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BUREAU OF AIR REGULATION

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**RETURN RECEIPT REQUESTED**

August 28, 2000

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

**RE: Construction Permit Extension Request**  
**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 your letter of August 7, 2000, which requested additional information related to IMC Phosphates' request to extend the Mulifos Kiln C construction permit. Because of market conditions, the Company has suspended operation of C Kiln for approximately three months. The responses follow:

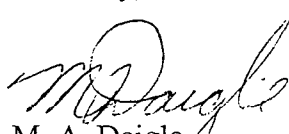
1. **List the tasks to be performed to achieve "normal operating conditions" and the approximate dates for completing those tasks.**
  - A. A summary of actions taken to-date is attached.
  - B. A new burner was installed on June 27, 2000 and required adjustments to optimize the flame shape. This task has been completed and must be evaluated once the kiln resumes operation. This configuration is now similar to that of the A and B Kilns.
  - C. Instrumentation to monitor volumetric flow through the kiln will be installed and is needed to improve combustion control for the burner. This task will be completed by December 1, 2000.

- D. Operating procedures for kiln combustion control must be developed based on the recently installed carbon monoxide monitoring instrumentation. This task will begin once the kiln resumes operation. To this point, the sustained fuel usage rate for the new kiln has not been comparable to that of the existing kilns.
- 2. Identify additional production and emission testing that needs to be conducted and provide estimated dates for completion of those tasks.**
- A. Testing to improve the quality of the mixed feed to the kilns will be conducted. This will involve operation of the C Kiln on a non-continuous basis for up to four weeks to reduce the free moisture content of the mixed feed.
- B. Not all possible improvements have been identified and as testing progresses, additional action items may be developed. Testing will begin December 1, 2000 depending on kiln operation.
- C. Additional fluoride testing will need to be conducted to address the problem identified in the response to the Department's question below.
- 3. Provide a statement (and basis for believing) that the facility will comply with applicable regulation.**

Based on the compliance testing conducted on the new kiln, the emission limits of the construction permit will be met with the exception of the fluoride limit of 0.038 lb/ton  $P_2O_5$ . From the two compliance tests that have been conducted on this kiln, the fluoride emissions have been found to be located primarily in the probe/filter portion of the sampling train. This indicates that the fluoride is a liquid, solid, or both. As the Department is aware, the design of the scrubbing system was based on the fluoride being in a gaseous form. These compliance test reports are being finalized and will be submitted under separate cover.

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  
General Manager  
New Wales Plant

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Attachment (1 copy)

*cc: J. Reynolds  
P. Steadham*

### Summary of Tasks Completed on C-Kiln

This is a summary of actions taken to achieve "normal operation" of C-Kiln over the period from start up in October 1999 through shutdown in August 2000.

1. November 1999 - installed air dump on primary air to keep from blowing flame out on start-up.
2. December 1999 - installed Pillard type gas nozzle in burner to lengthen flame.
3. March 2000 - corrected primary air flow and burner steam flow instrument calibrations.
4. March 2000 - purchased portable combustion analyzer to fine tune burner operation.
5. April 2000 - reinstalled Svedala burner. Svedala field service engineer visited plant for 3 days to optimize burner. Burner had been set for low firing rate. In addition, balance of primary to secondary air was incorrect and was properly adjusted.
6. April 2000 - reinstalled Pillard type gas nozzle. The bushy flame pattern with Svedala burner washed out refractory in burner zone, requiring replacement.
7. April 2000 - switched to high pressure steam over concerns with fluctuating steam quality using low pressure steam.
8. April 2000 - verified kiln slope was correct.
9. May 2000 - repositioned both the oxygen sample tube and temperature probe in the feed end of the kiln.
10. June 2000 - installed Pillard burner to improve flame length. Better than Svedala burner but still not as long as A/B. Ring formation near burning zone continued to affect rates.
11. July 2000 - replaced missing distribution cone on Pillard burner to increase flame length similar to A/B.
12. August 2000 - installed on-line CO analyzer for improved combustion control.