Bull, Robert

From: Turley, Charles D - New Wales [David.Turley@mosaicco.com]
Sent: Thursday, December 01, 2005 9:01 AM
To: Bull, Robert
Subject: RE: GTSP Tailgas Scrubber Parameters

11/18/04: run dp: 7.7, 7.8, 7.6 and run gpm: 4331, 4295, 4394
12/29/04: run dp: 4.6, 4.6, 4.9 and run gpm: 4358, 4325, 4538
thanks.

From: Bull, Robert [mailto:Robert.Bull@dep.state.fl.us]
Sent: Wednesday, November 30, 2005 2:19 PM
To: Turley, Charles D - New Wales
Subject: RE: GTSP Tailgas Scrubber Parameters

Dave,

For both test dates, were these the average of the three runs, high run, or low run? Any range determined for the flow rate?

Thanks

From: Turley, Charles D - New Wales [mailto:David.Turley@mosaicco.com]
Sent: Wednesday, November 30, 2005 1:28 PM
To: Bull, Robert
Cc: Ahrens, Dean - New Wales; praval@kooglerassociates.com
Subject: GTSP Tailgas Scrubber Parameters

Test 11/18/04: 4344 gpm and 7.7 in HOH dp.
Test 12/29/04: 4407 gpm and 4.7 in HOH dp.

The plant is scheduled for retest on 12/13/05.

Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

December 20, 2005

Mr. Jeffry A. Golwitzer
Plant Manager
Mosaic Phosphates Company
Post Office Box 2000
Mulberry, Florida 33860

Dear Mr. Golwitzer:

Enclosed is the department's order approving the alternate monitoring procedure at the Mosaic Phosphates Company's South Pierce Plant located in Polk County, Florida. This order is in response to your November 30, 2005, request submitted to the department.

This order stipulates that Mosaic Phosphates Company will continuously monitor liquid flow rate and pressure drop for each scrubber used to control hydrogen fluoride emissions at the South Pierce Plant. Furthermore, Mosaic will continuously monitor fan amperage for each fan in the scrubber systems. Allowable ranges (minimum and maximum) for liquid flow and fan amperage must be established and submitted to the department for approval. For pressure drop, only a minimum allowable value must be established and submitted for approval. All parameter ranges must be established in accordance with
40 CFR Part 63, Subparts AA and BB.

Please call me at 850/921-9580 if you have any questions regarding this order.

Sincerely,

Russell A. Wider
Emissions Monitoring Section
Bureau of Air Monitoring
and Mobile Sources

/raw

Enclosure

cc: Joel Smolen, DEP Southwest District
Robert Bull, FDEP (Tallahassee)

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the matter of:	)	South Pierce Plant
	)	
Mosaic Phosphates Company	)	
	)	
Petitioner.	)	File No.: 05-L-AP

ORDER ON REQUEST
FOR
ALTERNATE PROCEDURES AND REQUIREMENTS

Pursuant to Rule 62-297.620, Florida Administrative Code (F.A.C.), and Title 40 of the Code of Federal Regulations Part 63, section 63.8 (40 CFR 63.8), Mosaic Phosphates Company, located in Polk County, has petitioned for approval of alternate monitoring requirements for scrubbers at its South Pierce facility. Petitioner has requested approval to monitor fan amperage in lieu of establishing an upper limit on pressure drop across each scrubber. The basis for this request is Petitioner's assertion that fan amperage will provide a better indicator of scrubber performance and prevent frequent and unnecessary plant monitoring excursions. Petitioner agreed to continue to monitor pressure drop, liquid flow rate, and fan amperage for each scrubber. Petitioner also agreed to establish allowable ranges for liquid flow rate and fan amperage and to establish minimum allowable pressure drops for the scrubber systems.

Having considered Petitioner's written request and all supporting documentation, the following Findings of Fact, Conclusions of Law, and Order are entered:

FINDINGS OF FACT

1. 40 CFR 63, Subparts AA and BB require all phosphate fertilizer and phosphoric acid manufacturing plants that are major sources of hazardous air pollutants to monitor liquid flow rate to each scrubber and pressure drop across each scrubber used to control hydrogen fluoride emissions. Additionally, each affected facility must establish allowable ranges for these parameters as specified in Subparts AA and BB and submit those values to the Department for approval. Mosaic Phosphates Company's South Pierce facility is considered a major source of hazardous air pollutants. Therefore, this facility is subject to these requirements.

2. On December 2, 2005, the Department received Petitioner's request for approval of an alternate monitoring plan for Mosaic's South Pierce facility. The alternate monitoring plan was requested for scrubbers subject to 40 CFR 63, Subparts AA and BB: the phosphoric acid manufacturing plants (Emission Units (EU) 008, 009), the GTSP plant (EU 023), and the GTSP East Storage Building North and South scrubbers (EUs 024, 025).

3. Petitioner stated, "Fan amps provide an accurate indication of air movement through the evacuation system and can be a reliable indicator of system upsets. Air flow outside normal ranges could indicate short-circuiting of air through scrubbers, excess tramp air being drawn into the system, scrubber fouling, or inadequate evacuation of process equipment."

4. Petitioner also stated "fan amperage is a better indicator of emissions than pressure drop in the cases when scrubber pressure drop may be relatively small (less than 5 inches.) The result is that for a maximum limit, small deviations in the pressure drop can cause a plant monitoring exception. Requiring a maximum pressure drop as a limit may result in frequent and unnecessary plant monitoring exceptions, while scrubbing efficiency was still maintained."

5. Petitioner further asserted, "...use of fan amps as an alternative parameter meets the intent of the monitoring requirement to assure proper operation of the pollution control system."

6. Petitioner has proposed to perform the necessary baseline emissions testing to establish the minimum pressure drop, minimum and maximum scrubbing liquid flow rates, and minimum and maximum system fan amperage limits for all scrubbers subject to the monitoring provisions of 40 CFR 63, Subparts AA and BB.

CONCLUSIONS OF LAW

1. The Department has jurisdiction to consider Petitioner's request pursuant to Section 403.061, Florida Statutes (F.S.), and Rule 62-297.620, F.A.C.

2. Petitioner has provided reasonable justification that establishing an upper limit on pressure drop in scrubbers at this facility is impractical.

3. Petitioner has provided reasonable justification that monitoring fan amperage in lieu of establishing a maximum pressure drop is no less than an effective indicator of scrubber operation than that achieved by monitoring pursuant to 40 CFR 63, Subparts AA and BB.

ORDER

Having considered Petitioner's written request and supporting documentation, it is hereby ordered that:

1. Petitioner shall not be required to continue to establish an upper limit on the pressure drop across each scrubber.

2. Petitioner shall establish a minimum allowable pressure drop across each scrubber or scrubber system pursuant to the requirements in 40 CFR 63, Subparts AA and BB and shall submit such values to the Department for approval.

3. Petitioner shall establish minimum and maximum acceptable fan amperages for each fan in the scrubbing systems pursuant to the requirements in 40 CFR 63, Subparts AA and BB and shall submit such values to the Department for approval.

4. Petitioner shall establish minimum and maximum acceptable values for liquid flow rate to each scrubber pursuant to the requirements in 40 CFR 63, Subparts AA and BB and shall submit such values to the Department for approval.

5. Petitioner shall continuously monitor pressure drop and liquid flow rate for each scrubber and shall continuously monitor fan amperage for each fan in the scrubbing systems.

6. Except as provided by this order, Petitioner shall comply with all applicable provisions of 40 CFR 63, Subparts AA and BB.

7. This Order shall expire on December 30, 2015.

PETITION FOR ADMINISTRATIVE REVIEW

The Department's proposed agency action will become final upon expiration of the petition period described below unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

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

A petition that disputes the material facts on which the Department's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of how and when petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action;

(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and

(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

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

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

Mediation is not available in this proceeding.

NOTICE OF APPEAL RIGHTS

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

DONE AND ORDERED this 20th day of December, 2005, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Michael G. Cooke

MICHAEL G. COOKE, Director
Division of Air Resource Management
Mail Station 5500
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
(850) 488-0114

Clerk Stamp

FILING AND ACKNOWLEDGMENT

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

Martha Jane Wise 12/20/05

(Clerk) (Date)

Mosaic Phosphates Company
P.O. Box 2000
Mulberry, FL 33860
www.mosaicco.com
Tel 863-428-2500

Certified Mail 7004 2510 0002 0526 9876
Return Receipt Requested

November 30, 2005

Mr. Errin Pichard, P.E.
Florida Department of Environmental Protection
Bureau of Air Monitoring and Mobile Sources
Emission Monitoring Section
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Alternative Monitoring Procedure
Title V Permit No. 1050055-008-AV
South Pierce Plant

Dear Mr. Pichard:

Mosaic submits this proposal for an alternate monitoring procedure (Attachment 1) to meet the 40 CFR 63 Subparts AA and BB requirements for the applicable emission units at the South Pierce Plant.

Use of Fan Amperage as a Surrogate for Maximum Pressure Drop

Mosaic currently measures pressure drop on each scrubber in the scrubbing systems, and maintains a minimum pressure drop across each scrubber pursuant to the current Title V Permit. However, Mosaic proposes to use measurement of scrubber fan amperage as a surrogate for maximum pressure drop required by the 40 CFR 63 Subparts.

Fan amps provide a stable indication of proper operation and maintenance of the pollution control equipment. Mosaic proposes that fan amperage is a more consistent indicator of scrubber system performance and conditions than maximum pressure drop. Fan amps provide an accurate indication of air movement through the evacuation system and can be a reliable indicator of system upsets. Air flow outside normal ranges could indicate short-circuiting of air through the scrubbers, excess tramp air being drawn into the system, scrubber fouling, or inadequate evacuation of process equipment. Therefore, use of fan amps as an alternative parameter meets the intent of the monitoring requirement to assure proper operation of the pollution control system.

Additionally, fan amperage is a better indicator of emissions than pressure drop in the cases when scrubber pressure drop may be relatively small (less than 5 inches.) The result is that for a maximum limit, small deviations in the pressure drop can cause a plant monitoring exception. Requiring a maximum pressure drop as a limit may result in frequent and unnecessary plant monitoring exceptions, while scrubbing efficiency was still maintained.

In addition, no upper limit on pressure is necessary for the scrubbers because increasing the pressure drop would indicate an increase in scrubber efficiency.

November 30, 2005

APPLICABLE PLANTS

The use of the term "scrubber" in these discussions is meant to be generic and refers to all control devices for a particular plant, i.e.; cyclones, venturis, wet scrubbers, etc.

Mosaic will perform the necessary baseline emissions testing to establish the minimum pressure drop, minimum and maximum scrubbing liquid flow rates, and minimum and maximum system fan amperage limits for all scrubbers subject to the HF MACT. If adequate past test data is available, it will be used to establish the initial operating ranges. The data will be submitted to the Florida Department of Environmental Protection, Southwest District Office for approval.

Phosphoric Acid Plants (EUs 008 and 009)

A Phosphoric Acid (EU 008) uses a packed wet scrubber.
B Phosphoric Acid (EU 009) uses a packed wet scrubber.

GTSP Plant (EUs 023)

GTSP Plant uses two venturi scrubbers followed be a single packed scrubber.

GTSP East Storage Building – North Scrubbers (EU 024)

The North System consists of two parallel wet cyclonic scrubbers.

GTSP East Storage Building – South Scrubbers (EU 025)

The South System consists of two parallel wet cyclonic scrubbers

Attachment 2 contains basic flow diagrams for each plant. The flow diagrams indicate the placement of the scrubbers and fans in each system.

Based on information and belief formed after reasonable inquiry, I certify that all statements made in this report, including any attachments, are true, accurate and complete. Please call me or C. D. Turley at 863-7153 if you have any questions concerning this information.

Very truly yours,

Jeffry A. Golwitzer
Plant Manager

JAG:jp\asp req
attachments

cc : Koolger & Associates
J. D. Ahrens
C. D. Turley
Robert Bull, FDEP (Tallahassee)

ATTACHMENT 1

ALTERNATE MONITORING PROCEDURES

FOR

IMPLEMENTATION OF THE HF MACT STANDARD

1.0 INTRODUCTION

The Maximum Achievable Control Technology (MACT) standards applicable to the Mosaic Fertilizer LLC (MOSAIC) facility are codified in Subparts AA and BB of 40 CFR Part 63. Subpart AA is applicable to Phosphoric Acid Manufacturing Plants and associated filters, super phosphoric acid processing, and phosphate rock dryers. Subpart BB is applicable to Phosphate Fertilizer Production Plants. The specific emissions units at South Pierce covered under the MACT regulations are identified below:

1. Subpart AA
   Phosphoric Acid Plant - A Train (008) and B Train (009)

2. Subpart BB
   GTSP Plant (023)
   GTSP East Storage Building – North Scrubbers (EU 024)
   GTSP East Storage Building – South Scrubbers (EU 025)

The MACT standards require certain monitoring requirements for existing sources subject to the rule. Provided below is a description of the monitoring requirements under the MACT standards, the regulatory basis and rationale for requesting an alternate monitoring plan, and the alternate monitoring plan proposed by MOSAIC for the South Pierce facility.

2.0 REQUIREMENTS FOR APPROVAL OF AN ALTERNATE MONITORING METHOD

The General Provisions of the MACT standards (40 CFR 63, Subpart A) provide for approval of an alternate monitoring method. Section 63.8(f) sets forth the requirements. Section 63.8(f)(2) states "After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this part...". The application may be submitted at any time provided the monitoring procedure is not the performance test method used to demonstrate compliance.

The application must contain a description of the proposed alternate monitoring system, which addresses the four elements contained in the definition of monitoring in § 63.2. These four elements are:

Indicators of performance,
Measurement techniques,
Monitoring frequency, and
Averaging time.

In addition, the application must include information justifying the owner or operator's request for an alternate monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

3.0 MONITORING REQUIREMENTS UNDER SUBPARTS AA and BB

The scrubber monitoring requirements under Subparts AA and BB are identical. Provided below is a summary of these requirements.

Plants using a wet scrubbing emission control system shall install, calibrate, maintain, and operate the following monitoring systems:

A monitoring system which continuously measures and permanently records the pressure drop across each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ±5 percent over its operating range.

A monitoring system which continuously measures and permanently records the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ±5 percent over its operating range.

For each source using a wet scrubbing emission control system and subject to emissions limitations for total fluorides or particulate matter contained in this subpart, the source must establish allowable ranges for operating parameters for each scrubber in the process scrubbing system, using either of the following methodologies:

The allowable range for the daily averages is ±20 percent of the baseline average value determined from performance testing. The allowable range could be adjusted downward to ±10 percent based on test results. The baseline average value can be readjusted based on subsequent performance testing.

The source can establish, and provide to the Administrator for approval, allowable ranges for the daily averages based on performance testing. The source shall certify that the control devices and processes have not been modified subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The owner or operator must request and obtain approval of the Administrator for changes to the allowable ranges. When a source using the methodology of this paragraph is retested, the owner or operator shall determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges.

4.0 CURRENT MONITORING AT SOUTH PIERCE PLANT

The current monitoring for sources covered under the MACT standards at MOSAIC are summarized below. MOSAIC has routinely monitored for scrubber liquid flow rates and pressure drops across the scrubbers in each of these facilities. This information is reported with each compliance test.

Phosphoric Acid Plant

A Train (EU 008) uses a packed wet scrubber.

B Train (EU 009) uses a packed wet scrubber.

Liquid flow rate, pressure drop, and fan amps are currently monitored for each of these scrubbers. The current Title V permit establishes minimum flow rate and pressure drop limits for each scrubber based on performance tests.

GTSP Plant

GTSP Plant (EU 023) uses 2 venturi scrubbers followed by a final packed scrubber.

Liquid flow rate and pressure drop are currently monitored for each of these scrubbers. The amps are for the two system fans are currently monitored. The current Title V permit establishes minimum flow rate and pressure drop limits for each scrubber based on performance tests.

GTSP East Storage Building

GTSP East Storage Building – North Scrubbers (EU 024) use two wet cyclonic scrubbers that vent to a single stack.

GTSP East Storage Building – South Scrubbers (EU 025) use two wet cyclonic scrubbers that vent to a single stack.

Fan amps and pressure drop are currently monitored for each of these scrubbers. The current Title V permit establishes minimum a fan amp limit for each scrubber based on performance tests.

5.0 PROPOSED ALTERNATE MONITORING METHOD

Monitoring Plan

This section describes the monitoring plan MOSAIC proposes to comply with Subpart AA and BB monitoring requirements at their facility. The monitoring plan addresses the definition of monitoring contained in 40 CFR 63.2.

Indicators of Performance

The following indicators of performance will be used on each of the process scrubbing systems (as applicable):

Liquid flow rate (minimum and maximum) on each scrubber. The minimum and maximum value will be determined using the baseline average liquid flow rates experienced for each scrubber during the performance test(s), as described for liquid flow and pressure drop in 40 CFR 63.605(d).

Fan amperage (minimum and maximum) for each fan associated with the process scrubbing system. The minimum and maximum values will be determined using the baseline average fan amperage values experienced for each fan during the performance test(s), using the same methodology described for liquid flow and pressure drop in 40 CFR 63.605(d).

Pressure drop (minimum) for each scrubber. The minimum value will be determined using the baseline average minimum pressure drop experienced for each scrubber during the performance test(s), as described for liquid flow and pressure drop in 40 CFR 63.605(d).

Measurement Techniques

The minimum and maximum values will be determined using the baseline average water flow rate values experienced for each scrubber during the performance test(s), using the methodology described in 40 CFR 63.605(d).

The minimum and maximum value will be determined using the baseline average fan amperage values experienced for each fan during the performance test(s), using the methodology described in 40 CFR 63.605(d).

The minimum value will be determined using the baseline average pressure drop values experienced for each scrubber during the performance test(s), using the methodology described in 40 CFR 63.605(d).

If adequate information is available to establish a range for the scrubbing liquid flow rates, the minimum pressure drop, and the fan amps, MOSAIC will use those values

(plus or minus 20 percent) to establish the initial operating ranges. If insufficient data is available for any parameter, the methodology described in 40 CFR 63.605(d) will be followed.

The necessary equipment has been installed to record the required information for each control device.

Monitoring Frequency

Monitoring of all performance indicators will be performed continuously, and a permanent record established. Consistent with the MACT standards, the continuous measurements for each indicator of performance will be reduced to 15-minute block averages.

Averaging Time

Each of the indicators of performance will be expressed as a daily (i.e., 24-hour block) average. This is consistent with the MACT standards. To determine compliance, the 15-minute block averages will be utilized to determine the daily average value of the parameter by averaging all 15-minute block averages for an operating day.

6.0 PROPOSED MONITORING PARAMETERS

Presented below are MOSAIC's proposed Title V monitoring parameters for each source to implement the MACT alternate monitoring plan.

Phosphoric Acid Plant – A Train (EU 008)

Pollution Control Equipment	Parameter	Minimum Limitation	Maximum Limitation	Units	Averaging Time
Packed Scrubber	Water Flow	Note 1	Note 1	GPM	24-hr
	Pressure Drop	Note 2	N/A	" H2O	24-hr
	Fan Amperage	Note 3	Note 3	Amps	24-hr

N/A = Not Applicable

Note 1. The minimum and maximum values will be determined using the baseline average water flow rate values experienced for each scrubber during the performance test(s), using the methodology described in 40 CFR 63.605(d).

Note 2. The minimum value will be determined using the baseline average pressure drop values experienced for each scrubber during the performance test(s), using the methodology described in 40 CFR 63.605(d).

Note 3. The minimum and maximum value will be determined using the baseline average fan amperage values experienced for each fan during the performance test(s), using the methodology described in 40 CFR 63.605(d).

Note 4. If adequate information is available to establish a range for the scrubbing liquid flow rates, the minimum pressure drop, and the fan amps, MOSAIC will use those values (plus or minus 20 percent) to establish the initial operating ranges. If insufficient data is available for any parameter, the procedures outlined in Notes 1 – 3 will be followed.

Phosphoric Acid Plant – B Train (EU 009)

Pollution Control Equipment	Parameter	Minimum Limitation	Maximum Limitation	Units	Averaging Time
Wet Scrubber	Water Flow	Note 1	Note 1	GPM	24-hr
	Pressure Drop	Note 2	N/A	" H2O	24-hr
	Fan Amperage	Note 3	Note 3	Amps	24-hr

N/A = Not Applicable

Note 1. The minimum and maximum values will be determined using the baseline average water flow rate values experienced for each scrubber during the performance test(s), using the methodology described in 40 CFR 63.605(d).

Note 2. The minimum value will be determined using the baseline average pressure drop values experienced for each scrubber during the performance test(s), using the methodology described in 40 CFR 63.605(d).

Note 3. The minimum and maximum value will be determined using the baseline average fan amperage values experienced for each fan during the performance test(s), using the methodology described in 40 CFR 63.605(d).

Note 4. If adequate information is available to establish a range for the scrubbing liquid flow rates, the minimum pressure drop, and the fan amps, MOSAIC will use those values (plus or minus 20 percent) to establish the initial operating ranges. If insufficient data is available for any parameter, the procedures outlined in Notes 1 – 3 will be followed.

GTSP Plant (EU 023)

Pollution Control Equipment	Parameter	Minimum Limitation	Maximum Limitation	Units	Averaging Time
RGCV Scrubber	Scrubbing Media Flow	Note 1	Note 1	GPM	24-hr
	Pressure Drop	Note 2	N/A	" H2O	24-hr
	Fan Amperage	N/A	N/A	Amps	24-hr
Dryer Scrubber	Scrubbing Media Flow	Note 1	Note 1	GPM	24-hr
	Pressure Drop	N/A	N/A	" H2O	24-hr
	Fan Amperage	Note 3	Note 3	Amps	24-hr
Tailgas Scrubber	Scrubbing Media Flow	Note 1	Note 1	GPM	24-hr
	Pressure Drop	Note 2	N/A	" H2O	24-hr
	Fan Amperage	N/A	N/A	Amps	24-hr

Note: The RGCV scrubber has a single fan that discharges to the Tailgas Scrubber.
The Dryer Scrubber has a single fan that discharges to the Tailgas Scrubber.
The Tailgas Scrubber pressure drop is determined as the difference of inlet and outlet static pressure measurements. It discharges to the atmosphere through a final single stack.

N/A = Not Applicable

Note 1. The minimum and maximum values will be determined using the baseline average values experienced for each scrubber during the performance test(s), using the methodology described in 40 CFR 63.625(f).

Note 2. The minimum values will be determined using the baseline average pressure drop values experienced for each scrubber during the performance test(s), using the methodology described in 40 CFR 63.625(f).

Note 3. The minimum and maximum values will be determined using the baseline average system fan amperage values for the entire scrubbing system during the performance test(s), using the methodology described in 40 CFR 63.625(f).

Note 4. If adequate information is available to establish a range for the scrubbing liquid flow rates, the minimum pressure drop, and the fan amps, MOSAIC will use those values (plus or minus 20 percent) to establish the initial operating ranges. If insufficient data is available for any parameter, the procedures outlined in Notes 1 – 3 will be followed.

GTSP East Storage Building – North Scrubbers (EU 024)

Pollution Control Equipment	Parameter	Minimum Limitation	Maximum Limitation	Units	Averaging Time
No. 1 Scrubber	Scrubbing Media Flow	Note 1	Note 1	GPM	24-hr
	Pressure Drop	Note 2	N/A	" H2O	24-hr
	Fan Amperage	Note 3	Note 3	Amps	24-hr
No. 2 Scrubber	Scrubbing Media Flow	Note 1	Note 1	GPM	24-hr
	Pressure Drop	Note 2	N/A	" H2O	24-hr
	Fan Amperage	Note 3	Note 3	Amps	24-hr

Note: The system consists to two parallel wet cyclonic scrubbers each with a fan that discharge to the atmosphere through a final single stack.

N/A = Not Applicable

Note 1. The minimum and maximum values will be determined using the baseline average values experienced for each scrubber during the performance test(s), using the methodology described in 40 CFR 63.625(f).

Note 2. The minimum values will be determined using the baseline average pressure drop values experienced for each scrubber during the performance test(s), using the methodology described in 40 CFR 63.625(f).

Note 3. The minimum and maximum values will be determined using the baseline average system fan amperage values for the entire scrubbing system during the performance test(s), using the methodology described in 40 CFR 63.625(f).

Note 4. If adequate information is available to establish a range for the scrubbing liquid flow rates, the minimum pressure drop, and the fan amps, MOSAIC will use those values (plus or minus 20 percent) to establish the initial operating ranges. If insufficient data is available for any parameter, the procedures outlined in Notes 1 – 3 will be followed.

GTSP East Storage Building – South Scrubbers (EU 025)

Pollution Control Equipment	Parameter	Minimum Limitation	Maximum Limitation	Units	Averaging Time
No. 1 Scrubber	Scrubbing Media Flow	Note 1	Note 1	GPM	24-hr
	Pressure Drop	Note 2	N/A	" H2O	24-hr
	Fan Amperage	Note 3	Note 3	Amps	24-hr
No. 2 Scrubber	Scrubbing Media Flow	Note 1	Note 1	GPM	24-hr
	Pressure Drop	Note 2	N/A	" H2O	24-hr
	Fan Amperage	Note 3	Note 3	Amps	24-hr

Note: The system consists to two parallel wet cyclonic scrubbers each with a fan that discharge to the atmosphere through a final single stack.

N/A = Not Applicable

Note 1. The minimum and maximum values will be determined using the baseline average values experienced for each scrubber during the performance test(s), using the methodology described in 40 CFR 63.625(f).

Note 2. The minimum values will be determined using the baseline average pressure drop values experienced for each scrubber during the performance test(s), using the methodology described in 40 CFR 63.625(f).

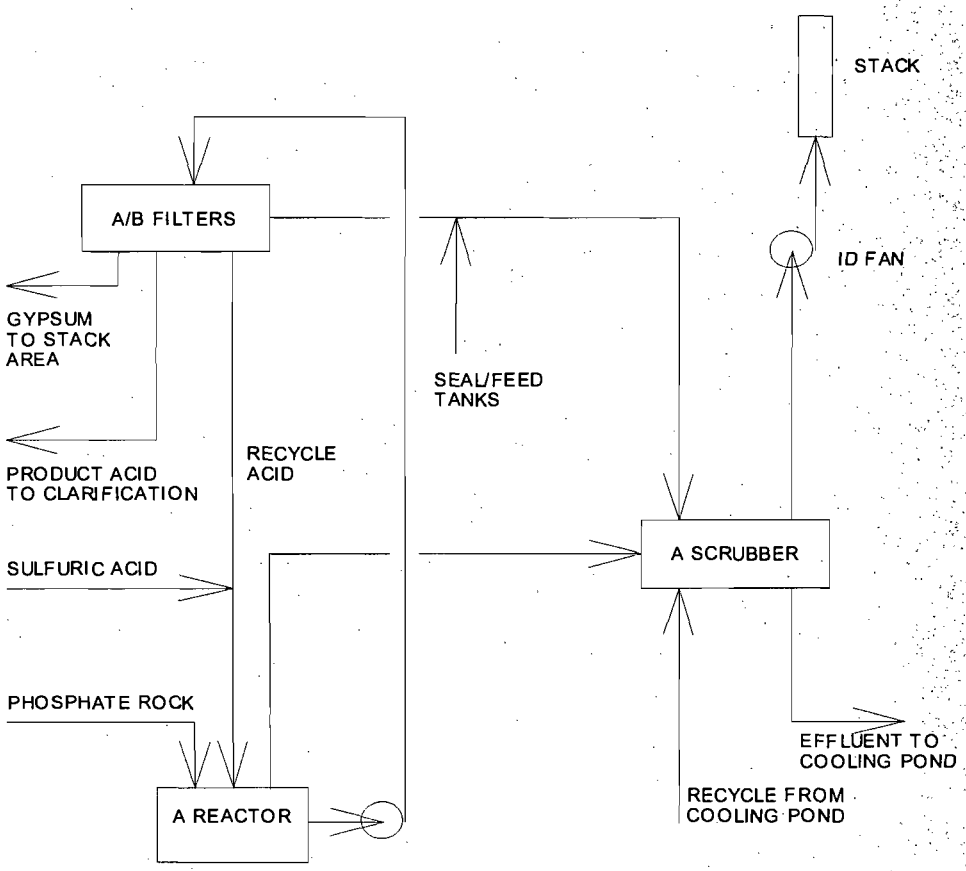
Note 3. The minimum and maximum values will be determined using the baseline average system fan amperage values for the entire scrubbing system during the performance test(s), using the methodology described in 40 CFR 63.625(f).

Note 4. If adequate information is available to establish a range for the scrubbing liquid flow rates, the minimum pressure drop, and the fan amps, MOSAIC will use those values (plus or minus 20 percent) to establish the initial operating ranges. If insufficient data is available for any parameter, the procedures outlined in Notes 1 – 3 will be followed.

ATTACHMENT 2

PLANT FLOW DIAGRAMS

Flow Diagram



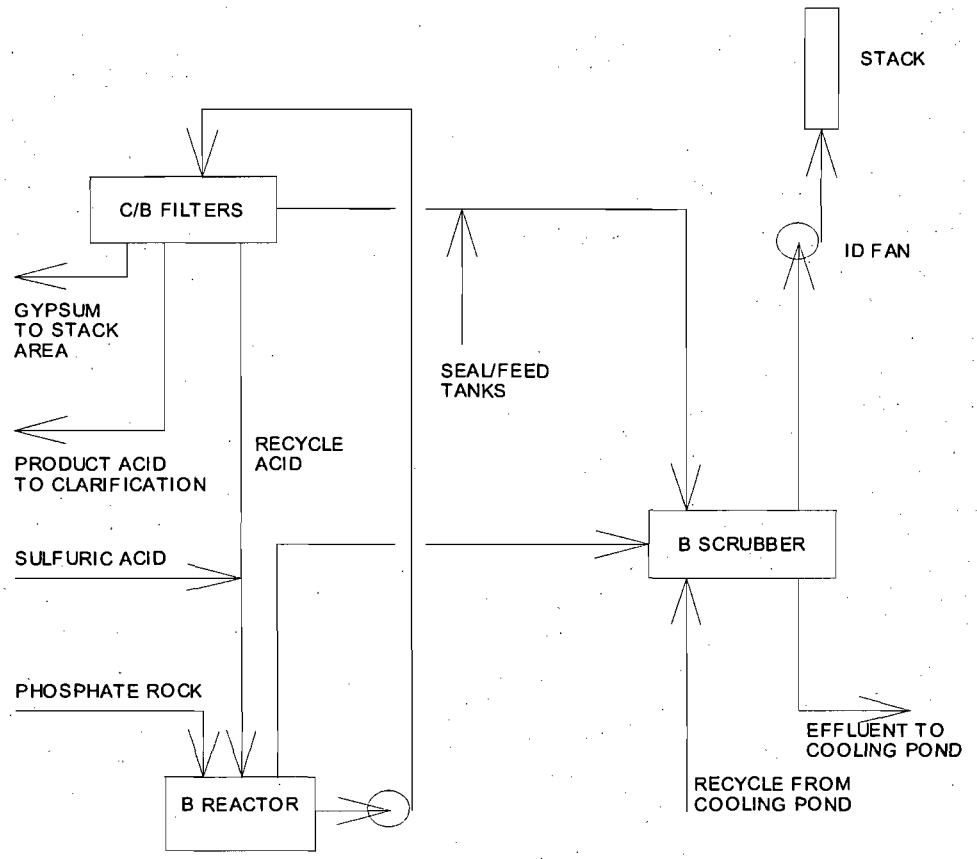
Control Equipment Discription

The emissions from the reactor, filter and seal tanks are controlled by a crossflow scrubber using process water. The scrubber contains Kimre Pads as its packing material.

Emission Unit: **Phosphoric Acid Plant - A Train** ID No.: **008**

Facility: **Mosaic Fertilizer South Pierce Plant** ID No.: **1050055**

Flow Diagram



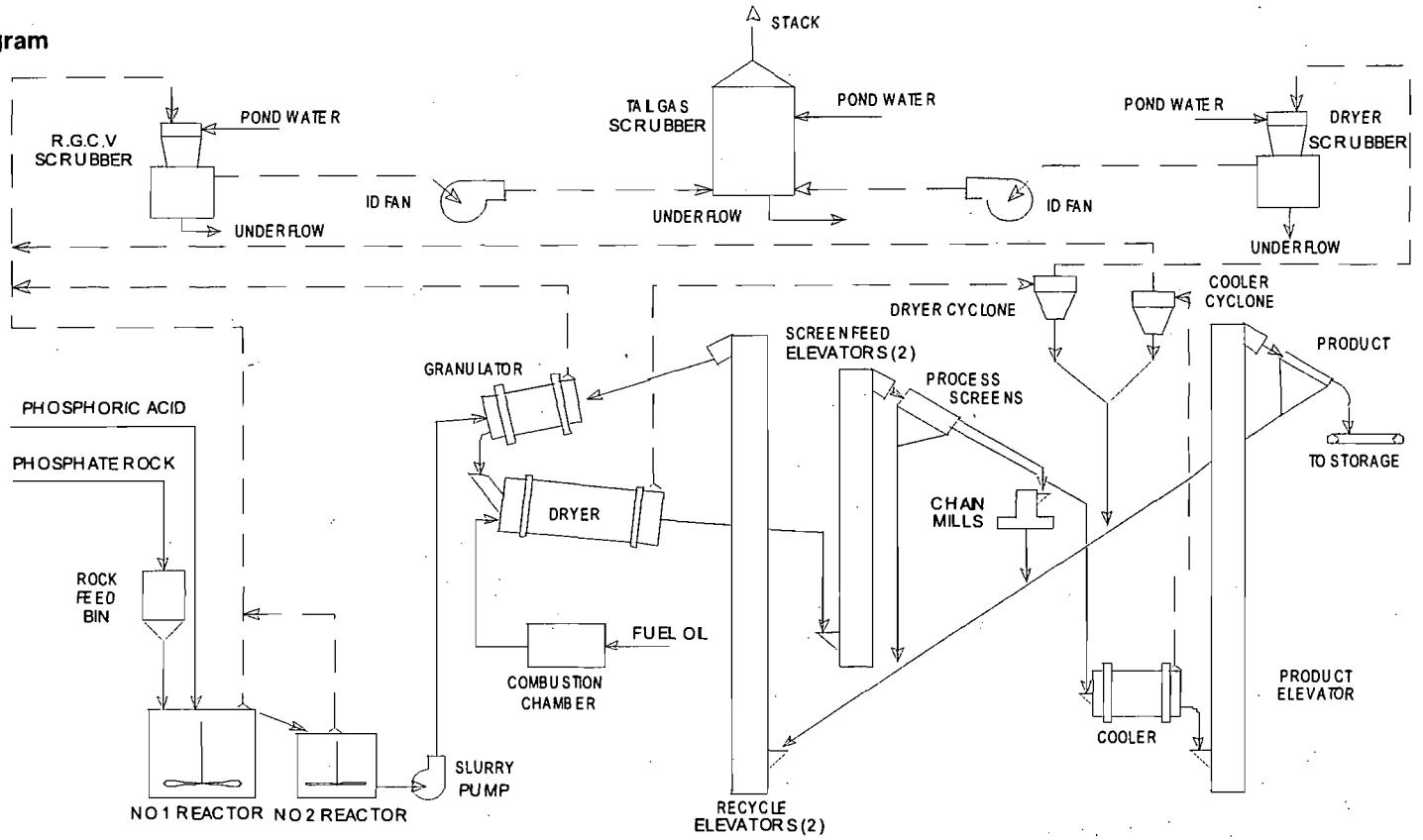
Control Equipment Discription

The emissions from the reactor, filter and seal tanks are controlled by a crossflow scrubber using process water. The scrubber contains Kimre Pads as its packing material.

Emission Unit: **Phosphoric Acid Plant - B Train** ID No.: **009**

Facility: **Mosaic Fertilizer South Pierce Plant** ID No.: **1050055**

Flow Diagram



Control Equipment Discription

The emissions are controlled by two parallel systems each consisting of venturi scrubber followed in series by vertical 2-stage packed scrubber using process water.

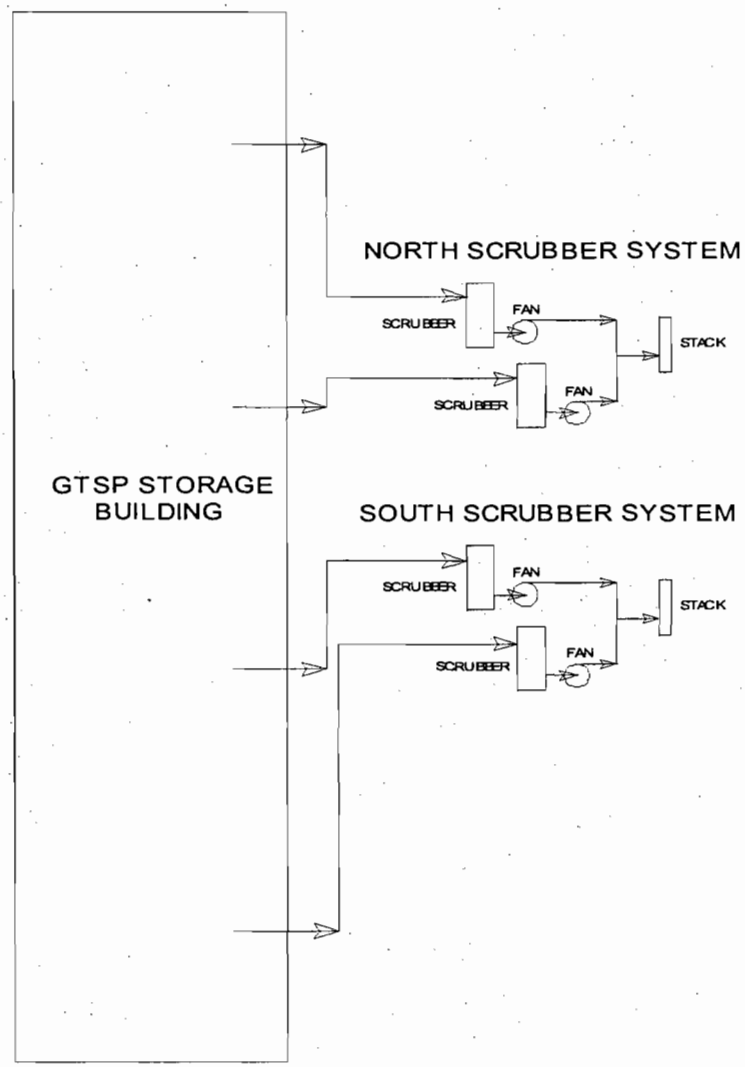
Emission Unit: **GTSP Production Plant**

ID No.: **023**

Facility: **Mosaic Fertilizer South Pierce Plant**

ID No.: **1050055**

Flow Diagram



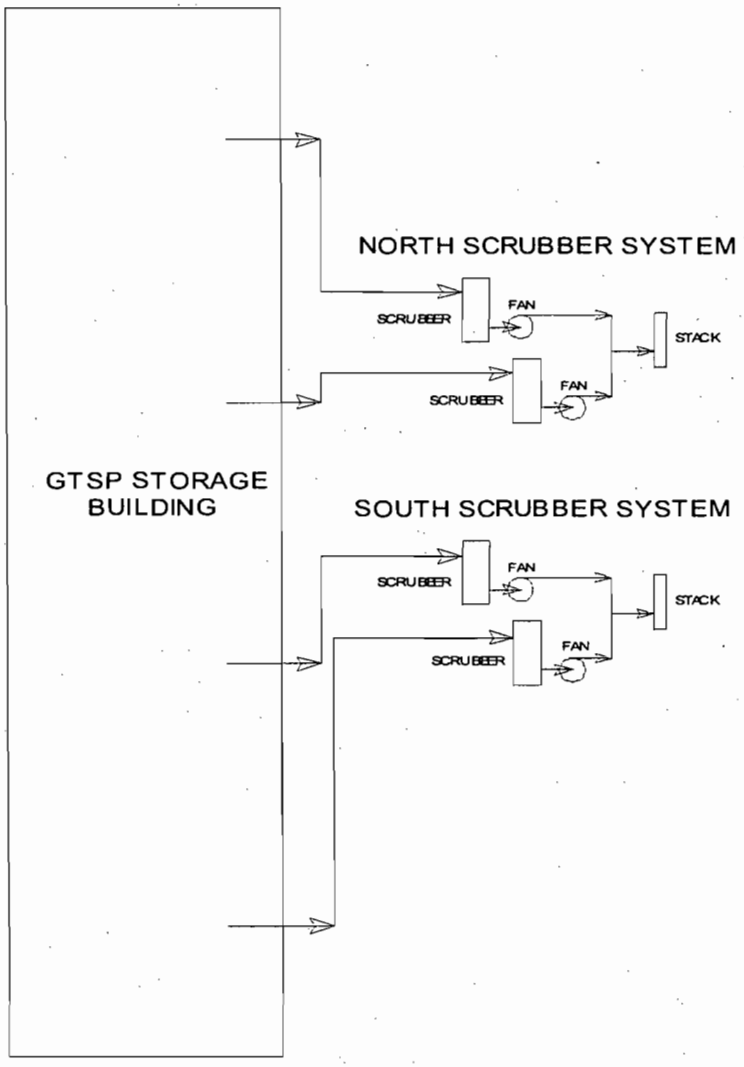
Control Equipment Discription

The emissions are controlled by two parallel systems each consisting of two cyclonic scrubbers and fans. Each scrubber pair vents to a common vertical stack. Each scrubber uses process water as the scrubbing liquid. (Note: an application to replace these scrubbers has been submitted.)

Emission Unit: **GTSP East Storage Building - North Scrubbers** ID No.: **024**

Facility: **Mosaic Fertilizer South Pierce Plant** ID No.: **1050055**

Flow Diagram



Control Equipment Discription

The emissions are controlled by two parallel systems each consisting of two cyclonic scrubbers and fans. Each scrubber pair vents to a common vertical stack. Each scrubber uses process water as the scrubbing liquid. (Note: an application to replace these scrubbers has been submitted.)

Emission Unit: **GTSP East Storage Building - South Scrubbers** ID No.: **025**

Facility: **Mosaic Fertilizer South Pierce Plant** ID No.: **1050055**

Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

October 19, 2005

Mr. Jeffrey A. Golwitzer, Plant Manager
Mosaic Fertilizer, LLC
South Pierce Plant
Post Office Box 2000
Mulberry, Florida 33860

Dear Mr. Golwitzer:

Enclosed is the department's order approving the alternate sulfur deposition collection procedure at the Mosaic Fertilizer's South Pierce facility in Polk County, Florida. This order is in response to the October 4 request submitted to the department by Koogler & Associates on behalf of Mosaic.

Please call me at 850/921-9509 if you have any questions regarding this order.

Sincerely,

Errin Pichard, P.E., Administrator
Emissions Monitoring Section
Bureau of Air Monitoring
and Mobile Sources

/ep

Enclosure

cc: Mara Nasca, DEP Southwest District
Bobby Bull, DARM
Pradeep Raval, Koogler & Associates

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the matter of:	)	Permit No.: 1050055-013-AC
	)	
Mosaic Fertilizer, LLC	)	
	)	
Petitioner.	)	File No.: 05-J-AP

ORDER ON REQUEST
FOR
ALTERNATE PROCEDURES AND REQUIREMENTS

Pursuant to Rule 62-297.620, Florida Administrative Code (F.A.C.), Mosaic Fertilizer located in Polk County, has petitioned for approval of an alternate sampling procedure for monitoring the deposition of sulfur particulate at its South Pierce facility. The Petitioner requested approval to transfer the sample from the copper collection jar of the Nipher Gauge into a polypropylene or HDPE container to be sent offsite for analysis. The basis for this request is the Petitioner's assertion that shipping the Nipher Gauge collection jar to a laboratory is not practical. In addition, Petitioner requests permission to use an alternate collection jar if the copper jar is unavailable.

Having considered Petitioner's written request and all supporting documentation, the following Findings of Fact, Conclusions of Law, and Order are entered:

FINDINGS OF FACT

1. On October 4, 2005, the Department received Petitioner's request for approval to alter the sample collection requirement of Rule 62-212.600(2)(c), F.A.C., to allow the transfer of the water and solid particulate contents from the copper collection jar of the Nipher Gauge into a polypropylene or HDPE container for shipping, and to allow the use of a glass collection jar in lieu of the copper collection jar.

2. Petitioner requested "approval of an alternate procedure under provisions of Rule 62-297.620, FAC, for collecting and conveying a sample from a modified Nipher Gauge to a laboratory for analysis."

3. In addition, Petitioner requested approval for "the use of a glass collection jar of the same dimensions if the copper jar is unavailable due to any unforeseen circumstances."

4. Petitioner stated that, "The alternate procedure would involve the transfer of the water and solid particulate contents from the copper collection jar of the Nipher Gauge into a plastic (polypropylene or HDPE) container by using a triple distilled water rinse. The container will be sealed, the liquid level marked and sent off for analysis."

5. Further, Petitioner stated that, "As suggested by FDEP, a pH measurement and a measurement of the volume of water in the Nipher Gauge (to the nearest milliliter) will be conducted prior to the distilled water rinse."

6. Petitioner also stated, "Only qualified laboratory-trained personnel will conduct the sample transfer. A record will be kept of the sample pH value, the volume of distilled water rinse along with a Chain of Custody form."

7. As justification for the use of the proposed alternate sampling procedure, Petitioner stated, "The Nipher Gauge, available only by custom order from the Canadian government, has a single copper collection jar. Shipping the jar to a laboratory is not practical in this instance as the jar has no fitting lid; it is extremely heavy; and, it would be very difficult to replace if lost or damaged in transit."

8. Rule 62-212.600(2)(c), F.A.C., states, "No attempt shall be made to remove collected particulate sample from the modified Nipher Gauge jar at the field site. The modified Nipher Gauge deposition collection jar shall be covered and taken to the laboratory for analysis of the contents."

9. It is standard laboratory practice to use specialized shipping containers in order to protect the integrity of a sample during storage and handling. Shipping samples in glass containers risks breakage of the container and loss of the sample. Plastic containers are less prone to breakage and decrease this risk. The type of plastic selected is dictated by the need for the container to remain inert when exposed to the sample to minimize contamination of the sample.

CONCLUSIONS OF LAW

1. The Department has jurisdiction to consider Petitioner's request pursuant to Section 403.061, Florida Statutes (F.S.), and Rule 62-297.620, F.A.C.

2. Petitioner has provided reasonable justification that it may not be practical to ship the Nipher Gauge copper collection jar to an offsite lab for analysis of the contents, and that an alternate method is acceptable. The use of plastic (polypropylene or HDPE) shipping containers to minimize contamination of the sample is practical. The Department's conclusion is based upon review of standard laboratory procedures and dialogue with established laboratory professionals.

3. Petitioner has provided reasonable justification that the use of an alternate glass collection jar of the same dimensions is adequate for determining sulfur particulate deposition. The Department's conclusion is based upon the design of the copper collection jar, and review of standard laboratory procedures and dialogue with established laboratory professionals.

4. Pursuant to Rule 62-297.310(7), F.A.C., the Department may require Petitioner to conduct quality assurance tests that identify inconsistencies with or problematic data, if, after investigation, it is believed that any applicable condition of the applicable permits is being violated.

ORDER

Having considered Petitioner's written request and supporting documentation, it is hereby ordered that:

1. Petitioner shall not be required to ship the copper collection jar of the Nipher Gauge along with the contents to the lab for analysis.

2. The copper collection jar of the Nipher Gauge shall be covered and taken to a room at the facility, which shall be assigned to function as the sample laboratory. This room must be an enclosed, clean environment suitable for sample collection.

3. A pH measurement shall be taken and recorded prior to transfer of the sample from the copper collection jar to the shipping container.

4. Following pH measurement, the sample shall be transferred to the shipping container. The remaining contents of the copper collection jar shall be transferred to the shipping container by rinsing with exactly 100 milliliters of distilled water. After the shipping container is sealed, the sample level shall be marked on the outside of the shipping container.

5. Only qualified laboratory trained personnel shall conduct the pH test and sample transfer.

6. Only polypropylene, high-density polyethylene (HDPE) or Teflon containers shall be used for the shipping container.

7. In the event that the copper collection jar is stolen or damaged beyond repair, the Petitioner may use a glass replacement collection jar of the same dimensions.

8. The Petitioner shall submit the design of the replacement glass jar for approval by the Department's Emissions Monitoring Section prior to use in the field.

9. Only borosilicate glass shall be used for the replacement collection jar.

10. This Order shall not abrogate Petitioner's obligation to comply with any periodic monitoring requirements established pursuant to the provisions of the federal Clean Air Act (42 USC 1857, et seq) as amended in 1990.

11. This Order shall expire on October 1, 2010.

PETITION FOR ADMINISTRATIVE REVIEW

The Department's proposed agency action will become final upon expiration of the petition period described below unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed agency action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within twenty-one days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within twenty-one days of publication of the public notice or within twenty-one days of receipt of this notice, whichever occurs first. Under Section 120.60(3), however, any person who asked the Department for

notice of agency action may file a petition within twenty-one days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of how and when petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action;

(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and

(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

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

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

Mediation is not available in this proceeding.

NOTICE OF APPEAL RIGHTS

Any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes, by filing a notice of appeal under Rule 9.110 of the Florida rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of

the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

DONE AND ORDERED this 19th day of October, 2005, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Michael G. Cooke

MICHAEL G. COOKE, Director
Division of Air Resource Management
Mail Station 5500
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
(850) 488-0114

Clerk Stamp

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

Martha J. Wise (Clerk) October 19, 2005 (Date)