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Stationary source emissions — Manual determination of mass concentration of particulate matter

Émissions de sources fixes — Détermination manuelle de la concentration en masse de poussières



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by ISO Technical Committee ISO/TC 146, *Air quality*, Subcommittee SC 1, *Stationary source emissions*.

This third edition cancels and replaces the second edition (ISO 9096:2003), of which it constitutes a minor revision. It also incorporates the Technical Corrigendum ISO 9096:2003/Cor.1:2006. The changes compared to the previous edition are as follows:

- [Table 3](#): in the row entitled "Isokinetic criteria (average measurement uncertainty)" the value "±10 %" has been replaced by " $_{-5}^{+15}$ %" (according to ISO 9096:2003/Cor.1:2006).
- [Formula \(11\)](#): the percent symbol has been added twice.
- [Formula \(13\)](#): the percent symbol has been added twice.
- [Figure A.2](#): < 0,2 has been corrected to > 0,2.
- [Formula \(B.6\)](#): the parentheses have been removed.
- [Formula \(B.7\)](#): the formula has been corrected.

Introduction

Close liaison and cooperation between ISO/TC 146/SC 1 and CEN/TC 264 has resulted in the preparation of this document, ISO 12141 and EN 13824-1. This document is similar to EN 13284-1 with additional emphasis given on the use of high-volume sampling techniques. A representative, integrated sample is extracted from the flue gas and the particulate matter entrained in the gas sample is separated by a filter. The pre-weighed filter is subsequently dried and weighed. A relative increase in the mass is attributed to the collection of particulate matter on the filter.

To meet the specifications of this document, the particulate sample is weighed to a specified level of accuracy. This level of accuracy is achieved by:

- a) exercising extreme care in weighing, in accordance with the procedures of this document;
- b) extending the sampling time at conventional sampling rates;
- c) sampling at higher rates for conventional sampling times (high-volume sampling);
- d) recovering all dust upstream of the filter.