

Air quality — Stationary source emissions — Determination of total mercury: automated measuring systems

The European Standard EN 14884:2005 has the status of a
British Standard

ICS 13.040.40

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National foreword

This British Standard is the official English language version of EN 14884:2005.

The UK participation in its preparation was entrusted by Technical Committee EH/2, Air quality, to Subcommittee EH/2/1, Stationary source emissions, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

The UK, as a member of CEN, is obliged to publish EN 14884:2005 as a British Standard. However, attention is drawn to the fact that during the development of this European Standard, the UK consistently voted against its approval as a European Standard.

Total-mercury monitors commonly include a conversion system to convert all gaseous oxidized mercury into the elemental form. The performance of some of these conversion systems can be less than ideal, for example, in sources with high concentrations of acid components (such as stacks with high SO₂ emissions). It is in the opinion of the UK committee that EN 14884:2005 does not provide sufficient practical guidance on how to deal with such problems. Therefore the UK recommends that EN 14884:2005 should be used in conjunction with the operator-manual for each Automated Measuring System (AMS) used. The user of EN 14884:2005 should obtain the necessary information from the AMS supplier to ensure a continuing, valid performance of the AMS in the specific stack conditions to which it is applied.

As identified in the scope, EN 14884:2005 is not applicable as a stand-alone document and is to be used in conjunction with EN 14181.

Summary of pages

This document comprises a front cover, an inside front cover, page i, a blank page, the EN title page, pages 2 to 18, an inside back cover and a back cover.

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Cross-references

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English Version

Air quality - Stationary source emissions - Determination of total mercury: automated measuring systems

Qualité de l'air - Emissions de sources fixes -
Détermination de la concentration en mercure totale:
systèmes automatiques de mesure

Luftbeschaffenheit - Emissionen aus stationären Quellen -
Bestimmung der Gesamtquecksilber-Konzentration:
Automatische Messeinrichtungen

This European Standard was approved by CEN on 28 November 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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Foreword

This European Standard (EN 14884:2005) has been prepared by Technical Committee CEN/TC 264 “Air quality”, the secretariat of which is held by DIN.

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 June 2006, and conflicting national standards shall be withdrawn at the latest by June 2006.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

This European Standard describes the quality assurance procedures related to Automated Measuring Systems (AMS) for the determination of total mercury in flue gas, in order to meet the uncertainty requirements on measured values given by regulations, national or other legislation.

This European Standard is only applicable in conjunction with the general document on quality assurance of AMS described in EN 14181, and provides indications, which are specific to measurements of total mercury.

The calibration and validation of mercury AMS are performed by parallel measurements with the reference manual method described in EN 13211.

The calibration and validation of mercury AMS are performed by parallel measurements with the reference manual method described in EN 13211. The species of mercury (Hg^0 and Hg^{2+}) and the physical occurrence (gaseous, in dust or in droplets) can vary significantly depending on the type of process to be monitored.

A total mercury AMS or a gaseous mercury AMS can be chosen. Whether or not a gaseous mercury AMS can fulfil the requirements for total mercury depends on the process and sampling location.