

FedEx 836531849903

IMC Phosphates Company
P.O. Box 2000

Mulberry, Florida 33860-1100 863.428.2500

September 25, 2003

RECEIVED

Mr. A. L. Linero, P.E. Florida Department of Environmental Protection Twin Towers Office Building 2600 Blair Stone Road Tallahassee, FL 32399-2400 SEP 26 2003

BUREAU OF AIR REGULATION

**Re:** Construction Permit Application

Multifos Plant - Kiln C

No. 1050059-024-AC, PSD-FL-244 10 5 005 9 - 044-みと IMC Phosphates MP Inc. (New Wales) PSD-FL-244

Dear Mr. Linero:

Enclosed you will find our application and three copies submitted to the Department for the purpose of establishing an allowable fluoride emission limit of less than 3 tons/year. Compliance with this new limit will be accomplished by the installation of a venturi throat sections with an area of 0.9 sq. ft. between the packed crossflow scrubber and the packed SO<sub>2</sub> scrubber. The Six-Sigma team designed a multi-factor experiment to test this venturi configuration. The results are included in the application.

Concurrently with this application, IMC withdraws the previous application to modify the fluoride limit filed on January 30, 2001. These actions will result in compliance status for C Kiln and allow the Title V permit renewal processing to include this unit.

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

Vice Presiden

Florida Concentrates

MAD:jp\multi091903 Enclosures A. L. Linero, P.E. Florida Department of Environmental Protection September 25, 2003 Page 2

cc: without enclosures unless noted
W. C. Tims, Jr., IMC
P. A. Steadham, IMC
J. R. Gruber, IMC
Pradeep Raval, Koogler & Associates
Trina L. Vielhauer, FDEP
Syed Arif, FDEP
Jerry Kissel, FDEP – with enclosures
D, Wally, EPA



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



7002 0460 0002 8878 6905



Trina L. Vielhauer, Chief FDEP - Bureau of Air Regulation Twin Towers Office Building 2600 Blair Stone Road Tallahassee, FL 32399-2400

**Return Receipt Requested** 



# Department of Environmental Protection CEIVED

**Division of Air Resources Management** 

SEP 26 2003

### APPLICATION FOR AIR PERMIT - TITLE V SOURCE REGULATION

See Instructions for Form No. 62-210.900(1)

#### I. APPLICATION INFORMATION

#### Identification of Facility

| 1. | Facility Owner/Company Name:      | IMC Phos  | phat | tes MP Inc.                  |
|----|-----------------------------------|-----------|------|------------------------------|
| 2. | Site Name: IMC New Wales          |           |      |                              |
| 3. | Facility Identification Number: 1 | 050059    |      | [ ] Unknown                  |
| 4. | Facility Location:                |           |      |                              |
|    | Street Address or Other Locator:  | 3095 High | way  | 640                          |
|    | City: Mulberry                    | County: P | olk  | Zip Code: 33860              |
| 5. | Relocatable Facility?             |           | 6.   | Existing Permitted Facility? |
| ,  | [ ] Yes [X] No                    |           | 1    | [X] Yes [ ] No               |

#### **Application Contact**

| 1. | Name and Title of Application Contact  | t: Pradeep Raval | , Consultant           |  |  |  |
|----|--|------------------|------------------------|--|--|--|
| 2. | Application Contact Mailing Address: Organization/Firm: Koogler & Associates |                  |                        |  |  |  |
|    | Street Address: 4014 NW 13th Street  |                  | ·                      |  |  |  |
|    | City: Gainesville  | State: FL        | Zip Code: <b>32609</b> |  |  |  |
| 3. | Application Contact Telephone Number   | ers:             |                        |  |  |  |
|    | Telephone: (352) 377-5822  | Fax: (3          | 352) 377-7158          |  |  |  |

#### **Application Processing Information (DEP Use)**

| 1. Date of Receipt of Application: | 9-24-03         |
|------------------------------------|-----------------|
| 2. Permit Number:                  | 105 0059-044-AC |
| 3. PSD Number (if applicable):     | PSD-FL-244B     |
| 4. Siting Number (if applicable):  |                 |

1

DEP Form No. 62-210.900(1) - Form

#### **Purpose of Application**

#### **Air Operation Permit Application**

| Tł | his Application for Air Permit is submitted to obtain: (Check one)   |
|----|--|
| [  | ] Initial Title V air operation permit for an existing facility which is classified as a Title V source.   |
| [  | Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.  |
|    | Current construction permit number:  |
| [  | ] Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.  |
|    | Current construction permit number:  |
|    | Operation permit number to be revised:   |
| [X | [Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.) |
|    | Operation permit number to be revised/corrected: TV Permit renewal   |
| [  | ] Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.                |
|    | Operation permit number to be revised:   |
|    | Reason for revision:   |
| Ai | r Construction Permit Application  |
| Th | nis Application for Air Permit is submitted to obtain: (Check one)   |
| [X | Air construction permit to construct or modify one or more emissions units.  |
| [  | ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.  |
| [  | ] Air construction permit for one or more existing, but unpermitted, emissions units.  |

2

#### Owner/Authorized Representative or Responsible Official

| 1.  | Name and Title of Owner/Authorized Representative or  | Responsible Official:   |
|-----|---|---|
|     | M. A. Daigle, Vice President Florida Concentrates   |   |
| 2.  | Owner/Authorized Representative or Responsible Offic  | ial Mailing Address:  |
|     | Organization/Firm: IMC Phosphates MP Inc.   |   |
|     | Street Address: P.O. Box 2000   |   |
|     | City: MulberryState: FL Zip Code: 338   |   |
| 3.  | Owner/Authorized Representative or Responsible Offic  | ial Telephone Numbers:  |
|     | Telephone: (863) 428-2500 Fax: (  | 863 ) 428 _ 7190  |
| 4.  | Owner/Authorized Representative or Responsible Offic  | ial Statement:  |
|     | I, the undersigned, am the owner or authorized represent the responsible official (check here [X], if so) of the Tapplication, whichever is applicable. I hereby certify, be formed after reasonable inquiry, that the statements may accurate and complete and that, to the best of my knowled reported in this application are based upon reasonable emissions. The air pollutant emissions units and air point in this application will be operated and maintained so a standards for control of air pollutant emissions found in and rules of the Department of Environmental Protection understand that a permit, if granted by the Department, authorization from the Department, and I will promptly legal transfer of any permitted emissions unit. | itle V source addressed in this ased on information and belief de in this application are true, edge, any estimates of emissions techniques for calculating llution control equipment described as to comply with all applicable in the statutes of the State of Florida on and revisions thereof. I cannot be transferred without notify the Department upon sale or |
|     | Signature   | Date  |
|     | <u>-</u>  |   |
| * A | Attach letter of authorization if not currently on file.  |   |

#### Professional Engineer Certification

| 1. | Professional Eng.<br>Registration Nun |   | B. Koogler, Ph.D., I<br>25 | P.E.            |  |
|----|---------------------------------------|---|----------------------------|-----------------|--|
| 2. | Organization/Firm                     | ineer Mailing Addr<br>n: Koogler & Asso<br>4014 NW 13th |                            |                 |  |
| 1  | City:                                 | Gainesville   | State: FL                  | Zip Code: 32609 |  |
| 3. | Professional Eng                      | ineer Telephone Nu                                      | mbers:                     |                 |  |
| 1  | Telephone: (35                        | 2) 377 - 5822   | Fax: (3                    | 352) 377 - 7158 |  |

DEP Form No. 62-210.900(1) - Form Effective: 2/11/99

#### **BEST AVAILABLE COPY**

#### 4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein\*, that:

- (1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and
- (2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [ ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [X], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature 5

Date

Attach any exception to certification statement.

DEP Form No. 62-210.900(1) - Form

#### **Scope of Application**

| Emissions<br>Unit ID | Description of Emissions Unit | Permit<br>Type | Processing<br>Fee<br>0 |  |
|----------------------|-------------------------------|----------------|------------------------|--|
| 074                  | Multifos C Kiln               | AC1F           |                        |  |
|                      |                               |                |                        |  |
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#### **Application Processing Fee**

| Check one: [ | 1 | Attached - Amount: \$ | [X] | Not Applicable     |
|--------------|---|-----------------------|-----|--------------------|
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#### Construction/Modification Information

| Constituction/Wouldcarton Information   | •   |
|---|---|
| 1. Description of Proposed Project or Alterations:  |   |
| In accordance with discussions with FDEP staff, IMC he permit revision of the fluoride emission limit for Multifo as synthetic non-PSD with regards to fluoride emissions, requested are changes to the processing rate (reduced free visble emissions limitation from 15 to 20 percent opacity | s Kiln C to establish the project<br>at < 3 tpy emission rate. Also,<br>om 25 to 17 tph feed rate and |
| The information submitted herein is limited to the reque  | ested changes.  |
|   |   |
|   |   |
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|   |   |
| 2. Projected or Actual Date of Commencement of Construc   | rtion: NA   |
| •   | 5001. 142 <b>x</b>  |
| 3. Projected Date of Completion of Construction: NA   |   |
| Application Comment   |   |
| The application is presented in the format previously dis<br>information submitted herein is limited to the requested   |   |
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DEP Form No. 62-210.900(1) - Form Effective: 2/11/99

#### II. FACILITY INFORMATION

#### A. GENERAL FACILITY INFORMATION

#### Facility Location and Type

| 1. | Facility UTM Coor    | dinates:            |         |                  |                     |
|----|----------------------|---------------------|---------|------------------|---------------------|
|    | Zone: 17             | East                | (km): 3 | <b>96.6</b> Nor  | th (km): 3078.9     |
| 2. | Facility Latitude/Lo | ongitude: NA        |         |                  |                     |
|    | Latitude (DD/MM/     | SS):                |         | Longitude (DD/MI | M/SS):              |
| 3. | Governmental         | 4. Facility Status  | s 5     | . Facility Major | 6. Facility SIC(s): |
|    | Facility Code:       | Code:               |         | Group SIC Code:  |                     |
|    | 0                    | A                   | 2       | 8                | 2874                |
| L  |                      |                     |         |                  |                     |
| 7. | Facility Comment (   | limit to 500 charac | ters):  |                  | ,                   |
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|    |                      | •                   |         |                  |                     |
|    | ,                    |                     |         |                  |                     |

#### **Facility Contact**

| 1. | Name and Title of Facility Contact:<br>P.A. Steadham, Manager Environm                                    | nental S | ervices – F | lorid | la Concentrates | ··· <b>-</b> . |  |
|----|---|----------|-------------|-------|-----------------|----------------|--|
| 2. | Facility Contact Mailing Address: Organization/Firm: IMC Phosphates MP Inc. Street Address: P.O. Box 2000 |          |             |       |                 |                |  |
|    | City: Mulberry  | State    | FL          |       | Zip Code: 33860 |                |  |
| 3. | Facility Contact Telephone Numbers: Telephone: Telephone: (863) 428-                                      |          | Fax: (      | )     | <u>-</u>        |                |  |

DEP Form No. 62-210.900(1) - Form

#### Facility Regulatory Classifications

#### Check all that apply:

| Check an that apply.  | *                    |           |   |  |  |  |  |  |
|---|----------------------|-----------|---|--|--|--|--|--|
| 1. [ ] Small Business Stationary Source?                                      | [                    | ] Unknown | , |  |  |  |  |  |
| 2. [X] Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)? |                      |           |   |  |  |  |  |  |
| 3. [ ] Synthetic Minor Source of Pollutants Other than HAPs?                  |                      |           |   |  |  |  |  |  |
| 4. [ ] Major Source of Hazardous Air Pollu                                    | tants (HAPs)?        |           |   |  |  |  |  |  |
| 5. [ ] Synthetic Minor Source of HAPs?  |                      |           |   |  |  |  |  |  |
| 6. [X] One or More Emissions Units Subject                                    | to NSPS?             |           | - |  |  |  |  |  |
| 7. [X] One or More Emission Units Subject to                                  | NESHAP?              |           |   |  |  |  |  |  |
| 8. [ ] Title V Source by EPA Designation?                                     |                      |           |   |  |  |  |  |  |
| 9. Facility Regulatory Classifications Comme                                  | nt (limit to 200 cha | racters): |   |  |  |  |  |  |
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| List of Applicable Regulations  |                      |           |   |  |  |  |  |  |
| No change   |                      |           |   |  |  |  |  |  |
|   |                      | -         |   |  |  |  |  |  |

| No change |  |
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#### **B. FACILITY POLLUTANTS**

#### List of Pollutants Emitted

| 1. Pollutant |          | 3. Requested E | missions Cap                          | 4. Basis for     | 5. Pollutant |
|--------------|----------|----------------|---------------------------------------|------------------|--------------|
| Emitted      | Classif. | lb/hour        | tons/year                             | Emissions<br>Cap | Comment      |
| PM/PM10      | A        |                |                                       |                  |              |
| SO2          | A        |                |                                       |                  |              |
| NOX          | A        | ·              |                                       |                  |              |
| SAM          | A        |                |                                       |                  |              |
| FL           | A        |                |                                       |                  |              |
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#### C. FACILITY SUPPLEMENTAL INFORMATION

#### **Supplemental Requirements**

| 1  | Area Map Showing Facility Location:                                |       |      |               |             |                  |   |
|----|--|-------|------|---------------|-------------|------------------|---|
|    | [ ] Attached, Document ID:   | _ [   | ]    | Not Applicab  | le [X]      | Waiver Requested |   |
| 2. | Facility Plot Plan:  |       |      |               |             |                  |   |
|    | [ ] Attached, Document ID:   | _[    | ]    | Not Applicab  | le [X]      | Waiver Requested |   |
| 3. | Process Flow Diagram(s):   |       |      |               |             |                  |   |
|    | [ ] Attached, Document ID:   | _ [   | ]    | Not Applicab  | le [X]      | Waiver Requested |   |
| 4. | Precautions to Prevent Emissions of Un                             | ncon  | fine | d Particulate | Matter:     |                  |   |
|    | [ ] Attached, Document ID:   | _ [   | ]    | Not Applicab  | le [X]      | Waiver Requested |   |
| 5. | Fugitive Emissions Identification:                                 |       |      |               |             |                  |   |
|    | [ ] Attached, Document ID:   | _ [   | ]    | Not Applicab  | le [X]      | Waiver Requested |   |
| 6. | Supplemental Information for Construction                          | ction | Per  | mit Applicati | on:         |                  |   |
|    | [X] Attached, Document ID: Att. 1                                  | [     | ]    | Not Applicab  | le          |                  |   |
|    | Supplemental Requirements Comment are no changes from the informat |       | subi | mitted to FD  | E <b>P.</b> |                  |   |
|    | 8  |       |      |               |             |                  |   |
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#### Additional Supplemental Requirements for Title V Air Operation Permit Applications

| 8. List of Proposed Insignificant Activities:                                   |
|---|
| [ ] Attached, Document ID:[X] Not Applicable                                    |
|   |
| 9. List of Equipment/Activities Regulated under Title VI:                       |
| [ ] Attached, Document ID:  |
| [ ] Equipment/Activities On site but Not Required to be Individually Listed     |
| [X ] Not Applicable   |
| 10. Alternative Methods of Operation:   |
| [ ] Attached, Document ID:[X] Not Applicable                                    |
| 11. Alternative Modes of Operation (Emissions Trading):                         |
| [ ] Attached, Document ID:[X] Not Applicable                                    |
| 12. Identification of Additional Applicable Requirements:                       |
| [ ] Attached, Document ID: [X] Not Applicable                                   |
| 13. Risk Management Plan Verification:  |
| [ ] Plan previously submitted to Chemical Emergency Preparedness and Prevention |
| Office (CEPPO). Verification of submittal attached (Document ID:) or            |
| previously submitted to DEP (Date and DEP Office:)                              |
| [ ] Plan to be submitted to CEPPO (Date required:)                              |
| [X] Not Applicable  |
| 14. Compliance Report and Plan:   |
| [ ] Attached, Document ID: [X] Not Applicable                                   |
| 15. Compliance Certification (Hard-copy Required):                              |
| [ ] Attached, Document ID: [X] Not Applicable                                   |

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| <b>Emissions Unit Information Section</b> | 1 | of 1 |  |
|---|---|------|--|
|---|---|------|--|

#### III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

### A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

#### **Emissions Unit Description and Status**

|    |  |                                  |  | _                           |  |  |
|----|--|----------------------------------|--|-----------------------------|--|--|
| 1. | 1. Type of Emissions Unit Addressed in This Section: (Check one)   |                                  |  |                             |  |  |
| [X | X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent). |                                  |  |                             |  |  |
| [  | ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.    |                                  |  |                             |  |  |
| [  | -  |                                  | n addresses, as a single emis<br>s which produce fugitive em | -                           |  |  |
| 2. | Regulated or Unr   | egulated Emissions Unit          | ? (Check one)  |                             |  |  |
| [X | The emissions un<br>emissions unit.  | it addressed in this Emis        | sions Unit Information Secti                                 | on is a regulated           |  |  |
| [  | The emissions unit.  | unit addressed in this Em        | nissions Unit Information Sec                                | ction is an unregulated     |  |  |
|    | Description of Enultifos Kiln C  | nissions Unit Addressed          | in This Section (limit to 60 o                               | characters):                |  |  |
| 4. | Emissions Unit Io<br>ID: 074   | dentification Number:            |  | [ ] No ID<br>[ ] ID Unknown |  |  |
| 5. | Emissions Unit<br>Status Code: C   | 6. Initial Startup<br>Date: 1999 | 7. Emissions Unit Major<br>Group SIC Code: 28                | 8. Acid Rain Unit?          |  |  |
| 9. | Emissions Unit C   | omment: (Limit to 500 C          | Characters)  |                             |  |  |
|    |  |                                  |  |                             |  |  |
|    |  |                                  |  |                             |  |  |

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DEP Form No. 62-210.900(1) - Form

| Emissions Unit Control Equipment   | •             |                    |
|--|---------------|--------------------|
| 1. Control Equipment/Method Description (Lin<br>Packed scrubbers with a venturi throat section |               | levice or method): |
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| 2. Control Device or Method Code(s): 013   |               |                    |
| 2. Control Device of Method Code(s). 013   |               |                    |
| Emissions Unit Details   |               |                    |
| 1. Package Unit: NA  |               |                    |
| Manufacturer:  | Model Number: |                    |
| 2. Generator Nameplate Rating:   | MW            |                    |
| 3. Incinerator Information:  |               | OF:                |
| Dwell Temperature: Dwell Time:   | ·             | °F<br>seconds      |
| Incinerator Afterburner Temperature:   |               | °F                 |
|  |               |                    |

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Emissions Unit Information Section \_\_\_1\_\_ of \_\_1\_\_

| Emissions | Unit | Informa | tion | Section | 1 | of | 1 |
|-----------|------|---------|------|---------|---|----|---|
|           |      |         |      |         |   |    |   |

# B. EMISSIONS UNIT CAPACITY INFORMATION (Regulated Emissions Units Only)

#### **Emissions Unit Operating Capacity and Schedule**

| 1. | Maximum Heat Input Rate:      | 56                                | mmBtu/hr        |
|----|-------------------------------|-----------------------------------|-----------------|
| 2. | Maximum Incineration Rate:    | lb/hr                             | tons/day        |
| 3. | Maximum Process or Throughp   | out Rate: 17 tph feed input (new  | kiln alone)     |
| 4. | Maximum Production Rate:      |                                   |                 |
| 5. | Requested Maximum Operating   | Schedule:                         | ·               |
|    |                               | 24 hours/day                      | 7 days/week     |
|    |                               | 52 weeks/year                     | 8760 hours/year |
| 6. | Operating Capacity/Schedule C | omment (limit to 200 characters): |                 |
|    |                               |                                   | •               |
|    |                               |                                   |                 |
|    |                               |                                   |                 |
|    |                               |                                   | • •             |
|    | 2                             |                                   | •               |
|    |                               |                                   | ,               |
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|    |                               |                                   | ·               |
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|    |                               |                                   |                 |
|    |                               |                                   |                 |

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| <b>Emissions Un</b> | t Informa | tion Section | 1 1 | of | 1 |
|---------------------|-----------|--------------|-----|----|---|
|---------------------|-----------|--------------|-----|----|---|

#### C. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

#### List of Applicable Regulations

| No change  |   |
|------------|---|
| 140 change |   |
|            |   |
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| <b>Emissions</b> | Unit | Information Section | 1 | of | 1 |  |
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|                  |      |                     |   |    |   |  |

# D. EMISSION POINT (STACK/VENT) INFORMATION (Regulated Emissions Units Only)

#### **Emission Point Description and Type**

| Identification of Point on Plant Plan |                           |                      | oint Type Code:     |      |  |  |
|---|---------------------------|----------------------|---------------------|------|--|--|
| <ol> <li>Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to<br/>100 characters per point):</li> </ol>   |                           |                      |                     |      |  |  |
|   |                           |                      |                     |      |  |  |
|   |                           |                      |                     |      |  |  |
| 4. ID Numbers or Descriptions   | s of Emission U           | nits with this Emi   | ssion Point in Comn | on:  |  |  |
|   |                           |                      |                     |      |  |  |
| 5. Discharge Type Code:   | 6. Stack Heigh            | ht:<br>feet          | 7. Exit Diameter:   | feet |  |  |
|   |                           |                      |                     | 1001 |  |  |
| 8. Exit Temperature: °F   | 9. Actual Voluments Rate: | umetric Flow         | 10. Water Vapor:    | . %  |  |  |
|   | Naic.                     | acfm                 |                     |      |  |  |
| 11. Maximum Dry Standard Flo  | 12. Nonstack Er           | nission Point Height | :<br>feet           |      |  |  |
| 13. Emission Point UTM Coord  | linates:                  |                      |                     |      |  |  |
| Zone: E   | ast (km):                 | Nort                 | h (km):             | !    |  |  |
| 14. Emission Point Comment (1   | imit to 200 char          | acters):             |                     |      |  |  |
| No changes proposed.  |                           |                      |                     |      |  |  |
|   |                           | ,                    |                     |      |  |  |
|   |                           |                      | •                   |      |  |  |
|   |                           |                      |                     |      |  |  |
|   |                           |                      |                     | •    |  |  |
|   |                           |                      |                     |      |  |  |
|   |                           |                      |                     |      |  |  |

| <b>Emissions</b> | Unit | Infor | mation | Section | 1 | of | 1 |  |
|------------------|------|-------|--------|---------|---|----|---|--|
|------------------|------|-------|--------|---------|---|----|---|--|

#### E. SEGMENT (PROCESS/FUEL) INFORMATION (All Emissions Units)

Segment Description and Rate: Segment 1 of

|   | <del></del>         |                  |                              |
|---|---------------------|------------------|------------------------------|
| 1. Segment Description (Pro             | cess/Fuel Type) (   | limit to 500 ch  | aracters):                   |
| Defluorination                          |                     |                  |                              |
|   | •                   |                  |                              |
|   |                     |                  | •                            |
| ł · · · · · · · · · · · · · · · · · · · | •                   |                  |                              |
|   |                     |                  |                              |
| 2. Source Classification Cod            | e (SCC):            | 3. SCC Units     | : Tons Feed                  |
| 3-05-150-02                             |                     |                  |                              |
| 4. Maximum Hourly Rate:                 | 5. Maximum A        | nnual Rates      | 6. Estimated Annual Activity |
| 1                                       | 1                   | Illiuai Kaic.    | •                            |
| 17 tph                                  | 149,000             |                  | Factor:                      |
| 7. Maximum % Sulfur:                    | 8. Maximum %        | 6 Ash:           | 9. Million Btu per SCC Unit: |
| :                                       |                     |                  |                              |
| 10. Segment Comment (limit              | to 200 characters)  | •                |                              |
| \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \   | ,                   | •                |                              |
| Revised rate, per discussion            | with FDEP.          |                  |                              |
| itterised rate, per diseassion          | WILL EDEL.          |                  |                              |
|   |                     |                  |                              |
|   |                     |                  |                              |
|   |                     |                  |                              |
|   | ·                   |                  | ·                            |
| Segment Description and Ra              |                     |                  |                              |
| 1. Segment Description (Prod            | cess/Fuel Type) (   | (limit to 500 cl | naracters):                  |
|   |                     |                  |                              |
| 1                                       |                     |                  | •                            |
|   |                     |                  | •                            |
|   |                     |                  |                              |
|   |                     |                  |                              |
|   |                     |                  |                              |
| 2. Source Classification Code           | e (SCC):            | 3. SCC Unit      | 6.                           |
| 2. Source classification coul           | . (300).            |                  | <b>~•</b>                    |
| A Marian II and Date                    | J 5 3 4 A           |                  | C Taim and A and A addition  |
| 4. Maximum Hourly Rate:                 | 5. Maximum A        | nnuai Kate:      | 6. Estimated Annual Activity |
|   |                     |                  | Factor:                      |
| 7. Maximum % Sulfur:                    | 8. Maximum %        | Ash:             | 9. Million Btu per SCC Unit: |
|   |                     |                  |                              |
| 10. Segment Comment (limit t            | to 200 characters)  | •                | <u> </u>                     |
| 10. Segment Comment (mint               | 10 200 Characters). | •                |                              |
|   |                     |                  |                              |
| ·                                       |                     |                  |                              |
|   |                     |                  |                              |
|   |                     |                  |                              |
|   |                     |                  |                              |
|   |                     |                  | i i                          |

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| <b>Emissions</b> | Unit | Informat | tion Se | ction | 1 | of | 1 |
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|                  |      |          |         |       |   |    |   |

# F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

| 1. Pollutant Emitted | Primary Control     Device Code | 3. Secondary Control Device Code | 4. Pollutant Regulatory Code |
|----------------------|---------------------------------|----------------------------------|------------------------------|
| FL                   | 013                             |                                  | EL                           |
|                      |                                 |                                  |                              |
|                      |                                 |                                  |                              |
|                      |                                 |                                  |                              |
| !                    |                                 |                                  |                              |
|                      |                                 |                                  |                              |
|                      |                                 |                                  |                              |
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|                      | ·                               |                                  |                              |
|                      |                                 |                                  |                              |
|                      |                                 |                                  |                              |
|                      |                                 |                                  |                              |
|                      |                                 |                                  |                              |
|                      |                                 |                                  |                              |

| <b>Emissions Unit Information Section</b> | 1_ | _ of _ | _1 |
|---|----|--------|----|
| Pollutant Detail Information Page         | 1  | of     | 1  |

# G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

#### Potential/Fugitive Emissions

| 1. Pollutant Emitted: FL                         | 2. Total Percent Efficie              | ency of Control: NA |
|--|---------------------------------------|---------------------|
| 3. Potential Emissions:                          |                                       | 4. Synthetically    |
| lb/hour  | <3 tons/year                          | Limited? [X]        |
| 5. Range of Estimated Fugitive Emissions:        |                                       |                     |
| []1 []2 []3                                      | to to                                 | ns/year             |
| 6. Emission Factor: <3 tpy                       |                                       | 7. Emissions        |
| Reference: Limit                                 |                                       | Method Code: 1      |
| 8. Calculation of Emissions (limit to 600 charac | cters):                               |                     |
| FL < 3 tpy limit.                                |                                       |                     |
|  |                                       |                     |
|  |                                       |                     |
|  |                                       | ·                   |
|  |                                       |                     |
| 9. Pollutant Potential/Fugitive Emissions Comm   | nent (limit to 200 charac             | ters):              |
| · ·  | ,                                     | •                   |
|  |                                       |                     |
| ,  |                                       | •                   |
|  | · · · · · · · · · · · · · · · · · · · | ·                   |
| Allowable Emissions Allowable Emissions          | 1of1                                  |                     |
| 1. Basis for Allowable Emissions Code:           | 2. Future Effective Da                | ite of Allowable    |
|  | Emissions:                            |                     |
| 3. Requested Allowable Emissions and Units:      | 4. Equivalent Allowal                 | ole Emissions:      |
| <3 tpy   | <b>0.68</b> lb/hour, avg.             | <3 tons/year        |
| 5. Method of Compliance (limit to 60 character   | s): EPA Method 13A, 1                 | 3B                  |
|  |                                       |                     |
|  |                                       |                     |
| 6. Allowable Emissions Comment (Desc. of Op      | erating Method) (limit to             | o 200 characters):  |
| Avoid PSD  | •                                     |                     |
|  |                                       |                     |
|  |                                       |                     |
|  |                                       |                     |

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| Emissions | Unit | Inform | ation | Section | 1 | of | 1 |
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|           |      |        |       |         |   |    |   |

### H. VISIBLE EMISSIONS INFORMATION (Only Regulated Emissions Units Subject to a VE Limitation)

| (Only Regulated Emissions C                  | Inits Subject to a VE Limitation)                               |
|--|---|
| Visible Emissions Limitation: Visible Emiss  | ions Limitation1 of1  |
| 1. Visible Emissions Subtype: VE             | 2. Basis for Allowable Opacity:                                 |
|  | [X] Rule [ ] Other  |
| 3. Requested Allowable Opacity:              |   |
| i e e e e e e e e e e e e e e e e e e e      | xceptional Conditions: %  |
| Maximum Period of Excess Opacity Allow       | red: min/hour   |
| 4. Method of Compliance: EPA Method 9        |   |
|  |   |
| 5. Visible Emissions Comment (limit to 200 o | characters): BACT/Stack specifics.                              |
| 1  | •   |
| :  |   |
|  |   |
|  |   |
|  | ONITOR INFORMATION Subject to Continuous Monitoring) Monitor of |
| 1. Parameter Code:                           | 2. Pollutant(s):  |
| 3. CMS Requirement:                          | [ ] Rule [ ] Other  |
| 4. Monitor Information:                      |   |
| Manufacturer:                                |   |
| Model Number:                                | Serial Number:  |
| 5. Installation Date:                        | 6. Performance Specification Test Date:                         |
|  | •   |
| 7. Continuous Monitor Comment (limit to 200  | characters): No changes proposed.                               |
| ,  |   |
|  |   |
|  | •   |
|  |   |
| <u>.</u>                                     |   |
|  |   |

|  | <b>Emissions</b> | Unit | Information | Section | 1 | of | 1 |
|--|------------------|------|-------------|---------|---|----|---|
|--|------------------|------|-------------|---------|---|----|---|

### J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION (Regulated Emissions Units Only)

#### **Supplemental Requirements**

| 1.  | Process Flow Diagram  |
|-----|---|
|     | [X] Attached, Document ID: Flow Diagram [ ] Not Applicable [ ] Waiver Requested |
| 2.  | Fuel Analysis or Specification  |
|     | [ ] Attached, Document ID: [ ] Not Applicable [X ] Waiver Requested             |
| 3.  | Detailed Description of Control Equipment                                       |
|     | [ ] Attached, Document ID: [ ] Not Applicable [X ] Waiver Requested             |
| 4.  | Description of Stack Sampling Facilities  |
|     | [ ] Attached, Document ID: [ ] Not Applicable [X ] Waiver Requested             |
| 5.  | Compliance Test Report  |
|     | [ ] Attached, Document ID:  |
|     | [ ] Previously submitted, Date:   |
|     | [ ] Not Applicable  |
| 6.  | Procedures for Startup and Shutdown   |
|     | [ ] Attached, Document ID: [ ] Not Applicable [ ] Waiver Requested              |
| 7.  | Operation and Maintenance Plan  |
|     | [ ] Attached, Document ID: [ ] Not Applicable [ ] Waiver Requested              |
| 8.  | Supplemental Information for Construction Permit Application                    |
|     | [X] Attached, Document ID: Att. 1. [ ] Not Applicable                           |
| 9.  | Other Information Required by Rule or Statute                                   |
|     | [X] Attached, Document ID: Att. 1. [ ] Not Applicable                           |
| 10. | Supplemental Requirements Comment: See Attachment 1.                            |
|     |   |
|     |   |
|     |   |
|     |   |
|     |   |

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| Emissions | Unit | Information | Section | 1 | of | 1 |  |
|-----------|------|-------------|---------|---|----|---|--|
|           |      |             |         |   |    |   |  |

#### Additional Supplemental Requirements for Title V Air Operation Permit Applications

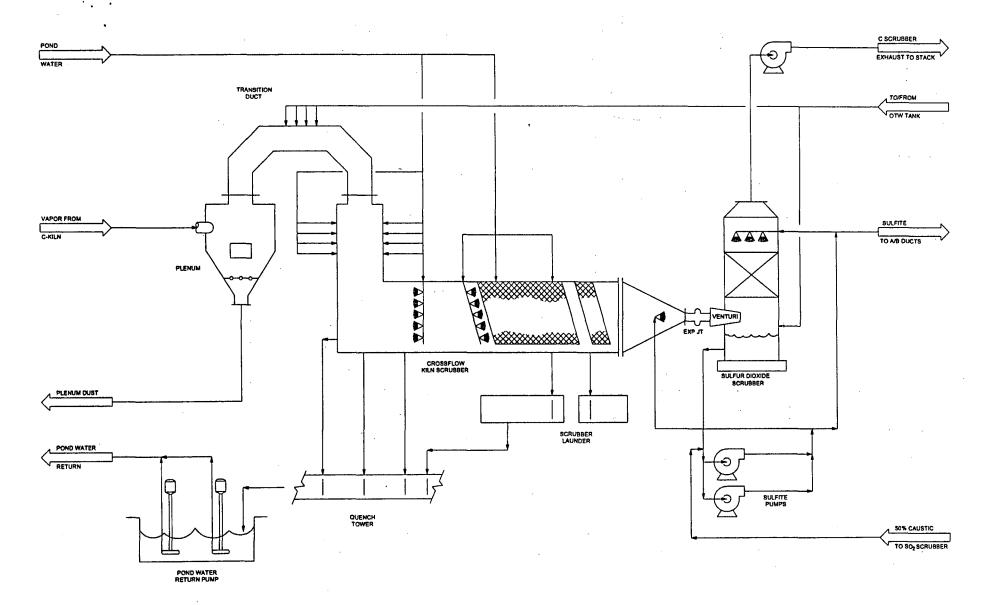
| 11. Alternative Methods of Operation  |  |
|---|--|
| [ ] Attached, Document ID:[X] Not Applicable                                      | •  |
|   |  |
| 12. Alternative Modes of Operation (Emissions Trading)                            |  |
| [ ] Attached, Document ID: [X ] Not Applicable                                    |  |
| 13. Identification of Additional Applicable Requirements                          |  |
| [ ] Attached, Document ID: [X] Not Applicable                                     |  |
| [ ] Muchou, Becament 13 [n ] Met applicable                                       |  |
| 14. Compliance Assurance Monitoring Plan  | · <u>* * * * * * * * * * * * * * * * * * *</u> |
| [ ] Attached, Document ID:[X] Not Applicable                                      |  |
|   |  |
| 15. Acid Rain Part Application (Hard-copy Required)                               |  |
| [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))                         |  |
| Attached, Document ID:  |  |
| [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)                       |  |
| Attached, Document ID:  |  |
| New Unit Exemption (Form No. 62-210.900(1)(a)2.)                                  |  |
| Attached, Document ID:  |  |
| Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)                              |  |
| Attached, Document ID:  |  |
| Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.                         | <b>)</b> .                                     |
| Attached, Document ID:  | ,  |
|   |  |
| [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: |  |
| ·   |  |
| [X ] Not Applicable   |  |
| <u> </u>  | <u> </u>                                       |

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#### **ATTACHMENT 1**

PERFORMANCE TEST DATA
IN SUPPORT OF
REQUEST FOR REVISED FLUORIDES EMISSION LIMIT

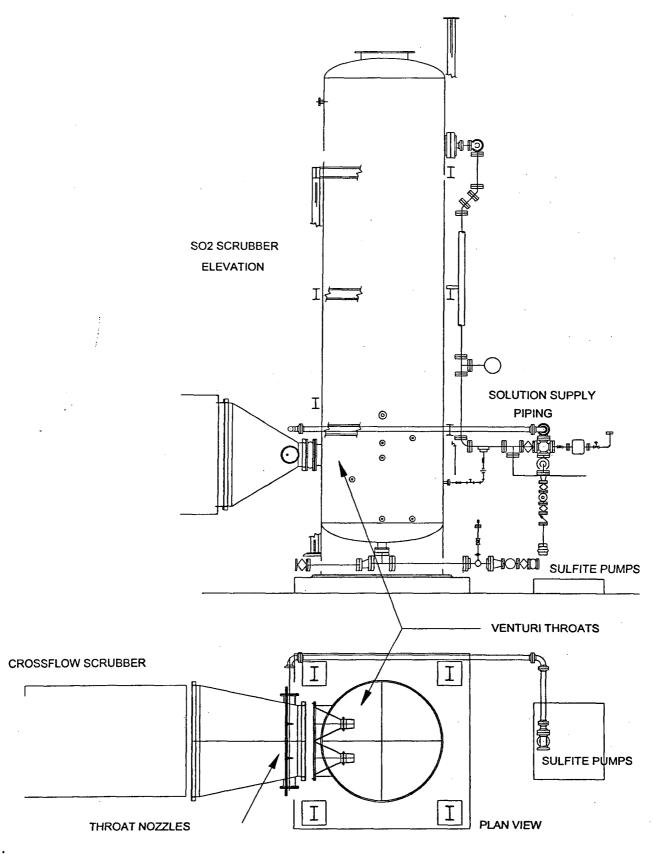
| Multifos C Kiln Testing                  |                                       | DOE to   | eting      | 1      |       |       | Average L   | eat Innut : | mmBtu/hr: | 11 7  |         |  |                |                       | · · ·     |       |             |
|--|---------------------------------------|--|------------|--------|-------|-------|---|-------------|-----------|-------|---------|--|----------------|-----------------------|-----------|-------|-------------|
| Venturi Installed                        |                                       | DOE testing Total throat area 0.9 sf             |            | 0.0 of |       |       |   |             |           |       | Allowah | la E lb/ba   | 0.14           | Average F lb/hr: 0.32 |           |       | <del></del> |
| venturi installed                        | · · · · · · · · · · · · · · · · · · · | Total ti   | iioat aiea | 0.9 81 |       |       | Average Feed Rate tph: 11.0 Average P2O5 tph: 3.8 |             |           |       |         | Allowable F lb/hr: 0.14<br>Allowable PM lb/hr: 5.7 |                |                       | PM lb/hr: |       | -           |
| Parameters                               | Units                                 | Run:   | 1          | 2      | 3     | 4     | 5   | 6           | 7         | 8     | 9       | 10   | 11             | 12                    | 13        | 1.5   | 15          |
| Test                                     | Omis                                  | Meth:  | 5/13       | 5/13   | 5/13  | 5/13  | 5/13  | 5/13        | 5/13      | 5/13  | 5/13    | 5/13   | 5/13           | 5/13                  | 5/13      | 5/13  | 5/13        |
| Date:                                    |                                       |  | 09/04      | 09/04  | 09/04 | 09/04 | 09/04   | 09/04       | 09/04     | 09/04 | 09/04   | 09/04  | 09/04          | 09/04                 | 09/04     | 09/04 | 09/04       |
| Time Start:                              |                                       |  | 408        | 500    | 550   | 647   | 737   | 838         | 935       | 1027  | 1116    | 1210   | 1256           | 1344                  | 1441      | 1530  | 1622        |
| Time End:                                |                                       | <u> </u>   | 438        | 530    | 620   | 717   | 807   | 909         | 1005      | 1057  | 1146    | 1240   | 1326           | 1415                  | 1511      | 1600  | 1652        |
| Barometric Pressure:                     | Inch Ha                               |  | 30.17      | 30.17  | 30.17 | 30.17 | 30.17   | 30.17       | 30.17     | 30.17 | 30.17   | 30.17  | 30.17          | 30.17                 | 30.17     | 30.17 | 30.17       |
| Static Pressure:                         |                                       |  | -0.11      | -0.11  | -0.11 | -0.11 | -0.11   | -0.11       | -0.11     | -0.11 | -0.11   | -0.11  | -0.11          | -0.11                 | -0.11     | -0.11 | -0.11       |
| Stack Pressure:                          |                                       |  | 30.16      | 30.16  | 30.16 | 30.16 | 30.16   | 30.16       | 30.16     | 30.16 | 30.16   | 30.16  | 30.16          | 30.16                 | 30.16     | 30.16 | 30.16       |
| Average Sqrt Delta P:                    |                                       | -  | 0.61       | 0.60   | 0.60  | 0.58  | 0.57  | 0.57        | 0.58      | 0.59  | 0.60    | 0.57   | 0.58           | 0.56                  | 0.60      | 0.63  | 0.58        |
| Average Delta H:                         |                                       | <del> </del>                                     | 0.99       | 0.95   | 0.97  | 0.89  | 0.86  | 0.86        | 0.90      | 0.93  | 0.95    | 0.88   | 0.90           | 0.87                  | 0.00      | 1.06  | 0.38        |
| Maximum Run Vacuum:                      | Inch Ha                               | <del> </del>                                     | 5.0        | 4.0    | 3.0   | 4.0   | 3.0   | 4.0         | 4.0       | 3.0   | 5.0     | 2.0  | 5.0            | 4.0                   | 3.0       |       |             |
| Meter Box Number:                        |                                       | <b></b>  | 3188       | 3188   | 3188  | 3188  | 3188  | 3188        | 3188      | 3188  | 3188    | 3188   | 3188           | 3188                  | 3188      | 3.0   | 4.0         |
| Average Meter Temp:                      |                                       |  | 78.3       | 81.8   | 83.8  | 82.4  | 80.9  | 83.8        | 85.2      | 85.6  | 87.6    | 86.9   | 88.4           |                       |           | 3188  | 3/188       |
| Average Meter Temp.  Average Stack Temp: |                                       | <del> </del>                                     | 103.8      | 103.3  | 102.5 | 101.5 | 101.2   | 101.7       | 103.7     | 103.3 | 103.5   | 101.8  | 102.2          | 89.8<br>101.8         | 91.5      | 91.7  | 90.6        |
| Metered Sample Volume:                   |                                       | <del>                                     </del> | 17.36      | 17,45  | 17.58 | 16.81 | 16.60   | 16.26       | 16.84     | 17.04 | 17.26   | 16.94  |                |                       | 103.8     | 103.7 | 103.7       |
| Standard Meter Volume:                   |                                       | <del> </del>                                     | 18.32      | 18.30  | 18.37 | 17.61 | 17.43   | 16.20       | 17.55     | 17.75 | 17.90   | 17.59  | 16.93<br>17.53 | 16.24                 | 17.58     | 18.68 | 16.66       |
| Moisture Measured:                       |                                       | <del> </del>                                     | 0.066      | 0.134  | 0.072 | 0.059 | 0.064   | 0.079       | 0.078     |       |         |  |                | 16.78                 | 18.11     | 19.24 | 17.19       |
| Moisture Saturation:                     |                                       | <del> </del>                                     | 0.000      | 0.134  | 0.072 | 0.059 | 0.064   | 0.079       | 0.078     | 0.071 | 0.077   | 0.060  | 0.094          | 0.055                 | 0.079     | 0.065 | 0.073       |
|  |                                       | <del> </del>                                     | 0.072      | 0.071  | 0.069 | 0.059 | 0.064   |             |           | 0.071 | 0.071   | 0.068  | 0.068          | 0.068                 | 0.072     | 0.072 | 0.072       |
| Moisture Used for Calculations:          |                                       | -  | 0.066      | 0.071  | 0.069 | 0.059 |   | 0.067       | 0.072     | 0.071 | 0.071   | 0.060  | 0.068          | 0.055                 | 0.072     | 0.065 | 0.072       |
| Pitot Coefficient:                       |                                       |  |            |        |       |       | 0.84  | 0.84        | 0.84      | 0.84  | 0.84    | 0.84   | 0.84           | 0.84                  | 0.84      | 0.84  | 0.84        |
| Nozzle Diameter:                         | · · · · · · · · · · · · · · · · · · · | <b> </b>   | 0.245      | 0.245  | 0.245 | 0.245 | 0.245   | 0.245       | 0.245     | 0.245 | 0.245   | 0.245  | 0.245          | 0.245                 | 0.245     | 0.245 | 0.245       |
|  | Square Feet                           | <b> </b>   | 7.07       | 7.07   | 7.07  | 7.07  | 7.07  | 7.07        | 7.07      | 7.07  | 7.07    | 7.07   | 7.07           | 7.07                  | 7.07      | 7.07  | 7.07        |
| Traverse Points:                         |                                       | ļ  | 6          | 6      | 6     | 6     | 6   | 6           | 6         | 6     | 6       | 6  | 6              | 6                     | 6         | 6     | 6           |
| Sampling Time:                           |                                       | <u> </u>   | 30         | 30     | 30    | 30    | 30  | 30          | 30        | 30    | 30      | 30   | 30             | 30                    | 30        | 30    | 30          |
| Stack Gas Molecular Weight:              |                                       | <b> </b>   | 28.2       | 28.2   | 28.2  | 28.3  | 28.3  | 28.2        | 28.2      | 28.2  | 28.2    | 28.3   | 28.2           | 28.4                  | 28.2      | 28.3  | 28.2        |
| Actual Stack Velocity:                   |                                       | ļ  | 35.8       | 35.3   | 35.2  | 33.8  | 33.1  | 33.1        | 34.1      | 34.3  | 34.9    | 33.0   | 33.8           | 32.7                  | 35.2      | 36.7  | 33.8        |
| Actual Stack Gas Flow:                   |                                       | <b> </b>   | 15178      | 14972  | 14919 | 14307 | 14037   | 14040       | 14474     | 14534 | 14809   | 13973  | 14344          | 13855                 | 14905     | 15547 | 14312       |
| Dry Standard Stack Gas Flow:             |                                       | <u> </u>   | 13379      | 13144  | 13141 | 12756 | 12468   | 12408       | 12690     | 12760 | 12992   | 12442  | 12652          | 12405                 | 13059     | 13719 | 12548       |
| Isokinetic Rate:                         | <u> </u>                              |  | 98.6       | 100.2  | 100.6 | 99.4  | 100.6   | 98.6        | 99.6      | 100.1 | 99.2    | 101.8  | 99.8           | 97.4                  | 99.8      | 101.0 | 98.6        |
| Results                                  | ļ. <u></u>                            | <u> </u>   | 2.44       | 0.07   | 0.40  |       |   |             |           | 0.00  |         | 0.40   | 0.40           | 0.40                  |           | 0.00  |             |
| Fluoride Emission:                       |                                       | <b>├</b>   | 0.41       | 0.37   | 0.19  | 0.40  | 0.16  | 0.41        | 0.32      | 0.29  | 0.36    | 0.13   | 0.43           | 0.42                  | 0.21      | 0.28  | 0.38        |
| Particulate Emission:                    |                                       |  | 2.7        | 2.7    | 0.4   | 1.6   | 0.9   | 2.4         | 2.7       | 1.3   | 2.1     | 0.2  | 2.4            | 2.7                   | 0.5       | 1.1   | 1.9         |
| Impinger                                 |                                       |  | 0.79       | 0.99   | 1.33  | 1.04  | 0.80  | 1.02        | 0.97      | 1.22  | 1.04    | 0.30   | 0.95           | 0.96                  | 1.43      | 0.81  | 0.70        |
| Probe wash                               |                                       | <b></b>  | 0.64       | 0.09   | 0.54  | 0.96  | 0.23  | 0.68        | 0.23      | 0.55  | 0.80    | 0.55   | 1.01           | 0.86                  | 0.60      | 1.03  | 0.92        |
|  | mg F                                  | ļ  | 2.80       | 2.80   | 0.13  | 2.20  | 0.65  | 2.50        | 2.10      | 1.30  | 1.90    | 0.54   | 2.60           | 2.50                  | 0.17      | 1.10  | 2.30        |
| Probe wash                               | mg PM                                 | <del> </del>                                     | 2.00       | 0.3    | 1.3   | 1.40  | 1.6   | 1.5         | 4.00      | 6.20  | 2.80    | 2.20   | 2.8            | 4.8                   | 4.50      | 6.5   | 4.2         |
|  | mg PM                                 | <del> </del>                                     | 25.60      | 27.9   | 2.7   | 15.70 | 7.7   | 23.2        | 24.70     | 8.00  | 18.60   | 0.40   | 22.4           | 22.5                  | 0.80      | 5.7   | 15.2        |
| Venturi                                  | ļ <u>-</u>                            | <del> </del>                                     | 400        | 400    | 400   | 400   | 470   | 470         | 120       | 470   | 120     | 170  | 120            | 120                   | 100       | 120   | 120         |
| Total Nozzle Flow                        |                                       | ļ  | 100        | 100    | 130   | 100   | 170   | 170         | 130       | 170   | 130     | 170  | 130<br>17.1    | 130                   | 100       | 130   | 130         |
| Pressure Difference                      | in hoh                                | <del> </del>                                     | 16.0       | 15.9   | 17.2  | 15.9  | 17.7  | 17.7        | 16.9      | 17.6  | 17.0    | 17.4   | 1/.1           | 17.0                  | 16.2      | 17.7  | 17.0        |
| Process                                  | I                                     | ļ <u> </u>                                       | <u> </u>   |        | 705   | 700   | 765   | 705         | 705       | 704   | 705     | 705  | 704            | 704                   | 724       | 725   | 725         |
| C Kiln Natural Gas Flow                  |                                       | ļ  | 735        | 735    | 735   | 735   | 735   | 735         | 735       | 734   | 735     | 735  | 734            | 734                   | 734       | 735   | 735         |
| OTW to Transition Duct:                  |                                       | <b></b>  | 69.7       | 69.7   | 69.9  | 50.8  | 50.9  | 69.5        | 88.0      | 88.7  | 68.6    | 72.2   | 49.1           | 49.1                  | 87.7      | 74.3  | 88.1        |
| C Kiln Feed Belt                         |                                       | ļ  | 11.0       | 11.0   | 11.0  | 11.0  | 11.0  | 11.0        | 11.0      | 11.1  | 11.0    | 11.0   | 11.0           | 11.0                  | 11.0      | 11.0  | 11.0        |
| C Scrubber Fan                           |                                       | <u> </u>   | 122        | 122    | 123   | 122   | 122   | 121         | 122       | 121   | 123     | 121  | 123            | 123                   | 125       | 123   | 122         |
| C Kiln SO2 Scrubber PH                   | 11                                    | ļ  | 7.0        | 7.0    | 6.9   | 7.0   | 6.9   | 7.0         | 7.0       | 7.0   | 7.1     | 7.1  | 7.1            | 7.1                   | 7.1       | 7.1   | 7.1         |
| C Crossflow Scrubber DP                  |                                       |  | 0.3        | 0.5    | 0.4   | 0.3   | 0.3   | 0.3         | 0.3       | 0.3   | 0.3     | 0.4  | 0.2            | 0.3                   | 0.3       | 0.3   | 0.4         |
| C SO2 Scrubber DP                        |                                       | L  | 1.8        | 1.8    | 1,7   | 1.8   | 1.7   | 1.7         | 1.7       | 1.7   | 1.7     | 1.7  | 1.7            | 1.8                   | 1.8       | 1.7   | 1.7         |
| C Crossflow Scrubber Flow                |                                       | <u></u>  | 512        | 803    | 650   | 650   | 650   | 525         | 519       | 652   | 669     | 798  | 512            | 802                   | 655       | 636   | 839         |
| C Quench Tower Face Sprays               | : GPM                                 |  | 569        | 570    | 571   | 585   | 586   | 584         | 583       | 583   | 584     | 584  | 582            | 580                   | 574       | 573   | 573         |
| C Quench Tower Flow                      | : GPM                                 |  | 1002       | 1004   | 1001  | 908   | 908   | 908         | 908       | 906   | 904     | 904  | 902            | 896                   | 889       | 887   | 885         |
| C SO2 Scrubber Flow                      | : GPM                                 |  | 222        | 223    | 223   | 222   | 221   | 222         | 222       | 221   | 222     | 220  | 219            | 218                   | 218       | 218   | 218         |
| 50 %Caustic Flow                         | : gal/hr                              | 1  | 10.9       | 10.7   | 10.7  | 10.9  | 10.6  | 10.5        | 10.5      | 10.5  | 10.5    | 10.5   | 10.5           | 10.5                  | 10.5      | 10.5  | 10.5        |



C KILN SCRUBBING SYSTEM REVISION ADDITION OF VENTURI SECTION TO SO2 SCRUBBER SCRUBBER FLOW DIAGRAM

IMC PHOSPHATES NEW WALES

PREPARED: 09/18/03



C KILN SCRUBBING SYSTEM REVISION
ADDITION OF VENTURI SECTION TO SO2 SCRUBBER
PLAN AND ELEVATION VIEWS

IMC PHOSPHATES
NEW WALES
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