APPENDIX CAM

Compliance Assurance Monitoring Requirements

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. - 14.)** and reporting exceedances or excursions (see **CAM Conditions 15. – 16.**).
[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. - 16.**).
[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 8.b.,** 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 8.b.**, 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. Commencing from the effective date of this permit, the owner or operator shall submit monitoring reports semi-annually to the compliance authority in accordance with Rule 62-213.440(1)(b)3.a., F.A.C. In addition to deviations from any other permit requirement, the semi-annual reports shall also include all instances of deviations from the CAM requirements.
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]

CEMEX Construction Materials Florida, LLC

and

Central Power & Lime, LLC

Emissions Units -018 and -020

Power Plant Boiler with Dry Limestone Injection Scrubbing Followed By a Baghouse Control System
Cement Kiln I, In-Line Kiln/Raw Mill and Clinker Cooler I with a Baghouse Control System
Particulate Matter Emissions Controlled By a Baghouse Control System

Table 1. Monitoring Approach for Emission Units -018 and -020

	Indicator 1.	**Indicator 2.**
Indicator	Pressure drop across baghouse.	Change in duct opacity.
Measurement Approach	The pressure drop across the baghouse is measured with a differential pressure transmitter.	Continuous opacity monitoring system (COMS).
Indicator Range	An excursion is defined as any one-hour average pressure drop outside of the range of 2 to 15 inches of water (other than startup and shutdown periods). Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as any sudden and sustained step-change (increase) in opacity as documented by the trend of the consecutive 6-minute averages (other than startup and shutdown periods). Excursions trigger an inspection, corrective action, and a reporting requirement.
I. Performance Criteria		
A. Data Representativeness	Based on available data under normal operation, the pressure drop range is between 2 to 15 inches of water.	Based on available data under normal operation, opacity varies with load and operating conditions. Variability is typically a gradual increase or decrease, with occasional sudden spikes and dips. A sudden and sustained step-increase in opacity could indicate a failure in one or more of the baghouse compartments.
B. Verification of Operational Status	N/A	N/A
C. QA/QC Practices and Criteria	The differential pressure transmitter is calibrated every 2 years according to the manufacturer's specification.	The COM system is audited quarterly.
D. Monitoring Frequency	Pressure drop is monitored continuously.	Opacity is monitored continuously.
E. Data Collection Procedures	Readings are recorded once every 5 seconds by the computer system.	The COMS collects data that are reduced to 6-minute averages. Consecutive 6-minute averages are tracked through the Distributed Control System (DCS) and CEM software.
F. Averaging Period	1-hour average of 5-second readings.	None.

CEMEX Construction Materials Florida, LLC

Emissions Unit -044

Cement Plant Line 2, Particulate Matter Emissions Controlled By a Baghouse Control System for the Preheater/Precalciner/Kiln/In-Line Raw Mill/Clinker Cooler

Table 2. Monitoring Approach for Emission Unit -044 (Pyroprocessing System)

	Indicator 1.	**Indicator 2.**
Indicator	Pressure drop across baghouse.	Measured Opacity or Change in duct opacity.
Measurement Approach	The pressure drop across the baghouse is measured with a differential pressure transmitter.	Continuous opacity monitoring system (COMS).
Indicator Range	An excursion is defined as any one-hour average pressure drop outside of the range of 2 to 8 inches of water (other than startup and shutdown periods). Excursions trigger an inspection, corrective action, and a reporting requirement. Note: A typical range of pressure drop to operate within is 2" to 8" w.g., measured across the tubesheet with the differential pressure gauge. Maintaining a dP of 6" w.g. Flange to Flange is the manufacturer's recommended setpoint.	An excursion is defined as a COMS reading of 5.0% Opacity on the basis of five consecutive 6-minute average measurements, or any sudden and sustained step-change (increase) in opacity as documented by the trend of the consecutive 6-minute averages (other than startup and shutdown periods). Excursions trigger an inspection, corrective action, and a reporting requirement.
II. Performance Criteria		
A. Data Representativeness	Based on available data under normal operation, the pressure drop range is between 2 to 8 inches of water. Pressure drop is indicative of operation of the baghouse in a manner necessary to comply with the particulate matter standards. When the baghouse is operating properly, there will not be any visible emissions from the exhaust.	Based on available data under normal operation, opacity varies with load and operating conditions. Variability is typically a gradual increase or decrease, with occasional sudden spikes and dips. A sudden and sustained step-increase in opacity could indicate a failure in one or more of the baghouse compartments.
B. Verification of Operational Status	N/A	The COMS is integrated into the Data Acquisition System (DAS) for all plant processes and environmental recordkeeping. The COMS system is audited annually.
C. QA/QC Practices and Criteria	The recorded data is reviewed by the Environmental Manager. The differential pressure transmitter is calibrated every 2 years according to the manufacturer's specification.	Operate COMS according to 40 CFR Part 60 Appendix B, Performance Specification 1 and general provisions 60.13. These specify daily "zero" and "span" checks as well as periodic audits.

	Indicator 1.	**Indicator 2.**
D. Monitoring Frequency	Pressure drop is monitored continuously.	Opacity is monitored continuously. One-minute averages are stored in the DAS. 6-minute averages are also stored for the purpose of demonstrating compliance with the 10% opacity limitation.
E. Data Collection Procedures	Readings are recorded once every 5 seconds by the computer system.	The light beam crosses the measurement path and the system measures the light attenuation from dust in the stack and converts transmission into an electronic signal that is related to opacity. The COMS collects data that are reduced to 6-minutes averages. Consecutive 6-minute averages are tracked through the Distribute Control System (DCS) and CEM software.
F. Averaging Period	1-hour average of 5-second readings.	See indicator range, above.

CEMEX Construction Materials Florida, LLC

Emissions Unit Nos. -046, -047, -048, -050, -054, -057, -058 and -059

Particulate Matter Emissions Controlled By Baghouse Control Systems for the Material Handling Operations

Table 3. Monitoring Approach for Emission Units -046 through -059

	Indicator
Indicator	Pressure drop across baghouse.
Measurement Approach	The pressure drop across the baghouse is measured with a differential pressure transmitter.
Indicator Range	An excursion is defined as any one-hour average pressure drop outside of the range of 2 to 8 inches of water (other than startup and shutdown periods). Excursions trigger an inspection, corrective action, and a reporting requirement. Note: A typical range of pressure drop to operate within is 2" to 8" w.g., measured across the tubesheet with the differential pressure gauge. Maintaining a dP of 6" w.g. Flange to Flange is the manufacturer's recommended setpoint.
III. Performance Criteria	
A. Data Representativeness	Based on available data under normal operation, the pressure drop range is between 2 to 8 inches of water. Pressure drop is indicative of operation of the baghouse in a manner necessary to comply with the particulate matter standards. When the baghouse is operating properly, there will not be any visible emissions from the exhaust.
B. Verification of Operational Status	Daily recording will note operational status of gauge and control device.
C. QA/QC Practices and Criteria	The recorded data will be reviewed by the Environmental Manager. The differential pressure transmitter is calibrated every 2 years according to the manufacturer's specification.
D. Monitoring Frequency	Each baghouse pressure drop will be recorded daily from the magnahelic or photohelic gauge.
E. Data Collection Procedures	Personnel designated by the operator will observe and record the baghouse pressure drop.
F. Averaging Period	None.