Check Sheet

Company Name: M ID FLORIDA - MINING INDUSTRIES, INC
Permit Number: A C 42 - 184416
PSD Number:
Permit Engineer:

Application:

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

Cross References:

- ☑ AO 42-154436
- ☐ -68708
- ☐ -43771
- -6750
- -74474
- -154436
- -2483

Intent:

- ☐ Intent to Issue
- ☐ Notice of Intent to Issue
- ☐ Technical Evaluation
- ☐ BACT Determination
- ☐ Unsigned Permit
- Correspondence with:
  - ☐ EPA
  - ☐ Park Services
  - ☐ Other
- ☐ Proof of Publication
  - ☐ Petitions - (Related to extensions, hearings, etc.)
  - ☐ Waiver of Department Action
  - ☐ Other

Final Determination:

- ☐ Final Determination
- ☐ Signed Permit
- ☐ BACT Determination
  - ☐ Other

Post Permit Correspondence:

- ☐ Extensions/Amendments/Modifications
- ☐ Other

Florida Department of Environmental Regulation

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

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

August 17, 1990

Dr. John B. Koogler
Koogler & Associates
4014 NW Thirteenth Street
Gainesville, Florida 32609

Dear Dr. Koogler:

This is in reply to your August 7 letter to Barry Andrews requesting an amendment of Mid-Florida Mining Company's operating permit AO 42-154436 to replace a bagging machine. We have no objection to the proposed amendment. By copy of this letter, we are recommending to the Central District that the necessary amendment be made by them since they issued the permit and there is no impact on emissions.

A refund of the $200 application fee for a construction permit (AC 42-184416) will be forwarded separately.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/JR/plm

c: C. Collins, Central District
D. Kibler, MFM

MFM INDUSTRIES
3300 S.W. 34th Avenue, Suite 152
Ocala, Florida 32674

THE CITIZENS & SOUTHERN NATIONAL BANK
ATLANTA, GEORGIA

No. 15645

64-5
610

PAY [redacted] DATE JULY 26, 1990 AMOUNT $200.00

TO THE ORDER OF
DEPARTMENT OF ENVIRONMENTAL REGULATION
2600 BLAIRSTONE ROAD
TALLAHASSEE, FL

[redacted]

COMPANY NAME: Mid-Florida Mining Company COUNTY: Marion

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Mikro-Pulsaire Baghouse

SOURCE LOCATION: Street SR 329 and SCL RR City Lowell

UTM: East (17) 384.5 km North 3245.3 km

Latitude 29 ° 19 ' 52 "N Longitude 82 ° 11 ' 28 "W

APPLICANT NAME AND TITLE: David Kibler IV, President

APPLICANT ADDRESS: Mid-Florida Mining Company, P.O. Box 68, Lowell, FL 32663

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Mid-Florida Mining Company

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

*Attach letter of authorization

Signed: _____

David Kibler IV, President
Name and Title (Please Type)

Date: _____ Telephone No. (904) 854-0070

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 hav been ~~designed~~/examined by me and found to be in conformity with modern engineerin principles applicable to the treatment and disposal of pollutants characterized in th permit application. There is reasonable assurance, in my professional judgment, that

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

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 ▪ FAX 377-7158

KA 290-90-03

August 7, 1990

Clair.
I trust this approach is OK. Has similar requests been handled by amending the permits historically?
Barry

Mr. Barry Andrews
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Mid-Florida Mining Company
Fugitive Dust Collection System
Permit AO42-154436
Applicability of New Source
Performance Standards to the MFM
Fugitive Dust Collection System

538

Dear Mr. Andrews:

The Mid-Florida Mining Company (MFM) operates a clay drying and packaging plant at Lowell, Florida. The plant operates under two Department air permits; one permit covering the clay dryer and a dried clay fines storage silo and the second permit (AO42-154436, the subject of this letter) covering a fugitive dust collection system. Permit AO42-154436 was issued December 2, 1988, and expires November 15, 1993.

The purpose of this letter is to request an <u>amendment</u> to the subject permit to allow MFM to replace a product bagging machine on one of six bagging lines with a machine of equal capacity. In the following paragraphs, the MFM operations are described, the permitting history is summarized, equipment (including the existing and proposed bagging machines) is described and the applicability of New Source Performance Standards (40CFR60, Subpart OOO) is reviewed.

The fugitive dust collection system collects and controls dust generated by the dried clay from the time it is discharged from the dryer until it leaves the plant. The dried clay can leave the plant either as packaged product (cat litter or an oil and grease sorbent), bulk product shipped by rail car, or fines that are trucked back to the mine and used as mine reclamation. Additionally, a small amount of dried clay fines are packaged as a specialty product. The fugitive dust collection system within the plant serves product elevators, storage bins, product screens, a hammer mill for sizing oversized material, rail car and a truck load-out systems, a product cooler, air

separators, conveyor belt systems, packaging machines, the dust disposal system for the clay dryer baghouse and some transfer and minor miscellaneous points. During the normal operation of the plant, not all of the systems operate simultaneously. The air vented from each of these points passes through a Mikro-pulsaire baghouse for dust control. The particulate matter emission limiting standard for this system was established by Rule 17-2.610(1),FAC-the Process Weight Table. Under the maximum permitted operating rate for the fugitive dust system of 86.5 tons per hour, the allowable particulate matter emission rate is 31.2 pounds per hour. The actual emission rate is normally in the 5-6 pound per hour range.

The original MFM plant was constructed in the mid-1960s. The plant then consisted of the dryer, a material handling system, and three bagging lines (Lines 1, 2, and 3). In approximately 1970, the No. 4 bagging line was added and in 1980-1981, bagging lines 5 and 6 were added.

As originally constructed, particulate matter emissions from both the clay dryer and the fugitive dust collection system (both the dry clay processing and packaging) were controlled with a single baghouse (the Mikro-pulsaire baghouse presently used for the fugitive dust collection system). On October 8, 1981, MFM was issued air construction permit AC42-43771 to add a separate baghouse to control emissions from the clay dryer. The existing Mikro-pulsaire baghouse would continue to be used to control fugitive emissions from the clay processing and packaging. At this point in time, all six bagging lines that presently operate had been installed and were operating. The project permitted by AC42-43771 was completed and air operating permit AO42-68788 was issued for the clay dryer on August 30, 1983. The fugitive dust handling system continued to operate under permit AO42-6750 which was the permit issued in February 1978 for the Mikro-pulsaire baghouse serving (at the time of permit issuance) both the clay dryer and the fugitive dust handling system. Permit AO42-6750 was replaced by renewal permit AO42-74474 in November 1983; with AO42-74474 being amended to address only the fugitive dust system. That permit was subsequently replaced by permit AO42-154436 in December 1988; a permit valid through November 15, 1993.

The Mikro-pulsaire baghouse used to control fugitive particulate matter emissions from the processing and packaging of dried clay was installed under permit AC42-2483 issued to MFM on March 21, 1977. This baghouse has been in operation continuously since that time; or for approximately 13 years. The attached specification sheet describes the Mikro-pulsaire baghouse. The design air volume for the baghouse is 50,000 cubic feet per minute. Compliance testing on the baghouse has consistently demonstrated an air flow rate through the baghouse of 50,000-55,000 cubic feet per minute. The compliance testing has also demonstrated consistent compliance with the emission limiting standard applicable to the fugitive dust system.

The modification that MFM is currently proposing to the system involves the replacement of the bagging machine on the No. 4 line with a machine of equal capacity. The No. 4 bagging line is currently served with a two tube Model 771 St. Regis force flow bagging machine. The attached material describes this machine and documents that the maximum packaging rate for the machine is 24 25-pound bags of cat litter per minute. MFM nominally rates the machine at 20 25-pound bags per minute. The bags filled by this machine are sealed with adhesive. One end of the bag is completely sealed while the filling end is sealed except for a "valve" that remains open in the seam. The tube from the St. Regis machine is inserted into the "valve" and product is introduced. When filling is complete, the tube is withdrawn and the "valve" is automatically sealed with adhesive. There is a tendency for the seal to leak a small amount of product during handling; a characteristic that is a nuisance to MFM's commercial clients and to consumers.

MFM is proposing to replace the St. Regis machine with a Bemis Edtbauer SC4 bagging machine. The attached material describes the Bemis machine and documents that the capacity of the machine is 20 25-pound bags per minute. This filling capacity is equal to the capacity at which MFM presently operates the St. Regis machine on the No. 4 line. The Bemis machine uses a bag that is sealed on one end and completely open on the other. The loading spout of the Bemis machine is inserted into the open end of the bag and the bag is filled. When filling is complete, the bag is removed from the loading spout and sealed by sewing. The sewed seal eliminates spilling and is the preferred seal by MFM's commercial customers and consumers.

One question regarding the replacement of the bagging machine relates to the applicability of New Source Performance Standards for non-metallic mineral processing plants. These standards are addressed in 40CFR60, Subpart 000 (copy attached). These standards cover, among other facilities, crushers, grinding mills, screening operations, bulk elevators, belt conveyors, bagging operations, storage bins, and enclosed truck or railcar loading stations in fixed or portable clay plants with capacities in excess of 10 tons per hour that were constructed, reconstructed or modified after August 31, 1983. Exempt from the standards (with the exception of reporting) is the replacement of an existing piece of equipment by a piece of equipment of equal or smaller size (40CFR60.670(d)(1)). The reporting and record keeping required when a piece of equipment is replaced by an equivalent piece of equipment includes:

1. The rated capacity in tons per hour of the existing facility being replaced.

2. The rated capacity in tons per hour of the replacement equipment.

3. A description of the control device used to reduce particulate matter emissions from the existing facility and a list of all other pieces of equipment controlled by the same device.

4. The estimated age of the existing facility.

All of the information required by the reporting requirements of Subpart 000 have been provided in the preceding paragraphs.

To expedite your review of this matter, I have enclosed a copy of the current operating permit for the fugitive dust handling system and a schematic diagram showing the overall plant operation at the MFM Lowell facility. The permit (A042-154436) establishes the particulate matter emission limit for the system and also establishes a maximum material handling rate for the system of 86.5 tons per hour.

MFM will be receiving the Bemis bagging in late August 1990 and would like to be able to install the bagging machine as a replacement to the existing and equivalent St. Regis bagging machine on the No. 4 bagging line under an amendment to permit A042-154436. The amendment is preferred to the issuance of a construction permit in the interest of time. MFM is of the opinion that the installation of the proposed Bemis bagging machine under an amendment is appropriate in that the existing St. Regis machine and the Bemis machine are of equal capacity and the existing permit does set a material handling rate for the fugitive dust system. The new bagging machine will not cause the permitted material handling rate to increase nor will it cause actual emissions to increase.

I would appreciate your expeditious review of this request and will be more than happy to provide any additional information you might need. Please contact me if you have any questions regarding the information provided herein or if additional information is required.

Very truly yours,

KOOGLER & ASSOCIATES

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

JBK:wa
Enc.

cc: Mr. David Kibler
Mr. John Chieffalo
J. Reynolds
C. Collins

KOOGLER & ASSOCIATES

ATTACHMENT 1

cc: Lee Searfoss-MikroPu
Gene Hyde - Linder

QUOTATION

Subsidiary of

MikroPul
CORPORATION

UNITED STATES FILTER CORPORATION
10 Chatham Road · Summit, N.J. 07901 · (201) 273-6360

DATE: March 7, 1977

TO: Mid-Florida Mining Company
P.O. Box 68
Lowell, Florida 33663
ATTN: Mr. Ken Tinsley

FOR: Dust Collector to Vent
Rotary Dryer

OPTION #2

YOUR REF: Your Telcon to Sig Klamka on 2/22/77.

We (1) Mikro-Pulsaire Dust Collector for continuous operation. Model 720K-10TR top removal type, to operate under the following conditions:

Air Volume: 50,000
Temperature: ~~250°F.~~ 100°F - present operating temp.
Filter Rate: 5-6:1
Product: Ground Clay
Application: Vent Air from Rotary Dryer

EQUIPMENT TO CONSIST OF THE FOLLOWING:

One (1) Filter case housing constructed of 12 gauge hot rolled steel with 60^0 hopper in factory assembled construction. The clean air plenum roof will be equipped with clamped-type doors for quick bag removal through the clean air side of the unit.

One (1) Set of filter bags consisting of 720 bags 10' long 4.5" long dia. ~~fabricated with 16 oz/yd² dacron polyester felt filter fabric~~ to provide a total of 8,474 sq. ft. of filter area. Maximum temperature 250°F.

One (1) Set of steel retainers - 10' long.

One (1) Set of 304SS bag clamps.

When ordering this material, please indicate if it is tax exempt and exemption number; or if a tax applies, the amount or percentage of the tax.

FOB: Point of Manufacture

TERMS: Net 10th Prox. No sales taxes included.

SHIPPING WEIGHT: Listed with Pricing.

SHIPMENT:

(A) Time needed to submit detailed drawings for approval (when required) 4-5 weeks

(B) Time needed to complete fabrication after receipt of approved drawings (when required) 10 weeks

The price quoted is a firm quotation for a period of 30 days after quotation date. "The contents included in the above quotation are subject to approval by home office."

NOTE:

When entering your order please return one of our prints submitted with our quote and mark it approved for orientation or mark the changes required and we will advise further.

ADDRESS REPLY TO: LINDER INDUSTRIAL MACHINERY CO.
P.O. BOX 5330
LAKELAND, FLORIDA 33803
813/646-5711

MikroPul
CORPORATION
UNITED STATES FILTER CORPORATION
D.L. Heckman

D.L. Heckman
Linder Industrial Machinery Co

GA-P-153

SEE OVER FOR CONDITIONS OF SALE

ATTACHMENT 2

Stone Container Corporation

Bag Division

Suite 100
1775 The Exchange
Atlanta, Georgia 30339

404 952-8311

August 1, 1990

Robert Bass
MFM INDUSTRIES

Dear Mr. Bass:

The two-tube 771 St. Regis Force Flow Bagging Machine is capable of packaging twenty-four 25# bags of kitty litter per minute.

Best regards,

Ed

Ed Sims
Sales Representative - Equipment

bms

** SPECIAL NOTE:

THE TWO TUBE 771 ST. REGIS FORCE FLOW BAGGING MACHINE WAS MANUFACTURED BY ST. REGIS. THIS COMPANY WAS RECENTLY BOUGHT OUT BY STONE CONTAINER CORP.

NOTE: THE TWO TUBE MODEL 771 MACHINE OPERATED BY MFM OPERATES ON SAME PRINCIPLE AS THE MODEL 770 MACHINE DESCRIBED HEREIN.

I. INTRODUCTION

A. Development The versatile Model 770 Force Flow Packer is the result of an extensive research program by St. Regis, to provide industry with an efficient packaging system for valve bags.

It has the capability, as has been proven successful in other St. Regis Force Flow Packers, to simultaneously weigh and package a greater variety of divided-solids. The St. Regis FORCE FLOW FAMILY efficiently packs materials which previously were considered impractical to package in an automatic packaging machine.

B. Principle of Operation A conditioning, or pressure chamber is the main feature in the all pneumatic system of the Model 770 Force Flow Packer . This chamber receives and fluidizes the product material, prior to delivery to the bag. An intake gate at the top of the chamber opens to receive the material from the supply bin and closes to allow the chamber to be pressurized by the low pressure air circuit (Blower).

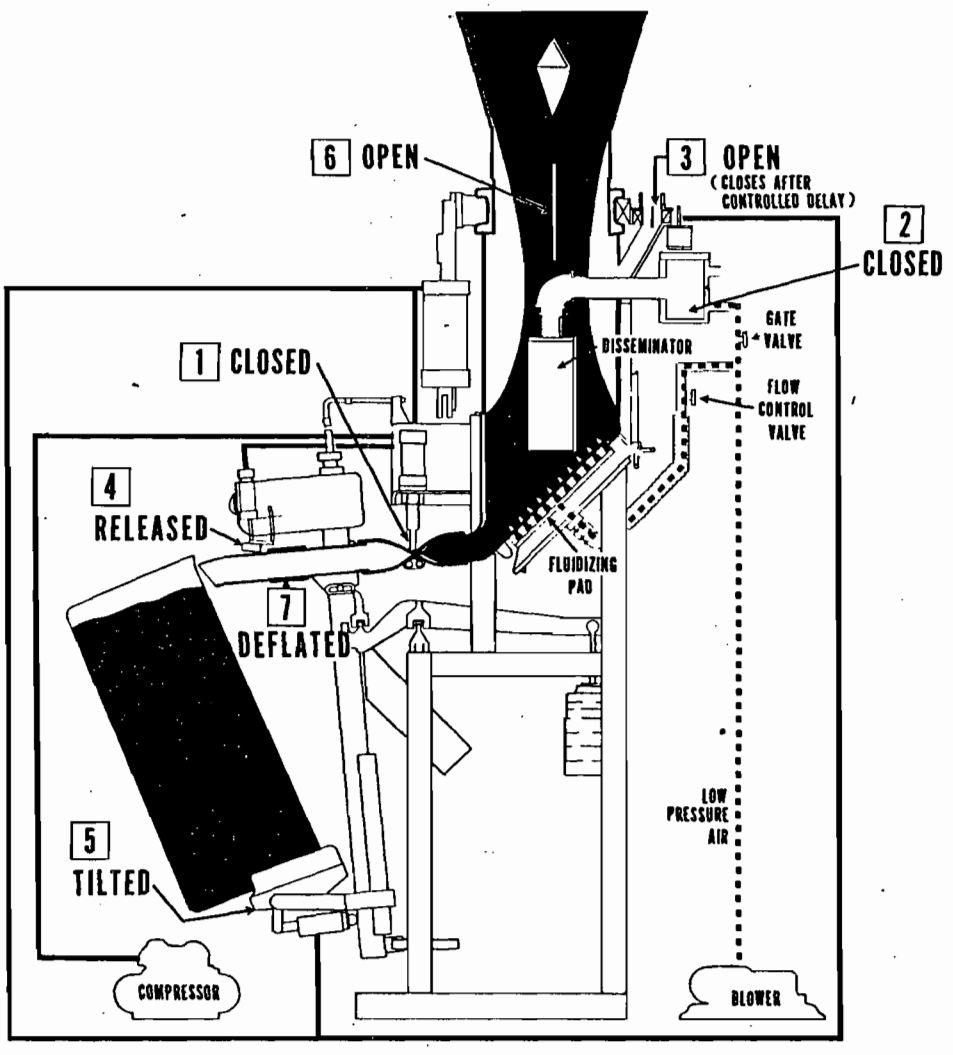
High pressure air (80 psig), operates two separate control sequences, Start and Stop.

On actuation of "Start" signal by the operator, a cutoff device opens to allow the air-solids mixture to be fed to the bag. The cutoff closes automatically when the material in the bag reaches a pre-determined weight.

Bags are weighed during the filling operation on a unit consisting of bag support frame and filling tube mounted on the front of a scale beam. Filled bags are discharged automatically when the machine is equipped with an automatic discharge bag chair arrangement.

All of this operation activity for each bag filling cycle takes place in a matter of seconds! This packing speed is important -- not only to achieve high production rates, but also for proper function of the Model 770 Force Flow Packer . When "fixed bed fluidization" ceases on closure of the Feed Gate, generally the rapid flow of the air-solids mixture through the Filling Tube to the bag takes place before there is time for any appreciable decay of the fluid state of the material.

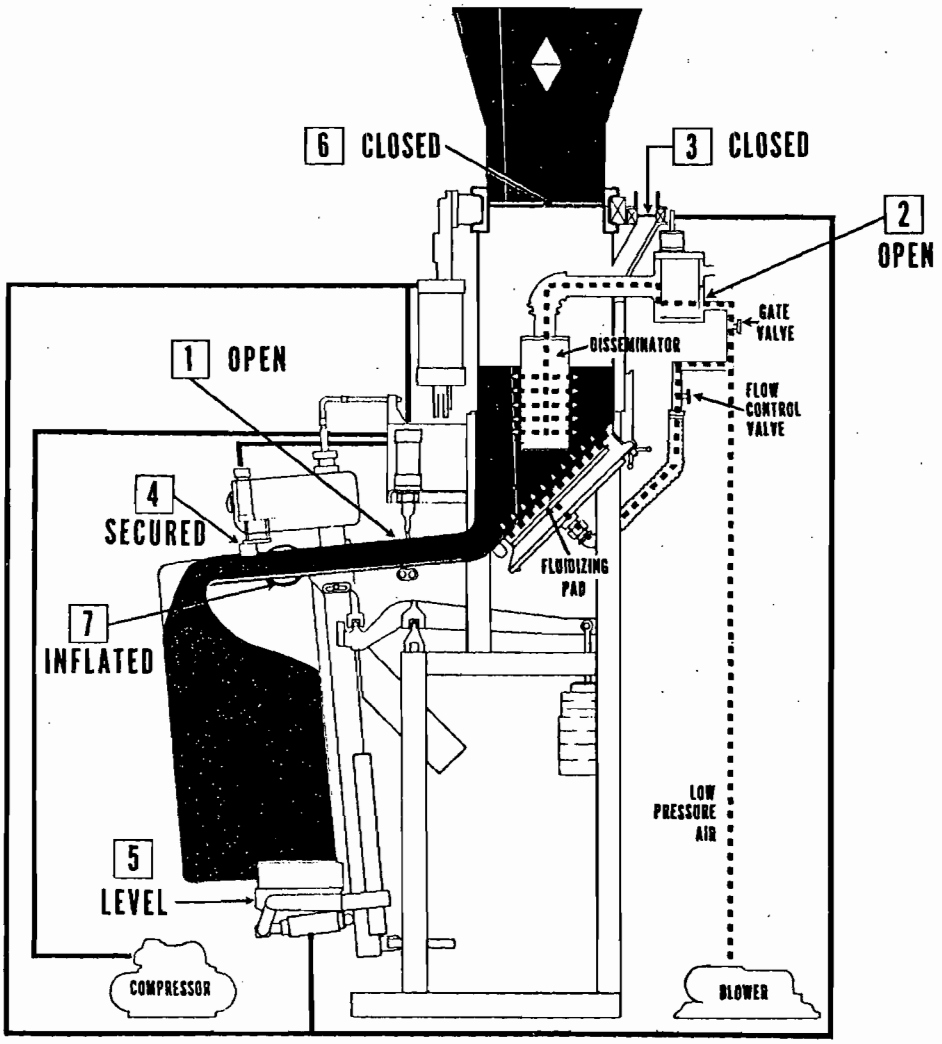
C. Sequence of Operation A representative arrangement of the Model 770 Force Flow Packer is shown on the next page. It serves to amplify the following description of a typical, TWO PHASE operational sequence for filling a bag. It should be noted, however, that a variety of constructions are optional for the Model 770 Force Flow Packer. The sequences as drawn, show the optional timed powered discharge, timed bag sealer, and separate exhaust arrangement.



PHASE ONE is the condition in effect at the end of a filling cycle. After actuation of the "Stop" (or scale) signal the following sequences occur:

(a) The flexible pinch tube cutoff (1) closes, stopping the flow of material to the bag.
(b) The air intake valve (2) closes off the air supply from the low pressure blower.
(c) Chamber pressure is releived. Depending on the material; this exhaust is accomplished in one or a combination of three ways: through a timed-separate exhaust (3), through the main infeed gate, or through the disseminator.
(d) The Bag Clamp (4) releases, the bag is discharged (5), and the feed gate (6) opens to recharge the chamber with material, after a delay.

With the optional features shown on the schematic, the exhaust is accomplished by the valve (3) opening for a pre-determined amount of time (1 to 3 seconds) and closes. The valve sealer (7) deflates - this can be timed to ensure material stabilization in the bag. The powered discharge bag chair (5) tilts to discharge the filled bag at the end of the sealer deflation. The timing of these features is done with specially designed pneumatic controls. During this non-bag filling phase, "fixed bed fluidization" occurs as air from the blower source flows through the fluidizing air pad up through the divided solids material in the chamber and through the open feed gate. During Phase One, the operator also places an empty bag on the filling tube after discharge of the previous bag.

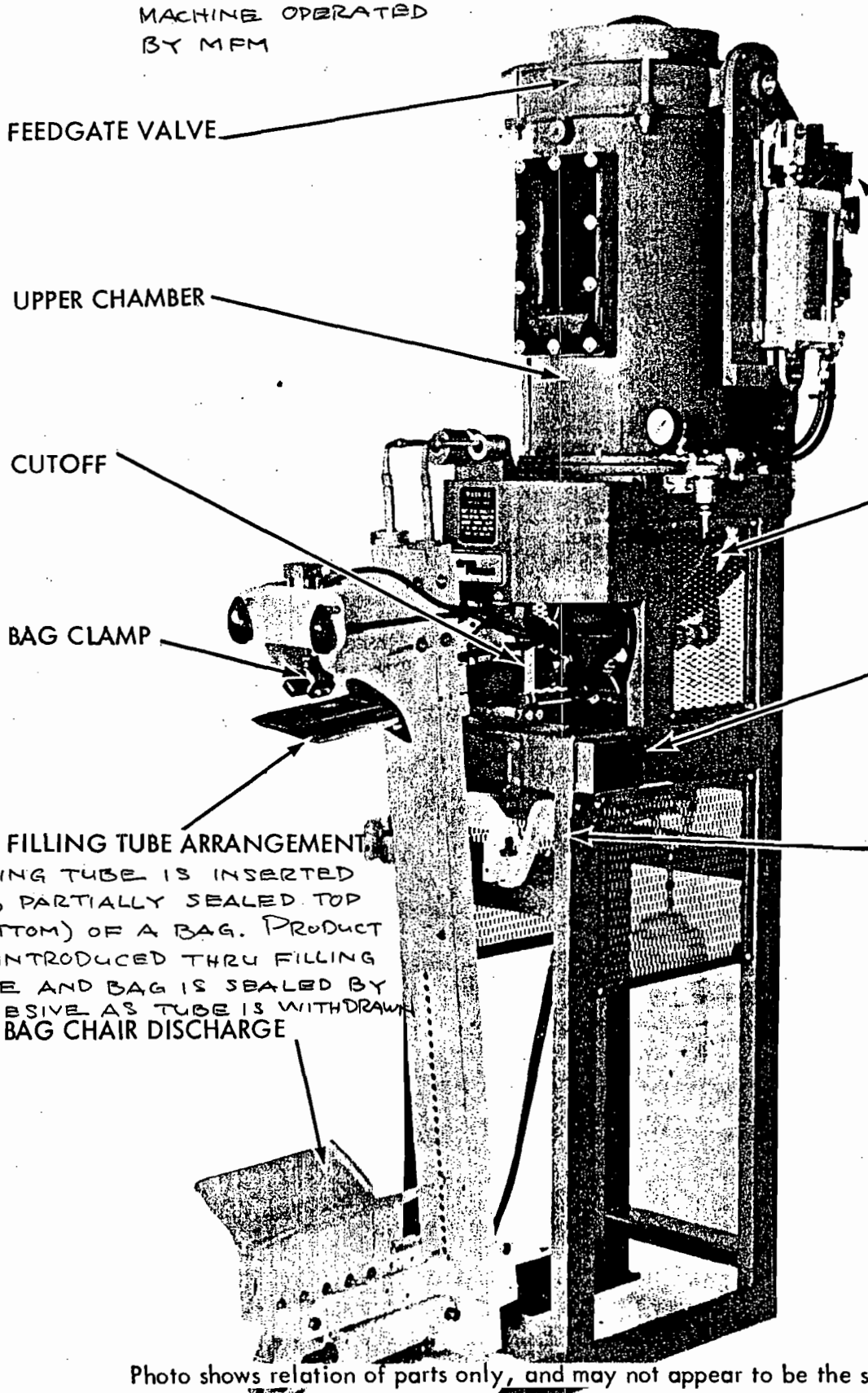


PHASE TWO is the condition in effect during the filling cycle. After actuation of the start signal the following conditions occur:

(a) The bag clamp (4) secures the bag to the filling tube.
(b) The bag chair (5) retracts to a level position.
(c) The bag sealer inflates inside the valve of the bag.
(d) The feed gate (butterfly or slide gate) (6) closes, shutting off the chamber to atmosphere, allowing proper packing pressure, and cutting off additional material supply.
(e) The air intake valve (2) opens to allow air from the low pressure blower to pressurize the chamber and fill the void left in the chamber when the material is packed into the bag.
(f) The material is packed into the bag until the desired net weight is reached.
(g) When the bag comes to weight, the scale beam trips the "Stop" circuit, and the condition in Phase One is in effect.

If the Packer is equipped with the optional automatic starting device, the start signal is obtained automatically when the bag is placed on the filling tube and contacts the starter lever.

NOTE
THIS IS BASICALLY ONE-HALF OF THE MACHINE OPERATED BY MFM



FILLING TUBE IS INSERTED INTO PARTIALLY SEALED TOP (BOTTOM) OF A BAG. PRODUCT IS INTRODUCED THRU FILLING TUBE AND BAG IS SEALED BY ADHESIVE AS TUBE IS WITHDRAWN

Photo shows relation of parts only, and may not appear to be the same as supplied.

ATTACHMENT 3

BEMIS
BAG PACKAGING SYSTEMS

PROPOSAL

Proposal To:
Mid-Florida Mining
3300 SW 34th Avenue
Ste. 152
Ocala, FL 32674

Attn: Mr. Robert Bass

Proposal No. 90-04-0229
Date: April 30, 1990
Page No. 1 **of** 7 **Pages**

A BEMIS PACKAGING SYSTEM

SYSTEM DESCRIPTION

This BAG PACKAGING system is designed to receive product in a uniform manner from a Purchaser supplied surge bin. The scale will automatically weigh the product and deposit it into a bag placed on the spout by the operator. Once filled, the operator will reform the bag top and guide it into the purchaser supplied sealing system. Included is one (1) Bemis Edtbauer SC 4 Net Weigh Scale.

TOTAL SYSTEM PRICE. . . . . . .

See other side for terms and conditions of sale (pg 2 of 7; not copied)

MEMBER PMMI USA

BEMIS PACKAGING SERVICE MACHINERY CO.
315-27th Avenue N.E.
Minneapolis, MN 55418
Telephone: (612) 782-1200 • Telex 29-0108
Telefax (612) 782-1203

BEMIS MASTER PALLETIZER SYSTEMS
1401 West Stanford Avenue
Englewood, CO 80110
Telephone (303) 761-9981 • Telex 45-4596
Telefax: (303) 761-7128

BEMIS

ITEM 1 BAG PACKAGING SUBSYSTEM

Standard equipment:

- One (1) Bemis Edtbauer SC 4 Net Weigh Scale.

Price. . . . . . .

Application related and/or purchaser specified equipment:

Edtbauer SC 4

- Gravity feed section.
- Carbon steel product contact surfaces and discharge hopper.
- Product supply hopper.

Price. . . . . . .

Optional Equipment:

- Controlled cycling. (add)Price . . .
- Mechanical bag counter. (add)Price . . .
- Special beam stops for weighing 5-7 pound weights. (add)Price . . .

NOTE: Two(2) complete system manuals are provided as part of the project. Additional manuals are available for **$50.00 each** with initial order. After order placement, additional manuals are available for **$150.00** for the first copy and **$50.00** for each additional copy.

PERFORMANCE SPECIFICATIONS/CRITERIA

The performance of the proposed equipment is based on information provided to BEMIS. Variations in product, quality of packages, proper maintenance, operator training, skill and knowledge may effect the proposed performance and operation of the equipment.

Any changes to the listed specifications will be subject to re-evaluation of the proposal.

1. Product: Kitty litter
   Bulk density: 42 lbs./cu. ft.

2. Target weight: 25 lbs
   Accuracy: ± .5-1 ounce at 2 sigma
   Fill rate: up to 20 bags per minute **(*)** depending on product and bag weights.

3. Type of bag: To be advised

NOTE: Order acceptance is subject to review of "worst case" product samples & bags by out test facility in Minneapolis. Please furnish one(1) quart sample of product along with the MSDS and sample bags immediately. Actual figures may vary due to product characteristics, material flow through the spout, bag construction, and bag rigidity.

(*) Speed requirement is fulfilled if lowest rate is obtained.

UTILITY REQUIREMENTS

Electrical Power:	N/A
Electrical Enclosures:	N/A
Line Pressure:	N/A

GENERAL AND MISCELLANEOUS

QUOTATION VALIDITY

Thirty (30) calendar days from date of issue

PAINT SPECIFICATIONS

BEMIS two-tone platinum and tower gray enamel

SHIPMENT

Approximately 10-12 weeks after receipt of formal written purchase order, down payment and complete information.

FOB

All shipments will be FOB BEMIS' factories in Minneapolis, Minnesota.
To be shipped freight collect.

INSTALLATION, START-UP AND TRAINING

These services are available through our Field Service Technicians and is highly recommended to ensure proper warranty on the equipment. Please refer to the enclosed Field Service Policy for rates, or the separate installation, start-up and training proposal (if requested).

Proposal To:
Mid-Florida Mining
Ocala, FL

Proposal No. 90-04-0229
Date: April 30, 1990

TERMS OF PAYMENT

30% with order.
Balance Net 30 days.
Subject of credit approval.

Accepted By:

_____

_____

Submitted by:

Thomas K. Allum
Sales Coordinator/mcc

Title_____

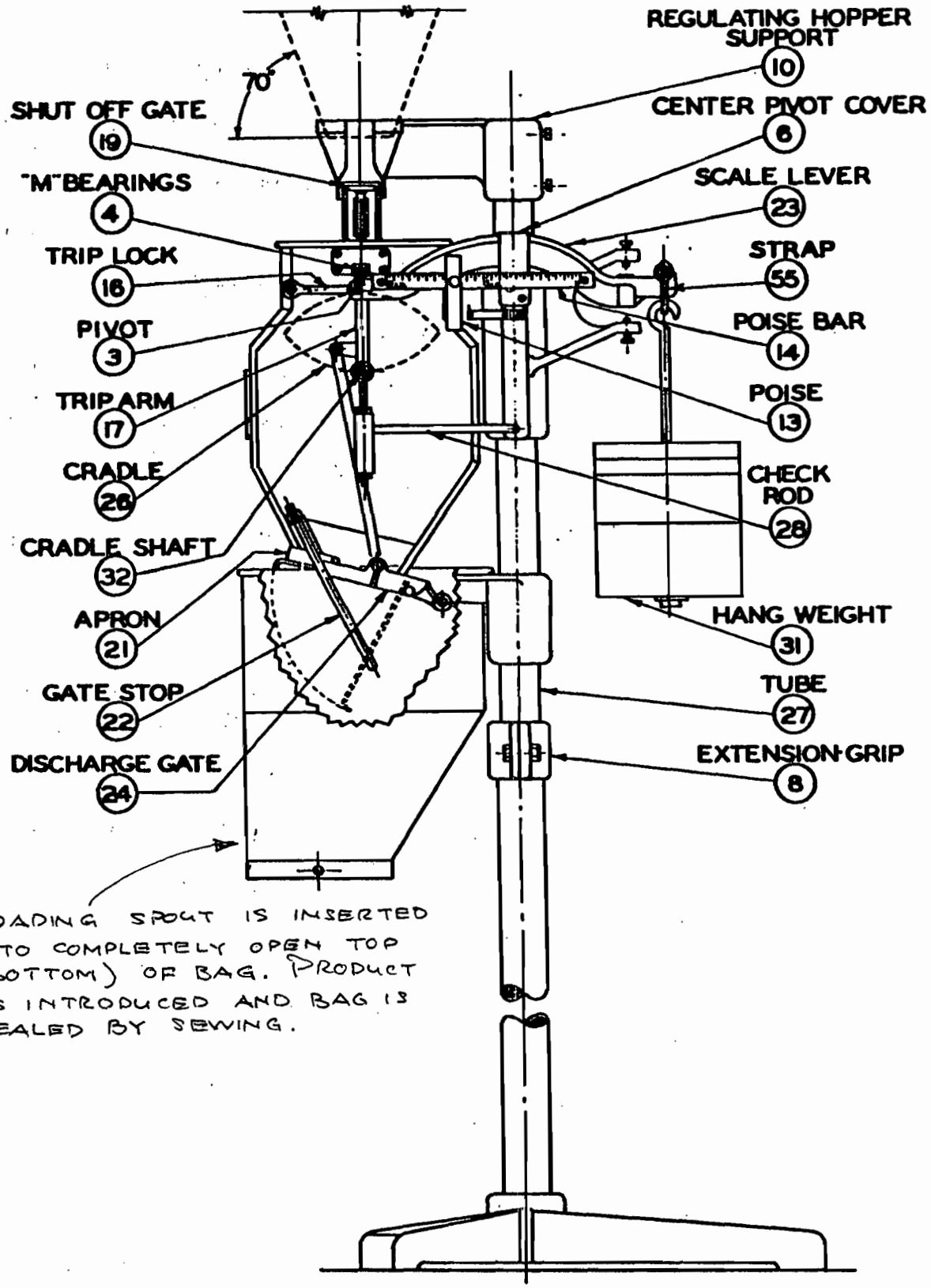
Date_____

MACHINE SPECIFICATIONS - EDTBAUER SC 4

1. Lightweight metal weigh hoppers.
2. Compact design requires minimum floor space.
3. Hardened steel knife edges in "M" bearings.
4. Selective feeders.
5. Adjustable speed controls.
6. Adaptable to alternate discharge controls.
7. Shipping weight: Approximately 805 lbs. (365 KG).

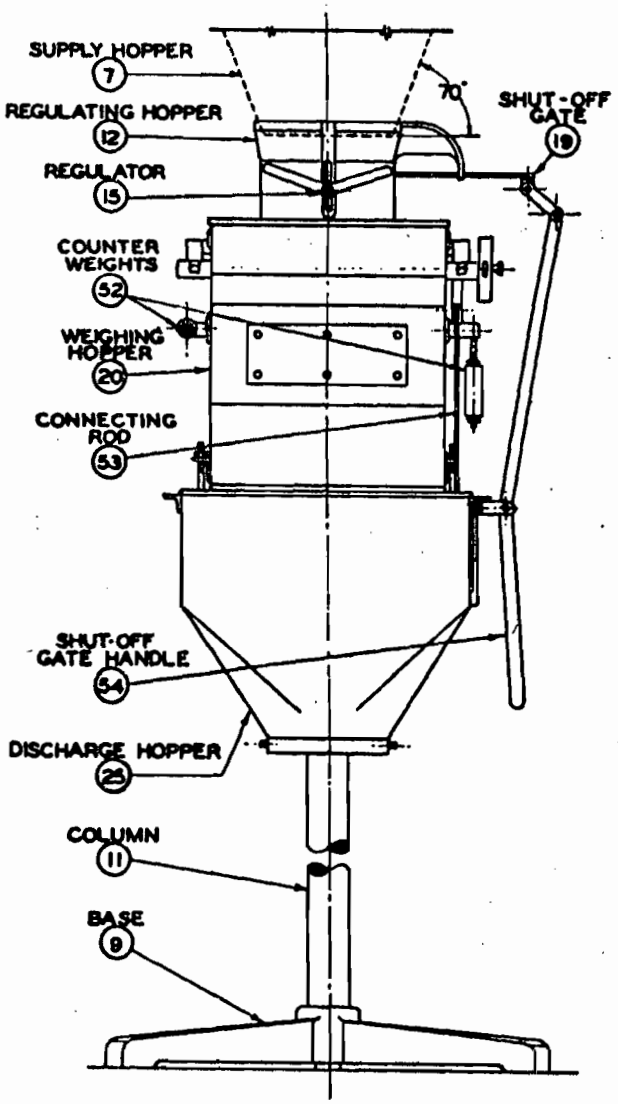
BEMIS EDTBAUER AUTOMATIC NET WEIGHER

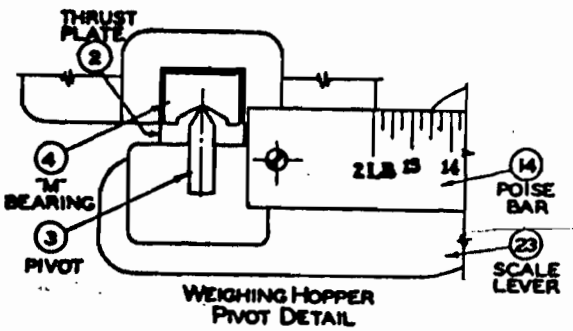
SERIES NO. 3, 4 AND 4E GRAVITY FEED



BEMIS EDTBAUER AUTOMATIC NET WEIGHER

SERIES NO. 3, 4 AND 4E GRAVITY FEED





ATTACHMENT 4

(Approved by the office of Management and Budget under control number 2060-0120)

§ 60.648 Optional procedure for measuring hydrogen sulfide in acid gas—Tutwiler Procedure.[1]

(a) When an instantaneous sample is desired and H_2S concentration is ten grains per 1000 cubic foot or more, a 100 ml Tutwiler burette is used. For concentrations less than ten grains, a 500 ml Tutwiler burette and more dilute solutions are used. In principle, this method consists of titrating hydrogen sulfide in a gas sample directly with a standard solution of iodine.

(b) *Apparatus.* (See Figure 1.) A 100 or 500 ml capacity Tutwiler burette, with two-way glass stopcock at bottom and three-way stopcock at top which connect either with inlet tubulature or glass-stoppered cylinder, 10 ml capacity, graduated in 0.1 ml subdivision; rubber tubing connecting burette with leveling bottle.

(c) *Reagents.* (1) Iodine stock solution, 0.1N. Weight 12.7 g iodine, and 20 to 25 g cp potassium iodide for each liter of solution. Dissolve KI in as little water as necessary; dissolve iodine in concentrated KI solution, make up to proper volume, and store in glass-stoppered brown glass bottle.

(2) Standard iodine solution, 1 ml=0.001771 g I. Transfer 33.7 ml of above 0.1N stock solution into a 250 ml volumetric flask; add water to mark and mix well. Then, for 100 ml sample of gas, 1 ml of standard iodine solution is equivalent to 100 grains H_2S per cubic feet of gas.

(3) Starch solution. Rub into a thin paste about one teaspoonful of wheat starch with a little water; pour into about a pint of boiling water; stir; let cool and decant off clear solution. Make fresh solution every few days.

(d) *Procedure.* Fill leveling bulb with starch solution. Raise (L), open cock (G), open (F) to (A), and close (F) when solutions starts to run out of gas inlet. Close (G). Purge gas sampling line and connect with (A). Lower (L) and open (F) and (G). When liquid level is several ml past the 100 ml mark, close (G) and (F), and disconnect sampling tube. Open (G) and bring starch solution to 100 ml mark by raising (L); then close (G). Open (F) momentarily, to bring gas in burette to atmospheric pressure, and close (F). Open (G), bring liquid level down to 10 ml mark by lowering (L). Close (G), clamp rubber tubing near (E) and disconnect it from burette. Rinse graduated cylinder with a standard iodine solution (0.00171 g I per ml); fill cylinder and record reading. Introduce successive small amounts of iodine thru (F); shake well after each addition; continue until a faint permanent blue color is obtained. Record reading; subtract from previous reading, and call difference D.

(e) With every fresh stock of starch solution perform a blank test as follows: introduce fresh starch solution into burette up to 100 ml mark. Close (F) and (G). Lower (L) and open (G). When liquid level reaches the 10 ml mark, close (G). With air in burette, titrate as during a test and up to same end point. Call ml of iodine used C. Then,

$$\text{Grains } H_2S \text{ per 100 cubic foot of gas} = 100\,(D-C)$$

(f) Greater sensitivity can be attained if a 500 ml capacity Tutwiler burette is used with a more dilute (0.001N) iodine solution. Concentrations less than 1.0 grains per 100 cubic foot can be determined in this way. Usually, the starch-iodine end point is much less distinct, and a blank determination of end point, with H_2S-free gas or air, is required.

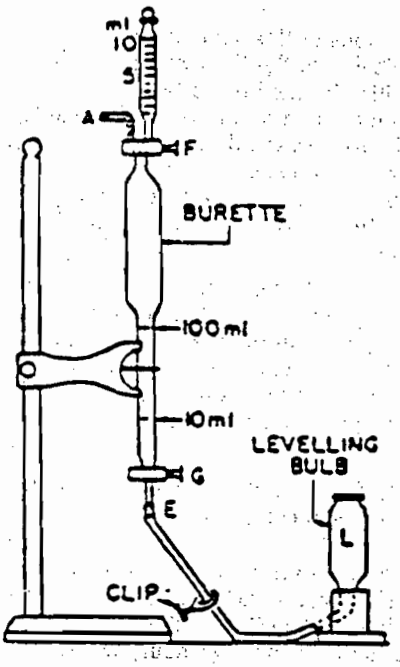


Figure 1. Tutwiler burette (lettered items mentioned in text).

Subparts MMM through NNN — [Reserved]

[Subparts MMM — NNN added and reserved by 50 FR 7699, February 25, 1985]

Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants

[Subpart OOO added by 50 FR 31337, August 1, 1985]

§60.670 Applicability and designation of affected facility.

(a) Except as provided in paragraphs (b), (c) and (d) of this section, the

[1] Gas Engineers Handbook, Fuel Gas Engineering Practices, The Industrial Press, 93 Worth Street, New York, N.Y., 1966, First Edition, Second Printing, page 6/25 (Docket A-80-20-A, Entry II-I-67).

provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station.

(b) An affected facility that is subject to the provisions of Subpart F or I or that follows in the plant process any facility subject to the provisions of Subparts F or I of this part is not subject to the provisions of this subpart.

(c) Facilities at the following plants are not subject to the provisions of this subpart:

(1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 23 megagrams per hour (25 tons per hour) or less;

(2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 136 megagrams per hour (150 tons per hour) or less; and

(3) Common clay plants and pumice plants with capacities, as defined in §60.671, of 9 megagrams per hour (10 tons per hour) or less.

(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.

(2) An owner or operator seeking to comply with this paragraph shall comply with the reporting requirements of §60.676(a) and (b).

(3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§60.672, 60.674 and 60.675.

(e) An affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after August 31, 1983 is subject to the requirements of this part.

§60.671 Definitions.

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in Subpart A of this part.

"Bagging operation" means the mechanical process by which bags are filled with nonmetallic minerals.

"Belt conveyor" means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

"Bucket elevator" means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

"Building" means any frame structure with a roof.

"Capacity" means the cumulative rated capacity of all initial crushers that are part of the plant.

"Capture system" means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more process operations to a control device.

"Control device" means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more process operations at a nonmetallic mineral processing plant.

"Conveying system" means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

"Crusher" means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

"Enclosed truck or railcar loading station" means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

"Fixed plant" means any nonmetallic mineral processing plant at which the processing equipment specified in §60.670(a) is attached by a cable, chain, turnbucket, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

"Fugitive emission" means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

"Grinding mill" means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

"Initial crusher" means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

"Nonmetallic mineral" means any of the following minerals or any mixture of which the majority is any of the following minerals:

(a) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.
(b) Sand and Gravel.
(c) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.
(d) Rock Salt.
(e) Gypsum.
(f) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.
(g) Pumice.
(h) Gilsonite.
(i) Talc and Pyrophyllite.
(j) Boron, including Borax, Kernite, and Colemanite.
(k) Barite.
(l) Fluorospar.
(m) Feldspar.
(n) Diatomite.
(o) Perlite.
(p) Vermiculite.
(q) Mica.

(r) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

"Nonmetallic mineral processing plant" means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in § 60.670 (b) and (c).

"Portable plant" means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

"Production line" means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

"Screening operation" means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens).

"Size" means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

"Stack emission" means the particulate matter that is released to the atmosphere from a capture system.

"Storage bin" means a facility for storage (including surge bins) or nonmetallic minerals prior to further processing or loading.

"Transfer point" means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

"Truck dumping" means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: trucks, front end loaders, skip hoists, and railcars.

"Vent" means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

§ 60.672 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which:

(1) Contain particulate matter in excess of 0.05 g/dscm; or (0.022 gr/dscf)

(2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions of § 60.676 (c), (d), and (e).

(b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (c), (d) and (e) of this section.

(c) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a), (b) and (c) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in § 60.671.

(2) No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in paragraph (a) of this section.

§ 60.673 Reconstruction.

(a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under § 60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.

(b) Under § 60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

§ 60.674 Monitoring of operations.

The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:

(a) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±250 pascals ±1 inch water gauge pressure and must be calibrated on an annual basis in accord-

ance with manufacturer's instructions.

(b) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

§ 60.675 Test methods and procedures.

[60.675 revised by 54 FR 6662, February 14, 1989]

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in Appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

(b) The owner or operator shall determine compliance with the particulate matter standards in § 60.272(a) as follows:

(1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 and the procedures in § 60.11 shall be used to determine opacity.

(c) In determining compliance with the particulate matter standards in § 60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in § 60.11, with the following additions:

(1) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(2) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

(3) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

(d) In determining compliance with § 60.672(e), the owner or operator shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(f) To comply with § 60.676(d), the owner or operator shall record the measurements as required § 60.676(c) using the monitoring devices in § 60.674 (a) and (b) during each particulate matter run and shall determine the averages.

§60.676 Reporting and recordkeeping.

(a) Each owner or operator seeking to comply with §60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:

(i) The rated capacity in tons per hour of the existing facility being replaced and

(ii) The rated capacity in tons per hour of the replacement equipment.

(2) For a screening operation:

(i) The total surface area of the top screen of the existing screening operation being replaced and

(ii) The total surface area of the top screen of the replacement screening operation.

(3) For a conveyor belt:

(i) The width of the existing belt being replaced and

(ii) The width of the replacement conveyor belt.

(4) For a storage bin:

(i) The rated capacity in tons of the existing storage bin being replaced and

(ii) The rated capacity in tons of replacement storage bins.

(b) Each owner or operator seeking to comply with §60.670(d) shall submit the following data to the Director of the Emission Standards and Engineering Division, (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

(1) The information described in §60.676(a).

(2) A description of the control device used to reduce particulate matter emissions from the existing facility and a list of all other pieces of equipment controlled by the same device; and

(3) The estimated age of the existing facility.

(c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

(d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss (or gain) and liquid flow rate differ by more than ±30 percent from the average determined during the most recent performance test.

[60.676(d) amended by 54 FR 6662, February 14, 1989]

(e) The reports required under paragraph (d) shall be postmarked within 30 days following end of the second and fourth calendar quarters.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672 (b) and (c) and reports of observations using Method 22 to demonstrate compliance with §60.672(e).

(g) The requirements of this paragraph remain in force until and unless the Agency, in delegating enforcement authority to a State under Section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected sources within the State will be relieved of the obligation to comply with paragraphs (a), (c), (d), (e), and (f) of this subsection, provided that they comply with requirements established by the State. Compliance with paragraph (b) of this section will still be required.

[Approved by the Office of Management and Budget under control number 2060-0050]

Subpart PPP—Standard of Performance for Wool Fiberglass Insulation Manufacturing Plants

[Subpart PPP added by 50 FR 7699, February 25, 1985]

§60.680 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each rotary spin wool fiberglass insulation manufacturing line.

(b) The owner or operator of any facility under paragraph (a) of this section that commences construction, modification, or reconstruction after February 7, 1984, is subject to the requirements of this subpart.

§60.681 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in Subpart A of this part.

"Glass pull rate" means the mass of molten glass utilized in the manufacture of wool fiberglass insulation at a single manufacturing line in a specified time period.

"Manufacturing line" means the manufacturing equipment comprising the forming section, where molten glass is fiberized and a fiberglass mat is formed; the curing section, where the binder resin in the mat is thermally "set;" and the cooling section, where the mat is cooled.

"Rotary spin" means a process used to produce wool fiberglass insulation by forcing molten glass through numerous small orifices in the side wall of a spinner to form continuous glass fibers that are then broken into discrete lengths by high velocity air flow.

"Wool fiberglass insulation" means a thermal insulation material composed of glass fibers and made from glass produced or melted at the same facility where the manufacturing line is located.

§ 60.682 Standard for particulate matter.

On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain particulate matter in excess of 5.5 kg/Mg (11.0 lb/ton) of glass pulled.

§ 60.683 Monitoring of operations.

(a) An owner or operator subject to the provisions of this subpart who uses a wet scrubbing control device to comply with the mass emission standard shall install, calibrate, maintain, and operate monitoring devices that measure the gas pressure drop across each scrubber and the scrubbing liquid flow rate to each scrubber. The pressure drop monitor is to be certified by its manufacturer to be accurate within ±250 pascals (±1 inch water gauge) over its operating range, and the flow rate monitor is to be certified by its manufacturer to be accurate within ±5 percent over its operating range.

(b) An owner or operator subject to the provisions of this subpart who uses a wet electrostatic precipitator control device to comply with the mass emission standard shall install, calibrate, maintain, and operate monitoring devices that measure the primary and secondary current (amperes) and voltage in each electrical field and the inlet water flow rate. In addition, the owner or operator shall determine the total residue (total solids) content of the water entering the control device once per day using Method 209A, "Total Residue Dried at 103-105 °C," in *Standard Methods for the Examination of Water and Wastewater*, 15th Edition, 1980 (incorporated by reference—see § 60.17). Total residue shall be reported as percent by weight. All monitoring devices required under this paragraph are to be certified by their manufacturers to be accurate within ±5 percent over their operating range.

(c) All monitoring devices required under this section are to be recalibrated quarterly in accordance with procedures under § 60.13(b).

(Sec. 114 of the Clean Air Act, as amended (42 U.S.C. 7414))

§ 60.684 Recordkeeping and reporting requirements.

(a) At 30-minute intervals during each 2-hour test run of each performance test of a wet scrubber control device and at least once every 4 hours thereafter, the owner or operator shall record the measurements required by § 60.683(a).

(b) At 30-minute intervals during each 2-hour test run of each performance test of a wet electrostatic precipitator control device and at least once every 4 hours thereafter, the owner or operator shall record the measurements required by § 60.683(b), except that the concentration of total residue in the water shall be recorded once during each performance test and once per day thereafter.

(c) Records of the measurements required in paragraphs (a) and (b) of this section must be retained for at least 2 years.

(d) Each owner or operator shall submit written semiannual reports of exceedances of control device operating parameters required to be monitored by paragraphs (a) and (b) of this section and written documentation of, and a report of corrective maintenance required as a result of, quarterly calibrations of the monitoring devices required in § 60.683(c). For the purpose of these reports, exceedances are defined as any monitoring data that are less than 70 percent of the lowest value or greater than 130 percent of the highest value of each operating parameter recorded during the most recent performance test.

(e) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of com-

ATTACHMENT 5

Florida Department of Environmental Regulation

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

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary
Alex Alexander, Deputy Assistant Secretary

Permittee:
Mid-Florida Mining Company
3300 S.W. 34th Avenue, Suite 152
Ocala, Florida 32674

Attention: David B. Kibler, IV,
Executive Director

I. D. Number:
Permit/Certification
Number: A042-154436
Date of Issue:
Expiration Date: 11/15/93
County: Marion
Latitude/Longitude:
29°19'24"N/83°00'48"W
UTM: 17-304.5 KmE; 3245.3 KmN
Project: Fugitive Dust Collection System

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2. 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:

The permittee can operate a Fugitive Dust Collection System to control particulate emission from the milling, screening, bagging, rail car loading and other points of dried clay processing for the production of cat litter and oil absorbent material. Particulate emissions will be controlled with a Mikro-Pulsaire Baghouse, Model #720K-10TR that has a 89.0 percent collection efficiency.

This source is located at the Mid-Florida Mining Company facility at S.R. 329 and SCL RR in Lowell, Marion County, Florida.

General Conditions are attached to be distributed to the permittee only.

PERMITTEE:
Mid-Florida Mining Company

Attention: David B. Kibler, IV,
Executive Director

I. D. Number:
Permit/Certification Number:
A042-154436
Date of Issue:
Expiration Date: 11/15/93

SPECIFIC CONDITIONS:

1. No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor pursuant to Rule 17-2.620(2) F.A.C. 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 pursuant to Rule 17-2.100(131) F.A.C. Odor is defined as a sensation resulting from stimulation of the human olfactory organ pursuant to Rule 17-2.100(132) F.A.C.

2. There shall be no discharges of liquid effluents or contaminated runoff to surface or ground water without prior approval from this office.

3. All unconfined emissions of particulate matter generated at this site shall be adequately controlled. (Rule 17-2.610(3), F.A.C.) Area must be watered down should unconfined emissions occur.

4. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

5. The permitted material rate including dryer discharge, railcar filling and bagging operations is 86.5 tons/hour. The allowable emission rate during compliance (stack) testing will be calculated using the dryer discharge process rate only. Allowable emissions at all times and at all places will be 5% maximum opacity.

6. This Fugitive Dust Collection System is subject to Rule 17-2.610(1) Process Weight Table 610-1, F.A.C. For process weight rates up to 30 tons per hour, P_1, and for process weight rates greater than 30 tons per hour, P_2, the respective allowable emission rates, E_1 and E_2 in pounds per hour are given below:

$E_1 = 3.59\ (P_1^{0.62})$ $\qquad$ $E_2 = 17.31\ (P_2^{0.16})$

As stated in your application, the process weight of 50 tons per hour, results in an allowable emission rate of 32.37 pounds per hour.

PERMITTEE:
Mid-Florida Mining Company

Attention: David B. Kibler, IV,
Executive Director

I. D. Number:
Permit/Certification Number:
A042-154436
Date of Issue:
Expiration Date: 11/15/93

SPECIFIC CONDITIONS:

7. This source must be tested for particulate emissions in accordance with EPA Method 5 and concurrently for visible emissions in accordance with DER Method 9 yearly from the date of August 15, 1988 (Rule 17-2.700(6)(b) F.A.C.).

8. This source must be tested at the maximum process weight rate at which you intend to operate. Operation at rates that are more than 10 percent above the tested rate will require the department to be immediately notified, and, within 15 days the source must be tested for compliance at this higher rate by appropriate methods.

9. This office (Florida Department of Environmental Regulation, Air Permitting, Orlando) shall be notified at least fifteen (15) days in advance of the compliance tests so that we can witness them (Rule 17-2.700(2)(a)5, F.A.C.).

10. The required test report shall be filed with the department as soon as practical but no later than 45 days after the last sampling run of each test is completed (Rule 17-2.700(7)(a),(b) and (c), F.A.C).

11. Each Baghouse should be properly operated and maintained (Rule 17-2.210(2) F.A.C.). No person shall circumvent any pollution control device or allow the emissions of air pollutants without the applicable air pollution control device operating properly (Rule 17-2.240 F.A.C.).

12. A differential pressure gauge is required to measure the pressure drop across the baghouse a minimum of 10 days before the stack test is performed (Rule 17-2.700(7)(c) F.A.C.).

13. The stack sampling facility must comply with Rule 17-2.700(4) Florida Administrative Code before the next stack test.

14. When the department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Chapter 17-2, F.A.C. or in this permit is being violated, it may require the owner or operator of the source to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said tests to the department.

PERMITTEE:
Mid-Florida Mining Company

Attention: David B. Kibler, IV,
Executive Director

I. D. Number:
Permit/Certification Number:
A042-154436
Date of Issue:
Expiration Date: 11/15/93

SPECIFIC CONDITIONS:

15. Each calendar year on or before March 1, submit for each source, an Annual Operations Report DER Form 17-1.202(6) for the preceding calendar year in accordance with Rule 17-4.14, F.A.C.

16. An operation permit renewal must be submitted at least 60 days prior to the expiration date of this permit (Rule 17-4.09, F.A.C.).

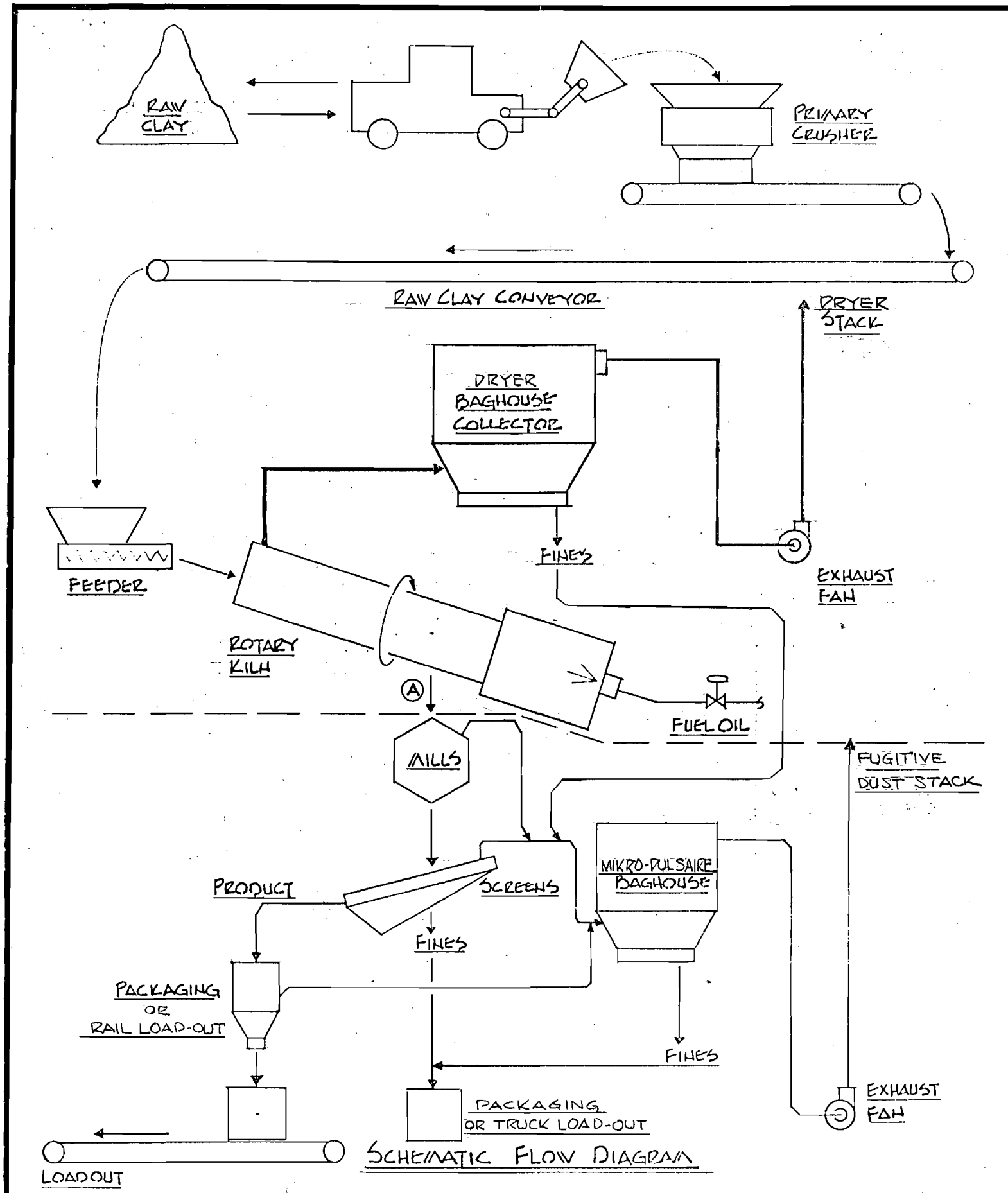
ISSUED 12-2-88

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

cmc

A. Alexander
Deputy Assistant Secretary
3319 Maguire Boulevard
Suite 232
Orlando, Florida 32803
(407) 894-7555

ATTACHMENT 6



SCHEMATIC FLOW DIAGRAM

MID-FLORIDA MINING CO. LOWELL, FLORIDA			TIDEWATER ENGINEERS, INC. CONSULTING ENGINEERS TALLAHASSEE FLORIDA
JOB NO. 8019	DATE MAY 15, 1981	DRAWN JAH	

A200pd.
7-27-96
Recpt #151144

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

AC 42-144116

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

SOURCE TYPE: Fugitive Dust Collection System [ ] New[1] [X] Existing[1]

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

COMPANY NAME: Mid-Florida Mining Company COUNTY: Marion

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Mikro-Pulsaire Baghouse

SOURCE LOCATION: Street SR 329 and SCL RR City Lowell

UTM: East (17) 384.5 km North 3245.3 km

Latitude 29 ° 19 ' 52 "N Longitude 82 ° 11 ' 28 "W

APPLICANT NAME AND TITLE: David Kibler IV, President

APPLICANT ADDRESS: Mid-Florida Mining Company, P.O. Box 68, Lowell, FL 32663

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Mid-Florida Mining Company

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

*Attach letter of authorization

Signed: _____

David Kibler IV, President
Name and Title (Please Type)

Date: _____ Telephone No. (904) 854-0070

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

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

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

#200pet
7-27-90
Recpt. # 151148

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

Rec'd
July 27

AC42-184416

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

SOURCE TYPE: Fugitive Dust Collection System [ ] New[1] [X] Existing[1]

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

COMPANY NAME: Mid-Florida Mining Company COUNTY: Marion

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Mikro-Pulsaire Baghouse

SOURCE LOCATION: Street SR 329 and SCL RR City Lowell

UTM: East (17) 384.5 km North 3245.3 km

Latitude 29 ° 19 ' 52 "N Longitude 82 ° 11 ' 28 "W

APPLICANT NAME AND TITLE: David Kibler IV, President

APPLICANT ADDRESS: Mid-Florida Mining Company, P.O. Box 68, Lowell, FL 32663

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*Attach letter of authorization

Signed: _____

David Kibler IV, President
Name and Title (Please Type)

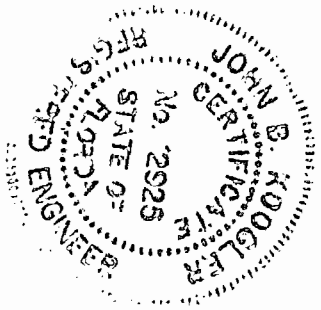
Date: _____ Telephone No. (904) 854-0070

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

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

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

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



Signed _____

John B. Koogler, Ph.D., P.E.
Name (Please Type)

Koogler & Associates, Environmental Services
Company Name (Please Type)

4014 N.W. 13th Street, Gainesville, Florida 32609
Mailing Address (Please Type)

Florida Registration No. 12925 Date: 7/24/90 Telephone No. (904) 377-5822

SECTION II: GENERAL PROJECT INFORMATION

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

See page 2a of 12.

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

Start of Construction August 1990 Completion of Construction June 1991

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.)

NA (Existing Equipment)

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

A042-154436, Issued 12/2/88, Expires 11/15/93.

SECTION IIA: PROJECT INFORMATION

The proposed project consists of the replacement of an existing St. Regis valve-mouth bagging machine with a new Bemis open-mouth bagging machine, at Mid-Florida Mining Company's facility in Lowell, Marion County, Florida. The MFM facility processes clay into cat litter or an oil and grease absorbent.

The existing machine is used on packing line No. 4 which is permitted under an operation permit No. A042-154436 for a Mikro-Pulsaire Baghouse. The baghouse controls fugitive particulate matter generated from the plant's screening, transfer and packing operations. Packing line Nos. 1, 2, and 3, which are adjacent to line No. 4, will not be relocated nor affected by the replacement of the packing machine on line No. 4.

The replacement of the existing valve-mouth bagging machine is necessitated by a declining demand for valve-mouth bag packing. The increasing demand for open-mouth bag packing will be met by the new Bemis bagging machine.

There will be no change in the packing rate of line No. 4 since the existing machine and the proposed machine have the same capacity (twenty 25 pound bags per minute).

The fugitive dust collection hood and ducting for the proposed machine will be equivalent to that of the existing machine. The air exhaust rate will remain unchanged while the particulate matter loading in the gas stream is expected to be less for the proposed machine because the new bagging mechanism is inherently less dusty.

The proposed new Bemis bag packing machine will be subject to particulate matter emission standards in accordance with 40CFR60, Subpart 000, Standards of Performance for Non-Metallic Mineral Processing Plants, of 0.022 gr/dscf. This more stringent requirement, as compared to current requirements, will result in a decrease in the allowable emissions from the fugitive dust control system. The actual baghouse emissions are expected to remain unchanged.

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

if power plant, hrs/yr ____; if seasonal, describe: _____

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

1. Is this source in a non-attainment area for a particular pollutant? NO

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

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

   c. If yes, list non-attainment pollutants. _____

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

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

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? YES(1)

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

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

   a. If yes, for what pollutants? _____

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

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

(1) The new bagging machine will be subject to 40CFR60, Subpart 000, Standards of Performance for Non-Metallic Mineral Processing Plants.

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		
Dry Clay	Part. Matter	2	173,000	A

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

1. Total Process Input Rate (lbs/hr): 173,000

2. Product Weight (lbs/hr): 173,000

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

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Part. Matter	10.4	45.6	0.022 gr/dscf	10.4	544.5	2385	B

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard.

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

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Mikro-Pulsaire Baghouse Model 720K-10TR	Particulate Matter	98.1%	>5	Estimate

E. Fuels NOT APPLICABLE

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

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--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. NOT APPLICABLE

Annual Average _____ Maximum _____

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

Fines collected are marketed.

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

Stack Height: 81.8 ft. Stack Diameter: 4.5 ft.

Gas Flow Rate: 67,500 ACFM 55,000 DSCFM Gas Exit Temperature: 100 °F.

Water Vapor Content: 3 % Velocity: 70.7 FPS

SECTION IV: INCINERATOR INFORMATION

NOT APPLICABLE

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

Description of Waste _____

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

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

Manufacturer _____

Date Constructed _____ Model No. _____

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

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

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

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

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

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

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

_____

_____

_____

_____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

SEE PAGES 7a - c of 12.

Please provide the following supplements where required for this application.

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

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

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

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

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

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

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

SECTION V: SUPPLEMENTAL INFORMATION

1. Process Input Rate and Production Rate

The bag collector is used to control unconfined particulate matter generated during the milling, screening and bagging of dried Fullers Earth.

The currently permitted material rate including dryer discharge, railcar filling and bagging operations is 86.5 tons per hour. The average material rate when the above operations do not occur simultaneously is about 50 tons per hour.

2. Particulate matter emission measurements will be conducted using EPA Method 5 (40CFR60, Appendix A) to show compliance with emissions standards.

3. Uncontrolled PM Emissions

Uncontrolled Emission Factors:

Screening - 0.026 lb/ton

(Technical Guidance for Control of Industrial Process Fugitive Particulate Emissions, EPA-450/3-77-010, March 1977, Page 2-326, Item 5.

Transfers - 1.50 lb/ton

(Ibid, page 2-7, Phosphate Rock)

Bagging - 0.010 lb/ton

(Ibid, Page 2-285, Item 22)

Milling - 76.0 lb/ton

(AP-42, Section 8.7, Clay Milling)

Uncontrolled Emissions

All material screened

86.5 tph x 0.026 lb/ton = 2.2 lbs/hr

Three transfers for all material

86.5 tph x 3 x 1.5 lb/ton = 389.3 lbs/hr

Milling for 2.0 tph only

2.0 tph x 76.0 lb/ton = 152.0 lbs/hr

All material is bagged

86.5 tph x 0.011 lb/ton = 1.0 lb/hr

TOTAL 544.5 lbs/hr

Annual Emissions = 544.5 lbs/hr

x 8760 hrs/yr x ton/2000 lbs.

= 2385 tons/yr

4. The existing Mikro-Pulsaire Model 720K-10TR baghouse will be used to control particulate matter generated during the screening, milling and bagging of dried Fullers Earth (see permit application dated March 14, 1977, for baghouse specifications and Attachment 1).

5. Control Efficiency

Allowable emissions based on NSPS, Subpart OOO, of 0.022 gr/dscf.

55,000 dscf/min x 0.022 gr/dscf x lb/7000 gr x 60 min/hr

= 10.4 lbs/hr

x 8760 hrs/yr x ton/2000 lbs

= 45.6 tons/yr

Efficiency = (544.5 - 10.4) x 100/544.5 = 98.1%

6. Flow Diagram - Attachment 2

7. Location Map - Attachment 3

8. Plot Plan - Attachment 4

9. The existing permit No. A042-154436, which is to be amended as a result of the proposed project, is submitted as Attachment 5.

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

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

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

NOT APPLICABLE

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

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

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

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

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

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

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

NOT APPLICABLE

A. Company Monitored Data

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

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

Other data recorded _____

Attach all data or statistical summaries to this application.

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

2. Instrumentation, Field and Laboratory

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

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

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

2. Surface data obtained from (location)_____

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

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

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach deacription.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

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

D. Applicants Maximum Allowable Emission Data

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

E. Emission Data Used in Modeling

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

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

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

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

No. ATTACHMENT 1

QUOTATION

cc: Lee Searfoss-MikroPu
Gene Hyde - Linder

Subsidiary of
MikroPul CORPORATION
UNITED STATES FILTER CORPORATION
10 Chatham Road · Summit, N.J. 07901 · (201) 273-6360

DATE: March 7, 1977

TO: Mid-Florida Mining Company
P.O. Box 68
Lowell, Florida 33663
ATTN: Mr. Ken Tinsley

FOR: Dust Collector to Vent Rotary Dryer

OPTION #2

YOUR REF: Your Telcon to Sig Klamka on 2/22/77.

---

e (1) Mikro-Pulsaire Dust Collector for continuous operation. Model 720K-10TR top removal type, to operate under the following conditions:

Air Volume: 50,000
Temperature: 250°F.
Filter Rate: 5-6:1
Product: Ground Clay
Application: Vent Air from Rotary Dryer

EQUIPMENT TO CONSIST OF THE FOLLOWING:

One (1) Filter case housing constructed of 12 gauge hot rolled steel with 60° hopper in factory assembled construction. The clean air plenum roof will be equipped with clamped-type doors for quick bag removal through the clean air side of the unit.
One (1) Set of filter bags consisting of 720 bags 10' long 4.5" long dia. ~~fabricated with 16 oz/yd² dacron polyester felt filter fabric~~ to provide a total of 8,474 sq. ft. of filter area. Maximum temperature 250°F.
One (1) Set of steel retainers - 10' long.
One (1) Set of 304SS bag clamps.

When ordering this material, please indicate if it is tax exempt and exemption number; or if a tax applies, the amount or percentage of the tax.

FOB: Point of Manufacture

SHIPMENT:
(A) Time needed to submit detailed drawings for approval (when required) 4-5 weeks
(B) Time needed to complete fabrication after receipt of approved drawings (when required) 10 weeks

TERMS: Net 10th Prox. No sales taxes included.

SHIPPING WEIGHT: Listed with Pricing.

The price quoted is a firm quotation for a period of 30 days after quotation date. "The contents included in the above quotation are subject to approval by home office."

NOTE:

When entering your order please return one of our prints submitted with our quote and mark it approved for orientation or mark the changes required and we will advise further.

ADDRESS REPLY TO: LINDER INDUSTRIAL MACHINERY CO.
P.O. BOX 5330
LAKELAND, FLORIDA 33803
813/646-5711

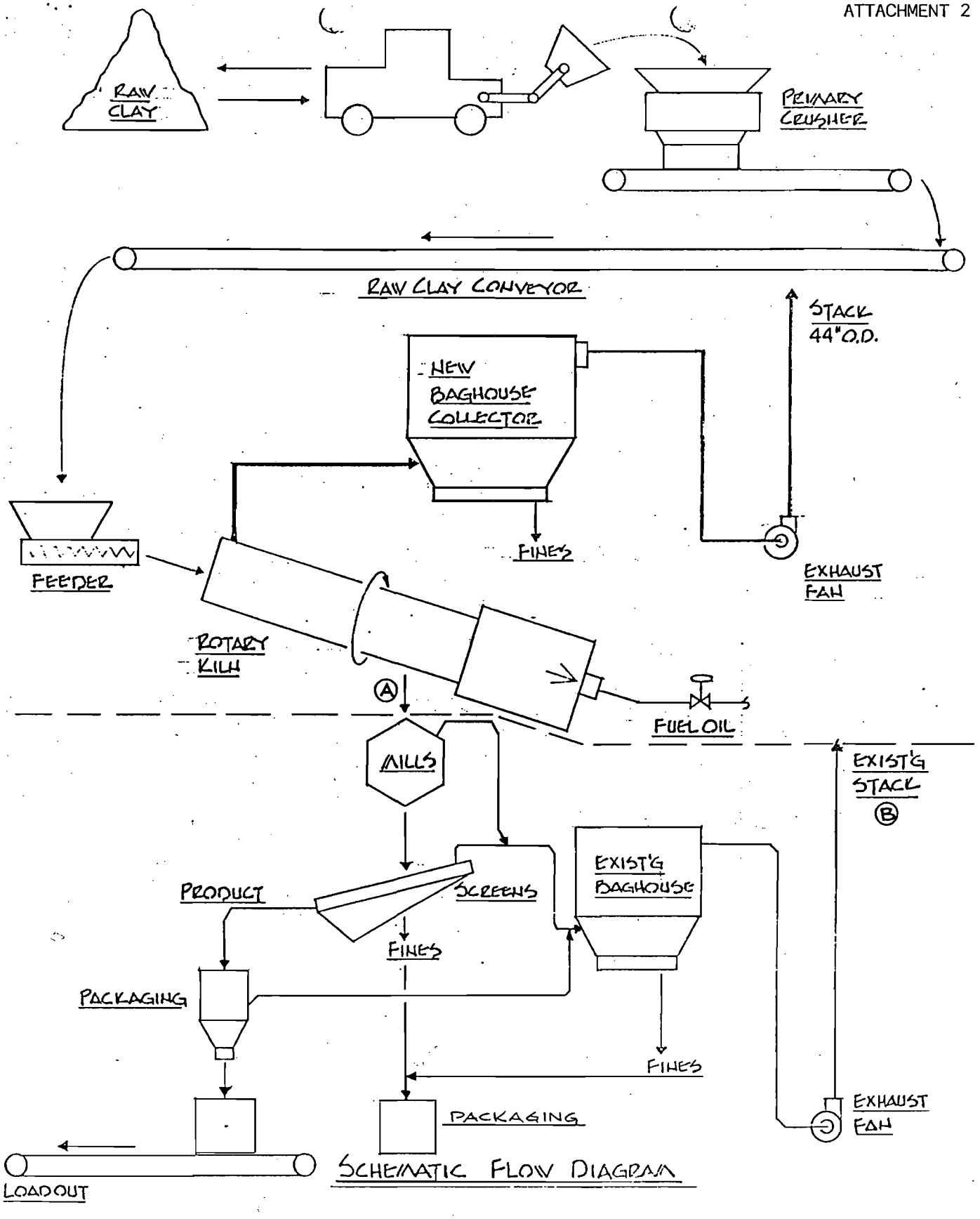
MikroPul CORPORATION
UNITED STATES FILTER CORPORATION
D.L. Heckman

D.L. Heckman
Linder Industrial Machinery Co

GA-P-153

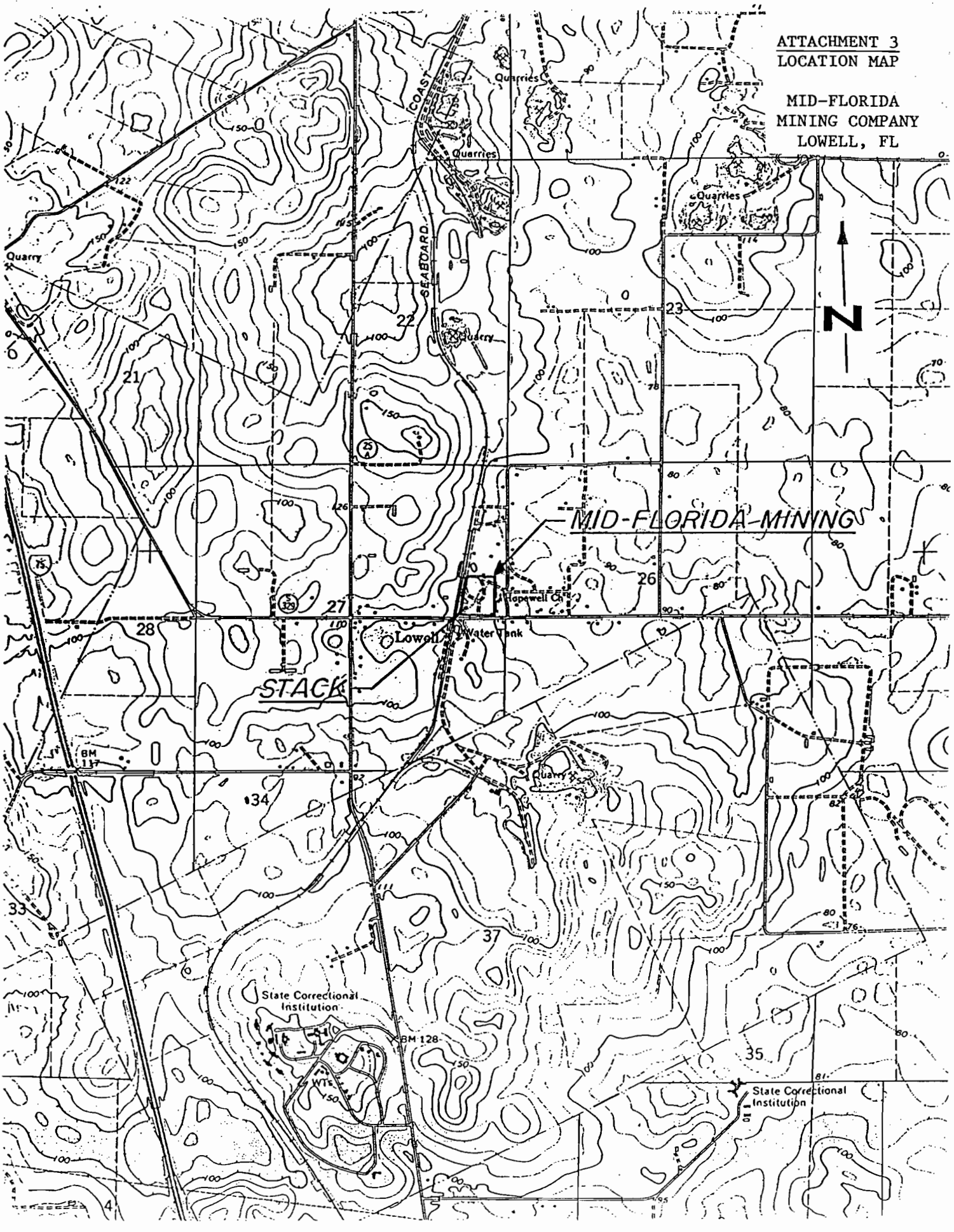
SEE OVER FOR CONDITIONS OF SALE

ATTACHMENT 2



SCHEMATIC FLOW DIAGRAM

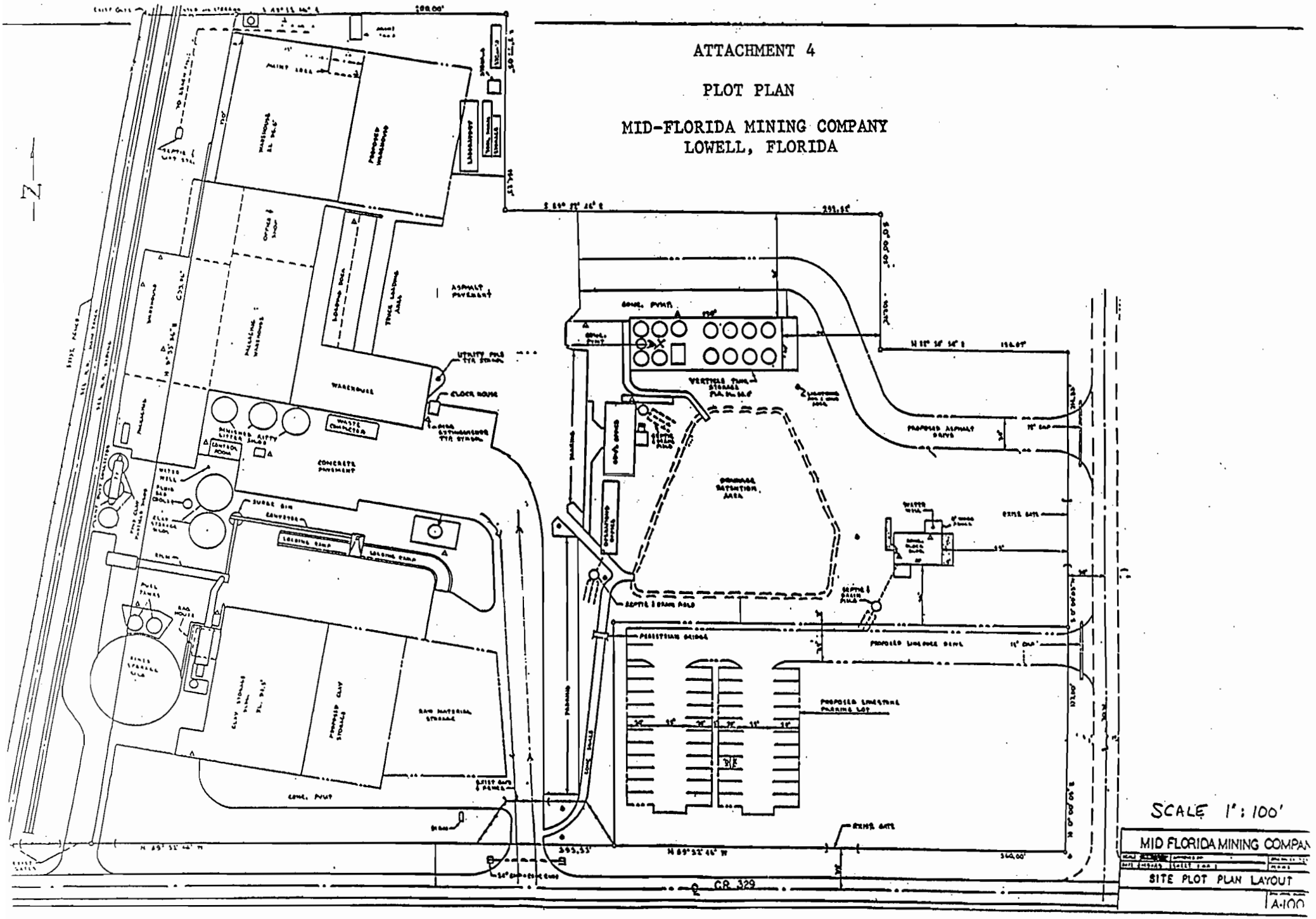
MID-FLORIDA MINING CO. LOWELL, FLORIDA			TIDEWATER ENGINEERS, INC. CONSULTING ENGINEERS TALLAHASSEE FLORIDA
JOB NO. 8019	DATE MAY 15, 1981	DRAWN JAH	


ATTACHMENT 3
LOCATION MAP
MID-FLORIDA
MINING COMPANY
LOWELL, FL
N
MID-FLORIDA MINING
STACK
Quarries
Quarries
Quarries
Quarry
Quarry
COAST
SEABOARD
Lowell
Water Tank
Hopewell Ch
Quarry
BM 117
BM 128
State Correctional Institution
State Correctional Institution
WTs
21
22
23
26
27
28
34
33
37
35
4

ATTACHMENT 4

PLOT PLAN

MID-FLORIDA MINING COMPANY
LOWELL, FLORIDA



SCALE 1" : 100'

MID FLORIDA MINING COMPANY

SITE PLOT PLAN LAYOUT

A-100

ATTACHMENT 5

Florida Department of Environmental Regulation

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

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary
Alex Alexander, Deputy Assistant Secretary

Permittee:
Mid-Florida Mining Company
3300 S.W. 34th Avenue, Suite 152
Ocala, Florida 32674

Attention: David B. Kibler, IV,
Executive Director

I. D. Number:
Permit/Certification
Number: A042-154436
Date of Issue:
Expiration Date: 11/15/93
County: Marion
Latitude/Longitude:
29°19'24"N/83°00'48"W
UTM: 17-304.5 KmE; 3245.3 KmN
Project: Fugitive Dust
Collection System

Existing Baghouse

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2. 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:

The permittee can operate a Fugitive Dust Collection System to control particulate emission from the milling, screening, bagging, rail car loading and other points of dried clay processing for the production of cat litter and oil absorbent material. Particulate emissions will be controlled with a Mikro-Pulsaire Baghouse, Model #720K-10TR that has a 89.0 percent collection efficiency.

This source is located at the Mid-Florida Mining Company facility at S.R. 329 and SCL RR in Lowell, Marion County, Florida.

General Conditions are attached to be distributed to the permittee only.

PERMITTEE:

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

GENERAL CONDITIONS:

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

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

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

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

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

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

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

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

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

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

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

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or 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

PERMITTEE:
Mid-Florida Mining Company

Attention: David B. Kibler, IV,
Executive Director

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Expiration Date: 11/15/93

SPECIFIC CONDITIONS:

1. No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor pursuant to Rule 17-2.620(2) F.A.C. 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 pursuant to Rule 17-2.100(131) F.A.C. Odor is defined as a sensation resulting from stimulation of the human olfactory organ pursuant to Rule 17-2.100(132) F.A.C.

2. There shall be no discharges of liquid effluents or contaminated runoff to surface or ground water without prior approval from this office.

3. All unconfined emissions of particulate matter generated at this site shall be adequately controlled. (Rule 17-2.610(3), F.A.C.) Area must be watered down should unconfined emissions occur.

4. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

5. The permitted material rate including dryer discharge, railcar filling and bagging operations is 86.5 tons/hour. The allowable emission rate during compliance (stack) testing will be calculated using the dryer discharge process rate only. Allowable emissions at all times and at all places will be 5% maximum opacity.

6. This Fugitive Dust Collection System is subject to Rule 17-2.610(1) Process Weight Table 610-1, F.A.C. For process weight rates up to 30 tons per hour, P_1, and for process weight rates greater than 30 tons per hour, P_2, the respective allowable emission rates, E_1 and E_2 in pounds per hour are given below:

$E_1 = 3.59\ (P_1{}^{0.62})$ $\qquad$ $E_2 = 17.31\ (P_2{}^{0.16})$

As stated in your application, the process weight of 50 tons per hour, results in an allowable emission rate of 32.37 pounds per hour.

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SPECIFIC CONDITIONS:

7. This source must be tested for particulate emissions in accordance with EPA Method 5 and concurrently for visible emissions in accordance with DER Method 9 yearly from the date of August 15, 1988 (Rule 17-2.700(6)(b) F.A.C.).

8. This source must be tested at the maximum process weight rate at which you intend to operate. Operation at rates that are more than 10 percent above the tested rate will require the department to be immediately notified, and, within 15 days the source must be tested for compliance at this higher rate by appropriate methods.

9. This office (Florida Department of Environmental Regulation, Air Permitting, Orlando) shall be notified at least fifteen (15) days in advance of the compliance tests so that we can witness them (Rule 17-2.700(2)(a)5, F.A.C.).

10. The required test report shall be filed with the department as soon as practical but no later than 45 days after the last sampling run of each test is completed (Rule 17-2.700(7)(a),(b) and (c), F.A.C).

11. Each Baghouse should be properly operated and maintained (Rule 17-2.210(2) F.A.C.). No person shall circumvent any pollution control device or allow the emissions of air pollutants without the applicable air pollution control device operating properly (Rule 17-2.240 F.A.C.).

12. A differential pressure gauge is required to measure the pressure drop across the baghouse a minimum of 10 days before the stack test is performed (Rule 17-2.700(7)(c) F.A.C.).

13. The stack sampling facility must comply with Rule 17-2.700(4) Florida Administrative Code before the next stack test.

14. When the department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Chapter 17-2, F.A.C. or in this permit is being violated, it may require the owner or operator of the source to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said tests to the department.

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SPECIFIC CONDITIONS:

15. Each calendar year on or before March 1, submit for each source, an Annual Operations Report DER Form 17-1.202(6) for the preceding calendar year in accordance with Rule 17-4.14, F.A.C.

16. An operation permit renewal must be submitted at least 60 days prior to the expiration date of this permit (Rule 17-4.09, F.A.C.).

ISSUED 12-2-88

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

for A. Alexander
Deputy Assistant Secretary
3319 Maguire Boulevard
Suite 232
Orlando, Florida 32803
(407) 894-7555