KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
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KA 124-03-07

October 21, 2004

Mr. Bobby Bull
Florida Department of
Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Additional Information on Title V Permit Renewal
IMC Phosphates Company – South Pierce Plant
File No. 1050055-014-AV

Dear Mr. Bull:

This is a follow up to the Department's letter dated August 11, 2004, requesting additional information on the above referenced Title V renewal project. The responses are in the order of the issues raised by FDEP.

1. MACT Applicability

While the Department's determination of MACT applicability is understood, IMC does not agree with the FDEP's opinion that the above-referenced facility is a major source of HAPs. South Pierce is a small facility with only five fluoride point sources and a 58 acre cooling pond with an elevated temperature. The remainder of the ponded area will normally be lower in temperature.

Depending on the outcome of MACT applicability determination, provisions for compliance schedules will be needed in the Title V permit for the following:

1) In order to establish scrubber operating ranges for certain scrubbers as alternative to the +/- 20% MACT limits, testing will be required.
2) In order to meet the MACT GTSP Storage limit, upgrade or replacement of the GTSP Storage Building Scrubbers must be evaluated and implemented. The limit is based on the amount of inventory in storage at the time of testing. The level of control device performance will be dictated by expected minimum inventory amounts. The recent emission results correspond to 50-60% of the warehouse capacity. This is an unacceptable operating constraint.

2. Phosphoric Acid Plant – A and B Train (EU 008 & 009)

Please refer to Item 1 regarding IMC's position on the Department's determination of MACT applicability, and as it relates to the Phosphoric Acid Plant – A and B Train. The MACT testing timetable would apply to these units.

3. No. 2 Ball Mill Grinding System (EU 022)

The available PM test data on the No. 2 Ball Mill Grinding System have been submitted to FDEP. The appropriate bag collector operation indicator range for CAM purposes, determined from the historical data, is presented in Attachment 1. This information addresses FDEP's concern regarding the need to identify a minimum pressure drop to provide reasonable assurance of compliance.

The format of the revised monitoring approach table and justification of the selected indicator range (see Attachment 1) is based on the recent discussions with you and Jonathan Holtom and represents an acceptable approach to submitting the requested information without having to resubmit the entire CAP Plan.

4. GTSP Production Plant (EU 023)

The appropriate scrubber operation indicator range for CAM purposes, as determined from the historical PM emissions data, is presented in Attachment 1 along with justification of the selected range.

Please refer to Item 1, regarding IMC's position on the Department's determination of MACT applicability as it relates to fluoride emissions from the GTSP Production Plant. The MACT testing timetable would apply to one of the scrubbers in the system.

5. GTSP East Storage Building (EU 024 and 025)

The appropriate scrubber operation indicator range for CAM purposes, as determined from the historical PM emissions data, is presented in Attachment 1 along with justification of the selected range.

Please refer to Item 1, regarding IMC's position on the Department's determination of MACT applicability as it relates to fluoride emissions from the GTSP East Storage Building. These units would be affected if the MACT emission limit is imposed.

6. CAM Plan Format

Based on the recent discussion with you and Jonathan Holtom, it is our understanding that while the format of the submitted CAM plan is not identical to that suggested by

EPA, it is acceptable for FDEP's current review as it addresses all the CAM Plan requirements.

The RO and PE certifications are presented in Attachment 2.

If you have any additional questions, please call me.

Very truly yours,

KOOGLER & ASSOCIATES

Pradeep Raval

Par.

Encl.

C: C. D. Turley, IMC

ATTACHMENT 1

UPDATED CAM INFORMATION

1. For particulate matter emissions from the No. 2 Ball Mill Grinding System (EU 022).

Monitoring Approach

	Indicator No. 1
Indicator	Pressure drop across bag collector.
Measurement Approach	Pressure drop across the bag collector measured with a differential pressure transducer
Indicator Range	An excursion is defined as a daily average pressure drop less than 0.8" H2O or greater than 7" H2O. Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	The minimum accuracy of the device is ±5%.
Verification of Operational Status	NA
QA/QC Practices and Criteria	The pressure gauge is calibrated at least annually.
Monitoring Frequency	Pressure drop is monitored continuously.
Data Collection Procedures	Pressure drop is electronically recorded at least every 15-minutes. Daily averages are computed.
Averaging Period	Daily averages based on 15-minute readings.

NOTE: The above indicator range may be revised based on future test data.

Justification of Selection of Performance Indicator Range

The indicator range chosen for the bag collector was selected based on all available historical test data (previously submitted to FDEP) that indicated operation of the emissions unit in compliance with the permit limit with a reasonable margin of safety.

2. For particulate matter emissions from the GTSP Production Plant (EU 023)

Monitoring Approach

	Indicator No. 1	Indicator No. 2
Indicator	Pressure drop across each scrubber.	Scrubber liquid flow rate for each scrubber.
Measurement Approach	The pressure drop is monitored with a differential pressure transducer.	The scrubber liquid flow rate is measured using magnetic flow tube elements.
Indicator Range	An excursion is defined as a daily average pressure drop outside of the following range: RGCV scrubber: 5.4 - 10 " H2O Dryer scrubber: 7.4 - 11.2 " H2O Tailgas scrubber: 6.1 - 10.2 " H2O Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as a daily average scrubber liquid flow outside of the following range: RGCV scrubber: 642 - 992 gpm Dryer scrubber: 661 - 930 gpm Tailgas scrubber:4195 - 5064 gpm Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	The minimum accuracy of the device is ±5%.	The minimum accuracy of the device is ±5%.
Verification of Operational Status	NA	NA
QA/QC Practices and Criteria	The differential pressure transducer is calibrated annually.	The flow sensor is calibrated annually.
Monitoring Frequency	The pressure drop is monitored continuously.	The scrubber liquid flow is monitored continuously.
Data Collection Procedures	Scrubber pressure drop is electronically recorded at least every 15-minutes. Daily averages are computed.	Scrubber liquid flow rate is electronically recorded at least every 15-minutes. Daily averages are computed.
Averaging Period	Daily averages based on 15-minute readings.	Daily averages based on 15-minute readings.

NOTE: The above indicator ranges may be revised based on future test data.

Justification of Selection of Performance Indicator Range

The indicator range chosen for each scrubber was selected based on all available historical test data (previously submitted to FDEP) that indicated operation of the emissions unit in compliance with the permit limit with a reasonable margin of safety.

3. For particulate matter emissions from the GTSP East Storage Building (EUs 024, 025)

Monitoring Approach

	Indicator No. 1
Indicator	Fan amperage for each scrubber.
Measurement Approach	Fan amperage is measured continuously using an ammeter.
Indicator Range	An excursion is defined as a daily average ammeter reading outside of the following range: Fan 1: 13 - 24 amps Fan 2: 19 - 25 amps Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	Fan amperage is measured at the fan by an ammeter. The minimum accuracy is ±5A.
Verification of Operational Status	NA
QA/QC Practices and Criteria	Fans checked during daily inspection. Ammeter zeroed when unit not operating.
Monitoring Frequency	Fan amps are monitored continuously.
Data Collection Procedures	Fan amps are electronically recorded at least every 15-minutes. Daily averages are computed.
Averaging Period	Daily averages based on 15-minute readings.

NOTE: The above indicator ranges may be revised based on future test data.

Justification of Selection of Performance Indicator Range

The indicator range chosen for each fan was selected based on all available historical test data (previously submitted to FDEP) that indicated operation of the emissions unit in compliance with the permit limit with a reasonable margin of safety.

ATTACHMENT 2

P.E. & R.O. CERTIFICATIONS

Professional Engineer Certification

1. Professional Engineer Name: **John B. Koogler, Ph.D, P.E.**
   Registration Number: **12925**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Koogler and Associates. Inc.**
   Street Address: **4014 NW 13th Street**
   City: **Gainesville** State: **FL** Zip Code: **32609**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 377-5822** ext. Fax: **(352) 377-7158**
4. Professional Engineer Email Address: **jkoogler@kooglerassociates.com**
5. 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.

(3) If the purpose of this application is to obtain a Title V 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 plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☐, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☒, 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.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, 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 (seal) **Date** 10/20/04

*** Attach any exception to certification statement.**

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name:
   M. A. Daigle
   Vice President, Florida Concentrates

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):

   ☒ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

   ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

   ☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

   ☐ The designated representative at an Acid Rain source.

3. Application Responsible Official Mailing Address...
   Organization/Firm: **IMC Phosphates MP Inc.**
   Street Address: **P.O. Box 2000**
   City: **Mulberry** State: FL Zip Code: **33860**

4. Application Responsible Official Telephone Numbers...
   Telephone: **(863) 428-2500** ext. Fax: **(863) 428-7190**

5. Application Responsible Official Email Address: **mdaigle@imcglobal.com**

6. Application Responsible Official Certification:

I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

MADaigle — Signature

10/21/04 — Date

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ENVIRONMENTAL SERVICES
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352/377-5822 ▪ FAX/377-7158

KA 124-03-07

July 8, 2004

Mr. Bobby Bull
Florida Department of
Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Additional Information on Title V Permit Renewal
IMC Phosphates Company – South Pierce Plant
File No. 1050055-014-AV

Dear Mr. Bull:

This is a follow up to the Department's letter dated May 20, 2004, requesting additional information on the above referenced Title V renewal project. The responses are in the order of the issues raised by FDEP.

1. **Emission Unit Information. You indicated in your response that Emission Units (EUs) #002, 003, 012-014, 016, 017, 027-029, 034, 044-046 have been shut down and will no longer operate at the facility. However, EUs # 034, 045, and 046 were included in the September 26, 2003 application. Please verify that you no longer want to have these units included in the renewal permit, and provide shutdown dates on each unit. Please also provide the shutdown dates for units EUs # 003, 012, 013, 014, 027, 028, and 029.**

RESPONSE:

The units identified will no longer be operated at the facility. The units were shutdown as indicated below:

EUs. 002, 003, 012, 013, 014, 016, 017, 027, 028, 029 & 046: in 1995
EUs. 034, 044 & 045: in or before 1992

2. **Maximum Achievable Control Technology (MACT) applicability. Your facility maintains it is not a major source of hazardous air pollutants. Please provide the annual amount of hazardous air pollutants emissions from the site. In particular, please quantify the annual amount of HF emissions**

coming from the gypsum and cooling ponds located on the property. Please provide the fluoride concentrations and pH values of the ponds, and the total acres of pond water. If applicable, please also provide information concerning the closure of these ponds.

RESPONSE:

The facility is a minor source of HAP emissions based on the estimates presented in Attachment 1.

3. **Compliance Assurance Monitoring (CAM). In your April 21, 2004 response, you propose CAM as meeting the requirements for Facility Wide Condition 14. This is not acceptable. You will need to specify maximum and minimum pressure drop and flow rate for each of the units that are subject to CAM. Also, in order to satisfy the CAM submittal requirements and to approve the previously submitted CAM plans, please submit the following information that was previously requested in our letter dated November 21, 2003:**

A. Phosphoric Acid Plant- A and B Train (EU 008 & 009). CAM is applicable for fluoride. The choice of scrubber pressure drop and liquid flow rate through the scrubber are acceptable indicators to monitor. However, indicator ranges must be clearly stated in the monitoring approach table. The selection of the indicator ranges must also be clearly justified and demonstrate that operation at those levels is protective of the allowable emissions limitations. The stated indicator range is non-specific and is equivalent to the permit conditions. Using these as CAM indicator ranges will result in a permit violation every time that a CAM excursion is recorded. Please provide a table of test data that correlates the pressure differentials and flow rates to the tested fluoride emission levels. From this data, provide a justification of your choices and clearly indicate a maximum and minimum pressure drop and water flow rate that will assure compliance with the emission limit.

RESPONSE:

The requested information for the Phosphoric Acid Plants is presented in Attachment 2. Results of testing conducted in 1996, to establish a scrubber flow rate minimum of 1200 gpm for each of the systems, are also included.

B. No. 2 Ball Mill Grinding System (EU 022). CAM is applicable for PM. The choice of pressure drop across the baghouse is an acceptable indicator to monitor. Please identify a minimum pressure drop across the baghouse that can be used as an indicator in addition to the 15" maximum pressure drop listed. Please provide a table of test data that correlates the pressure drop to the tested

PM emission levels. From this data, provide a justification of your choices and clearly indicate a maximum and minimum pressure drop that will assure compliance with the emission limit.

RESPONSE:

The compliance testing routinely conducted for the bag collector consisted of Visible Emission Evaluations. A particulate matter emission test was conducted prior to the Title V permit renewal process. Based on past VE observations, it is likely that the mass emissions are low in this application. It can be assumed that if the bag collector is in compliance with the visible emissions limit, it will be in compliance with the mass emission limit. Available compliance testing information is presented in Attachment 3.

C. GTSP Production Plant (EU 023). CAM is applicable for PM and fluoride. The choice of scrubber pressure drop and liquid flow rate through the scrubbers are acceptable indicators to monitor. However, indicator ranges must be clearly stated in the monitoring approach table. The selection of the indicator ranges must also be clearly justified and demonstrate that operation at those levels is protective of the allowable emissions limitations. The stated indicator ranges are non-specific and are equivalent to the permit conditions. Using these as CAM indicator ranges will result in a permit violation every time that a CAM excursion is recorded. Please provide a table of test data that correlates the pressure differentials and flow rates to the tested PM and fluoride emission levels. From this data, provide a justification of your choices and clearly indicate a maximum and minimum pressure drop and water flow rate for each of the scrubbers that will assure compliance with the emission limits.

RESPONSE:

A summary of the test data for the GTSP Plant is presented in Attachment 4. The scrubbing system consists of two parallel venturi scrubbers followed by a packed scrubber, in series. The summary of test data includes each of these scrubber systems.

D. GTSP East Storage Building (EU 024 and 025). CAM is applicable for PM and fluoride. The choice of fan amperage as an indicator range may be acceptable if a specific range is specified that can be justified by test data. If not, scrubber pressure drop and scrubber water flow might be more appropriate. Please provide a table of test data that correlates the chosen indicator range(s) to the tested fluoride and PM emission levels. From this data, provide a justification of your choices and clearly indicate specific indicator ranges that will assure compliance with the emission limits.

RESPONSE:

A summary of the test data for the GTSP Storage Building is presented in Attachment 5. The emissions are controlled by two parallel scrubber systems consisting of two wet cyclonic scrubbers each. Thus, there are four scrubbers with two stacks. Although each of the stacks (and associated scrubber systems) are identified as the emission units by the permit, the emission limit is applied to the building which requires that compliance be determined based on the total of the emissions from both systems.

4. **Facility Regulatory Classifications. The application is blank for several items in this section. Each item must be answered yes or no.**

RESPONSE:

All the applicable items in the Facility Regulatory Classification field in the EPSAP application were completed as required. We are unaware of any additional items that would need to be completed.

The RO and PE certifications are presented in Attachment 6.

If you have any additional questions, please call Pradeep Raval.

Very truly yours,

KOOGLER & ASSOCIATES

John B. Koogler, Ph.D., P.E.

JBK:par
Encl.

C: C. D. Turley, IMC

ATTACHMENT 1

HAP EMISSIONS ESTIMATES

POINT SOURCES:

The HF emissions from the A and B phosphoric acid plants can be estimated based on testing conducted on similar units. It is estimated that 3.4 percent of the fluoride emissions are HF. Based on the maximum potential fluoride emissions for each plant of 4.9 tons per year (tpy), the maximum potential HF emissions from each plant would be 0.17 tpy.

Similarly, the HF emissions from the GTSP production and storage units are estimated to be 7.8 percent of the fluoride emissions. Based on the maximum potential fluoride emissions from the GTSP production and storage units of 25.0 tpy and 34.2 tpy, respectively, the maximum potential HF emissions from each unit would be 1.95 and 2.66 tpy, respectively.

Thus, the total HF emissions from the point sources are estimated to be 4.95 tpy.

PLANT FUGITIVE EMISSIONS:

The fugitive HF emissions from the South Pierce plant have been estimated based on emission estimates information for a similar plant. The total HF emissions from the plant fugitives are estimated to be 0.48 tpy.

POND EMISSIONS:

Based on past studies conducted by EPA and others, an HF emission factor of 0.1 lb/acre-day has been applied to gypsum pond and cooling ponds at operating phosphate fertilizer facilities. This factor has been used for pond systems with fluoride concentrations around 10,000 ppm fluoride and a pH around 1 standard units. The total IMC South Pierce facility pond area is 238 acres with a fluoride concentration around 11,400 ppm and pH of around 1.2 standard units. Based on the pond area, the estimated HF emissions using the above emission factor are 4.34 tpy.

The combined total HF emissions from the above areas of the facility are estimated to be 9.77 tpy. This quantity is below the major source individual HAP threshold.

OTHER HAPS:

The emissions of other HAPS, estimated based on miscellaneous material usage at the facility and based on the MSDS information, is about 1.92 tpy.

The total of all HAP emissions at the facility are estimated to be 11.69 tpy. This quantity is below the major source threshold for all HAPS.

ATTACHMENT 2

SUMMARY OF TEST DATA FOR PHOSPHORIC ACID PLANTS

South Pierce Phosphoric Acid Plant
A Train (008) Scrubber
Compliance Test Results

Run	Test Date	P2O5 Input TPH	F lb/hr	F limit lb/hr	Scrubber Total GPM	Scrubber dP
Testing to establish minimum flow rate of 1200 gpm						
3 run average	08/01/96	44.6	0.11	0.89	2442	5.8
3 run average	08/05/96	46.2	0.10	0.92	1014	5.8
2 runs	08/07/96	43.1	0.18	0.86	1251	5.1
1 run	08/08/96	44.6	0.09	0.89	1250	5.1
1	07/20/00	44.8	0.11		1386	5.5
2	07/20/00	44.8	0.12		1385	5.5
3	07/20/00	44.8	0.14		1385	5.5
Test Average	07/20/00	44.8	0.12	0.90	1385	5.5
1	08/09/00	42.5	0.12		1370	4.2
2	08/09/00	42.5	0.16		1383	4.2
3	08/09/00	42.5	0.21		1379	4.3
Test Average	08/09/00	42.5	0.16	0.85	1377	4.2
1	04/18/01	44.0	0.09		1332	2.6
2	04/18/01	44.0	0.12		1298	2.9
3	04/18/01	44.0	0.13		1291	3.3
Test Average	04/18/01	44.0	0.11	0.88	1307	2.9
1	07/26/02	37.8	0.24		2578	2.5
2	07/26/02	37.8	0.20		2570	2.5
3	07/26/02	37.8	0.33		2578	2.5
Test Average	07/26/02	37.8	0.26	0.76	2575	2.5
1	09/04/02	46.6	0.19		1700	7.0
2	09/04/02	46.6	0.13		1725	7.1
3	09/04/02	46.6	0.07		1730	7.2
Test Average	09/04/02	46.6	0.13	0.93	1718	7.1
1	10/11/02	43.2	0.13		1700	4.5
2	10/11/02	43.2	0.14		1700	4.5
3	10/11/02	49.4	0.21		1700	4.5
Test Average	10/11/02	45.3	0.16	0.91	1700	4.5
1	01/15/03	45.4	0.17		1550	4.0
2	01/15/03	45.4	0.17		1550	4.0
3	01/15/03	45.4	0.20		1550	4.0
Test Average	01/15/03	45.4	0.18	0.91	1550	4.0
1	12/03/03	40.9	0.16		2175	1.0
2	12/03/03	40.9	0.12		2200	1.1
3	12/03/03	40.9	0.14		2200	1.1
Test Average	12/03/03	40.9	0.14	0.82	2192	1.1
				min	1014	1.0
				max	2578	7.2

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

South Pierce Phosphoric Acid Plant
B Train (009) Scrubber
Compliance Test Results

Run	Test Date	P2O5 Input TPH	F lb/hr	F limit lb/hr	Scrubber Total GPM	Scrubber dP
Testing to establish minimum flow rate of 1200 gpm						
3 run average	08/09/96	44.5	0.12	0.89	2410	8.7
3 run average	08/13/96	42.6	0.22	0.85	1230	7.4
3 run average	08/16/96	45.7	0.22	0.91	1620	7.9
1	05/18/99	40.8	0.34		1674	3.4
2	05/18/99	42.1	0.36		1374	3.4
3	05/18/99	42.1	0.16		1374	3.4
Test Average	05/18/99	41.7	0.29	0.83	1474	3.4
1	07/09/99	41.1	0.05		2240	2.8
2	07/09/99	41.1	0.05		2345	2.8
3	07/09/99	41.1	0.05		2280	2.8
Test Average	07/09/99	41.1	0.05	0.82	2288	2.8
1	03/16/00	49.9	0.13		1933	5.0
2	03/16/00	49.9	0.25		1496	4.9
3	03/16/00	49.9	0.23		1510	4.9
Test Average	03/16/00	49.9	0.20	1.00	1646	4.9
1	08/10/01	48.5	0.27		1462	3.5
2	08/10/01	48.5	0.31		1411	3.9
3	08/10/01	48.5	0.21		1383	3.8
Test Average	08/10/01	48.5	0.26	0.97	1419	3.8
1	07/25/02	43.2	0.16		2184	3.7
2	07/25/02	43.2	0.30		2180	3.5
3	07/25/02	43.2	0.15		2204	3.8
Test Average	07/25/02	43.2	0.20	0.86	2189	3.7
1	01/10/03	43.8	0.06		2100	3.6
2	01/10/03	43.8	0.08		2100	3.6
3	01/10/03	43.8	0.08		2100	3.7
Test Average	01/10/03	43.8	0.08	0.88	2100	3.6
1	04/29/03	42.5	0.19		1683	2.2
2	04/29/03	42.5	0.17		1685	2.2
3	04/29/03	42.5	0.27		1652	2.1
Test Average	04/29/03	42.5	0.20	0.85	1673	2.2
				min	1230	2.1
				max	2410	8.7

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

ATTACHMENT 3

SUMMARY OF TEST DATA FOR NO. 2 BALL MILL GRINDING SYSTEM

South Pierce No. 2 Ball Mill Grinding System (022)
Compliance Test Results

Run	Test Date	TPH	PM lb/hr	PM limit lb/hr	VE	VE limit	Bag Collector dP
	02/18/99	50			0	20	7.0
	01/25/00	50			0	20	3.0
	03/20/01	50			0	20	1.0
	04/15/02	50			0	20	0.8
1	11/19/03		0.11				
2	11/19/03		0.22				
3	11/19/03		0.28				
Test Average	11/19/03	50	0.20	31.8	5.6	20	3.1
						min	0.8
						max	7.0

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

ATTACHMENT 4

SUMMARY OF TEST DATA FOR GTSP PRODUCTION PLANT

South Pierce GTSP Production Plant (023)
Compliance Test Results

Run	Test Date	Rate TPH	PM lb/hr	PM limit lb/hr	F lb/hr	F limit lb/hr	RGCV Venturi Total GPM	RGCV Venturi dP	Dryer Venturi Total GPM	Dryer Venturi dP	Tailgas Scrubber Total GPM	Tailgas Scrubber dP
1	02/01/00	103.8	12.8		3.5		926	8.1	910	11.2	4658	6.6
2	02/01/00	103.8	20.1		3.0		926	8.1	910	11.2	4658	6.6
3	02/01/00	105.4	22.8		3.0		926	8.1	910	11.2	4658	6.6
Test	02/01/00	104	18.6	35	3.2	5.7	926	8.1	910	11.2	4658	6.6
1	04/25/00	125.5	32.5		1.6		992	8.5	860	10.7	5018	6.3
2	04/25/00	125.6	23.2		1.7		982	8.5	856	10.9	4892	6.4
3	04/25/00	124.5	23.5		1.7		974	8.7	857	10.8	4910	6.5
Test	04/25/00	125	26.4	35	1.7	5.7	983	8.6	858	10.8	4940	6.4
1	05/22/00	118	16.8		1.2		871	8.3	825	10.7	4650	6.3
2	05/22/00	118	12.9		1.5		817	8.1	824	10.7	4550	6.4
3	05/22/00	120	14.7		1.3		806	8.0	821	10.6	4518	6.4
Test	05/22/00	119	14.8	35	1.3	5.7	831	8.1	823	10.6	4572	6.4
1	07/24/01	117	28.7		1.0		814	9.5	914	11.2	5020	8.2
2	07/24/01	119	32.6		1.6		832	9.6	925	11.2	5035	8.1
3	07/24/01	120	33.2		1.3		812	9.6	930	11.2	4745	7.9
Test	07/24/01	119	31.5	35	1.3	5.7	819	9.6	923	11.2	4933	8.1
1	11/08/01	120	19.3		2.6		729	9.5	827	9.9	4550	6.2
2	11/08/01	120	29.6		2.7		739	9.9	828	10.0	4594	6.5
3	11/08/01	120	28.4		3.2		734	10.0	839	10.0	4594	6.3
Test	11/08/01	120	25.8	35	2.8	5.7	734	9.8	831	10.0	4579	6.3
1	05/02/03	106.7	16.9		2.0		710	7.2	715	9.4	4195	6.1
2	05/02/03	107.7	21.8		1.9		712	7.8	713	9.0	4248	6.2
3	05/02/03	107.7	22.1		1.8		703	7.7	711	8.9	4234	6.3
Test	05/02/03	107	20.3	35	1.9	5.7	708	7.6	713	9.1	4226	6.2
1	02/06/04	126.8	12.6		1.5		705	7.5	721	9.8	5061	8.4
2	02/06/04	126.7	11.5		1.5		702	7.5	717	9.8	5064	7.8
3	02/06/04	126.9	10.7		1.5		735	7.4	725	9.7	5044	8.3
Test	02/06/04	127	11.6	35	1.5	5.7	714	7.5	721	9.8	5056	8.2
1	04/27/04	111.7	18.2		3.7		642	5.4	661	7.5	4663	10.2
2	04/27/04	112.4	16.5		4.2		642	5.4	674	7.4	4675	10.2
3	04/27/04	112.4	15.4		4.1		642	5.4	674	7.4	4675	10.2
Test	04/27/04	112	16.7	35	4.0	5.7	642	5.4	670	7.4	4671	10.2
						min	642	5.4	661	7.4	4195	6.1
						max	992	10.0	930	11.2	5064	10.2

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

ATTACHMENT 5

SUMMARY OF TEST DATA FOR GTSP EAST STORAGE BUILDING

South Pierce GTSP East Storage Building
North (024) and South (025) Scrubbers
Compliance Test Results

Eu ID	Run	Test Date	Rate TPH	TPD Loaded	PM lb/hr	PM limit lb/hr	F lb/hr	F limit lb/hr	No 1 Fan Amps	No 2 Fan Amps
024	1	09/29/99	70	2880	6.5		2.6		13	22
024	2	09/29/99	102	2880	7.5		2.8		13	22
024	3	09/29/99	105	2880	5.7		3.8		13	22
	Test Average	09/29/99	92	2880	6.6		3.1		13	22
025	1	09/29/99	70	2880	4.0		3.1		20	19
025	2	09/29/99	102	2880	4.6		3.6		20	19
025	3	09/29/99	105	2880	3.0		5.3		20	19
	Test Average	09/29/99	92	2880	3.9		4.0		20	19
	Compliance Result:		92	2880	10.4	40.1	7.1	7.8		
024	1	03/07/00	100	3744	3.6		4.4		17	20
024	2	03/07/00	100	3744	5.4		3.7		17	20
024	3	03/07/00	102	3744	5.4		3.1		17	20
	Test Average	03/07/00	101	3744	4.8		3.7		17	20
025	1	03/10/00	106	3744	5.7		2.0		19	20
025	2	03/10/00	106	5136	4.6		2.0		19	20
025	3	03/10/00	109	5088	5.6		2.2		19	20
	Test Average	03/10/00	107	4656	5.3		2.0		19	20
	Compliance Result:		104	4200	10.2	40.1	5.8	7.8		
024	1	05/01/00	118	5400	4.6		1.2		19	20
024	2	05/01/00	118	5400	6.5		0.9		19	20
024	3	05/01/00	118	4200	3.5		1.5		19	20
	Test Average	05/01/00	118	4992	4.8		1.2		19	20
025	1	05/02/00	118	5400	5.1		5.9		17	19
025	2	05/02/00	118	4200	2.9		5.5		17	19
025	3	05/02/00	118	3600	2.1		4.8		17	19
	Test Average	05/02/00	118	4400	3.4		5.4		17	19
	Compliance Result:		118	4696	8.2	40.1	6.6	7.8		
024	1	09/18/01	105	4152	2.7		1.0		20	22
024	2	09/18/01	105	4704	1.5		0.7		20	22
024	3	09/18/01	105	4944	1.6		0.4		20	22
	Test Average	09/18/01	105	4608	2.0		0.7		20	22
025	1	09/20/01	109	5280	9.1		3.0		22	20
025	2	09/20/01	112	4128	3.0		3.4		22	20
025	3	09/20/01	112	5280	6.2		3.2		22	20
	Test Average	09/20/01	111	4896	6.1		3.2		22	20
	Compliance Result:		108	4752	8.1	40.1	3.9	7.8		
024	1	12/04/01	123	4248	3.2		3.1		23	21
024	2	12/04/01	123	6048	5.9		3.4		23	21
024	3	12/04/01	123	6048	7.3		3.5		23	21
	Test Average	12/04/01	123	5448	5.5		3.3		23	21
025	1	12/04/01	123	4248	6.7		0.7		23	21
025	2	12/04/01	123	6048	3.9		1.0		23	21
025	3	12/04/01	123	5448	2.8		0.7		23	21
	Test Average	12/04/01	123	5248	4.4		0.8		23	21
	Compliance Result:		123	5348	9.9	40.1	4.1	7.8		

South Pierce GTSP East Storage Building
North (024) and South (025) Scrubbers
Compliance Test Results

Eu ID	Run	Test Date	Rate TPH	TPD Loaded	PM lb/hr	PM limit lb/hr	F lb/hr	F limit lb/hr	No 1 Fan Amps	No 2 Fan Amps
024	1	09/18/03	60	6600	1.2		0.9		24	25
024	2	09/18/03	60	3600	1.8		1.1		24	25
024	3	09/18/03	60	6600	0.4		1.8		24	25
	Test Average	09/18/03	60	5592	1.1		1.2		24	25
025	1	09/18/03	60	6600	4.1		1.8		24	25
025	2	09/18/03	60	3600	2.7		1.9		24	25
025	3	09/18/03	60	6600	2.8		3.1		24	25
	Test Average	09/18/03	60	5592	3.2		2.3		24	25
	Compliance Result:		60	5592	4.3	40.1	3.5	7.8		
024	1	11/05/03	112	5160	10.0		2.5		24	23
024	2	11/05/03	108	7368	5.5		2.4		23	24
024	3	11/05/03	112	4608	4.2		2.7		24	24
	Test Average	11/05/03	110	5400	6.6		2.5		24	24
025	1	11/10/03	110	5928	3.8		0.8		24	24
025	2	11/10/03	110	3504	3.3		0.7		24	24
025	3	11/10/03	110	6744	4.1		0.8		24	24
	Test Average	11/10/03	110	5400	3.7		0.8		24	24
	Compliance Result:		110	5400	10.3	40.1	3.3	7.8		
								min	13	19
								max	24	25

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

ATTACHMENT 6

P.E. & R.O. CERTIFICATIONS

Professional Engineer Certification

1. Professional Engineer Name: **John B. Koogler, Ph.D, P.E.**
   Registration Number: **12925**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Koogler and Associates**
   Street Address: **4014 NW 13th Street**
   City: **Gainesville** State: **FL** Zip Code: **32609**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 377-5822** ext. Fax: **(352) 377-7158**
4. Professional Engineer Email Address: **jkoogler@kooglerassociates.com**
5. 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.

(3) If the purpose of this application is to obtain a Title V 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 plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☐, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☒, 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.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, 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 (seal) 7/8/04 **Date**

*** Attach any exception to certification statement.**

APPLICATION INFORMATION

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name:
   M. A. Daigle
   Vice President, Florida Concentrates

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):

   [X] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

   [ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

   [ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

   [ ] The designated representative at an Acid Rain source.

3. Application Responsible Official Mailing Address...
   Organization/Firm: **IMC Phosphates MP Inc.**
   Street Address: **P.O. Box 2000**
   City: **Mulberry** State: **FL** Zip Code: **33860**

4. Application Responsible Official Telephone Numbers...
   Telephone: **(863) 428-2500** ext. Fax: **(863) 428-7190**

5. Application Responsible Official Email Address: **madaigle@imcglobal.com**

6. Application Responsible Official Certification:

   I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

   Signature 7/2/04 Date

May 20, 2004

CERTIFIED MAIL- RETURN RECEIPT REQUESTED

Mr. M. A. Daigle, Vice President
IMC Phosphates Company
PO Box 2000
Mulberry, FL 33860

Re: Title V Renewal Request for Additional information dated April 21, 2004
Reference Permit No. 1050055-014-AV
South Pierce Facility

Dear Mr. Daigle:

On April 22, 2004, the Department received additional information for your Title V air permit application to renew your existing permit. In order to continue processing the application, the Department will need the following additional information, in addition to information that was previously requested in our letter dated November 21, 2003:

1. Emission Unit Information. You indicated in your response that Emission Units (EUs) #002, 003, 012-014, 016, 017, 027-029, 034, 044-046 have been shut down and will no longer operate at the facility. However, EUs # 034, 045, and 046 were included in the September 26, 2003 application. Please verify that you no longer want to have these units included in the renewal permit, and provide shutdown dates on each unit. Please also provide the shutdown dates for units EUs # 003, 012, 013, 014, 027, 028, and 029.

2. Maximum Achievable Control Technology (MACT) applicability. Your facility maintains it is not a major source of hazardous air pollutants. Please provide the annual amount of hazardous air pollutants emissions from the site. In particular, please quantify the annual amount of HF emissions coming from the gypsum and cooling ponds located on the property. Please provide the fluoride concentrations and pH values of the ponds, and the total acres of pond water. If applicable, please also provide information concerning the closure of these ponds.

3. Compliance Assurance Monitoring (CAM). In your April 21, 2004 response, you propose CAM as meeting the requirements for Facility Wide Condition 14. This is not acceptable. You will need to specify maximum and minimum pressure drop and flow rate for each of the units that are subject to CAM. Also, in order to satisfy the CAM submittal requirements and to approve the previously submitted CAM plans, please submit the following information that was previously requested in our letter dated November 21, 2003:

A. Phosphoric Acid Plant – A and B Train (EU 008 & 009). CAM is applicable for fluoride. The choice of scrubber pressure drop and liquid flow rate through the scrubber are acceptable indicators to monitor. However, indicator ranges must be clearly stated in the monitoring approach table. The selection of the indicator ranges must also be clearly justified and demonstrate that operation at those levels is protective of the allowable emissions limitations. The stated indicator range is non-specific and is equivalent to the permit conditions. Using these as CAM indicator ranges will result in a permit violation every time that a CAM excursion is recorded. Please provide a table of test data that correlates the pressure differentials and flow rates to the tested fluoride emission levels. From this data, provide a justification of your choices and clearly indicate a maximum and minimum pressure drop and water flow rate that will assure compliance with the emission limit.

B. No. 2 Ball Mill Grinding System (EU 022). CAM is applicable for PM. The choice of pressure drop across the baghouse is an acceptable indicator to monitor. Please identify a minimum pressure drop across the baghouse that can be used as an indicator in addition to the 15" maximum pressure drop listed. Please provide a table of test data that correlates the pressure drop to the tested PM emission levels. From this data, provide a justification of your choices and clearly indicate a maximum and minimum pressure drop that will assure compliance with the emission limit.

C. GTSP Production Plant (EU 023). CAM is applicable for PM and fluoride. The choice of scrubber pressure drop and liquid flow rate through the scrubbers are acceptable indicators to monitor. However, indicator ranges must be clearly stated in the monitoring approach table. The selection of the indicator ranges must also be clearly justified and demonstrate that operation at those levels is protective of the allowable emissions limitations. The stated indicator ranges are non-specific and are equivalent to the permit conditions. Using these as CAM indicator ranges will result in a permit violation every time that a CAM excursion is recorded. Please provide a table of test data that correlates the pressure differentials and flow rates to the tested PM and fluoride emission levels. From this data, provide a justification of your choices and clearly indicate a maximum and minimum pressure drop and water flow rate for each of the scrubbers that will assure compliance with the emission limits.

D. GTSP East Storage Building (EU 024 and 025). CAM is applicable for PM and fluoride. The choice of fan amperage as an indicator range may be acceptable if a specific range is specified that can be justified by test data. If not, scrubber pressure drop and scrubber water flow might be more appropriate. Please provide a table of test data that correlates the chosen indicator range(s) to the tested fluoride and PM emission levels. From this data, provide a justification of your choices and clearly indicate specific indicator ranges that will assure compliance with the emission limits.

4. Facility Regulatory Classifications. The application is blank for several items in this section. Each item must be answered yes or no.

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
352/377-5822 ▪ FAX/377-7158

KA 124-03-07

April 21, 2004

RECEIVED
APR 22 2004
BUREAU OF AIR REGULATION

Ms. Cindy Phillips, P.E.
Florida Department of
Environmental Protection
MS 5505
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Additional Information on Title V Permit Renewal
IMC Phosphates Company – South Pierce Plant
File No. 1050055-014-AV

Dear Ms. Phillips:

This is a follow up to the Department's letter dated November 21, 2003, requesting additional information on the above referenced Title V renewal project. The responses are in the order of the issues raised by FDEP.

1. Application Format: The Title V renewal application (EPSAP) has been submitted electronically, in a format acceptable to FDEP.

2. P.E. Seal: It is our understanding that submittal of the application with the appropriate PIN by the P.E. is adequate certification of the application.

3. Facility Supplemental Information: The pertinent facility supplemental information is presented in Attachments 1 and 2. The information that would be reflected in the permit has been presented in Microsoft Word format to facilitate permit editing by FDEP staff. Process flow diagrams are presented in electronic format to facilitate storage in FDEP files.

4. Emission Unit Information: The requested information was provided in the EPSAP application. All updated emission unit information is presented in Attachments 1 and 2.

5. Compliance Assurance Monitoring: For emission units utilizing a scrubber system for emission control, IMC has proposed as CAM to meet the requirements of Facility-wide Condition No. 14 of the current Title V permit. For EU 022, No. 2 Ball Mill Grinding System, which utilizes a bag collector for emission control,

IMC has proposed as CAM to operate within a maximum pressure drop of 15 inches of water, based on the available test data presented in Attachment 2.

6. MACT Applicability: IMC maintains, based on its previous determination, that the South Pierce facility is not a major source of hazardous air pollutants.

7. Facility Regulatory Classification: All items were completed in the application.

8. The requested RO and PE certifications are presented in Attachment 3.

If you have any additional questions, please call Pradeep Raval.

Very truly yours,

KOOGLER & ASSOCIATES

John B. Koogler, Ph.D., P.E.

JBK:par
Encl.

C: C. D. Turley, IMC

ATTACHMENT 1

SUPPLEMENTAL AND UPDATED INFORMATION
SOUTH PIERCE PLANT

Facility-wide Items

1. Please include a provision allowing for 5 percent downtime for monitors and recording equipment due to maintenance, calibration or malfunction, as allowed under certain NSPS.

2. Please note that a total of the daily records may differ somewhat from the annual totals due to inventory adjustments. IMC relies on the daily records for the purposes of annual reports.

3. Please include a provision that would allow equivalency of the methods for recording monitoring parameters such as strip charts, manual records, electronically logged manual reading, electronic records, and electronically filtered records.

4. The procedure, for revision of emission control equipment operating parameter ranges, should be clarified to allow the testing, reporting and implementing of off-permit changes for indicator ranges established for MACT, CAM and emission units under the current facility-wide Condition No. 14. Suggested wording is as follows:

An excursion would occur in case of emission control equipment operating $\pm$ 20 percent of the baseline established value of the daily average of the indicator range determined during annual compliance testing. If an excursion occurs, corrective action will be initiated, including an evaluation of what corrective action is appropriate. The excursion would not be considered a violation if compliance testing is conducted within 30 days to demonstrate compliant operations within the updated indicator range (with due 15-day prior written, including email, notice to FDEP).

Emission Unit-Specific Items (grouped by topic)

5. EU 004 and EU 005:

Specific Conditions C10 and C16: The required calculations for the sulfuric acid plants should allow equivalent methods (Reich test) used for determining the SO2 strength. Equivalent methods of monitoring and reporting should be allowed in the permit. For example, approval of a procedure for electronic calculation of the lb/ton conversion factor required for sulfuric plants that is part of an electronic report generated using programming or software.

6. Please delete the following units as they have been eliminated:

002 – West Loadout
003 – Purified MAP/DAP Plant
012 – Purified MAP/DAP Plant, Silo No. 3
013 – Purified MAP/DAP Plant, Bagging Machine
014 – Purified MAP/DAP Plant, Bulk Truck Loading
016 – Silicofluoride Plant Dryer
017 – Silicofluoride Plant Packaging
027 – Purified MAP/DAP Plant, Silo No. 2
028 – Purified MAP/DAP Plant, Silo No. 1
029 – Purified MAP/DAP Plant, Bulk Railcar Loading
034 – Vent 5, Molten Sulfur Tank 1
044 – Molten Sulfur Rail Pit, North Vent
045 – Molten Sulfur Rail Pit, South Vent
046 – MAP/DAP Filter Cake Dryer

ATTACHMENT 2
(Submitted Electronically)

ITEM 1	LOCATION MAP
ITEM 2	FACILITY LAYOUT MAP
ITEM 3	PROCESS FLOW DIAGRAMS
ITEM 4	PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER
ITEM 5	LIST OF INSIGNIFICANT AND/OR UNREGULATED ACTIVITIES
ITEM 6	SUMMARY OF FUGITIVE EMISSIONS
ITEM 7	SUMMARY OF BAGHOUSE TEST DATA

ATTACHMENT 3

RO & PE CERTIFICATIONS

Professional Engineer Certification

1. Professional Engineer Name: **John B. Koogler, Ph.D, P.E.**
   Registration Number: **12925**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Koogler and Associates**
   Street Address: **4014 NW 13th Street**
   City: **Gainesville** State: **FL** Zip Code: **32609**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 377-5822** ext. Fax: **(352) 377-7158**
4. Professional Engineer Email Address: **jkoogler@kooglerassociates.com**
5. 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.

(3) If the purpose of this application is to obtain a Title V 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 plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☐, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☒, 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.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, 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 (seal) **Date** 4/20/04

*** Attach any exception to certification statement.**

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name:
   Mike Daigle, Vice President Florida Concentrates

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):

   ☒ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

   ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

   ☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

   ☐ The designated representative at an Acid Rain source.

3. Application Responsible Official Mailing Address...
   Organization/Firm: **IMC Phosphates, Inc.**
   Street Address: **P.O. Box 2000**
   City: **Mulberry** State: **FL** Zip Code: **33860**

4. Application Responsible Official Telephone Numbers...
   Telephone: **(863) 428-2500** ext. Fax: **(863) 428-7190**

5. Application Responsible Official Email Address: **mdaigle@imcglobal.com**

6. Application Responsible Official Certification:

I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

Mike Daigle
Signature

4/21/04
Date

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
352/377-5822 ▪ FAX/377-7158

KA 124-03-07

February 17, 2004

Ms. Cindy Phillips, P.E.
Florida Department of
Environmental Protection
MS 5505
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Title V Permit Renewal
IMC Phosphates – South Pierce Facility
Facility ID 1050055

Dear Ms Phillips:

This is in response to the additional information requested in FDEP's letter received November 24, 2003, regarding the above referenced permit renewal.

While some of the requested additional information has already been submitted, the remaining information will require additional time to gather. Accordingly, we hereby request an additional time period of sixty days (until April 22, 2004) in accordance with Rule 62-213.420(1)(b)6, FAC., to submit the requested information.

If you have any questions, please call me.

Very truly yours,

KOOGLER & ASSOCIATES

Pradeep Raval

Par.

c: C. D. Turley, IMC

IMC

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

Certified Mail 7002 0460 0002 8878 6899
Return Receipt Requested

September 25, 2003

Mr. Jason Waters
Florida Department of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, FL 33619-8318

Re: Title V Permit Renewal
IMC Phosphates MP Inc.
Facility Ids 1050055 and 1050059
South Pierce and New Wales Plants

Dear Mr. Waters:

Enclosed are the originals of the Responsible Official Certification pages associated with the above referenced Title V permit renewal applications submitted electronically to the Department. The permit application supplemental information is being sent directly to you by Koogler & Associates.

If you have any questions, please call me at 863.428.7102.

Sincerely,

M. A. Daigle
Vice President
Florida Concentrates

MAD:jp
enc.

cc: Pradeep Raval, Koogler & Associates

nw_sp_waters_titleV

RECEIVED FDEP - SWD
9/29/03

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name: **M.A. Daigle**

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):

   ☒ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

   ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

   ☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

   ☐ The designated representative at an Acid Rain source.

3. Application Responsible Official Mailing Address...
   Organization/Firm: **IMC Phosphates MP Inc.**
   Street Address: **3095 County Road 640 West**
   City: **Mulberry** State: **FL** Zip Code: **33860**

4. Application Responsible Official Telephone Numbers...
   Telephone: **(863) 428-2500** ext. Fax: ( )-

5. Application Responsible Official Email Address:

6. Application Responsible Official Certification:

I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

M.A. Daigle
Signature

September 26, 2003
Date

Exception: Emission Unit information to be revised or updated in EPSAP system (due to problems at time of submittal).

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
352/377-5822 ▪ FAX/377-7158

KA 124-03-06

September 26, 2003

Mr. Jason Waters
Florida Department of
Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, FL 33619-8318

Subject: Title V Permit Renewal
IMC Phosphates MP Inc.
Facility IDs 1050055 and 1050059
South Pierce and New Wales Plants

Dear Mr. Waters:

Enclosed is the supplemental information and the P.E. Certification pages associated with the above referenced Title V permit renewal applications being submitted to FDEP electronically. A disk containing the application summaries and copies of the R.O. Certification pages are also enclosed. The original R.O. Certification pages are being submitted by IMC directly to you.

If you have any questions, please call me.

Very truly yours,

KOOGLER & ASSOCIATES

Raval

Pradeep Raval

Par.
Encl.
C: C.D. Turley, IMC

Professional Engineer Certification

Facility ID: 1050055

1. Professional Engineer Name: **John B. Koogler**
   Registration Number: **12925**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Koogler & Associates**
   Street Address: **4014 NW 13th Street**
   City: **Gainesville** State: **Fl** Zip Code: **32609**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 377-5822** ext. Fax: **(352) 377-7158**
4. Professional Engineer Email Address: **jkoogler@kooglerassociates.com**
5. 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.

(3) If the purpose of this application is to obtain a Title V 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 plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☐, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, 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.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, 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 (seal)

9-26-03
Date

*** Attach any exception to certification statement.**

*EXCEPTION: Emission unit information to be revised/updated on EPSAP as there were system problems at the time of submittal.

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name: M.A. Daigle

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):

- ☒ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.
- ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
- ☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.
- ☐ The designated representative at an Acid Rain source.

3. Application Responsible Official Mailing Address...
Organization/Firm: IMC Phosphates MP Inc.
Street Address: 3095 County Road 640 West
City: Mulberry State: FL Zip Code: 33860

4. Application Responsible Official Telephone Numbers...
Telephone: (863) 428-2500 ext. Fax: ( )-

5. Application Responsible Official Email Address:

6. Application Responsible Official Certification:

I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

M Daigle
Signature

September 26, 2003
Date

Exception: Emission Unit information to be revised or updated in EPSAP system (due to problems at time of submittal).

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
352/377-5822 ▪ FAX/377-7158

KA 124-05-03
February 15, 2006

RECEIVED
FEB 16 2006
BUREAU OF AIR REGULATION

Danielle D. Henry, Permitting Specialist III
FDEP Southwest District
13051 N Telecom Pkwy
Temple Terrace, FL 33637-0926

RE: Construction Permit Application, DEP Project No. 1050055-018-AC
Mosaic Fertilizer, LLC; South Pierce Facility

Dear Ms. Henry:

Mosaic Fertilizer, LLC (Mosaic), is in receipt of the Department's request for additional information received November 21, 2005, regarding Mosaic's air permit application to replace the GTSP Storage Building scrubbing system at their South Pierce Facility. The comments are addressed below in the order they appear in the letter.

1. The four (4) copies of the air construction permit application all appeared to have photocopied pages of the Owner/Authorized Representative Statement, including the signature. Please resubmit Page of the application (DEP Form No. 62-210.900(1)) with the Owner/Authorized Representative's original signature.

   Response: The original Owner/Authorized Representative Statement was submitted under separate cover to Jason Waters and received by the Department on October 23, 2005.

2. Please submit a current Facility Plot Plan, Process Flow Diagram (including design specifications of the scrubbing system) and Precautions to Prevent Emissions of Unconfined Particulate Matter as listed in Section II.C. on Page 11 of the application.

   Response: These attachments were submitted in the Title V renewal application submitted on September 29, 2003. These attachments were not included in this application because it is only required to submit these attachments once every 5 years. However, the Facility Plot Plan, Facility Process Flow Diagram, and Precautions to Prevent Emissions of Unconfined Particulate Matter that were included in the Title V renewal application are attached to this letter for reference. The design specifications are addressed in item 4.

3. Please complete the Equivalent Allowable Emissions rates found in Section III. F2. No. 4 on Page 19 of the application.

   Response: The allowable emissions rates of 0.0005 lb/hr/ton of equivalent P_2O_5 stored is based on 40 CFR 63.622(c). Since the limit is based on a lb/hr/ton stored, it is impossible to specify an equivalent lb/hr limit because the amount stored in the GTSP East Storage

Building will vary with production and shipments which in turn determines the lb/hr allowable emissions rate.

4. Please submit the scrubber design specification information.

   Response: Mosaic does not have the final scrubber design selected yet. Mosaic is currently evaluating several alternatives in design. This design information will probably not be available for another several months. Mosaic is requesting additional time to submit the final scrubber design data to the Department.

If you have any questions regarding this information, please contact me at (352) 377-5822 or FBergen@kooglerassociates.com, or C. David Turley at (863) 428-7153 or David.Turley@mosaicco.com.

Very truly yours,

KOOGLER & ASSOCIATES

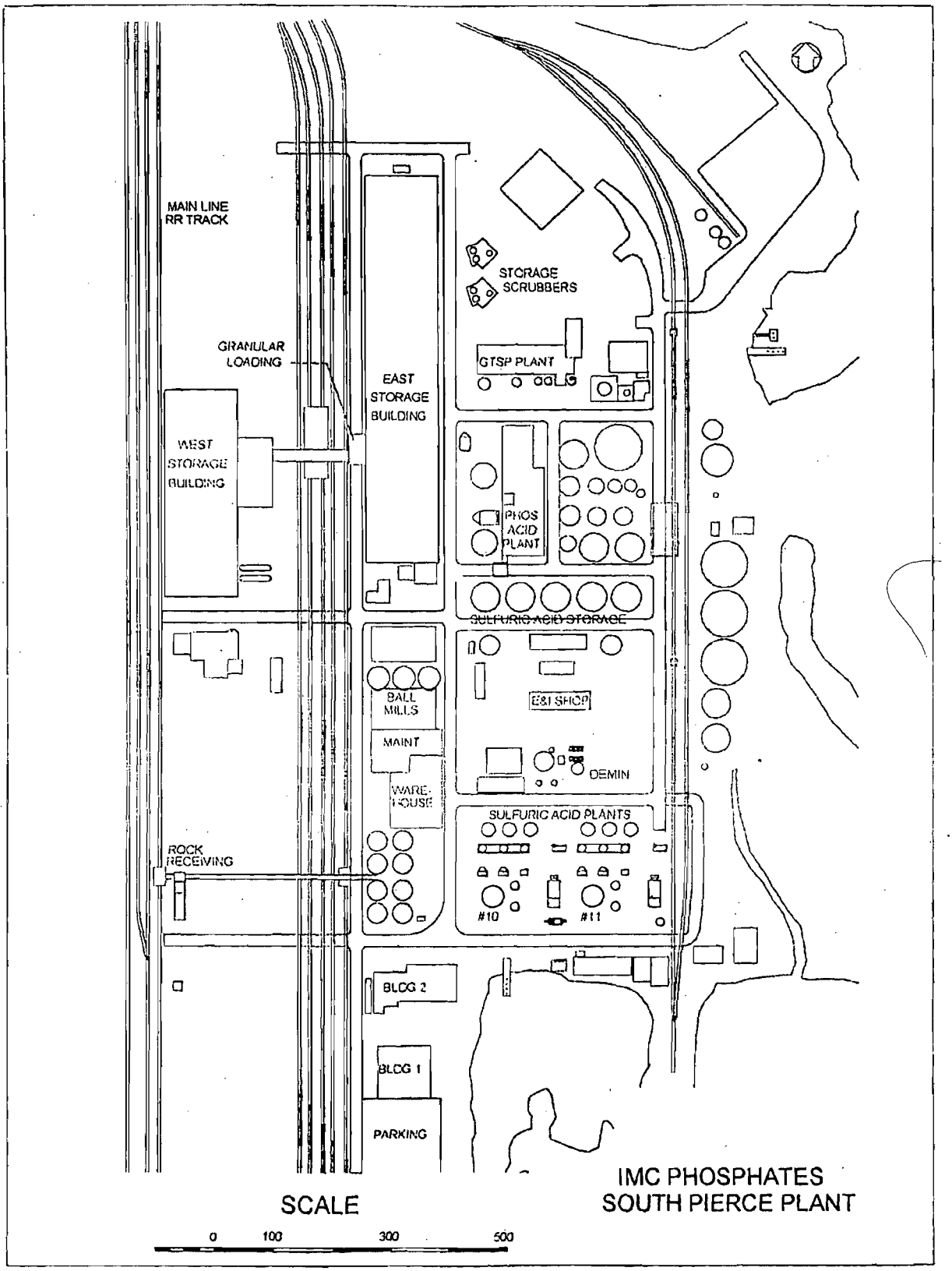
Fawn W. Bergen, P.E.
Project Engineer

FB

Enclosures: Facility Plot Plan
Process Flow Diagrams (North & South Scrubbers)
Precautions to Prevent Emissions of Unconfined Particulate Matter

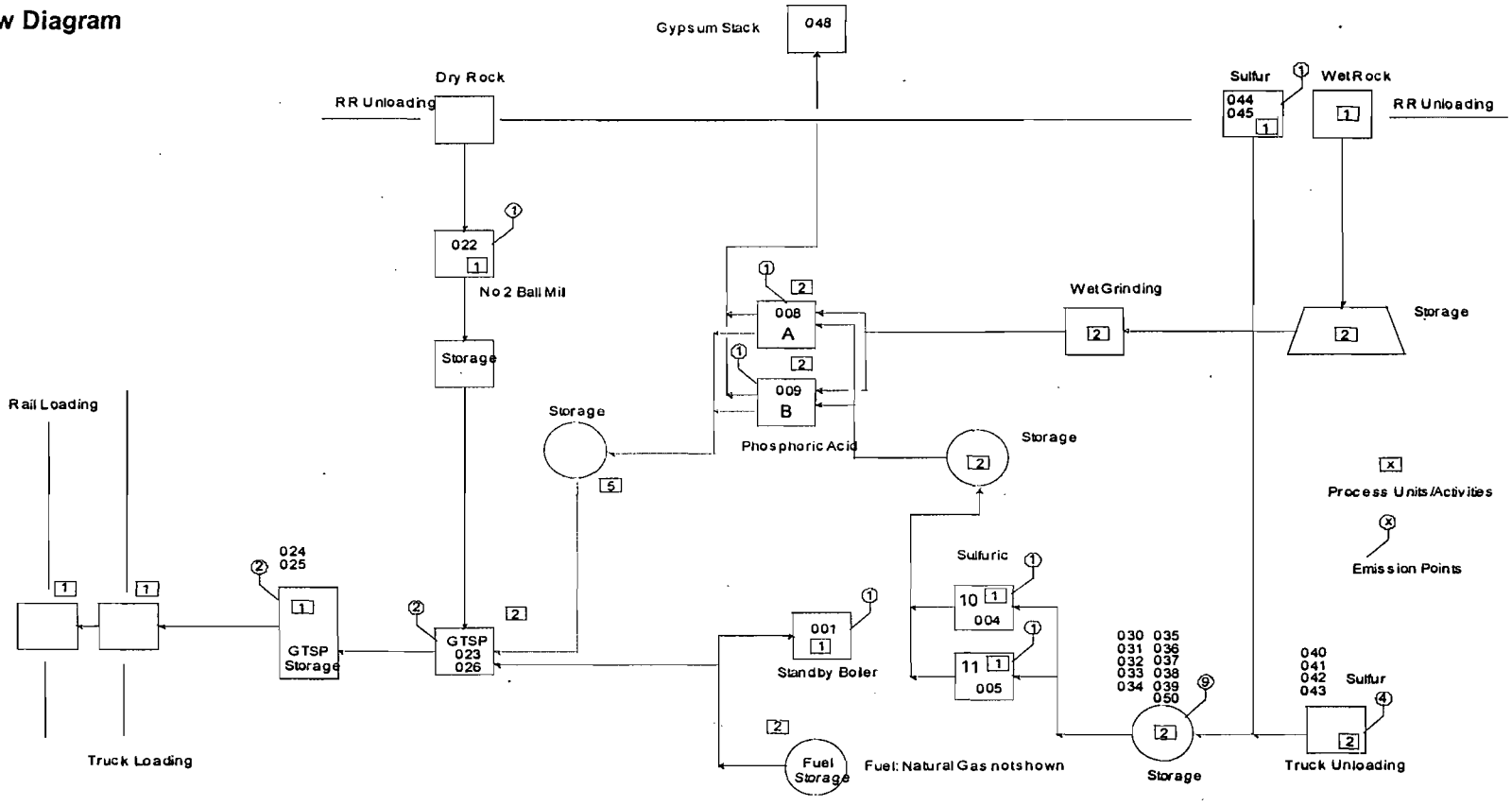
cc: B. Bull, FDEP
D. Turley, Mosaic New Wales

FACILITY PLOT PLAN


MAIN LINE
RR TRACK
GRANULAR
LOADING
WEST
STORAGE
BUILDING
EAST
STORAGE
BUILDING
STORAGE
SCRUBBERS
GTSP PLANT
PHOS
ACID
PLANT
SULFURIC ACID STORAGE
BALL
MILLS
MAINT
WARE-
HOUSE
E&I SHOP
DEMIN
SULFURIC ACID PLANTS
#10
#11
ROCK
RECEIVING
BLDG 2
BLDG 1
PARKING
SCALE
0
100
300
500
IMC PHOSPHATES
SOUTH PIERCE PLANT

PROCESS FLOW DIAGRAMS

Flow Diagram



Control Equipment Discription

This is the overall process flow diagram for South Pierce. The emission points and emission unit ID numbers are shown.

Emission Unit: **South Pierce**

ID No.: **all**

Facility: **IMC Phosphates South Pierce Plant**

ID No.: **1050055**

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

Reasonable precautions to minimize emissions of unconfined particulate matter may include, as necessary:

- Paved roadways; application of water to unpaved roads.
- Landscaping or planting of vegetation.
- Use of enclosures and windbreaks, where practical.
- Oiling of fertilizer products to reduce dust generation.

Mosaic Fertilizer, LLC
P.O. Box 2000
Mulberry, FL 33860

Certified Mail 7004 2510 0002 0526 8541
Return Receipt Requested

June 13, 2006

Mr. Jason Waters
Florida Department of Environmental Protection
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926Southwest District Office

Subject: **RAI Response**
Construction Permit Application
Project No. 1050055-018-AC
South Pierce Plant

Dear Mr. Waters:

Pursuant to your Request for Additional Information dated March 13, 2006, the following is submitted as requested in Item 2.

As you are aware from our conversation on Friday, June 9, 2006, the South Pierce GTSP Plant is currently shutdown. Until such time that the plant operates, the plans for construction or revision of the GTSP Storage Building Scrubbers have been suspended. At this point, future operation of this plant is uncertain from a permitting standpoint. Because of the South Pierce Title V Compliance Plan requirements, it is necessary to continue the construction permit application process for the replacement of the Building Scrubbers. Mosaic proposes that the Request for Additional Information for this project be extended until the construction design is submitted or the Title V permit is revised to reflect that the GTSP Plant will not operate. In the interim, Mosaic could supply the Department monthly or quarterly reports regarding the status for a future specified period such as 6 months.

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

Sincerely,

C. D. Turley
Senior Environmental Engineer

CDT:jp\RAIresp02

C: Fawn Bergen, Koogler
Robert Bull, FDEP
J. A. Golwitzer, Mosaic
Danielle Henry, FDEP