6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA-HQ-OAR-2013-0696; FRL-9944-28-OAR]

RIN 2060-AS86

Technical Amendments to Performance Specification 18 and Procedure 6

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to make several minor technical amendments to the performance specifications and test procedures for hydrogen chloride (HCl) continuous emission monitoring systems (CEMS). The EPA is also proposing to make several minor amendments to the quality assurance (QA) procedures for HCl CEMS used for compliance determination at stationary sources. The performance specification (Performance Specification 18) and the QA procedures (Procedure 6) were published in the Federal Register on July 7, 2015. These proposed amendments make several minor corrections and clarify several aspects of these regulations. In the "Rules and Regulations" section of this Federal Register,

the EPA is amending Performance Specification 18 and Procedure 6 as a direct final rule without a prior proposed rule. If we receive no adverse comment, we will not take further action on this proposed rule.

DATES: *Comments:* Written comments must be received by [Insert date 45 days from date of publication in the Federal Register]. *Public Hearing.* The EPA will hold a public hearing on this rule if requested. Requests for a hearing must be made by [INSERT DATE 5 days after date of publication in the Federal Register]. Requests for a hearing should be made to Ms. Candace Sorrell via email at *sorrell.candace@epa.gov* or by phone at (919) 541-1064. If a hearing is requested, it will be held on [INSERT DATE 15 days after date of publication in the Federal Register] at the EPA facility in Research Triangle Park, NC.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2013-0696, at *http://www.regulations.gov*. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *Regulations.gov*. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official

comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the Web, Cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *http://www2.epa.gov/dockets/commenting-epa-dockets*.

All documents in the docket are listed on the *https://www.regulations.gov* website. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *www.regulations.gov* or in hard copy at the EPA Docket Center, Room 3334, EPA WJC West Building, 1301 Constitution Ave., NW, Washington, DC 20004. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the EPA Docket Center is (202) 566-1742.

FOR FURTHER INFORMATION CONTACT: Ms. Candace Sorrell, U.S. EPA, Office of Air Quality Planning and Standards, Air Quality

Assessment Division, Measurement Technology Group (Mail Code: E143-02), Research Triangle Park, NC 27711; telephone number: (919) 541-1064; fax number: (919) 541-0516; email address: *sorrell.candace@epa.gov*.

SUPPLEMENTARY INFORMATION:

I. Why is the EPA issuing this proposed rule?

The EPA is proposing to take action to make minor technical amendments to Performance Specification 18 (PS 18) and Procedure 6. In addition, we have published a direct final rule making these amendments in the "Rules and Regulations section of this Federal Register because we view this as non-controversial action and anticipate no adverse comment. We have explained the amendments and our reasons for this action in the preamble of the direct final rule. The regulatory text for this proposal is identical to that for the direct final rule published in the "Rules and Regulations" section of this Federal Register.

If we receive no adverse comment, we will not take further action on this proposed rule. If we receive adverse comment, we will withdraw the direct final rule, and it will not take effect. We would address all public comments in any subsequent final rule based on this proposed rule.

We do not intend to institute a second comment period on this action. Any parties interested in commenting must do so at

this time. For further information, please see the information provided in the ADDRESSES section of this document.

II. Does this action apply to me?

The major entities that would potentially be affected by the final PS 18 and the QA requirements of Procedure 6 for gaseous HCl CEMS are those entities that are required to install a new HCl CEMS, relocate an existing HCl CEMS, or replace an existing HCl CEMS under any applicable subpart of 40 CFR parts 60, 61, or 63. Table 1 of this preamble lists the current federal rules by subpart and the corresponding source categories to which PS 18 and Procedure 6 potentially would apply.

TABLE 1. SOURCE CATEGORIES THAT WOULD POTENTIALLY BE SUBJECT TO PS 18 AND PROCEDURE 6

Subpart(s)	Source Category
40 CFR part 63	
Subpart LLL	Portland Cement Manufacturing Industry
Subpart UUUUU	Coal- and Oil-fired Electric Utility Steam Generating Units
Subpart DDDDD	Industrial, Commercial, and Institutional Boilers and Process Heaters

The requirements of PS 18 and Procedure 6 may also apply to stationary sources located in a state, district, reservation, or territory that adopts PS 18 or Procedure 6 in its implementation plan.

Table 2 lists the corresponding North American Industry Classification System (NAICS) codes for the source categories listed in Table 1 of this preamble.

TABLE 2. NAICS FOR POTENTIALLY REGULATED ENTITIES

Industry	NAICS Codes
Fossil Fuel-Fired Electric Utility Steam Generating Units	327310
	921150[a]
Portland Cement Manufacturing Plants	327310
Industrial, Commercial, and Institutional Boilers and Process Heaters	211
	321
	322
	325
	324
	316,326,339
	331
	332
	336
	221
	622
	611

[a] Industry in Indian Country

Tables 1 and 2 are not intended to be exhaustive, but rather they provide a guide for readers regarding entities potentially affected by this action. If you have any questions regarding the potential applicability of PS 18 and test procedures (Procedure 6) to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

III. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was, therefore, not submitted to the Office of Management and Budget (OMB) for review.

B. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the PRA. These quality assurance procedures do not add information collection requirements beyond those currently required under the applicable regulations.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. This action makes minor technical correction and adds clarification in PS 18 and Procedure 6 and does not impose additional regulatory requirements on sources.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate of $100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. Rules establishing quality assurance requirements impose no costs independent from national emission standards which require their use, and such costs are fully reflected in the regulatory impact assessment for those emission standards.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175. This action adds additional language that clarifies several aspects for the performance standard and procedure and corrects some minor technical errors, but does not change the requirements for conducting the test method. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of "covered regulatory action" in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

H. Executive Order 13211: Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211 because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations. This action does not relax the control measures on sources regulated by the rule and, therefore, will not cause emissions increases from these sources.

Technical Amendments to Performance Specification 18 and Procedure 6

List of Subjects in 40 CFR Part 60

Environmental protection, Administrative practice and procedure, Air pollution control, Continuous emission monitoring systems, Hydrogen chloride, Performance specifications, Test methods and procedures.

_____
Dated:

_____
Gina McCarthy,
Administrator.

For the reasons stated in the preamble, the Environmental Protection Agency proposes to amend title 40, chapter I of the Code of Federal Regulations as follows:

PART 60 -- STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

1. The authority citation for part 60 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

2. Revise Sections 3.0, 11.5.6.5, 11.8.6.2, 12.1, 12.2 and 12.4.4 in appendix B to part 60, Performance Specification 18 to read as follows:

Appendix B to Part 60 – Performance Specifications

* * * * *

PERFORMANCE SPECIFICATION 18-PERFORMANCE SPECIFICATIONS AND TEST PROCEDURES FOR GASEOUS HYDROGEN CHLORIDE (HCl) CONTINUOUS EMISSION MONITORING SYSTEMS AT STATIONARY SOURCES

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3.0 Definitions.

3.1 Beam attenuation is the reduction in electromagnetic radiation (light) throughput from the maximum beam intensity experienced during site specific CEMS operation.

3.2 Beam intensity is the electromagnetic radiation (light) throughput for an IP-CEMS instrument measured following manufacturers specifications.

3.3 Calibration cell means a gas containment cell used with cross stack or integrated path (IP) CEMS for calibration and to perform many of the test procedures required by this performance specification. The cell may be a removable sealed cell or an evacuated and/or purged cell capable of exchanging reference and other calibration gases as well as zero gas standards. When charged, it contains a known concentration of HCl and/or interference gases. The calibration cell is filled with zero gas or removed from the optical path during stack gas measurement.

3.4 Calibration drift (CD) means the absolute value of the difference between the CEMS output response and an upscale reference gas or a zero-level gas, expressed as a percentage of the span value, when the CEMS is challenged after a stated period of operation during which no unscheduled adjustments, maintenance or repairs took place.

3.5 Centroidal area means a central area that is geometrically similar to the stack or duct cross section and is no greater than 10 percent of the stack or duct cross-sectional area.

3.6 Continuous Emission Monitoring System (CEMS) means the total equipment required to measure the pollutant concentration or emission rate continuously. The system generally consists of the following three major subsystems:

3.6.1 Sample interface means that portion of the CEMS used for one or more of the following: sample acquisition, sample transport, sample conditioning, defining the optical measurement path, and protection of the monitor from the effects of the stack effluent.

3.6.2 HCl analyzer means that portion of the HCl CEMS that measures the total vapor phase HCl concentration and generates a proportional output.

3.6.3 Data recorder means that portion of the CEMS that provides a permanent electronic record of the analyzer output. The data recorder may record other pertinent data such as effluent flow rates, various instrument temperatures or abnormal CEMS operation. The data recorder may also include automatic data reduction capabilities and CEMS control capabilities.

3.7 Diluent gas means a major gaseous constituent in a gaseous pollutant mixture. For combustion sources, either carbon dioxide (CO_2) or oxygen (O_2) or a combination of these two gases are the major gaseous diluents of interest.

3.8 Dynamic spiking (DS) means the procedure where a known concentration of HCl gas is injected into the probe sample gas stream for extractive CEMS at a known flow rate to assess the performance of the measurement system in the presence of potential interference from the flue gas sample matrix.

3.9 Independent measurement(s) means the series of CEMS data values taken during sample gas analysis separated by two times the procedure specific response time (RT) of the CEMS.

3.10 Integrated path CEMS (IP-CEMS) means an in-situ CEMS that measures the gas concentration along an optical path in the stack or duct cross section.

3.11 Interference means a compound or material in the sample matrix other than HCl whose characteristics may bias the CEMS measurement (positively or negatively). The interference may not prevent the sample measurement, but could increase the analytical uncertainty in the measured HCl concentration through reaction with HCl or by changing the electronic signal generated during HCl measurement.

3.12 Interference test means the test to detect CEMS responses to interferences that are not adequately accounted for in the calibration procedure and may cause measurement bias.

3.13 Level of detection (LOD) means the lowest level of pollutant that the CEMS can detect in the presence of the source gas matrix interferents with 99 percent confidence.

3.14 Liquid evaporative standard means a reference gas produced by vaporizing National Institute of Standards and Technology (NIST) traceable liquid standards of known HCl concentration and quantitatively diluting the resultant vapor with a carrier gas.

3.15 Measurement error (ME) is the mean difference between the concentration measured by the CEMS and the known concentration of a reference gas standard, divided by the span, when the entire CEMS, including the sampling interface, is challenged.

3.16 Optical path means the route light travels from the light source to the receiver used to make sample measurements.

3.17 Path length means, for an extractive optical CEMS, the distance in meters of the optical path within a gas measurement cell. For an IP-CEMS, path length means the distance in meters of the optical path that passes through the source gas in the stack or duct.

3.18 Point CEMS means a CEMS that measures the source gas concentration, either at a single point at the sampling probe tip or over a path length for IP-CEMS less than 10 percent of the equivalent diameter of the stack or duct cross section.

3.19 Stack pressure measurement device means a NIST-traceable gauge or monitor that measures absolute pressure and conforms to the design requirements of ASME B40.100-2010, “Pressure Gauges and Gauge Attachments” (incorporated by reference – see §60.17).

3.20 Reference gas standard means a NIST-traceable gas standard containing a known concentration of HCl certified in

accordance with an EPA traceability protocol in section 7.1 of this PS.

3.21 Relative accuracy (RA) means the absolute mean difference between the gas concentration or the emission rate determined by the CEMS and the value determined by the RM, plus the confidence coefficient of a series of nine test runs, divided by the average of the RM or the applicable emission standard.

3.22 Response time (RT) means the time it takes for the measurement system, while operating normally at its target sample flow rate, dilution ratio, or data collection rate to respond to a known step change in gas concentration, either from a low- or zero-level to a high-level gas concentration or from a high-level to a low or zero-level gas concentration, and to read 95 percent of the change to the stable instrument response. There may be several RTs for an instrument related to different functions or procedures (e.g., DS, LOD, and ME).

3.23 Span value means an HCl concentration approximately equal to two times the concentration equivalent to the emission standard unless otherwise specified in the applicable regulation, permit or other requirement. Unless otherwise specified, the span may be rounded up to the nearest multiple of 5.

3.24 Standard addition means the addition of known amounts of HCl gas (either statically or dynamically) to the actual measurement path or measured sample gas stream.

3.25 Zero gas means a gas or liquid with an HCl concentration that is below the LOD of the measurement system.

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11.0 Performance Specification Test Procedure.

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11.5.6.5 If your system LOD field verification does not demonstrate a SAR greater than or equal to your initial controlled environment LOD, you must increase the SA concentration incrementally and repeat the field verification procedure until the SAR is equal to or greater than LOD. The site-specific standard addition detection level (SADL) is equal to the standard addition needed to achieve the acceptable SAR, and SADL replaces the controlled environment LOD. For extractive CEMS, the SADL is calculated as the ESA using Equation A7 in appendix A of this PS. For IP-CEMS, the SADL is the SA calculated using Equation A8 in appendix A of this PS. As described in section 13.1 of this PS, the LOD or the SADL that replaces an LOD must be less than 20 percent of the applicable emission limit.

* * * * *

11.8.6.2 For IP-CEMS, you must include the source measurement optical path while performing the upscale CD measurement; you may exclude the source measurement optical path when determining the zero gas concentration. Calculate the CD for IP CEMS using equations 4, 5, 6B, and 7 in section 12.4.

* * * * *

12.0 Calculations and Data Analysis.

12.1 Nomenclature

C_i = Zero or HCl reference gas concentration used for test i (ppmv);

$C_{i,eff}$ = Equivalent concentration of the reference gas value, C_i, at the specified conditions (ppmv);

CC = Confidence coefficient (ppmv);

$CD_{extractive}$ = Calibration drift for extractive CEMS (percent);

CD_{IP} = Calibration drift for IP-CEMS (percent);

CD_0 = Calibration drift at zero HCl concentrations for an IP-CEMS (percent);

d_{avg} = Mean difference between CEMS response and the reference gas (ppmv);

d_i = Difference of CEMS response and the RM value (ppmv);

I = Total interference from major matrix stack gases, (percent);

LSF = Line strength factor for IP-CEMS instrument specific correction for temperature and gas matrix effects

derived from the HITRAN and/or manufacturer specific database (unitless);

ΔMC_{avg} = Average of the 3 absolute values of the difference between the measured HCl calibration gas concentrations with and without interference from selected stack gases (ppmv);

MC_i = Measured HCl reference gas concentration i (ppmv);

$\overline{MC_i}$ = Average of the measured HCl reference gas concentration i (ppmv);

MC_{int} = Measured HCl concentration of the HCl reference gas plus the individual or combined interference gases (ppmv);

$ME_{extractive}$ = Measurement error for extractive CEMS (percent);

ME_{IP} = Measurement error for IP-CEMS (percent);

MN_{avg} = Average concentration at all sampling points (ppmv);

MN_{bi} = Measured native concentration bracketing each calibration check measurement (ppmv);

MN_i = Measured native concentration for test or run I (ppmv);

n = Number of measurements in an average value;

P_{stack} = Absolute stack pressure (mm Hg)

$P_{reference}$ = Absolute pressure of the calibration cell for IP-CEMS (mm Hg)

PL_{Cell} = Path length of IP-CEMS calibration cell (m);

PL_{Stack} = Path length of IP-CEMS stack optical path (m);

RA = Relative accuracy of CEMS compared to a RM (percent);

RM_i = RM concentration for test run i (ppmv);

RM_{avg} = Mean measured RM value (ppmv);

S = Span value (ppmv);

S_d = Standard deviation of the differences (ppmv);

S_{ti} = Stratification at traverse point i (percent);

SADL = Standard addition detection level (ppmv);

$t_{0.975}$ = One-sided t-value at the 97.5th percentile obtained from Table 5 in section 17.0 for n-1 measurements;

$T_{reference}$ = Temperature of the calibration cell for IP-CEMS (degrees Kelvin);

T_{stack} = Temperature of the stack at the monitoring location for IP-CEM (degrees Kelvin).

* * * * *

12.2 Calculate the difference between the measured HCl concentration with and without interferents for each interference gas (or mixture) for your CEMS as:

$$\Delta MC_{avg} = \frac{\sum_{i=1}^{3}|MC_i - MC_{int}|}{3} \qquad \text{Eq. 1}$$

Calculate the total percent interference as:

$$I = \sum_{i=1}^{n} \frac{\Delta MC_{avg}}{\overline{MC_i}} * 100 \qquad \text{Eq. 2}$$

* * * * *

12.2.1 Calculate the equivalent concentration $C_{i,eff}$ using Equation 4:

$$C_{i,eff} = \left[C_i \times \frac{PL_{cell}}{PL_{Stack}} \times \frac{T_{stack}}{T_{reference}} \times \frac{P_{reference}}{P_{stack}} LSF\right] \quad \text{Eq. 4}$$

* * * * *

12.4.4 Calculate the zero CD as a percent of span for an IP-CEMS as:

$$CD_0 = \frac{(|(MC_i - MN_b) - (MC_{i+1} - MN_b)|)}{S} * 100 \quad \text{Eq. 7}$$

* * * * *

2. Revise Section 11.2.3 in Appendix A of Performance Specification 18 to read as follows:

PS-18 APPENDIX A Standard Addition Procedures

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11.2.3 If you determine your spike dilution factor using an independent stable tracer that is present in the native source emissions, calculate the dilution factor for dynamic spiking using equation A3:

$$DF = \frac{M_{spiked\ tracer} - M_{native\ tracer}}{C_{tracer\ spiked} - M_{native\ tracer}} \quad \text{Eq. A3}$$

* * * * *

3. Revise paragraphs 4.1.5, 4.1.5.1, 4.1.5.3, 4.2.1 and 5.2.4.2 in Procedure 6 to read as follows:

Appendix F to Part 60 – Quality Assurance Procedures

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Procedure 6. Quality Assurance Requirements for Gaseous Hydrogen Chloride (HCl) Continuous Emission Monitoring Systems Used for Compliance Determination at Stationary Sources

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4.0 Daily Data Quality Requirements and Measurement Standardization Procedures.

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4.1.5 Additional Quality Assurance for Data above Span. Unless otherwise specified in an applicable rule or permit, this procedure must be used to assure data quality and may be used when significant data above span is being collected.

4.1.5.1 Any time the average measured concentration of HCl exceeds 150 percent of the span value for two consecutive 1-hour averages, conduct the following ‘above span’ CEMS response check.

* * * * *

4.1.5.3 Unless otherwise specified in an applicable rule or permit, if the ‘above span' response check is conducted during the period when measured emissions are above span and there is a failure to collect at least one data point in an hour due to the

response check duration, then determine the emissions average for that missed hour as the average of hourly averages for the hour preceding the missed hour and the hour following the missed hour

* * * * *

5.2.4.2 Calculate results as described in section 6.4. To determine CEMS accuracy you must calculate the dynamic spiking error (DSE) for each of the two upscale audit gases using equation A5 in appendix A to PS-18 and Equation 6-3 in section 6.4 of Procedure 6 in appendix B to this part.

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