



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

Certified Mail 7002 0460 0002 8878 7070
Return Receipt Requested

October 13, 2003

Mr. A. A. Linero, P.E.
Administrator, New Source Review Section
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road MS 5505
Tallahassee, Florida 32399-2400

RECEIVED

OCT 16 2003

BUREAU OF AIR REGULATION

RE: Construction Permit Extension Response
Permit No. 1050059-024-AC (PSD-FL-244)
AIRS No. 1050059
Emissions Units Nos. 074, 075 and 076
New Wales Plant

Dear Mr. Linero:

This letter is in response to the e-mail from Syed Arif dated October 2, 2003, which requested additional information related to IMC Phosphates' application to modify the Multifos Kiln C construction permit. The responses follow:

- 1. Please provide the feed rate for each of the 15 runs. In addition, provide a copy of the production logsheet for the date and times the tests were conducted.**

The individual run feed rates are contained in the table submitted in the application. They are in the third line under "Process" and labeled "C Kiln Feed Belt: ton/hr." These values are feed rate averages for the specific run time periods. These values are averages of recorded readings obtained using a computer historian software system. The field values are obtained by the plant DCS computer and recorded by the PI Systems historian software which then can be retrieved in various report formats. All of the "process" values and the "venturi pressure difference" reported in the table were obtained in this manner. The "venturi total nozzle flow" was estimated based on manually recorded nozzle supply pressures.

2. Show calculations in determining fluoride emissions in lb/hr for any one of the runs.

From Run 1:

Impinger:	mg F	0.79			
Probe wash:	mg F	0.64			
Filter :	mg F	2.80	Standard Meter Volume:	Cubic Feet	18.32
Total:	mg F	4.24	Dry Standard Stack Gas Flow:	DSCFM	13379

$$\text{lb/hr F} = 4.24 \text{ mg F} / 1000 / 453.6 / 18.32 \text{ scf} \times 13379 \text{ scfm} \times 60 = 0.41$$

3. What reasonable assurance does the Department have that the kiln will operate as a minor source at the asking design feed rate of 17 tons/hr.

The amount of fluoride introduced into the kiln is proportional to the feed rate. If the scrubber efficiencies are not affected with feed rate changes, then the estimated emissions at 17 tph would be in the range of a 50% higher than the measured emissions ($0.32 \text{ lb/hr} \times 17/11 = 0.49$). This would be approximately 72% of the hourly emission rate at 8760 hours/yr to remain below the PSD significance level for fluoride.

Additional testing is planned to confirm the scrubbing system capability over a broader time range for other operating conditions.

4. Please demonstrate to the Department that NOx emissions stay below the significant emissions rate of 40 tons per year at the design feed rate of 17 tons/hr.

The BACT Determination for the permit acknowledged that the emissions could exceed 40 tpy and that the emission rate should be determined based on performance test data. Further testing will be conducted to determine NOx emissions to provide the appropriate data. As a practical alternative, the NOx limit could be implemented as a "Max. fuel usage in lieu of limit", as was done for Kilns A and B.

5. Please provide a written write-up as an attachment to the application, which is an integral part of each application.

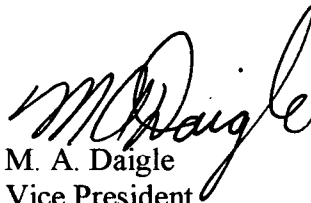
The C Kiln scrubber system will be modified to provide a venturi throat section between the existing crossflow scrubber and the SO₂ scrubber. The purpose of this installation is to collect the portion of the soluble fluoride that is collected as particulate. The venturi section is installed as two individual throats because of limited access to the mounting location between the two vessels. The venturi throats discharge over the sump and below the packed section of the SO₂ scrubber.

Mr. A. A. Linero, PE
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The venturi nozzles will be installed in the transition section of the crossflow scrubber to provide maintenance access. The SO₂ scrubber liquid will be recirculated through the venturi throats. The pressure drop across the venturi throats and the nozzle flow rates will be measured and electronically recorded for reporting along with the other scrubber parameters.

Thank you for your attention to this matter. If you have any questions, please contact P. A. Steadham at 863.428.7106 or C. D. Turley at 863.428.7153.

Sincerely,



M. A. Daigle
Vice President
Florida Concentrates

MAD:jp\kilnc09
enc.

cc: J. R. Gruber
P. A. Steadham
G. J. Kissel, FDEP Tampa
Koogler and Associates, Inc.

CERTIFICATION BY RESPONSIBLE OFFICIAL

Based on information and belief formed after reasonable inquiry, I certify that all statements made in this report, including any attachments, are true, accurate and complete.



(Signature of Responsible Official)


10/13/03
(Date)

Name: M. A. Daigle

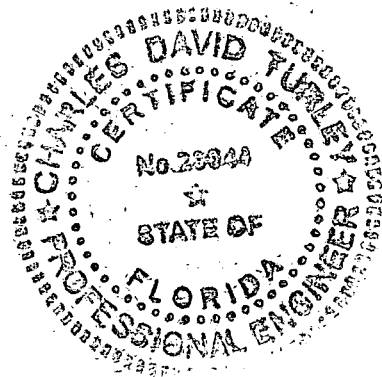
Title: Vice President, Florida Concentrates

Certification by Professional Engineer

Based on my review of the above information submitted, I certify, to the best of my knowledge, that there is reasonable assurance the air pollutant emission unit and the air pollution control equipment described herein, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in Florida statutes and rules of the Department. Furthermore, I certify that, to the best of my knowledge, the emission estimates and cost estimates reported or relied upon in these documents are true, accurate and complete and are based on reasonable techniques available for calculating emissions.


C. D. Turley, P.E.
No. 0023344

10/13/03
(Date)



SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
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<p>1. Article Addressed to:</p> <p>Mr. M. A. Daigle Vice President, Florida Concentrates IMC Phosphates Company Post Office Box 2000 Mulberry, FL 33860-1100</p>	<p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Copy from service label) 7000 2870 0000 7028 3291</p>	

PS Form 3811, July 1999

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