Compliance Assurance Monitoring Requirements

Pursuant to Rule 62-213.440(1)(b)1.a., F.A.C., the CAM plans that are included in this appendix contain the monitoring requirements necessary to satisfy 40 CFR 64. Conditions 1. – 17. are generic conditions applicable to all emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the attached tables, as submitted by the applicant and approved by the Department.

40 CFR 64.6 Approval of Monitoring.

1. The attached CAM plan(s), as submitted by the applicant, is/are approved for the purposes of satisfying the requirements of 40 CFR 64.3.
[40 CFR 64.6(a)]

2. The attached CAM plan(s) include the following information:
(i) The indicator(s) to be monitored (such as temperature, pressure drop, emissions, or similar parameter);
(ii) The means or device to be used to measure the indicator(s) (such as temperature measurement device, visual observation, or CEMS); and
(iii) The performance requirements established to satisfy 40 CFR 64.3(b) or (d), as applicable.
[40 CFR 64.6(c)(1)]

3. The attached CAM plan(s) describe the means by which the owner or operator will define an exceedance of the permitted limits or an excursion from the stated indicator ranges and averaging periods for purposes of responding to (see **CAM Conditions 5. - 9.)** and reporting exceedances or excursions (see **CAM Conditions 10. – 14.**).
[40 CFR 64.6(c)(2)]

4. The permittee is required to conduct the monitoring specified in the attached CAM plan(s) and shall fulfill the obligations specified in the conditions below (see **CAM Conditions 5. - 17.**).
[40 CFR 64.6(c)(3)]

40 CFR 64.7 Operation of Approved Monitoring.

5. Commencement of operation. The owner or operator shall conduct the monitoring required under this appendix upon the effective date of this Title V permit.
[40 CFR 64.7(a)]

6. Proper maintenance. At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
[40 CFR 64.7(b)]

7. Continued operation. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other

periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
[40 CFR 64.7(c)]

8. Response to excursions or exceedances.
a. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions, if allowed by this permit). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
[40 CFR 64.7(d)(1) & (2)]

9. Documentation of need for improved monitoring. If the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
[40 CFR 64.7(e)]

40 CFR 64.8 Quality Improvement Plan (QIP) Requirements.

10. Based on the results of a determination made under **CAM Condition 8b.,** above, the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with **CAM Condition 4.**, an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, may require the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.
[40 CFR 64.8(a)]

11. Elements of a QIP:
a. The owner or operator shall maintain a written QIP, if required, and have it available for inspection.
b. The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:
(i) Improved preventive maintenance practices.
(ii) Process operation changes.

(iii) Appropriate improvements to control methods.
(iv) Other steps appropriate to correct control performance.
(v) More frequent or improved monitoring (only in conjunction with one or more steps under **CAM Condition 11.b(i)** through **(iv)**, above).

[40 CFR 64.8(b)]

12. If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

[40 CFR 64.8(c)]

13. Following implementation of a QIP, upon any subsequent determination pursuant to **CAM Condition 8b.**, the permitting authority may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:

a. Failed to address the cause of the control device performance problems; or
b. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

[40 CFR 64.8(d)]

14. Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

[40 CFR 64.8(e)]

<u>40 CFR 64.9 Reporting And Recordkeeping Requirements.</u>

15. <u>General reporting requirements.</u>

a. On and after the date specified in **CAM Condition 5.** by which the owner or operator must use monitoring that meets the requirements of this appendix, the owner or operator shall submit monitoring reports semi-annually to the permitting authority in accordance with Rule 62-213.440(1)(b)3.a., F.A.C.
b. A report for monitoring under this part shall include, at a minimum, the information required under Rule 62-213.440(1)(b)3.a., F.A.C., and the following information, as applicable:
   (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
   (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
   (iii) A description of the actions taken to implement a QIP during the reporting period as specified in **CAM Conditions 10.** through **14.** Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 CFR 64.9(a)]

16. <u>General recordkeeping requirements.</u>

a. The owner or operator shall comply with the recordkeeping requirements specified in Rule 62-213.440(1)(b)2., F.A.C. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to **CAM Conditions 10.** through **14.** and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

b. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 CFR 64.9(b)]

40 CFR 64.10 Savings Provisions.

17. It should be noted that nothing in this appendix shall:

a. Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this appendix shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under Title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.

b. Restrict or abrogate the authority of the Administrator or the permitting authority to impose additional or more stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operator of a source under any provision of the Act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable.

c. Restrict or abrogate the authority of the Administrator or permitting authority to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.

[40 CFR 64.10]

Emissions Unit -032

Phosphoric Acid Cleanup
Fluoride Emissions Controlled By Horizontal, Cross-Flow, Packed-Bed Scrubber

Section I: Monitoring Approach

	Indicator No. 1	Indicator No. 2
I. Indicator	Total Gas Pressure Drop	Liquid Flow Rate
II. Measurement Approach	Pressure drop is measured with a differential pressure transmitter.	Liquid flow rate is monitored with a flow meter.
III. Indicator Range	The indicator range is: **Min: 1.2 inches W.C.** **Max: 10.7 inches W.C.** The indicator range is established as described below. An excursion is defined as operation outside of the established indicator range. Excursions will trigger an inspection, corrective action or a re-test, and a reporting requirement.	The indicator range is: **Min: 428 GPM** **Max: 716 GPM** The indicator range is established as described below. An excursion is defined as operation outside of the established indicator range. Excursions will trigger an inspection, corrective action or a re-test, and a reporting requirement.
IV. Performance Criteria		
a. Data Representativeness	The minimum accuracy of the device is ±5%.	The minimum accuracy of the device is ±5%.
b. Verification of Operational Status	NA	NA
c. QA/QC Practices and Criteria	The device is calibrated quarterly.	Monitoring equipment and process downtime is recorded in a log. The flow sensor is calibrated quarterly.
d. Monitoring Frequency	Monitored continuously.	Monitored continuously.
e. Data Collection Procedures	Recorded continuously to a computer or the operator records the scrubber pressure drop once every two hours on the scrubber operating log.	Recorded continuously to a computer or the operator records the scrubber liquid flow rate once every two hours on the scrubber operating log.
f. Averaging Period	Daily average.	Daily average.

Section II: Monitoring Approach

To establish and reestablish the indicator ranges, the permittee shall use either MACT Option 1 as specified in A. or MACT Option 2 as specified in B. MACT Options 1 and 2 are taken from 40 CFR 63, Subpart BB.

A. MACT Option 1

Indicator Range Defined

1. Each indicator range is established in accordance with this procedure under this CAM Plan.

   The permittee shall follow the specific procedures referred to as MACT Option 1 (see 40 CFR 63.625(f)(1)) as it applies to a DAP Plant). The indicator (allowable) range under this approved CAM Plan is established based on the most recently completed compliance test results for the individual emission unit provided by the applicant.

   a. The indicator range consists of a minimum and maximum value. The minimum value is 20% less than the test average value. The maximum value is 20% more than the test average value. The test average value shall be the average of three valid individual compliance test runs, not the value from an individual test run. In no case shall failed tests be used in establishing ranges.

[40 CFR 64.6(c)(2); Rule 62-213.440(l)(b)l.a., F.A.C.]

Reestablishment ofIndicator Range

2. Each indicator range is reestablished in accordance with this procedure under this CAM Plan. The permittee shall follow the specific procedures referred to as MACT Option (1) (see 40 CFR 63.625(f)(1)) as it applies to a DAP Plant) to reestablish each indicator range.

   The indicator range shall be reestablished in accordance with the following conditions:

   a. Upon successful completion of each required annual compliance test, the indicator values during testing shall be used to reestablish the indicator range;

   b. Updated tables shall be submitted with the compliance test results. The reestablished minimum and maximum values of the indicator range shall be clearly shown in the tables; and,

   c. Upon establishment of a new indicator range the permittee shall operate under the new indicator range.

[40 CFR 64.6(c)(2); Rule 62-213.440(l)(b)l.a., F.A.C. and Rule 62-297.310(7)(b), F.A.C.]

B. MACT Option 2

Indicator Range Defined

1. Each indicator range is defined in accordance with this procedure under this CAM Plan.

   The permittee shall follow the specific procedures referred to as MACT Option 2 (see 40 CPR 63.625(f)(2) as it applies to a DAP Plant). The initial indicator (allowable) range under this approved CAM Plan is established based on the completed compliance test results for the individual emission unit provided by the applicant.

   a. The indicator range consists of a minimum and maximum value. The minimum value is the lowest test average value from the historical data set. The maximum value is the highest test average value

from the historical data set. The test average value shall be the average of three valid individual compliance test runs, not the value from an individual test run. In no case shall failed tests be used in establishing ranges.

b. The initial "allowable range" as established under the MACT used for this CAM Plan must be submitted to the Department for review and approval.

[40 CFR 64.6(c)(2); Rule 62-213.440(l)(b)l.a., F.A.C.]

Reestablishment of Indicator Range

2. Each indicator range is reestablished in accordance with this procedure under this CAM Plan. The permittee shall follow the specific procedures referred to as MACT Option (2) (see 40 CPR 63.625(f)(2) as it applies to a DAP Plant) to reestablish each indicator range.

   The indicator range shall be reestablished in accordance with the following conditions:

   a. Upon successful completion of each required annual compliance test, the indicator values during testing shall be used to reestablish the indicator range;

   b. The indicator values during testing shall be added into the individual emission unit compliance test results historical data set and a new indicator range as defined in l.a. above shall be established.

   c. Updated tables shall be submitted with each compliance test result. The permittee shall indicate whether or not the indicator range has changed as a result of the annual compliance testing. The reestablished minimum and maximum values of the indicator range shall be clearly shown in the tables submitted; and,

   d. Upon establishment of a new indicator range the permittee shall operate under the new indicator range.

[40 CFR 64.6(c)(2); Rule 62-213.440(l)(b)1.a.,F.A.C.]

Section III: Justification

A. Rationale for Selection of Performance Indicators

Based on EPA regulations and industry practice, the performance indicators selected were the total gas pressure drop and liquid flow rate. These parameters have been widely accepted by the Department to provide reasonable assurance of proper scrubber operation and the resulting emission control.

B. Rationale for Defining Performance Indicator Ranges

Under CAM, an "indicator range" is similar to a MACT "allowable range" for an air pollution control device's operating parameter. Under MACT, the "allowable range" is established based on compliance tests.

The indicator range in this CAM Plan is based on the MACT. Each indicator (allowable) range is established based on completed compliance test results.

The MACT contains two methodologies to establish "allowable ranges." The MACT "allowable range" must be established using the methodology of either 40 CFR 63.625(f)(l) or (2), as it applies to a DAP plant, as discussed above.

C. Rationale for Reestablishment of Indicator Ranges

The federal regulation for CAM allows the permit to specify the procedures to change or "reestablish" indicator ranges, see 40 CFR 64.6(c)(2). The procedure developed to change an indicator range under this CAM Plan and was based on the EPA regulations for phosphate fertilizer plants contained in 40 CFR 63

Subpart BB. The specific procedures requiring changes to a "baseline average" and the "allowable range" under Subpart BB are found at 40 CFR 63.625(f)(1) & (2).

D. Rationale for Selection of Averaging Periods

EPA suggests data be averaged "consistent with the characteristics and typical variability of the pollutant-specific emissions unit ..." (see 40 CFR 64.3(b)(4)(i)). The averaging period could be based on the size of the PSEU (pollutant specific emissions unit) (see 40 CFR 64.3(b)(4)(ii) & (iii)). Also, at 40 CFR 64.3(c) "the level of actual emissions relative to the compliance limitation" could be considered in the monitoring design, e.g., averaging period. The CAM regulation implies a minimum averaging period of daily (24hours) at 40 CFR 64.3(b)(4)(iii). This PSEU is classified as a 'major PSEU' under 40 CFR 64.3(b)(4)(ii). The MACT at 40 CFR 63.624 specifies an averaging period of daily (24-hours). Accordingly, a 24-hour (daily) block average period was selected as appropriate in this updated CAM Plan.