# IAF Mandatory Document

# IAF Mandatory Document for the Application of ISO 14065:2013

**Issue 2**

**(IAF MD 6:2014)**

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The International Accreditation Forum, Inc. (IAF) details criteria for the accreditation of bodies that provide conformity assessment services, and such accreditation facilitates trade and reduces demands for multiple conformity assessment activities.

Accreditation reduces risk for business and its customers by assuring that accredited Conformity Assessment Bodies (CABs) are competent to carry out the work they undertake within their scope of accreditation. Accreditation Bodies (ABs) that are members of IAF and the CABs they accredit are required to comply with appropriate international standards and the applicable IAF application documents for the consistent application of those standards.

ABs that are signatories to the IAF Multilateral Recognition Arrangement (MLA) are evaluated regularly by an appointed team of peers to provide confidence in the operation of their accreditation programs. The structure and scope of the IAF MLA is detailed in IAF PR 4 - Structure of IAF MLA and Endorsed Normative Documents.

The IAF MLA is structured in five levels: Level 1 specifies mandatory criteria that apply to all ABs, ISO/IEC 17011. The combination of a Level 2 activity(ies) and the corresponding Level 3 normative document(s) is called the main scope of the MLA, and the combination of Level 4 (if applicable) and Level 5 relevant normative documents is called a sub-scope of the MLA.

- The main scope of the MLA includes activities e.g. product certification and associated mandatory documents e.g. ISO/IEC 17065. The attestations made by CABs at the main scope level are considered to be equally reliable.
- The sub scope of the MLA includes conformity assessment requirements e.g. ISO 9001 and scheme specific requirements, where applicable, e.g. ISO TS 22003. The attestations made by CABs at the sub scope level are considered to be equivalent.

The IAF MLA delivers the confidence needed for market acceptance of conformity assessment outcomes. An attestation issued, within the scope of the IAF MLA, by a body that is accredited by an IAF MLA signatory AB can be recognized worldwide, thereby facilitating international trade.

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Name for Enquiries: Elva Nilsen, IAF Corporate Secretary
Phone: +1 613 454-8159
Email: secretary@iaf.nu

## INTRODUCTION TO IAF MANDATORY DOCUMENTS

The term “shall” is used in this document to indicate those provisions which, reflecting the requirements of the relevant standard, are mandatory. The term “should” is used in this document to indicate recognised means of meeting the requirements of the standard. A validation or verification body can meet these in an equivalent way provided this can be demonstrated to an Accreditation Body (AB).

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# MANDATORY DOCUMENT FOR THE APPLICATION OF ISO 14065:2013

## 0 INTRODUCTION

0.1. ISO 14065:2013 is an International Standard, which sets out requirements for bodies that undertake Greenhouse Gas (GHG) validation or verification using ISO 14064-3 or other relevant standards or specifications. ISO 14065 provides to GHG program administrators, regulators and accreditors, a basis for assessing and recognising the competence of validation or verification bodies (V/VBs).

Statements issued by accredited V/VBs are relied upon in a number of areas, critically in "emission trading schemes", both in regulated and voluntary markets. The value attributed to a tonne of $CO_2$ for the purpose of commodity trading, or other future actions by interested parties, is reliant upon the confidence in the verified emissions data and consequently upon the V/VB that undertakes the work and issues the statement.

ISO 14065 is not, as yet, included within the IAF MLA Framework documents, however if V/VBs are to be accredited worldwide in a harmonized manner as complying with ISO 14065, additional application guidance is necessary to limit variations in interpreting the Standard. This Mandatory Document provides additional application guidance to enable harmonization by IAF members for the assessment of V/VBs against ISO 14065 and related standards. This is an important step towards multilateral recognition of accreditation.

This document will therefore be referenced in future, in the IAF MLA, and will be considered mandatory for the consistent application of ISO 14065. Members of the IAF MLA, and applicants for membership in that Arrangement, will assess each other's implementation of ISO 14065. This Mandatory Document is expected to be adopted by Accreditation Bodies as part of their general rules for accreditation.

It is intended that this document should also be useful to V/VBs themselves and to those whose decisions are guided by V/VB validation or verification statements. Validation is the process by which a validation body assesses a project's GHG project plan against defined validation criteria (this process therefore deals with the assessment of potential future outcomes). Verification is a process where a verification body assesses an organisation's or project's GHG assertion against defined verification criteria (this process therefore deals with historical outcomes). In fact, for ISO 14064-1 and ISO 14064-2, the assessment will cover both conformance with the standard and that the GHG assertion is reliable and correct based on the agreed level of assurance, materiality, criteria, objectives and scope. In the emission trading area, it is imperative that the V/VB should be aware of the consequences of double counting and double registry issues when issuing a validation or verification statement.

A validation or verification assessment process is unique to each client's assessment and varies year to year. ISO 14064-3, Annex A provides explanation of the requirements for the validation and verification processes.

0.2. This document does not include the text of ISO 14065 or, where referenced, ISO 14064-3. It does follow the clause headings from ISO 14065.

The normative reference in ISO 14065 is ISO 14064-3. To help understanding and facilitate reading across from the two normative standards, Clause 8 as well as Annex C of this Mandatory Document links the relevant clause titles from ISO 14065 with relevant clause titles from ISO 14064-3. The clause titles from ISO 14064-3 are in blue text and preceded by the reference ISO 14064-3. The process for validation and verification is different from management systems auditing as well as there being a different focus between validation and verification. Annex C has therefore been developed to provide informative guidance related to this process. In Annex C, clause headings from ISO 14064-3 have been used to allow understanding of how the application guidance interacts with the normative references. Again, the title headings are included but with no application guidance where none was deemed necessary.

***Note** -Text in this document should not be taken as an interpretation of either ISO 14065 or ISO 14064-3.*

0.3. Application Guidance, where it is offered, is identified with the letter "A".

## 1. SCOPE

A.1.1. This Mandatory Document is applicable to validation or verification bodies (V/VBs) for the following validation or verification criteria:

- ISO 14064-1 or ISO 14064-2; or
- Regulated GHG program which is publicly available and has been developed using a formal stakeholder engagement process; or
- Publicly available GHG program (e.g. World Resources Institute and World Business Council for Sustainable Development [WRI/WBCSD] GHG protocol) and has been developed using a formal stakeholder engagement process; or
- Non-public industry or sector protocols; in this case, the validation or verification criteria shall additionally include either ISO 14064-1 or ISO 14064-2 dependent on whether the protocol relates to organisation or project GHG assertions. The resulting validation or verification statement shall clearly state whether the non-public industry or sector protocol conforms to ISO 14064-1 or ISO 14064-2 and if the protocol does not conform it shall state where the discrepancies are.

A.1.2. The validated or verified GHG assertion may include a statement of emission per unit of product manufactured (generated or reduced) or similar. Where allowed by the program, and; if the client wishes to use statements taken from the GHG assertion and/or using the V/VB mark or GHG program mark for communication purposes, these statements and mark shall clearly state where the statements came from, including: the date of the GHG assertion, whether the statements are based on historical data and any limitation associated with the statements based on the data and information presented in the GHG assertion specific to the product and appropriate mark (refer to ISO/IEC 17030).

## 2. NORMATIVE REFERENCES

ISO 14065:2013 Greenhouse gases: Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition

ISO 14066:2011 Greenhouse gases: Competence requirements for greenhouse gas validation teams and verification teams

ISO 14064-3:2006 Greenhouse Gases - Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions

***Note** - The Bibliography sets out the references to the documents mentioned in this Mandatory Document that are not normative references.*

## 3. TERMS AND DEFINITIONS

### 3.1. Definitions

Definitions in ISO 14065 apply to this document. The following additional definitions shall apply in this document:

A.3.1.1. Grouped project

A number of projects included in a single GHG project plan and a single GHG assertion at the time of the validation and verification.

*(Adapted from Voluntary Carbon Standard [VCS] 2007)*

A.3.1.2. Impartiality

Actual and perceived presence of objectivity.

***Note 1** - Objectivity means that conflicts of interest do not exist or are resolved so as not to adversely influence subsequent activities of the V/VB.*

***Note 2*** *- Other terms that are useful in conveying the element of impartiality are: objectivity, independence, freedom from conflict of interests, freedom from bias, lack of prejudice, neutrality, fairness, open-mindedness, even-handedness, detachment, balance.*

### 3.2. Terms Used in This Document

The terms used in this document are taken from the ISO 14064 series. Where a GHG program acceptable under A.1.1 uses different terms and definitions these shall be used and their link with definitions and terms in this document shall be evaluated and the consequence of any variation understood by the V/VB.

***Note*** *- For the purpose of this document, validation of a project GHG assertion is related to the future GHG emission reductions or enhancements associated with the project. Verification of a project GHG assertion is related to actual historical GHG emission reductions or enhancements associated with the project. Organisational GHG assertions relate to actual historical data and are verified.*

Terms used in this document to simplify text include:

A.3.2.1. **Strategic analysis** - based on requirements in Clause 4.4.1 of ISO 14064-3 this means:

> "A review of the organization's or project's GHG information to assess:
>
> - the nature, scale and complexity of the validation or verification activity to be undertaken on the client's behalf;
> - confidence in the responsible party's GHG information and assertion;
> - completeness of the responsible party's GHG information and assertion; and
> - the eligibility of the responsible party to participate in the GHG program, if applicable."

A.3.2.2. **Assessment of risks** - based on requirements in Clause 4.4.1 of ISO 14064-3 this means:

> "The assessment of sources and the magnitude of potential errors, omissions and misrepresentations related to the validation or verification activities. The categories of potential errors, omissions and misrepresentations assessed shall be the following:
>
> a. the inherent risk of a material discrepancy occurring;
> b. the risk that the controls of the organization or GHG project will not prevent or detect a material discrepancy;

c. the risk that the validator or verifier will not detect any material discrepancy that has not been corrected by the controls of the organization or GHG project."

***Note 1*** *- The assessment of risk is related to the risk that the V/VB expresses an inappropriate conclusion and opinion. The V/VB reduces risk through the design and implementation of a validation and/or verification process, which will lead to the reasonable expectation of identification of material discrepancy. Validation and verification risk should be reduced to an acceptably low level to obtain the appropriate level of assurance as agreed in the contract.*

***Note 2*** *- Strategic analysis identifies* ***what*** *the validation and verification team needs to look at and the assessment of risk identifies* ***how*** *to look at the issues identified.*

## 4. PRINCIPLES

### 4.1. General

### 4.2. Impartiality

### 4.3. Competence

### 4.4. Factual Approach to Decision Making

### 4.5. Openness

### 4.6. Confidentiality

## 5. GENERAL REQUIREMENTS

### 5.1. Legal Status

A.5.1.1. A governmental V/VB is deemed to be a legal entity on the basis of its governmental status.

### 5.2. Legal and Contractual Matters

A.5.2.1. The legally enforceable agreement shall include a policy governing marketing and other references to the V/VB that the V/VB authorizes its clients to use with respect to any GHG assertion. Where there is a licence to use a validation or verification mark, or specific text, there shall be no ambiguity in the proposed use of the

GHG assertion that has been validated or verified. The policy shall ensure, among other things, that no mark (as related to either the V/VB mark licensed to the client or a GHG program mark where the V/VB is responsible for monitoring the use of rules related to the application of the mark) or reference to the V/VB is placed on products or product packaging in a way that may be interpreted as denoting product certification.

A.5.2.2. The legally enforceable agreement shall include a policy governing statement(s) taken from the validated or verified GHG assertion that the V/VB allows a client to use, including time limits and language (refer to A.1.2). The legally enforceable agreements shall also include requirements related to the use of the V/VB mark that may "endorse" the statement(s) made by the client.

***Note** - requirements applicable in A.5.2.1 relating to the use of the V/VB mark on products also apply to A.5.2.2.*

### 5.3. Governance and Management Commitment

A.5.3.1. The V/VB shall ensure it carries out validation or verification processes consistent with the requirements of ISO 14065. In addition, the V/VB shall ensure that its systems are sufficiently documented to ensure the consistent application of any specific validation or verification criteria (reference A.1.1), which they choose to offer.

A.5.3.2. The V/VB shall establish a development process for each new validation or verification criteria (refer to A.1.1.) in which it wishes to operate. This development process shall provide outputs related to the following:

- Identification of key stakeholders, and their expectations and requirements as applicable to the outcome of validation or verification activities;
- Review and understanding of the applicable validation of verification criteria requirements, involving the criteria owner where necessary;
- Consideration of V/VB strategic and business risks;
- Identification of the competence requirements for validators or verifiers, independent reviewers and support personnel, as relevant to each validation or verification criteria (refer to A.1.1.);
- Validation or verification criteria (refer to A.1.1.) specific validation or verification requirements;
- Confirmation that the proposed validation or verification arrangements will meet the validation or verification criteria (refer to A.1.1.) requirements; and
- Confirmation that the validation or verification criteria satisfy A.1.1.

### 5.4. Impartiality

### 5.5. Liability and Financing

## 6. COMPETENCIES

### 6.1. Management and Personnel

A.6.1.1. In determining a "sector", a V/VB shall consider that the term "sector" has different meanings for different types of validations and verifications. For any validation or verification, the term is related to the GHG assertion (whether associated with a GHG project or GHG inventory) and the expectations of interested parties. This enables a validator or verifier to comprehend the context (e.g. sources, sinks and reservoirs, industrial plant and processes, product supply chain process, boundaries, additionality, leakage etc. as appropriate) in which a validation and verification is being conducted.

### 6.2 Competencies of Personnel

A.6.2.1. The V/VB shall have personnel evaluated by a competent evaluator.

A.6.2.2. The V/VB shall demonstrate how personnel have been evaluated and found to satisfy the following competence requirements as applicable:

- Competence related to management of an engagement;
- Generic validation competencies as per ISO 14065 Clause 6 and ISO 14066, plus any specific and/or sector specific competence, validation or project specific validation criteria (refer to A 1.1); and
- Generic verification competencies as per ISO 14065 Clause 6 and ISO 14066, plus any specific and or sector specific competence verification criteria (refer to A.1.1).

***Note 1*** *- In cases where organisation verification includes project verification, the V/VB competence criteria needs to take account of all relevant competence criteria as per above, including those associated with project validation or project verification.*

***Note 2*** *- There are a number of tools used to evaluate personnel; these can be combined in any suitable manner. Typical tools include:*

- *Witnessing of a verification and/or validation activity as applicable;*
- *Internal peer review of validation or verification documentation;*

- *Structured interview to test knowledge and technical competence;*
- *Examination;*
- *Performance review - by management and/or other team member;*
- *Certification by an accredited personnel Certification Body to the extent that the certification provides a demonstration of the competencies specified in this V/VB system;*
- *Recognised technical standing in terms of being asked to speak at conferences, or publish papers if peer reviewed; and*
- *Adequate evidence of relevant previous experience.*

***Note 3*** *- Annex A provides guidance to clarify the three different types of competences based on ISO 14065 Clause 6 and ISO 14066 Clause 5.*

**6.3. Deployment of Personnel**

**6.4. Use of Contracted Validators or Verifiers**

**6.5. Personnel Records**

**6.6. Outsourcing**

## 7. COMMUNICATION AND RECORDS

**7.1. Information Provided to a Client or Responsible Party**

**7.2. Communication of Responsibilities to a Client or Responsible Party**

**7.3. Confidentiality**

**7.4. Public Associable Information**

**7.5. Records**

## 8. VALIDATION OR VERIFICATION PROCESS

***Note 1*** *- Taken from Introduction 0.2: "To help understanding and facilitate reading across from the two normative standards, Clause 8 as well as Annex C of this Mandatory Document links the relevant clause titles from ISO 14065 with relevant clause titles from ISO 14064-3. The clause titles from ISO 14064-3 are in blue text and preceded by the reference ISO 14064-3. The process for validation and verification is*

*different from management systems auditing as well as there being a different focus between validation and verification. Annex C has therefore been developed to provide informative guidance related to this process. In Annex C, clause headings from ISO 14064-3 have been used to allow understanding of how the application guidance interacts with the normative references. Again, the title headings are included but with no application guidance where none was deemed necessary."*

***Note 2** - Text in this document should not be taken as an interpretation of either ISO 14065 or ISO 14064-3.*

## 8.1. General

## 8.2. Pre-engagement

8.2.1. Impartiality

8.2.2. Competence

8.2.3. Agreement

**ISO 14064-3 Clause 4.3. Level of assurance, materiality, objectives, criteria and scope of the validation or verification**

4.3.1. Level of assurance
4.3.2. Objectives
4.3.3. Criteria
4.3.4. Scope
4.3.5. Materiality

A.8.2.3.1. The V/VB shall have a documented management system (as per Clause 12) for responding to requests for validation and/or verification. The V/VB procedures shall ensure that prior to any quotation or agreement, sufficient information is obtained regarding the scope, objective, criteria, level of assurance and materiality of the validation or verification. The quotation shall be developed based on the information obtained taking into account the key issues applicable to the GHG assertion and the objectives of the validation or verification consistent with the validation or verification criteria, (refer to A.1.1) and the intended user as applicable to the GHG assertion.

A.8.2.3.2. When considering quoting for validation or verification of a GHG assertion, the V/VB shall consider the key issues related to developing a quote, as applicable, including the:

- Proposed level of assurance, materiality, criteria, objectives and scope;
- Complexity of the GHG assertion;

- Complexity of the project or organisation and its measurement/monitoring processes;
- Organisational environment including the structure of the organisation that develops and manages the GHG assertion;
- Baseline scenario for project validation and verification, including selection and quantification of GHG sources, sinks and reservoirs applicable to the baseline scenario;
- Identified GHG sources, sinks and reservoirs, and their monitoring for organisation verification;
- Processes that deliver the information and data in the GHG assertion;
- Organisational links and interactions between stakeholders, responsible parties, client, and intended users (for definition refer to ISO 14064-3); and
- Validation or verification criteria (refer to A.1.1) requirements.

A.8.2.3.3. The time needed to carry out the validation or verification shall be determined by the V/VB. The time allocation shall be justified based on the review of the above information and recorded by the V/VB. Each engagement has unique aspects and the validation or verification process shall be customized accordingly.

A.8.2.3.4. In cases where the V/VB quotation/agreement relates to a grouped project, the V/VB shall additionally consider logistics and planning related to validation or verification of the individual project(s) input to the grouped project single GHG assertion, and its impact on the duration of the validation or verification.

A.8.2.3.5. The V/VB should take into account the information in Annex B when determining the time requirements for validation or verification of a GHG assertion related to a grouped project.

A.8.2.3.6. In cases where the verification body quotation relates to a GHG assertion, which is based on a GHG inventory that includes a number of separate facilities level data and information inputs, the verification body shall additionally consider logistics and planning related to verification of the input from individual and combined facility(ies) data and related information to the GHG assertion, and its impact on the verification duration.

A.8.2.3.7. The V/VB should take into account the information in Annex B when determining the time requirements for verification of a single GHG assertion, which includes a number of separate facilities level data and information inputs.

A.8.2.3.8. The V/VB agreement (including any schedules or attachments) shall identify the proposed level of assurance, materiality, criteria, objectives and scope,

including the agreed validation or verification criteria (refer to A.1.1.) as applicable, as well as the proposed validation or verification duration, and time frame for the proposed validation or verification.

***Note** - The term "agreement" and "contract" in ISO 14065, Clause 8.2.3 has the same meaning.*

8.2.4. Appointing the Team Leader

**8.3. Approach**

8.3.1. Selecting the validation or verification team

8.3.2. Communicating with the client and responsible party

8.3.3. Planning

**ISO 14064-3 Clause 4.4. Validation or verification approach**

4.4.1. General
4.4.2. Validation or verification plan
4.4.3. Sampling plan

A.8.3.3.1. The agreed validation or verification criteria shall include one of the options from A.1.1.

A.8.3.3.2. The principles of the agreed criteria for validation or verification shall be used during the validation or verification process. The validation and verification criteria shall meet requirements as set down in A.1.1.

A.8.3.3.3. The principles as applicable to the agreed validation or verification criteria, (refer to A.1.1.), shall be used by the V/VB and the validation or verification team to guide the validation or verification process, including evaluation of findings, conclusions, opinions and decisions reached regarding the GHG assertion.

A.8.3.3.4. For project validation, the validation objectives shall include whether the planned project could reasonably be expected to achieve the claimed reduction and /or removal enhancements.

A.8.3.3.5. When verification criteria include ISO 14064-1, where a GHG report is optional, and if the client chooses to issue a public GHG report which is verified, the V/VB shall confirm that the GHG report conforms to the applicable requirements for a GHG report (reference Clause 7.2 and 7.3 of ISO 14064-1).

A.8.3.3.6. When the verification criteria include ISO 14064-1, the verification body

shall ensure that if the organisation makes public a GHG assertion claiming conformance to ISO 14064-1, the organisation shall make available to the public a GHG report prepared in accordance with ISO 14064-1 or an independent third-party verification statement related to the GHG assertion. If the organization's GHG assertion has been independently verified, the verification statement shall be made available to intended users.

A.8.3.3.7. When the validation criteria include ISO 14064-2, the review of a GHG assertion and its associated GHG project information shall include the validation of the client's justification for "selection or establishment of the criteria and procedures" relating to Clauses 5.3, 5.4, 5.5, 5.6, 5.7, 5.8 and 5.10 of ISO 14064-2.

A.8.3.3.8. When the validation criteria (refer to A.1.1.) allow the project proponent or client to select or establish criteria or procedures that relate to the determination of the baseline scenarios, GHG sources, sinks or reservoirs, monitoring processes etc. (refer to ISO 14064-2 for an indication of areas) the validation shall include an assessment of the project participant's or client's justification for the selection of criteria or procedures.

A.8.3.3.9. The development of the validation and verification approach shall be based on the agreed criteria, scope, objectives, level of assurance and materiality; not just the quoted validation or verification duration. The validation or verification duration shall be increased or decreased as necessary throughout the planning process. The team competencies shall be reviewed as a result of the outcome of the planning process.

A.8.3.3.10. The V/VB shall obtain sufficient information using a systematic, interactive, and where necessary, iterative process to input to the planning process.

A.8.3.3.11. The V/VB shall review the outcome of the planning process in light of evidence and information gathered during the validation or verification process and amend the plans accordingly.

A.8.3.3.12. The output from the strategic analysis shall be used as an input to the assessment of risks, sampling plan and validation or verification plan.

***Note 1*** *- Assessment of risks takes into account the level of assurance, materiality, criteria, scope and objective of the validation or verification; changes in these will affect the depth and detail of the assessment of risks.*

***Note 2*** *- Refer to Annex B for issues to be considered in developing the validation or verification plan for a GHG assertion covering either a grouped project or that includes more than one facility in the GHG inventory.*

A.8.3.3.13. The V/VB shall ensure that the planned man-days are appropriate to meet

the sampling plan and validation or verification plan developed as the outcome of the strategic analysis and assessment of risks.

A.8.3.3.14. The V/VB shall ensure that any conflict between the man-days quoted and the man-days needed to deliver the engagement, based on the outcome of the strategic analysis and assessment of risks, is resolved.

A.8.3.3.15. The V/VB shall revise the validation or verification plan and sampling plan where the V/VB has identified or agreed to changes with the client related to validation or verification criteria, scope, materiality, level of assurance or objectives, or findings emerge that affect the conclusion of the strategic analysis and/or the assessment of risks.

A.8.3.3.16. The specific data and information to be sampled shall be determined as part of the validation or verification planning and not on a spur of the moment during the data and information validation or verification. The sampling plan shall be detailed and documented before the commencement of the data and information validation or verification and shall be revised as necessary during the validation or verification. The development of the sampling plan shall determine the amount of information, evidence and data necessary to achieve the agreed scope, criteria, objectives, level of assurance and materiality.

A.8.3.3.17. In approving the validation or verification plan, the validation or verification team leader shall ensure that it is complete and that all sub-elements of the plan provide for a complete integrated validation or verification process consistent with the agreed criteria, scope, objectives, level of assurance and materiality of the engagement.

A.8.3.3.18. In approving the validation or verification plan, the validation or verification team leader shall confirm that the validation or verification duration, team competencies and team member assignments are adequate and fit the needs of the validation or verification.

A.8.3.3.19. The validation and verification team shall ensure that there is consistency between the validation or verification plan and the contractually agreed objectives, scope, criteria, level of assurance and materiality. The validation or verification documentation shall clearly identify any approved variations to the agreement.

A.8.3.3.20. Annex C may be used to explain and support validation or verification processes and systems.

## 8.4. Validation or Verification

**ISO 14064-3 Clauses:**

**4.5. Assessment of GHG information system and its controls**
**4.6. Assessment of GHG data and information**
**4.7. Assessment against validation or verification criteria**
**4.8. Evaluation of the GHG assertion**

A.8.4.1. The validation or verification shall be conducted with an attitude of professional scepticism, which assumes that the presented information and data may be wrong until proven differently, and take account of relevant stakeholder or market concerns and the applicable validation or verification criteria and associated principles.

A.8.4.2. The verification body shall review any changes to GHG project or organization structure, GHG project plan or GHG inventory since the last verification. For GHG project verification the verification body shall additionally consider:

- Outstanding issues from the validation report;
- The status of the implementation of the project; and
- Reliability of the external information and data used to justify the GHG emission determination.

A.8.4.3. Verification of a project GHG assertion includes, in addition to verification of an organisation GHG assertion:

- Review of the validation report for the project;
- Verification of any changes to the GHG project plan including:
    - The identified GHG sources, sinks and reservoirs;
    - Baseline scenario;
    - Selection and quantification of GHG sources, sinks and reservoirs applicable to baseline scenario; and
    - Monitoring of the GHG project.
- Verification of any changes to the justification for “selection or establishment of the criteria and procedures” referred to in A.8.3.3.7 and A.8.3.3.8 and its implementation; and
- Verification of any changes to the organisational links and interactions between stakeholders, responsible party (project proponent in some GHG program), client, and intended users; (for definitions refer to ISO 14064-3).

A.8.4.4. The level of risk mitigation provided by the GHG information systems and controls shall impact the detail and level of validation or verification sampling.

***Note** - ISO 14064-3 does not impose a formal requirement on an organisation or project to have GHG information systems or controls or for such GHG information system or controls to meet ISO 14064-3, Clause 4.5.*

A.8.4.5. Where the validation or verification criteria (refer to A.1.1.) impose requirements related to the GHG information systems or controls, conformance with these requirements shall be validated or verified.

A.8.4.6. In cases where errors, omissions or misstatements are identified in the GHG data and information, the validation and verification team shall require that these are corrected by the client, and increase the sampling. Where non-material errors, omissions or misstatements cannot be corrected, the V/VB shall qualify the validation or verification statement. Where statements cannot be qualified, e.g. materiality or other program requirements are not met, the V/VB shall issue an adverse validation or verification statement.

***Note** - For an understanding of what qualification of a validation and verification statement means see ISO 14064-3, A.2.9.2.*

A.8.4.7. The assessment of GHG data and information includes confirmation of the operability of the software and hardware used to process or generate the GHG data and information.

***Note** - Consideration should be given to controls of such hardware and software including issues such as validation of software, where relevant, backup of data, calibration of monitoring equipment, reliability of external data, etc.*

A.8.4.8. The V/VB shall consider the applicable definitions in the agreed validation or verification criteria (refer to A.1.1) when determining whether a GHG assertion conforms to the validation or verification criteria.

A.8.4.9. Input into the assessment of the GHG assertion shall include:

- Contract requirements related to scope, criteria, objectives, level of assurance and materiality as well as any validation or verification criteria (refer to A.1.1) specific requirements;
- GHG assertion;
- Output from the strategic analysis and assessment of risks;
- Output from the assessment of GHG information system and controls;

- Output from the assessment of GHG data and information; and
- Output from the assessment against validation or verification criteria.

A.8.4.10. In evaluating the risk of material discrepancies related to the GHG assertion, the V/VB shall consider:

- Views of the intended user;
- Relevance and relative contribution of the various GHG emissions from all GHG sources, sinks and reservoirs;
- Adequacy of the GHG information system and controls;
- Complexity of organisation or GHG project operations;
- Monitoring process applicable to the GHG project or organisation; and
- Relevant evidence from previous validations or verifications, as applicable.

A.8.4.11. The output from the assessment of the GHG assertion shall confirm that:

- Evidence gathered is sufficient to validate or verify the GHG assertion in line with the scope, criteria, objectives, materiality and level of assurance as agreed in the contract;
- The validation and verification process, as carried out, has delivered the level of assurance as agreed;
- Sampling and its results support, or not, a conclusion that there are no material discrepancies in the GHG assertion;
- The GHG assertion is free from material discrepancy based on the evidence and findings from the validation or verification process and the agreed scope, objective, criteria, materiality and level of assurance. If the evidence and findings are not sufficient to reach this conclusion then; either:
  - The level of assurance and / or materiality of the engagement shall be amended;

    OR
  - One of the following types of opinion may be formed:
    - “adverse”;
    - “qualified”;
    - “a disclaimer of opinion”.

    ***Note** 1 - For support in developing a “qualified” and “adverse” validation or*

*verification statement, refer to ISO 14064-3, A.2.9.2 and A.2.9.3.*

***Note 2** - "qualified" or "adverse" validation or verification statements should not be confused with the terminology associated with limited level of assurance or reasonable level of assurance; refer to ISO 14064-3, A.2.3.2.*

A.8.4.12. The validation or verification team shall submit to the V/VB, evidence and findings to substantiate and support its recommendations related to the GHG assertion (the proposed V/V statement). The evidence and findings shall link to the agreed validation or verification plan and sampling plan and be sufficient for the V/VB to carry out an effective independent review (refer to ISO 14065, Clause 8.5).

A.8.4.14. The validation or verification team shall ensure that all material discrepancies are reported to the client including explaining their potential impact on the validation or verification statement.

## 8.5. Review and Issuance of Validation or Verification Statement

**ISO 14064-3, Clause 4.9 Validation and verification statement**

A.8.5.1. In concluding (refer to ISO 14065, Clause 8.5) the independent reviewer shall take into account the evidence resulting from the following:

- Whether the validation or verification plan, sampling plan and validation or verification process and its stated conclusions and opinions are consistent with the agreement related to level of assurance, materiality, criteria, objectives and scope;
- Findings from the strategic analysis and the assessment of risks;
- Whether the design of the validation and verification process and its stated conclusions and opinions are consistent with the requirements in the contract;
- Changes to the validation or verification plan or the sampling plan;
- The conclusion reached on GHG data and information; and
- The recommendation related to GHG assertion.

A.8.5.2. The independent reviewer shall determine whether the validation or verification statement is consistent with findings from the validation or verification activities and that its stated conclusions and opinions are consistent with findings from the validation or verification and that nothing material has been omitted.

A.8.5.3. The independent reviewer shall determine whether the validation or verification statement meets the requirements in validation or verification statements set

out in the validation or verification criteria (refer to A.1.1.). Where there is no validation or verification statement requirement(s) set out in the validation or verification criteria, the validation or verification statement shall meet ISO 14064-3, Clause 4.9.

A.8.5.4. An accredited validation and/or verification statement related to a GHG assertion that does not include quantified GHG emissions data related to an organisation or GHG project shall only be issued if:

- There is a legal agreement between the V/VB and the client that any new GHG report, GHG project plan or GHG assertion released by the client subsequent to the initial validation or verification statement is validated or verified;
- For an organisation, a (internal) GHG verification report conforming to ISO 14064-1, Clause 7.3, is part of the scope of the verification;
- ISO 14064-1 or ISO 14064-2 is part of the validation or verification criteria and the requirements are not reduced; and
- The validation or verification statement is clear about what has been validated or verified and does not use language associated with management system certificates or conformity statements.

A.8.5.5. The validation and verification statement shall:

- Conform with ISO 14064-3, Clause 4.9, except in cases where regulated requirements overrule this;
- Be consistent with the outcome of the V/VB review; and
- Contain a validation/verification opinion and conclusion that reflects material discrepancies that remain after the conclusion of the validation or verification, and be issued to the responsible party.

A.8.5.6. The level of assurance for non-regulated markets can vary across a validation or verification so some data or information is assured to a reasonable level of assurance and some data or information is assured to a limited level of assurance. In this case, the validation or verification statement shall identify the applicable level of assurance related to each conclusion and how each conclusion influences the final opinion.

### 8.6. Records

### 8.7. Facts Discovered after the Validation or Verification

## 9. APPEALS

## 10. COMPLAINTS

## 11. SPECIAL VALIDATIONS OR VERIFICATIONS

## 12. MANAGEMENT SYSTEM

A.12.1. The management system should be sufficiently documented to ensure the consistent application of these standards and relevant operational requirements.

End of IAF Mandatory Document for the Application of ISO 14065:2013.

## Bibliography

ISO 14064-1:2006 Greenhouse gases: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals

ISO 14064-2:2006 Greenhouse gases: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements

VCS 2007 - Voluntary Carbon Standard - Specification for the project-level quantification, monitoring and reporting as well as validation and verification of greenhouse gas emission reductions or removals. Published by the VCS Org 19 November 2007, and available at www.v-c-s.org

ISO/IEC 17030:2003 Conformity Assessment -- General requirements for third-party marks of conformity.

## Annex A - Competence Criteria Related to Validation and Verification or Projects or Organizations - (Informative Annex)

### Generic Criteria for Competence

This Annex provides guidance to clarify the three different types of competences based on ISO 14065 Clause 6 and ISO 14066 Clause 5.

related to:

- Project validation
- Project verification
- Organisation verification

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| | **Project validation** | **Project verification** | **Organisation verification** |
| **Related to Clause 6.3.2 Validation or verification team knowledge - GHG program knowledge and skills** | **Knowledge**<br><br>A validator should have applicable GHG program knowledge, including knowledge of:<br><br>a) eligibility requirements (Note: eligibility requirements includes legal requirements);<br>b) implementation in different jurisdictions as applicable;<br>c) allowable project boundaries and projects including industry sectors and technology areas;<br>d) restrictions associated with geographic locations;<br>e) validation requirements and guidelines; and<br>f) scope (see ISO 14064-3 A.2.3.7 for guidance on scope) of the GHG emissions subject to reporting. | **Knowledge**<br><br>A verifier should have applicable GHG program knowledge, including knowledge of:<br><br>a) eligibility requirements (Note: eligibility requirements includes legal requirements);<br>b) allowable processes, industry sectors and technology areas;<br>c) allowable GHG sources, sinks and reductions;<br>d) geographic boundaries;<br>e) consequences of changes to the GHG program requirements when being applied in different economies; and<br>f) project verification and program specific verification requirements and guidelines. | **Knowledge**<br><br>A verifier should have applicable GHG program knowledge, including knowledge of:<br><br>a) eligibility requirements (Note: eligibility requirements includes legal requirements);<br>b) allowable processes, industry sectors and technology areas;<br>c) allowable GHG sources, sinks and reductions;<br>d) geographic boundaries, scope of the GHG emissions subject to reporting;<br>e) consequences of changes to the GHG program requirements when being applied in different economies; and<br>f) organisation verification and program specific verification requirements |

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| | **Project validation** | **Project verification** | **Organisation verification** |
| | | | and guidelines. |
| | **Skills**<br><br>A validator should have applicable GHG program skills, including the skill to:<br><br>a) understand the GHG program requirements;<br>b) understand the validation process and specifically issues related to projects, including but not limited to:<br>▪ leakage;<br>▪ additionality;<br>▪ baseline setting; and<br>▪ monitoring and reporting.<br>*Note: taken from ISO 14064-3*<br>c) communicate effectively on matters relevant to the validation in appropriate languages, which should typically include:<br>▪ ability to explain validation process;<br>▪ ability to ask questions of interviewees in a manner so they understand the required output;<br>▪ ability to explain findings from the validation process and their consequences;<br>▪ ability to explain what findings mean;<br>▪ ability to write a validation statement based on an analysis of findings | **Skills**<br><br>A verifier should have applicable GHG program skills, including the skill to:<br><br>a) understand the GHG program requirements;<br>b) understand the verification process and specifically issues related to projects, including but not limited to issues such as:<br>▪ leakage;<br>▪ additionality;<br>▪ baseline setting; and<br>▪ monitoring and reporting.<br>c) understand the verification process and specifically issues related to projects, including but not limited to issues such as:<br>▪ monitoring; and<br>▪ reporting.<br>d) communicate effectively on matters relevant to the verification in appropriate languages, which should typically include:<br>▪ ability to explain verification process;<br>▪ ability to ask questions of interviewees in a manner so they understand the required output;<br>▪ ability to explain findings from the verification process and their consequences;<br>▪ ability to explain what findings mean;<br>▪ ability to write a | **Skills**<br><br>A verifier should have applicable GHG program skills, including the skill to:<br><br>a) understand the GHG program requirements;<br>b) understand the verification process and specifically issues related to projects, including but not limited to issues such as:<br>▪ leakage;<br>▪ additionality;<br>▪ baseline setting; and<br>▪ monitoring and reporting.<br>c) understand the verification process and specifically issues related to entities, including but not limited to issues such as:<br>▪ monitoring; and<br>▪ reporting.<br>d) communicate effectively on matters relevant to the verification in appropriate languages, which should typically include:<br>▪ ability to explain verification process;<br>▪ ability to ask questions of interviewees in a manner so they understand the required output;<br>▪ ability to explain findings from the verification process and their consequences;<br>▪ ability to explain what findings mean;<br>▪ ability to write a |

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| | **Project validation** | **Project verification** | **Organisation verification** |
| | from validation activities including understanding the use of terms and language appropriate to validation statements. | verification statement based on an analysis of findings from verification activities including understanding the use of terms and language appropriate to verification statements. | verification statement based on an analysis of findings from verification activities including understanding the use of terms and language appropriate to verification statements. |
| **Clause 6.3.3 Validation or verification team technical expertise** | **Knowledge**<br><br>A validator should have technical knowledge, including knowledge of:<br><br>a) GHGs, global warming potentials, activity data and emission factors; and<br>b) application at a project-level of the following:<br>▪ relevant GHG sources, sinks and reservoirs (SSRs);<br>▪ quantification methodologies including quantification of emission factors;<br>▪ monitoring techniques; and<br>▪ key factors which influence the GHG emission reduction. | **Knowledge**<br><br>A verifier should have technical project verification knowledge, including knowledge of:<br><br>a) GHGs, global warming potentials, activity data and emission factors;<br>b) relevant GHG sources, sinks and reservoirs (SSRs);<br>c) quantification methodologies (including but not limited to direct measurement via probes, calculations using baseline or input data, use of conversion factors, stoichiometric calculations, estimation methodologies and the conservativeness of these approaches);<br>d) monitoring techniques (including but not limited to correct installation and usage of equipment, calibration procedures and consequences for data quality, inspection of monitoring equipment, accuracy, uncertainty, interpretation of software GHG assertions); and<br>e) key factors which | **Knowledge**<br><br>A verifier should have technical organisation-level verification knowledge, including knowledge of:<br><br>a) GHGs, global warming potentials, activity data and emission factors; and<br>b) the application at an organizational-level of the following:<br>▪ relevant GHG sources, sinks and reservoirs (SSRs);<br>▪ materiality;<br>▪ quantification methodologies (including but not limited to direct measurement via probes, calculations using baseline or input data, use of conversion factors, stoichiometric calculations, estimation methodologies and the conservativeness of these approaches); and<br>▪ monitoring techniques (including but not limited to |

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| | | influence GHG emission reductions. | correct installation and usage of equipment calibration procedures and consequences for data quality, inspection of monitoring equipment, accuracy, uncertainty, interpretation of software GHG assertions). |
| | **Skills**<br><br>A validator should have technical skills, including the skill to:<br><br>a) identify sources of leakage related to a specific project type;<br>b) identify project baselines and GHG SSRs associated with a specific project type baseline;<br>c) identify project GHG SSRs for a specific project type;<br>d) assess the completeness of a GHG assertion;<br>e) assess the conservativeness of a GHG assertion;<br>f) assess whether the GHG assertion meets GHG program requirements;<br>g) determine what is significant in a GHG assertion, and what to check in a GHG assertion (risk based sampling);<br>h) identify situations that may affect the materiality of the GHG assertion, | **Skills**<br><br>A verifier should have technical project-level verification skills, including the skill to:<br><br>a) identify sources of leakage related to a specific project;<br>b) identify project baselines and GHG SSRs associated with a specific project baseline;<br>c) identify project GHG SSRs for a specific project;<br>d) assess the completeness of a GHG assertion;<br>e) assess the conservativeness of a GHG assertion;<br>f) assess whether the GHG assertion meets GHG program requirements;<br>g) determine what is significant in a GHG assertion, and what to check in a GHG assertion (risk based sampling);<br>h) identify situations that may affect the materiality of the GHG assertion, including typical and atypical operating conditions;<br>i) understand contracts or | **Skills**<br><br>A verifier should have technical organisation-level verification skills, including the skill to:<br><br>a) identify GHG SSRs from process diagrams, land plans or other data sources;<br>b) identify GHG SSRs from organisational data;<br>c) assess the completeness of a GHG assertion;<br>d) assess the conservativeness of a GHG assertion;<br>e) assess whether the GHG assertion meets GHG program requirements;<br>f) determine what is significant in a GHG assertion, and what to check in a GHG assertion (risk based sampling); and<br>g) understand contracts or other agreements (including financial) between parties to manage potential conflicts on project boundaries or other issues that could result in double |

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| | **Project validation** | **Project verification** | **Organisation verification** |
| | including typical and atypical operating conditions;<br>i) understand contracts or other agreements (including financial) between the parties associated with the validation to manage potential conflicts on project boundaries or other issues that could result in double counting/claims related to ownership; and<br>j) For ISO 14064-2, additionally assess criteria used by the Project Proponent (as required in ISO 14064-2) to:<br>▪ select, justify and quantify the baseline scenario, including underlying assumptions;<br>▪ determine the conservativeness of the baseline scenario;<br>▪ define baseline scenario and GHG project boundaries;<br>▪ demonstrate equivalence between the type and level of activities, goods or services of the baseline scenario and GHG project;<br>▪ demonstrate that GHG project activities are additional to baseline scenario activities;<br>▪ demonstrate conformity, if appropriate, with GHG program requirements such as leakage and permanence; and | other agreements (including financial) between parties to manage potential conflicts on project boundaries or other issues that could result in double counting/claims related to ownership; and<br>j) For ISO 14064-2, additionally assess criteria used by the Project Proponent to:<br>▪ demonstrate that GHG project activities are additional to baseline scenario activities; and<br>▪ demonstrate conformity, if appropriate, with GHG program requirements such as leakage and permanence.<br>k) For applicable GHG programs assess the project's:<br>▪ activities that are additional to baseline scenario activities; and<br>▪ leakage and permanence. | counting/claims related to ownership. |

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| | **Project validation** | **Project verification** | **Organisation verification** |
| | ▪ critically evaluate project baseline scenarios and monitoring methodology taking account relevant stakeholder concerns.<br>k) For applicable GHG programs, assess the project's:<br>▪ baseline scenario, including underlying assumptions;<br>▪ conservativeness of the baseline scenario;<br>▪ baseline scenario and GHG project boundaries;<br>▪ equivalence between the type and level of activities, goods or services of the baseline scenario and GHG project;<br>▪ GHG project activities that are additional to baseline scenario activities;<br>▪ leakage and permanence; and<br>▪ project baseline scenarios and monitoring methodology taking account relevant stakeholder concerns. | | |
| **Clause 6.3.4 - Validation or verification team data and information auditing expertise** | *Note: for validation, information, assumptions and statements need to be assessed for relevance, completeness, consistency, accuracy, transparency and conservativeness before assessing the data.* | *Note: for verification, data tends to be the focus; however, the data and information need to be assessed for relevance, completeness, consistency, accuracy, transparency and conservativeness.* | *Note: for verification, data tends to be the focus; however, the data and information need to be assessed for relevance, completeness, consistency, accuracy, transparency and conservativeness.* |

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| | **Project validation** | **Project verification** | **Organisation verification** |
| | **Knowledge**<br><br>A validator should have data and information auditing knowledge, including knowledge of:<br><br>a) data and information auditing methodologies;<br>b) risk assessment methodologies;<br>c) GHG information systems; and<br>d) internal control systems.<br><br>**Skills**<br><br>A validator should have data and information auditing skills, including the skill to:<br><br>a) determine what is significant (data and information) and should be tested (strategic analysis);<br>b) identify and determine how to test the significant issues (assessment of risks);<br>c) develop a data and information sampling plan based on the strategic and assessment of risks;<br>d) devise the data and information sampling plan based on findings from validation activities;<br>e) carry out the data and information sampling plan, including:<br>▪ using audit processes to identify information, statements and | **Knowledge**<br><br>A verifier should have data and information auditing knowledge, including knowledge of:<br><br>a) data and information auditing methodologies;<br>b) risk assessment methodologies as applicable to verification of data and information sampling;<br>c) data and information sampling techniques; and<br>d) GHG information systems.<br><br>**Skills**<br><br>A verifier should have data and information auditing skills, including the skill to:<br><br>a) identify the initial effectiveness of the control system as an input to the strategic and assessment of risks;<br>b) determine what data and information is significant and should be tested (strategic analysis);<br>c) identify and determine how to test the significant issues (assessment of risks);<br>d) develop a data and information sampling plan based on the strategic and assessment of risks;<br>e) revise the data and information sampling plan based on findings from verification activities;<br>f) carry out the data and information sampling plan, including:<br>▪ managing complex | **Knowledge**<br><br>A verifier should have data and information auditing knowledge, including knowledge of:<br><br>a) data and information auditing methodologies;<br>b) risk assessment methodologies as applicable to verification of data and information sampling;<br>c) data and information sampling techniques; and<br>d) GHG information systems.<br><br>**Skills**<br><br>A verifier should have data and information auditing skills, including the skill to:<br><br>a) identify the initial effectiveness of the control system as an input to the strategic and assessment of risks;<br>b) determine what data and information is significant and should be tested (strategic analysis);<br>c) identify and determine how to test the significant issues (assessment of risks);<br>d) develop a data and information sampling plan based on the strategic and assessment of risks;<br>e) revise the data and information sampling plan based on findings from verification activities;<br>f) carry out the data and information sampling plan, including:<br>▪ managing complex |

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| | **Project validation** | **Project verification** | **Organisation verification** |
| | facts that contradict the GHG assertion;<br>▪ challenging assumptions and statements in the GHG assertion.<br>f) determine corrective action and its impact on the data and information assessment;<br>g) carry out, and modify, as appropriate a strategic and assessment of risks and develop an appropriate data and information sampling plans based on the level of assurance, materiality and validation criteria, objective and scope, taking account of the GHG program requirements;<br>h) make decisions on the data and information reported based on findings from the data and information assessment;<br>i) collate appropriate evidence and information to support decisions; and<br>j) assess the impact of the various streams of data on the materiality of the GHG assertion. | data collection/recording interfaces;<br>▪ data manipulation processes and their challenges;<br>▪ identifying actual data system problems and failures and taking appropriate action (i.e. increasing the data and information sampling plan and reporting potential nonconformities and material discrepancies);<br>▪ using audit processes to identify information, statements and facts that contradict the GHG assertion; and<br>▪ challenging assumptions and statements in the GHG assertion.<br>g) determine corrective action and its impact on the data and information assessment;<br>h) carry out and modify as appropriate a strategic and assessment of risks and develop appropriate data and information sampling plans based on the level of assurance, materiality and verification criteria, objective and scope, taking account of the GHG program requirements;<br>i) make decisions on the data and information reported based on findings from the data and information assessment;<br>j) collate appropriate evidence and information to support decisions; and<br>k) assess the GHG information | data collection/recording interfaces;<br>▪ data manipulation processes and their challenges;<br>▪ identifying actual data system problems and failures and taking appropriate action (i.e., increasing the data and information sampling plan and reporting potential nonconformities and material discrepancies);<br>▪ using audit processes to identify information, statements and facts that contradict the GHG assertion; and<br>▪ challenging assumptions and statements in the GHG assertion.<br>g) determine corrective action and its impact on the data and information assessment;<br>h) carry out and modify as appropriate a strategic and assessment of risks and develop appropriate data and information sampling plans based on the level of assurance, materiality and verification criteria, objective and scope, taking account of the GHG program requirements;<br>i) make decisions on the data and information reported based on findings from the data and information assessment;<br>j) collate appropriate evidence and information |

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| | **Project validation** | **Project verification** | **Organisation verification** |
| | | system to determine whether the project proponent or organization has effectively identified, collected, analysed and reported on the data necessary to establish a credible GHG assertion and has systematically taken corrective actions to address any nonconformities related to requirements of the relevant GHG program or standards. | to support decisions; and<br>k) assess the GHG information system to determine whether the project proponent or organization has effectively identified, collected, analysed and reported on the data necessary to establish a credible GHG assertion and has systematically taken corrective actions to address any nonconformities related to requirements of the relevant GHG program or standards. |
| **Clause 6.3.5 Specific GHG project validation team competencies** | **Knowledge**<br><br>A validator should have project-specific validation knowledge, including knowledge of:<br><br>a) project-level concepts such as<br>▪ conservativeness;<br>▪ equivalence;<br>▪ additionality;<br>▪ leakage; and<br>▪ permanence.<br>b) common processes, procedures and/or methodologies for:<br>▪ selecting baselines;<br>▪ setting GHG project boundaries; and<br>▪ assessing additionality.<br><br>**Skills**<br><br>A validator should have project-specific validation skills, including the skill to:<br><br>a) assess effective | | |

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| | application of processes, procedures and/or methodologies to baseline selection;<br>b) review baseline selection and identify errors and/or omissions;<br>c) assess the conservativeness of baselines;<br>d) review selected project boundaries and identify errors and/or omissions;<br>e) assess project and baseline scenario comparisons;<br>f) apply industry knowledge in assessing the project and baseline scenarios; and<br>g) assess additionality requirements. | | |
| **Clause 6.3.6 Specific GHG project verification team competencies** | | **Knowledge**<br><br>A verifier shall have project verification knowledge, including knowledge of:<br><br>a) the application of the following project-level of concepts:<br>▪ conservativeness;<br>▪ equivalence;<br>▪ additionality;<br>▪ leakage; and<br>▪ permanence.<br>b) common processes, procedures and/or methodologies for comparing project plans with actual results.<br><br>**Skills**<br><br>A verifier shall have project verification skills, including the skill to: | |

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| | | a) perform comparisons on projected versus actual results;<br>b) identify discrepancies between a GHG project plan and actual project implementation (including baselines, project boundaries, additionality and monitoring plans);<br>c) take appropriate action based on the above assessment; and<br>d) apply critical thinking in assessing a validated GHG project plan. | |
| **Clause 6.3.7 Specific validation or verification team leader competencies** | **Knowledge**<br><br>A team leader should have sufficient validation knowledge, including:<br><br>a) the scope, criteria, objective, materiality and level of assurance of the work;<br>b) the competencies of team members; and<br>c) validation related risks - as applicable to the engagement.<br><br>**Skills**<br><br>A team leader should have sufficient validation skills, including to:<br><br>a) assign team members based on their competence and scope, criteria, objective, materiality and level of assurance of work;<br>b) assess validator | **Knowledge**<br><br>A team leader should have sufficient verification knowledge, including:<br><br>a) the scope, criteria, objective, materiality and level of assurance of the work;<br>b) the competencies of team members; and<br>c) verification related risks - as applicable to the engagement.<br><br>**Skills**<br><br>A team leader should have sufficient verification skills, including to:<br><br>a) assign team members based on their competence and scope, criteria, objective, materiality and level of assurance of work;<br>b) assess verifier | **Knowledge**<br><br>A team leader should have sufficient verification knowledge, including:<br><br>a) the scope, criteria, objective, materiality and level of assurance of the work;<br>b) the competencies of team members; and<br>c) verification related risks - as applicable to the engagement.<br><br>**Skills**<br><br>A team leader should have sufficient verification skills, including to:<br><br>a) assign team members based on their competence and scope, criteria, objective, materiality and level of assurance of work;<br>b) assess verifier |

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|---|---|---|---|
| | **Project validation** | **Project verification** | **Organisation verification** |
| | competencies during the execution of the validation activities and to supplement the team with required competencies;<br>c) understand appropriate GHG terminology and language;<br>d) evaluate the risk associated with missing information;<br>e) apply critical thinking and understand risk associated with assessment;<br>f) understand the assurance objectives and their impact on the assignment of team members and rigour needed for the assurance;<br>g) challenge findings from team members; and<br>h) manage the development of the statement. | competencies during the execution of the verification activities and to supplement the team with required competencies;<br>c) understand appropriate GHG terminology and language;<br>d) evaluate the risk associated with missing information;<br>e) apply critical thinking and understand risk associated with assessment;<br>f) understand the assurance objectives and their impact on the assignment of team members and rigour needed for the assurance;<br>g) challenge findings from team members; and<br>h) manage the development of the statement. | competencies during the execution of the verification activities and to supplement the team with required competencies;<br>c) understand appropriate GHG terminology and language;<br>d) evaluate the risk associated with missing information;<br>e) apply critical thinking and understand risk associated with assessment;<br>f) understand the assurance objectives and their impact on the assignment of team members and rigour needed for the assurance;<br>g) challenge findings from team members; and<br>h) manage the development of the statement. |

## Annex B - Concept of Planning in Cases Where a GHG Assertion Relates to a Grouped Project or a GHG Assertion Relates to Several Facilities in an Organization's GHG Inventory (Informative Annex)

***Note 1*** *- Sampling related to grouped projects or organisations' GHG inventories is not the same as multisite sampling in management systems certification and hence sampling is not determined by the "square root" approach.*

***Note 2*** *- This is a critical part in validation or verification planning and as experience is gained additional mandatory document(s) or guidance(s) may be written.*

***Note 3*** *- The sampling between a number of GHG project plans or GHG assertions, or a mix thereof, is not allowable as that is not defined as a grouped project or a single GHG assertion.*

***Note 4*** *- The decision on how many projects to sample as part of a GHG assertion related to a grouped project or how many facilities to visit as part of an organisation's GHG assertion is determined at the validation and verification planning stage (refer to ISO 14065, Clause 8.3.3) after completion of the strategic analysis and assessment of risks and agreement of scope, criteria, objective, level of assurance and materiality.*

***Note 5*** *- Sampling may only be considered if it is allowed by the GHG program.*

### Validation or Verification of a GHG Assertion that Covers a Grouped Project

In determining which projects to sample (in the case above) consideration is given to:

- Agreed level of assurance, materiality, criteria, objectives and scope;
- Complexity of the GHG assertion and GHG project plan;
- Complexity of the projects within the group and their variations and their measurement/monitoring processes;
- Output from the initial evaluation of the GHG information system and controls;
- Organisational environment including the structure of the organisation that develops and manages the GHG assertion;
- Baseline scenario for project validation and verification, including selection and quantification of GHG sources, sinks and reservoirs applicable to the baseline scenario (this incorporates the concept of methodology);
- Variation in baseline scenario between projects in the bundle;
- Identified GHG sources, sinks and reservoirs, and their monitoring;

- 
- Organisational links and interactions between stakeholders, responsible parties, client, and intended users; (for definition refer to ISO 14064-3); and
- GHG program requirements.

For project verification in addition to the above consideration, the variations in the grouped project's GHG information system and control at the individual project level is considered when determining which projects to sample.

**Verification of a GHG Assertion that Covers Several Facilities in an Organisation's GHG Inventory**

In determining which facilities to sample (in the above case) consideration is given to:

- Agreed level of assurance, materiality, criteria, objectives and scope;
- Complexity of the GHG assertion and GHG inventory;
- Complexity of the facilities within the GHG inventory and the variations in the facilities' GHG information systems and control at facility levels and associated measurement/monitoring processes;
- Output from the initial evaluation of the overall GHG inventory, GHG information system and controls, and its link, and overview of the facility level GHG information system and controls;
- Organisational environment including the structure of the organisation that develops and manages the GHG assertion;
- Process that selects and quantifies the GHG sources, sinks and reservoirs applicable to the GHG inventory;
- Variation in the process that selects and quantifies the GHG sources, sinks and reservoirs applicable to various facilities within the GHG inventory;
- Actual identified GHG sources, sinks and reservoirs, and their monitoring;
- Organisational links and interactions between stakeholders, responsible parties, client, and intended users; (for definition refer to ISO 14064-3); and
- GHG program requirement.

## Annex C - Help Related to Validation or Verification of a GHG Assertion with Reference to ISO 14064-3 (Informative Annex)

***Note 1*** *- This Annex is informative and does not contain "shall requirements". The informative text in this Annex is not a "shall requirement". However the text in many places is associated with requirements laid down in ISO 14064-3. ISO 14064-3 is a normative reference to this IAF Mandatory Document. Explanatory text in this Annex is not to be used to raise nonconformities. If a nonconformity is identified it should refer to a requirement in ISO 14064-3.*

***Note 2*** *-* ***Taken from Introduction 0.2*** *To help understanding and facilitate reading across from the two normative standards, Clause 8 as well as Annex C of this Mandatory Document links the relevant clause titles from ISO 14065 with relevant clause titles from ISO 14064-3. The clause titles from ISO 14064-3 are in blue text and preceded by the reference ISO 14064-3. The process for validation and verification is different from management systems auditing as well as there being a different focus between validation and verification. Annex C has therefore been developed to provide informative guidance related to this process. In Annex C, clause headings from ISO 14064-3 have been used to allow understanding of how the application guidance interacts with the normative references. Again, the title headings are included but with no application guidance where none was deemed necessary.*

***Note 3*** *- The text in this document should not be taken as an interpretation of either ISO 14065 or ISO 14064-3.*

## Section 1 - Help Related to Validation of a GHG Assertion with a GHG Project Plan

### *ISO 14064-3, Clause 4.4.1, General*

The strategic analysis of a project includes as inputs:

- Agreed level of assurance, materiality, criteria, objectives and scope;
- GHG assertion with the GHG project plan;
- Complexity of the project and its measurement/monitoring processes, including whether it is a grouped project;
- Identified GHG sources, sinks and reservoirs, baseline scenario, selection and quantification of GHG sources, sinks and reservoirs applicable to the baseline scenario, monitoring of the GHG project;
- Process/system that delivers the information and data in the GHG project plan and GHG assertion;
- Organisational links and interactions between stakeholders, responsible parties (project proponent in some GHG programs), client, and intended users (for definitions refer to ISO 14064-3);
- Organisational environment including the structure of the organisation that develops and manages the GHG project; and
- Client justification for the “selection or establishment of the criteria and procedures” (reference A.8.3.3.7 and A.8.3.3.8).

***Note*** *- Further guidance is provided in ISO 14064-3, Annex A, sections A.2.4.2 - A.2.4.4.*

The inputs to the assessment of risks include:

- Output from the strategic analysis;
- Understanding of how to validate the issues associated with the “selection or establishment of the criteria and procedures” (reference A.8.3.3.7 and A.8.3.3.8);
- Output from the evaluation of the project’s GHG information system and controls; and
- Reliability of the external information and data used to justify the identified GHG sources, sinks and reservoirs, baseline scenario, selection and quantification of GHG sources, sinks and reservoirs applicable to the baseline scenario, and monitoring of the GHG project.

***Note*** *- Examples of risks in validation include, but are not limited to:*

- *Inherent risks arising from:*
  - *Assigned process for selection or establishment of the criteria and procedures relating to Clauses 5.3, 5.4, 5.5, 5.6, 5.7, 5.8 and 5.10 of ISO 14064-2 being flawed;*
  - *GHG sources, sinks and reservoirs not being completely identified; and/or*
  - *Information or data in the GHG assertion and GHG project plan containing material discrepancies.*
- *Control risks arising from:*
  - *Project's process for the selection or establishment of the criteria and procedures not being correctly implemented;*
  - *Project's process for the identification of GHG sources, sinks and reservoirs not being correctly implemented; and/or*
  - *Project's process for developing the GHG project plan and GHG assertion not controlling the risk appropriately.*
- *Detection risks arising from:*
  - *Validators' failure to identify that the project's justification for the selection or establishment of the criteria and procedures is not complete, and does not meet the applicable validation criteria (refer to A.1.1) principles; and/or*
  - *Validation team's failure to identity errors, omissions, misstatements in the GHG assertion and GHG project plan.*

### *ISO 14064-3, Clause 4.4.2, Validation Plan*

In addition to the requirements in ISO 14064-3, Clause 4.4.2, input to the validation plan includes the output from the strategic analysis, assessment of risks and the sampling plan. This includes sampling of information or data to be used to validate the GHG assertion and GHG project plan.

In determining the validation plan, the interdependence and consequences of the following are taken into account:

- Level of assurance - *reasonable assurance* will require a more in depth validation including collection of evidence and supporting information at a detailed level to support the conclusion. *Limited assurance* can be more

of an overview process and does not require the detail and depth of validation processes as compared to reasonable assurance.

***Note** - ISO 14064-3, Annex A.2.3.2 provides further explanation of level of assurance and its consequences for the validation.*

Validation objective - this includes, as a minimum, the validation of the probability that the implementation of the planned GHG project will result in the GHG emission reductions or removal enhancements as stated or claimed by the responsible party.

***Note** - ISO 14064-3, Annex A.2.3.3 provides further explanation of validation objectives.*

- Validation criteria - this affects the validation planning in terms of what to look at as well as the detail and depth of the validation activities. Validation criteria are linked to future predictions of GHG emissions and project implementation.

  ***Note** - ISO 14064-3, Annex A.2.3.6 provides further explanation of validation criteria.*

- Validation scope - this includes, as a minimum, the applicable GHG project including the appropriateness of its boundaries and the complexity of the project, including whether it is a grouped project, its location, boundaries etc.

  ***Note** - ISO 14064-3, Annex A.2.3.7, provides further explanation of validation scope.*

- Materiality - The expectation of the intended users or the validation criteria requirements affect materiality. The higher the expectation or requirements that a GHG assertion is free from material errors, omissions or misstatements, the more detailed and in depth validation sampling is required (both of information and data).

  ***Note 1** - the level of assurance generally dictates the depth of sample/testing and materiality the size / detail of sampling (of data and information.)*

  ***Note 2** - ISO 14064-3, Annex A.2.3.8, provides further explanation of materiality. Specifically - The objective of any validation of a GHG assertion is to enable the validation body to express an opinion as to whether the GHG assertion is, in all material respects, fairly stated in accordance with the intent of the agreed validation criteria, (reference A.1.1). The assessment of materiality is a matter of professional judgement. The concept of materiality recognizes that some matters,*

*either individually or in the aggregate form, are important if the responsible party's GHG assertion is to be presented fairly in accordance with agreed validation criteria. The determination of materiality involves qualitative as well as quantitative considerations. As a result of the interaction of these considerations, discrepancies of relatively small amounts can have a material effect on the GHG assertion.*

- Validation activities and schedules - available client resources, logistics and sufficient time for effective team communication, including handing over of validation trail information/evidence to allow another team member to follow up issues all affect the validation plan.

***ISO 14064-3, Clause 4.4.3, Sampling Plan***

***ISO 14064-3, Clause 4.5, Assessment of GHG Information System and Its Controls***

The initial review of the GHG information systems and controls provides an input to the assessment of risks and, hence, the validation plan and sampling plan.

***Note** - ISO 14064-3, Annex A, A 2.5.1.1, A.2.5.1.2, A.2.5.1.3 and A.2.5.2 provides examples of GHG information system and controls.*

The detailed assessment of the GHG information system and controls confirms or rejects the initial review of the GHG information system and controls, by confirming that the system and controls are in place, and that the risks are appropriately managed. In cases where the initial review of the GHG information system and controls are not substantiated by the detailed assessment, the assessment of risks is reviewed and amended as necessary. This includes review and amendment of the validation plan and sampling plan as appropriate.

If the validation criteria imposes requirements on the GHG project related to GHG information system and controls, and these are part of (an) existing accredited management system(s) certification, the validation and body ensures these meet the requirements related to the GHG information system and its controls.

***ISO 14064-3, Clause 4.6, Assessment of GHG Data and Information***

The validation of GHG data and information is carried out in accordance with the validation plan and the sampling plan

***Note** - ISO 14064-3, Annex A.2.6, provides examples of how to carry out this assessment.*

The output from this assessment provides:

- Evidence and findings that act as input to ISO 14064-3, Clauses 4.7 and 4.8;
- Rational for amendments to sampling plan and validation plan based on findings and evidence;
- Input to the potential conclusions in the validation statement.

***ISO 14064-3, Clause 4.7, Assessment Against Validation Criteria***

***Note*** *- ISO 14064-3, Annex A.2.7, provides the framework for this assessment*

The output from this assessment provides:

- Evidence and decision on conformance with validation criteria (refer to A.1.1.);
- Evidence and findings that act as input to ISO 14064-3, Clause 4.8;
- Rational for amendments to sampling plan and validation plan based findings and evidence;
- Input to the potential conclusions and opinions in the validation statement;
- Evidence and decision on adherence to principles as specified in the validation criteria (reference A.1.1); and
- Evidence and decision of the eligibility of the project or organisation's GHG assertion to participate in a specific GHG program if this GHG program is part of the validation criteria.

***ISO 14064-3, Clause 4.8, Evaluation of the GHG Assertion***

***Note*** *- ISO 14064-3, Annex A2.8, provides the framework for this assessment.*

The validation team ensures that all outstanding issues are resolved prior to reaching conclusions and forming opinions.

The validation team input to the validation body independent review process includes a recommendation to the validation body related to the GHG assertion.

***ISO 14064-3, Clause 4.9, Validation Statement***

In cases where the validation body uses a management letter to communicate noncritical issues to clients, the validation body ensures that:

- Communicated issues are consistent with the definition of noncritical issues;
- Communicated issues are consistent with the findings; and
- Noncritical issues would not affect the conclusion and opinion in the validation statement and hence the intended user.

## Section 2 - Help Related to Verification of Either a GHG Project or an Organisation's GHG Assertion

### *ISO 14064-3, Clause 4.4.1, General*

Verification of a GHG assertion can be for either a project GHG assertion, or an organisational GHG assertion. The verification processes are the same, but the detail and focus changes depending on the scope, criteria, objectives, level of assurance and materiality.

The strategic analysis of a GHG assertion includes as inputs:

- Agreed level of assurance, materiality, criteria, objectives and scope;
- GHG assertion;
- Complexity of project/organisation and its measurement /monitoring processes;
- Identified GHG sources, sinks and reservoirs and its monitoring;
- Process that delivers the information and data in the GHG assertion;
- Organisational links and interactions between stakeholders, responsible party, client, and intended users; (definitions refer to ISO 14064-3); and
- Organisational environment including the structure of the organisation that develops and manages the project's or organisation's GHG assertion.

***Note** - Annex A to ISO 14064-3, Clause A.2.4.2 - 4, provides further guidance.*

The inputs to the assessment of risks include:

- Output from the strategic analysis; and
- Output from the evaluation of the project or organisation GHG information system and controls.

***Note** - Examples of risks in verification include, but are not limited to:*

- *Inherent risks arising from:*
  - *Implementation of assigned process for selection or establishment of the criteria and procedures referred to in A.8.3.3.6 and A.8.3.3.7 is flawed;*
  - *GHG sources, sinks and reservoirs not being completely identified;*
  - *Information or data in the GHG assertion containing material discrepancies.*

- *Control risk arising from:*
  - *Relevant processes as required in the verification criteria referred to in A.1.1. not being correctly implemented;*
  - *GHG information systems and controls that do not manage the data and information in a manner to reduce the risk of material discrepancies.*
- *Detection risk arising from:*
  - *Verification team failing to identify errors, omissions and misstatements in the GHG assertion.*

The result from the strategic analysis and the assessment of risks are inputs to the verification plan.

***ISO 14064-3, Clause 4.4.2, Verification Plan***

Input to the verification plan includes the requirements in ISO 14064-3, Clause 4.4.2, and the output from the strategic analysis and assessment of risks and the developed sampling plan (this includes sampling of evidence be that of information or data to verify the GHG assertion).

In determining the verification plan, the interdependence and consequences of the following are taken into account:

- Level of assurance - *reasonable assurance* will require a more in-depth verification including collection of evidence and supporting information at a detailed level to support the conclusion. *Limited assurance* can be more of an overview process and does not require the detail and depth of verification processes as do reasonable assurance.
- ***Note** - ISO 14064-3, Annex A.2.3.2 provides further explanation of level of assurance and its consequences for the assessment.*
- Verification objective -

  ***Note** - ISO 14064-3, Annex A.2.3.4 for projects and A.2.3.5 for organisation provides further explanation of verification objectives.*
- Verification criteria - This affects the verification planning in terms of what to look at as well as the detail of the verification activities.

  ***Note** - ISO 14064-3, Annex A.2.3.6 provides further explanation of verification criteria.*

- Verification scope - relates to the applicable project or organisational GHG assertion. For projects, the complexity of the project as well as whether it is a grouped project, its location, boundaries, monitoring process and report etc. affect the detail and time need for the verification. For organisations, the complexity of the GHG inventory, the number of facilities, boundaries issues etc. affect the detail and time needed for the verification.

  ***Note** - ISO 14064-3, Annex A.2.3.7, provides further explanation of verification scope.*

- Materiality - The expectation of the intended users or verification criteria (refer to A.1.1.) requirements affect this. The higher the expectation or requirements that a GHG assertion is free from material errors, omissions or misstatements, the more detailed the verification sampling (both of information and data).

  ***Note 1** - Conventionally the level of assurance dictates the depth of sample/testing and materiality the size/detail of sampling (of data and information).*

  ***Note 2** - ISO 14064-3, Annex A.2.3.8 provides further explanation of materiality. Specifically - The objective of any verification of a GHG Assertion is to enable the verification body to express an opinion as to whether the GHG assertion is, in all material respects, fairly stated in accordance with the intent of the applicable verification criteria (refer to A.1.1). The assessment of materiality is a matter of professional judgement. The concept of materiality recognizes that some matters, either individually or in the aggregate form, are important if the responsible party's GHG assertion is to be presented fairly in accordance with verification criteria (refer to A.1.1). The determination of materiality involves qualitative as well as quantitative considerations. As a result of the interaction of these considerations, discrepancies of relatively small amounts can have a material effect on the GHG assertion.*

- Verification activities and schedules - available client resources, logistics and sufficient time for effective team communication, including handing over of verification trail information/evidence to allow another team member to follow up issues, all affect the verification plan.

***ISO 14064-3, Clause 4.4.3, Sampling Plan***

***ISO 14064-3, Clause 4.5, Assessment of GHG Information System and its Controls***

The initial review of the GHG information systems and controls provides an input to the assessment of risks and hence the verification plan and sampling plan.

***Note** - ISO 14064-3, Annex A 2.5.1.1, A.2.5.1.2, A.2.5.1.3 and A.2.5.2 provides examples of GHG information system and controls.*

The detailed assessment of the GHG information system and controls confirms or rejects the initial review of the GHG information system and controls, by confirming or otherwise that the GHG information system and controls are in place, and that the risks are appropriately managed. In cases where the initial review of the GHG information system and controls is not substantiated by the detailed assessment, the assessment of risks should be reviewed and amended as necessary. This includes review and amendment of the verification plan and sampling plan as appropriate.

If the verification criteria imposes requirements on the GHG project or organisation related to GHG information system and controls, and these are part of (an) existing accredited management system(s) certification, the verification body ensures these meet the requirements related to the GHG information system and its controls.

***ISO 14064-3, Clause 4.6, Assessment of GHG Data and Information***

The verification of GHG data and information is carried out in accordance with the verification plan and the sampling plan.

The output from this assessment provides:

- Evidence and findings that act as input to ISO 14064-3, Clause 4.7 and 4.8;
- Rational for amendments to sampling plan and verification plan based on findings and evidence; and
- Input to the potential conclusions and opinions in the verification statement.

***Note** - ISO 14064-3, Annex A.2.6, provides examples on how to carry out this assessment.*

***ISO 14064-3, Clause 4.7, Assessment Against Verification Criteria***

***Note** - ISO 14064-3, Annex A.2.7, provides the framework for this assessment:*

The output from this assessment provides:

- Evidence and decision on conformance with verification criteria (reference A.1.1);
- Evidence and findings that act as input to ISO 14064-3, Clause 4.8;

- Rational for amendments to sampling plan and verification plan based findings and evidence;
- Input to the potential conclusions and opinions in the verification statement;
- Evidence and decision on adherence to principles as specified in the verification criteria (refer to A.1.1); and
- Evidence and decision of the eligibility of the project or organisation GHG assertion to participate in the GHG program if this is part of the verification criteria.

***ISO 14064-3, Clause 4.8, Evaluation of the GHG Assertion***

***Note** - ISO 14064-3, Annex A.2.8, provides the framework for this assessment.*

The verification team ensures that outstanding issues are resolved prior to reaching conclusions and forming opinions.

The verification team input to the verification body independent review process includes a recommendation to the verification body related to the GHG assertion.

***ISO 14064-3, Clause 4.9, and Verification Statement***

In cases where the verification body uses a management letter to communicate noncritical issues to the client, the verification body ensures that:

- Communicated issues are consistent with the definition of noncritical issues;
- Communicated issues are consistent with the findings; and
- Noncritical issues would not affect the conclusion or opinion in the verification statement, and hence the intended user.