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**Greenhouse gases—Competence
requirements for greenhouse gas
validation teams and verification
teams**

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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law.

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Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public or utility model right. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public or the utility model right.

Greenhouse gases—Competence requirements for greenhouse gas validation teams and verification teams

Introduction

This Japanese Industrial Standard has been prepared based on the first edition of **ISO 14066** published in 2011 without any modifications of technical contents.

This Standard specifies competence requirements for validation teams and verification teams for the benefit of greenhouse gas (GHG) programme administrators, regulators, validation bodies and verification bodies. To achieve consistency in the international marketplace and maintain public confidence in GHG reporting and other communications, there is a need to define competence requirements for validation teams and verification teams.

Requirements for GHG validation bodies and GHG verification bodies are established in **JIS Q 14065**. **JIS Q 14065** requires that validation bodies 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 appointed for the engagement. It is the role of the validation or verification body to ensure that teams have the necessary competence to effectively complete the validation or verification process. This Standard includes principles for ensuring competence of validation teams and verification teams. Supporting these principles are general requirements based on the tasks that validation teams or verification teams need to be able to perform and the competence required to do so.

This Standard can be used in conjunction with **JIS Q 14065** as the basis for assessing and recognizing the competence of validation teams and verification teams.

Users of this Standard are encouraged to refer to **JIS Q 14064-1** and **JIS Q 14064-2** for GHG quantification and reporting and to **JIS Q 14064-3** for GHG validation and verification.

Figure 1 shows the relationships between the application of this Standard and **JIS Q 14064-1**, **JIS Q 14064-2**, **JIS Q 14064-3** (hereafter referred to as “**JIS Q 14064 series**”) and **JIS Q 14065**.

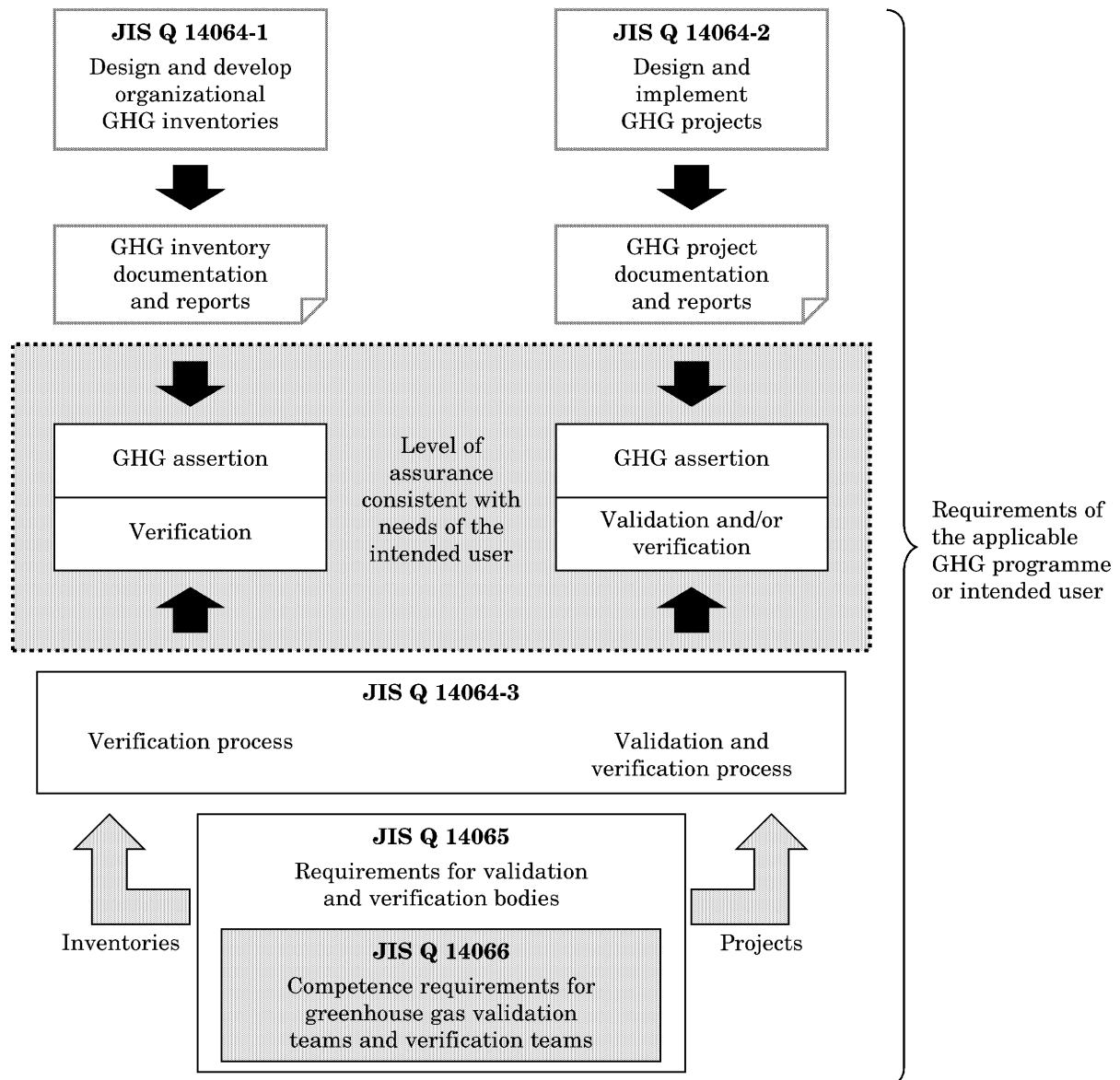


Figure 1 Framework for using this Standard with JIS Q 14064 series and JIS Q 14065

1 Scope

This Standard specifies competence requirements for validation teams and verification teams. This Standard complements the implementation of **JIS Q 14065**.

This Standard is not linked to any particular greenhouse gas (GHG) programme. If a particular GHG programme is applicable, competence requirements of that GHG programme are additional to the requirements of this Standard.

NOTE 1 Requirements for the management and support of personnel competence are specified in **JIS Q 14065:2011**, clause 6.

NOTE 2 The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 14066:2011 *Greenhouse gases—Competence requirements for greenhouse gas validation teams and verification teams* (IDT)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. For standards indicated below, only the editions of the indicated year shall be applied and any revisions (including amendments) made thereafter shall not be applied.

JIS Q 14064-3:2011 *Greenhouse gases—Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions*

NOTE : Corresponding International Standard: ISO 14064-3 *Greenhouse gases—Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions* (IDT)

JIS Q 14065:2011 *Greenhouse gases—Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition*

NOTE : Corresponding International Standard: ISO 14065 *Greenhouse gases—Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition* (IDT)

3 Terms and definitions

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

3.1 Terms specific to competence requirements

3.1.1 sector

technical area sharing common attributes and similar GHG sources, sinks and reservoirs

NOTE : The abbreviated term SSRs is used to define sources, sinks and reservoirs.

3.1.2 team leader

person who manages the validation team or verification team

3.1.3 professional scepticism

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

NOTE : Taken from International Framework for Assurance Engagements^[16], paragraph 40.

3.1.4 competence

ability to apply knowledge and skills to achieve intended results

NOTE 1 Ability implies exhibiting appropriate personal behaviour when conducting the validation or verification.

NOTE 2 Adapted from **JIS Q 19011**, definition **3.17**.

NOTE 3 When defining competence, the following meanings have been applied to the words used:

- knowledge refers to facts and methods, i.e. to know;
- skills means to carry out in practice, i.e. to do.

3.1.5 test

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

NOTE 1 See **JIS Q 14064-3:2011**, **4.7**.

NOTE 2 Characteristics can include accuracy, completeness, functionality, knowledge, quality and veracity.

3.2 Terms related to greenhouse gases

3.2.1 greenhouse gas, GHG

gaseous constituent of the atmosphere, both natural and anthropogenic, that absorbs and emits radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere, and clouds

NOTE : GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF₆).

(See **JIS Q 14064-3:2011**, **2.1**.)

3.2.2 greenhouse gas assertion

factual and objective declaration made by the responsible party

NOTE 1 The GHG assertion could be presented at a point in time or could cover a period of time.

NOTE 2 The GHG assertion provided by the responsible party should be clearly identifiable and capable of consistent evaluation or measurement against suitable criteria by a validator or verifier.

NOTE 3 The GHG assertion could be provided in the form of a GHG report or GHG project plan.

NOTE 4 Adapted from **JIS Q 14064-3:2011**, **2.11**.

3.2.3 greenhouse gas information system

policies, processes and procedures to establish, manage and maintain GHG information

(See **JIS Q 14064-3:2011**, **2.12**.)

3.2.4 greenhouse gas project

activity or activities that alter the conditions identified in the baseline scenario which cause greenhouse gas emission reductions or greenhouse gas removal enhancements

(See **JIS Q 14064-3:2011, 2.14.**)

3.2.5 greenhouse gas programme

voluntary or mandatory international, national or sub-national system or scheme that registers, accounts or manages GHG emissions, removals, greenhouse gas emission reductions or greenhouse gas removal enhancements outside the organization or GHG project

(See **JIS Q 14064-3:2011, 2.16.**)

3.3 Terms related to people and organizations

3.3.1 client

organization or person requesting validation or verification

NOTE : The client could be the responsible party, the GHG programme administrator or other stakeholder.

(See **JIS Q 14064-3:2011, 2.27.**)

3.3.2 intended user

individual or organization identified by those reporting GHG-related information as being the one who relies on that information to make decisions

NOTE : The intended user could be the client, the responsible party, GHG programme administrators, regulators, the financial community or other affected stakeholders, such as local communities, government departments or non-governmental organizations.

(See **JIS Q 14064-3:2011, 2.26.**)

3.3.3 organization

company, corporation, firm, enterprise, authority or institution, or part or combination thereof, whether incorporated or not, public or private, that has its own functions and administration

(See **JIS Q 14064-3:2011, 2.23.**)

3.3.4 personnel

persons working with or on behalf of the validation or verification body

(See **JIS Q 14065:2011, 3.2.4.**)

3.3.5 responsible party

person or persons responsible for the provision of the GHG assertion and the supporting GHG information

NOTE : The responsible party can be either individuals or representatives of an organization or project and can be the party who engages the validator

or verifier. The validator or verifier may be engaged by the client or by other parties, such as the GHG programme administrator.

(See **JIS Q 14065:2011, 3.2.5.**)

3.3.6 technical expert

person who provides specific knowledge or expertise to the validation team or verification team

NOTE 1 Specific knowledge or expertise is that which relates to the organization, the project to be validated or verified, or language or culture.

NOTE 2 A technical expert does not act as a validator or verifier in the validation team or verification team.

NOTE 3 Adapted from **JIS Q 19011**, definition **3.10**.

3.4 Terms related to validation and verification

3.4.1 validation

systematic, independent and documented process for the evaluation of a greenhouse gas assertion related to a GHG project plan against agreed validation criteria

NOTE 1 In some cases, such as in first-party validations, independence can be demonstrated by the freedom from responsibility for the development of GHG data and information.

NOTE 2 The content of a GHG project plan is described in **JIS Q 14064-2, 5.2**.

NOTE 3 Adapted from **JIS Q 14064-3:2011**, definition **2.32**.

3.4.2 validator

competent and independent person or persons with responsibility for performing and reporting on the results of a validation

NOTE 1 Competence areas for validators include GHG programme, technical, data and information auditing, and project specific requirements.

NOTE 2 Adapted from **JIS Q 14065:2011**, definition **3.3.2**.

3.4.3 validation statement

formal written declaration to the intended user, following validation of a GHG project plan, which provides assurance on the statements in the responsible party's GHG assertion

(See **JIS Q 14065:2011, 3.3.4.**)

3.4.4 verification statement

formal written declaration to the intended user, following verification, which provides assurance on the statements in the responsible party's GHG assertion

(See **JIS Q 14065:2011, 3.3.5.**)

3.4.5 verification

systematic, independent and documented process for the evaluation of a greenhouse gas assertion against agreed verification criteria