

**West Virginia Division of Environmental Protection**  
**Office of Air Quality**  
**Continuous Opacity Monitoring Enforcement Policy**

**I. Applicability and Scope**

In accordance with Section 3.2, Series 2, Title 45 of the West Virginia Code of State Rules ("CSR"), "To Prevent and Control Particulate Air Pollution From Combustion of Fuel in Indirect Heat Exchangers," the Chief<sup>1</sup> of the Office of Air Quality (OAQ) adopts this policy for the evaluation and use of continuous opacity monitoring results for the determination of compliance with the visible emission requirements of 45 CSR 2 at facilities which are required to install, calibrate and operate certified continuous opacity monitors (the "Policy").

This policy applies to continuous opacity monitoring systems (COMS) that monitor emissions from fuel burning units, as defined in C.S.R. § 45-2-2.9, and are "State Required COMS", as defined by Section II.A.1. of this policy. This policy is intended primarily for internal use by OAQ personnel. In adopting this policy, the OAQ in no way compromises the right to take any enforcement action in accordance with Chapter 22, Article 5 of the West Virginia Code (the "West Virginia Air Pollution Control Act"), or any rule promulgated thereunder. This Policy is not intended and shall not be relied upon by any party to create any enforceable rights, either substantive or procedural.

**II. Enforcement Events**

**A. Compliance with state required COMS.**

1. Definition

"State Required COMS" means that a particular COMS is required by any of the following:

- a. 45 CSR 2 - "To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers";
- b. 45 CSR 13 - "Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation";
- c. 45 CSR 14 - "Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration";

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<sup>1</sup>The Chief of the Office of Air Quality is the duly authorized agent of the Director of Environmental Protection in accordance with W.Va. Code § 22-1-6.

- d. 45 CSR 16 - "Standards of Performance for New Stationary Sources";
- e. 45 CSR 30 - "Requirements for Operating Permits";
- f. 45 CSR 33 - "Acid Rain Provisions and Permits";
- g. any other State continuous opacity monitoring rule(s) that may be promulgated;
- h. Permits, consent orders and consent agreements issued by the State of West Virginia; and
- I. By order of the Chief in accordance with the West Virginia Air Pollution Control Act.

2. Compliance with Monitoring Requirements

- a. Each State Required COMS shall be installed, maintained and operated as specified in the applicable rule, permit, consent order, consent agreement, or other order of the Chief.
- b. Records of all COMS measurements, calibration checks, system adjustments, maintenance, and other appropriate information shall be kept as required by the applicable rule, permit, consent order, consent agreement or other order of the Chief.
- c. Data from each COMS shall be reported to the Chief of the OAQ in the format and at the frequency specified in the applicable rule, permit, consent order, consent agreement, or other order of the Chief.
- d. The data from each required COMS shall be quality assured as specified in the applicable rule, permit, consent order, consent agreement, or other order of the Chief. All required drift checks, monitor adjustments, performance specification tests, audits, etc. shall be performed as specified.

3. Additional Requirements

- a. In accordance with C.S.R. § 45-2-3.2, performance evaluations of any COMS shall be performed at such times as are deemed appropriate or necessary by the Chief.

- b. In accordance with C.S.R. § 45-2-3.2, the Chief may require the implementation of additional quality assurance (QA) procedures, along with associated record keeping and/or data reporting whenever the operation and maintenance of any COMS is found by the Chief to be unsatisfactory.
- c. In accordance with C.S.R. § 45-2-3.2, the Chief may require the replacement or repair of any COMS found to generating invalid data.

**B. Enforcement Response to Violations of State Required COMS**

For violations of State Required COMS (whether these requirements are specified in rules, permits, consent orders, consent agreements or orders of the Chief), the guidelines provided in Tables 1, 2, 3, and 4 of this Policy, will be used by the OAQ to assess the violation, and Table 5 of this Policy will be used to evaluate the appropriate follow-up action(s).

**C. Enforcement Response to Excess Emission Incidents.**

1. Definitions

"Excess Emissions" are any exceedences of the applicable opacity standard.

"Excess Emissions and Monitoring Systems Performance Report" is a report (see Appendix A) that must be submitted to the OAQ, if the total duration of excess emissions for the reporting period is one percent (1%) or greater of the total operating time for the reporting period; or the total COMS downtime for the reporting period is five percent (5%) or greater of the total operating time for the reporting period, by the owner or operator of a source in order to provide data on its compliance with the applicable opacity limits, and on the performance of its monitoring systems.

"Summary Report" is a report (see Appendix A) that must be submitted to the OAQ periodically by the owner or operator of a source in order to provide data on its compliance with the applicable opacity limits, and on the performance of its monitoring systems.

2. Enforcement Response

The following procedures will be used by the OAQ to assess reported incidents of excess emissions:

- a. The Excess Emissions and Monitoring Systems Performance Report will be

systematically reviewed. Any exceedance attributed to a malfunction must conform to the definition of a malfunction as defined in C.S.R. § 45-2-2.14. Any exceedance in excess of forty percent (40%) opacity attributed to a malfunction, any exceedance associated with the substantial failure, deactivation, or by-pass of particulate matter emissions control equipment, any excess opacity period exceeding thirty (30) minutes in any twenty-four (24) hour period must have a corresponding letter on file post marked within ten (10) days of such occurrence. See C.S.R. § 45-2-9.

- b. Calculate the percentage of the source operating time with excess emissions using Equation 1 on Table 2 of this Policy.
- c. Assess the violation according to Table 2 of this Policy.
- d. Take appropriate follow-up action in accordance with the guidelines provided in Table 5 of this Policy.

#### **D. Enforcement Response to Monitoring System Outages**

##### **1. Monitoring Systems with Specific Data Capture Requirements**

When the continuous monitoring system is subject to specific data capture requirements, the following procedures will be used by the OAQ to evaluate and respond to reported monitoring system outages:

- a. Systematically review the Monitoring Systems Performance Report to determine whether any applicable data capture requirements have been violated.
- b. Assess the reported violation in accordance with Table 3 of this Policy.
- c. Take appropriate follow-up action in accordance with the guidelines provided in Table 5 of this Policy.

##### **2. Monitoring Systems with Unspecified Data Capture Requirements**

When the continuous monitoring system is not subject to specific data capture requirements, the following “targeting” procedures will be used by the OAQ to evaluate reported monitoring system outages:

- a. Based upon a systematic review of the Excess Emissions and Monitoring Systems Performance Report, calculate the monitoring system down-time as a percentage of the source operating time in

accordance with Equation 2 on Table 2 of this Policy.

- b. Evaluate the violation in accordance with Table 4 of this Policy.
- c. Take appropriate follow-up action in accordance with the guidelines provided in Table 5 of this Policy.

#### **E. Enforcement Response to Operation and Maintenance Violations**

##### 1. Definition

A "Good Operation and Maintenance Practice Requirement" is a provision in a rule, permit, consent order, consent agreement, or order, promulgated, issued, or entered into by the State of West Virginia, requiring owners and/or operators of stationary sources of air pollution to operate and maintain their processes and associated air pollution control equipment at all times in a manner consistent with good air pollution control practices for minimizing emissions.

##### 2. Enforcement Response to Violation

When a violation of a Good Operating and Maintenance Practice Requirement occurs **and the violation has been entirely or partly documented by continuous monitoring data**, enforcement action will be taken in accordance with Level D of Table 5 of this Policy.

#### **F. Enforcement Guidelines for COMS Sources Subject to Multiple Regulatory Requirements**

Whenever multiple regulatory requirements apply to COMS sources that are simultaneously subject to multiple regulatory requirements (e.g., federal regulations, state regulations, permit conditions, compliance order provisions, etc), the more stringent rule, regulation, condition or requirement shall apply.

### **III. Enforcement Response Level Determination**

Reference Tables No. 1 through 4 of this Policy, will be used by the OAQ in conjunction with the guidelines in Sections II.A-D above, to evaluate the "level of enforcement response" that is appropriate for each reported violation (i.e., Level A, B, C, D, E or F).

**IV. Follow-Up Enforcement Actions**

For each violation evaluated in accordance with Tables 1 through 4 of this Policy, the OAQ will take appropriate follow-up action in accordance with the guidelines provided in Table 5 of this Policy.

**V. Effective Date**

This Continuous Opacity Monitoring Policy, including Tables 1-4, and Appendices A and B, which are incorporated herein by reference, shall become effective upon approval by the signature given on the date below written.

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G. Dale Farley, Chief  
Office of Air Quality  
Division of Environmental Protection  
Bureau of the Environment  
State of West Virginia

Date \_\_\_\_\_

**Table 1**  
**Response to Violations of State Required COMS**

Case No.	Violation	Enforcement Response Level
1	Failure to install any required COMS within the time frame specified in an applicable regulation, permit or order	Levels D and E; or F if appropriate
2	Failure to operate and maintain any COMS as specified in an applicable regulation, permit or order	Levels D and E; or F if appropriate
3	Failure to perform any required quality assurance procedure(s), including drift checks, performance evaluations, QC program implementation, drift assessment, correction of malfunctioning monitors, and/or any other procedure(s) specified in an applicable regulation, permit or order	Levels D and E; or F if appropriate
4	Failure to maintain records of COMS measurements, drift checks, maintenance, performance evaluations and/or any other information as required by an applicable regulation, permit or order	Levels D and E; or F if appropriate
5	Failure to submit self-monitoring reports and/or quality assurance reports, as specified in an applicable regulation, permit or order	(1) Level B, if source is cooperating with the Office to correct the problem  (2) Levels D, E or F if source is willfully negligent and refuses to correct the problem
6	Administrative problems with the content and/or format of required self-monitoring reports and/or quality assurance reports	Respond as in Case No. 5, above
7	Failure to comply with any administrative compliance order issued under Cases No. 1 through 6, above	Level F

**Table 2**  
**Enforcement Response to Excess Emissions**

Case No.	Summary of Reported Data	Enforcement Response Level
1	<sup>1</sup> Percentage of Source Operating Time with Excess Emissions: ≤ 5% (Sources subject to 45 CSR 2, Section 3.1) ≤ 8% (Sources subject to 45 CSR 2, Section 3.1 and granted an exemption for “soot blowing or firebox cleaning” under 45 CSR 2, Section 3.3) ≤ 2% (Sources granted an Alternative Visible Emission Standard under 45 CSR 2, Section 3.4) ≤ 5% (Sources granted an Alternative Visible Emission Standard under 45 CSR 2, Section 3.4, and granted an exemption “soot blowing or firebox cleaning” under 45 CSR 2, Section 3.3)	Level A, unless the severity (magnitude) of the excess emissions, or a lack of documentation of malfunctions, warrants a stronger response
2	<sup>1</sup> Percentage of Source Operating Time with Excess Emissions: > 5% but ≤ 10% (Sources subject to 45 CSR 2, Section 3.1) > 8% but ≤ 13% (Sources subject to 45 CSR 2, Section 3.1 and granted an exemption “soot blowing or firebox cleaning” under 45 CSR 2, Section 3.3) > 2% but ≤ 7% (Sources granted an Alternative Visible Emission Standard under 45 CSR 2, Section 3.4) > 5% but ≤ 10% (Sources granted an Alternative Visible Emission Standard under 45 CSR 2, Section 3.4, and granted an exemption “soot blowing or firebox cleaning” under 45 CSR 2, Section 3.3)	Level B, unless the severity of the excess emissions, or a lack of documentation of malfunctions, warrants a stronger response
3	Recurrence of Excess Emissions, as in Case No. 2, above	Level B, C or D as appropriate
4	<sup>1</sup> Percentage of Source Operating Time with Excess Emissions: > 10% (Sources subject to 45 CSR 2, Section 3.1) > 13% (Sources subject to 45 CSR 2, Section 3.1 and granted an exemption under 45 CSR 2, Section 3.3) > 7% (Sources granted an Alternative Visible Emission Standard under 45 CSR 2, Section 3.4) > 10% (Sources granted an Alternative Visible Emission Standard under 45 CSR 2, Section 3.4, and granted an exemption under 45 CSR 2, Section 3.3)	Level C or D as appropriate

<sup>1</sup> The percentage of source operating time with excess emissions is calculated using Equation 1, below, and is based upon **all** reported excess emissions, **including** emissions during periods of start-up, shut-down and malfunction.

Equation 1

$$\frac{\text{Percentage of Source Operating Time with Excess Emissions}}{\frac{\text{Total Duration of Excess Emissions}}{[\text{Total Time in Reporting Period} - \text{Source Downtime}]}} \times 100$$

Where:

Total Duration of Excess Emissions = [No. Of Incidents of Excess Emissions] [Duration per incident]

Total Time in Reporting Period = The total time in the calendar months of the reporting period

Source Downtime = The total time of source outage during the reporting period

**Table 3**  
**Enforcement Response to COMS Outages -**  
**Monitors with Specific Data Capture Requirements**

<b>Case No.</b>	<b>Summary of Reported Data</b>	<b>Enforcement Response Level</b>
1	Self-monitoring report shows no violations of any applicable data capture requirements.	Level A
2	One or more data capture violations are reported.	Level D
3	Recurrence of Violations, as in Case No. 2, above (consecutive reporting periods)	Level D, E, or F, as appropriate
4	Catastrophic Monitoring System Failure (system suddenly and irreparably damaged)	Initiate Level E response, requiring replacement and recertification of the monitoring system. Instruct the source to use approved alternative monitoring methods in the interim. If the system failure was caused by inadequate O&M or QC/QA, also initiate Level D response.

**Table 4**  
**Enforcement Response to COMS Outages -**  
**Monitors with Unspecified Data Capture Requirements**

Case No.	Summary of Reported Data	Enforcement Response Level
1	<sup>2</sup> COMS Downtime, as a Percentage of Source Operating Time: ≤ 5%	Level A
2	<sup>2</sup> COMS Downtime, as a Percentage of Source Operating Time: > 5% but ≤ 15%	Level A, B or C, as appropriate
3	<sup>2</sup> COMS Downtime, as a Percentage of Source Operating Time: >15%	Level C or D, as appropriate
4	Catastrophic Monitoring System Failure (system suddenly and irreparable damaged)	Initiate Level E response. Require replacement and recertification. Increase source surveillance. If failure is attributable to inadequate O&M or QC/QA, also initiate Level D response.

<sup>2</sup>COMS Downtime, as a percentage of Source operating time is calculated using Equation 2, below.

Equation 2

$$\begin{array}{l}
 \text{Monitoring System} \\
 \text{Downtime as a} \\
 \text{Percentage of} \\
 \text{Source Operating}
 \end{array}
 =
 \frac{\text{Total Monitoring System Downtime} \\
 \text{In Reporting Period}}{[\text{Total Time in} \\
 \text{Reporting Period} - \text{Source} \\
 \text{Downtime}]}
 \times 100$$

**Table 5**  
**Appropriate Follow-Up Actions for Different Enforcement Response Levels**

Response Level	Appropriate Follow-Up Actions
A	No further action. Notify the source that the self-monitoring report has been reviewed and that the results are within the requirements.
B	Notify the source of the problem. Work with the source to resolve the problem.
C	<p>Perform an engineering analysis of the reported continuous monitoring data. Carefully evaluate the magnitude, total duration of and reasons for any excess emissions. Evaluate the reasons for any monitoring system outages and the acceptability of any corrective actions taken. Also evaluate all other available information. If the available information is sufficient to document either an emission violation or a violation of proper O&amp;M procedures, initiate Level D response. If the results of the evaluation are inconclusive, then either: (a) suspend further follow-up action until the next self-monitoring report is received; or (b) initiate information gathering activities, as deemed appropriate to document O&amp;M or emission violations. Such activities may include (but are not limited to) one or more of the following:</p> <ol style="list-style-type: none"> <li>(1) Requesting additional information;</li> <li>(2) Inspecting the source;</li> <li>(3) Auditing source records of the O&amp;M process;</li> <li>(4) Auditing source records of the operation, maintenance and QA of the COMS;</li> <li>(5) Using the authority of 45 CSR 2, Section 8.1 to require a compliance test of the source, under conditions specified by the Office;</li> <li>(6) Using the authority of 45 CSR 2, Section 3.2 to require a performance evaluation of the COMS.</li> </ol> <p>For violation(s) documented through any of the above investigative activities, initiate Level D response and (if appropriate) Level E response.</p>
D	<p>For any documented COMS-related violation (i.e., violation of an emission rate, operation and maintenance requirement or procedural and reporting requirement) proceed as follows:</p> <ol style="list-style-type: none"> <li>(1) Issue a Notice of Violation (NOV), and a Cease and Desist Order (C&amp;D);</li> <li>(2) If appropriate, list the source as a "significant violator" on EPA's Significant Violator List; or F below.</li> </ol>
E	Enter into an agreed upon Consent Order with stipulated penalties, or issue an Order.
F	Refer the matter to the Office of Legal Services.

## **Appendix A**

### **Summary Report and Excess Emissions and Monitoring System Performance Report**

1. Each owner or operator required to install a COMS shall submit a “Summary Report” and/or an “Excess Emissions and Monitoring Systems Performance Report” to the Chief quarterly; the Chief may, on a case-by-case basis, require more frequent reporting if it is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter. The Summary Report shall contain the information and be in the format shown in Figure 1 unless otherwise specified by the Chief.
  - (a) If the total duration of excess emissions for the reporting period is less than one percent (1%) of the total operating time for the reporting period and COMS downtime for the reporting period is less than five percent (5%) of the total operating time for the reporting period, only the Summary Report shall be submitted and the Excess Emission and Monitoring System Performance report need not be submitted unless requested by the Chief.
  - (b) If the total duration of excess emissions for the reporting period is one percent (1%) or greater of the total operating time for the reporting period or the total COMS downtime for the reporting period is five percent (5%) or greater of the total operating time for the reporting period, the Summary Report and the Excess Emission and Monitoring System Performance Report shall both be submitted.
2. The Excess Emission and Monitoring System Performance Report shall be in the format specified in Appendix B and shall include the following information:
  - (a) The magnitude of excess emissions, and the date and time of each time period of excess emissions.
  - (b) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility.
  - (c) The nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

- (d) The date and time identifying each period during which the COMS was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (e) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

# Figure 1 Summary Report

## Appendix B

### Excess Emission and Monitoring System Performance Report Format

1. The average opacity recorded every six minutes, in excess of the applicable standard, shall be provided in an ASCII data file (DOS compatible) on a 3.5 inch diskette in the following record structure:

<u>Data Element</u>	<u>Column</u>	<u>Format</u>
Date (CCYYMMDD)	1 - 8	I8
Hour (00-23, EST)	10 - 11	I2
Minute (00-54, by 6)	13 - 14	I2
Opacity Value (%)	16 - 18	I3
Data Flag	21 - 71	A50

- (a) Missing data shall be represented by a "." in Column 18.
- (b) An indication of "999" in columns 16-18 shall represent data points for which a valid measurement was not obtained.
- (c) The following data flags shall be used to identify periods of excess emissions:

Startup/shutdown  
Soot blowing  
Malfunctions due to Control Equipment Problems  
Malfunctions due to Process Problems  
Other known Causes  
Unknown Causes

- (d) The following data flags shall be used to identify periods of COMS downtime:

Monitor Equipment Malfunction  
Other Equipment Malfunction  
Quality Assurance Calibration  
Other Known Causes  
Unknown Causes

2. Each file on the diskette (one file per stack) shall be labeled as follows:

OCCCCFFID.YYQ where: O - Opacity Report  
CCC - 3 letter abbreviation for Company  
FF - 2 letter abbreviation for facility  
ID - 2 digit stack ID  
YY - Last 2 digits of year  
Q - Quarter (1-4)

3. A written report identifying each period of excess emissions that occurs as a result of a malfunction shall be submitted with each diskette. This report shall identify the nature and cause of any malfunction (if known), and the corrective action taken or the preventative measures adopted.