
**Stationary source emissions —
Determination of greenhouse gas
emissions in energy-intensive
industries —**

**Part 1:
General aspects**

*Émissions de sources fixes — Détermination des émissions de gaz à
effet de serre dans les industries énérgo-intensives —*

Partie 1: Aspects généraux



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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).

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).

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.

This document was prepared by Technical Committee ISO/TC 207, *Environmental management*, Subcommittee SC 7, *Greenhouse gas management and related activities*.

A list of all parts in the ISO 19694 series can be found on the ISO website.

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.

Introduction

This document is the first part of ISO 19694 series, which contains harmonized common methods for measuring, testing and quantifying greenhouse gas (GHG) emissions from six sector-specific industry sectors, and one document on general aspects.

In particular, the ISO 19694 series contains harmonized methods for:

- a) measuring, testing and quantifying GHG emissions from sector-specific sources;
- b) assessing the level of GHG emissions performance of production processes over time, at production sites;
- c) establishing and providing reliable, accurate and quality information for reporting purposes.

This document is harmonized with ISO 14064-1, which contains broader requirements. This document deals with the general aspects and can serve as a basis for any specific sector standards.

The ISO 19694 series enables industry to manage the GHG emissions output of the production processes and to allow performance assessment between plants and over time. The objective is to continuously improve the reduction potential of the production processes by acting on the emission performance over time.

This document contributes to competitiveness of industry and is a tool for formalizing businesses' contributions to providing emission reductions in their operations and to developing low-carbon technology solutions to the market.

This document also addresses the following issues:

- avoidance of double-counting at plant, organization, group, national and international levels;
- distinguishing different drivers of emissions (technological improvement, internal and external growth);
- reporting of emissions in absolute as well as specific (unit-based) terms;
- ensuring that the full range of achieved direct and indirect GHG abatements are reflected.

This document also provides a flexible tool to support the needs of different monitoring and reporting purposes, such as internal management and public corporate reporting of GHG emission performance in accordance with the production processes on a production site.

The purpose of this document is not to prescribe specific requirements for verification or certification of methods, measurements, calculations or resulting data, which are given in ISO 14064-3.

Due to the nature of the issues concerned, and their wide public interest, verification and certification should be prepared for. The operator should organize files and records in such a way that they are easily retrievable and traceable. Documentation includes:

- personnel qualifications;
- methods applied;
- time series of measurements performed;
- calibration status of equipment used;
- calculations of emissions.

The ISO 19694 series should be readily available for corporate internal verification, second-party (i.e. customer) verification or third-party certification if required by interested parties.

Within this document, “measuring, testing and quantifying for GHG emissions” is understood to be the emissions inventory of a site (plant, facility), including energy flows and material flows leaving or entering the system boundaries. Typically, inventory data are absolute data. Inventory data should represent the original data set without any corrections, adaptations, etc. (e.g. with regard to other energy indirect GHG emissions).

Performance assessment depends on the sector-specific conditions. Performance assessment may be based on absolute and/or (product-) specific data and may apply corrections or adaptations in order to allow a fair and transparent comparison of plants.

This document is not appropriate for use for life cycle analysis and product carbon footprint.

Stationary source emissions — Determination of greenhouse gas emissions in energy-intensive industries —

Part 1: General aspects

1 Scope

This document specifies principles and requirements for the determination of greenhouse gas (GHG) emissions from sector-specific sources such as from steel and iron, cement, aluminium, lime and ferroalloy-producing industries.

This document specifies definitions and requirements valid to the sector-specific parts of ISO 19694 series. It provides common methodological issues and defines the details for applying the requirements for the harmonized methods, which include:

- a) measuring, testing and quantifying methods for GHG emissions of the above-mentioned sector-specific sources in the cited standards;
- b) assessing the level of GHG emissions performance of production processes over time at production sites;
- c) establishing and providing reliable, accurate and quality information for reporting and verification purposes.

The application of this document to the other sector-specific standards in the ISO 19694 series ensures accuracy, precision and reproducibility of the obtained results. For this reason, it is a generic standard.

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 14064-1:2018, *Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals*

ISO 14956, *Air quality — Evaluation of the suitability of a measurement procedure by comparison with a required measurement uncertainty*

ISO 16911-1, *Stationary source emissions — Manual and automatic determination of velocity and volume flow rate in ducts — Part 1: Manual reference method*

ISO 16911-2, *Stationary source emissions — Manual and automatic determination of velocity and volume flow rate in ducts — Part 2: Automated measuring systems*

ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

3 Terms and definitions

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