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Competence requirements for teams (including technical experts), and independent reviewers involved in the validation and verification of environmental information

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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 and climate change management and related activities*.

This second edition cancels and replaces the first edition (ISO 14066:2011), which has been technically revised.

The main changes are as follows:

- Extend the scope of the standard from greenhouse gas to environmental information claims
- Addition of Annexes to match revised scope of ISO 14065

A list of all parts in the ISO 14000 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 <https://www.iso.org/members.html>.

Introduction

This International Standard specifies competence requirements for validation and verification teams (including technical experts), and independent reviewers for the benefit of environmental information programme administrators, regulators, and validation and verification bodies. To achieve consistency in the international marketplace and maintain public confidence in environmental information reporting and other communications, there is a need to define competence requirements for validation and verification teams (including technical experts), and independent reviewers.

Requirements for environmental information validation and verification bodies are established in ISO 14065. ISO 14065 requires that validation and verification bodies establish and maintain a procedure to manage the competence of its personnel undertaking the various validation or verification activities within the team and independent reviewer appointed for the engagement. It is the role of the validation or verification body to ensure that validation and verification teams (including technical experts), and independent reviewers have the necessary competence to effectively complete the validation or verification process. This International Standard includes principles for ensuring competence of validation and verification teams (including technical experts), and independent reviewers. Supporting these principles are general requirements based on the tasks that validation or verification teams (including technical experts), and independent reviewers need to be able to perform and the competence required to do so.

This International Standard can be used in conjunction with ISO 14065 as the basis for assessing and recognizing the competence of validation and verification teams (including technical experts) and independent reviewers.

Users of this International Standard are encouraged to refer to applicable standards for the preparation of environmental information statements (see Bibliography).

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Competence requirements for teams (including technical experts), and independent reviewers involved in the validation and verification of environmental information

1 Scope

This International Standard specifies competence requirements for validation and verification teams (including technical experts), and independent reviewers.

This document is applicable to all organizations that need to plan and conduct external or internal validations, verifications, and agreed-upon procedures (AUP).

This International Standard is not linked to any particular environmental information programme. If a particular environmental information programme is applicable, competence requirements of that environmental information programme are additional to the requirements of this International Standard.

NOTE Management process requirements for the competence of personnel are specified in ISO 14065:2020, 7.3.

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 14030-4, *Environmental performance evaluation — Green debt instruments — Part 4: Verification programme requirements*

ISO 14064-3, *Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements*

ISO 14065, *General principles and requirements for bodies validating and verifying environmental information*

3 Terms and definitions

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

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

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

3.1 Terms specific to competence requirements

3.1.1 sector

technical area sharing common attributes and similar environmental aspects

3.1.2 team leader

person who manages the validation or verification team

3.1.3

professional scepticism

attitude that includes a questioning mind and a critical assessment of evidence

[SOURCE: – ISO 14050:2020, 3.1.14]

3.1.4

competence

ability to apply knowledge and skills to achieve intended results

[SOURCE: - ISO 14050:2020, 3.1.10]

3.1.5

test

technique used to assess a characteristic of items in a sampled population of environmental information data and information against validation or verification criteria

Note 1 to entry: to entry:- Characteristics can include accuracy, completeness, functionality, knowledge, quality, and veracity. Characteristics can also refer to GHG-related activities described in ISO 14064-3, 7.1.4.1, or analogous attributes of other environmental information statements.

[SOURCE: - ISO 14064-3:2019, 3.6.21. Note to entry is from the ISO 14066 2011 edition]

3.2 Terms related to environmental information

3.2.1

environment

surroundings in which an *organization* (3.3.3) operates, including air, water, land, natural resources, flora, fauna, humans and their interrelationships

Note 1 to entry: Surroundings can extend from within an organization to the local, regional and global system.

Note 2 to entry: Surroundings can be described in terms of biodiversity, ecosystems, climate or other characteristics.

[SOURCE: ISO 14001:2015, 3.2.1]

3.2.2

environmental aspect

element of an *organization's* (3.3.3) activities or products or services that interacts or can interact with the *environment* (3.2.1)

[SOURCE: ISO 14001:2015, 3.2.2, modified — The notes to entry have been deleted.]

3.2.3

environmental performance

measurable results related to the management of *environmental aspects* (3.2.2)

[SOURCE: ISO 14050:2020, 3.2.27, modified — “measurable results” have replaced “performance”.]

3.2.4

environmental information

subject matter of a qualitative or quantitative nature that is related to environmental conditions or *environmental performance* (3.2.3)

Note 1 to entry: Environmental information can include statements and claims regarding greenhouse gas emissions, removals, emission reductions or removal enhancements of an *organization* (3.2.2), project, etc. (e.g. see ISO 140641 and ISO 140642), environmental footprints (e.g. see ISO 14067 for carbon footprints of a product, ISO 14046 for water footprints and ISO 14044 for life cycle assessment information) or environmental reports (e.g. see ISO 14016).

Note 2 to entry: ISO 14033 defines and specifies terms and procedures to establish reviewable and comparable quantitative environmental information.

[SOURCE: ISO 14065:2020, 3.1.4]

3.2.5

environmental information statement

declaration of *environmental information* (3.2.4)

Note 1 to entry: The environmental information statement can represent a point in time or can cover a period of time.

Note 2 to entry: The environmental information statement provided by the *responsible party* (3.3.4) should be clearly identifiable and capable of consistent evaluation or measurement against suitable *criteria* (3.4.13) by a *verifier* (3.4.6) or *validator* (3.4.2).

Note 3 to entry: The environmental information statement can be provided in: a report; a declaration; an economic, financial, or monetary valuation; an environmental product declaration; a life cycle assessment report; a climate change vulnerability or adaptation evaluation; a project plan; a label or logo.

Note 4 to entry: The term “environmental information statement” corresponds to the term “claim” used in ISO/IEC 17029:2019, 3.1.

[SOURCE: ISO 14065:2020, 3.1.5]

3.2.6

environmental information programme

rules and procedures for providing an *environmental information statement* (3.2.5)

Note 1 to entry: Environmental information programmes can be carried out at international, regional, national or subnational levels.

Note 2 to entry: A programme can also be called a scheme.

Note 3 to entry: Greenhouse gas emissions and removals, emission reductions or removal enhancements, greenhouse gas inventories, product carbon footprints and water footprints, and the *environmental information* (3.2.4) in sustainability reports are examples of subjects that may be verified in accordance with an environmental information programme.

Note 4 to entry: An environmental information programme may include requirements for *validation* (3.4.1) or *verification* (3.4.5).

3.3 Terms related to people and organizations

3.3.1

client

organization or person requesting validation or verification

Note 1 to entry: The client could be the responsible party, the environmental information programme administrator, or another stakeholder.

[SOURCE: ISO 14064-3:2019, definition 3.2.5]

3.3.2

intended user

individual or *organization* (3.3.3) identified by those reporting environmental information as being the one who relies on that information to make decisions

Note 1 to entry: The intended user could be the client, the responsible party, environmental information programme administrators, regulators, the financial community, or other affected stakeholders, such as local communities, government departments or non-governmental organizations.

[SOURCE: ISO 14065:2020, definition 3.2.4]

3.3.3

organization

person or group of people that has its own functions with responsibilities, authorities, and relationships

[SOURCE: ISO 14065:2020 definition 3.2.2]

3.3.4

responsible party

person or persons responsible for the provision of the *environmental information statement* (3.2.5) and the supporting information

Note 1 to entry: The responsible party can be either individuals or authorized representatives of an organization (3.2.2) or project and can be the party who engages the *verifier* (3.4.6) or *validator* (3.4.2).

Note 2 to entry: The responsible party may be the client (3.2.1).

[SOURCE: ISO 14065:2020, 3.2.3]

3.3.5

technical expert

person who provides specific knowledge on a specified subject

Note 1 to entry: A technical expert to the validation or verification team does not act as a validator or verifier.

[SOURCE: ISO 14050:2020 definition 3.4.3.6, modified — Note to entry 1 added]

3.4 Terms related to validation and verification

3.4.1

environmental information validation validation

process for evaluating the reasonableness of the assumptions, limitations, and methods that support an *environmental information statement* (3.2.5) about the outcome of future activities

Note 1 to entry: The term “environmental information validation” is shortened to “validation” in this document to reduce sentence complexity and aid understanding.]

[SOURCE: ISO 14065:2020, definition 3.3.16]

3.4.2

validator

person with responsibility for performing and reporting on a *validation* (3.4.1)

[SOURCE: ISO 14065:2020 3.3.6]

3.4.3

validation opinion

formal written declaration to the *intended user* (3.3.2) on the reasonableness of the assumptions, methods, and limitations used to develop forecasts and projections contained in the *environmental information statement* (3.2.5)

Note 1 to entry: The term “validation opinion” is a type of “validation statement” in ISO/IEC 17029:2019, 3.6.

Note 2 to entry: Reasonableness of the assumptions, methods and limitations includes consideration of conformity to applicable *criteria* (3.4.13).

[SOURCE: ISO 14065:2020, definition 3.3.25]

3.4.4 verification opinion

formal written declaration to the *intended user* (3.3.2) that provides confidence that the *environmental information statement* (3.2.5) is materially correct and conforms with the *criteria* (3.4.13)

Note 1 to entry: The term “verification opinion” is a type of “verification statement” in ISO/IEC 17029:2019, 3.7.

[SOURCE: ISO 14065:2020, definition 3.2.23]

3.4.5 environmental information verification verification

process for evaluating an *environmental information statement* (3.2.5) based on historical data and information to determine whether the statement is materially correct and conforms to *criteria* (3.4.13)

Note 1 to entry: Verification activities performed that do not lead to the expression of an opinion are called *agreed-upon procedures* (3.4.9).

Note 2 to entry: The term “environmental information verification” is shortened to “verification” in this document to reduce sentence complexity and aid understanding.

[SOURCE: ISO 14065:2020, definition 3.3.15]

3.4.6 verifier

competent and impartial person with responsibility for performing and reporting on a *verification* (3.4.5)

[SOURCE: ISO 14065:2020, definition 3.3.5]

3.4.7 validation team

one or more validator(s) conducting *validation* (3.4.1) activities supported if needed by *technical experts* (3.3.5).

Note 1 to entry: One person of the validation team is appointed as the team leader.

Note 2 to entry: The validation team may be accompanied by validators-in-training.

[SOURCE: ISO 14050:2020, definition 3.4.23, modified — Notes to entry 1 and 2 added]

3.4.7.1 verification team

one or more verifier(s) conducting *verification* (3.4.4) activities supported if needed by *technical experts* (3.3.5).

Note 1 to entry: One person of the verification team is appointed as the team leader.

Note 2 to entry: The verification team may be accompanied by verifiers-in-training.

[SOURCE: ISO 14050:2020, definition 3.4.3, modified — Notes to entry 1 and 2 added]

3.4.8 independent reviewer

competent person, who is not a member of the validation/*verification team* (3.4.7.1), who reviews the *verification* (3.4.5) or *validation* (3.4.1) activities and conclusions

[SOURCE: ISO 14065:2020, 3.3.8]

3.4.9

engagement

agreement between the validation or verification body and its *client* (3.3.1) with the terms to perform services, usually specified in the form of a contract

Note 1 to entry: The word “engagement” is also sometimes used to refer to the activities performed in the *validation* (3.4.1) or the *verification* (3.4.5), or in *agreed-upon procedures* (3.4.11).

[SOURCE: ISO 14065:2020, definition 3.3.13]

3.4.10

assurance

confidence in an *environmental information statement* (3.2.4) that is historical in nature

[SOURCE: ISO 14065:2020, definition 3.3.14]

3.4.11

agreed-upon procedures

AUP

engagement (3.4.9) that reports on the results of *verification* (3.4.5) activities and does not provide an opinion (3.4.3/3.4.4)

Note 1 to entry: Agreed-upon procedures do not provide *assurance* (3.4.10).

[SOURCE: ISO 14065:2020, 3.3.17]

3.4.12

level of assurance

degree of confidence in the *environmental information statement* (3.2.5)

Note 1 to entry: *Assurance* (3.4.10) is provided on historical information.

[SOURCE: ISO 14065:2020, 3.3.18]

3.4.13

criteria

policies, procedures, or requirements used as a reference against which the *environmental information statement* (3.2.5) is compared

Note 1 to entry: Criteria may be established by governments, regulators, *environmental information programmes* (3.2.6), voluntary reporting initiatives, standards, codes of practice, or internal procedures.

Note 2 to entry: “Criteria” is used in place of “specified requirements” used in ISO/IEC 17029.

[SOURCE: ISO 14065:2020, 3.3.20]

3.4.14

misstatement

error, omission, misreporting, or misrepresentation in the *environmental information statement* (3.2.5)

Note 1 to entry: Misstatement can be qualitative or quantitative.

[SOURCE: ISO 14065:2020, 3.3.21]

3.4.15

material misstatement

individual *misstatement* (3.4.14) or the aggregate of actual misstatements in the *environmental information statement* (3.2.5) that could affect the decisions of the *intended users* (3.3.2)

[SOURCE: ISO 14065:2020, 3.3.22]