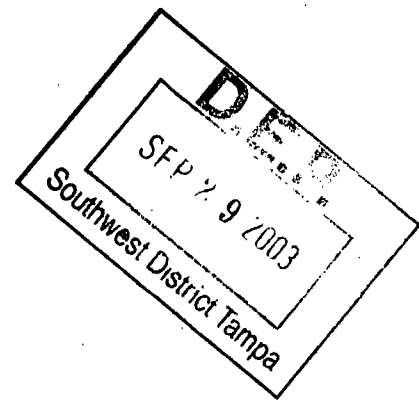


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**COMPLIANCE ASSURANCE  
MONITORING PLAN  
(CAM PLAN)  
FOR  
IMC PHOSPHATES COMPANY  
SOUTH PIERCE FACILITY**

**Prepared For:  
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Mulberry, FL**

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0337582**

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## **1.0 EMISSION UNITS REQUIRING CAM PLANS**

### **1.1 CAM Rule Applicability Definition**

IMC Phosphates Company (IMC) was issued a Title V Air Operation Permit (Permit No. 1050055-008-AV) that was effective March 26, 1999 for their South Pierce facility. This permit expires on May 26, 2004. In order to renew this permit, a renewal application must be submitted to the Florida Department of Environmental Protection (FDEP) by September 26, 2003.

As part of the Title V renewal application, as required through regulations adopted in Title 40, Part 64 of the Code of Federal Regulations (40 CFR 64), Compliance Assurance Monitoring (CAM) Plans must be submitted. This regulation has been incorporated by reference in Rule 62-204.800 and implemented in Rule 62-213.440.

CAM plans are required for all Title V permitted emission units using control devices to meet federally enforceable emission limits or standards with pre-control emissions greater than "major" source thresholds. The term "control device" is defined as equipment, other than inherent process equipment, that is used to destroy or remove air pollutants prior to discharge to the atmosphere. EPA considers the following three factors to constitute inherent process equipment:

- The primary purpose of the equipment is other than to control emissions;
- The cost savings of product recovery is greater than the cost of the equipment itself; and
- The equipment would still be installed even if there were no emission limits.

The CAM rules contain specific exemptions from applicability of the CAM Rule. Specifically exempted from the CAM Rule are emissions units subject to requirements under Stratospheric Ozone Regulations (40 CFR 82), the Acid Rain Program (40 CFR 72), or that are part of an emissions cap included in the Title V Permit. Also exempt are emission units subject to New Source Performance Standards (40 CFR 60) and National Emission Standards for Hazardous Air Pollutants (40 CFR 63) promulgated after November 15, 1990, as these sources have CAM-equivalent monitoring requirements included as part of the standard.

### **1.2 Emissions Units Requiring CAM Plans**

A review of emission units at the IMC South Pierce facility was conducted to determine the applicability of the CAM Rule. This evaluation was conducted for each emission unit and pollutant. First, the existence of a "control device" as defined by the CAM Rule was determined on a source-by-source basis for each pollutant. Those emission units without control devices were eliminated from further consideration. The remaining emission units were then evaluated on a pollutant-by-pollutant

basis to determine if a control device was used to meet a federally enforceable emission limit or standard.

Each pollutant without a federally enforceable emission limit or standard, emitted from a given emission unit, was eliminated from further consideration. Uncontrolled annual emissions were then calculated for each remaining source-pollutant combination. If uncontrolled emissions for a pollutant emitted from a given emission unit source were below the major source threshold as defined by the CAM Rule, that pollutant was not further considered.

A summary of the results of this evaluation process is presented in Table 1. Supporting information is presented in Tables 2 and 3. Specific exemptions to the applicability of the CAM Rule were also considered in this evaluation.

Each pollutant-specific emissions unit identified to require a CAM plan is described below.

#### 1.2.1 Phosphoric Acid Plant—A and B Train (EU 008 and 009)

IMC operates a phosphoric acid plant (PAP), with two trains—the "A" (EU 008) and "B" train (EU 009). Both "A" and "B" PAP trains have federally enforceable emission limits for fluoride (F). Both the "A" and "B" PAP trains use control devices to comply with these emission limits. Fluoride emissions from each PAP train are controlled by crossflow scrubbers equipped with Kimre pads. As shown in Table 2, uncontrolled annual F emissions from each PAP train are above the major source threshold (100 TPY). Since the PAP trains have F emission limits, use control devices to meet these emission limits, and have uncontrolled F emissions greater than the major source threshold, a CAM plan is required for this pollutant.

F  
scrubber

#### 1.2.2 No. 2 Ball Mill Grinding System (EU 022)

IMC operates a ball mill grinding system, designated as the No. 2 Ball Mill Grinding System (EU 022). The No. 2 Ball Mill Grinding System has a federally enforceable emission limit for particulate matter (PM). A bag collector is used to comply with this emission limit. Uncontrolled annual PM emissions from the No. 2 Ball Mill Grinding System are above the major source threshold for PM. As such, a CAM plan must be prepared for this source for PM.

PM  
Bag house

### 1.2.3 GTSP Production Plant (EU 023)

IMC operates a granular triple superphosphate (GTSP) production plant (EU 023). The GTSP Plant has federally enforceable emission limits for PM and F. Two venturi scrubbers and one packed-bed scrubber are utilized to comply with these emission limits. As shown in Tables 2 and 3, uncontrolled annual PM and F emissions, from the GTSP Plant are above the major source threshold of 100 TPY. Consequently, CAM plans are required for the GTSP Plant for PM and F.

*PM & F  
scrubbers  
2V & 1PB*

### 1.2.4 GTSP East Storage Building (EU 024 and 025)

The GTSP East Storage Building (EU024 and 025) is used to store GTSP. The GTSP East Storage Building has federally enforceable permit limits for PM and F emissions. Two parallel scrubber systems, designated the north (EU 024) and south (EU 025) scrubber systems, each consisting of two wet cyclonic scrubbers are used to comply with these emission limits. As shown in Tables 2 and 3, uncontrolled annual PM and F emissions, are above the major source threshold of 100 TPY. Therefore, CAM plans are required for the GTSP East Storage Building for PM and F.

*PM & F  
wet cyclonic*

### 1.2.5 All Other Permitted Sources

In addition to the sources described above, IMC's Title V Permit includes the following sources:

1. Sulfuric Acid Plants Nos. 10 and 11 (EU 004, 005)
2. Auxiliary Boiler (EU 001)
3. GTSP Rock Hopper Bin (EU 026)
4. Molten Sulfur Storage Tanks and Truck/Rail Pits (EU 030 through 045)
5. Phosphogypsum Stack (EU 048)

None of these sources require CAM plans at this time. EU 001, 030 through 045, and 048 do not have control equipment. EU 048 does not have any federally enforceable emission limits.

The Sulfuric Acid Plants Nos. 10 and 11 use mist eliminators to reduce sulfuric acid mist emissions. The primary purpose of the mist eliminators is for acid recovery and to prevent corrosion in the stack and of surrounding process equipment and structures as well as control sulfuric acid mist emissions. Although the mist eliminators are controlling sulfuric acid mist emissions, the mist eliminators would still be installed if no emissions limits existed. They are normal equipment for a double contact process sulfuric acid plant. Furthermore, mist eliminators have been installed in sulfuric acid plants prior to any emissions regulations such as NSPS. Therefore, the Sulfuric Acid Plants Nos. 10 and 11

do not use "control devices" as defined in 40 CFR Part 64, thus a CAM plan is not required for these sources for sulfuric acid mist. *ols*

The GTSP Rock Hopper Bin uses a baghouse to recover dry rock product. The dry rock is pneumatically conveyed into the GTSP Rock Hopper Bin. The primary purpose of the baghouse is to recover product. It is standard practice to operate a pneumatic conveyor with a baghouse. The baghouse would still be used if no air pollution control regulations existed. Therefore, the GTSP Rock Hopper Bin does not use "control devices" as defined in 40 CFR 64, thus a CAM plan is not required for this source for PM. *ols*



Table 1. CAM Applicability Determination for IMC Phosphates, South Pierce

Emission Source	Title V EU ID	Control Equipment	Pollutants with Permitted Emission Limits	Uncontrolled Emission Rates (TPY) <sup>a</sup>					CAM Plan Required? (Yes/No)	Comments
				SO <sub>2</sub>	SAM	NO <sub>x</sub>	PM/PM <sub>10</sub>	F		
Auxiliary Boiler	001	none	PM	--	--	--	--	--	No	No control equipment.
Sulfuric Acid Plant No. 10	004	none	SAM, SO <sub>2</sub> , NO <sub>x</sub>	--	--	--	--	--	No	No control equipment for SAM, SO <sub>2</sub> and NO <sub>x</sub> .
Sulfuric Acid Plant No. 11	005	none	SAM, SO <sub>2</sub> , NO <sub>x</sub>	--	--	--	--	--	No	No control equipment for SAM, SO <sub>2</sub> and NO <sub>x</sub> .
Phosphoric Acid Plant--A Train	008	Cross-flow scrubber	F	--	--	--	--	> 100	Yes	CAM required for F.
Phosphoric Acid Plant--B Train	009	Cross-flow scrubber	F	--	--	--	--	> 100	Yes	CAM required for F.
No. 2 Ball Mill Grinding System	022	Cyclonic separators, baghouse	PM	--	--	--	>100	--	Yes	CAM required for PM.
GTSP Production Plant	023	Venturi scrubbers, packed-bed scrubbers	PM, F	--	--	--	>100	> 100	Yes	CAM required for PM and F.
GTSP East Storage Building	024, 025	Wet cyclonic scrubbers	PM, F	--	--	--	>100	1,825	Yes	CAM required for PM and F.
GTSP Rock Hopper Bin	026	none	PM	--	--	--	--	--	No	No control equipment.
Molten Sulfur Storage Tanks, Truck/Rail Pits	030 - 045	none	PM	--	--	--	--	--	No	No control equipment.
Phosphogypsum Stack	048	none	--	--	--	--	--	--	No	No control equipment or emissions limits.

<sup>a</sup> Refer to Tables 2 and 3 for calculations.

Note: The major source thresholds for all pollutants-shown is 100 TPY.

Table 2. Summary of Uncontrolled PM Emission Calculations for Sources Potentially Applicable to the CAM Plan Requirements, IMC Phosphates, South Pierce

Emission Source	Title V EU ID	Production/ Process Rate	Uncontrolled PM Emissions		
			Emission Factor	Ref.	Emission Rate (TPY)
No. 2 Ball Mill Grinding System	022	70.0 TPH	--	(1)	>100
GTSP Production Plant	023	140 TPH	--	(1)	>100
GTSP East Storage Building	024, 025	7,500 TPD output	--	(1)	>100

References:

(1) Controlled emissions (from Permit No. 1050055-008-AV) are > 100 TPY, therefore uncontrolled emissions > 100 TPY.

Table 3. Summary of Uncontrolled F Emission Calculations for Sources Potentially Applicable to the CAM Plan Requirements, IMC Phosphates, South Pierce

Emission Source	Title V EU ID	Production/ Process Rate	Uncontrolled F Emissions		
			Emission Factor	Ref.	Emission Rate (TPY)
Phosphoric Acid Plant--A Train	008	55.45 TPH $P_2O_5$	--	(1)	> 100
Phosphoric Acid Plant--B Train	009	55.45 TPH $P_2O_5$	--	(1)	> 100
GTSP Production Plant	023	140 TPH GTSP	--	(1)	> 100
GTSP East Storage Building	024, 025	7,500 TPD output	1.33 lb/ton product	(2)	1,825

References:

- (1) IMC believes that the maximum potential uncontrolled F emissions are greater than 100 TPY based on knowledge of the process and operational experience.
- (2) Emission factor based on AP-42, Table 8.5.2-1 (7/93), for the controlled emissions from a GTSP curing building (storage and shipping). Uncontrolled emissions calculated by using the controlled emission factor (0.04 lb/ton product) and assuming a 97% control efficiency for the scrubbing system.

## **2.0 FLUORIDE EMISSIONS FROM THE PHOSPHORIC ACID PLANT**

### **2.1 Background**

#### **2.1.1 Emissions Unit**

Description:	Phosphoric Acid Plant, A and B Trains
Emission Unit ID:	008, 009

#### **2.1.2 Applicable Regulations, Emission Limits, and Monitoring Requirements**

Regulations:	Permit No. 1050055-008-AV
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Emissions Limits:	
Total Fluorides:	0.02 lb/ton $P_2O_5$ feed rate, 1.11 lb/hr [Permit AC53-34868 and 40 CFR 60.202]

Monitoring Requirements:	Currently required to continuously monitor the mass flow of phosphorous-bearing feed material to the process and to continuously monitor the total pressure drop across the process scrubbing system.
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#### **2.1.3 Control Technology**

Fluoride emissions from the PAP "A" and "B" Train reactors, filters, and other process equipment are controlled by cross-flow scrubbers equipped with Kimre pads.

## 2.2 Monitoring Approach

	Indicator No. 1	Indicator No. 2
Indicator	Pressure drop across scrubber.	Scrubber liquid flow rate.
Measurement Approach	Each pressure drop is monitored with a differential pressure transducer.	Each scrubber liquid flow rate is measured using magnetic flow tube elements.
Indicator Range	An excursion is defined as operation at a daily average pressure drop at less than 90% of the pressure drop reported during the most recent satisfactory compliance test. Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as operation at a daily average liquid flow at less than 1200 gpm. Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	The minimum accuracy of each device is $\pm 5\%$ .	The minimum accuracy of each device is $\pm 5\%$ .
Verification of Operational Status	NA	NA
QA/QC Practices and Criteria	Each differential pressure transducer is calibrated at least annually.	Each flow sensor is calibrated at least annually.
Monitoring Frequency	Each pressure drop is monitored continuously.	Each scrubber liquid flow is monitored continuously.
Data Collection Procedures	Scrubber pressure drop is recorded once per 12-hour shift. Daily averages are computed.	Scrubber liquid flow rate is recorded once per 12-hour shift. Daily averages are computed.
Averaging Period	Daily average.	Daily average.

## 2.3 Justification

### 2.3.1 Rationale for Selection of Performance Indicators

The performance indicators selected are liquid flow rate and total gas pressure drop. To achieve the required emission reduction, a minimum liquid flow rate must be supplied to absorb the given amount of F in the gas stream. The L/G ratio is a key operating parameter of the scrubber. If the L/G ratio decreases below the minimum, sufficient mass transfer of the pollutant from the gas phase to the liquid phase will not occur. The minimum liquid flow rate required to maintain the proper L/G ratio at the maximum gas flow and vapor loading through the scrubber can be determined. Maintaining this minimum liquid flow, even during periods of reduced gas flow, will ensure the required L/G ratio is achieved at all times.

Pressure drop was selected as a performance indicator because it indicates the integrity of the scrubber packing and the effectiveness of water distribution on the Kimre pads in the scrubber.

Maintaining an adequate water flow promotes good supply and distribution of water in the scrubber. A low pressure drop is caused by a loss of water in the scrubber or scrubber pad damage.

### **2.3.2 Rationale for Selection of Performance Ranges**

The pressure drop indicator range values will be determined during annual compliance testing. The minimum scrubber flow of 1200 gpm is specified in Condition III.D.7 of the Title V Permit (Permit No. 1050055-008-AV). The monitoring approach is based on the Condition II.14 of the Title V Permit (Permit No. 1050055-008-AV). An excursion is defined as operation at less than 90% of the rate reported during the most recent satisfactory compliance test. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported.

### 3.0 PARTICULATE EMISSIONS FROM THE NO. 2 BALL MILL

#### 3.1 Background

##### 3.1.1 Emissions Unit

Description: No. 2 Ball Mill Grinding System  
Emission Unit ID: 022

##### 3.1.2 Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations: Permit No. 105005-008-AV

##### Emissions Limits:

Particulate Matter: 31.8 lb/hr, 139.3 TPY [Rule 62-296.700(2)(b), F.A.C., Request by applicant, Based on 4/29/03 screen model memorandum for PM-RACT exemption.]

Opacity: 20% [Rule 62-296.320(4)(b), F.A.C.]

Monitoring Requirements: Currently required to monitor the pressure drop across the bag collector daily.

##### 3.1.3 Control Technology

Particulate emissions are controlled by a bag collector.

#### 3.2 Monitoring Approach

	Indicator No. 1
Indicator	Pressure drop across bag collector.
Measurement Approach	Pressure drop across the baghouse measured with a differential pressure transducer
Indicator Range	An excursion is defined as a daily average pressure drop greater than 15 inches water. Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	The minimum accuracy of the device is $\pm 5\%$ .
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.

### **3.3 Justification**

#### **3.3.1 Rationale for Selection of Performance Indicators**

In general, baghouses are designed to operate at a relatively constant pressure drop. Monitoring pressure drop provides a means of detecting a change in operation that could lead to an increase in emissions. An increase in pressure drop can indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, the bags are being blinded, or the airflow has increased. The pressure drop across the baghouse also serves to indicate that there is proper airflow through the control device.

#### **3.3.2 Rationale for Selection of Performance Indicator Values**

The indicator value chosen for the baghouse is a pressure drop greater than 15 in. H<sub>2</sub>O. The indicator value was selected based on operational data and experience. An excursion triggers an inspection, corrective action, and a reporting requirement.

The 15-minute monitoring frequency was selected because it is consistent with the CAM requirements [40 CFR 64.3(b)(4)(ii)] for sources with potential controlled emissions greater than the major source threshold (100 TPY).



#### 4.0 PARTICULATE AND FLUORIDE EMISSIONS FROM THE GTSP PRODUCTION PLANT

##### 4.1 Background

###### 4.1.1 Emissions Unit

Description: GTSP Production Plant  
Emission Unit ID: 023

###### 4.1.2 Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations: Permit No. 105005-008-AV

Emissions Limits:

Particulate Matter: 35 lb/hr (based on 80 TPH production rate), 153 TPY,  
or:

$$E = (3.59) P^{0.62}, \text{ where } P \leq 30 \text{ TPH, or}$$

$$E = (17.31) P^{0.16}, \text{ where } P > 30 \text{ TPH}$$

[Rule 62-296.700(2)(b), F.A.C., Requested by application, based on the 12/30/81 dispersion modeling memorandum for PM-RACT exemption]

Fluorides: 5.7 lb/hr, 0.15 lb/ton  $P_2O_5$ , 25 TPY [Rule 62-296.403(1)(d)2, and application date 7/23/93]

Opacity: 20% [Rule 62-296.320(4)(b), F.A.C.]

Monitoring Requirements: Currently required to monitor the volumetric liquid flow rate and the gas pressure drop for the RGCV scrubber, the dryer scrubber, and the 2-stage packed-bed tailgas scrubber.

###### 4.1.3 Control Technology

Emissions from the reactors, granulator, cooler and miscellaneous points are vented to a venturi scrubber designated as the "RGCV" scrubber. Emissions from the cooler vent to the RGCV scrubber. Emissions from the dryer are vented to a venturi scrubber designated as the "Dryer" scrubber. The RGCV and Dryer scrubbers use process water as the scrubbing liquid. Gases from the RGCV and Dryer scrubber vent to a 2-stage packed-bed tailgas scrubber. The venturi scrubbers primarily control particulate matter, while the packed-bed scrubbers primarily control gaseous pollutants.

## 4.2 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 operation at a daily average pressure drop of less than 90% of the pressure drop reported during the most recent satisfactory compliance test. Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as operation at a daily average liquid flow of less than 90% of the liquid flow reported during the most recent satisfactory compliance test. Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	The minimum accuracy of the device is $\pm 5\%$ .	The minimum accuracy of the device is $\pm 5\%$ .
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.

## 4.3 Justification

### 4.3.1 Rationale for Selection of Performance Indicators

#### VENTURI SCRUBBERS

The performance indicators selected are liquid flow rate and total gas pressure drop as specified in Condition II.14 of the Title V Permit (Permit No. 1050055-008-AV). To achieve the required emission reduction, a minimum liquid flow rate must be supplied to remove the given amount of PM in the gas stream. The L/G ratio is a key operating parameter of the scrubber. If the L/G ratio decreases below the minimum, PM removal will not occur. The minimum liquid flow rate required to maintain the proper L/G ratio at the maximum gas flow and PM loading through the scrubber are determined during annual compliance testing. Maintaining this minimum liquid flow, even during periods of reduced gas flow, will ensure the required L/G ratio is achieved at all times.

Pressure drop was selected as a performance indicator because it indicates the level of impaction energy in the throat of the venturi scrubber. The energy in the throat indicates PM removal efficiency. If pressure drop is too low, proper PM removal will not occur.

#### **PACKED-BED SCRUBBER**

The performance indicators selected are liquid flow rate and total gas pressure drop across the scrubber. To achieve the required emission reduction, a minimum liquid flow rate must be supplied to absorb the given amount of F in the gas stream. The L/G ratio is a key operating parameter of the scrubber. If the L/G ratio decreases below the minimum, sufficient mass transfer of the pollutant from the gas phase to the liquid phase will not occur. The minimum liquid flow rate required to maintain the proper L/G ratio at the maximum gas flow and vapor loading through the scrubber can be determined. Maintaining this minimum liquid flow, even during periods of reduced gas flow, will ensure the required L/G ratio is achieved at all times.

Pressure drop was selected as a performance indicator because it indicates the integrity of the scrubber packing and the effectiveness of water distribution to the packing in the scrubber. Maintaining an adequate water flow promotes good supply and distribution of water in the scrubber. A low pressure drop is caused by a loss of water in the scrubber or scrubber packing displacement.

#### **4.3.2 Rationale for Selection of Performance Indicator Ranges**

The indicator ranges will be determined during annual compliance testing. The monitoring approach is based on the Condition 14 of the Title V Permit (Permit No. 1050055-008-AV). An excursion is defined as operation at less than 90% of the rate reported during the most recent satisfactory compliance test. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported.

The 15-minute monitoring frequency was selected because it is consistent with the CAM requirements [40 CFR 64.3(b)(4)(ii)] for sources with potential controlled emissions greater than the major source threshold (100 TPY).

## 5.0 PARTICULATE AND FLUORIDE EMISSIONS FROM THE GTSP EAST STORAGE BUILDING

### 5.1 Background

#### 5.1.1 Emissions Unit

Description: GTSP East Storage Building  
Emission Unit ID: 024, 025

#### 5.1.2 Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations: Permit No. 105005-008-AV

##### Emissions Limits:

Particulate Matter: 40.1 lb/hr (product weight rate > 190 TPH), 175.6 TPY, or  
Where production rate <= 190 TPH:

$$E = (3.59) P^{0.62}, \text{ where } P \leq 30 \text{ TPH, or}$$

$$E = (17.31) P^{0.16}, \text{ where } P > 30 \text{ TPH}$$

From both scrubber systems combined.

[Rule 62-296.700(2)(b), F.A.C., Requested by applicant,  
Based on the 4/29/83 screen model memorandum for  
PM-RACT exemption, Rule 62-296.320(4)(a)2, F.A.C.]

Fluorides: 7.8 lb/hr, 34.2 TPY from both scrubber systems combined  
[Rule 62-296.403(2) and application dated 7/23/93.]

Opacity: 20% [Rule 62-296.320(4)(b), F.A.C.]

Monitoring Requirements: Currently required to monitor fan amperage for both  
scrubber systems.

#### 5.1.3 Control Technology

Two parallel scrubber systems control emissions generated at the East Storage Building. The scrubber systems are similar in construction and operation. Each scrubber system consists of collector ducts alongside the Building and two wet cyclonic scrubbers in parallel exhausting to a common stack.

## 5.2 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 operation at less than 90% of the daily average fan amperage reported during the most recent satisfactory compliance test. 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 $\pm 5A$ .
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.

## 5.3 Justification

### 5.3.1 Rationale for Selection of Performance Indicators

Good operation of the fan is essential for maintaining the required air flow through the scrubber. The fan amps setting will be determined during annual compliance testing. This monitoring approach is similar to that of Condition II.14 of the Title V Permit (Permit No. 1050055-008-AV). Fan amperage is an indicator of proper fan operation and adequate air flow through the scrubber.

### 5.3.2 Rationale for Selection of Performance Indicator Ranges

The indicator ranges will be determined during annual compliance testing. The monitoring approach is based on the Condition II.14 of the Title V Permit (Permit No. 1050055-008-AV). An excursion is defined as operation at less than 90% of the rate reported during the most recent satisfactory compliance test. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported.

The 15-minute monitoring frequency was selected because it is consistent with the CAM requirements [40 CFR 64.3(b)(4)(ii)] for sources with potential controlled emissions greater than the major source threshold (100 TPY).

**6.0 PE SIGNATURE**

4. Professional Engineer Statement:

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

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

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

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

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

David A. Buff

Date

9/25/03

\* Attach any exception to certification statement.