



# Department of Environmental Protection

Jeb Bush  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Colleen M. Castille  
Secretary

August 5, 2004

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. E. M. Newberg  
Vice President and General Manager  
Concentrated Phosphate Operations  
IMC Phosphates Company  
Post Office Box 2000  
Mulberry, Florida 33860

Re: DEP File No. 1050059-044-AC  
Multifos Animal Feed Plant Kiln C Escape Federal PSD Through Emission Limitations at the Significance Level

Dear Mr. Newberg:

Enclosed is one copy of the Draft Air Construction Permit to limit Kiln C to 17 tons per hour of feed and the PSD significance levels for emissions' limits at the Multifos Animal Feed Plant located at the IMC New Wales Facility, 3095 Highway 640, Mulberry Polk County. The Department's Intent to Issue Air Construction Permit and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" must be published in the legal section of a newspaper of general circulation in Polk County. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Per Rule 62-4.070(1), F.A.C., "a permit shall be issued to the applicant upon such conditions as the Department may direct, only if the applicant affirmatively provides the Department with reasonable assurance based on plans, test results, installation of pollution control equipment, or other information that the construction, expansion, modification, operation, or activity of the installation will not discharge, emit, or cause pollution in contravention of Department standards or rules."

Please submit any written comments you wish to have considered concerning the Department's proposed action to Jim Pennington, P.E., Administrator, North Permitting Section at the above letterhead address. If you have any other questions, please call John Reynolds at 850/921-9536 or Mr. Pennington at 850/921-9515.

Sincerely,

Trina L. Vielhauer, Chief  
Bureau of Air Regulation

TLV/jp

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

In the Matter of a  
Permit Application by:

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

DEP Permit No.: 1050059-044-AC  
Project: Multifos Plant Expansion/Kiln C  
Synthetic Minor Source Permit

### **INTENT TO ISSUE AIR CONSTRUCTION PERMIT**

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of DRAFT Permit attached) for the proposed action, detailed in the Technical Evaluation and Preliminary Determination, for the reasons stated below.

The permittee, IMC Phosphates Company (IMC), owns and operates the IMC New Wales Phosphate facility in Mulberry, Polk County. IMC applied for a synthetic minor construction permit to limit emissions from its kiln C to below Prevention of Significant Deterioration (PSD) significance levels for all pollutants and limiting the production of kiln C to 17 tons per hour of throughput.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required to revise the emission limits to a federally enforceable permit condition while at the same time limiting the production so that PSD significance levels are not exceeded.

The Department intends to issue this air construction permit based on the belief that the applicant has provided reasonable assurances to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1, F.A.C, you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit. The notice shall be published as soon as possible one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in Section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit action for a period of 14 (fourteen) days from the date of publication of Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Mediation is not available in this proceeding. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying

(implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief  
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

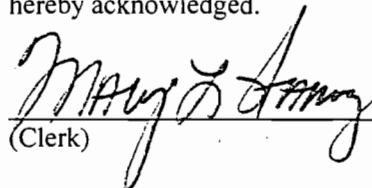
The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, and the DRAFT permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 8/5/04 to the person(s) listed:

E.M Newberg, IMC\*  
Phil Steadham, IMC  
Gregg Worley, EPA  
John Bunyak, NPS  
Jerry Kissel, DEP SWD  
Jason Waters, DEP SWD

Chair, Polk County Commission\*  
Segundo J. Fernandez, Esq., OHF&C\*  
W. Douglas Beason, Esq., DEP OGC

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

  
(Clerk)

8/5/04  
(Date)



Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Colleen M. Castille  
Secretary

## P.E. Certification Statement

**Permittee:** IMC Phosphates Company  
New Wales Plant

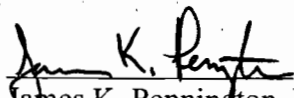
**DRAFT Permit No.:** 1050059-044-AC

**Project:** Installation of Kiln C Multifos Production Plant with Federally Enforceable Synthetic Minor Construction Permit Conditions

In the original 1998 PSD permit application, a third rotary kiln (Kiln C) adjacent to the two existing Kilns A & B, each of the existing kilns having a permitted capacity of 15 tons per hour of raw material containing about 5.67 tons  $P_2O_5$  per hour, being limited in total to 11.35 tons  $P_2O_5$  per hour. Kiln C has the same physical dimensions as the existing kilns but was originally permitted to process 25 tons per hour of raw material containing 9.50 tons  $P_2O_5$  per hour. Kiln C has not been able to operate above approximately 11 tons per hour for any significant period of time, resulting in this synthetic minor permit.

*I HEREBY CERTIFY that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).*

*This draft permit was prepared under my direct supervision by Mr. John Reynolds of my staff.*

 7/23/04  
James K. Pennington, P.E. date  
Registration Number: 34536

Permitting Authority:  
Department of Environmental Protection  
Bureau of Air Regulation  
111 South Magnolia Drive, Suite 4  
Tallahassee, Florida 32301  
Telephone: 850/488-0144  
Fax: 850/922-6979

"More Protection, Less Process"

**PERMITTEE:**

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

DEP Permit No.:	1050059-044-AC
Project:	Multifos Plant Expansion/Kiln C Synthetic Minor Source Permit
SIC No.:	2874
Expiration:	August 31, 2005

*Authorized Representative:*

M. A. Daigle  
Vice President, Florida Concentrates

**PROJECT AND LOCATION:**

Synthetic minor source permit for the expansion/modification of the Multifos Plant by constructing a 17 TPH kiln (Kiln C), pug mill, cooler, crusher, screens, mills and associated processing and air pollution control equipment at the IMC Phosphates (New Wales) facility, 3095 Highway 640, Mulberry, Polk County, Florida. UTM Coordinates are Zone 17; 396.6 km E; 3078.9 km N.

**STATEMENT OF BASIS:**

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Appendices and attachments made a part of this permit:

Appendix GC Construction Permit General Conditions

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Michael G. Cooke, Director  
Division of Air Resource  
Management

# AIR CONSTRUCTION PERMIT 1050059-044-AC

## SECTION I. FACILITY INFORMATION

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### FACILITY DESCRIPTION

The existing Multifos animal feed ingredient facility consists of a common mixed feed preparation section for feeding phosphate-containing material to two rotary defluorination kilns and associated processing and handling equipment. This permit is for an expansion project to increase the capacity of the existing 30 tons per hour plant to 47 tons per hour by installing a new kiln and higher capacity mixing equipment to prepare the feed material for all three kilns.

### REGULATORY CLASSIFICATION

The Multifos Plant is classified as a "Major or Title V Source" per Rule 62-210.200, F.A.C., Definitions, because at least one regulated air pollutant from the facility exceeds 100 tons per year (TPY).

Phosphate processing plants are listed as a Major Facility Category in Table 62-212.400-1, F.A.C., "Major Facility Categories." Therefore, stack and fugitive emissions of over 100 TPY of a regulated pollutant are sufficient to classify the Multifos Plant as a "Major Facility" per the definitions in Rule 62-210.200, F.A.C., subject to the Significant Emission Rates given in Table 62-212.400-2, F.A.C. and the requirements of Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) and Best Available Control Technology (BACT). To avoid PSD and BACT applicability for the installation of Kiln C as a synthetic minor modification of the facility as defined by Rule 62-210.200(283), F.A.C., emissions must be maintained below the Significant Emission Rates by federally enforceable limits.

The New Wales Operations Facility is also classified as a "Major Source" per 40 CFR 63.2, Definitions [adopted and incorporated by reference by the Department at Paragraph 62-204.800(11)(d)] because it consists of a group of stationary sources located within a contiguous area and under common control that emit or have the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. If additional testing and modeling demonstrate that the facility is not and has never been a major source of hazardous air pollutants since at least June 10, 2002, the permittee shall have the right to request that the Department revise the permit to remove those requirements and conditions that are applicable because the facility is a major source of hazardous air pollutants as determined by the Department.

### PERMIT SCHEDULE:

- 09/26/03 Synthetic Minor Application received
- 10/24/03 Department's Incompleteness Letter mailed
- 01/12/04 Applicant's Response Letter received
- 01/15/04 Department's Letter confirming Applicant's Agreement on Additional Testing to Revise BACT Limits/Retain 25 TPH Capacity
- 06/10/04 Synthetic Minor Approach Reactivated by Applicant
- 07/23/04 Distributed Intent to Issue Permit
- xx/xx/04 Notice of Intent Published
- xx/xx/04 Received Notice of Publication

# AIR CONSTRUCTION PERMIT 1050059-044-AC

## SECTION I. FACILITY INFORMATION

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### RELEVANT DOCUMENTS:

The documents listed below are the basis of the permit. They are specifically related to this permitting action but do not supersede the conditions stated in the permit. These documents are on file with the Department.

- Synthetic Minor Permit Application 1050059-044-AC received September 26, 2003
- Department's Incompleteness Letter mailed October 24, 2003
- Applicant's Incompleteness response received January 12, 2004
- Department's letter mailed January 15, 2004 extending expiration date of permit PSD-FL-244 and confirming agreement with applicant to retest scrubbers for PSD permit revision
- Applicant's letter received February 9, 2004 proposing a protocol and schedule for testing the scrubbers for PSD permit revision
- Applicant's letter received June 10, 2004 requesting extension of PSD-FL-244 for reactivation of Synthetic Minor Permit Application 1050059-044-AC (see Permitting Note below)

### PERMITTING NOTE:

This Synthetic Minor Source Permit supersedes all conditions of Permit No. 1050059-024-AC/PSD-FL-244 that are applicable to Kiln C. However, Permit No. 1050059-024-AC shall continue to apply to the common feed preparation section and other sections of the Multifos Plant and Kilns A and B. Permit No. 1050059-024-AC contains conditions and requirements that resolve past permitting issues applicable to the rest of the Multifos facility that would otherwise have triggered PSD review had those issues been addressed prior to the issuance of PSD-FL-244. The Bureau of Air Regulation in Tallahassee should be consulted regarding future permit applications for physical modification of or a change in the method of operation of Kiln C or associated equipment.



# AIR CONSTRUCTION PERMIT 1050059-044-AC

## SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

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Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Department's Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-1352. All applications for permits to construct or modify an emissions unit(s) subject to the Prevention of Significant Deterioration or Nonattainment (NA) review requirements should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), 2600 Blair Stone Road, MS 5505, Tallahassee, Florida 32399-2400 (phone number 850/488-0114).

General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]

Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.

Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The facility is subject to all applicable provisions of the Code of Federal Regulations Title 40, Part 63, Subpart BB. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]

Expiration: This air construction permit shall expire on **August 31, 2005** [Rule 62-210.300(1), F.A.C.]. The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. However, the permittee shall promptly notify the Department's Southwest District Office of any delays in completion of the project, which would affect the startup day by more than 90 days. [Rule 62-4.090, F.A.C.]

Application for Title V Permit: An application for a Title V operating permit, pursuant to Chapter 62-213, F.A.C., must be submitted to the Department's Southwest District Office by October 1, 2004. [Chapter 62-213, F.A.C.]

Permit Approval: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. [40 CFR 52.21(r)(2)].

Annual Reports: Pursuant to Rule 62-210.370(2), F.A.C., Annual Operation Reports, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating reports using DEP Form 62-210.900(4) shall be sent to the DEP's Southwest District office by March 1st of each year.

Stack Testing Facilities: Stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C.

Quarterly Reports: Quarterly excess emission reports, in accordance with 40 CFR 60.7 (a)(7) (c) (1997 version), shall be submitted to the DEP's Southwest District office.

New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

# AIR CONSTRUCTION PERMIT 1050059-044-AC

## SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

**SPECIFIC CONDITIONS – KILN C MULTIFOS PRODUCTION:**

The following Specific Conditions apply only to the following Kiln C emission units:

EMISSION UNIT NO.	EMISSION UNITS DESCRIPTION
074	Kiln C Scrubber Stack
075	Kiln C Cooler Baghouse
076	Kiln C Milling & Sizing Baghouse

1. The above emission units shall comply with all applicable provisions of Chapter 62-296, Stationary Sources - Emission Standards, Florida Administrative Code (F.A.C.).
2. The Kiln C emission units shall not exceed the following limits: [Rules 62-204.800(7)(b)10; 62-210.200; 62-212.400, F.A.C.]

POLLUTANT	EMISSION LIMIT	LIMIT BASIS
F ( Stack)	0.66 lb/hr <sup>(1)</sup> and 2.90 TPY	Synthetic minor status
PM/PM <sub>10</sub> (Stack)	5.68 lb/hr <sup>(2)</sup> and 24.90 TPY	Synthetic minor status
PM <sub>10</sub> (Stack)	3.40 lb/hr <sup>(3)</sup> and 14.90 TPY	Synthetic minor status
SO <sub>2</sub> (Stack)	9.11 lb/hr and 39.90 TPY	Synthetic minor status
NOx (Stack)	9.11 lb/hr and 39.90 TPY	Synthetic minor status
VE (Stack)	15% opacity	Test Data
VE (Baghouses)	5% opacity	Test Data

<sup>(1)</sup> 2.90 tons/yr x 2000 lb/ton x yr/8760 hr = 0.66 lb/hr (a new PSD permit will be required if this limit is not met)

<sup>(2)</sup> includes PM<sub>10</sub>, i.e., if PM<sub>10</sub> = 3.40 lb/hr, PM can be no more than 5.68 – 3.40 = 2.28 lb/hr

<sup>(3)</sup> Based on March 10-11, 2004 test data, PM<sub>10</sub> accounts for 50-60 percent of PM/PM<sub>10</sub>.

3. The input rate of mixed feed to Kiln C shall not exceed 17 tons per hour and 148,920 tons per year. Since the most recent test (March 2004) was at 11 tons of feed per hour, the production rate is limited to 110 percent of that rate, or 12.1 tons of feed per hour, above which additional compliance testing is required to gain a higher rate. For purposes of testing at higher production rates as required by this paragraph, the permittee shall provide as much advance notice of such testing to the southwest district as possible. Such advance notice shall not be less than ten (10) days [Rule 62-210.200, Rule 62-297.310(2), F.A.C. (Definitions - Potential Emissions)]
4. The above emission units shall be allowed to operate continuously (8760 hours/year). [Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
5. A new stack shall be installed for the Kiln C exhaust. To control Kiln C emissions, the permittee shall install and operate a pond water/caustic scrubbing system designed for 99.9+% removal of fluorides and 98.0+% removal of SO<sub>2</sub>. To prevent recovered SO<sub>2</sub> from being stripped out of acidic pond water that may be recirculated to other scrubbers, no effluent from caustic scrubbing shall be discharged to the existing process water pond system or any other acidic waste water that can be recirculated to any scrubber. Spent caustic solution from the Kiln C scrubbing system shall be routed to the scrubbing systems for Kilns A and B. The 50% caustic makeup flow to the Kiln C caustic scrubber shall be measured and recorded by an inline totalizing flowmeter with certified accuracy of ± 5%. The disposition of caustic scrubber

# AIR CONSTRUCTION PERMIT 1050059-044-AC

## SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

effluent shall be in accordance with the applicant's letter dated June 16, 1999. [Rule 62-212.400, F.A.C., PSD-FL-244]

6. Kiln C shall be fired with natural gas unless it is not available, in which case only new No. 2 fuel oil having a maximum sulfur content of 0.5% (wt.) may be fired for up to 1,225 hours per year. The maximum fuel firing rate of Kiln C shall be 56 MMBTU/hr. [Rule 62-212.400, F.A.C., PSD-FL-244]
7. As provided in the current operation permit, for disposal purposes, petroleum contaminated soils from the cleanup of on-site spills of petroleum products may be added to the kiln feed at a maximum rate of 220 ft<sup>3</sup> per week for all three kilns combined. Each kiln receiving petroleum contaminated soil shall be operating normally at a minimum feed rate of 8 tons per hour when the soil is fed to the kiln. [Rule 62-210.200, F.A.C., PSD-FL-244]
8. Annual compliance with the emission limits for F, PM/PM<sub>10</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> and VE shall be determined using the following reference methods as described in 40CFR60, Appendix A and 40CFR51, Appendix M, adopted by reference in Chapter 62-204, F.A.C. Quarterly compliance testing for total fluorides is required for the first year prior to obtaining a Title V permit, then annual testing thereafter.

Method 5	Determination of Particulate Emissions from Stationary Sources
Method 7E	Determination of Nitrogen Oxides Emissions from Stationary Sources
Method 8	Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources
Method 9	Visual Determination of Opacity of Emissions from Stationary Sources
Method 13A/B	Determination of Total Fluoride Emissions from Stationary Sources
Method 5 <sup>1</sup>	Determination of PM <sub>10</sub> Emissions

The permittee shall provide reasonable assurance of compliance by maintaining a continuous written record (log) of the operating parameters for the Kiln C scrubbers. At a minimum, the following information shall be manually recorded during each hour of operation: scrubber liquid flow rates, scrubber gas pressure drop, fan motor amperage, name of person recording the information. The log shall be maintained as required by Specific Condition No. 10 below. [Rules 62-297.401 and 204.800, F.A.C., PSD-FL-224]

9. The above emissions units shall comply with all applicable requirements of Rule 62-297.310, F.A.C., General Test Requirements and 40 CFR 60.8 Performance Tests. Testing of emissions shall be conducted with the emissions units operating at permitted capacity, which is defined as 90-100% of the maximum operating rate allowed by the permit. This also applies to the mixed feed preparation section. If it is impracticable to test at permitted capacity, then the unit may be tested at less than 90% of the maximum operating rate allowed by the permit; in this case, subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than thirty consecutive days that include the fifteen days allowed by rule and the fifteen days to notify the Compliance Authority of the test, for the purpose of additional compliance testing to regain the permitted capacity in the permit. Quarterly compliance testing for total fluorides is required for the first year under this permit, followed by annual testing thereafter. [Rules 62-4.070, 62-

(1)

- (1) <sup>1</sup> Method 5 will be used in lieu of Method 201A due to the problems encountered in sampling a wet stack per EPA's September 9, 1991 EMC TID-009.

# AIR CONSTRUCTION PERMIT 1050059-044-AC

## SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

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204.800, 62-297.310, 62-297.400, 62-297.401, F.A.C., and 40 CFR 60 Appendix A and 40 CFR 60.8, Subpart A].

10. This facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to this permit. For all air pollution control equipment affected by this permit, the permittee shall keep a daily operation and maintenance log to include, at a minimum, calibration logs for all instruments, maintenance/repair logs for any work performed on equipment or instruments, all measurements, records, and any other data required to be maintained by the permittee shall be retained for at least five (5) years following the data on which such measurements, records, or data are recorded. These data shall be made available to Department staff upon request. [Rule 62-204.800, F.A.C., PSD-FL-224]
11. Plant and emission control equipment operating parameters determined during compliance testing and/or inspection that will establish the proper operation of Kiln C shall be included in the Title V permit. [Rule 62-297.310, F.A.C. and 62-4.070, F.A.C.]
12. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320, F.A.C., PSD-FL-224]
13. The permittee shall not allow any air pollution control device to be circumvented or allow the emission of air pollutants while the applicable air pollution control device is operating improperly. [Rule 62-210.650, F.A.C., PSD-FL-224]
14. The subject emissions units shall be subject to the following:
  - Excess emissions resulting from startup, shutdown or malfunction of any source shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700, F.A.C., PSD-FL-224]
  - Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700, F.A.C., PSD-FL-224]
  - Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest. [Rule 62-210.700, F.A.C., PSD-FL-224]
  - In case of excess emissions resulting from malfunctions, each source shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700, F.A.C., PSD-FL-224]
15. The permittee shall submit an Annual Operating Report using DEP Form 62-210.900(4) to the Department's Southwest District office by March 1 of the following year for the previous year's operation. [Rule 62-210.370, F.A.C., PSD-FL-224]

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 1050059- 044-AC

IMC Phosphates Company  
New Wales Facility  
Multifos Plant  
Polk County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to IMC Phosphates Company's Multifos Plant located at 3095 Highway 640, Mulberry, Polk County, Florida for limiting the emissions of previously constructed Kiln C to emissions levels that allow Kiln C to escape the federal Prevention of Significant Deterioration (PSD) rule. This determination replaces the Best Available Control Technology determination, for Kiln C only, previously issued in PSD-FL-244. The applicant's name and address are: IMC Phosphates Company, Post Office Box 2000, Mulberry, Polk County, Florida 33860.

The Department will issue the FINAL Permit, in accordance with the conditions of the DRAFT Permit, unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for

Notice for Newspaper

service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection  
Bureau of Air Regulation  
111 S. Magnolia Drive, Suite 4  
Tallahassee, Florida 32301  
Telephone: 850/488-0114  
Fax: 850/922-6979

Department of Environmental Protection  
Southwest District Office  
3804 Coconut Palm Drive  
Tampa, Florida 33619-8218  
Telephone: 813/744-6100  
Fax: 813/744-6084

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Program Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

Technical Evaluation  
and  
Preliminary Determination

IMC Phosphates Company  
New Wales Plant  
Polk County, Florida

Installation of Kiln C  
Multifos Production Plant

Construction Permit No. 1050059-044-AC  
Synthetic Minor Construction

Department of Environmental Protection  
Division of Air Resource Management  
Bureau of Air Regulation

July 23, 2004

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

## I. GENERAL INFORMATION

### A. Applicant

IMC Phosphates Company  
3095 Highway 640  
P.O. Box 2000  
Mulberry, Florida 33860

### B. Facility Location

This facility is located at 3095 Highway 640, Mulberry, Polk County, Florida. The UTM coordinates are Zone 17, 396.6 km east and 3078.9 km north.

Facility Identification Code (SIC): Major Group No. 28 Industry Group No. 2874

## II. DESCRIPTION/EMISSIONS

### A. Process Description

A cured mixture of ground phosphate rock, soda ash and phosphoric acid is calcined at a temperature sufficient to produce a defluorinated calcium phosphate for use as an animal feed supplement. The "mixed feed" is made by mixing phosphoric acid from the blend tanks with soda ash and phosphate rock in a pug mill. The mixed feed from the pug mill (a form of triple superphosphate) is conveyed to a storage building where the reactions proceed to completion as the material cures. The material is then routed to a feed bin and then to a rotary kiln where the raw material is contacted by the kiln burner exhaust gases which drive off fluoride at burner zone temperatures in the range of 2300-2500 degrees F. The calcined product is transferred to the rotary cooler and then to the milling, screening and sizing equipment. Kiln exhaust gases are routed to wet scrubbers while particulate matter in the exhaust gases from the cooler, screens and mills are controlled by bag collectors.

### B. Project Description

In the original 1998 PSD permit application, the applicant proposed to construct a third rotary kiln (Kiln C) adjacent to the two existing Kilns A & B, each of the existing kilns having a permitted capacity of 15 tons per hour of raw material containing about 5.67 tons P<sub>2</sub>O<sub>5</sub> per hour, being limited in total to 11.35 tons P<sub>2</sub>O<sub>5</sub> per hour. Kiln C has the same physical dimensions as the existing kilns but was permitted to process 25 tons per hour of raw material containing 9.50 tons P<sub>2</sub>O<sub>5</sub> per hour. To provide the additional phosphate rock drying capacity required for Kiln C, the rock dryer capacity was increased accordingly. Also installed was a larger capacity mixed feed pug mill to serve all three kilns and a new cooler, screens and mills for the new production line.



## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

The original PSD permit and BACT determination for Kiln C required a packed crossflow scrubber using neutralized pond water for control of fluorides and particulate matter, two bag collectors for controlling dust from the new cooler, crusher, screens and mills, and a caustic SO<sub>2</sub> scrubber installed downstream of the fluoride crossflow scrubber. The requirement for neutralized pond water was relaxed after the caustic SO<sub>2</sub> scrubber manufacturer submitted a written guarantee that the BACT fluoride limit would be achieved by the chemical reaction of the caustic with the residual fluorides exiting from the crossflow scrubber.

After encountering difficulty in meeting the fluoride limit, the applicant subsequently modified the caustic scrubber to add an internal venturi section, based on the theory that most of the fluoride emissions are particulates rather than gases. Recent tests monitored by the Department showed that while the venturi does remove some particulates, most of the fluorides are emitted in the gas phase. Tests also showed that the caustic scrubber does not remove as much of the fluorides as had been guaranteed. Since the originally specified pond water neutralization was not installed, the highly acidic pond water (pH = 1.0 – 1.5) cannot absorb enough fluoride gases to meet the original BACT limit. Additionally, the applicant has not been able to operate Kiln C above approximately 11 tons per hour for any significant period of time, resulting in this synthetic minor permit being requested by the applicant.

### C. Emissions

#### *Total Fluorides (HF, SiF<sub>4</sub>, Particulate Fluorides)*

Fluorides consist of gases and particulates and are PSD-regulated pollutants having a very low PSD-significance threshold of 3 TPY. Gaseous fluorides are comprised mainly of hydrogen fluoride (HF) and silicon tetrafluoride (SiF<sub>4</sub>). HF is a hazardous air pollutant (HAP) pursuant to 40CFR63 and Rule 62-210(147), Florida Administrative Code (F.A.C.) and subject to the Phosphate MACT regulations under 40CFR63 and Rule 62-204.800, F.A.C. if emitted in quantities greater than 10 tons per year.

This synthetic minor construction permit establishes a maximum allowable operating rate of 17 tons of raw material feed per hour. The rate at which the most recent test was conducted (March 2004) was 11 tons per hour which is less than 90 percent of the maximum operating rate allowed. Therefore, according to Rule 62-297.310(2), F.A.C., the production rate is initially limited to 110 percent of 11 tons per hour, or 12.1 tons per hour, until a new test is conducted and compliance is demonstrated at a higher rate. Operation may be increased in this manner in successive steps to gain the maximum rate of 17 tons per hour, however, operation at a higher rate is allowed for no more than fifteen consecutive days to test and demonstrate compliance at a higher rate (see Specific Condition 9 of the permit).

Quarterly testing for total fluorides using EPA Method 13B will be required during the first year as a synthetic minor source followed by annual testing thereafter (testing to gain a higher production rate is a separate requirement from quarterly compliance testing). If the 0.66 lb F/hr limit is not achieved at all levels of production, Kiln C will revert back to a PSD source and a new BACT Determination may be required.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

## *Particulate Matter/Particulate Matter less than or equal to 10 micrometers (PM/PM<sub>10</sub>)*

PM is a PSD regulated pollutant with a significance threshold of 25 TPY. PM<sub>10</sub> is a PSD regulated pollutant with a significance threshold of 15 TPY. These emissions must be maintained below the threshold for Kiln C to qualify as a synthetic minor source. The March 2004 tests measured particulate sizes in the stack gas by using a cascade impactor with the particle size ranges determined in the lab by a Coulter Counter. PM<sub>10</sub> accounted for 54 to 63 percent of total particulate matter, averaging approximately 4.34 TPY of the total 7.42 TPY.

## *Metals*

Other pollutants present in the Kiln C exhaust gases include chromium, cadmium, mercury, and nickel. Compounds of these metals are classified as hazardous air pollutants under Rule 62-210.200, F.A.C. Testing carried out by the applicant on April 3 and 4, 2000 showed that chromium emissions averaged 27.85 gm/hr (0.27 TPY), cadmium averaged 9.39 gm/hr (0.09 TPY), mercury averaged 0.45 gm/hr (0.004 TPY), while nickel averaged 0.15 gm/hr (0.001 TPY) for a total of 0.37 TPY at an average production rate of 11.3 TPH. Although not significant enough to warrant individual emission limits, these emissions in the aggregate, to the extent that they exist as compounds rather than as pure elemental metals, count toward the major facility MACT status threshold of 25 TPY.

The following table contains emission limits for this synthetic minor construction permit:

POLLUTANT	EMISSION LIMIT	LIMIT BASIS
F ( Stack)	0.66 lb/hr <sup>(1)</sup> and 2.90 TPY	Synthetic minor status
PM/PM <sub>10</sub> (Stack)	5.68 lb/hr <sup>(2)</sup> and 24.90 TPY	Synthetic minor status
PM <sub>10</sub> (Stack)	3.40 lb/hr <sup>(3)</sup> and 14.90 TPY	Synthetic minor status
SO <sub>2</sub> (Stack)	9.11 lb/hr and 39.90 TPY	Synthetic minor status
NOx (Stack)	9.11 lb/hr and 39.90 TPY	Synthetic minor status
VE (Stack)	15% opacity	Test Data
VE (Baghouses)	5% opacity	Test Data

<sup>(1)</sup> 2.90 tons/yr x 2000 lb/ton x yr/8760 hr = 0.66 lb/hr (a new PSD permit will be required if this limit not met)

<sup>(2)</sup> includes PM<sub>10</sub>, i.e., if PM<sub>10</sub> = 3.40 lb/hr, PM can be no more than 5.68 – 3.40 = 2.28 lb hr

<sup>(3)</sup> Based on March 10-11, 2004 test data, PM<sub>10</sub> accounts for 50-60 percent of PM/PM<sub>10</sub>

### III. RULE APPLICABILITY

The proposed project is subject to the applicable provisions of Chapter 403, Florida Statutes, Chapter 62-4, Florida Administrative Code (F.A.C.). This facility is located in an area designated attainment for all criteria pollutants in accordance with F.A.C. Rule 62-275.400.

The emission units affected by this permit shall comply with all applicable provisions of the Florida Administrative Code and, specifically, the following Chapters and Rules:

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Chapter 62-4	Permits.
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.800	Federal Regulations Adopted By Reference
Rule 62-210.200	Definitions
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention
Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Chapter 62-213	Operation Permits for Major Sources of Air Pollution
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-297.310	General Test Requirements
Rule 62-297.400	Compliance Test Methods

### V. CONCLUSION

Based on the foregoing technical evaluation, the Department has made a preliminary determination that the proposed project will comply with all applicable state air pollution regulations provided that PSD-significant emission increases are avoided.

*Reviewed and Approved by James K. Pennington, P.E.  
Administrator, North Permitting Section*

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete Restricted Delivery if desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p><i>Bill Hazelton</i></p>
<p>1. Article Addressed to:</p> <p>Mr. E.M. Newberg Vice President and General Manager Concentrated Phosphate Operations IMC Phosphate Company Post Office Box 2000 Mulberry, Florida 33860</p>	<p>B. Received by (Printed Name) <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Bill Hazelton</p> <p>C. Date of Delivery</p> <p>8-7-04</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If YES, enter delivery address below:</p>
<p>2. Article Number 7000 1670 0013 3109 8536 (Transfer from service label)</p>	<p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>
<p>PS Form 3811, August 2001</p>	<p>Domestic Return Receipt <span style="float: right;">102595-02-M-1540</span></p>

9559 1670 0013 3109 8536

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Mr. E.M. Newberg

IMC Phosphates Company

Post Office Box 2000

Mulberry, Florida 33860

PS Form 3800, May 2000 See Reverse for Instructions



**IMC**

RECEIVED

JUN 10 2004

BUREAU OF AIR REGULATION

June 10, 2004

Ms. Trina Vielhauer  
Chief, Bureau of Air Regulation  
Bureau of Air Regulation  
Florida Department of  
Environmental Protection  
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 Ms. Vielhauer:

Pursuant to discussion between our company representatives and your staff, today in Tallahassee, IMC requests an extension of the expiration date of the Multifos C Kiln Construction Permit No. 1050059-024-AC at New Wales. The extension would be from June 30, 2004 to August 31, 2004.

Thank you for your attention to this matter. If you have any questions, please contact P.A. Steadham at 863/428-7106.

Sincerely,

M. A. Daigle  
Vice President, Florida Concentrates

cc: Doug Beason  
Michael Cooke  
G. J. Kissel, FDEP Tampa  
John Reynolds



Certified Mail 7002 2030 0002 3546 4631  
Return Receipt Requested

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

February 5, 2004

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

RECEIVED

FEB 09 2004

BUREAU OF AIR REGULATION

**Re: Proposed Compliance Test Protocol  
Multifos Plant - Kiln C  
No. 1050059-024-AC, PSD-FL-244  
IMC Phosphates MP Inc. (New Wales)**

Dear Mr. Reynolds:

The following protocol is proposed for C Kiln testing as discussed with C. D. Turley, Dr. John Koogler and Pradeep Raval by phone on January 29, 2004. The testing will consist of an initial compliance test for particulate matter and fluoride emissions and additional particle sizing samples.

**Compliance Test:**

- Combined Methods 5 and 13b in the final stack.
- Although not required for regular compliance testing, a simultaneous Method 13B fluoride sample will be attempted in the quench tower inlet prior to introduction of process water into the system and downstream of the once-through water injection points. If necessary, the sample will be collected with an inverted nozzle to prevent overloading of the sample train due to the large quantities of water present in the gas stream. This will be a grab type sample.
- Another concurrent fluoride sample will be collected between the experimental venturi throats and the crossflow scrubber demist section. This will be a grab type sample.

**Particle Sizing:**

- Concurrently, particle size distribution tests of 30 minutes duration shall be conducted at the same sample points. The upstream samples will be collected directly in Greenberg-Smith impingers filled with water. The sample particle sizes and amounts will be reported according to fraction size range and will be determined using an appropriate

John Reynolds, P.E.  
Florida Department of Environmental Protection  
February 5, 2004  
Page 2

method such as a Coulter Counter. These results will be the insoluble material in the gas stream. Dr. Koogler has confirmed that it is not feasible to attempt sizing of materials collected on a filter.

- The upstream particle size sample locations are at the inlet to the quench tower and in the transition between the crossflow scrubber demist section and the venturi location.
- An Andersen impactor capable of capturing at least eight size fractions will be used to determine the particle size distribution in the final stack.

The sampling will begin on March 10, 2004 and continue into the next day if necessary. The sampling will begin with the compliance test and fluoride sampling. The particle size sampling will follow this as quickly as possible.

Thank you for your attention and assistance in this matter. Please feel free to contact me if you have any questions or need additional information, or contact C. D. Turley at 863.428.7153.

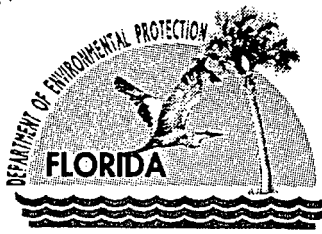
Sincerely,



P. A. Steadham  
Environmental Manager  
Florida Concentrates

PAS:jp\multi0104b

cc: Dr. John Koogler, Koogler & Associates  
M. A. Daigle, IMC  
J. R. Gruber, IMC  
W. E. Schroeder, FDEP-Tampa



Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

January 15, 2004

David B. Struhs  
Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. M. A. Daigle  
Vice President, Florida Concentrates  
IMC Phosphates Company  
P.O. Box 2000  
Mulberry, Florida 33860-1100

Re: DEP File No. 1050059-033-AC (PSD-FL-244) – Multifos Kiln C

Dear Mr. Daigle:

Since the equivalent of the BACT control equipment originally anticipated now exists through recent improvements, the Department will extend the above permit so that a Revised BACT Determination can be issued establishing achievable fluoride emission limits for Kiln C. A Revised BACT is appropriate because neither IMC nor the Department anticipated the difficulty in controlling fluoride emissions from this kiln. This is preferable to the alternate strategy of issuing a separate minor source permit for Kiln C since extensive monitoring would be necessary to ensure that fluoride emissions do not exceed the PSD threshold of 3 tons per year. To accomplish the revision, IMC has indicated its intention to conduct an additional test on Kiln C within the next few weeks and to provide, on an informal basis, any additional and reasonable information the Department needs in order to issue a Revised BACT Determination/PSD Construction Permit by June 30. Accordingly, the expiration date of the permit is hereby extended through **June 30, 2004**.

In the event the applicability of MACT has not been finalized through the Title V permit by June 30, 2004, the PSD modification will include the following language:

“The New Wales Operations Facility is also classified as a “Major Source” per 40 CFR 63.2, Definitions [adopted and incorporated by reference by the Department at Paragraph 62-204.800(11)(d)] because it consists of a group of stationary sources located within a contiguous area and under common control that emit or have the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. If additional testing and modeling demonstrate that the facility is not and has never been a major source of hazardous air pollutants since at least June 10, 2002, the permittee shall have the right to request that the Department revise the permit to remove those requirements and conditions that are applicable because the facility is a major source of hazardous air pollutants as determined by the Department.”

A copy of this letter shall be part of the permitting record. This permitting action is issued pursuant to Chapter 403, Florida Statutes.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be

*“More Protection, Less Process”*

*Printed on recycled paper.*



filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

This permitting decision is final and effective on the date filed with the clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this order will not be effective until further order of the Department.

Any party to this permitting decision (order) has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



Trina L. Vielhauer, Chief  
Bureau of Air Regulation

#### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT EXTENSION was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 1/15/04 to the person(s) listed:

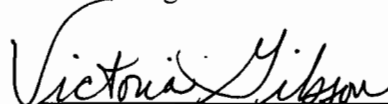
Mr. M. A. Daigle, IMC\*  
Dr. John B. Koogler, K&A  
Mr. C. David Turley, IMC

Mr. Gerry Kissel, DEP-SWD  
Mr. Greg Worley, EPA  
Mr. John Bunyak, NPS

Clerk Stamp

#### **FILING AND ACKNOWLEDGMENT FILED,**

on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

  
(Clerk)

1/15/2004  
(Date)

RECEIVED

JAN 12 2004



Certified Mail 7002 0460 0002 8878 7421  
Return Receipt Requested

BUREAU OF AIR REGULATION

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

January 7, 2004

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

**Re: Construction Permit Application  
Multifos Plant - Kiln C  
No. 1050059-024-AC, PSD-FL-244  
IMC Phosphates MP Inc. (New Wales)**

Dear Mr. Pennington:

The following information is submitted based on the correspondence from Mr. A. A. Linero received by Phil Steadham on October 24, 2003.

- Please provide updated information on NOx emissions. Although the original permit did acknowledge NOx emissions marginally greater than 40 tons per year, a final BACT value has not been determined because the kiln has not been tested at relatively high production rates. The new application still anticipates operating at a higher rate than the recent historical operation of Kiln C. The possibility of substantial NOx formation (thermal NOx) exists based on the temperatures required to defluorinate the raw materials. The alternative given in the October 16 letter to limit fuel usage would make sense for controlling fuel-related NOx but not thermal NOx.**

The NOx emissions for C Kiln are as follows:

Test Date	Mixed Feed TPH	Natural Gas mmBtu/hr	scfm	NOx lb/hr
07/11/00	4.1	31.2	14579	6.3
09/19/02	8.9	41.8	11520	8.2
11/14/03	11.0	44.2	11776	5.8
			Average:	6.7

The preliminary testing that was done on A and B Kilns during the permit review period showed the following emissions. The measurement was made in the single stack serving both kilns and the plant equipment scrubber.

Test Date	Mixed Feed TPH	Natural Gas mmBtu/hr	scfm	NOx lb/hr
10/20/98	23.0	96.0	48617	28.6
11/10/98	23.0	96.0	45203	27.4
01/12/99	22.0	98.4	52070	30.6
Average per kiln	11.3	48.4	***	14.4

**2. Please describe the features incorporated into the kiln design that control NOx.**

The defluorination process requires the addition of steam to the kiln. This steam may act to quench NOx formation.

**3. Please provide a rough overall material balance regarding the fluorides that enter the process and their fate. This would include the fluorides in the raw materials entering the Multifos process, incoming and outgoing scrubber water, etc. Estimate percent removal by the control equipment.**

Based on a testing series conducted from 10/14 to 10/23 after the installation of the current venturi configuration, a mass balance based analysis was used to estimate the scrubber system efficiencies.

**C Kiln estimated scrubber efficiencies:**

10.7	Avg Feed TPH
6.0%	Feed moisture
3%	Rock F (approximately 70% of the feed)
0.08%	Product F
411	lb/hr F from kiln to scrubbers
	Estimated lb/hr F from crossflow scrubber (0.9 lb/hr, 5 year average for
1	A+B/2)
99.8%	apparent efficiency
0.27	lb/hr F average stack emission for period
73%	apparent efficiency for OSO scrubber

**4. Calculation of subsequent annual Fluoride emissions since previous submittal. (This item was added based on your subsequent phone conversation with Phil Steadham.)**

This extends the table submitted 01/15/03 to Syed Arif:

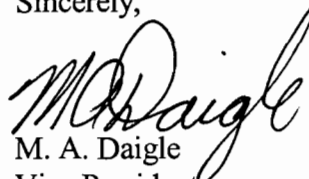
01/09/03	hours	lb/hr	tons	
07/03/03	4053	0.65	1.31	Test runs (6) to review de minimus
08/22/03	778	0.41	0.16	Initial venturi test runs (9)
10/23/03	1106	0.29	0.16	Final venturi configuration test runs (27)

**5. Descriptions of the burners installed and any low NOx properties. (Regarding the November 14 inspection by Bob Soich.)**

The current C Kiln burner configuration is the same as that used in Kilns A and B. Originally, the kiln burners were for oil. Pillard design burners were then installed after 1980 to accommodate both oil and gas. The C Kiln burner was changed to this design because of flame configuration problems with the one purchased for C Kiln. The present burner would not be considered to have any "low NOx" properties due to design.

Thank you for your attention and assistance in this matter. Please feel free to contact me if you have any questions or need additional information, or contact C. D. Turley at 863.428.7153 or P. A. Steadham at 863.428.7106.

Sincerely,

  
M. A. Daigle  
Vice President  
Florida Concentrates

J. Pennington, P.E.  
Florida Department of Environmental Protection  
January 7, 2004  
Page 4

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cc : P. A. Steadham, IMC  
J. R. Gruber, IMC  
P. Raval, Koogler & Associates  
A. A. Linero, FDEP-Tallahassee  
J. Reynolds, FDEP-Tallahassee  
G. Kissel, FDEP-Tampa  
*B. Worley, EPA*

## 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.

M. A. Daigle  
(Signature of Responsible Official)

1/8/04  
(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.

Charles David Turley

1/8/04  
(Date)

