



Via Certified Mail 7002 0460 0002 8878 6530
Return Receipt Requested

IMC Phosphates Company
P.O. Box 2000
Mulberry, Florida 33860-1100
863.428.2500

August 15, 2003

Mr. A. L. Linero, P.E.
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RECEIVED

AUG 18 2003

BUREAU OF AIR REGULATION

Re: **Multifos C Kiln**
Meeting Notes

Dear Mr. Linero:

As we indicated after our meeting with you on August 7, enclosed you will find the revised notes from the presentation on Multifos C Kiln.

If you have any questions, please call me at (863) 428-7153.

Sincerely,

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

CDT:jp\multifosckiln
enc.

cc: M. A. Daigle
P. A. Steadham
W. C. Tims, Jr.
A. P. Williams



IMC

**IMC Phosphates Company
New Wales Operations**

Multifos C Kiln

August 7, 2003

IMC Representatives

Mike Daigle

V.P. Florida Concentrates

James Gruber

Area Production Manager Feeds/Shipping

Phillip Steadham

Manager Environmental Services Concentrates - FI

Willie Tims, Jr.

V.P. Environmental Health & Safety

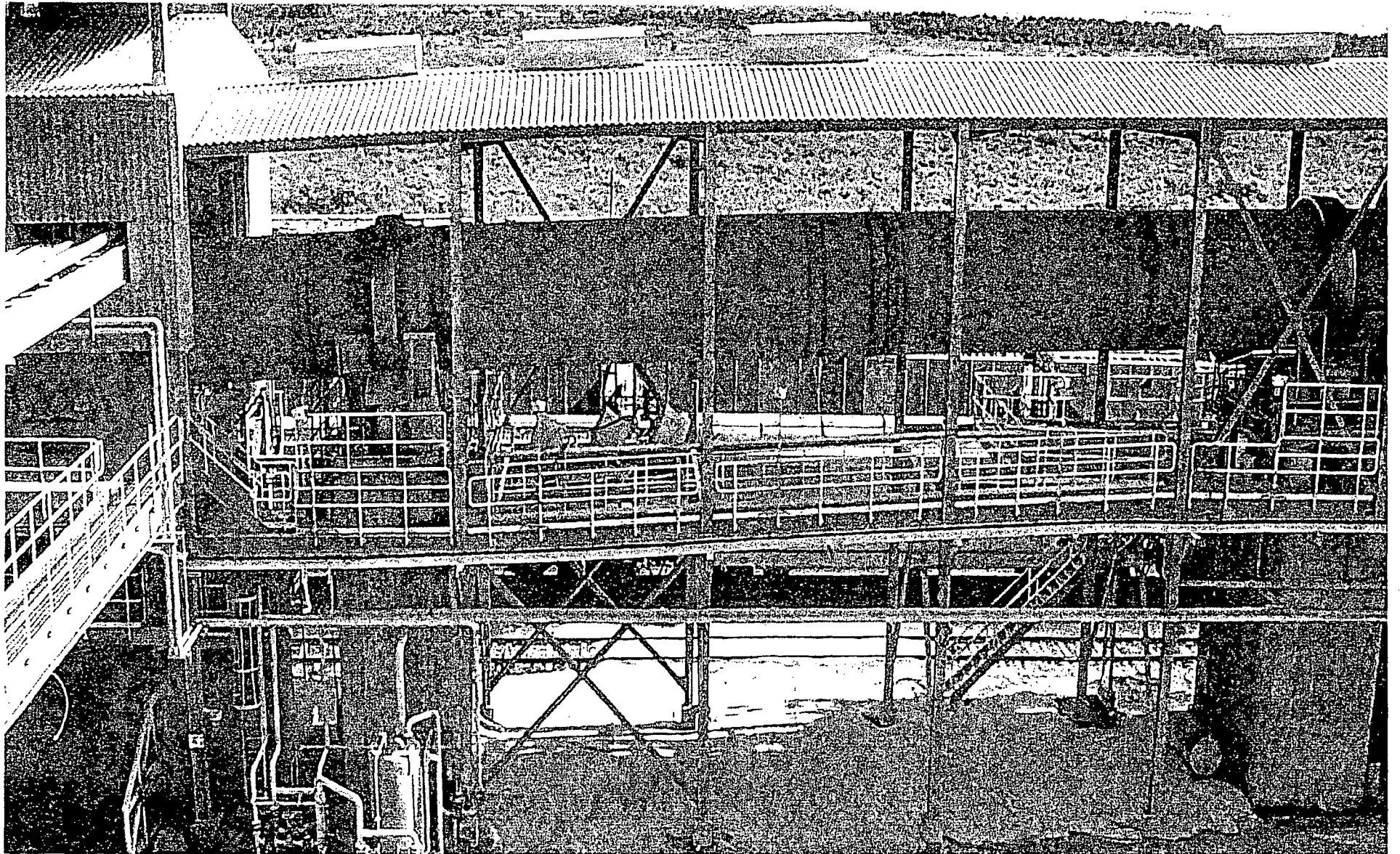
David Turley

Sr. Environmental Engineer

Andrea Williams

Process Engineering Manager – Concentrates

C Kiln

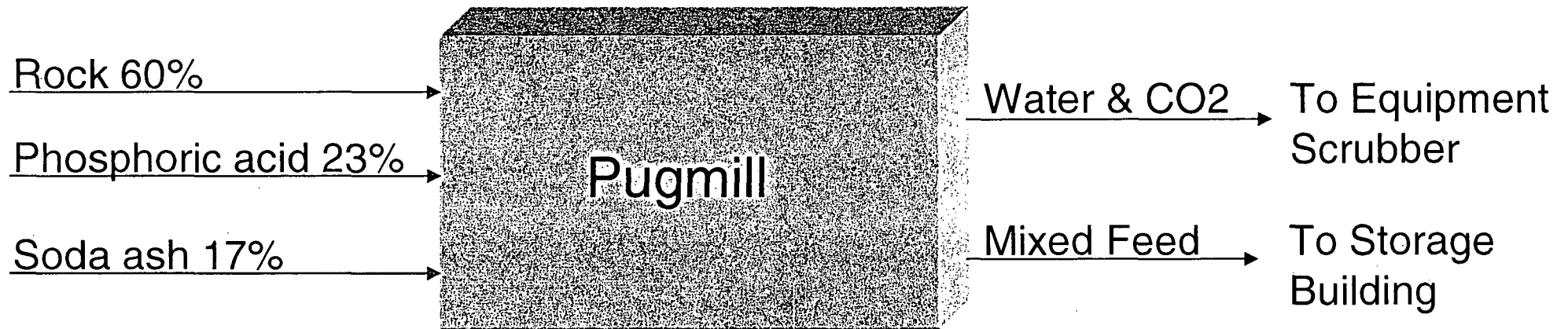


Multifos Specifications

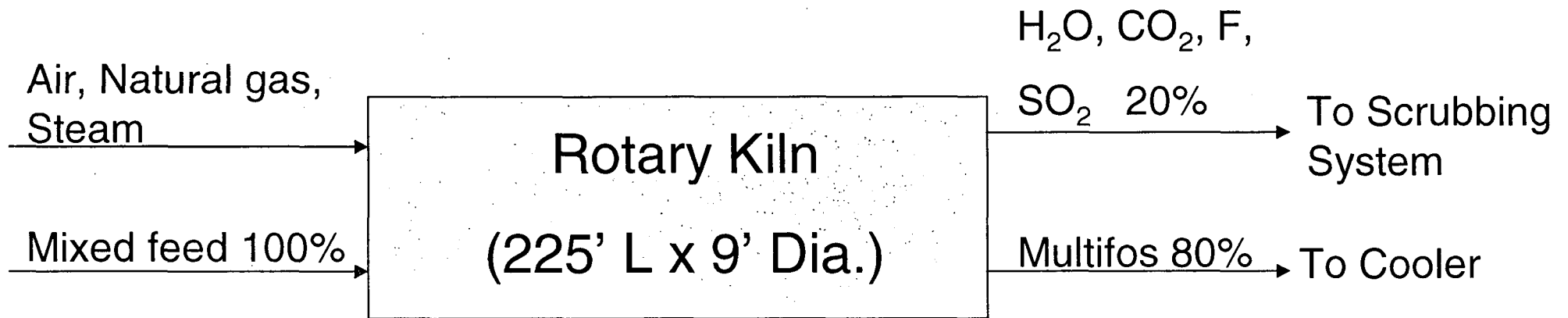
- Multifos[®] IMC's tradename for defluorinated tricalcium phosphate
- Used primarily as a feed supplement for poultry
- Defluorination is via thermal decomposition with maximum temperatures of ~2800°F
- Chemical specifications
 - 18% P (min)
 - 30% Ca (min)
 - 4.7 – 5.2% Na
 - P/F > 100

Manufacturing and Scrubbing System Process Overview

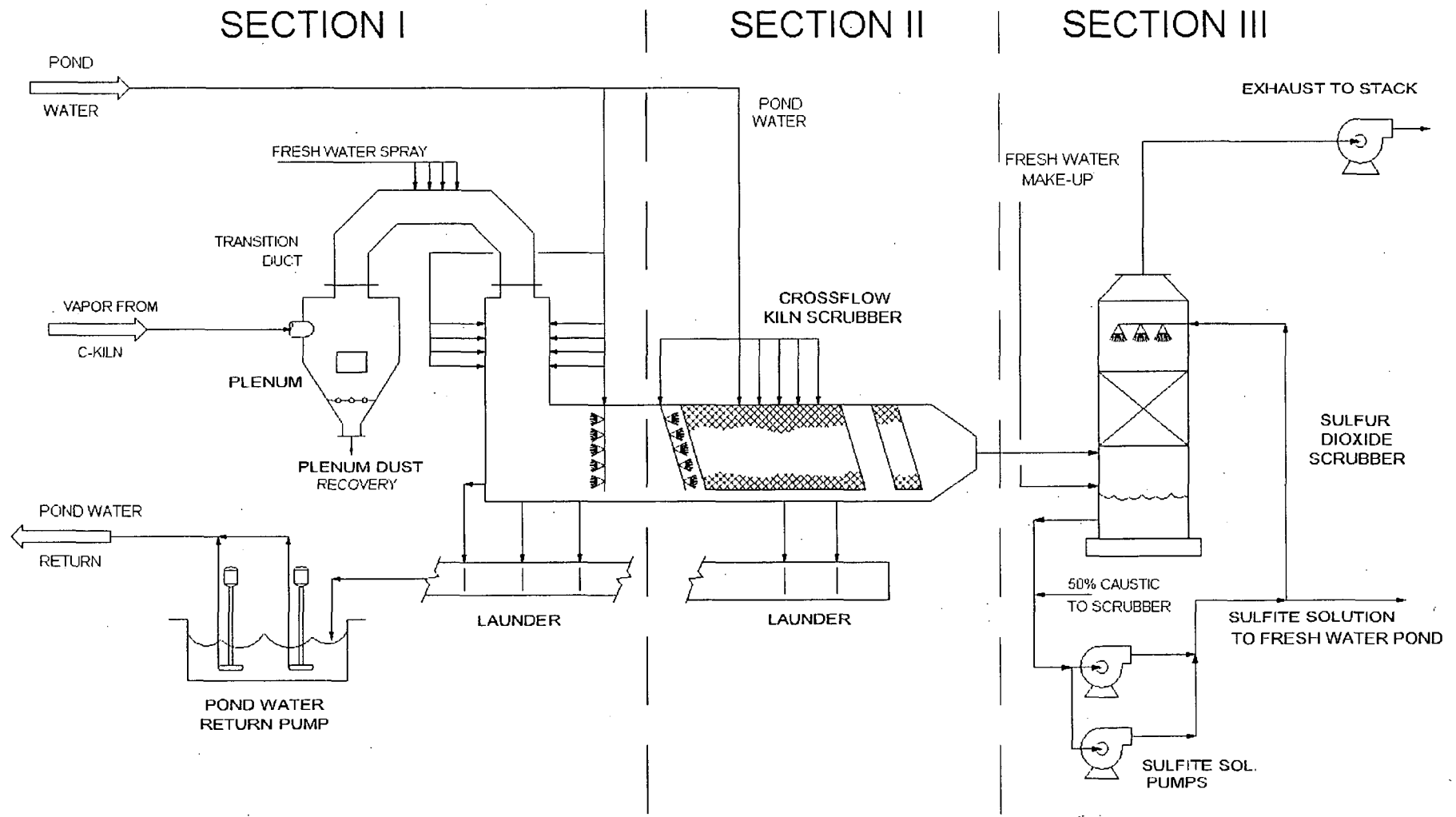
Mixed Feed Preparation Process



Kiln Defluorination Process



C Kiln Scrubbing System



Allowable Emissions

| Allowable Emissions | Limit | Aux Limit |
|----------------------------------|-------------|---|
| Particulate Matter (A & B Kilns) | 29.83 lb/hr | |
| Particulate Matter (C Kiln) | 14.3 lb/hr | 1.5 lb/ton P ₂ O ₅ in |
| Fluoride (A & B Kilns) | 4.20 lb/hr | 0.37 lb/ton P ₂ O ₅ in |
| Fluoride (C Kiln) | 0.36 lb/hr | 0.038 lb/ton P ₂ O ₅ in |
| Sulfur Dioxide (C Kiln) | 8.7 lb/hr | |

Present Emissions Control

- **Sulfur dioxide (SO₂)**

- Averaging 1/3 of allowable (De minimis)
- >98% efficient

- **Fluoride (F)**

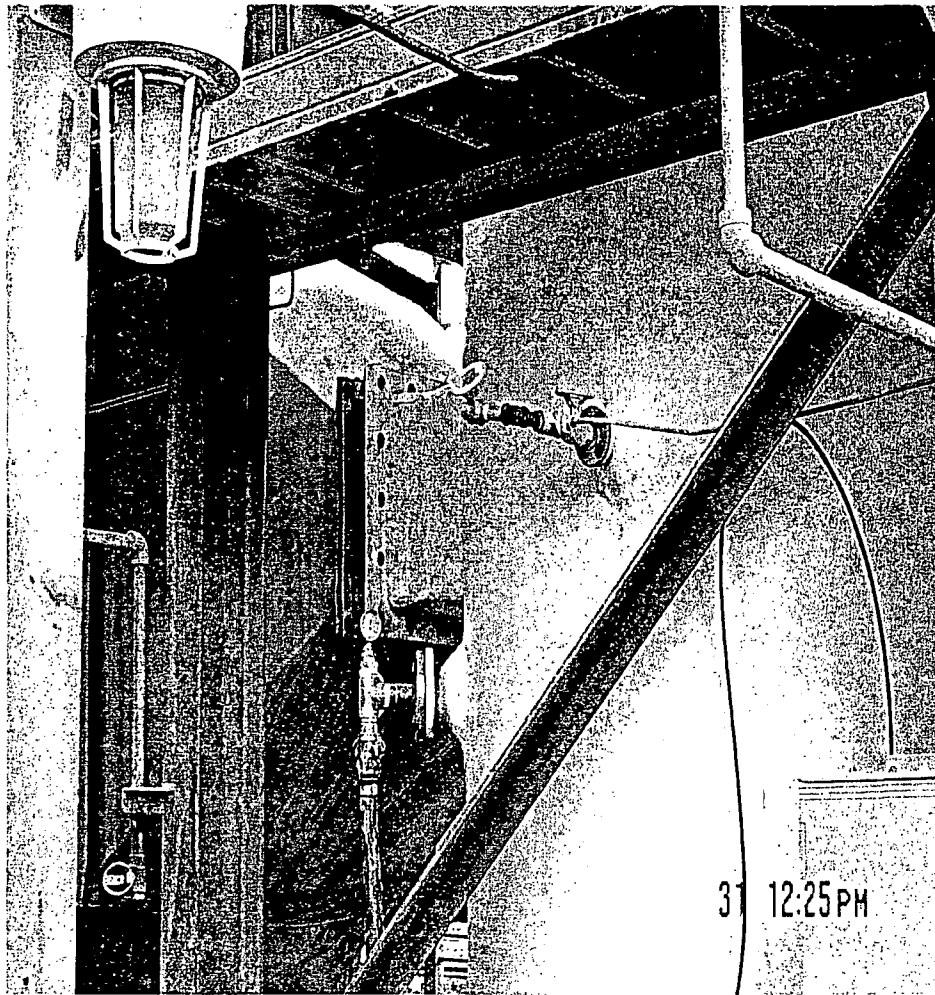
- 99% efficient for fluoride removal
- Testing shows fluoride is not HF
- Design criteria was for HF removal

- **Particulate matter (PM)**

- Tests to date show an average of 3.62 lbs/hr vs. 5.67 lbs/hr allowable

Action Plans

C Kiln Experimental Venturi



Next Phase

- Adjust venturi throat diameter to optimize performance
- Evaluate kiln and scrubber performance