



FERTILIZER, INC.

Harry

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

April 19, 1990

D. E. R.

APR 23 1990

SOUTHWEST DISTRICT
TAMPA

Mr. W. C. Thomas, P.E.
Florida Department of Environmental
Regulation
4520 Oak Fair Boulevard
Tampa, Florida 33610-7347


Dear Bill:

On April 4, 1990, A053-156338 (Multifos Classification Baghouse) was taken out of service for replacement with a better quality baghouse to improve ventilation and reduce fugitive dust in the Plant.

The old baghouse, a Carter-Day rated at 8,000 cfm, has been plagued with low airflow due to mechanical problems and will be replaced with a new 12,000 cfm Flex-Clean unit. The new baghouse in conjunction with the revamping of existing duct work, is intended to control fugitive dust inside and outside the Plant. We feel that it is important to note that the replacement of the old baghouse with a superior unit is only being done to control fugitive dust, and is in no way associated with any change in process rates.

Current plans call for the delivery of the new baghouse to New Wales in late May with start-up to occur no later than June 30th. Once start-up is accomplished, we will test the baghouse to ensure compliance with existing permit limits and submit the test results to your office.

Sincerely,


J. M. Baretincic
Director
Environment Services

JMB:lmr
083/jmb#6

xc: J. A. Brafford
A. L. Girardin
E. M. Newberg



FERTILIZER, INC.

D. E. R.

AUG 23 1990

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

SOUTHWEST DISTRICT
TAMPA

August 21, 1990

Mr. J. Harry Kerns, P.E.
FLORIDA DEPARTMENT OF ENVIRONMENTAL
REGULATION
4520 Oak Fair Boulevard
Tampa, Florida 33610-7347

RE: Multifos Product Classification System
Permit No. AO53-156338

Dear Mr. Kerns:

As requested in your letter to me dated May 7, 1990, I have enclosed specifications for the new baghouse as well as two flow diagrams of the system. The original system is labeled Present System and shows how the system was prior to the installation of the baghouse. With the installation of the new baghouse, shown as Proposed System, additional pickup points were installed to control fugitive dust inside the building.

In addition, I am certifying that the system is complete and operating as designed.

If you have any questions regarding this information, please let me know.

Sincerely,

J. M. Baretincic
Director
Environmental Services

JMB/dws

Enclosures

CC: J. A. Brafford
A. L. Girardin

OPERATING, EQUIPMENT, AND CONSTRUCTION DATA

CUSTOMER: IMC Fertilizer, Inc.

DATE: 04/05/90

P.O. NO.: C059015

FKO NO.: E-32749

MODEL NO.: 100-WRTC-144(III)

QTY.: 1

DRAWING NO.: A-90JC-090

TAG INFO.: P.O. No. C059015

DOC.REV.DATE: 04/20/90

DOC.REV.MARK: [a]

The information below will be considered CERTIFIED and no further transmittals of this document will be made unless there are changes agreed to between the customer and Flex-Kleen

OPERATING DATA

Volume: 12,000 acfm Cloth Area: 1829 sq ft Ratio: 6.5/1
Dust: Fused, deflorinated phosphate
Dust Size: 91.0% minus 200 mesh
Dust Density: 90 lbs/cu.ft. Dust Loading: 20-30 gr/cu ft
Temperature: 225 Deg.F Dew Pt.: Deg.F
(collector temperature must be kept well above dew point)
End Use: Vent milling, screening, & conveying nuisance dust
Empty Weight: 7700 Lbs. (D.L.) Location: Indoors [a]
Operating Weight: 10,000 Lbs. (D.L. + L.L.) [a]
Design Press.: 17" W.G. Operating Press.: Negative
Compressed Air Reqmts.: 21.0 scfm @ 90-100 psig
(compressed air to be clean, dry, and oil free)

EQUIPMENT DATA

Timer(s): T16054 / NEMA-4 (M14507)
(electrical reqmts. 120V, 50/60 Hz, 1 phase, 100w each)
Diaph. Valves: M14909 ASCO Bag Cages: (*) 304LSS
Solenoid Valves: E24104 Bag Clamps: N/R
Venturis: (*) M11038 TRAP-10 Collar: (*) 304SS
Filter Bags: 14oz. Nomex (B46619)
*TRAP-10 Assembly: (Std.) Y47611

Flex-Kleen Corp.

A Residual Control Company

Page 2 of 2

FKO NO.: E-32749

CONSTRUCTION DATA

Clean Air Plenum (2'-0" height):

Roof: 12ga. M.S. lift-off doors

Sides: 12ga. M.S. w/ 3-1/2"x2"x10ga. M.S. formed-[stiff.

Dusty Air Plenum (8'-7" height):

Sides: 12ga. M.S. w/ 4-1/2"x2-1/4"x10ga. M.S. formed-[stiff.

High Inlet Plenum:

Sides: 12ga. M.S. w/ 4-1/2"x2-1/4"x10ga. M.S. formed-[stiff.

Tube Sheet: 10ga. M.S. (externally flgd.) w/ 4" high single-break construction

Hopper (67" x 45", trough type w/ vertical ends, 5'-6" height):

Sides: 12ga. M.S. w/ 3-1/2"x2"x10ga. M.S. formed-[stiff.

Ends: 12ga. M.S.

GENERAL & SHOP NOTES

- 1) #582 Presstite gasketing at tube sheet, high-inlet plenum, & bin-line flange connections.
- 2) Use 3/4" dia. Sch.40 (R30806) M.S. pipe, with 1/4" dia. pulse holes, for internal compressed air piping.
- 3) Use aluminum pipe sleeves w/ silicone O-rings for internal piping connections.
- 4) Use Guardian "Quik-Joint" couplings with silicone gaskets for diaphragm valve-to-pulse pipe connections.
- 5) Unless noted otherwise, welding and fabrication procedures are to be per Flex-Kleen General Fabrication Specifications.
- 6) All exterior M.S. surfaces only to be commercial blast cleaned (SP-6), and to receive one(1)-coat of Sherwin-Williams #B62-N71 Tile-Clad II epoxy primer to 4.0 mils min. DFT, and one(1)-finish coat of series-B62 epoxy enamel (gray) to 4.0 mils min. DFT.
- 7) Unit to be shipped in two(2)-sections:
 - a) Housing
 - b) Trough hopper w/ girth channels
- 8) Shop is to ship loose sufficient #582 Presstite gasketing and galvanized bolts, nuts, and washers for field assembly of unit.

AT

SKETCH NO. SCHEMATIC

MILLING & SCREENING VENTILATION SYSTEM

DATE 11/19/89

BY JLD

PRESENT SYSTEM

A053-156337

Flex Clean Model
100-WRT-144
10,000 CFM

Milling & Screening Equipment

15 Ventilation Points

M+S Baghouse

Capacity: 12,000 acfm
Typical: < 5,000 acfm

6 Ventilation Points

Surge Bin Baghouse

Capacity: 5,000 acfm
Typical: 5,000 acfm

Product Dedusting System

1 Ventilation Point
For Tramp Air

Carter-Day Baghouse

Capacity: 8,000 acfm
Typical: < 1,500 acfm

Design: 17,000 acfm to Ventilate Equipment
3300 acfm for Tramp Air

Typical: < 10,000 acfm to Ventilate Equipment
< 1,500 acfm for Tramp Air

INTERNATIONAL MINERALS & CHEMICAL CORPORATION

PROJECT M1935

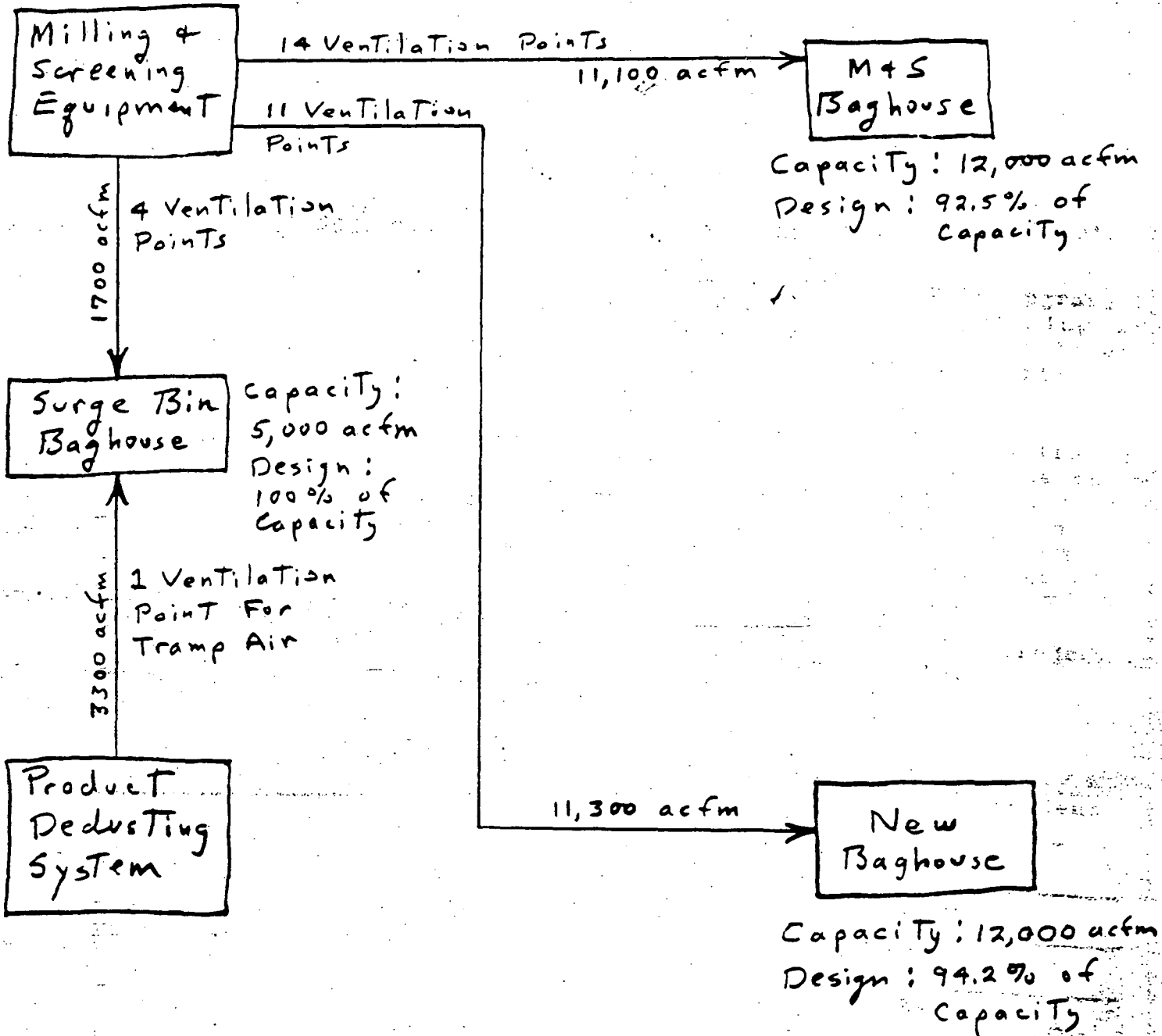
AT
MILL MULTIFOS MILLING + SCREENING
VENTILATION SYSTEM

SKETCH NO. SCHEMATIC

DATE 11/19/89

BY *J.R.*

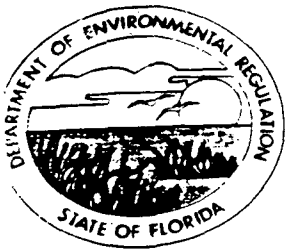
PROPOSED SYSTEM



Design:

24,100 acfm to Ventilate Equipment

3300 acfm for Tramp Air



Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347 • 813-623-5561

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

Dr. Richard Garrity, Deputy Assistant Secretary

August 31, 1990

Mr. J.M. Baretincic
Director Environmental Services
IMC Fertilizer, Inc.
New Wales Operations
P.O. Box 1035
Mulberry, Florida 33860

Dear Mr. Baretincic:

Re: Polk County - AP ¹⁵⁶
A053-156338, A053-337

We have received and reviewed your letter of August 21, 1990 concerning the replacement of a baghouse on your multifos operation. After review of the flow diagrams enclosed we have additional questions.

Rather than a simple replacement of the old 8,000 acfm Carter-Day baghouse with a new a new 12,000 acfm Flex-Clean unit, the flow diagrams show that there are changes to how the ducting is laid out and to the control equipment scheme for several processes. Below is a summary of the changes shown by your enclosed flow diagrams.

<u>Process</u>	<u>Present Controls</u>	<u>Proposed Controls</u>
Milling & Screening (A053-156337)	Flex-Clean baghouse (Existing - 12,000 acfm) Surge Bin Baghouse (?) (Existing - 5,000 acfm not shown on permit)	Flex-Clean baghouse (Existing - 12,000 acfm) Surge Bin Baghouse(?) (Existing - using only 1,700 of 5,000 acfm) Flex-Clean baghouse (New - 12,000 acfm)
Product Dedusting (A053-156338)	Carter-Day baghouse (Old - 8,000 acfm)	Surge Bin Baghouse (?) (Existing - using only 3,300 of 5,000 acfm)

Mr. J.M. Baretincic
Director Environmental Services
IMC Fertilizer, Inc., New Wales

Page Two

As can be seen from the above, the control equipment has changed for both the product classification system and the milling & screening operation. This will require that the permits for both these operations be changed to correctly describe the controls. In order for a permit amendment to be used to make this change, it must be shown that there will be no emission increase as a result of the change and documentation must be submitted to show that the emission points are in compliance with the permit limits after the change.

In order to continue processing the necessary permit amendments the Department will need the following additional information pursuant to Rule 17-4.070(1), F.A.C. This information should be submitted under the signature and seal of a registered Florida P.E.

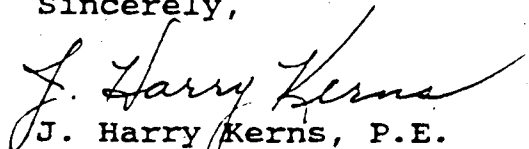
1. Please confirm that the Product Dedusting System referred to on your flow diagrams is the same as the Multifos Product Classification System permitted on A053-156338.
2. Please give the manufacturer and specifications for the existing Surge Bin Baghouse. This baghouse is not included on the current permit for the Milling and Screening Operations (A053-156338).
3. The Milling and Screening Operations permit A053-156337 describes the existing Flex-Clean baghouse as rated at 10,000 acfm while your flow diagram shows it as having a capacity of 12,000 acfm, with the Milling and Screening Operations sending 11,100 acfm to the unit. Please explain the inconsistency.
4. In order to show that there will not be an increase in emissions, please submit emission calculations showing estimated actual emissions from the emission points of the two operations before and after the change in the control equipment scheme.
5. In order to document that the emission point are complying with the limitations in the operation permits, please submit Method 9 VE test results for all of the emission points using the procedures required in the permits.

Mr. J.M. Baretincic
Director Environmental Services
IMC Fertilizer, Inc., New Wales

Page Three

Upon receipt of the additional information processing of the permit change will continue. The information requested, or a schedule for its submission, should be received by October 1, 1990. If you have any questions please call Mr. David Zell of my staff at (813) 623-5561 extension 416.

Sincerely,


J. Harry Kerns, P.E.
District Air Engineer

DRZ/



FERTILIZER, INC.

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

September 21, 1990

Mr. J. Harry Kerns, P.E.
District Air Engineer
FLORIDA DEPARTMENT OF ENVIRONMENTAL
REGULATION
4520 Oak Fair Boulevard
Tampa, Florida 33610-7347

D. E. R.

SEP 24 1990

SOUTHWEST DISTRICT
TAMPA

RE: Permit No. A053-156338

Dear Mr. Kerns:

In response to your letter dated August 31, 1990, the following items are submitted to clarify the minor misunderstanding concerning the scope of this project.

1. The drawings submitted to your office show three permitted sources: M & S Baghouse, A053-156337 (Multifos Milling and Sizing); Surge Bin Baghouse, A053-160175 (Multifos Dedusting System); and Carter-Day Baghouse, A053-156338 (Multifos Product Classification System).

Enclosed please find a revised drawing with the sources identified to agree with the descriptions in the appropriate operating permits.

2. Information for the source which was incorrectly identified as the Surge Bin Baghouse is listed in your files under A053-160175, Multifos Dedusting Baghouse.
3. The Milling and Screening Baghouse, A053-156337, was incorrectly shown in the original permit as being rated at 10,000 acfm. The correct rating is 12,000 acfm based on the original design data.

In the flow diagram attached for the new system, a total of 11,100 acfm was shown as the flow to the existing

Mr. J. Harry Kerns, P.E.
September 21, 1990
Page Two

milling and screening system based on theoretical calculation. This number was the estimated cumulative flow from all the ventilation points reporting to this baghouse. The rating of the baghouse is 12,000 acfm based on a 4" w.c. pressure drop across the bags and no restrictions in the ventilation points. For a completely clean system, the flow will approach 12,000 acfm.

4. Emissions for the old baghouse were estimated at 0.02 gr/dscf (vendor specification) giving a value of 1.55 lbs./hr. The new baghouse is rated at a grain loading of 0.01 gr/dscf for an estimated emission of 1.03 lbs./hr. This emission will be well within the compliance limit of 3.6 lbs./hr. of Specific Condition No. 4 of Permit No. A053-160175. Note that the basis of this limit is improperly specified. It should be specified as an exemption from 17-2.650(2), F.A.C., as originally contained in Specific Condition No. 10 of Permit No. A053-85131.
5. The VE tests for the three sources in question are included with this letter.

Thank you for your attention in this matter. Please contact me if there is further information required.

Very truly yours,



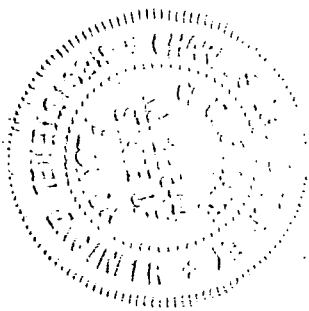
C. D. Turley, P.E.
Senior Environmental Engineer

CDT/dws

Enclosures

CC: J. A. Brafford
J. M. Baretincic
A. L. Girardin

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department.



Charles David Turley
CHARLES DAVID TURLEY

IMC FERTILIZER, INC.
New Wales Operations
Post Office Box 1035
Mulberry, Florida 33860

Telephone: (813) 428-2531

Florida Registration No. 23344

Date: 9/21/90

COMPLIANCE REPORT

PLANT: MULTIFOS PRODUCT CLASSIFICATION BAGHOUSE

PERMIT NO.: A053-156338

TEST DATE: SEPTEMBER 5, 1990

PRODUCTION RATE: 22 TPH

TEST AVERAGE, LBS.\HR (WHERE APPLICABLE) ACTUAL - ALLOWABLE

FLUORIDE:

-

PARTICULATE:

-

SO2 (LBS./TON)

-

ACID MIST: (LBS./TON)

-

V.E.

0 - 5%

REPORT DATE:

09-06-90

(B: COMPRPT. ENV)

OPACITY OBSERVATION DATA - EPA METHOD 9

sec MIN	0	15	30	45
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0
15	0	0	0	0
16	0	0	0	0
17	0	0	0	0
18	0	0	0	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0
25	0	0	0	0
26	0	0	0	0
27	0	0	0	0
28	0	0	0	0
29	0	0	0	0

PLANT Multifos Classification
 PERMIT # A053 - 156338
 LOCATION FMCF New Wales
 TECHNICIAN J. D. Curtis
 CERTIFICATION # 225306 *
 DATE 9/5/90
 TIME START 1320
 TIME FINISH 1350
 DISTANCE TO STACK 65 FT
 WIND DIRECTION NE
 WIND VELOCITY 5-10 mph
 SUM OF NUMBERS RECORDED 0
 TOTAL NUMBER OF READINGS 120
 OPACITY = SUM OF NOS./TOTAL NO.
 RECORDED/READINGS 0% Opacity

* Recertified on 8/30/90.

COMPLIANCE REPORT

PLANT: MULTIFOS PRODUCT DEDUSTING BAGHOUSE

PERMIT NO.: A053-160175

TEST DATE: SEPTEMBER 5, 1990

PRODUCTION RATE: 22 TPH

TEST AVERAGE, LBS.\HR (WHERE APPLICABLE)

ACTUAL - ALLOWABLE

FLUORIDE:

-

PARTICULATE:

-

SO2 (LBS./TON)

-

ACID MIST: (LBS./TON)

-

V.E.

0 - 5%

REPORT DATE:

09-06-90

(B:COMPRPT.ENV)

OPACITY OBSERVATION DATA - EPA METHOD 9

sec	0	15	30	45
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
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20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0
25	0	0	0	0
26	0	0	0	0
27	0	0	0	0
28	0	0	0	0
29	0	0	0	0

PLANT Multifas Dedusting
 PERMIT # A053-160175
 LOCATION IMCF New Wales
 TECHNICIAN J.D. Curtis
 CERTIFICATION # 225306 *
 DATE 9-5-90
 TIME START 1120
 TIME FINISH 1150
 DISTANCE TO STACK 60 FT
 WIND DIRECTION NE
 WIND VELOCITY 5-10 mph
 SUM OF NUMBERS RECORDED 0
 TOTAL NUMBER OF READINGS 120
 OPACITY = SUM OF NOS./TOTAL NO.
 RECORDED/READINGS 0% opacity

* Recertified on 8/30/90.

COMPLIANCE REPORT

PLANT: MULTIFOS MILLING & SCREENING BAGHOUSE

PERMIT NO.: A053-156337

TEST DATE: SEPTEMBER 5, 1990

PRODUCTION RATE: 22 TPH

TEST AVERAGE, LBS.\HR (WHERE APPLICABLE) ACTUAL - ALLOWABLE

FLUORIDE:

-

PARTICULATE:

-

SO2 (LBS./TON)

-

ACID MIST: (LBS./TON)

-

V.E.

2% - 5%

REPORT DATE:

09-06-90

(B:COMPRPT.ENV)

OPACITY OBSERVATION DATA - EPA METHOD 9

sec mill	0	15	30	45
0	0	0	5	5
1	0	0	0	0
2	5	5	0	0
3	0	5	10	0
4	0	0	0	0
5	0	0	5	0
6	0	0	10	0
7	0	0	5	0
8	5	0	0	0
9	0	0	0	0
10	0	0	5	0
11	0	0	0	0
12	0	0	0	0
13	0	5	0	10
14	5	0	0	0
15	0	0	0	0
16	0	5	5	5
17	0	0	0	0
18	0	5	0	10
19	0	5	10	0
20	0	0	0	0
21	0	0	0	0
22	0	5	0	0
23	5	5	10	0
24	0	0	0	0
25	0	0	0	0
26	0	5	0	0
27	0	5	10	0
28	0	0	0	5
29	5	0	0	0

PLANT Mulfos Milling + Screening

PERMIT # A053-156337

LOCATION IMCF New Wales

TECHNICIAN J.D. Curtis

CERTIFICATION # 225306 *

DATE September 5, 1990

TIME START 1030

TIME FINISH 1100

DISTANCE TO STACK 85 FT

WIND DIRECTION NE

WIND VELOCITY 5-10 mph

SUM OF NUMBERS RECORDED 185

TOTAL NUMBER OF READINGS 120

OPACITY = SUM OF NOS./TOTAL NO.

RECORDED/READINGS 2% Opacity

* Recertified on 8/30/90.

2.3% *Commissary*
DEJ

WZ 11/6/90

MEMORANDUM

TO: IMC New Wales File DATE: 11/2/90
 THRU: Harry Kerns *JK*
 FROM: David Zell *DZ*
 SUBJECT: Permit No: A053-156337 (Also affects A053-156338 and 160175)
 County: Polk
 Project: IMC New Wales Multifos Milling & Sizing Operations

On April 19, 1990 IMC informed us of their intentions to replace the Multifos Classification Baghouse (A053-156338) with a larger baghouse. You responded on May 7, 1990 by telling them to proceed with installation and then submit a certificate of completion along with the new baghouse specifications and a revised flow diagram if applicable. IMC submitted this material with their August 21, 1990 letter and I was *assigned* the job of amending the permit to reflect the new configuration.

Review of the flow diagrams, the additional information I requested on August 31, and an October 4 plant visit (with DER compliance staff) confirmed that there were changes to the particulate control equipment configuration that affected three permits for the multifos area. Additionally, the review and visit highlighted the confusion as to what the various permits covered, and what the various baghouses controlled and by what name they were referred to.

It was determined that the best approach was to consolidate the three multifos milling and sizing permits into one as the equipment is all located together in one building and the baghouses all pick up from various interrelated points in the system. It had basically become almost impossible to differentiate what the three separate permits were for and what the baghouses controlled. (This greatly complicated enforcement of a VE violation observed during an inspection.)

To achieve this the above, three permits were replaced with a reissue of the permit that covered most of the operations (A053-156337 - Multifos Milling and Screening). The combined permit uses the earliest expiration date and the most restrictive particulate limit. The result is a much clearer, and easier to use and enforce permit for this operation along with much better specifics as to what each baghouse controls. The permit files will be consolidated into one file under A053-156337. APIS records for the three points will be modified to reflect the new single permit.

Due to the complexity of the system, a draft of the revised permit was sent to Jerry Girardin of IMC prior to issuing it in order to avoid additional amendments in the case of errors or omissions. IMC responded by phone on November 2, 1990 with a few minor corrections to the description of the operations controlled by the East baghouse.

I recommend that this revised permit be issued as attached.

IMC New Wales - Multifos Plant
Milling & Sizing Dust Collector Pickup Points

DRZ 10/23/90 (Rev. 11/2)

Existing (West) Baghouse (Flexclean Model 100-WRT-144, 12,000 acfm)

- Recycle Clinker Chain Conveyor (E)
- * Modified Unsized Product Elevator A (New)
- * Modified Unsized Product Elevator B (New)
- Conveyor " Cooler A" Discharge (Transfer Point) (E)
- Conveyor " Cooler B" Discharge (Transfer Point) (E)
- Vents (2) ?? (E)
- Product Finishing Screen (No. 1) (E)
- * Upper Primary Crusher Inlet Chute (New)
- * Inlet Chute - Finishing crusher (New)
- * Outlet Chute - Primary crusher (New)
- Inlet Chute - Primary crusher (E)
- * Inlet Chute - Secondary crusher (New)
- * Inlet Chute - Finishing crusher (New)

New (East) Baghouse (Flexclean Model 100-WRTC-144(III), 12,000 acfm)

- Secondary Crusher Outlet Chute (E)
- Finishing Crusher Outlet Chute (E)
- * No. 1 Lower Primary Crusher Chute (New)
- Vibrating Screen (E)
- Modified Unsized Product Elevator A (E)
- Modified Unsized Product Elevator B (E)
- Pan Granulator (E)
- North Unsized Storage Bin (E)
- Unsized Product Bucket Elevator (E)
- Unsized Product Belt Conveyor (E)
- South Unsized Storage Bin (E)

E = Existing pickup point

* / New = New (added) pickup point

Product Surge Bin Baghouse (Mikro-Pulsaire Model 81 STR-8-20, 5,000 a

Transfer Point - Product Belt from Product Elevator

Relocated Product Storage Surge Bin (vent)

Product Elevator (vent)

Product Bypass Transfer Point to Product Belt

Aero Separator (outlet)