler(s) will be capable of providing flue gases for heat recovery?
(3) It is noted that boiler #3 is restricted to 8616 operating hours per year in order to avoid PSD review.
(4) How will emissions generated during the handling of the raw material and finished product be controlled?
(5) Is humate radioactive and/or toxic?
(6) Will the handling and/or processing of humate cause or contribute to objectionable odors?

Should you have any questions or comments concerning this matter, please advise.

Very truly yours,

Jerry E. Woosley
Assistant Engineer

JEW/am

Enc.

cc: Doug Dutton - DER w/enc.

ATTACHMENT 3

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

March 2, 1983

Mr. R. L. Webb, Vice President
Union Camp Corporation
2051 North Lane Avenue
Jacksonville, Florida 32236

Re: Completeness Review of the Application to Construct An Air Pollution Source: Permit No. AC 16-65833

Dear Mr. Webb:

The Bureau has received the above referenced application package for the construction of a "Humate Spray Drier" at your existing facility in Jacksonville, Duval County, Florida. The application package has been determined to be incomplete. The following data must be submitted to the Bureau before further processing of your request will resume:

1. Complete Section III-H, DER Form 17-1.122(16) Page 4 of 10,

2. The calculations in the application attachment indicates an efficiency for the baghouse system of 95%, yet Section III-D states an efficiency of 99.5% and Section III-C reflects an efficiency of 99.5%. If 95% is the correct efficiency, the projected emissions are 10.10 lbs/hr and 44.24 TPY particulate matter (PM). Correct the inconsistency(ies) and resubmit the corrected appropriate application sections and the calculation attachment,

3. Submit the baghouse collection efficiency as a function of the PM size range and also submit a breakdown of the PM size range of the fuel oil after firing,

4. Which boiler(s) will be used for providing the flue gas heat for the drier and include a blue print of the flue gas duct alterations (show ductings to and from, valves, etc.). Keep in mind that Boiler No. 3, AO 16-36783, has hours of operation restrictions at 8616 and that this request is for 8760 hours of operation,

5. What new construction, modification(s), and terminations at your existing facility have occurred in the last five (5) years? Submit documents showing these facility changes,

6. Calculate and submit the fugitive PM emissions expected from the storage of the raw material,

7. Calculate and submit the fugitive PM emissions expected from the storage of the product material,

8. Calculate and submit the potential emissions from the loading of the product material into transportation vehicles (rail, truck, etc), and

9. Submit answers to the comments, Nos. 1, 2, 4, 5 and 6, from BES (attached) submitted to the Bureau regarding the referenced application.

If there are any questions, please call Bruce Mitchell at (904)488-1344 or write to me at the above address.

Sincerely,

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

CHF/BM/bjm

Attachment

cc: Jerry Woosley
Doug Dutton
W. J. deGroot
Mary Smallwood

ATTACHMENT

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

February 4, 1983

Bill

DER

FEB 08 1983

DAQM

Mr. Clair Fancy, Deputy Director
Central Air Permitting Section
Department of Environmental Regulation
2600 Blairstone Road
Tallahassee, Florida 32301

Dear Mr. Fancy:

Enclosed is a Construction Permit application and $100.00 processing fee (Check No. 36125) for Union Camp Corporation's Humate Spray Drier. The permit application is being forwarded to your office for processing pursuant to the guidelines available to this Agency.

The following comments are provided for your reference:

(1) Section III H. is not completed.
(2) Which boiler(s) will be capable of providing flue gases for heat recovery?
(3) It is noted that boiler #3 is restricted to 8616 operating hours per year in order to avoid PSD review.
(4) How will emissions generated during the handling of the raw material and finished product be controlled?
(5) Is humate radioactive and/or toxic?
(6) Will the handling and/or processing of humate cause or contribute to objectionable odors?

Should you have any questions or comments concerning this matter, please advise.

Very truly yours,

Jerry E. Woosley
Assistant Engineer

JEW/am

Enc.

cc: Doug Dutton - DER w/enc.

ATTACHMENT 4

TERPENE &
AROMATICS
DIVISION

P. O. BOX 60369, JACKSONVILLE, FLA. 32205 TELEPHONE (904) 783-2180 TWX (810) 827-0398

March 25, 1983

DER
MAR 28 1983
BAQM

Bureau of Air Quality Management
Department of Environmental Regulation
Twin Towers Office Building
Tallahassee, FL 32301 - 8241

Attn: Mr. C. H. Fancy, P.E.
Deputy Chief

Dear Mr. Fancy:

Please refer to your letter of March 2, 1983 regarding the completeness review of the Application to Construct an Air Pollution Source, Permit No. AC16-65833.

Following is the additional information in the order you requested in your letter.

1. See attached page 4 of DER Form 17-1.122(16) with Section III-H completed.

2. The 99.5% bag house efficiency indicated in Sections III-C and III-D is the correct number. The 95% shown in the application attachment is a typographical error. Removal of 215 pounds by the bag house from an input of 216 pounds is a 99.5+% removal. A corrected calculation sheet is attached. (See 3 below).

3. The size range of the particulate matter resulting from firing the fuel is not available and inquiries have indicated that to obtain this data would be time consuming and expensive. In a telephone conversation with Mr. Bruce Mitchell on March 7, 1983, he indicated that this information was requested only to substantiate the claim of removal of particulate resulting from the firing of the fuel oil. In view of the above and other factors listed below, the calculation sheet (2 above) has been revised to delete this claim. Section III-B has also been revised to reflect this.

A. Discharge of the 6 lbs/hr. from the firing of the fuel oil is permitted and represents RACT for the source.

B. The primary fuel for the boilers is natural gas and the fuel oil is used considerably less than half the time.

C. Particulate emissions from this facility have been demonstrated by modeling to have no significant impact on the non-attainment area of Jacksonville.

4. Either Boiler No. 2 (A016-20814) or Boiler No. 3 (A016-36783) can be used for providing the flue gas heat for the drier. The restriction of 8616 hours of operation for Boiler No. 3 applies only to the use of fuel oil and as pointed out in 3.B above, natural gas is used as fuel the majority of the time.

The requested drawing of the flue gas duct alterations are attached.

5. During the past five years there has been one termination. The use of a sodium acetate drier, A016-4714, was discontinued and the equipment was removed from the plant premises.

With the exception of Boiler No. 3 (AC16-11888 and A016-36783) all new construction and modifications have been projects in which VOC or odorous emissions were the pollutants of concern. A tabulation of these follows:

Year	Construction Permit or Operating Permit	Current Operating Permit	Type	Description
1978	A016-2656	A016-48160	Modification	Use of dipentene and distillation residue as fuel for CE Boiler
1978	A016-2356	A016-24848	Modification	Use of dipentene as fuel for "D" pyrolysis unit.
1978	A016-2653	A016-48022	Modification	Use of dipentene as fuel for "B" pyrolysis unit.
1978	A016-2654	A016-48078	Modification	Use of dipentene as fuel for "C" pyrolysis unit.

Year	Construction Permit or Operating Permit	Current Operating Permit	Type	Description
1978	AC16-11888	A016-36783	New construction	No. 3 Boiler
1979	AC16-24123	See revision to A016-4803 below - 1980	New construction	Storage tank No. 18
1979	AC16-16618	A016-34564	New construction	M580 Reactor System for production of Ionones
1980	AC16-21058	Not completed	New construction and modification	Distillation columns and reactors for production of flavor and fragrance chemicals
1980	AC16-25682	See revision to A016-4803 below - 1980	New construction	Tank No. 19
1980	AC16-4803	A016-33094	Modification	Vent emissions from Tks 18 and 19 to incinerator
1980	AC16-33094	A016-54957	New construction	Tank No. 4
1980	AC16-33095	See revision to A016-4803 below - 1981	New construction	Tank No. 13
1981	A016-4803	A016-33094	Modification	Vent emissions from additional tanks to incinerator
1981	AC16-4557	A016-57171	New construction	Tank No. 12
1982	A016-20814	same	Modification	Use of turpentine and derivatives as fuel for Boiler No. 2
1982	A016-36783	same	Modification	Use of turpentine and derivatives as fuel for Boiler No. 3
1982	AC16-55595	Not completed	New construction	M660 reactor and six storage tanks. Permit modified by letters of 11/23/82 and 12/7/82.

6. The raw material, humate slurry, will be delivered to the plant in tank trucks and stored in a tank. This material, being slightly over 80% water, will make fugitive emissions from storage facilities nil.

7. The dried product will be conveyed from the drying operation to a storage tank by an enclosed conveying device. The storage tank will be vented to the bag house. Thus, fugitive emissions from the product storage facilities will be nil.

8. An enclosed conveying device will also be utilized to load the product into bulk carriers. The loading arm which will be inserted into the vehicle will be equipped with a sleeve that will retain any emissions which might result from loading. Thus we expect the fugitive emissions from the bulk loading operations to also be nil. As stated in the original application, any bagging operation will have a properly designed hood and exhaust fan.

9. BES comments 1, 2, 3, and 4 have been covered above. In addition, one other comment relative to the operating restriction on Boiler No. 3 is pertinent. Although this permit application is for 8760 hours of operation, experience has shown that only about 90% service factor can be expected because of maintenance, etc. Thus actual operating time is estimated at approximately 7884 hours.

There have been no intensive tests to determine if humate exhibits some very low level of radioactivity or toxicity, but to the best of our knowledge it is neither.

There should be no objectionable odors associated with this operation.

We hope that the above will provide you with the information required to process the application. However, if you have further questions, please advise.

Very truly yours,

R. L. Webb

R. L. Webb
Vice President

RLW/nr

cc: Mr. J. E. Woosley
Mr. G. D. Dutton
Mr. W. J. deGroot

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		
Humate Slurry	TSP	18.6	2,200	1

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

1. Total Process Input Rate (lbs/hr): 2,200

2. Product Weight (lbs/hr): 2,199

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission[1]		Allowed Emission[2] Rate per Ch. 17-2, F.A.C.	Allowable[3] Emission lbs/hr	Potential Emission[4]		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
TSP	1	3.942	3.81 lbs/hour	3.81	216	756.86	2
			17-2.610 Table 610-1				

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles[5] Size Collected (in microns)	Basis for Efficiency (Sec. V, It[5]
2G4 Mikro-Pulsaire	TSP	99.5 + %		See
with modified baghouse				Attachment
See attachment				

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard

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

[5]If Applicable

E. Fuels N/A

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

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

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

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

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

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

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

Stack Height: 35 ft. Stack Diameter: 2 ft.

Gas Flow Rate: 28,400 ACFM Gas Exit Temperature: 200 °F.

Water Vapor Content: Relative Humidity- 30 % Velocity: 151 FPS

SECTION IV: INCINERATOR INFORMATION N/A

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

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ days/week _____

Manufacturer _____

Date Constructed _____ Model No. _____

Section III B.

Feed to process - Humate slurry - 11,800 lbs/hr.

Water - 9,600 lbs/hr.

Solids - 2,200 lbs/hr.

Product - 90%+ removal of solids in cyclone - 2154 lbs/hr.

Water - 169 lbs/hr.

Solids Recovered - 1985 lbs/hr.

Solids to Bag House - 215 lbs/hr.

99.5%+ removal of solids in Bag House - 214 lbs/hr.

Solids emissions to atmosphere - 1 lb/hr.

Technical Evaluation
and
Preliminary Determination

Humate Material Processing Project
Union Camp Corporation
Jacksonville, Florida

Application Number
AC 16-65833

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

NOTICE OF PROPOSED AGENCY ACTION

The Department of Environmental Regulation gives notice of its intent to issue a permit to Union Camp Corporation for the construction of a humate spray drier, a cyclone separator, humate slurry and product storage tanks, a bagging operation unit, a vehicle load-out arm, and an associated baghouse at their existing facility in Jacksonville, Duval County, Florida. A determination of Best Available Control Technology (BACT) was not required.

A person who is substantially affected by the Department's proposed permitting decision may request a hearing in accordance with Section 120.57, Florida Statutes, and Chapters 17-1 and 28-5, Florida Administrative Code. The request for hearing must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a request for hearing within this time period shall constitute a waiver of any right such person may have to request a hearing under Section 120.57, Florida Statutes.

The application, technical evaluation and department intent are available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at the following locations:

DER Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, FL 32301

DER Northeast District
3426 Bills Road
Jacksonville, Florida 32207

Department of Health, Welfare and Bio-Environmental Services
Bio-Environmental Services Division
Air and Water Pollution Control
515 West 6th Street
Jacksonville, Florida 32206-4397

Comments on this action shall be submitted in writing to Bill Thomas of Tallahassee office within thirty (30) days of this notice.

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

28-5.15 Requests for Formal and Informal Proceedings

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

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

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

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

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

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

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

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

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

I. PROJECT DESCRIPTION

A. Applicant

Union Camp Corporation
P. O. Box 60369
Jacksonville, Florida 32236

B. Project Description and Location

The applicant intends to construct a humate spray drier, a cyclone separator, humate slurry and product storage tanks, a bagging operation unit, a vehicle load-out arm, and an associated baghouse at the Union Camp Corporation's existing major facility.

The new sources will be located at 2051 North Lane Avenue in Jacksonville, Duval County, Florida. The UTM coordinates are Zone 17-742.765 km East and 3357.350 km North.

C. Process and Controls

The raw material, humate slurry, will be delivered to the existing plant in tank trucks and stored in storage tanks. The humate slurry is slightly greater than 80 percent water and is an organic by-product of titanium ore mining operations. Humate is a naturally occurring substance resulting from the degradation of plant and animal life.

From the storage tanks, the humate slurry will be conveyed in an enclosed device to a completely enclosed drier, which will utilize flue gas heat from the existing boilers No. 2 (AO 16-20814) or No. 3 (AO 16-36783). The humate slurry will be sprayed into the drier chamber and dried by the flue gas heat. Therefore, no combustion fuel will be required for this new source.

The dried product will be conveyed from the drying operation through a cyclone separator and then to a storage tank by an enclosed conveying device. The cyclone separator and storage tank will be vented to the control device, a baghouse. The baghouse will be a modified 2 G 4 Mikro-Pulsaire with a particulate matter (PM) collection efficiency of 99.5 percent.

An enclosed conveying device will also be utililzed to load the dried product into bulk carriers. The loading arm, which will be inserted into the vehicle tank, will be equipped with a sleeve that will retain any PM emissions which might result while loading.

Some of the dried product will be packaged in bags. The bagging operation unit will utilize a properly designed hood and

vented to the baghouse.

II. RULE APPLICABILITY

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

The proposed project is estimated to emit 3.942 tons per year (TPY) of the pollutant PM, which by definition would be a minor source in accordance with Chapter 17-2.100(101), FAC.

Union Camp Corporation (UCC) is located in the Duval County Nonattainment Area for the pollutant ozone (O_3) in accordance with Chapter 17-2.410(1)(a)3., FAC. UCC is also located in the area of influence of the Duval County Particulate Matter Nonattainment Area in accordance with Chapter 17-2.100(14), FAC. Therefore, the proposed project will be reviewed in accordance with Chapter 17-2.510, FAC, New Source Review for Nonattainment Areas.

UCC is an existing major facility for the pollutant SO_2 (sulfur dioxide) in accordance with Chapter 17-2.100(95), FAC. The facility is permitted to emit greater than 250 TPY of SO_2. Therefore, the proposed project will be a minor modification to a major facility and subject to Chapter 17-2.510(2)(d)4.a., FAC, Modifications to Major Facilities. According to this section, the proposed project will be exempt from Chapter 17-2.510(4), FAC, Preconstruction Review Requirements, because the modification will not result in a significant net emissions increase (as set forth in Chapter 17-2.510(2)(e)2., FAC) of the affected pollutant.

Being in a nonattainment area for the pollutant ozone and in an area of influence for the pollutant particulate matter (PM), any emissions increase of the affected pollutant from a proposed modification and new source construction would be subject to any applicable section(s) of Chapter 17-2.650, FAC, Reasonably Available Control Technology (RACT).

The humate spray drier (HSD) is subject to Chapter 17-2.650(2)(c)12., FAC, Miscellaneous Manufacturing Process Operations. The drier will use a modified baghouse as its control device. The potential PM emissions are 1 pound per hour and 3.942 tons per year, based on 2200 lbs/hr total process solids input rate, 8760 annual hours of operation, a cyclone separator, and a modified baghouse with a projected efficiency of 99.5 percent (these emissions will be used for facility PSD pollutant emissions inventory tracking). Therefore, the emissions limitation shall be "no visible emissions (no greater than 5 percent opacity)" in accordance with Chapter 17-2.650(2)(c)12. b., FAC. Compliance test method shall be EPA Method 9 in

accordance with Chapter 17-2, Table 1, FAC, Applicable Test Procedures For Point Source Compliance Tests. Compliance test procedures shall be in accordance with Chapter 17-2.700, FAC, Stationary Point Source Emissions Test Procedures.

Since the PM emissions from the cyclone separator, the dried humate product storage tank, and the dried humate product bagging operation will be controlled by the HSD baghouse, the emissions limitation, the compliance test method and procedures will be the same as the preceding paragraph.

The dried product humate vehicle load-out arm is subject to Chapter 17-2.650(2)(c)11., FAC, Materials Handling, Sizing, Screening, Crushing and Grinding Operations. Since the applicant assumes the potential PM emissions to be "nil", the emissions limitation shall be "no visible emissions (not greater than 5 percent opacity) during the loading operation except when removing the load-out sleeve from the vehicle hold, then 10 percent opacity will be allowed" in accordance with Chapter 17-2.650(2)(c)11. b., FAC. Compliance test method shall be EPA Method 9 in accordance with Chapter 17-2, Table 1, FAC. Compliance test procedures shall be in accordance with Chapter 17-2.700, FAC.

In accordance with Chapter 17-2.620(2), FAC, no person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance according to Chapter 17-2.100(108), FAC.

III. SUMMARY OF EMISSIONS

A. Emission Limitations

The regulated pollutant emissions from this modification to the existing facility are visible emissions (VE) in accordance with Chapter 17-2.650(2)(c)11., FAC, and Chapter 17-2.650(2)(c)12., FAC.

Source	Pollutant	Maximum Allowable Emissions
Humate Spray Drier Baghouse (HSDB)	VE	no visible emissions (no greater than 5% opacity)
Bagging Operation	VE	must be vented to the HSDB
Cyclone Separator	VE	must be vented to the HSDB
Product Storage Tank	VE	must be vented to the HSDB
Vehicle Loading Operation	VE	no visible emissions (no greater than 5% opacity) except 10% opacity when removing the load-out sleeve from the vehicle hold

The permitted emissions are in compliance with all requirements of Chapter 17-2, FAC.

B. Air Quality Impacts

From a technical review of the application and amendments, the bureau has determined that the construction and operation of this proposed project will not have an impact on Florida's ambient air quality standards.

IV. CONCLUSIONS

The maximum allowable emissions from this proposed project should not cause any violation to Florida's ambient air quality standards. However, if problems do occur with the operation of any of the proposed sources, corrective action must be approved by the DER's Northeast District office or its designee (Duval County Bio-Environmental Services) and then implemented by the applicant.

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

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
P. O. Box 60369
Jacksonville, Florida 32236

Permit Number: AC 16-65833
Expiration Date: December 31, 1983
County: Duval
Latitude/Longitude: 30° 20' 53"N/
81° 45' 05"W
Project: Humate Spray Drier, cyclone separator, storage tanks, bagging operation unit, vehicle load-out arm, and an associated baghouse

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

For the construction of a humate spray drier using flue gas heat from steam generating boilers Nos. 2 and 3, a cyclone separator, humate slurry and product storage tanks, a product bagging operation, a vehicle load-out arm, and an associated baghouse at the permittee's existing facility located at the above address. The UTM coordinates are Zone 17-427.65 km East and 3357.35 km North.

Construction shall be in accordance with the permit application and plans, documents, amendments, and drawings except as otherwise noted on pages 5-7 of the "Specific Conditions".

Attachments are as follows:

1. Application to consruct Air Pollution Sources, DER Form 17-1.122(16).
2. Jerry E. Woosley's letter dated February 4, 1983.
3. C. H. Fancy's letter of incompleteness dated March 2, 1983.
4. R. L. Webb's letter of response dated March 25, 1983.

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
Jacksonville, FL 32236

I. D. Number:
Permit Number: AC 16-65833
Expiration Date: December 31, 1983

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, unless specifically authorized by an order from the department.

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
Jacksonville, FL 32236

I. D. Number:
Permit Number: AC 16-65833
Expiration Date: December 31, 1983

GENERAL CONDITIONS:

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

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

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information:

a. a description of and cause of non-compliance; and

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

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
Jacksonville, FL 32236

I. D. Number:
Permit Number: AC 16-65833
Expiration Date: December 31, 1983

GENERAL CONDITIONS:

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

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

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

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS:

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. Maximum total process input rate into the humate spray drier (HSD) shall not exceed 11,800 pounds per hour (lbs/hr) of humate slurry, which consists of 9600 lbs/hr water and 2200 lbs/hr solids.

2. The HSD will utilize flue gases from Nos. 2 and 3 steam generating boilers for its heat. There are no combustible fuels associated with the HSD.

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
Jacksonville, FL 32236

I. D. Number:
Permit Number: AC 16-65833
Expiration Date: December 31, 1983

SPECIFIC CONDITIONS:

3. Maximum allowable pollutant emissions from the proposed project are:

Source	Pollutant	Maximum Allowable Emissions
Humate Spray Drier	VE	no visible emissions (no greater than 5% opacity)
Bagging Operation	VE	must be vented to the HSDB
Cyclone Separator	VE	must be vented to the HSDB
Product Storage Tank	VE	must be vented to the HSDB
Vehicle Loading Operation	VE	no visible emissions (no greater than 5% opacity) except 10% opacity when removing the load-out sleeve from the vehicle hold

4. Compliance tests required shall be EPA Method 9 for VE. Source testing and reporting requirements shall be in accordance with Chapter 17-2.700, FAC. Compliance test reports must be filed with the DER Northeast District office or its designee (Duval County's Bio-Environmental Services). Compliance tests shall be conducted at 95-100 percent of the allowed process input rate.

5. No objectionable odor shall be allowed on off-plant property.

6. If fugitive PM emissions do occur with this modification they must be quantified and shall be used in PSD pollutant emissions inventory.

PERMITTEE:
Union Camp Corporation
2051 North Lane Ave.
Jacksonville, FL 32236

I. D. Number:
Permit Number: AC 16-65833
Expiration Date: December 31, 1983

SPECIFIC CONDITIONS:

7. A Certificate of Completion shall be submitted to the DER's Northeast District Office or its designee (Duval County's Bio-Environmental Services) prior to receiving an operating permit. An application for an operating permit shall be applied for prior to 90 days before the expiration date of this permit. The permittee may continue to operate in compliance with all terms of this construction permit until its expiration date or the issuance of an operating permit.

Issued this ___ day of_____, 1983

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

_____
VICTORIA J. TSCHINKEL, Secretary

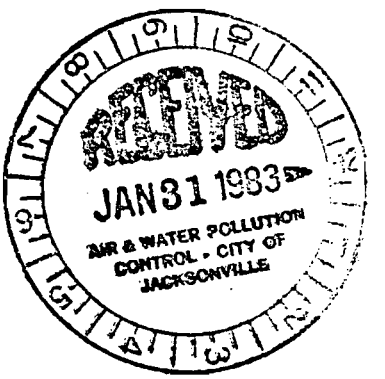
____ pages attached.

ATTACHMENT 1

TERPENE &
AROMATICS
DIVISION

P. O. BOX 60369, JACKSONVILLE, FLA. 32205 TELEPHONE (904) 783-2180 TWX (810) 827-0398

January 28, 1983



Mr. J. E. Woosley
Assistant Engineer
Bio-Environmental Services Division
515 West 6th Street
Jacksonville, FL 32206

Dear Mr. Woosley:

Enclosed are the original and four copies of an application to construct a spray drier and bag house.

Also enclosed is a check for the $100.00 application fee.

If there are any questions concerning this application please advise.

Very truly yours,

J. C. Bowers
Assistant to the Vice President

JCB/nr

Attachments

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Air Pollution [X] New[1] [ ] Existing[1]

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

COMPANY NAME: Union Camp Corporation COUNTY: Duval

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Humate spray drier equipped with bag house.

SOURCE LOCATION: Street 2051 N. Lane Avenue City Jacksonville

UTM: East 7427650 North 3357350

Latitude 30 ° 20 ' 53 "N Longitude 81 ° 45 ' 05 "W

APPLICANT NAME AND TITLE: R. L. Webb - Vice President

APPLICANT ADDRESS: P.O. Box 60369 Jacksonville, FL 32236

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Union Camp Corporation

I certify that the statements made in this application for a Construction Permit 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: R. L. Webb

R. L. Webb - Vice President
Name and Title (Please Type)

Date: Jan. 25, 1983 Telephone No. (904) 783-2180

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

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

(Affix Seal)

Signed:

W. J. deGroot
Name (Please Type)

Union Camp Corporation
Company Name (Please Type)

P.O. Box 60369, Jacksonville, FL 32236
Mailing Address (Please Type)

Florida Registration No. 13026 Date: Jan. 25, 1983 Telephone No. (904) 783-2180

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

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

The proposed unit will spray dry Humate, an organic by-product of titanium ore mining operations. Humate is a naturally occurring substance resulting from degradation of plant and animal life. Heat for the drying will be recovered from boiler flue gasses. Majority of product will be shipped in covered railroad hopper cars. Any bagging operatio will be equipped with hood and fan to minimize fugitive emissions.

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

Start of Construction June 1, 1983 Completion of Construction December 31, 1983

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.)

$144,000 - Modified bag house

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

Boiler operating permits: A016-20814 - Issued 7/13/79; expires 5/31/84
A016-36783 - Issued 7/29/81; expires 6/30/86
A016-48160 - Issued 11/24/81; expires 10/31/86

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

F. Normal equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ; if power plant, hrs/yr ____ ; if seasonal, describe: Estimated service factor - 90%

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

1. Is this source in a non-attainment area for a particular pollutant? Yes
   a. If yes, has "offset" been applied? N/A
   b. If yes, has "Lowest Achievable Emission Rate" been applied? N/A
   c. If yes, list non-attainment pollutants.
      ozone
2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No
3. Does the State "Prevention of Significant Deterioriation" (PSD) requirements apply to this source? If yes, see Sections VI and VII. No
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

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

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Humate Slurry	TSP	18.6	2,200	1

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

1. Total Process Input Rate (lbs/hr): 2206

2. Product Weight (lbs/hr): 2205

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission[1]		Allowed Emission[2] Rate per Ch. 17-2, F.A.C.	Allowable[3] Emission lbs/hr	Potential Emission[4]		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
TSP	1	3.942	3.81 lbs/hour	3.81	216	756.86	2
			17-2.610 Table 610-1				

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles[5] Size Collected (in microns)	Basis for Efficiency (Sec. V, It[5]
2G4 Mikro-Pulsaire	TSP	99.5 + %		See
with modified baghouse				Attachment
See attachment				

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard

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

[5]If Applicable

E. Fuels N/A

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

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

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

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

_____

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

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

_____

_____

_____

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

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

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

Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION N/A

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ days/week _____

Manufacturer _____

Date Constructed _____ Model No. _____

Section III B.

Feed to process - Humate slurry - 11,800 lbs/hr.

Water - 9,600 lbs/hr.

Solids - 2,200 lbs/hr.

* Boiler Flue Gas - 39,000 cu.ft./min.

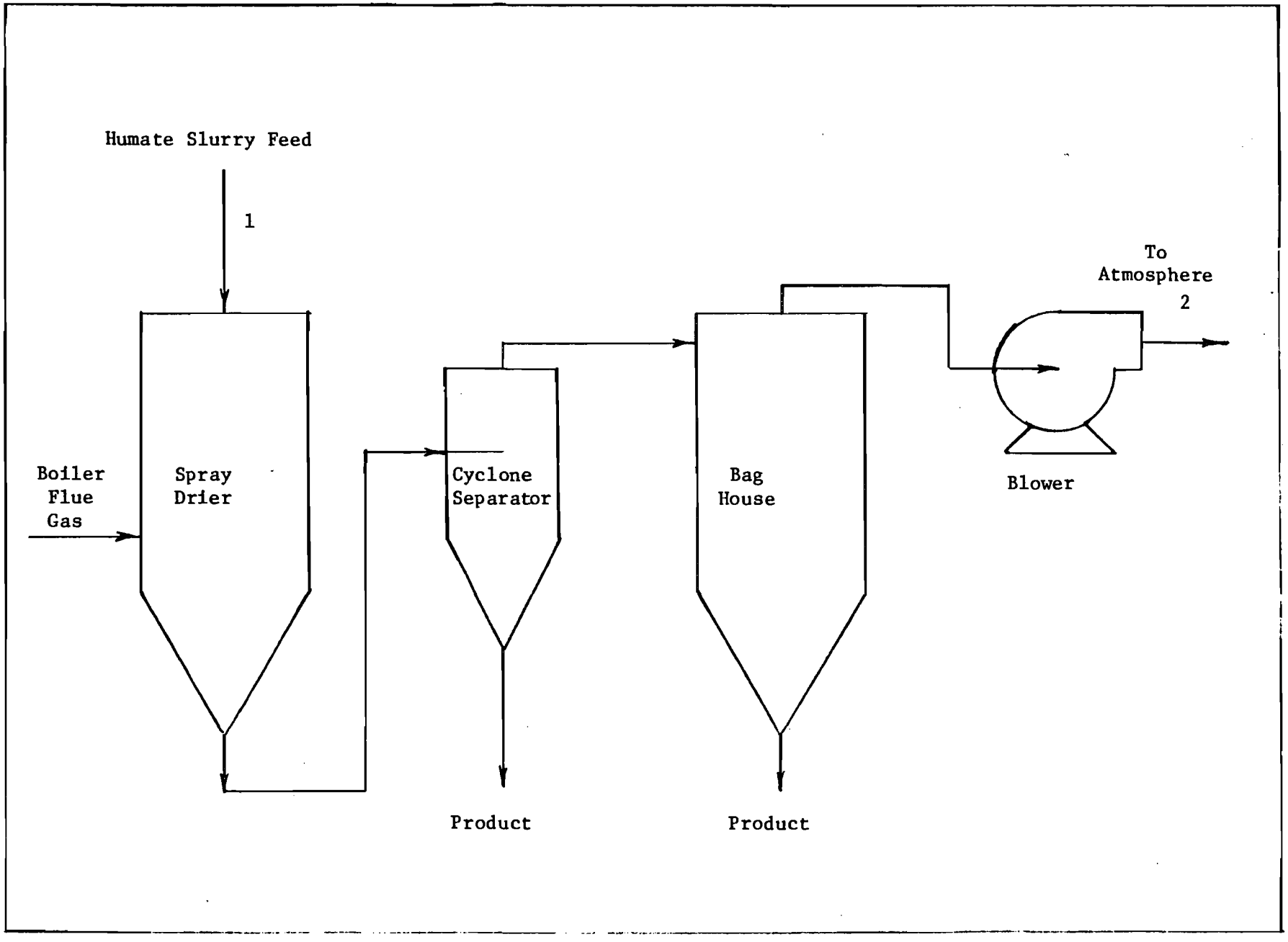
0.1 lbs solids per MM BTU heat input - 6 lbs/hr

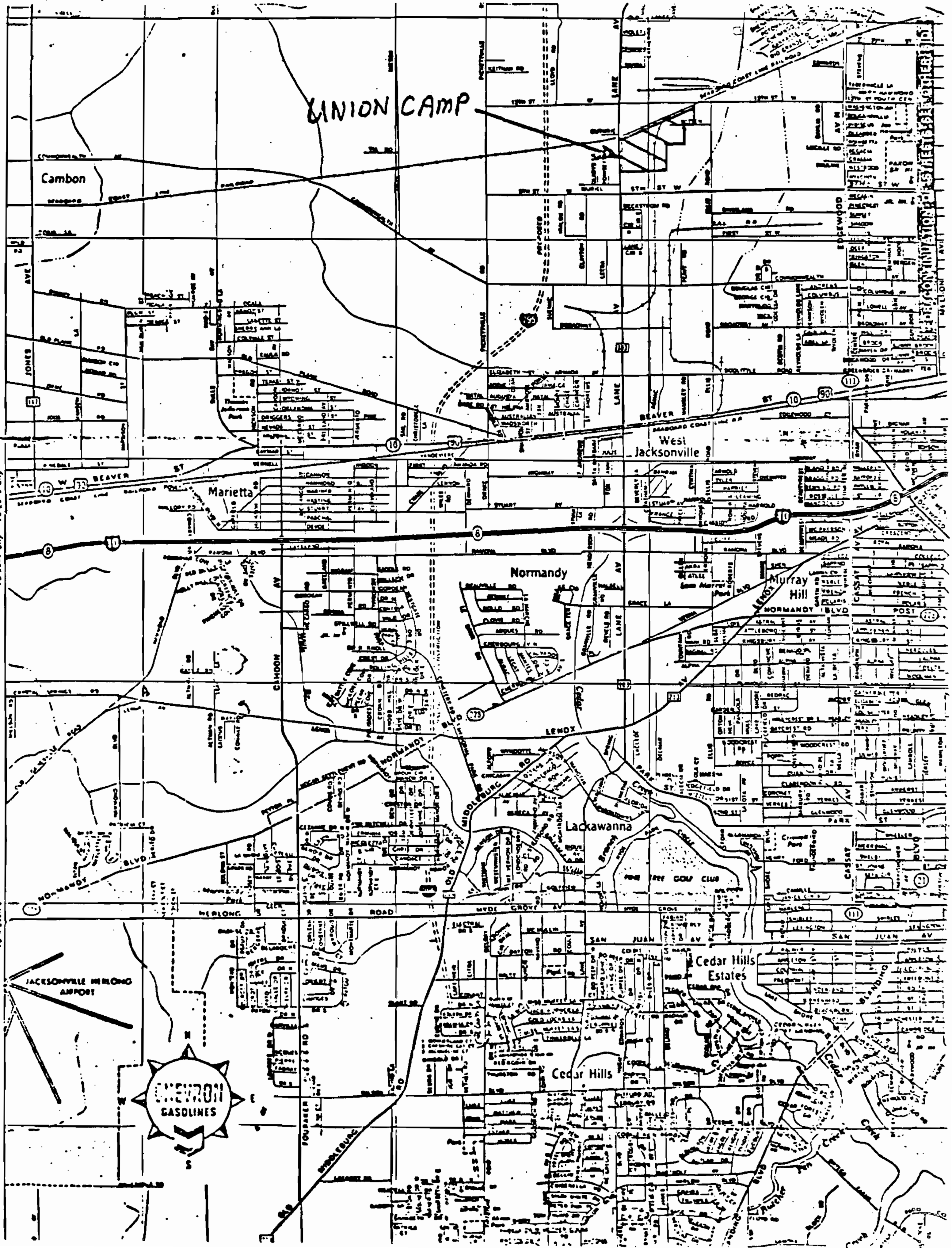
2206 lbs/hr.

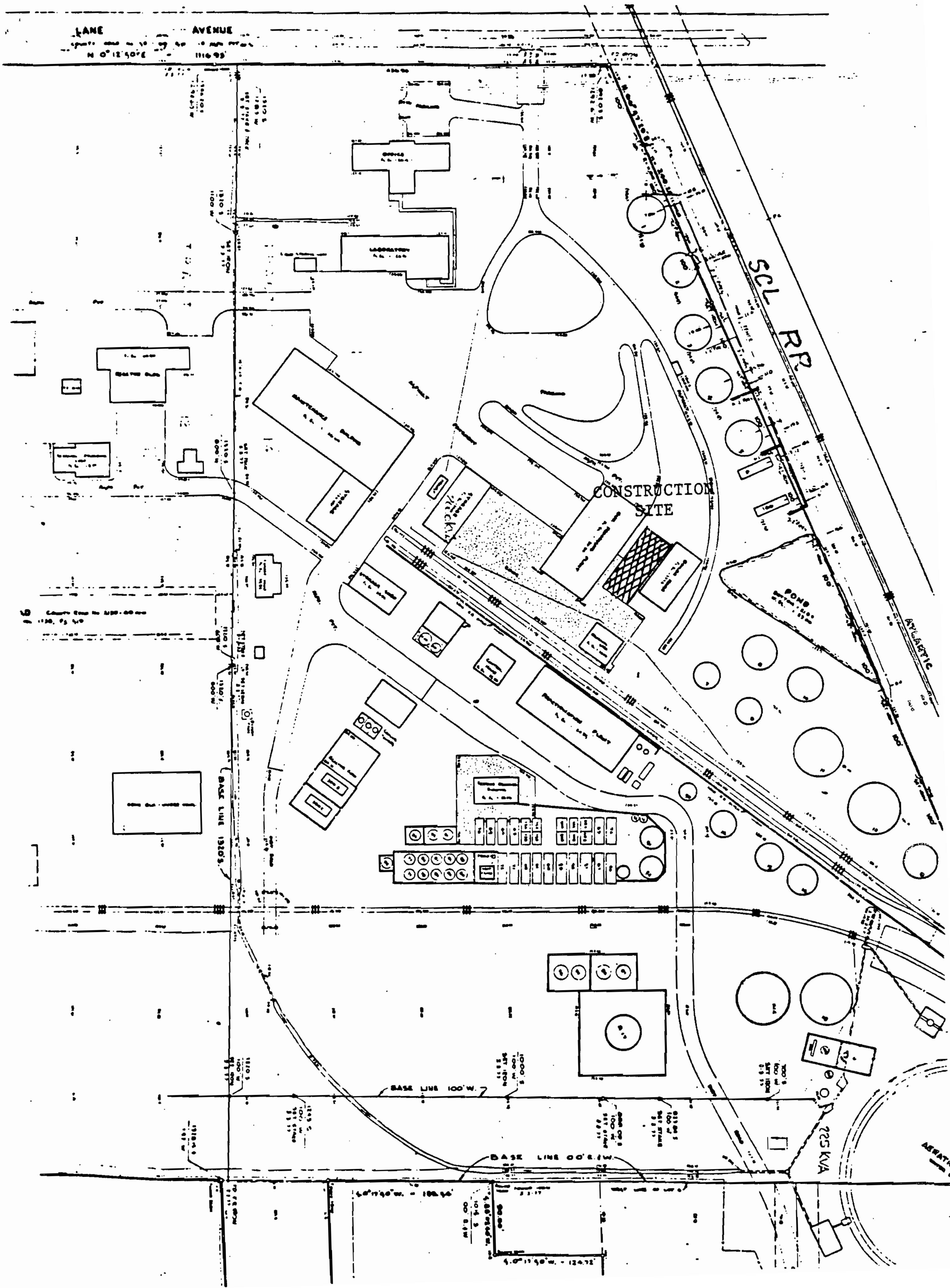
Product - 90%+ removal of solids in cyclone -	2160	lbs/hr.
water -	170	lbs/hr.
Solids Recovered -	1990	lbs/hr.
Solids to Bag House -	216	lbs/hr.
95%+ removal of solids in Bag House -	215	lbs/hr.
** Solids emissions to Atmosphere -	1	lb/hr.

* When firing boiler with No. 6 fuel oil

** This represents net reduction of 5 lbs/hr. TSP emissions over normal boiler operation.


Humate Slurry Feed
1
Boiler
Flue
Gas
Spray
Drier
Cyclone
Separator
Bag
House
Blower
To
Atmosphere
2
Product
Product


UNION CAMP
Cambon
Marietta
West Jacksonville
Normandy
Murray Hill
Lackawanna
Cedar Hills Estates
Cedar Hills
PINE TREE GOLF CLUB
JACKSONVILLE HERLONG AIRPORT
CHEVRON
GASOLINES
N
S
E
W
To Lake City
BEAVER ST
LENOX
NORMANDY BLVD
HERLONG ROAD
HYDE GROVE AV
SAN JUAN AV
EDGEWOOD
CASSAT AV
LANE AV
CAHOON
FOURAKER RD
MIDDLEBURG
PARK ST
JONES



LANE
AVENUE
SCL RR
CONSTRUCTION
SITE
ATLANTIC
BASE LINE 100'W.
225 KVA

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

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

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

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

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner [ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation.
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.,) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, etc.).
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3, and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8½" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8½" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. An application fee of $20, unless exempted by Section 17-4.05(3), F.A.C. The check should be made payable to the Department of Environmental Regulation.

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

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

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

Contaminant	Rate or Concentration

*Explain method of determining D 3 above.

10. Stack Parameters

a. Height: ft. b. Diameter: ft.

c. Flow Rate: ACFM d. Temperature: °F

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy*: h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy**: h. Maintenance Costs:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

*Explain method of determining efficiency.

**Energy to be reported in units of electrical power – KWH design rate.

3.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Life: f. Operating Cost:

g. Energy: h. Maintenance Cost:

*Explain method of determining efficiency above.

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device

b. Operating Principles:

c. Efficiency*:

d. Capital Cost:

e. Life:

f. Operating Cost:

g. Energy:

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency*:

3. Capital Cost:

4. Life:

5. Operating Cost:

6. Energy:

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

*Explain method of determining efficiency above.

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

b.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

10. Reason for selection and description of systems:

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

SECTION VII – PREVENTION OF SIGNIFICANT DETERIORATION N/A

A. Company Monitored Data

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

Period of monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

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 on point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

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

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

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

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

MikroPul
CORPORATION

Spray Dried Humate
Union Camp Corporation
Filter Rate Test #82-4

Introduction

A filter rate test was conducted on spray dried humate. Union Camp has purchased a spray drying system for this product that is equipped with a 2G4 Mikro-Pulsaire (576 eight foot bags, 5,426 sq. ft. of cloth). Union Camp requested the filter rate test to determine if this collector is large enough to handle 28,500 ACFM at 200°F with an anticipated material loading of about 1 grain/SCF. To simulate actual collector operation, the test dust supplied was the fines from a test collector rather than product from the initial cyclone.

Description of Test Equipment

Figure 1 illustrates the schematic of the test set up.

Total Filter Area:	113.12 sq. ft.
Number of Bags:	16
Bag Diameter:	4.5" Nominal
Bag Length:	72"
Bag Material:	Polyester, 16 oz./yd.^{2}, HCE II
Cleaning Pulse Pressure:	60 PSIG
Cleaning Cycle:	One Minute
Venturi Type:	1-7/8" D, Long Throat
Average Air Temperature:	65°F.
Relative Humidity:	82%
Dust Dispersion:	Pneumatic
Length of Test Run:	50 hours plus

Results

Figure 2 summarizes the filter rate characteristic of the humate material. The test was straight forward except for seepage of the material through the bags (discussed below). There wasn't any bridging of material between bags nor any material buildup in the hopper.

MikroPul
CORPORATION

Discussion and Recommendations

The performance of a full scale Pulsaire filtering this material will be at a lower filter rate than indicated in Figure 2 since operating conditions cannot be reproduced in the laboratory. Factors such as temperature and the application must be considered.

Based on the data from the Mikro Products Reference Tables, I have selected a temperature factor of 0.75 and an application factor of 0.8 for a combined factor of 0.6. Extrapolating the filter rate curve (Figure 2), we obtain a laboratory filter rate of 5.75. Multiplied by 0.6 results in a design filter rate of 3.45:1. The present 2G4 Mikro-Pulsaire, when filtering 28,500 ACFM, would be operating at 5.25:1. This means that the collector is undersized. Using a less conservative approach in recognition of the anticipated grain loading of 1 grain/SCF or less, the lab filter rate at 5 grains/SCF, 7.0:1, can be used for the design basis. 7.0 x 0.6 = 4.2:1, still about 20% lower than the collector's operation at 5.25:1. This is too great a difference. However, if the present collector is altered to accept 10 foot bags, resulting in a 25% increase of cloth area, the resulting filter rate will be 4.2:1, right on the button. Unfortunately, such an alteration would be expensive. An additional collector with enough filter area to increase the total area to the required amount would probably cost only $12-13,000. If the ductwork was arranged to accept this add-on unit, the present collector might be run as is in order to see if its operation is acceptable.

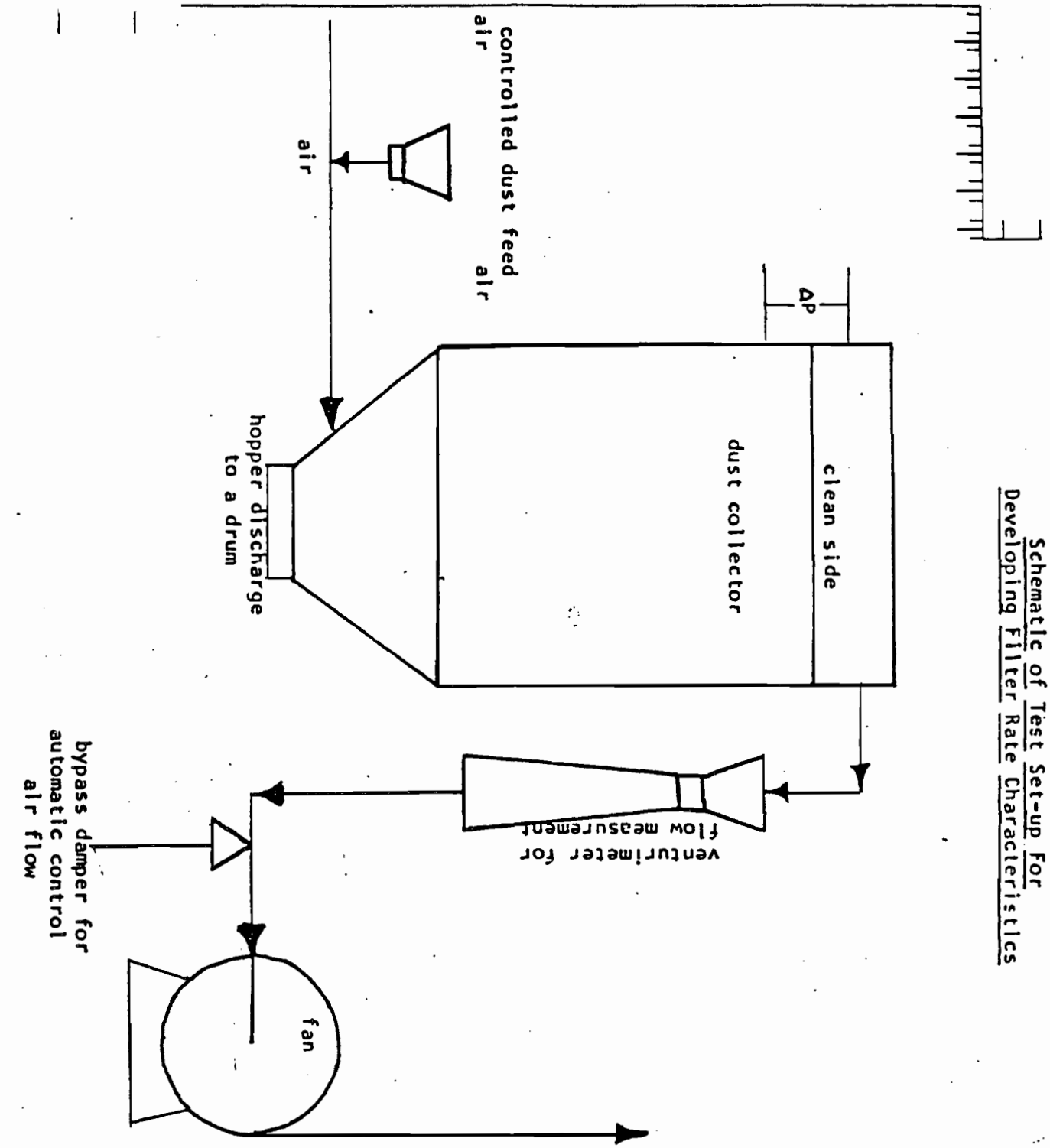
Regarding the problem of material seepage through the filter bags, a comparative efficiency test was conducted using the standard 16 oz./yd.^{2} polyester felt (with HCE II) and comparing its humate collection efficiency with the efficiencies produced by a number of other filter medias. Among the medias tested were Nomex E23, Goretex/polyester, polyester/glass, and polyester with Tuflex treatment (see Figure 3 for full results). Of these four, the polyester/glass material had the best efficiency, then Goretex/polyester, Nomex E23, and polyester with Tuflex. The Tuflex treated polyester had half the dust emission that the standard polyester did and the polyester/glass material had less than 1% of the standard polyester's emission. Frankly, I expected better performance from the Goretex material since in previous testing, it has been the most efficient. The other medias performed as expected. Selection of the filter media for this application should be from the four mentioned above, with price a primary concern.

One possible benefit some of these premium filter media provide is the ability to filter at lower pressure drops or at a higher filter rate than standard media. At various times I have seen this tendency from all of the selected four medias though not with all dusts and not at all times. It is possible that with a low dust load and a premium media, the present collector might just work.

Observations

A. Bridging of material between bags or in the collector's hopper was not observed.

B. Material seepage was excessive. Higher efficiency filter media will be necessary for the full scale collector.



Schematic of Test Set-up For Developing Filter Rate Characteristics

Figure 1
Model Test Set up for Pulsaires

USED ON ASSEMBLY
Project no. 770810

TOLERANCES
DECIMALS ± .005
FRACTIONS ± 1/16 ANGLES ± 1°
UNLESS OTHERWISE NOTED

DRAWN	DATE	CHECKED	DATE	APPROVED	DATE

DRAWING NO. Fig. 1 SIZE -A- RI

MikroPul
FORMERLY PULVERIZING MACHINERY

DIVISION OF
THE SLICK CORPORATION
SUMMIT, NEW JERSEY 07901

DEFIANCE 1020 B-2114

FIGURE 2

MikroPul CORPORATION R & D Dept.

Filter Rate Curve

TEST NO. 82-4 DATE _____

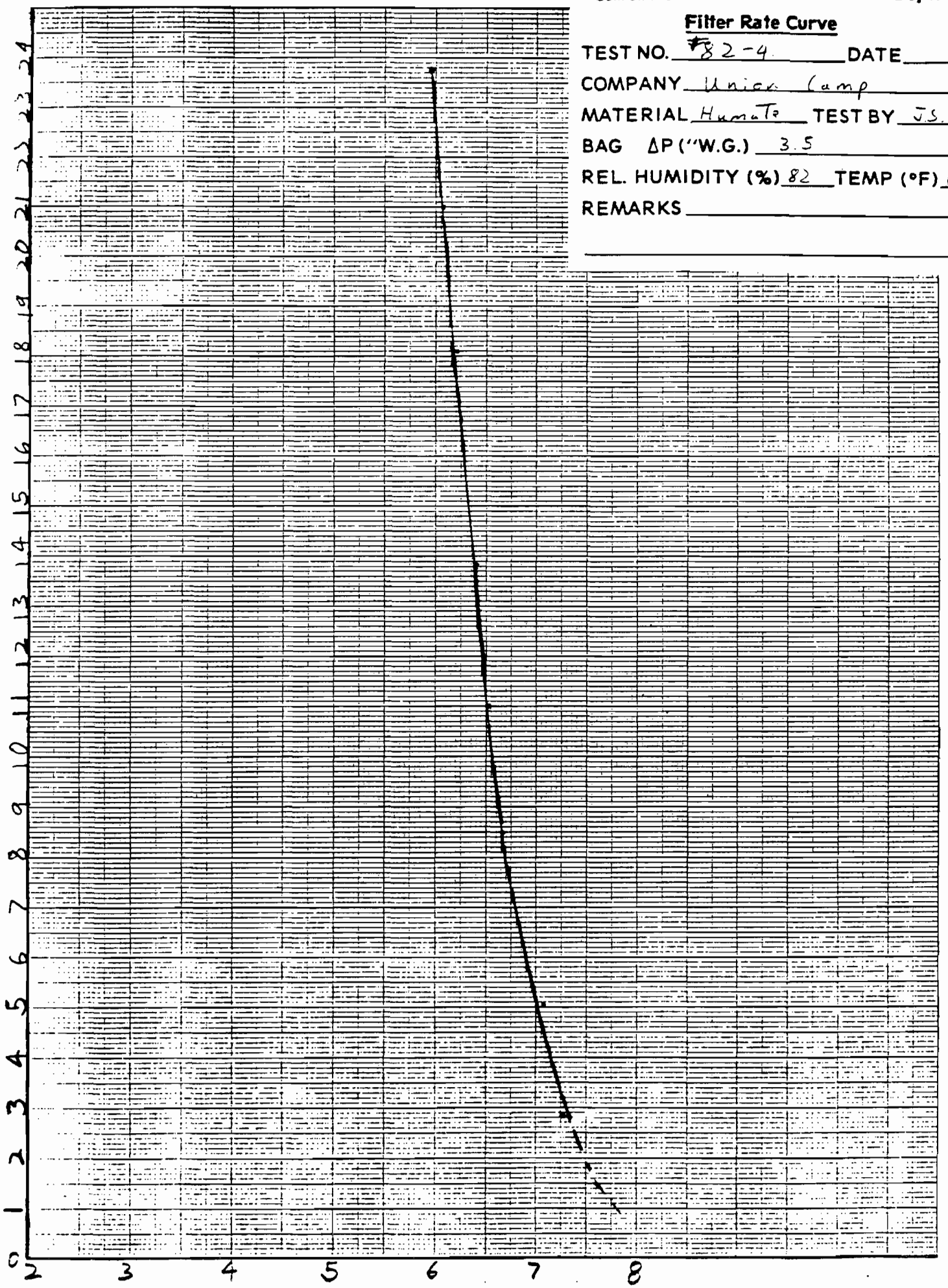
COMPANY Union Camp

MATERIAL Humato TEST BY JS.

BAG ΔP ("W.G.) 3.5

REL. HUMIDITY (%) 82 TEMP (°F) 65

REMARKS _____



MikroPul
CORPORATION

Figure 3
Filter Media Collection Efficiency Test Results

Media	Average Dust Emission	Average Collection Efficiency	Average Initial Perm	Average Final Perm.	Average Final Perm.
Polyester Felt with HCE	0.000565 GR/ACF	99.9945%	22.64	11.52	.245
Polyester with Tuflex	0.00023 GR/ACF	99.9975%	17.65	7.51	.40
Nomex E23	0.00015 GR/ACF	99.998%	23.27	18.51	.14
Poly-Glass	0.0000020 GR/ACF	99.99999%	6.71	4.07	.89
Poly-Geon	0.00040 GR/ACF	99.9955%	21.03	9.57	.34
Gortex/Polyester	0.00012 GR/ACF	99.9988%	7.26	3.90	1.02
Poly with NEX 90B Teflon	0.00044 GR/ACF	99.9965%	27.51	7.22	.60

Test Dust - Humus
Perm measured at 0.5" w.g.

ATTACHMENT 2

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

February 4, 1983

Bill

DER

FEB 08 1983

BAQM

Mr. Clair Fancy, Deputy Director
Central Air Permitting Section
Department of Environmental Regulation
2600 Blairstone Road
Tallahassee, Florida 32301

Dear Mr. Fancy:

Enclosed is a Construction Permit application and $100.00 processing fee (Check No. 36125) for Union Camp Corporation's Humate Spray Drier. The permit application is being forwarded to your office for processing pursuant to the guidelines available to this Agency.

The following comments are provided for your reference:

(1) Section III H. is not completed.
(2) Which boiler(s) will be capable of providing flue gases for heat recovery?
(3) It is noted that boiler #3 is restricted to 8616 operating hours per year in order to avoid PSD review.
(4) How will emissions generated during the handling of the raw material and finished product be controlled?
(5) Is humate radioactive and/or toxic?
(6) Will the handling and/or processing of humate cause or contribute to objectionable odors?

Should you have any questions or comments concerning this matter, please advise.

Very truly yours,

Jerry E. Woosley
Assistant Engineer

JEW/am

Enc.

cc: Doug Dutton - DER w/enc.

ATTACHMENT 3

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

March 2, 1983

Mr. R. L. Webb, Vice President
Union Camp Corporation
2051 North Lane Avenue
Jacksonville, Florida 32236

Re: Completeness Review of the Application to Construct An Air Pollution Source: Permit No. AC 16-65833

Dear Mr. Webb:

The Bureau has received the above referenced application package for the construction of a "Humate Spray Drier" at your existing facility in Jacksonville, Duval County, Florida. The application package has been determined to be incomplete. The following data must be submitted to the Bureau before further processing of your request will resume:

1. Complete Section III-H, DER Form 17-1.122(16) Page 4 of 10,

2. The calculations in the application attachment indicates an efficiency for the baghouse system of 95%, yet Section III-D states an efficiency of 99.5% and Section III-C reflects an efficiency of 99.5%. If 95% is the correct efficiency, the projected emissions are 10.10 lbs/hr and 44.24 TPY particulate matter (PM). Correct the inconsistency(ies) and resubmit the corrected appropriate application sections and the calculation attachment,

3. Submit the baghouse collection efficiency as a function of the PM size range and also submit a breakdown of the PM size range of the fuel oil after firing,

4. Which boiler(s) will be used for providing the flue gas heat for the drier and include a blue print of the flue gas duct alterations (show ductings to and from, valves, etc.). Keep in mind that Boiler No. 3, AO 16-36783, has hours of operation restrictions at 8616 and that this request is for 8760 hours of operation,

5. What new construction, modification(s), and terminations at your existing facility have occurred in the last five (5) years? Submit documents showing these facility changes,

6. Calculate and submit the fugitive PM emissions expected from the storage of the raw material,

7. Calculate and submit the fugitive PM emissions expected from the storage of the product material,

8. Calculate and submit the potential emissions from the loading of the product material into transportation vehicles (rail, truck, etc), and

9. Submit answers to the comments, Nos. 1, 2, 4, 5 and 6, from BES (attached) submitted to the Bureau regarding the referenced application.

If there are any questions, please call Bruce Mitchell at (904)488-1344 or write to me at the above address.

Sincerely,

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

CHF/BM/bjm

Attachment

cc: Jerry Woosley
Doug Dutton
W. J. deGroot
Mary Smallwood

ATTACHMENT

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

February 4, 1983

Bill

DER

FEB 08 1983

DAQM

Mr. Clair Fancy, Deputy Director
Central Air Permitting Section
Department of Environmental Regulation
2600 Blairstone Road
Tallahassee, Florida 32301

Dear Mr. Fancy:

Enclosed is a Construction Permit application and $100.00 processing fee (Check No. 36125) for Union Camp Corporation's Humate Spray Drier. The permit application is being forwarded to your office for processing pursuant to the guidelines available to this Agency.

The following comments are provided for your reference:

(1) Section III H. is not completed.
(2) Which boiler(s) will be capable of providing flue gases for heat recovery?
(3) It is noted that boiler #3 is restricted to 8616 operating hours per year in order to avoid PSD review.
(4) How will emissions generated during the handling of the raw material and finished product be controlled?
(5) Is humate radioactive and/or toxic?
(6) Will the handling and/or processing of humate cause or contribute to objectionable odors?

Should you have any questions or comments concerning this matter, please advise.

Very truly yours,

Jerry E. Woosley
Assistant Engineer

JEW/am

Enc.

cc: Doug Dutton - DER w/enc.

ATTACHMENT 4

TERPENE &
AROMATICS
DIVISION

P. O. BOX 60369, JACKSONVILLE, FLA. 32205 TELEPHONE (904) 783-2180 TWX (810) 827-0398

March 25, 1983

DER
MAR 28 1983
BAQM

Bureau of Air Quality Management
Department of Environmental Regulation
Twin Towers Office Building
Tallahassee, FL 32301 - 8241

Attn: Mr. C. H. Fancy, P.E.
Deputy Chief

Dear Mr. Fancy:

Please refer to your letter of March 2, 1983 regarding the completeness review of the Application to Construct an Air Pollution Source, Permit No. AC16-65833.

Following is the additional information in the order you requested in your letter.

1. See attached page 4 of DER Form 17-1.122(16) with Section III-H completed.

2. The 99.5% bag house efficiency indicated in Sections III-C and III-D is the correct number. The 95% shown in the application attachment is a typographical error. Removal of 215 pounds by the bag house from an input of 216 pounds is a 99.5+% removal. A corrected calculation sheet is attached. (See 3 below).

3. The size range of the particulate matter resulting from firing the fuel is not available and inquiries have indicated that to obtain this data would be time consuming and expensive. In a telephone conversation with Mr. Bruce Mitchell on March 7, 1983, he indicated that this information was requested only to substantiate the claim of removal of particulate resulting from the firing of the fuel oil. In view of the above and other factors listed below, the calculation sheet (2 above) has been revised to delete this claim. Section III-B has also been revised to reflect this.

A. Discharge of the 6 lbs/hr. from the firing of the fuel oil is permitted and represents RACT for the source.

B. The primary fuel for the boilers is natural gas and the fuel oil is used considerably less than half the time.

C. Particulate emissions from this facility have been demonstrated by modeling to have no significant impact on the non-attainment area of Jacksonville.

4. Either Boiler No. 2 (A016-20814) or Boiler No. 3 (A016-36783) can be used for providing the flue gas heat for the drier. The restriction of 8616 hours of operation for Boiler No. 3 applies only to the use of fuel oil and as pointed out in 3.B above, natural gas is used as fuel the majority of the time.

The requested drawing of the flue gas duct alterations are attached.

5. During the past five years there has been one termination. The use of a sodium acetate drier, A016-4714, was discontinued and the equipment was removed from the plant premises.

With the exception of Boiler No. 3 (AC16-11888 and A016-36783) all new construction and modifications have been projects in which VOC or odorous emissions were the pollutants of concern. A tabulation of these follows:

Year	Construction Permit or Operating Permit	Current Operating Permit	Type	Description
1978	A016-2656	A016-48160	Modification	Use of dipentene and distillation residue as fuel for CE Boiler
1978	A016-2356	A016-24848	Modification	Use of dipentene as fuel for "D" pyrolysis unit.
1978	A016-2653	A016-48022	Modification	Use of dipentene as fuel for "B" pyrolysis unit.
1978	A016-2654	A016-48078	Modification	Use of dipentene as fuel for "C" pyrolysis unit.

Year	Construction Permit or Operating Permit	Current Operating Permit	Type	Description
1978	AC16-11888	A016-36783	New construction	No. 3 Boiler
1979	AC16-24123	See revision to A016-4803 below - 1980	New construction	Storage tank No. 18
1979	AC16-16618	A016-34564	New construction	M580 Reactor System for production of Ionones
1980	AC16-21058	Not completed	New construction and modification	Distillation columns and reactors for production of flavor and fragrance chemicals
1980	AC16-25682	See revision to A016-4803 below - 1980	New construction	Tank No. 19
1980	AC16-4803	A016-33094	Modification	Vent emissions from Tks 18 and 19 to incinerator
1980	AC16-33094	A016-54957	New construction	Tank No. 4
1980	AC16-33095	See revision to A016-4803 below - 1981	New construction	Tank No. 13
1981	A016-4803	A016-33094	Modification	Vent emissions from additional tanks to incinerator
1981	AC16-4557	A016-57171	New construction	Tank No. 12
1982	A016-20814	same	Modification	Use of turpentine and derivatives as fuel for Boiler No. 2
1982	A016-36783	same	Modification	Use of turpentine and derivatives as fuel for Boiler No. 3
1982	AC16-55595	Not completed	New construction	M660 reactor and six storage tanks. Permit modified by letters of 11/23/82 and 12/7/82.

6. The raw material, humate slurry, will be delivered to the plant in tank trucks and stored in a tank. This material, being slightly over 80% water, will make fugitive emissions from storage facilities nil.

7. The dried product will be conveyed from the drying operation to a storage tank by an enclosed conveying device. The storage tank will be vented to the bag house. Thus, fugitive emissions from the product storage facilities will be nil.

8. An enclosed conveying device will also be utilized to load the product into bulk carriers. The loading arm which will be inserted into the vehicle will be equipped with a sleeve that will retain any emissions which might result from loading. Thus we expect the fugitive emissions from the bulk loading operations to also be nil. As stated in the original application, any bagging operation will have a properly designed hood and exhaust fan.

9. BES comments 1, 2, 3, and 4 have been covered above. In addition, one other comment relative to the operating restriction on Boiler No. 3 is pertinent. Although this permit application is for 8760 hours of operation, experience has shown that only about 90% service factor can be expected because of maintenance, etc. Thus actual operating time is estimated at approximately 7884 hours.

There have been no intensive tests to determine if humate exhibits some very low level of radioactivity or toxicity, but to the best of our knowledge it is neither.

There should be no objectionable odors associated with this operation.

We hope that the above will provide you with the information required to process the application. However, if you have further questions, please advise.

Very truly yours,

R. L. Webb

R. L. Webb
Vice President

RLW/nr

cc: Mr. J. E. Woosley
Mr. G. D. Dutton
Mr. W. J. deGroot

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		
Humate Slurry	TSP	18.6	2,200	1

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

1. Total Process Input Rate (lbs/hr): 2,200

2. Product Weight (lbs/hr): 2,199

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission[1]		Allowed Emission[2] Rate per Ch. 17-2, F.A.C.	Allowable[3] Emission lbs/hr	Potential Emission[4]		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
TSP	1	3.942	3.81 lbs/hour	3.81	216	756.86	2
			17-2.610 Table 610-1				

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles[5] Size Collected (in microns)	Basis for Efficiency (Sec. V, It[5])
2G4 Mikro-Pulsaire	TSP	99.5 + %		See
with modified baghouse				Attachment
See attachment				

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard

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

[5]If Applicable

E. Fuels N/A

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

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

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

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

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

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

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

Stack Height: 35 ft. Stack Diameter: 2 ft.

Gas Flow Rate: 28,400 ACFM Gas Exit Temperature: 200 °F.

Water Vapor Content: Relative Humidity- 30 % Velocity: 151 FPS

SECTION IV: INCINERATOR INFORMATION N/A

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

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ days/week _____

Manufacturer _____

Date Constructed _____ Model No. _____

Section III B.

Feed to process - Humate slurry	-	11,800 lbs/hr.
Water	-	9,600 lbs/hr.
Solids	-	2,200 lbs/hr.

Product - 90%+ removal of solids in cyclone	-	2154 lbs/hr.
Water	-	169 lbs/hr.
Solids Recovered	-	1985 lbs/hr.
Solids to Bag House	-	215 lbs/hr.
99.5%+ removal of solids in Bag House	-	214 lbs/hr.
Solids emissions to atmosphere	-	1 lb/hr.