

Stationary source emissions - Determination of the mass concentration of carbon monoxide - Standard reference method: non-dispersive infrared spectrometry

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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ICS 13.040.40

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English Version

Stationary source emissions - Determination of the mass concentration of carbon monoxide - Standard reference method: non-dispersive infrared spectrometry

Émissions de sources fixes - Détermination de la concentration massique de monoxyde de carbone - Méthode de référence normalisée : spectrométrie infrarouge non dispersive

Emissionen aus stationären Quellen - Bestimmung der Massenkonzentration von Kohlenmonoxid - Standardreferenzverfahren: Nicht-dispersive Infrarotspektrometrie

This European Standard was approved by CEN on 26 September 2016.

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European foreword

This document (EN 15058:2017) has been prepared by Technical Committee CEN/TC 264 "Air quality", the secretariat of which is held by DIN.

This document supersedes EN 15058:2006.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2017, and conflicting national standards shall be withdrawn at the latest by July 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

Annex F provides details of significant technical changes between this document and the previous edition.

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1 Scope

This European Standard specifies the standard reference method (SRM) based on the infrared (IR) absorption principle. It includes the sampling and the gas conditioning system, and allows the determination of the carbon monoxide CO in flue gases emitted to the atmosphere from ducts and stacks.

This European Standard specifies the characteristics to be determined and the performance criteria to be fulfilled by portable automated measuring systems (P-AMS) using the IR measurement method. It applies for periodic monitoring and for the calibration or control of automated measuring systems (AMS) permanently installed on a stack, for regulatory or other purposes.

This European Standard specifies criteria for demonstration of equivalence of an alternative method (AM) to the SRM by application of EN 14793:2017.

This European Standard has been validated during field tests on waste incineration, co-incineration and large combustion plants and on a recognized test bench. It has been validated for CO concentrations with sampling periods of 30 min in the range of 0 mg/m³ to 400 mg/m³ for large combustion plants and 0 mg/m³ to 740 mg/m³ for waste and co-incineration. Directive 2010/75/EU lays down emission values which are expressed in mg/m³, on dry basis at a specified value of oxygen and at standard conditions (273 K and 101,3 kPa).

NOTE The characteristics of installations, the conditions during field tests and the values of repeatability and reproducibility in the field are given in Annex A.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 14793:2017, *Stationary source emission – Demonstration of equivalence of an alternative method with a reference method*

EN 15259:2007, *Air quality - Measurement of stationary source emissions - Requirements for measurement sections and sites and for the measurement objective, plan and report*

EN 15267-4:2017, *Air quality — Certification of automated measuring systems — Part 4: Performance criteria and test procedures for automated measuring systems for periodic measurements of emissions from stationary sources*

EN ISO 14956:2002, *Air quality - Evaluation of the suitability of a measurement procedure by comparison with a required measurement uncertainty (ISO 14956:2002)*

ISO/IEC Guide 98-3:2008, *Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

standard reference method

SRM

reference method prescribed by European or national legislation

[SOURCE: EN 15259:2007]