Appendix C

COMPLIANCE ASSURANCE MONITORING PLAN

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Compliance Assurance Monitoring Plan
Middletown Coke Company

Background

Emission Unit
Description: Spray Dryer Baghouse Flue Gas Desulfurization (FGD) System
Operation Identification: FGD System
Facility: Middletown Coke Company, Butler County, Ohio

Applicable Regulation and Emission Limit
Regulation Number: None
Pollutant: SO_2 and PM/PM_{10}
Emission limits:
Annual Average SO_2 Limit – 1091 tons/yr
Monthly Average SO_2 Limit – 249 lbs/hr
Monthly Average PM/PM_{10} Limit – 30 lb/hour
Annual Average PM/PM_{10} Limit – 131 tons/year

Applicable Monitoring Requirements
None. Propose to use procedures in 40 CFR 60, Appendix B.

Control Technology
Spray Dryer
Pulse Jet Baghouse operated under negative pressure

Monitoring Approach

	Indicator No. 1	Indicator No. 2
I. Indicator Measurement Approach	SO_2 Concentration	Pressure Drop
	SO_2 concentration is measured with a CEMS meeting: 1. 40 CFR 60 Appendix B, Performance Specification (PS): • PS2 – Specification for SO_2 CEMS in Stationary Sources 2. 40 CFR 60, Appendix F: Quality Assurance Procedures.	Pressure drop across the baghouse is measured continuously by using a magnahelic gage or pressure transducer.
II. Indicator Range	An excursion is defined as monthly average greater than 249 lbs SO_2/hr; excursions trigger an inspection, corrective action, and reporting, requirement. SO_2 range (0-200 ppm) Flow Rate range (0-100 ft/sec)	An excursion is defined as a pressure drop greater than 12 or less than 3 in. H_2O. Excursion triggers an inspection, corrective action, and reporting, requirement.
III. Performance Criteria A. Data Representativeness	Probes will be located as described in Performance Specification 2. Representativeness validated by RATA testing.	Pressure taps will be located in the baghouse inlet and outlet plenums to measure overall pressure drop. The gage will have a minimum accuracy of 0.5 in H_2O.
B. Verification of Operational Status	Daily calibration and observation	Recorded each day

	Indicator No. 1	Indicator No. 2
C. QA/QC Practices and Criteria	1. Daily Calibration Drift (CD) evaluation (with instrument being adjusted whenever the daily CD exceeds 10% range) 2. Quarterly Cylinder Gas Audit (CGA) 3. Annual Relative Accuracy Test Audit (RATA) 4. Maintenance according to manufacturer's specifications	Calibrate the pressure gage annually. Maintenance according to manufacturer's specifications.
D. Monitoring Frequency	Continuous	Continuous
E. Data Collection Procedures	SO_2 concentration, flow rate, and mass emission rate recorded automatically in a data acquisition system (DAS).	Record pressure drop every day.
F. Averaging Period	Monthly and annual	None

I. Rationale for Selection

Procedures in EPA Performance Specifications, as the basis for NSPS monitoring, are generally acceptable for non-NSPS applications.

Pressure drop is an appropriate indicator of baghouse performance as described in the EPA CAM Technical Guidance Document.

II. References

1. 40 CFR 60 Appendix B, Performance Specification (PS):
   - PS2- Specification for SO_2 CEMS in Stationary Sources
2. 40 CFR 60, Appendix F: Quality Assurance Procedures
3. U.S. EPA Office or Air Quality Planning and Standards Emission Measurements Center, *Technical Guidance Document: Compliance Assurance Monitoring, Revised Draft,* August 1998.