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**Hard coal and coke — Guidance  
to the inspection of mechanical  
sampling systems**

*Houille et coke — Lignes directrices pour l'inspection des systèmes  
d'échantillonnage mécanique*



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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](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of 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 [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 27, *Solid mineral fuels*, Subcommittee SC 4, *Sampling*.

This second edition cancels and replaces the first edition (ISO 21398:2007), of which it constitutes a minor revision. The changes compared to the previous edition are as follows:

- the normative references have been updated and the dates removed;
- the references in [Clause 5](#) have been updated;
- Bibliographic references have been updated.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

The objective of this document is to provide users of new and existing mechanical sampling systems for minerals with guidance on their operation and inspection.

An 'informative' annex is for information and guidance only.



# Hard coal and coke — Guidance to the inspection of mechanical sampling systems

## 1 Scope

This document sets out recommended practices for the inspection of mechanical sampling systems. It serves as a guide for conformance with applicable ISO/TC 27 standards.

This document covers general considerations including precision, mineral variability and bias, establishment of inspection systems and inspection procedure.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 13909 (all parts), *Hard coal and coke — Mechanical sampling*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 13909-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

### 3.1 audit

<external> critical review of a mechanical sampling system, which measures its conformance with stipulated operating specifications, undertaken by a suitably qualified independent person who is not directly involved in the management of that system

### 3.2 audit

<internal> critical inspection and review of a mechanical sampling system, which measures its conformance with stipulated operation specifications, undertaken by a suitably qualified person who is not a day-to-day operator of that particular system

### 3.3 operational inspection

observations and inspections of operation conditions undertaken by the operator during sampling of a lot

Note 1 to entry: The operator is the person responsible for monitoring the sampling system on a shift-to-shift basis.

## 4 Safety

This document does not purport to address safety issues that can be associated with its use. It is the responsibility of the user of this document to establish appropriate safety and health practices in line with site safety regulations and relevant Occupational Health and Safety Acts. It is highly recommended that the auditor or inspector start by conducting a careful review of all safety rules and procedures regarding the sampling system to be inspected.