

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Air Quality

DOCUMENT NUMBER: 274-0300-005

TITLE: Applicability Determination and Implementation Procedures for Continuous Source Monitoring Manual Revision No. 8

EFFECTIVE DATE: Upon publication of notice as final in the *Pennsylvania Bulletin*

AUTHORITY: Air Pollution Control Act (35 P.S. § 4004(5)) and 25 Pa. Code § 139.101(5)

POLICY: This guidance document outlines the procedures the Department will utilize to determine the applicability of requirements specified in Revision No. 8 of the Continuous Source Monitoring Manual (Manual), (Document No. 274-0300-001). It also summarizes the schedule to be utilized by the owners/operators of facilities to comply with Revision No. 8 of the Manual.

PURPOSE: This document establishes the applicability of provisions specified in the Manual.

APPLICABILITY:

This technical guidance document outlines the procedures and schedule to be utilized by the owners/operators of affected facilities to comply with Revision No. 8 of the Manual. This technical guidance document also accomplishes the following:

- A. It supersedes the previous version of the document that was finalized on December 2, 2006, and posted in the *Pennsylvania Bulletin* on December 27, 2006.
- B. It addresses concerns and issues that were not identified or adequately covered in the 2006 version of this document.
- C. It incorporates a comprehensive implementation plan that was developed following the completion and testing of the new Continuous Emission Monitoring Data Processing System (CEMDPS).
- D. **It serves as the official announcement by the Bureau of Air Quality (BAQ), that the upgraded CEMDPS has become functional.** The owners/operators of affected facilities are requested to implement the requirements of Revision No. 8 of the Manual as outlined, below.

This technical guidance document applies to the owners/operators of monitored sources that must comply with the requirements of 25 Pa. Code § 139.102(3) (Manual), (Document No. 274-0300-001). The Manual contains provisions relative to monitoring system design and performance, testing, record keeping, reporting, and quality assurance for affected industrial and utility sources which are required to continuously monitor emissions of pollutants or operational parameters. The owners/operators of approximately 105 companies currently maintain approximately 1,000 Continuous Source Monitoring Systems that may be affected by this guidance document.

DISCLAIMER:

The policies and procedures outlined in this guidance document are intended to supplement existing requirements. Nothing in the policies or procedures shall affect regulatory requirements.

The policies and procedures herein are not an adjudication or a regulation. There is no intent on the part of the Department to give these policies and procedures that weight or deference. This document establishes the framework within which Department will exercise its administrative discretion in the future. The Department reserves the discretion to deviate from this policy statement if circumstances warrant.

PAGE LENGTH: 8 pages

LOCATION: Volume 2, Tab 43

DEFINITIONS:

CEMS – Continuous emission monitoring system.

CEMDPS – The Continuous Emission Monitoring Data Processing System is utilized by the Department to manage the various administrative functions of the CEM Program.

CEMDPS Disconnected Client Application – Is a utility that enables the owners/operators of affected facilities to create, correct, and change electronic data records (EDRs) on their local computers. This utility will aid users as they prepare monitoring plans, test protocols, test results, and other information as specified by the Department. This utility is designed as a stand-alone, client-based application that will run offline and require distribution of software and updates to local computers. Data created using this application will need to be uploaded to the CEMDPS Online Application before it can be submitted to the Department.

CEMDPS Online Application – The application that the owners/operators of facilities with CEMS(s) will utilize to create, correct, change and submit electronic data records to the Department. The owners/operators of facilities can prepare/submit monitoring plans, test protocols, test results, and other information as specified by the Department and they must have a portal account and security access through the PA GreenPort in order to use the application.

Monitoring system – A monitoring system is considered to be all of the hardware and software used for the determination of a value for compliance with an emission standard, operational criterion or informational reporting requirement. It includes the measurement interface, all necessary measurement devices and associated calibration and data handling apparatus and procedures.

Emissions report – Emissions report contents and submission requirements are specified in the “Record Keeping and Reporting” section of the Manual.

TECHNICAL GUIDANCE:

The owners/operators of certain industrial and utility sources are required to install, operate, and maintain monitoring systems to continuously monitor emissions of key pollutants and/or operational parameters to demonstrate compliance with emission standards or operational criteria. The Manual contains a description of procedures used by the owners/operators of sources for requesting approval of monitoring installations, requirements for performance testing, record keeping, reporting and quality assurance. From time to time, the Manual must be revised in order to respond to changing program needs and to provide for enhanced consistency with requirements for other monitoring programs.

All monitoring systems and emissions reports should comply with the requirements of Revision No. 8 of the Manual in accordance with the below procedures. Information should be tendered by either letter or through e-mail, as provided, for the following:

1. All CEMSs at a facility should comply with the requirements of Revision No. 8 of the Manual starting on the first date of the same calendar quarter, unless otherwise approved by the Chief of the CEM Section.
2. The owners/operators of a facility **may** comply with all the requirements of Revision No. 8 of the Manual **as early as** January 1, 2009 and **should** comply with the requirements of Revision No. 8 of the Manual starting July 1, 2009. The following exceptions will apply:

- A. Existing Opacity monitoring systems should meet all provisions of Revision No. 8 of the Manual upon relocation or substantially refurbishing (as determined by the Department) the opacity monitoring systems. Revised Phase I Monitoring Plans should be submitted to the Chief of the CEM Section for review prior to such replacement. Existing opacity monitoring systems should comply with the Recordkeeping and Reporting provisions of Revision No. 8 of the Manual as per the first date as determined in “1”, above.
 - B. The owners/operators of facilities that are unable to comply with the provisions of Revision No. 8 of the Manual by July 1, 2009, should submit an implementation plan to the Chief of the CEM Section by March 31, 2009. The implementation plan will be reviewed and a formal response provided within 30 days of receiving the request. If the request is denied, the owners/operators of the facility will be provided a reasonable timeframe to fulfill the provisions of Revision No. 8 of the Manual.
3. The owners/operators of affected facilities should provide the Chief of the CEM Section the date in which they intend to fulfill the provisions of Revision No. 8 of the Manual. This should be completed by February 15, 2009.
 4. The following information should be submitted to the Chief of the CEM Section at least 30 days prior to the owners/operators of the facility implementing the provisions of Revision No. 8 of the Manual:
 - A. Any monitoring systems currently approved under the provisions of Revision No. 6 of the Manual (except as indicated “2.A.”, above) should demonstrate compliance with the Recordkeeping and Reporting provisions of Revision No. 8 of the Manual.
 - B. A demonstration of compliance for all associated measurement devices with the 7-day calibration error requirements (formerly known as drift requirements) of Revision No. 8 of the Manual. If the Revision No. 8 provisions are more stringent than those of Revision No. 6, said monitoring systems test results should be submitted. Results of previously conducted tests that demonstrate such compliance would be acceptable.
 5. The Department will request that the following types of sample hourly data be submitted from the owners/operators before their facility is approved to report under Revision No. 8 of the Manual:
 - A. Valid hours
 - B. Invalid hours
 - C. Hours of operation

More than one hour of each type will be reviewed to ensure that multiple operational scenarios are reported correctly. A sample quarterly report should also be prepared and submitted to the Department.

Document the accuracy of computations performed by the data acquisition system (DAS), in accordance with the procedures contained in Revision No. 8 of the Manual.

The signature of the person exercising managerial responsibility over the operation of the source(s) for which monitoring is required or of the designated representative pursuant to 40 CFR 75 should be included.

The Department and the owners/operators of the facility will discuss/determine the most appropriate method of submittal for the information requested in Item 5. Confirmation/approval may be provided prior to or after the implementation of Revision No. 8 of the Manual.

6. Monitoring systems currently approved under the provisions of Revision No. 7 of the Manual will be necessary only to demonstrate compliance with the Recordkeeping and Reporting provisions of Revision No. 8.
7. The following procedures should be followed for reviews/submittals to the Department:
 - A. All reviews/submittals (with the exception of those cited in C, below) should continue to be submitted in accordance with the currently applicable revision of the Manual, until the facility implements Revision No. 8 of the Manual, or unless otherwise instructed by the Department.
 - B. The owners/operators of facilities with CEMs should operate and submit information/data under the provisions/formats specified in Revision No. 8 of the Manual upon implementation of the Revision No. 8 provisions.
 - C. Contact the Department for submittal instructions pertaining to the following:
 - i. Mercury continuous emission monitoring systems.
 - ii. Particulate continuous emission monitoring systems.
 - iii. Reviews/submittals currently undergoing certification.
8. Representatives from the Department will mail or e-mail the owners/operators of affected facilities the applicability and implementation procedures contained in this guidance, along with a "Request For Security Access/ Portal Account" form for the CEMDPS Online Application. The form should be completed and returned to the Chief of the CEM Section in order to establish a user account through the PA GreenPort for the application. A copy of the registration form can be obtained at the Department's CEM Homepage at: <http://www.dep.state.pa.us/dep/deputate/airwaste/aq/cemspage/cems.htm>. The owners/operators of facilities that took part in the Alpha and Beta testing of the CEMDPS and already have user accounts will not need to obtain a new user account, but will be required to confirm who should continue to have access to the CEMDPS Online Application and if their security role should change.

Upon obtaining Portal Access, the Department will work with the owners/operators of affected facilities to make any necessary data/information corrections in the current CEMDPS and, ultimately, migrate all facility data/information into the new CEMDPS.

9. The Department strongly recommends that the owners/operators of impacted facilities contact their software/hardware vendors (if applicable), and develop an implementation plan to address the data acquisition system (DAS) program requirements to accommodate Revision No. 8 of the Manual reporting formats.
10. System configuration, historical test and emissions data will be migrated into the new CEMDPS when the owners/operators of a facility implement Revision 8 of the Manual. The owners/operators of the facilities will not be required to "backfill" the database when they implement Revision 8 of the Manual.

The Department will request the owners/operators of a facility to provide information that is not currently contained in the existing CEMDPS, the first time a Phase 1 Monitoring Plan is submitted in the new CEMDPS. Many software/hardware vendors are recommending that the owners/operators of facilities complete and submit a Phase 1 Monitoring Plan as soon as facility information has been migrated into the new CEMDPS. This information is often used to program the data acquisition and handling system.

11. The use of the CEMDPS Disconnected Client Application may be a good alternative for those completing work at locations with limited or no Internet access or for the owners/operators of facilities that may want to limit vendor access to their CEMS(s) information. The Disconnected Client Application and instructions are available on the CEM Homepage (see web address, above).
12. The Department has developed a CEMDPS/Manual Question & Answer (Q&A) Document to provide answers to questions concerning Revision No. 8 of the Manual and the new CEMDPS. Is intended to be a living document that addresses issues that are encountered with the implementation of the new Manual and CEMDPS. A copy of the latest version of the document is available on the CEM Homepage (see Web address, above).
13. A CEMDPS User Manual has been developed to assist industry users in the operation of the CEMDPS. This manual will be updated periodically as the system undergoes enhancements and improvements. A copy of the latest version of the document is available on the CEM Homepage (see Web address, above).

Representatives of the Department will develop procedures that will assist users of the new CEMDPS with the completion of general activities in the system. These procedures are posted on the CEM Homepage (see Web address, above).

14. The Chief of the CEM Section can be contacted as follows:

By mail:

Charles J. Zadakis, Chief
Continuous Emission Monitoring Section
Rachel Carson State Office Building
400 Market Street
12th Floor, P.O. Box 8468
Harrisburg, PA 17105-8468

By e-mail:

czadakis@state.pa.us

15. The Department's "Interim Technical Guidance Pertaining to Continuous Source Monitoring Systems for Mercury" (Document No. 274-0300-006) provides procedures and specifications for certification, quality assurance, operation, record keeping and reporting for continuous emission monitoring systems for mercury. The guidance described in this document will remain in effect until the Department adopts revisions to the Continuous Source Monitoring Manual referenced in 25 Pa. Code §139.102(3). A copy of this document is available on the CEM Homepage (see Web address, above).
16. The Department has developed a list of administrative changes/errors and fixes. This attached list was developed based upon comments received and a review by the Department. There may be additional items that are later identified and ultimately addressed in the next revision of the Continuous Source Monitoring Manual. The CEMDPS help will be updated with the changes outlined in the list and will also be included in a future revision of the Department's CEMDPS/Manual Question & Answer (Q&A) Document, which is available on the CEM Homepage (see Web address, above).

Continuous Source Monitoring Manual Revision No. 8
Administrative Changes
Attachment No. 3

Item	Record Type	Change/Error	Fix
	Type (RT)		
1	803	Total Record Length adds up to 253, not 254	Update this value in the text box
2	804	Start Column (234), add an additional code, Q = Quality Assurance Test	Add additional option for (234) in text box and drop down menu the CEMDPS Update (234) in Field Descriptions and Instructions of RT 804
3	810	Format (FTN) of Start Column (201) should be A30, not A50 Total Record Length adds up to 230, not 220	Update the FTN in the text box Update the Total Record Length in the text box
4	829	Information in Start columns (107, 120), is not required for all analyzers Information in Start columns (165, 171) is not required for all analyzers Calibration Error information should be entered for opacity monitors	Update Field Descriptions and Instructions Require blanks when not applicable
5	830	Information in Start column (81) should only allow for a 24-Hr Limit ID. Zero and Calibration Drift should be reported for opacity monitors Information in RT Header and Start columns (83, 89, 95) should be for zero and calibration drift for opacity monitors. Information may not be required for all analyzers/monitors	Remove reference from the text box of (81) and update the Field Descriptions and Instructions accordingly Require blanks when not applicable

6	834	Information in Start column (86), should range from 0.0 - 9.9 instead of 0-100 Field Descriptions and Instructions for Start column (86) should not require blanks to the left of the value, it should be a zero	Correct the range of values in text box and Field Description and Instructions (86). There will be no blanks to the left, it should be a zero
7	836	Information in Start column (107) is not required for all analyzers The data element description (133) should state "Number of zero and upscale calibration checks per week".	Update text box and Field Descriptions and Instructions
8	837	Information in Start columns (119, 138) is not required for opacity monitors The data element description in Start column (148) should state "Number of zero and upscale calibration checks per week"	Require blanks when not applicable Update text box and Field Descriptions and Instructions
9	840	Start columns (81, 87) should request calibration error information for opacity monitors Start columns (100, 106, 112) should request zero and upscale calibration error information for opacity monitors Information in Start columns (81, 87, 100, 106, 112, 125) is not required for all analyzers Start column (125) should request Manufacturer's claimed response time for opacity monitors Total Record Length should be 128 not 138	Update text box and Field Description and Instructions Require blanks when not applicable

10	842	<p>Start columns (98, 99, 117, 120) should say CSMM, not CEMM</p> <p>Start columns (100, 101) should be zero and upscale calibration for opacity monitors</p> <p>Start column 101 should read "Cal error checks ..." to correct the spelling error</p> <p>Start column 103 should read "Daily zero and upscale cal"</p> <p>Start column 108 should read "Quarterly calibration error..." for opacity monitors</p>	Update text box and Field Description and Instructions
11	843	<p>The Field Description and Instructions for the information required in Start column (81), needs additional clarification</p> <p>There is not enough space for the information in Start columns (120, 134, 148, 153)</p> <p>No Field Description and Instructions included for Start column (157)</p> <p>Start column (186) should reference the CSMM instead of CEMM</p>	<p>Update text box, Field Descriptions and Instructions, start columns, record length, and Total Record Length</p> <p>Length will now be 5 for Start columns (120, 134, 148, 153) with a FTN of F5.1</p> <p>Add Field Description and Instructions for Start column (157)</p>
12	848	<p>Start column (73), add additional codes for opacity Monitors,</p> <p>24O = Zero and upscale calibration drift testing</p> <p>CAL = Calibration error testing</p> <p>RT = Response time testing</p>	Change text box and Field Description and Instructions
13	860	Data for calibration error testing should be submitted for opacity monitors instead of linearity	Update RT title, text box and Field Description and Instructions
14	868	Zero and upscale calibration drift test data for opacity monitors should be submitted as an attachment in the new CEMDPS	Update Field Descriptions and Instructions

15	872	Change the Format of Start column (84) to A1 from I1 Data for response time testing should be submitted for opacity monitors instead of cycle time testing in Start column (85)	Update RT title, text box and Field Description and Instructions
16	884	The range for Start Column (27) should state "0.000 if invalid and no substitution" to be consistent with the F13.3 Format Allowable CEMSs hourly average monitoring data should be submitted in this RT	Update text box and Field Descriptions and Instructions
17	888	Calibration error test results for opacity monitors should be submitted for Start columns (30, 35, 48, 53, 66, 71)	Update RT title, text box and Field Description and Instructions