

ISO 19694-1:2021 (E)

Stationary source emissions — Determination of greenhouse gas emissions in energy-intensive industries — Part 1: General aspects

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Abbreviated terms
5	Principles
5.1	General
5.2	Relevance
5.3	Completeness
5.4	Consistency
5.5	Accuracy
5.6	Transparency
6	Inventory boundaries
6.1	Organizational boundaries
6.2	Reporting boundaries
6.2.1	General
6.2.2	Establishing reporting boundaries
6.2.3	Direct GHG emissions (category 1)
6.2.4	Indirect GHG emissions (categories 2 to 6)
6.2.5	GHG from electricity use and on-site power production
7	Performance assessment (principle)
8	General requirements for identifying, calculating and reporting of GHG emissions
8.1	Identification, calculation and reporting of GHG emissions
8.2	Content of the monitoring plan
9	Determination of GHG emissions: general requirements
9.1	General
9.2	Mass balanced based method
9.3	Stack emission measurement-based method
10	General requirements for sampling, analyses and laboratory competency
10.1	Sampling and analyses — Reference to standards or guidelines, methods and frequencies
10.2	Requirements for laboratories and evidence of their technical competence
11	General information for the assessment of uncertainties
12	Reference factors
12.1	Global warming potential (GWP) factors
12.2	Process emission factors
12.3	Electricity emission factors
12.4	Fuel emission factors
12.5	Biomass fuel emission factors

12.6	Mixed biomass containing fuel emission factors
13	Consideration of biomass
13.1	General
13.2	Additional sources of information
13.3	Biomass
13.4	Reporting of emissions from biomass sources
13.5	Analysing methods for biomass fractions
14	Verification
Annex A	(normative) Minimum content of the monitoring plan
Annex B	(informative) List of biomass materials
Annex C	(informative) Requirements for the assurance of GHG data
Annex D	(informative) Example of an uncertainty calculation for yearly output determined from stack measurements (in accordance with EN 14181)
D.1	Sources of errors
D.2	Calculation of annual output
D.2.1	Using directly measured values
D.2.2	Using normalized values
D.2.3	Propagation of random errors
D.2.4	Calculating random uncertainty for CO ₂
D.2.5	Total uncertainty
D.2.6	Examples
Annex E	(normative) Treatment of biogenic GHG emissions and CO ₂ removals
Annex F	(informative) Categories correspondence

Page count: 37