UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

1/09/2024

MEMORANDUM

SUBJECT: Voluntary Consensus Standard Results for Coke Ovens: Pushing, Quenching and Battery Stacks: National Emission Standards for Hazardous Air Pollutants

FROM: Steffan Johnson, Group Leader
Measurement Technology Group (E143-02)

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Date: 2024.01.09 14:36:15 -05'00'

TO: Chuck French, Group Leader
Metals and Inorganic Chemicals Group (D243-02)

At your request, the Measurement Technology Group (MTG) of the Office of Air Quality Planning and Standards (OAQPS) conducted searches and reviews to address the National Technology Transfer and Advancement Act (NTTAA) requirements on the use of voluntary consensus standards (VCS). The NTTAA directs EPA to use VCS in regulatory and procurement activities unless doing so would be inconsistent with applicable law or otherwise impracticable. This memorandum documents the results of the MTG searches and reviews to determine if VCS are available and practical for use in lieu of stationary source methods cited in the Standards of Performance for Coke Ovens: Pushing, Quenching and Battery Stacks: National Emission Standards for Hazardous Air Pollutants.

In 1998, OAQPS began implementing the requirements of the NTTAA by conducting searches to identify VCS. Searches continue to be performed to meet the requirements of the NTTAA. While we have made a reasonable effort to identify and evaluate potentially practical VCS, our findings do not necessarily represent all potential alternative standards which may exist.

The MTG participates in the American Society for Testing and Materials (ASTM), which is one of the most active VCS organizations on emissions testing and has been invited to participate in the USA Technical Advisory Group for International Organization for Standardization (ISO) relating to emissions monitoring. We expect these additional efforts will help us to support a periodic review of all EPA reference methods and performance standards for possible incorporation by reference (IBR) of VCS in lieu of or as alternatives to EPA procedures. We anticipate that these activities will provide an opportunity for further review, consideration and possible IBR of VCS overlooked in the National Standards Service Network (NSSN) searches or finalized after Federal agency review in the EPA rulemaking process.

We conducted searches for Standards of Performance for Coke Ovens: Pushing, Quenching and Battery Stacks: National Emission Standards for Hazardous Air Pollutants through the Enhanced NSSN Database managed by the American National Standards Institute (ANSI). We also contacted VCS organizations and accessed and searched their databases. Searches were conducted for EPA Methods 1, 2, 2F, 2G, 3, 3A, 3B, 4, 5, 5D, 9, 23, 26, 26A, 29 of 40 CFR Part 60, Appendix A, EPA Method 160.1 in 40 CFR Part 136.3, Appendix A, EPA Methods 316 and 320 in 40 CFR Part 63, Appendix A.

No applicable voluntary consensus standards were identified for EPA Methods 2F, 2G, 5D, 316 and 160.1.

During the search, if the title or abstract (if provided) of the VCS described technical sampling and analytical procedures that are similar to EPA's reference method, the MTG considered it as a potential equivalent method. All potential standards were reviewed to determine the practicality of the VCS for this rule. This review requires significant method validation data which meets the requirements of EPA Method 301 for accepting alternative methods or scientific, engineering and policy equivalence to procedures in EPA reference methods. The MTG may reconsider determinations of impracticality when additional information is available for particular VCS.

Four voluntary consensus standards were identified as acceptable alternatives to EPA test methods for the purposes of this rule. The voluntary consensus standard ANSI/ASME PTC 19-10-1981- Part 10 (2010), "Flue and Exhaust Gas Analyses" is an acceptable alternative to EPA Method 3B, manual portion only and not the instrumental portion.

The voluntary consensus standard ASTM D7520-16, "Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere" is an acceptable alternative to EPA Method 9 with the following caveats:

1. During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520-16, you or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).

2. You must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520-16.

3. You must follow the record keeping procedures outlined in §63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.

4. You or the DCOT vendor must have a minimum of four (4) independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15% opacity of any one reading and the average error must not exceed 7.5% opacity.

5. This approval does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software and operator in accordance with ASTM D7520-16 and this letter is on the facility, DCOT operator, and DCOT vendor.

The voluntary consensus standard ASTM D6784-16, "Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)" is an acceptable alternative to EPA Method 29 (portion for mercury only) as a method for measuring mercury, note: Applies to concentrations approximately 0.5 – 100 µg/Nm3.

The voluntary consensus standard ASTM D6348-12 (2020), "Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform (FTIR) Spectroscopy" is an acceptable alternative to EPA Method 320.

ASTM D6338-12 (2020) is technically equivalent to previous ASTM D6348-12el (which contained editorial changes only). ASTM 6348-12el is technically equivalent to the original approved ASTM D6348-03(2010) with caveats below.

In the 9/22/08 NTTA summary, ASTM D6348-03(2010) was determined equivalent to EPA Method 320 with caveats. ASTM D6348-12 (2020) is a revised version of ASTM D6348-03(2010) and includes a new section on accepting the results from direct measurement of a certified spike gas cylinder, but still lacks the caveats we placed on the D6348-03(2010) version. The voluntary consensus standard ASTM D6348-12 (2020) "Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform (FTIR) Spectroscopy" is an acceptable alternative to EPA Method 320 at this time with caveats requiring inclusion of selected annexes to the standard as mandatory. When using ASTM D6348-12 (2020), the following conditions must be met:

(1) The test plan preparation and implementation in the Annexes to ASTM D 6348-12 (2020), Sections A1 through A8 are mandatory; and

(2) In ASTM D6348-12 (2020) Annex A5 (Analyte Spiking Technique), the percent (%) R must be determined for each target analyte (Equation A5.5).
In order for the test data to be acceptable for a compound, %R must be 70 % $\geq$ R $\leq$ 130%. If the %R value does not meet this criterion for a target compound, the test data is not acceptable for that compound and the test must be repeated for that analyte (i.e., the sampling and/or analytical procedure should be adjusted before a retest). The %R value for each compound must be reported in the test report, and all field measurements must be corrected with the calculated %R value for that compound by using the following equation:

Reported Results = ((Measured Concentration in Stack))/(%R) x 100.

The search identified 20 VCS that were potentially applicable for this rule in lieu of EPA reference methods. After reviewing the available standards, EPA determined that 20 candidate VCS (ASTM D3154-00 (2014), ASTM D3464-96 (2014), ASTM D3796-90 (2016), ISO 10780:1994, ASME B133.9-1994 (2001), ANSI/ASME PTC 19-10-1981 Part 10, ISO 10396:(2007), ISO 12039:2001, ASTM D5835-95 (2013), ASTM D6522-11, CAN/CSA Z223.2-M86 (R1999), ISO 9096:1992 (2003), ANSI/ASME PTC 38-1980 (1985), ASTM:D3685/D3685M-13, CAN/CSA Z223.1-M1977 (R1999), EN 1948-3 (2006), EN 1911-1,2,3 (1998), ASTM D6735-01 (2009), EN 13211:2001, CAN/CSA Z223.26-M1987 (R1999)) identified for measuring emissions of pollutants or their surrogates subject to emission standards in the rule would not be practical due to lack of equivalency, documentation, validation data and other important technical and policy considerations. These 20 methods are listed in Attachment 1, along with the EPA review comments.

I hope our research into this matter has been useful and timely to your Group's efforts in this rulemaking. Please contact me at (919) 541- 4790 with any further questions in this matter.

Attachments

cc: Donna Lee Jones, EPA/SPPD (D243-02)
Michael Toney, EPA/AQAD (E143-02)

Attachment 1. List of Voluntary Consensus Standards Not Applicable for Standards of Performance for Coke Ovens: Pushing, Quenching and Battery Stacks: National Emission Standards for Hazardous Air Pollutants.

SIMILAR EPA STANDARD REFERENCE METHOD	VOLUNTARY CONSENSUS STANDARD	EPA'S COMMENTS ON VOLUNTARY CONSENSUS STANDARD
EPA Method 1, 2, 3, 3B, 4	ASTM D3154-00 (2014) - Standard Method for Average Velocity in a Duct (Pitot Tube Method)	This standard appears to cover EPA's Part 60 Methods 1, 2, 2C, 3, 3B, 4, but lacks in quality control and quality assurance requirements. Specifically, ASTM D3154-00 does not include the following: 1) proof that openings of standard pitot tube have not plugged during the test; 2) if differential pressure gauges other than inclined manometers (*e.g.*, magnehelic gauges) are used, heir calibration must be checked after each test series; and 3) the frequency and validity range for calibration of the temperature sensors.
EPA Method 2	ASTM D3464-96 (2014) - Standard Test Method Average Velocity in a Duct Using a Thermal Anemometer	The applicability specifications in this ASTM standard are not clearly defined, e.g., range of gas composition, temperature limits. Also, the lack of supporting quality assurance data for the calibration procedures and specifications, and certain variability issues that are not adequately addressed by the standard limit EPA's ability to make a definitive comparison of the method in these areas.
EPA Method 2	ASTM D3796-90 (2016) - Standard Practice for Calibration of Type S Pitot Tubes	This ASTM standard is intended to be a calibration procedure for the S-type pitot tube and not a method by which stack gas velocity and/or volumetric flowrates can be measured as in EPA Method 2. In addition, the calibration procedure does not require an inclined manometer and does not specify any additional accuracy verifications for the use of other types of differential pressure gauges.
EPA Method 2	ISO 10780:1994 - Stationary Source Emissions Measurement of Velocity and Volume Flowrate of Gas Streams in Ducts	ISO 10780:1994 recommends the use of an L-shaped pitot, which historically has not been recommended by EPA. The EPA specifies the S-type design which has large openings that are less likely to plug up with dust.
EPA Method 2, 3A, 4, 5	ASME B133.9-1994 (2001) - Measurement of Exhaust Emissions from Stationary Gas Turbine Engines (Revision of ANSI B133.9-1979)	Not a quantitative method, per se, although a good primer for this source category that includes technical descriptions of manual and instrumental sampling procedures, as well as

SIMILAR EPA STANDARD REFERENCE METHOD	VOLUNTARY CONSENSUS STANDARD	EPA'S COMMENTS ON VOLUNTARY CONSENSUS STANDARD
	(This method has been withdrawn with no further updates)	performance specifications for instrumental methods. This standard has many good references, including the EPA Methods and Performance Specifications. ***ONLY USE FOR ENGINES AND TURBINES***
EPA Method 3A	ANSI/ASME PTC 19-10-1981- Part 10 (2010) Flue and Exhaust Gas Analyses	This standard includes manual and instrumental methods of analyses for carbon dioxide (CO2), carbon monoxide (CO), hydrogen sulfide (H2S), nitrogen oxides (NOx), oxygen (O2), and sulfur dioxide (SO2). The VCS method analytes that include one or more of the same techniques as the EPA methods are as follows: CO2 [manual (3B, 6A and 6B) and instrumental (3A and 3C)]; CO [manual (3B) and instrumental (10 and 10B)], H2S [manual (15A and 16A) and instrumental (15, 16, and 16B)], NOx [manual (7 and 7C) and instrumental (7A, 7B, 7E, 20)], O2 [manual (3B) and instrumental (3A, 3C, 20)], and SO2 [manual (6, 6A, 6B, 20) and instrumental (6C)]. The manual methods are all acceptable alternatives to the corresponding EPA test methods (3B, 6, 6A, 6B, 7, 7C, 15A, 16A, 20 (SO2 part of 20 only)). [Note that one of the standard's manual SO2 procedures incorporates EPA Method 6 in its entirety]. For the standard's instrumental procedures, only general descriptions of the procedures are included which are not true methods. Therefore, the instrumental procedures of ANSI/ASME PTC 19-10-1981-Part 10 are not acceptable alternatives to the corresponding EPA methods (3A, 3C, 6C, 7A, 7B, 7E, 10, 10B, 15, 16, 16B, 20 (NOx part of 20 only)).

SIMILAR EPA STANDARD REFERENCE METHOD	VOLUNTARY CONSENSUS STANDARD	EPA'S COMMENTS ON VOLUNTARY CONSENSUS STANDARD
EPA Method 3A	ISO 10396:1993 (2007) - Stationary Source Emissions: Sampling for the Automated Determination of Gas Concentrations	This standard is similar to EPA Methods 3A, 6C, 7E, 10, 20 (nitrogen oxides and oxygen parts of 20 only), ALT 004, CTM 022, but lacks in detail and quality assurance/quality control requirements. Specifically, ISO 10396 does not include the following: 1) sensitivity of the method; 2) acceptable levels of analyzer calibration error; 3) acceptable levels of sampling system bias; 4) zero drift and calibration drift limits, time span, and required testing frequency; 5) a method to test the interference response of the analyzer; 6) procedures to determine the minimum sampling time per run and minimum measurement time; 7) specifications for data recorders, in terms of resolution (all types) and recording intervals (digital and analog recorders, only). This standard is also very similar to ASTM D5835.
EPA Methods 3A	ISO 12039:2001 - Stationary Source Emissions Determination of Carbon Monoxide, Carbon Dioxide, and Oxygen Automated Methods renewed and confirmed in 2012	This method is similar to EPA Methods 3A, 10, and 20 (oxygen portion of 20 only). However, ISO 12039 is missing some key features. In terms of sampling, the hardware required by ISO 12039 does not include a 3-way calibration valve assembly or equivalent to block the sample gas flow while calibration gases are introduced. In its calibration procedures, ISO 12039 only specifies a two-point calibration while the EPA methods specify a 3-point calibration. Also, ISO 12039 does not specify performance criteria for calibration error, calibration drift, or sampling system bias tests, although checks of these quality control features are required by the ISO standard. In addition, ISO 12039 does not include procedures for removal of CO2 when CO is being

SIMILAR EPA STANDARD REFERENCE METHOD	VOLUNTARY CONSENSUS STANDARD	EPA'S COMMENTS ON VOLUNTARY CONSENSUS STANDARD
		tested, as in EPA Method 10.
EPA Method 3A	ASTM D5835-95 (2013) - Standard Practice for Sampling Stationary Source Emissions for Automated Determination of Gas Concentration	This standard is similar to EPA Methods 3A, 6C, 7E, 10, 20 (nitrogen oxides and oxygen parts of 20 only), ALT 004, CTM 022, but lacks in detail and quality assurance/quality control requirements. Specifically, ASTM D5835-95 does not include the following: 1) sensitivity of the method; 2) acceptable levels of analyzer calibration error; 3) acceptable levels of sampling system bias; 4) zero drift and calibration drift limits, time span, and required testing frequency; 5) a method to test the interference response of the analyzer; 6) procedures to determine the minimum sampling time per run and minimum measurement time; 7) specifications for data recorders, in terms of resolution (all types) and recording intervals (digital and analog recorders, only). This standard is also very similar to ISO 10396.
EPA Method 3A	ASTM D6522-11 - Standard Test Method for the Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers and Process Heaters Using Portable Analyzers	ASTM D6522 has been determined to be technically appropriate for identifying nitrogen oxides, carbon monoxide, and oxygen concentrations when the fuel is natural gas.
EPA Method 3A	CAN/CSA Z223.2-M86 (R1999) - Method for the Continuous Measurement of Oxygen, Carbon Dioxide, Carbon Monoxide, Sulphur Dioxide, and Oxides of	This standard is unacceptable as a substitute for EPA Methods 3A, 6C, 7E, 10, 10A, and 20 (nitrogen oxides and oxygen parts of 20 only), since it does not include quantitative

SIMILAR EPA STANDARD REFERENCE METHOD	VOLUNTARY CONSENSUS STANDARD	EPA'S COMMENTS ON VOLUNTARY CONSENSUS STANDARD
	Nitrogen in Enclosed Combustion Flue Gas Streams	specifications for measurement system performance, most notably the calibration procedures and instrument performance characteristics. The instrument performance characteristics that are provided are nonmandatory and also do not provide the same level of quality assurance as the EPA methods. For example, the zero and span/calibration drift is only checked weekly, whereas the EPA methods requires drift checks after each run.
EPA Method 5	ISO 9096:1992 (2003) - Determination of Concentration and Mass Flow Rate of Particulate Matter in Gas Carrying Ducts Manual Gravimetric Method	Although sections of ISO 9096 incorporate EPA Methods 1, 2, and 5 to some degree, this ISO standard is not equivalent to EPA Method 5 for collection of particulate matter. The standard ISO 9096 does not provide applicable technical guidance for performing many of the integral procedures specified in Methods 1, 2, and 5. Major performance and operational details are lacking or nonexistent, and detailed quality assurance/quality control guidance for the sampling operations required to produce quality, representative particulate data (e.g., guidance for maintaining and monitoring train operating temperatures, specific leak check guidelines and procedures, and sample preparation and recovery procedures) are not provided by the standard, as in EPA Method 5. Also, details of equipment and/or operational requirements, such as those specified in EPA Method 5, are not included in the ISO standard, e.g., stack gas moisture measurements, data reduction guidance, and particulate sample calculations.
EPA Method 5	ANSI/ASME PTC-38-1980 (1985) - Determination of	This standard also includes procedures similar to EPA

SIMILAR EPA STANDARD REFERENCE METHOD	VOLUNTARY CONSENSUS STANDARD	EPA'S COMMENTS ON VOLUNTARY CONSENSUS STANDARD
	the Concentration of Particulate Matter in Gas Streams	Methods 1 and 2. The difference between this standard and EPA Methods 5 and 17 is, in general, that ASME PTC-38-80 is not specific about equipment requirements, and instead presents the options available and the pro's and con's of each option. The key specific differences between ASME PTC-38-80 and the EPA methods are that the ASME standard: 1) allows in-stack filter placement as compared to the out-of-stack filter placement in EPA Methods 5 and 17; 2) allows many different types of nozzles, pitots, and filtering equipment; 3) does not specify a filter weighing protocol or a minimum allowable filter weight fluctuation as in the EPA methods; and 4) allows filter paper to be only 99 percent efficient, as compared to the 99.95 percent efficiency required by the EPA methods.
EPA Method 5	ASTM D3685/D3685M-13 - Test Methods for Sampling and Determination of Particulate Matter in Stack Gases	This ASTM standard is similar to EPA Methods 5 and 17, but is lacking in the following areas that are needed to produce quality, representative particulate data: 1) requirement that the filter holder temperature should be between 120°C and 134°C, and not just above the acid dew-point; 2) detailed specifications for measuring and monitoring the filter holder temperature during sampling; 3) procedures similar to EPA Methods 1, 2, 3, and 4, that are required by EPA Method 5 and 17; 4) technical guidance for performing the Method 5 and 17 sampling procedures, e.g., maintaining and monitoring sampling train operating temperatures, ***specific leak check guidelines and procedures*** and use of reagent blanks for determining and subtracting background contamination; and 5)

SIMILAR EPA STANDARD REFERENCE METHOD	VOLUNTARY CONSENSUS STANDARD	EPA'S COMMENTS ON VOLUNTARY CONSENSUS STANDARD
		detailed equipment and/or operational requirements, e.g., component exchange leak checks, use of glass cyclones for heavy particulate loading and/or water droplets, operating under a negative stack pressure, exchanging particulate loaded filters, sampling preparation and implementation guidance, sample recovery guidance, data reduction guidance, and particulate sample calculations input.
EPA Method 5	CAN/CSA Z223.1-M1977 - Method for the Determination of Particulate Mass	Detailed technical procedures and quality control measures that are required in EPA Methods 1, 2, 3, and 4 are not included in CAN/CSA Z223.1. Secondly, CAN/CSA Z223.1 does not include in its filter weighing procedures the EPA Method 5 requirement to repeat weighing every six hours until a constant weight is achieved. Third, EPA Method 5 requires the weight to be reported to the nearest 0.1 mg, while CAN/CSA Z223.1 requires only weighing to the nearest 0.5 mg. Lastly, CAN/CSA Z223.1 allows the use of a standard pitot for velocity measurement when plugging of the tube opening is not expected to be a problem, whereas EPA Method 5 requires an S-shaped pitot.
EPA Method 23	EN 1948-3 (2006) (European Committee for Standardization) - Determination of the Mass Concentration of PCDD'S/PCDF'S Part 3: Identification and Quantification	This Standard Provides additional sampling options other than what is acceptable in EPA Method 23.
EPA Method 26, 26A	EN 1911-1,2,3 (1998) - Stationary Source Emissions-Manual Method of Determination of HCl-Part 1: Sampling of Gases Ratified European Text-Part 2:	Part 3 of this standard cannot be considered equivalent to EPA Method 26 or 26A. The sample absorbing solution (water) would be expected to capture both HCl and chlorine gas, if

SIMILAR EPA STANDARD REFERENCE METHOD	VOLUNTARY CONSENSUS STANDARD	EPA'S COMMENTS ON VOLUNTARY CONSENSUS STANDARD
	Gaseous Compounds Absorption Ratified European Text-Part 3: Adsorption Solutions Analysis and Calculation Ratified European Text	present, without the ability to distinguish between the two. The EPA Methods 26 and 26A use an acidified absorbing solution to first separate HCl and chlorine gas so that they can be selectively absorbed, analyzed, and reported separately. In addition, in EN 1911-1,2,3 (1998), the absorption efficiency for chlorine gas would be expected to vary as the pH of the water changed during sampling.
EPA Method 26, 26A	ASTM D6735-01(2009) - Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources Impinger Method	This Method has been withdrawn due to a higher operating temperature that could bias results high and not be equivalent to Method 26 to measure HCL. ASTM is aware of this issue and is planning to address this problem.
EPA Method 29 (Portion for Mercury Only)	EN 13211:2001 - Air Quality Stationary Source Emissions Determination of the Concentration of Total Mercury	EN 13211 is not acceptable as an alternative to the mercury portion of EPA Method 29 primarily because it is not validated for use with impingers, as in the EPA method, although the method describes procedures for the use of impingers. This European standard is validated for the use of fritted bubblers only and requires the use of a side (split) stream arrangement for isokinetic sampling because of the low sampling rate of the bubblers (up to 3 liters per minute, maximum). Also, only two bubblers (or impingers) are required by EN 13211, whereas EPA Method 29 require the use of six impingers. In addition, EN 13211 does not include many of the quality control procedures of EPA Method 29, especially for the use and calibration of temperature sensors and controllers, sampling train assembly and disassembly, and filter weighing. This standard is not acceptable as an alternative to EPA Methods 29 (mercury only), and Method

SIMILAR EPA STANDARD REFERENCE METHOD	VOLUNTARY CONSENSUS STANDARD	EPA'S COMMENTS ON VOLUNTARY CONSENSUS STANDARD
		30B, for the cold vapor atomic absorption spectrometry (CVAAS) analytical procedures only, because of lack of detail in quality control.
EPA Method 29 (Portion for Mercury Only)	CAN/CSA Z223.26-M1987 - Measurement of Total Mercury in Air Cold Vapour Atomic Absorption Spectrophotometeric Method	This standard is not acceptable as an alternative to EPA Methods 29 (mercury only), 101, and 101A, for the cold vapor atomic absorption spectrometry (CVAAS) analytical procedures only, because of lack of detail in quality control. Specifically, CAN/CSA Z223.26 does not include specifications for the number of calibration samples to be analyzed, procedures to prevent carryover from one sample to the next, and procedures for subtraction of the instrument response to calibration blank as in the EPA methods. Also, CAN/CSA Z223.26 does not require that the calibration curve be forced through or close to zero (or a point no further than 2 percent of the recorder full scale) as in the EPA methods. Also, CAN/CSA Z223.26 does not include a procedure to assure that two consecutive peak heights agree within 3 percent of their average value and that the peak maximum is greater than 10 percent of the recorder full scale, as in the EPA methods. CAN/CSA Z223.26 does not include instructions for a blank and a standard to be run at least every five samples, and specifications for the peak height of the blank and the standard as in the EPA methods.