



**THE CLIMATE
REGISTRY**

**GENERAL VERIFICATION
PROTOCOL**

VERSION 3.0

MARCH 2024

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A. INTRODUCTION

ABOUT THE CLIMATE REGISTRY

The Climate Registry (TCR) designs and operates voluntary and compliance greenhouse gas (GHG) reporting programs globally, and assists organizations in measuring, reporting, and verifying (MRV) the carbon in their operations in order to manage and reduce it. TCR also consults with governments nationally and internationally on all aspects of GHG measurement, reporting, and verification.

TCR's Carbon Footprint Registry is aligned with international standards and provides a nexus between business, government, and non-governmental organizations to share policy information and exchange best practices.

For more information, please visit:
www.theclimateregistry.org.



CARBON FOOTPRINT REGISTRY

ABOUT THIS DOCUMENT

TCR's General Verification Protocol (GVP) Version 3.0 presents the requirements for the third-party verification of an organizational carbon footprint, or GHG inventory, by a TCR-recognized¹ verification body.

Third-party verification is an independent expert assessment of the accuracy and conformity of a GHG inventory based on the reporting requirements contained in TCR's General Reporting Protocol (GRP), and the verification requirements described in this GVP.

Third-party verification provides confidence to users that the GHG inventory represents a faithful,

¹ TCR recognizes verification bodies that are accredited to ISO 14065 by a partnering accreditation body, such as the [ANSI National Accreditation Board](http://www.anab.org) (ANAB).

true, and fair account of emissions—free of material misstatements and conforming to the accounting and reporting rules in the documents listed above. Verification ensures that all data published by TCR is accurate, consistent and transparent.

Verification is optional for Carbon Footprint Registry members, but it is required for publication of GHG inventories in the Climate Registry Information System (CRIS).

Members and verification bodies must use this GVP in combination with TCR’s GRP and Guidance on Accreditation to conform with TCR’s reporting and verification requirements.

TCR’s GVP embodies GHG verification best practices drawn from the following standards:

- » The World Resources Institute and the World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol Corporate Accounting and Reporting Standard (Revised Edition)
- » International Organization for Standardization (ISO) 14064-3:2019, Greenhouse gases—Part 3: Specification with guidance for the verification and validation of greenhouse gas statements
- » ISO 14065:2020—General principles and requirements for bodies validating and verifying environmental information.

While ISO 14064-3 serves as the foundation for TCR’s verification program, TCR provides additional guidance, verification requirements, and specificity in this GVP. Additional guidance and requirements for accrediting verification bodies to perform verifications for TCR’s programs are provided in TCR’s *Guidance on Accreditation*.

PRINCIPLES OF VERIFICATION

The GVP adheres to five overarching principles that are intended to help ensure that verified GHG data represent a faithful, true, and fair account of an organization’s GHG emissions. These principles are the basis for the requirements and guidance in the GVP.

- 1. Impartiality:** The verification process is objective and remains free from bias and conflicts of interest.
- 2. Evidence-based approach:** Verification conclusions are reliable and reproducible, based on sufficient and appropriate evidence and a rational approach.
- 3. Fair Presentation:** Verification bodies reflect truthfully and accurately the results of the verification activities and communicate significant obstacles or diverging opinions among verifiers to the responsible party and client.
- 4. Documentation:** Documentation of the verification establishes the basis for the conclusion and conformity with criteria.
- 5. Conservativeness:** When assessing comparable alternatives (i.e., options that are similar in completeness and accuracy), verification bodies use a selection that is cautiously moderate.²

In addition to the above principles of verification, verification bodies must ensure that GHG inventories conform to the reporting principles as defined in TCR’s GRP.

² Conservativeness is evaluated differently depending on the circumstances. For example, for an organizational inventory that is attempting to meet a target, the overstatement of the inventory would be conservative. For an organization that is establishing a base year, an overstatement of the inventory would be conservative (ISO 14064-3 Annex B).

GVP STRUCTURE

The GVP is presented as a series of individual topic-specific modules, which may be viewed separately or downloaded together as a combined document. The GVP modules provide the key verification requirements for TCR's Carbon Footprint Registry and are designed to be used as a set.

The GVP is comprised of the following modules, which mirror the chronology of the verification process:

MODULES	
A. Introduction (this module)	<i>Provides an overview of the GRP.</i>
B. Summary of the verification process	<i>Outlines the key steps in the verification process.</i>
C. Pre-engagement activities	<i>Describes key criteria that define the verification and activities to be performed before the start of the verification, including the conflict of interest assessment.</i>
D. Verification planning	<i>Provides requirements for planning activities to undertake during the verification, including strategic analysis, risk assessment, developing an evidence-gathering plan and verification plan, and planning facility visits.</i>
E. Execution of verification activities	<i>Provides criteria for evaluating the inventory based on results obtained during verification activities.</i>
F. Completing the Verification Process	<i>Describes activities undertaken to complete the verification process, including the development of the verification report, verification opinion and independent review.</i>

All GVP modules are available to download at www.theclimateregistry.org.

Additional sector-specific protocols and addenda are available for certain sectors at www.theclimateregistry.org and contain additional methods and requirements to the GVP. Supplemental guidance documents will provide further examples, background material, and tips for verifying. Verification bodies should verify GHG inventories reported to TCR's Carbon Footprint Registry following a step-wise reporting process, starting with the GVP, progressing to sector-specific verification protocols if relevant, and referring to guidance documents as needed.

UPDATES TO THE GVP

TCR may update this document in the future to reflect changes in international best practices and to provide additional clarity and guidance.

Updates to the GVP will be incorporated into the relevant GVP module(s) as needed. TCR will inform stakeholders of changes to the GVP in a timely manner, and will provide explicit direction when new reporting and verification policies or procedures will be required.



B. SUMMARY OF THE VERIFICATION PROCESS

KEY PLAYERS

The verification process involves a number of key players; these players and their main responsibilities are as follows:

Accreditation Body

The Accreditation body is responsible for approving verification bodies to perform verification activities for TCR's Carbon Footprint Registry and other TCR reporting programs. To become accredited, verification bodies must comply with the ISO 14065 standard and TCR's additional accreditation criteria. Accreditation bodies are also responsible for ensuring the consistency and quality of TCR's verification process by monitoring each verification body's conformance with program requirements; assessing the accuracy of each verification body's work; and sanctioning verification bodies which do not continue to meet program requirements. Additionally, if disputes between members and verification bodies cannot be resolved, parties may engage the accreditation body for resolution. Refer to TCR's Guidance on Accreditation for more information on the accreditation process and the role of an accreditation body.

Verification Body

The verification body is a TCR-recognized organization responsible for verifying GHG inventories reported to TCR.

Member

The member is responsible for reporting its GHG inventory and selecting a TCR-recognized verification body to assess the quality of their inventory. A member must provide the information, documents, and site access a verification body needs to complete the verification effort, and must correct any material errors, omissions, or misrepresentations in the GHG inventory discovered by the verification body.

Verification Advisory Committee

The Verification Advisory Committee (VAC) is comprised of the following representatives:

1. TCR-recognized verification body representatives: one individual from each accredited body. As the number of TCR-recognized verification bodies grows, TCR will reconsider whether a subset of verification bodies can represent the entire group.
2. Members: 1 individual from up to 10 different member organizations of various sizes and representing various sectors.
3. Other Stakeholders: between 5 and 10 representatives (for example, TCR jurisdictional representatives, voluntary and mandatory GHG programs, environmental organizations).
4. Advisors are consulted on an as-needed basis for legal, ethical, and other areas of expertise.

The responsibilities of the Verification Advisory Committee are as follows:

- » Review draft sector-specific verification requirements and guidance
- » Review draft GVP Updates and Clarifications documents

- » Notify TCR of any emerging verification or accreditation issues
- » Provide feedback on verification and accreditation issues on an as-needed basis via e-mail and/or surveys

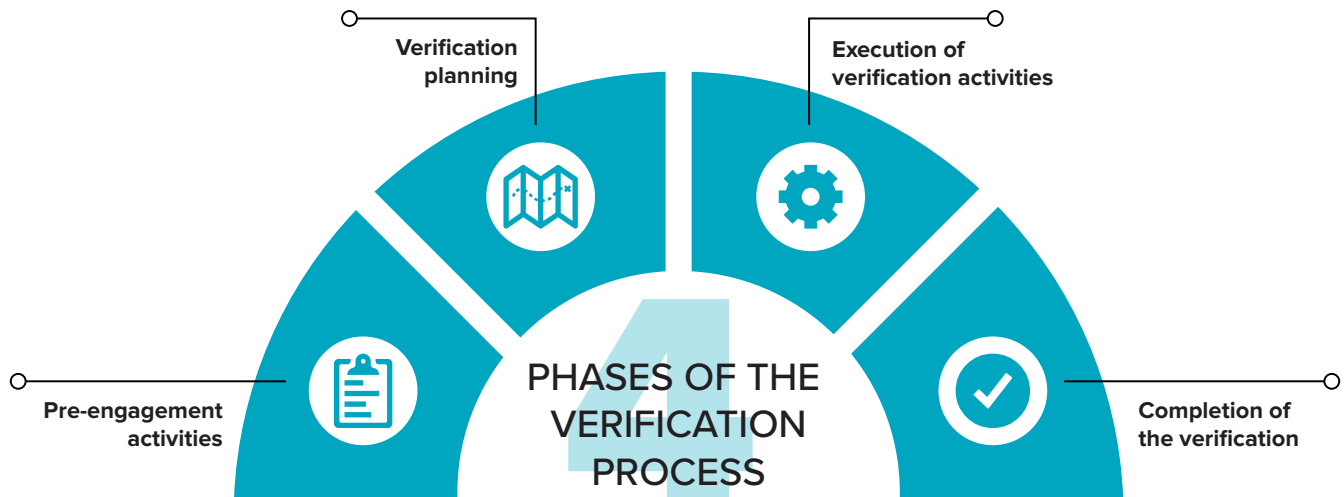
A representative of the VAC may be invited by TCR to serve for a one-year term on a partnering accreditation body's Accreditation Committee.

Audit & Verification Oversight Committee

This Committee exercises the authority of the Board to oversee TCR's accreditation and verification programs, and recommends resolutions to any disputes arising between a member and verification body related to the verification opinion or verification report and other ethical concerns or complaints that may arise.

OVERVIEW OF THE VERIFICATION PROCESS

The verification process consists of four phases: pre-engagement activities, verification planning, execution of verification activities, and completion of the verification.





Pre-engagement Activities

Member selects a verification body

Organizations wishing to engage a verification body to verify their GHG inventory should contact one or more TCR-recognized verification bodies eligible to verify their sector ¹ and request a proposal for verification services. Once an organization has selected a verification body, they will negotiate contract terms. The verification body and member will agree on the type of verification, level of assurance, objectives, criteria, scope and materiality threshold. TCR members can find guidance on engaging with a verification body, including a sample request for proposals and a sample contract, in the Members Only portal.

Verification body selects the verification team and submits a Conflict of Interest (COI) Assessment Form

The verification body selects qualified individuals for the verification team and submits a case-specific COI Assessment Form to TCR. TCR reviews the COI assessment and notifies the verification body of its determination within 15 business days.

Verification body and member finalize verification contract

TCR strongly recommends that the verification body and member do not finalize a contract for verification services or begin verification activities unless the verification body receives a COI determination letter from TCR indicating that the potential for COI is low.



Verification Planning

Verification body develops verification plan

Verification planning includes a strategic analysis, risk assessment, designing evidence-gathering activities, and developing a verification plan. When facilities will be visited, verification bodies must submit a Notification of Planned Facility

Visits (NOPFV) Form to TCR at least 10 business days before the scheduled visits.



Execution of Verification Activities

Verification body conducts verification activities

The verification body follows the guidance in the GVP to conduct the verification according to the verification plan, and conducts evidence-gathering activities according to the evidence-gathering plan.



Completion of Verification

Verification body completes verification activities and evaluates the GHG inventory

The verification body evaluates the GHG inventory, including any changes in risks or changes from prior reporting periods, the sufficiency and appropriateness of evidence, conformance with criteria, and any material misstatements. The verification body reaches a conclusion and prepares a detailed summary (e.g., draft verification report) of the verification activities and misstatements (both material and immaterial).

Verification body performs independent review of verification report

The verification body's independent reviewer completes its review of the draft verification report.

Verification body provides draft verification report to member

The verification body discusses the draft verification report with the member, identifying any material errors that must be corrected in order to issue a positive verification opinion.

Member implements corrective action

The member corrects all material misstatements in their inventory.

¹ A list of TCR-recognized verification bodies is provided at [TCR's Verification webpage](#).

Verification body prepares final verification report and verification opinion

The verification body assesses corrective actions taken by the member, prepares a final verification report and verification opinion, and conducts an independent review of the final verification report and opinion. Then the verification body shares these documents with the member.

Verification body issues verification opinion

The verification body uploads the completed verification opinion in CRIS.

TCR reviews verification documentation

TCR reviews the verification opinion and evaluates the member's inventory. TCR may have follow-up questions for the verification body and/or the member. Once material issues are resolved (if any), TCR accepts the inventory. If the member has chosen to publicly report, the inventory will become available at <http://carbonreporting.org>.

BECOMING A TCR-RECOGNIZED VERIFICATION BODY

Prospective verification bodies must become accredited by a partnering accreditation body before they can conduct verification activities for TCR's reporting programs. TCR designed its accreditation process to be consistent with the ISO 14065 standard (General principles and requirements for bodies validating and verifying environmental information). Please refer to TCR's [Guidance on Accreditation](#) for details about accreditation.

To undertake verification for a TCR member, a verification body must be accredited to the organizational-level general scope (e.g. ANAB Group 1²) by a TCR partner accreditation body.³

TCR's requirements for sector-specific accreditation are as follows:

- » **Manufacturing (e.g., ANAB Group 2):** Verification bodies must be accredited to this scope in order to verify inventories of members that operate in the manufacturing sector.
- » **Power Generation (e.g., ANAB Group 3):** Verification bodies must be accredited to this scope in order to verify inventories of members that operate in the power generation sector and/or prepare inventories in accordance with TCR's Electric Power Sector Protocol.
- » **Electric Power Transactions (e.g., ANAB Group 4):** Verification bodies must be accredited to this scope in order to verify inventories of members that have electric power transactions and/or prepare report delivery metrics in accordance with TCR's Electric Power Sector Protocol.
- » **Mining and Mineral Production (e.g., ANAB Group 5):** Verification bodies must be accredited to this scope in order to verify inventories of members that operate in the mining and mineral production sector.
- » **Metals Production (e.g., ANAB Group 6):** Verification bodies must be accredited to this scope in order to verify inventories of members that operate in the metals production sector.
- » **Chemical Production (e.g., ANAB Group 7):** Verification bodies must be accredited to this scope in order to verify inventories of members that operate in the chemical production sector.
- » **Oil & Gas Production (e.g., ANAB Group 8):** Verification bodies must be accredited to this scope in order to verify inventories of members whose operations involve oil and gas extraction, production, and refining, including petrochemicals and/or prepare inventories in accordance with TCR's Oil & Gas Production Protocol.
- » **Waste (e.g., ANAB Group 9):** Verification bodies must be accredited to this scope in order to verify inventories of members that operate in the waste sector.

² ANAB's policy and assessment requirements for accrediting firms to industry sector scopes can be viewed through [ANAB's website](#).

³ To view all partner accreditation bodies, please see [TCR's Verification webpage](#).



C. PRE-ENGAGEMENT ACTIVITIES

Pre-engagement activities include the steps verification bodies and members must complete to determine the criteria and scope of the verification and to establish that their relationship has a low potential conflict of interest, before they sign a contract and engage in verification activities. Verification bodies and members must agree on the type of engagement, level of assurance, objective, criteria, scope, and materiality threshold.

TYPE OF ENGAGEMENT

GHG inventories reported to TCR in accordance with the criteria provided in the GRP are evaluated by a verification body according to a type of engagement called a verification. Verification is the process for evaluating a statement of historical data and information to determine if the statement is materially correct and conforms to criteria.

AGREED-UPON PROCEDURES

In some cases, organizations may wish to report and engage a verification body to review additional GHG-related information beyond the scope of the verification required for TCR. This review may be done according to agreed-upon procedures, an engagement type in which the verification body reports on the results of verification activities and does not provide an opinion. The two engagement types may be combined in a mixed-engagement, provided that the scope of each type of engagement is clearly defined. The member and verification body must agree on the type of engagement prior to commencing the work. More information about agreed-upon procedures can be found in ISO 14064-1:2019. This GVP provides requirements for verification engagements.

LEVEL OF ASSURANCE

The level of assurance a verification body provides for its verification work dictates the relative degree of confidence the verification body has in its assessment of the accuracy of the reported data, and thus the level of confidence that TCR or other users can place in the reported information. TCR accepts inventories verified to a reasonable level of assurance and those verified to a limited level of assurance. Before beginning the verification work, members and verification bodies must agree on the level of assurance to be applied, considering the needs of the intended users of their data (e.g., to inform reduction efforts, regulatory compliance, to seek recognition for reductions achieved). Assurance may only be provided for verification engagements (not agreed-upon procedures).

Reasonable Assurance

A reasonable assurance conclusion generates the highest possible level of confidence that the GHG inventory is accurate and complete. To provide a reasonable level of assurance, a verification body has considered a sufficient amount of evidence to reduce the risk of material misstatement to an acceptably low level. A verification body expresses an opinion on whether the GHG inventory is free from material misstatement (a positive form of opinion).

Limited Assurance

A limited assurance verification has a higher acceptable verification risk than a reasonable level of assurance verification and thus provides less confidence in the reported data than a reasonable assurance conclusion. In limited level of assurance engagements, verification bodies do not perform as many or as detailed evidence-gathering activities and do not follow evidence trails to the same depth as in a reasonable assurance engagement. A verification body expresses a conclusion that conveys whether, based on the procedures performed and evidence obtained, any matters have come to their attention to cause them to believe the emissions report is materially misstated (a negative form of opinion).

TYPES OF VERIFICATION RISKS AND CONSIDERATIONS FOR CHOOSING A LEVEL OF ASSURANCE

Inherent risk is the risk of a material misstatement occurring due to error or omission, not failure of internal control. Complexity of the organization and GHG activities generally increases inherent risk.

Control risk is the risk that the controls of the organization or GHG project will not prevent or detect a material misstatement. Control risks may include insufficient checking of manual data transfers, lack of internal audit processes, inconsistent monitoring, and failure to keep meters calibrated and maintained.

Detection risk is the risk that the verification body will fail to detect a material misstatement. Detection risk may be lowered by increased sampling.

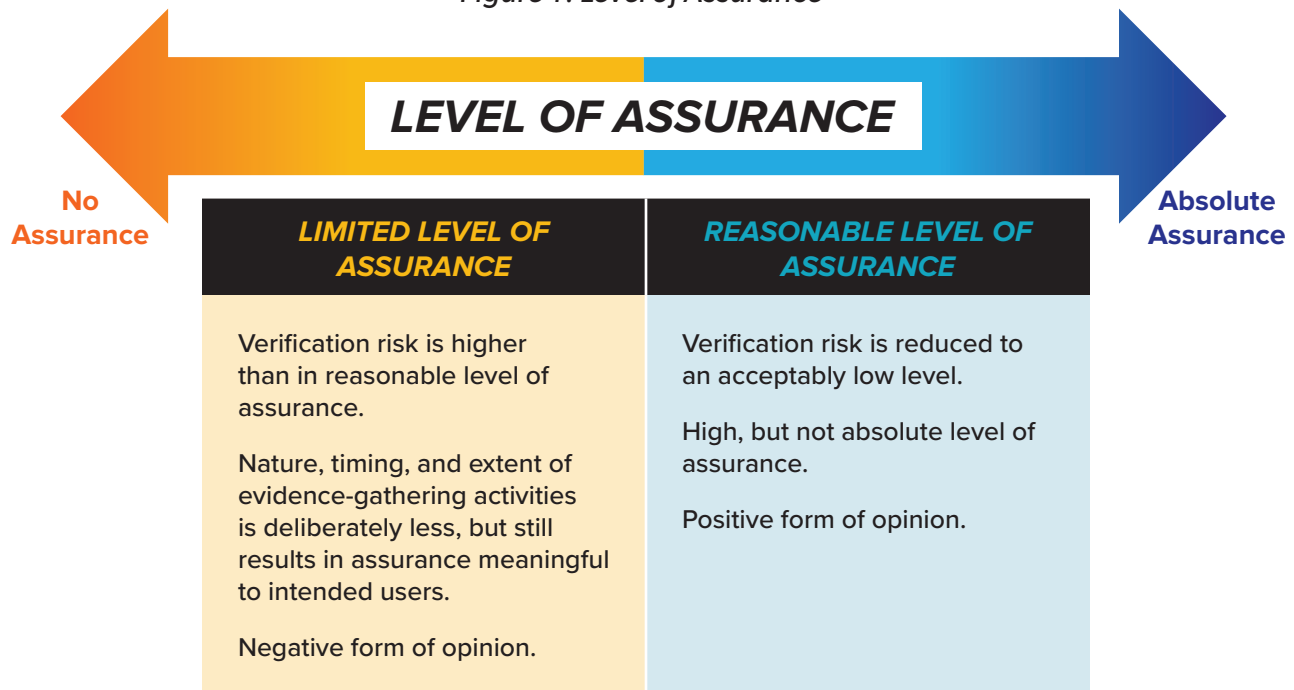
Verifications with a limited level of assurance involve less detailed evidence-gathering and sampling, resulting in a higher detection risk. To ensure an overall acceptable level of risk for a limited assurance verification, inherent risk and control risks should be sufficiently low to allow for the higher detection risk. For complex organizations and/or complex GHG activities and inventories,¹ a reasonable level of assurance is typically provided at the start of a verification relationship so that the verification body can assess the rigor of the member’s controls and data management systems. A limited level of assurance may be acceptable for interim reporting periods between significant reporting periods (e.g., target achievement years or years with mandated reporting). Verification bodies use their professional judgment to assess the appropriateness of the level of assurance requested for a particular GHG inventory based on information provided in the request for proposal

and prior verification experience with the member.

The level of assurance must be specified prior to starting the engagement because it determines the type and extent of evidence-gathering activities. Additional factors in determining which level of assurance is appropriate include cost, resources, time, use of data, and importance to stakeholders.

Level of assurance is not determined by the integrity of the inventory. Verification bodies must address any inadequacy or insufficiency of evidence in a limited assurance engagement in the same manner as they would for engagements performed at a reasonable level of assurance (see section on [sufficiency of evidence](#)). If the verifier suspects that it would not be possible to provide reasonable assurance due to inadequacies in the organization’s underlying data, then it is not appropriate to provide limited assurance either.²

Figure 1: Level of Assurance³



1 The existence of non-commercial vs commercial facilities as defined in the section on Facility Visits in Module D. Verification Planning should be considered when evaluating the complexity of the organization.
 2 Final Pronouncement International Standard on Assurance Engagements (ISAE) 3000 (Revised), Assurance Engagements Other Than Audits or Reviews of Historical Financial Information, Paragraphs 29, A41, and A59, December 2013.
 3 Figure adapted from ISO 14064-3:2019, page 35.

The level of assurance may not be changed during the course of the verification, but the engagement may be terminated and a new engagement may be started with a different level of assurance. The verification body must document the reasons for the change.

To ensure transparency to stakeholders, the level of assurance is clearly indicated on verified emissions reports published by TCR.

LIMITED LEVEL OF ASSURANCE

The verification requirements in this protocol are applicable to verification at a reasonable level of assurance. Where requirements differ for a limited level of assurance, they will be highlighted in a limited level of assurance box.

OBJECTIVE

The objective of the verification is to reach a conclusion about the accuracy of the GHG inventory and the conformity of the inventory with the criteria (i.e., TCR's protocols).

CRITERIA

Verification bodies must verify members' GHG inventories using the following criteria:

- » TCR's General Reporting Protocol⁴ (for requirements on GHG calculation and reporting)
- » Sector-specific reporting protocols published by TCR, if applicable
- » ISO 14064-3 (Greenhouse gases—Part 3: Specification with guidance for the verification and validation of greenhouse gas statements)
- » This GVP for supplementary requirements on verification activities

Optional Criteria

If a member optionally requests a verification body to verify data according to additional criteria (e.g., a sector-specific protocol not published by TCR), the verification body must assess the suitability of the proposed criteria, considering:

- » The method for determining engagement scope and boundaries
- » The types of GHGs and sources to be accounted for
- » The quantification methods
- » Requirements for disclosures

If additional criteria proposed by the member might prohibit a verification body from complying with this GVP, the requirements contained in the GVP take precedence.

Criteria must be relevant, complete, reliable, understandable, and available to the intended user. The verification body must reference the criteria in the verification opinion.

SCOPE

The scope of a verification body's assessment of the GHG inventory is defined by the required components of TCR's GRP, a member's chosen inventory boundaries (organizational boundary and reporting boundary), and the complexity of the member's operations.

Inventory Boundaries

If a member chooses multiple consolidation methods to define their organizational boundary (i.e., operational control, financial control or equity share), the verification body must include all within the scope of the verification.

For the reporting boundary, the GRP defines relevant emission sources that must be reported for inventories to be considered "complete" according to TCR's criteria (see GRP Inventory Boundaries Module). A member may customize

⁴ Including approved Member-Developed Methodologies and General Reporting Protocol Updates and Clarifications published by TCR on its website.

its reporting boundary to reflect their own determination of relevant activities. Members reporting to TCR that exclude GHG sources from the reporting boundary that TCR has defined as relevant must identify the excluded sources and explain the reason for their exclusion on the self-defined boundary form in CRIS. Verification bodies must verify that the self-defined boundary form is completed accurately for members that are defining a reporting boundary that differs from TCR's definition of relevant emission sources. Boundaries must be included in the verification opinion documentation.

Parameters for defining the reporting boundary include: GHGs, GHG sources (including activities, technologies and processes), reporting period, and geography/business units (including facilities and physical infrastructure).

Verifying Non-emissions Data

Beyond GHG emissions, members' inventories will also contain other organizational information that must be included in the scope of verification activities. This additional information includes:

- 1. Eligibility of contractual instruments.** Verification bodies must confirm that contractual instruments used in reporting market-based indirect emissions meet the Scope 2 Eligibility Criteria (see the "Ensure Contractual Instruments Meet TCR Eligibility Criteria" section in GRP Module C: GHG Emissions Quantification Methods).
- 2. Required Scope 2 disclosure.** Verification bodies must confirm that Scope 2 disclosure requirements are met. This involves reviewing the information members provide in the required portions of the Indirect Emissions Disclosure Form for completeness and accuracy. Before submitting the verification opinion, verification bodies must ensure that this form has been completed by the member in CRIS.
- 3. Required disclosures** listed under the Additional Reporting Requirements section in GRP Module E: Reporting an Inventory.
- 4. Application of offsets⁵ to the member's net inventory.** (See Offsets section below for verification requirements for offsets.)
- 5. Additional disclosures, reports and performance metrics required by sector-specific protocols,** if relevant. Refer to the relevant sector-specific protocol and any sector-specific verification addendum or guidance for detailed information.
- 6. Information related to parent companies/ subsidiaries and government agencies,** if relevant (see boxes on each topic below).
- 7. Activity-level emissions data.** This includes data used to quantify emissions (emission factors, fuel use, etc.).
- 8. Quantification methods used for entering pre-calculated emissions in CRIS.** If the member has chosen to calculate any emissions off-line (rather than using the automated calculation procedures included in CRIS), verification bodies must confirm that the member's offline quantification methodologies are appropriate, valid, of a comparable accuracy as those defined in the GRP, and are transparently documented in the member's inventory.
- 9. Other Descriptive Organization Information.** This includes documentation on management systems, information systems, ownership, etc.

⁵ Applying offsets to a net inventory is optional for members.

OFFSETS

If a member has optionally applied offsets to their adjusted inventory summary (i.e., net inventory), the verification body must confirm that the offsets have been retired and meet TCR's accounting criteria, and that the member has disclosed the correct quantity of offsets. Verification bodies are not responsible for verifying the offsets; the offset verifier is responsible for verifying that the offsets are real, additional, permanent, and otherwise meet the criteria of the offset program.

PARENT COMPANIES AND SUBSIDIARIES

When providing verification services to a member that is a parent company of a subsidiary that is also reporting to TCR, the verification body must confirm the following conditions are met:

- » The parent company reports using the same consolidation methodology as the subsidiary
- » The emission totals of the subsidiary are included within the parent company's report
- » The subsidiary's emission totals by scope and GHG are identical in the subsidiary's report and the parent company's report

GOVERNMENT AGENCIES

When providing verification services to a member that is a governing agency of another member that is also reporting to TCR, the verification body must confirm the following conditions are met:

- » The governing agency reports using the same consolidation methodology as the governed agency
- » The emission totals of the governed agency are included within governing agency's report
- » The governed agency's emission totals by scope and GHG are identical in the governed agency's report and the governing agency's report

Optional Emissions Data Outside the Scope of Verification

In addition to the GHG sources included within a member's reporting boundary, members may optionally report a wide array of additional information, emissions data, and disclosures. In general, optional emissions data and disclosures are outside the normal verification scope. Optional emissions data is described in the Optional Data section of GRP Module E: Reporting an Inventory.

Examples of optional data include:

- » Unit-level emissions (e.g., for stationary combustion units)
- » Historical emissions
- » Non-Kyoto GHGs
- » Biogenic emissions other than those associated with the combustion of biomass
- » Optional Scope 2 disclosure (refer to the "Optional Data" section in GRP Module E - Reporting an Inventory for examples of optional disclosures)
- » Scope 3 emissions⁶
- » GHG reduction goals
- » Information on any GHG management or reduction programs or strategies

Verifying CRIS reports

While CRIS prepares multiple emissions reports for a single member for each reporting period, TCR requires verification bodies to verify only the emissions contained in a member's Detail CRIS reports, which include the "Detail: Control" report and "Detail: Equity Share and Control" report.⁷ These reports summarize a member's total organization-wide emissions, as well as all facility emissions, and include a list of emissions sources for each facility. All other CRIS reports

6 Scope 3 emissions are not included in TCR's determination of relevant emissions that comprise a "Complete" inventory and are therefore not included in the scope of verification in this protocol. Members wishing to optionally report and verify these emissions should consult the GHG Protocol Corporate Value Chain (Scope 3) Standard (www.ghgprotocol.org/corporate-value-chain-scope-3-standard). If the member and verification body agree to include Scope 3 emissions within the scope of verification, this must be clearly stated on the verification opinion, along with the level of assurance or agreed-upon-procedures.

7 The "Detail: Equity Share and Control" report only needs to be verified if the member reports according to the equity share consolidation methodology.

are generated based on the GHG data contained in these reports. Since CRIS will aggregate a member's data automatically to create other reports, TCR accepts these additional reports as correct if the underlying Detail reports are verifiable. Verification bodies must ensure that their findings and verification opinion are based on the current version of the member's CRIS report. Before preparing the verification opinion, check the date of the last status change in CRIS and re-run the report if needed. Verification bodies must ensure that their document management system is sufficient to identify the latest version of the report. CRIS has the option to generate separate reports for a member's North American, Non-North American, and Worldwide facilities. For the purposes of verification in this protocol, verifiers should assess materiality and conformance with reporting requirements against the worldwide report.

MATERIALITY

Verification bodies use the concept of materiality to determine if omitted or misstated GHG emissions information will lead to significant misrepresentation of a member's emissions. A material misstatement is the aggregate of errors, omissions, noncompliance with program requirements, and/or misrepresentations that could affect the decisions of intended users.

TCR sets the organizational-level materiality threshold at five percent (for both understatements and overstatements), which applies separately to a member's:

1. Direct (Scope 1, including any reported direct biogenic) CO₂e emissions
2. Location-based indirect⁸ (Scope 2, including any reported indirect biogenic) CO₂e emissions
3. Market-based indirect⁹ (Scope 2, including any reported indirect biogenic) CO₂e emissions

Thus, TCR requires verification bodies to assess the accuracy of a member's direct, location-based indirect, and market-based indirect emissions separately. A member's direct, location-based indirect, and market-based indirect emissions must each be deemed as accurate (within five percent) for a verification body to issue a positive verification opinion.

If a member reports emissions based on equity share, operational control, and/or financial control consolidation methodologies, the verification body is required to assess materiality separately for each consolidation methodology.

The materiality threshold is the same (five percent) for both limited and reasonable assurance engagements; in both cases, the verification body must obtain sufficient supporting evidence. If the verifier has doubts about the reliability of information to serve as evidence for material aspects of the assertion, the verifier may not issue a positive verification opinion unless these doubts are resolved through additional verification activities.

A verification body bases its verification opinion on the results of risk-based sampling. When assessing the materiality of errors, omissions, and misrepresentations, it is best practice to extrapolate findings identified from analysis of the representative sample to the whole set of data that the sample is intended to represent.

Material Misstatement: A discrepancy is considered to be material if the collective magnitude of compliance and calculation errors in a member's inventory alters a member's direct, location-based indirect, or market-based indirect emissions by plus or minus five percent at the organizational level. When evaluating a potential material misstatement, verifiers must consider the total variance after accounting for offsetting errors. For example, if an application of an incorrect CO₂ emission factor leads to a 7% overstatement of direct emissions, while a miscalculation leads to a

8 Throughout this protocol, "location-based indirect emissions" refer to anthropogenic and biogenic emissions associated with consumed energy (i.e., Scope 2).

9 Throughout this protocol, "market-based indirect emissions" refer to anthropogenic and biogenic emissions associated with consumed energy (i.e., Scope 2).

5% understatement, the total variance would be $(+7\%) + (-5\%) = 2\%$. Misstatements may only offset separately within direct or indirect emissions, never between combined direct and indirect emissions.

The total emissions from each of these broad categories (direct, location-based indirect and market-based indirect) may be orders of magnitude different, so the tolerance for error will also be significantly different in these cases. In some cases (e.g., power generators), the direct emissions may overwhelm the indirect emissions, and in other cases (e.g., transmission companies), the opposite will be true. Consequently, a small misstatement within, for example, a transmission company's direct emissions total, may be materially far more significant than a relatively large misstatement within a generator's direct emissions.

Verification bodies are required to assess materiality only at the organizational level. However, it is good practice to consider the risk of error at the facility and source/unit level.

Inherent Uncertainty

As illustrated in Figure 2, verification bodies are required to assess the positive and negative errors outside of an inherent uncertainty band surrounding the true value of a member's emissions. Due to the inherent uncertainty associated with metering equipment, emission factors, etc., members' emissions will more than likely deviate to some extent from their "true" emissions. TCR recognizes and accepts this inherent uncertainty surrounding reported emissions.

TCR defines inherent uncertainty as the uncertainty associated with:

1. The inexact nature of measuring and calculating GHG emissions (rounding errors, significant digits, default emission factors, etc.)
2. The inexact nature of the calculations associated with TCR's permitted use of simplified estimation methods (for up to ten percent of the sum of a member's scope 1, scope 2, direct biogenic emissions and combustion-based indirect biogenic emissions associated with consumed energy aggregated on a CO₂e basis.¹⁰)

If a verification body deems that a member's use of simplified estimation methods is correct and appropriate, these emissions should be considered part of the inherent uncertainty of a member's emissions report. Therefore, they should be excluded from the verification body's assessment of material misstatements. Refer to the box on [Verifying sources calculated with Simplified Estimation Methods](#) for detailed requirements.

Verification bodies must ensure that errors discovered do not cause a member's stated direct, location-based indirect, or market-based indirect emissions to vary by more than five percent above or below the band of (acceptable) inherent uncertainty surrounding a member's stated emissions in order to issue a positive verification opinion.

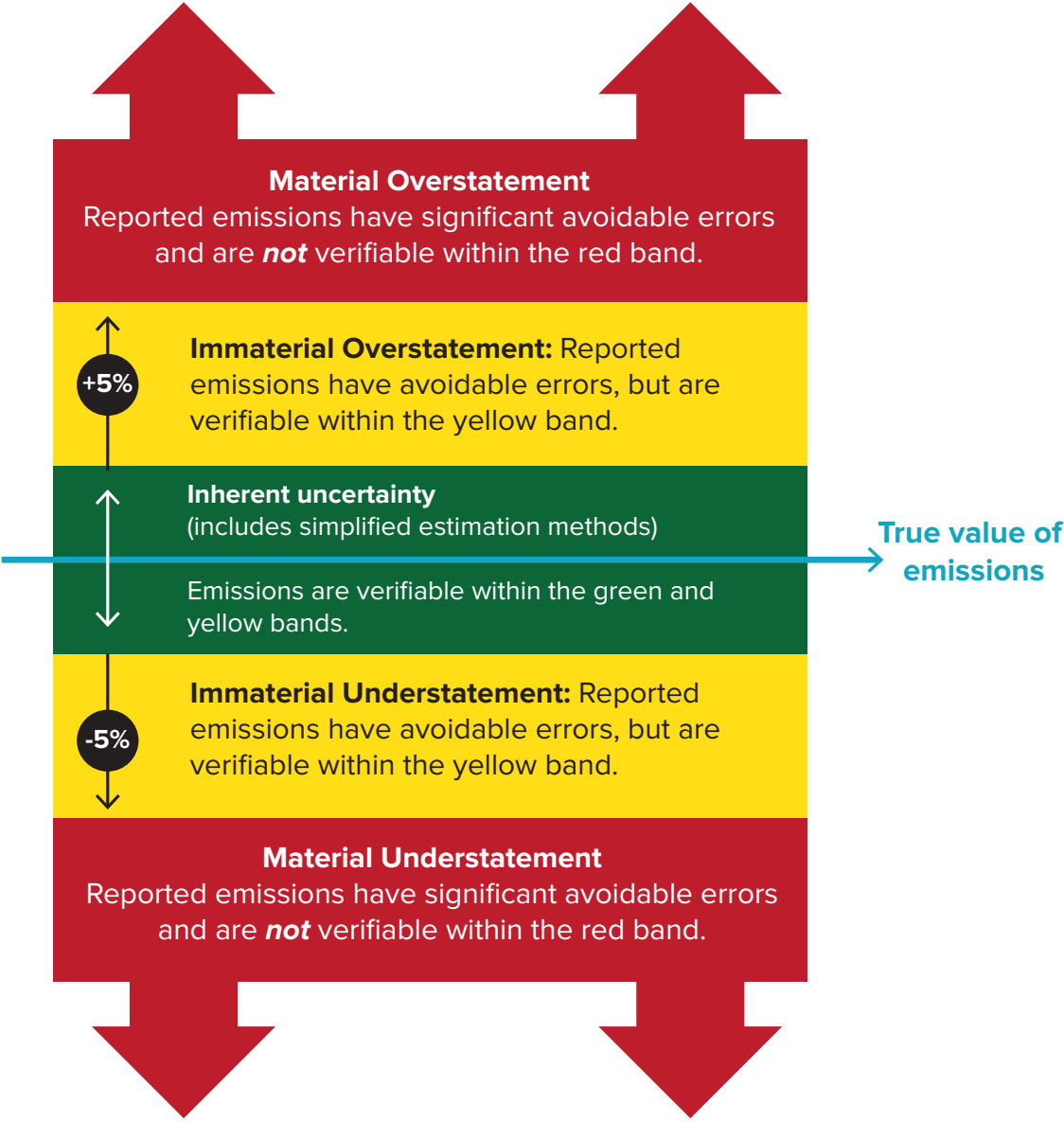
In determining whether a material misstatement has occurred, a verification body must compare the aggregate total of individual misstatements (separately for direct, location-based indirect, and market-based indirect emissions) against the five percent materiality threshold. Thus, the discovery of many small reporting errors, each of which might be immaterial when considered in isolation, may nonetheless lead to a material misstatement when aggregated to the organizational level.

Although the materiality threshold is applied at the organizational level, verification bodies must conduct a risk-based assessment of all of the facilities associated with an organization and sample an appropriate number of systems, sources, and calculation methodologies to look for errors or omissions within the GHG inventory.

¹⁰ The ten percent threshold must be calculated separately for the location-based and market-based emissions totals, so that exceeding ten percent using either method would exceed the threshold.

If the verification body discovers reporting errors, they must determine if these errors will result in a material misstatement when extrapolated throughout the member’s operations.

Figure 2: Material Misstatements, Uncertainty, and Offsetting Errors



For example, a verification body determines that errors and omissions in the selected sample result in a 10 percent understatement of direct emissions for the sample. Even though these specific errors and omissions constitute only a 2 percent understatement of organizational-level direct emissions, it is likely that there are similar errors in the portion of the inventory that was not sampled, and these errors could result in a material misstatement at the organizational level. The verification body must revisit the risk assessment to determine what additional verification activities are necessary to provide assurance.

In assessing whether misstatements are material, a verification body must determine whether the total reported emissions, separately for direct, location-based and market-based categories, are at least 95 percent accurate using the following equation:¹¹

Percent Accuracy	=	$\frac{100 - (\text{sum of errors, omissions, misreporting}) \times 100}{\text{total reported emissions}}$
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Verification bodies must quantitatively estimate the sum of errors, omissions and misreporting based on the results of tests performed on sampled data and recalculation of emissions estimates.

LIMITED LEVEL OF ASSURANCE

When conducting a verification to a limited level of assurance, the verification body must consider whether the information reviewed suggests that there could be a misstatement of five percent or more (i.e., it may not be possible to quantify the percent accuracy).

As long as a member correctly applied one of TCR’s approved quantification methodologies for an emissions source, the verification body should not associate any error or misreporting with the member’s estimate. For example, if a member decides to use an approved methodology that uses a default emission factor, then the verification body should not associate any error with the difference between that methodology and the quantity of emissions that would have resulted based on direct measurement.

Note: *The GVP sets verification guidelines for its voluntary reporting programs. State, provincial, regional, and federal mandatory GHG reporting programs may have different materiality thresholds. For verifications conducted in accordance with both TCR’s voluntary reporting programs and a regulator’s mandatory program, TCR requires application of a materiality threshold at least as stringent as the materiality threshold established by the GVP (five percent, applied separately to direct emissions, location-based and market-based indirect emissions).*

Quantitative and Qualitative Materiality

Materiality has qualitative and quantitative components.

Quantitative materiality refers to error in emissions totals in the GHG inventory. Examples include misstatements due to misapplication of calculations, incomplete reporting, or misclassified GHG emissions.

Qualitative materiality refers to intangible issues that significantly affect the GHG inventory, or errors, omissions or non-conformance with criteria that misrepresent the inventory and may affect the decisions of intended users.

Intangible issues that may be qualitatively material may include but are not limited to:

- » Control issues that erode the verification body’s confidence in the reported data
- » Poorly managed documented information
- » Irresolvable difficulty in locating requested information

¹¹ The sum of errors, omissions, and misreporting is to be extrapolated across the entire inventory based on results of sampling.

- » Noncompliance with regulations indirectly related to GHG emissions

Examples of qualitatively material non-compliance with criteria include but are not limited to:

- » Systematic omission of types of GHGs (e.g., omitting all hydrofluorocarbons (HFCs) from the inventory without excluding HFCs from the reporting boundary)
- » Systematic omission of GHG sources (e.g., omitting all emergency generators without excluding this source from the reporting boundary)
- » Mislabeling of emissions sources calculated using Simplified Estimation Methods
- » Omission of a facility (without excluding the facility from the reporting boundary)
- » Errors and omissions of non-emissions data described in the scope of the verification

VERIFYING SOURCES CALCULATED WITH SIMPLIFIED ESTIMATION METHODS

Verification bodies must undertake the following steps to verify the use of simplified methods:

1. Review members' documentation and explanations of how emissions were calculated to confirm that not more than ten percent of total emissions (CO₂e sum of Scope 1, Scope 2, combustion-based direct biogenic emissions and combustion-based indirect biogenic emissions associated with consumed energy) have been estimated using simplified methods not provided in the GRP.
2. Review any simplified estimation methods used to ensure that they are appropriate to the emissions source(s) to which they have been applied, and that the resulting emission estimates are reasonably accurate.

It is possible that the discovery of material misstatements not attributable to simplified estimation methods may nonetheless necessitate a revision to the emission sources estimated using such methods. In particular, if the correction of material misstatements in a member's GHG inventory results in a reduction in the member's total reported emissions, it may be necessary to re-estimate emissions using GRP prescribed methodologies for some sources that were originally estimated using simplified estimation methods. Such re-estimations will be necessary if the sum of emissions estimated using simplified methods exceeds ten percent of the revised total emissions.

If a verification body discovers a material misstatement(s) that necessitates a downward revision in a member's total emissions, the verification body must alert the member to the need to review and possibly revise the sources eligible to be estimated using simplified methods based on the corrected emissions total.

Once emissions estimated using simplified methods are approved by a verification body, they do not need to be re-calculated in future reporting years as long as the initial assumptions upon which the calculations are based remain constant and the ten percent threshold is not exceeded.

VERIFYING MINISCULE SOURCES

TCR maintains a list of miniscule sources that are eligible for exclusion on the miniscule sources form in CRIS. If a member chooses to exclude miniscule sources from their inventory, they must identify the sources on this form. Excluded sources are not included in the scope of the inventory and therefore not subject to verification. The verification body must confirm that the member has identified all excluded sources on the miniscule sources form for each reporting year verified. Additionally, the verification body must confirm that the member has excluded only sources that are eligible for exclusion in their industry sector.

Verification bodies are not required to confirm that sources listed on the miniscule sources form are insignificant to the member's inventory; however, if during the course of verification activities, the verifier becomes aware that a source identified on the miniscule sources form is, in fact, significant to the member's inventory, the verification body must notify TCR.

VERIFICATION CYCLE

Members may contract with the same verification body for up to six consecutive calendar years. After six years, a verification body must wait three years before re-engaging in verification services. For verifications conducted to a reasonable level of assurance, TCR allows for a three-year verification cycle as described in this section.¹²

If a member's management systems and/or emissions sources do not change significantly from year to year, then TCR allows verification bodies to use their professional judgment to determine the appropriate level of a verification assessment in order to issue a verification opinion with reasonable assurance of a member's stated emissions. At a minimum, each year verification bodies must conduct an organization-wide risk assessment and develop an evidence-gathering plan and verification plan to inform the verification of emission estimates against the verification criteria.

TCR allows verification bodies to streamline verification activities for members in the years following a successful comprehensive verification process in order to minimize verification costs without compromising the integrity and credibility of GHG inventory. TCR allows for a three-year verification cycle, which permits a streamlined verification process in the second and third years of the cycle, assuming a member does not experience any significant changes to their organizational structure or GHG emissions (see Figure 3 below).

In Year 1 of the three-year cycle, a verification body must comprehensively evaluate risk of material misstatement; assess a member's emissions report and its compliance with TCR's requirements; confirm its emissions sources and GHGs; review its management policies and systems; and sample data for calculation and reporting errors per the evidence-gathering plan and verification plan in order to gain a detailed understanding of the member's operations and resulting GHG emissions.

If a member's organizational structure and GHG emissions have not changed significantly, then a verification body may choose to streamline their verification activities, as long as the verification body can still provide reasonable assurance that the member has accurately reported its emissions within five percent. A verification body must use professional judgment to assess if a member's organizational structure or emissions have changed significantly after the first year of the verification cycle. TCR requires the verification body to review whether more comprehensive verification activities might be required for the following material changes:

- » A member's reporting boundary has changed significantly
- » A member's emissions change by more than five percent from the previous year's emissions
- » Changes to GHG data collection, management, and/or reporting systems and/or the key persons responsible
- » Misstatements identified through the course of verification activities
- » Other issues as deemed appropriate by the verification body

While some of the above changes might necessitate a full verification, other changes may still be addressed as part of a streamlined process, depending on the professional judgment of the verification body.

¹² This cycle does not apply to verifications conducted to a limited level of assurance. The verification body must use professional judgment, considering the results of their risk assessment, in determining the nature and extent of verification activities and whether or not one or more site visits are necessary to achieve a limited level of assurance.

Circumstances Requiring a Full Verification with Facility Visit(s)

A full verification, including one or more facility visits, is required if:

1. The member's overall Scope 1 emissions increase or decrease by more than 10 percent on a CO₂e basis as a result of:
 - Acquired or new facilities and/or operations
 - Changes in the nature of emissions sources, emissions control technology, and/or emissions monitoring equipment

Changes in the quantity of emissions generated as a result of the following are exempt from this analysis:

- Increased or decreased energy use due to increases or decreases of previously existing production operations
 - Divestiture of facilities
 - Cessation of operations
2. The member selects a new verification body, unless all of the following criteria are met:
 - No material misstatements were detected during the verification of the previous year's inventory
 - The new verification body has access to the verification report and detailed findings (e.g., risk assessment, evidence-gathering plan and verification plan, notes from site visits, and corrective action log) for the previous year's inventory verification as well as the last full verification
 - There have been no significant changes to the inventory or GHG management system
 - It has been less than three years since a full verification was performed

If all of the above conditions are satisfied, the new verification body may conduct a streamlined verification to a reasonable level of assurance. In this case, facility visits are not required unless the verification body's risk assessment identifies a need for facility visits.

When a member switches to a new verification body at the start of a new verification cycle, the new verification body must conduct a full verification with facility visits (in conformance with the [section on Planning Facility Visits](#) in the Verification Planning Module) to a reasonable level of assurance.

If a full verification is triggered, at least one facility visit must be conducted. The minimum number and selection of facilities to be visited must be based on the verification body's risk assessment and the methodologies provided in the section on Planning Facility Visits in the Verification Planning Module. For example, if during Year 1, the verification body identified that a minimum of five facility visits was required, and the following year, due to an increase in emissions from acquired facilities, application of the methodology indicates a minimum of seven facility visits, then the verification body must make up the difference in number of facility visits required and visit at least two ($7 - 5 = 2$) additional facilities in Year 2.

The specific activities that constitute streamlined verification will vary depending on the circumstances, but in all cases the verification body must perform the minimum set of activities that will allow it to conduct a risk-based assessment of materiality and to attain reasonable assurance in the findings presented in its verification opinion. The minimum required activities include the risk-based assessment, evidence-gathering and verification plan and the verification of emission estimates against the verification criteria.

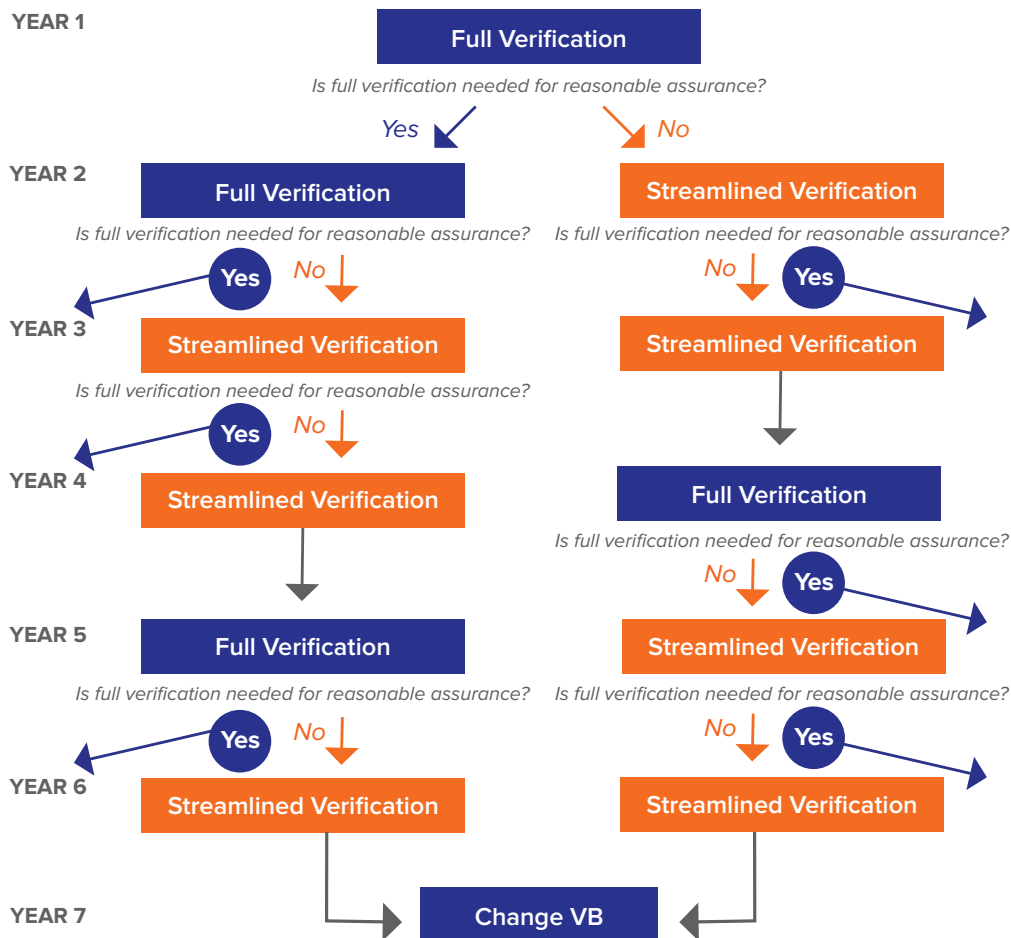
Beyond these required activities, the verification body should use its professional judgment to determine the set of verification activities that will be required to meet the reasonable assurance goal. Suppose, for example, that a member divested itself of a subsidiary, but all of the existing information systems and controls remain unchanged from the first year of the verification cycle. In this case, a full review of the information systems and controls may not be necessary.

Similarly, if a member opened a new facility but retained its existing GHG information system, the verification body may need to ensure that the new facility has been properly incorporated into the information system but may not need to conduct another detailed review of that information system.

In short, TCR does not prescribe the specific activities that should constitute a streamlined verification (beyond the activities noted above), but rather encourages verification bodies to use professional judgment in tailoring a verification process appropriate to the specific circumstances of each member. This latitude to tailor the verification process to the circumstances applies only to streamlined verifications, not to the full verification that the verification body must conduct at least once every three years.

Another full verification is required for Year 1 of the second three-year verification cycle. During this second full verification, a verification body may forego facility visits normally required in a full verification year, as long as the verification body does not have any concerns that warrant revisiting the facilities, and there have not been any significant changes to the operations, emission sources, GHG inventory management plan, or responsible personnel. This option does not apply if the [circumstances requiring a full verification with facility visits](#) have been triggered. Additionally, verifiers should consult the [circumstances which may indicate a need for a facility visit section](#) in order to determine whether one or more facility visits may be required to achieve the desired level of assurance. Based on risk assessment findings, it may be appropriate for verifiers to visit facilities not previously visited in the first cycle.

Figure 3: Three Year Verification Cycle



VERIFYING MULTIPLE YEARS OF DATA

If a member needs to correct a previously reported and verified inventory, a verification body may verify this information together with the member's inventory. This will count as one year in the three-year verification cycle.

If a member requests its verification body to verify multiple prior years of data along with its current emissions report, they may do so. There is no limit to the number of prior years of data that can be verified during the three-year verification cycle. In other words, prior years of data are not counted toward the three-year verification cycle. For example, if in 2024 a verification body verifies a member's current (2023) emissions report in addition to four consecutive years of prior data (2019 through 2022), the verification body will have completed only one year of the six-year relationship and will be eligible to serve as the member's verification body for another five years.

PREVIOUS VERIFICATION BODY-MEMBER RELATIONSHIPS

If a verification body has a pre-existing relationship with a member through a different registry or program (e.g., CDP, CARB, MassDEP, British Columbia) then the prior GHG verification work will count toward TCR's six-year limit on the verification body-member relationship.

The six-year limit begins at the time the verification body is retained by the member for verification services, whether for TCR or another program. The verification body-member relationship must not exceed verification of six calendar years. TCR does not limit the number of past years of data that a verification body can verify for a member during this six-year period. For example, if a verification body has provided verification services to a CDP reporter for two years and the reporter joins TCR, the maximum number of years the verification body will be able to continue to provide verification services to the member under TCR is four years. If a verification

body has provided six years of verification services to a CDP reporter and the reporter joins TCR, then the verification body must wait three years before providing verification services to the member for TCR.

TRANSFERS OF ACCREDITED VERIFICATION

In some cases, an incomplete or completed inventory verification may need to be transferred to a different verification body. Circumstances necessitating a transfer of verification include:

- » Incomplete verifications due to a verification body ceasing work within its accredited scope
- » Acquisitions or mergers where verification engagements are undertaken by a new legal entity and newly appointed verification team
- » Re-verification due to correction of material error or adjustment of a base year

The transfer of verification is defined as the continuation of the verification process for a member that did not complete the verification process, or a re-verification of a previously verified inventory that was completed with one accredited verification body (hereinafter referred to as the "issuing verification body"), by another accredited verification body (hereinafter referred to as the "accepting verification body") for the purpose of issuance of a verification opinion.

General Requirements

Transfers of verifications must adhere to the following general requirements:

- » Verifications of inventories which have received negative verification opinions shall not be accepted for transfer.
- » The accepting verification body must validate the transfer of verification by contacting the issuing verification body unless the issuing verification body has ceased operating. The accepting VB must maintain evidence of this communication (e.g., note to file on person with whom the accepting verification body communicated and date and outcome of communication or email response).
- » The accepting verification body must inform TCR and the accreditation body prior to any work being performed along with the planned time frame for conducting all verification work. The accepting verification body must obtain written approval from TCR and the accreditation body indicating that this approach is acceptable under the TCR's program requirements before proceeding.
- » The accepting verification body must hold accreditation for the activity and sectoral scope of verification.

Pre-Transfer Review Process

Responsibility for the Entire Verification

In a transfer of verification, the accepting verification body becomes responsible for the entire verification. Therefore, the accepting verification body must have a process for obtaining sufficient information in order to issue an opinion on the verification and inform the transferring organization of the process.

Competence Criteria for Verification Team

The accepting verification body shall determine the competence criteria for personnel involved

in the transfer of verification. The review may be conducted by one or more persons. The individual or group of individuals conducting the review must all have the same competence that is required for a verification team appropriate for the scope of verification being covered.

Evaluation of Conflict of Interest (COI)

The accepting verification body shall ensure that applicable processes for the evaluation of COI are followed and must submit a COI: A Assessment Form prior to performing any verification work.

Process for Pre-Transfer Review

The accepting verification body shall carry out a review of the verification. To do this, the accepting verification body shall:

- » Perform a risk assessment on the work that has been done so far
- » Develop an appropriate sampling methodology to establish confidence in the accuracy and adequacy of the work completed by the issuing verification body
- » Carry out the sampling and review of evidence to establish confidence in the previous work. This review shall be conducted by means of a documentation review, and where identified as needed by this review, (e.g., in the case of outstanding corrective action requests) shall include a site visit to confirm that verification has been completed in accordance with ISO 14065, ISO 14064-3, and TCR's program requirements
- » Complete any additional work that may be necessary to complete the verification in accordance with ISO 14064-3, ISO 14065, and TCR's program requirements.¹³ This includes performance of an independent review of all the work done on the project and not just the work conducted by the accepting verification body

The pre-transfer review must cover the following aspects at a minimum, and the review and its

¹³ VBs must submit a Notification of Planned Facility Visit Form to TCR at least 10 business days before the scheduled visits. VBs are not required to use Methods A through C from GVP Section on Planning Facility Visits to determine the number of required facility visits, but instead may rely on professional judgment to determine the number of facility visits deemed necessary.

findings must be documented:

- » Confirmation that the member's verification falls within the accredited scope of the issuing and accepting verification bodies
- » Confirmation that the accepting verification body has sufficient insurance to cover the activity
- » The reasons for seeking a transfer
- » All relevant documentation available from the verification. If such documentation is not available, then the organization shall be treated as a new client
- » Complaints received and action taken
- » Considerations relevant to establishing a verification plan. The plan established by the issuing verification body must be reviewed if available
- » Any current arrangement by the transferring member with regulatory bodies relevant to the scope of verification in respect of legal compliance
- » A review of TCR's applicable program specific policies that may necessitate a complete re-verification, including a site visit

Completing the Transfer of Verification

The accepting verification body must verify the implementation of corrective actions for all outstanding areas of non-conformance before issuing a verification opinion.

Issues Preventing Transfer of Verification

Where the pre-transfer review (document review and/or pre-transfer visit) identifies issues that prevent the completion of transfer, the accepting verification body must treat the transferring client as a new client. The justification for this action shall be explained to the transferring client and shall be documented by the accepting verification body and the records maintained.¹⁴

PROCEDURAL REQUIREMENTS FOR VERIFICATION ENGAGEMENTS

Several requirements are relevant for all verification engagements, including procedures for:

- » Communication with the member regarding mitigating discrepancies
- » Actions to take if there is insufficient evidence to support the GHG inventory
- » Actions to take if an intentional misstatement is discovered
- » Record keeping and retention

Communication and Mitigating Discrepancies

A verification body must communicate requests for clarification, non-material and material misstatements and nonconformities to the member, identifying any need for adjustment to the inventory to meet requirements or correct material errors. When informing members of discrepancies, verification bodies must provide a reasonable response period that will allow for ample time for members to correct discrepancies before completing the verification opinion.

There should be an open line of communication between a member and verification body for the duration of the verification. Prompt responses from both parties will enable the verification to run smoothly and according to schedule.

If a verification body finds that the member does not respond appropriately within a reasonable period, they may inform TCR, who can assist in contacting the member. If the member continues to fail to provide an appropriate response within a reasonable time period, the verification body must either (1) withdraw from the verification, or (2) issue a negative verification opinion.

Note: *TCR strictly prohibits verification bodies from providing any consulting services to the member to help them correct the discovered error*

¹⁴ The normal certification decision-making process in accordance with clause 9.7 of ISO 14065 must be followed.

or discrepancy. Verification bodies must clearly explain the error to the member, but cannot help the member correct the error.

Sufficiency of Evidence

If a verification body determines that there is insufficient information to support the GHG inventory and their formation of a conclusion about the inventory, they must request additional information from the member. If sufficient information is not obtained, the verification body must not proceed with the verification/validation and refrain from issuing an opinion.

Intentional Misstatement

If a verification body has reason to believe there has been an intentional misstatement or noncompliance with laws and regulations, the verification body must communicate the matter to the appropriate parties.

Record Keeping and Retention

Verification bodies must keep detailed records related to every verification process. TCR requires that the following records be retained for a minimum of five years as specified by contract with the member.

- » Contract with the member
- » The member's GHG inventory
- » Verification plan
- » Evidence-gathering plan, including copies of original activity data records and other data necessary to perform an ex-post assessment of the verification activities
- » Verification report
- » Who performed the evidence-gathering activities and when they were performed
- » Collected evidence
- » Requests for clarification, material misstatements and nonconformities arising from the verification and the conclusions reached
- » Backup documentation, verification notes, etc.

- » Communication with the member on material misstatements
- » The conclusions reached by the verification body, including the verification opinion
- » The name of the independent reviewer, the date of review and comments of the reviewer

ASSESSING CONFLICT OF INTEREST

To protect the credibility and rigor of TCR's verification process, the relationship between verification bodies and members must not create or appear to create a high potential for conflict of interest (COI). In some instances, where potential or real conflicts do exist, verification bodies must take steps to mitigate COIs before verification activities are allowed to proceed. While conducting verification activities for members, verification bodies must work in a credible, independent, nondiscriminatory and transparent manner, as outlined in ISO 14065. In addition to the guidance in ISO 14065, verification bodies must adhere to additional rules to protect against unacceptable potential for COI between parties. TCR developed these rules to minimize the risk of potential and real COIs between verification bodies and members.

Throughout the verification process, verification bodies must assess two types of COI with Members:

1. **Case-specific COI.** A direct conflict between a member (including its parent company and all related organizations) and the verification body (including its parent company and all related organizations). Every year a member requests a verification body to conduct verification services, the verification body must evaluate and document all pre-existing relationships and conflicts between it and the member before a contract for services is negotiated and signed. TCR will screen each COI Assessment Form and respond with a determination letter. Additionally, the accreditation body will reevaluate and confirm the COI evaluation

during their surveillance audits. This process will ensure that a verification body can render an impartial opinion of a member's GHG emissions report. Additional details about this process are explained below in the section on Case-specific COI.

- 2. Emerging COI.** A direct conflict between a Member and their chosen verification body in the 12 months that follow the completion of verification activities. For a period beginning with the signing of the contract, and continuing until one year following the close of the contract, verification bodies must monitor their relationship (and the relationship of individual team members) with the Member to ensure impartiality has been protected in the verification process.

Case-specific COI

For TCR's Carbon Footprint Registry, a case-specific COI is defined as a situation in which a verification body has competing professional and/or personal interests that could impede its ability to objectively review and evaluate a member's conformance with TCR's reporting requirements. Even without explicit indication of a compromised relationship between a member and a verification body, a COI could also involve a situation in which the appearance of impropriety could undermine confidence in the verification body's ability to assess the reported emissions.

In evaluating their case-specific COIs, verification bodies must thoroughly assess any prior or existing relationships with the member, and the member's GHG inventory technical assistance provider (if relevant), as well as relationships between subcontractors and all individual members of the proposed verification team and the member. The COI assessment findings must be reported to TCR using the COI Assessment Form provided at www.theclimateregistry.org. In general, TCR will deem a verification body to have a high potential for COI with a member if: 1) the verification body has a conflict with a member, and/or 2) any member of the proposed verification team has a conflict with the member.

Any verification body that determines that its risk for COI is anything other than low may not provide verification services to that member.

To assess the impartiality of a verification body and its staff, a verification body must confirm that the following conflicts do not exist:

1. A verification body will have a high potential for COI if:
 - It and a member share any management
 - It has provided any GHG consultancy services to the member (as described in the box below)
 - It has provided non-GHG consultancy services that may influence the verification body's impartiality (as described in the box below)
2. Additionally, a verification body must assess personal COI as a part of its case-specific COI assessment. A member of the verification team will have a high potential for personal COI with a member if they:
 - Have a direct conflict with the member
 - Have been an employee of the member within the last three years
 - Have provided any of the prohibited services (as described in the box below) to the member
 - Currently have a direct financial interest (mutual funds and exchange-traded funds excluded) in the member's organization in excess of \$5,000

GHG CONSULTANCY SERVICES (HIGH POTENTIAL FOR COI)

GHG consultancy services with high potential for COI include:

- » Designing, developing, implementing, or maintaining a GHG inventory
- » Designing or developing GHG information systems
- » Developing GHG emissions factors or other GHG-related engineering analysis
- » Designing energy efficiency, renewable power, or other projects which explicitly identify GHG reductions as a benefit
- » Preparing or producing GHG-related manuals, handbooks, or procedures specifically for the member
- » Appraisal services of carbon or GHG liabilities or assets
- » Brokering in, advising on, or assisting in any way in carbon or GHG-related markets
- » Legal and expert services related to GHG emissions and/or TCR verification

NON-GHG CONSULTANCY SERVICES (HIGH POTENTIAL FOR COI)

Non-GHG consultancy services with high potential for COI include:

- » Any service related to information systems, unless those systems will not be part of the verification process and excluding third-party auditor or registration services
- » Managing any health, environment or safety functions which explicitly identify greenhouse gas reductions as a benefit
- » Bookkeeping or other services related to the accounting records or financial statements, unless those services are limited to financial auditing
- » Appraisal and valuation services, both tangible and intangible related to GHG emissions or reductions inventories
- » Fairness opinions and contribution-in-kind reports in which the verification body has provided its opinion on the adequacy of consideration in a transaction, unless the resulting services shall not be part of the verification process
- » Any actuarially oriented advisory service involving the determination of amounts recorded in financial statements and related accounts
- » Any internal audit service that has been outsourced by the member that relates to the member's GHG inventory, internal accounting controls, financial systems or financial statements, unless no consulting or advice was provided as part of the audit
- » Acting as a broker-dealer (registered or unregistered), promoter or underwriter on behalf of the owner or operator
- » Expert services to the member or their legal representative for the purpose of advocating their interests in litigation, or in a regulatory or administrative proceeding or investigation involving GHG emissions, unless providing factual testimony

A verification body must determine whether any of the above conditions apply to the verification body or any of the staff it has proposed to conduct the verification activities.

Note: While verification bodies must NOT conduct both GHG consultancy services and verification services for the same member, verification bodies may offer both types of services to members.

Verification bodies must choose which of the two services they want to offer to each member as they are prohibited from providing both to the same member.

If unique circumstances exist that are not covered by the provisions above and might otherwise lead to a COI or the perception of a COI, a verification body must err on the side of caution

and determine the risk of COI to be medium or high. If a verification body determines that it has a medium or high potential for COI with a member, it must mitigate the COI to a lower and acceptable level following the guidance below, or it must not proceed with the verification activities.

Verification bodies must submit a COI Assessment Form to TCR prior to conducting any verification activities. TCR will review each form to ensure that any verification bodies with a medium or high potential for COI are prohibited from conducting verification activities for the member to which the conflict applies. The purpose of TCR's screening is to protect the integrity of the verification process and the quality of the member's GHG inventory by identifying and avoiding situations in which a verification body may be viewed as having an impaired ability to objectively review a member's GHG inventory, usually from a preexisting business or personal relationship.

TCR understands that complex relationships might exist between a verification body and a member, and therefore, it may be difficult to make an obvious judgment regarding the potential for COI. TCR will conduct its evaluation process and review each relationship conservatively with the aim to not only ensure the integrity of the emissions reports submitted to TCR, but also to avoid the perception of a conflict.¹⁵

TCR will use objective criteria and professional judgment to review COI assessment forms and work with all interested parties to resolve risks that can be mitigated. If TCR determines that a medium or high potential for COI might exist, it will request that the verification body demonstrate how it can avoid, eliminate, or otherwise mitigate the COI. As necessary, TCR may request that the verification body provide additional information to assist in evaluating its COI assessment.

Verification bodies must maintain all COI assessment documentation with their verification paperwork. The accreditation body will assess the appropriateness of a verification body's COI determination during its regular surveillance audits to enforce the COI policies. If the accreditation body finds a verification body's COI assessment to be invalid, or otherwise out of conformance with TCR's policies, the accreditation body may sanction the verification body, which could include rescinding its accreditation status.

Verification bodies should refer to ISO 14065:2020¹⁶ for additional guidance evaluating impartiality.

Case-Specific COI Assessment Form

To assist verification bodies in identifying and describing the nature and extent of their relationship with a member, verification bodies are required to complete a COI Assessment Form, which prompts verification bodies to describe the following information:

- » Nature of its relationship with a member and the member's GHG inventory technical assistance provider, if relevant
- » Prior and existing service agreements with a member¹⁷
- » Financial magnitude of service agreements with a member

If a verification body plans to utilize any subcontractors to complete the verification activities, the verification body must assess the potential for personal COI for all subcontractors.

Cause for Automatic COI Rejection

Due to the inherent conflicts between a verification body and a member, the following two situations may not be mitigated:

¹⁵ Identifying situations that could lead to the perception of a conflict of interest is particularly difficult. Generally, the guiding principle is called "The Press Test"; it asks, "would the verification body or the member be uncomfortable if the nature of their relationship were reported in the press, or received public attention?"

¹⁶ ISO 14065: 2020

¹⁷ When providing disclosure about any work previously performed for the member, descriptions of consulting services should include clear details on the nature and type of services, sufficient to easily understand whether the work included any form of GHG consulting services.

- » **Preparation of a member's GHG inventory.** TCR prohibits verification bodies from verifying GHG inventories for members for which they have consulted on or prepared any part of the GHG inventory, regardless of the point in time that service may have occurred. A verification body must declare all of its previous, existing, and planned involvement with the member's GHG monitoring, accounting, reporting, and reduction activities. This includes identifying the group(s)/department(s) of the respective organizations involved, and a description of the specific activities. For each activity identified, the verification body must clearly define the links with other parts of its organization, in particular the unit(s) that performs verification services.
- » **Off-cycle applicants.** Verification bodies may provide verification services to a given member for a maximum of six consecutive years. Upon reaching six years from the time the member retained the verification body for verification services, the member must contract with a different verification body. The original verification body may not provide verification services to that member for the next three years.

Mitigating COI

If a verification body determines the potential for COI to be medium or high it may develop a mitigation plan to lower the risk of COI to an acceptable level in order to conduct verification activities. Verification bodies must complete the COI Mitigation Form found in the Verification Resources section of the Member Portal and submit it to TCR to explain where it has identified the potential for COI and how it will mitigate it to an acceptable level.

At a minimum, a mitigation plan must include:

1. Demonstration that any conflicted individuals (verification body or subcontractor staff) have been removed and insulated from the project, if applicable.
2. Explanation of any changes to organizational structure or verification team, if applicable. For example, demonstration that any conflicted unit has been divested or moved into an independent entity or any conflicted subcontractor has been removed.
3. Other circumstances that specifically address other sources for potential COI.

Potential Mitigating Factors

The following are examples of factors that mitigate potentially conflicting relationships between a verification body and a member. TCR will consider these factors when evaluating COI assessments.

- » **Time of Service.** TCR will view most services delivered by the verification body to the member that occurred more than three years before as a lower risk than those that occurred within the last three years. However, services rendered related to the design, development, implementation or maintenance of a GHG emissions inventory must be fully disclosed, regardless of the time of delivery, and will always constitute a high potential for COI.
- » **Location.** TCR may consider verification services provided by a verification body to a member's business unit, facility or office located outside the boundary of the emissions report a lower risk than those conducted within the boundary.
- » **Type of Services.** TCR will consider services that do not appear in the text box outlining GHG consultancy and other high potential for COI services to be a lower risk than those that do.
- » **Financial Value of Services.** TCR will view the provision of other services by the verification body wherein the monetary value is small relative to the value of verification services as a low risk for COI. Instances where the total value of services provided to the member is very small as a percentage of the verification body's revenue over the same period may also be less cause of concern.

Response to COI Assessments

TCR will screen all COI assessment forms and provide its response and evaluation within 15 business days. As a part of this screening process, TCR may also select COI assessments to undergo a more thorough review. TCR will inform a verification body within 15 business days if TCR has selected their COI assessment for further review. This review may take an additional 15 business days. If selected for further COI assessment review, the verification body must not proceed with verification activities until TCR completes its review and provides them with instruction to do so.

TCR's response will be an e-mail to the verification body documenting TCR's determination of the case-specific potential for COI. If TCR has not initially responded to the verification body within 15 business days, the verification body may begin to conduct verification activities. The verification body and member may begin verification activities prior to receiving a COI determination letter; however, if TCR finds that the potential for COI is not low, then the verification will not be able to proceed.

If TCR disagrees with a COI assessment, or finds fault with a verification body's mitigation plan, it will either reject the verification body's COI assessment or request an amendment to it (addition of a mitigation plan or modifications to an existing one). If after completing its COI assessment review, TCR determines that the risk of potential for COI between a member and a verification body is low and no mitigating measures are necessary, the verification body may initiate verification activities.

If TCR rejects a verification body's COI assessment, a verification body can: 1) abandon the proposed contract; 2) work with the member and TCR to identify measures to alleviate the COI risk; or 3) appeal the decision to TCR.

COI Appeal Process

Verification bodies and/or members may dispute and appeal TCR's COI review by emailing the Verification Program at COI@theclimateregistry.org.

TCR's verification program staff and the Audit & Verification Oversight Committee may consult with the Verification Advisory Committee and/or experts to assess the dispute, but such experts will not have a vote in the final decision. All information will be kept confidential. The Audit & Verification Oversight Committee will provide a final answer based on a majority vote.

Their decision will be binding.

Corrective Action

The accreditation body will review a verification body's COI assessment documentation during their surveillance audits. If the accreditation body or TCR finds that a verification body has intentionally violated its COI policies, TCR and the accreditation body reserve the right to rescind a verification body's accreditation status or annul the verification opinion. If a verification opinion is annulled or if accreditation is rescinded, the verification body will be responsible for reimbursing the member for the cost of the verification services. Please refer to the Guidance on Accreditation for more information relating to sanctioning activities.

Updates to COI

If there are any changes to the information provided on the COI Assessment Form, including updates to the verification team (e.g., team members added or lead verifier or independent reviewer roles change) the verification body must notify TCR in writing within seven business days of the change and resubmit the applicable form if requested. If a verification team member is reassigned from serving as a verifier to serving as an independent reviewer, the verification body must demonstrate that the independent reviewer has remained independent for the verification and attest that they have not been involved in any of the verification's activities to date.

Emerging COI

To help avoid a quid pro quo, verification bodies must monitor their activities (as well as the activities of any related companies) beginning with the signing of the contract, and continuing until one year after the close of the contract. During this period, the verification body must avoid entering into arrangements or relationships that may present a COI.

A verification body must immediately disclose any potentially emerging COI to TCR. If, for any reason, TCR determines that a new relationship constitutes a COI that cannot be mitigated, TCR will require the member to contract with a new verification body going forward. TCR or the accreditation body may also invalidate any verification results from the time at which such a conflict of interest arose and could not be mitigated.

Evaluating COI in Subsequent Years

TCR permits verification bodies to contract with members for a maximum of six consecutive years. A verification body must complete a COI Assessment Form each year prior to commencing its verification activities. Following TCR's review and acceptance of the COI Assessment Form in the first year of the member-verification body relationship, a verification body's subsequent COI Assessment Forms should focus on any changes

in the relationship between a verification body and a member, or between the verification team staff and the member. If a verification body and member have had a relationship for six years, TCR prohibits the verification body from contracting with the member for the next three calendar years. After no relationship has existed for three years, the verification body may again contract with the member for up to six years.

This cycling of verification bodies helps to avoid potential COIs due to lengthy and ongoing relationships. Also, this cycling ensures that another verification body will review material previously reviewed by the initial verification body, thus providing another check on the consistency and appropriateness of professional judgments made.

ASSEMBLING THE VERIFICATION TEAM

During the accreditation process, verification bodies must identify all staff members who will participate in their verification team. A verification team consists of four roles:

- » **Lead verifier (Required):** Responsible for leading the verification engagement, including the assignment of individual verification team members to specific tasks and quality assurance of each team member's work. The lead verifier must indicate their approval of the verification team's effort by signing the verification report and the verification opinion. The lead verifier and the independent reviewer cannot be the same person.
- » **Independent Reviewer (Required):** Another individual qualified as a lead verifier with no involvement in the specific verification engagement. The independent reviewer is assigned to conduct an independent quality assurance review of the work of the verification team. The independent reviewer must indicate his or her approval of the verification team's efforts by signing the verification report and the verification opinion. The lead verifier and the independent reviewer cannot be the same person.
- » **Verifier (Optional):** An individual member of the verification team responsible for performing specific verification tasks within their area(s) of expertise, as directed by the lead verifier. The number of verifiers needed on a verification team will vary based on the scope and complexity of a member's emissions.

- » **Technical Expert (Optional, based on the technical needs of the verification activities):** An individual who provides specific industry knowledge to the verification team, as directed by the lead verifier. Technical experts may not be needed if either the lead verifier or one or more of the verifiers possesses the requisite industry knowledge. Technical experts can have expertise in GHG quantification within a sector, specific emitting technologies, or both. Technical experts will likely be subcontractors brought in to supplement the verification body's staff competencies to complete the needed verification activities.

Note: *Verification bodies may hire subcontractors to perform any or all of the above roles within their verification teams. All subcontractors must be identified and disclosed on the verification body's Case Specific Conflict of Interest Assessment Form. All subcontractors must meet the Personal Conflict of Interest requirements as stipulated in the Conflict of Interest section.*

The verification team must have the necessary skills and competencies to undertake the verification. Verification bodies must also identify proposed lead verifiers. Upon becoming an accredited verification body, a firm may add or delete verification staff to its roster, but must maintain TCR's minimum staffing requirements. Additionally, new verification staff must demonstrate all necessary competencies.

Verification bodies must meet the requirements regarding verification team competencies set forth in ISO 14064-3:2019; ISO 14065:2020, the IAF Mandatory Document for the Application of ISO 14065 (IAF MD 6:2014), and ISO 14066.¹⁸

¹⁸ ISO 14066:2011 (E) Greenhouse gases—Competence requirements for greenhouse gas validation teams and verification teams.

In addition to the ISO requirements, TCR requires verification bodies to meet the following requirements when assembling their verification team:

1. A verification team must be assembled prior to the commencement of a verification engagement. The verification body must notify TCR of the verification team prior to initiating verification activities by submitting the COI Assessment Form to COI@theclimateregistry.org.
2. A verification body must assign a lead verifier to the verification team.
3. All verification team members must be clearly identified in the verification body's documentation of the engagement, including the verification report.
4. At least one verification team member must have competencies in evaluating GHG inventories. In addition, an appropriate number of team members must also possess relevant industry experience, if needed.
5. The work of the verification team must be reviewed by an independent reviewer who has not participated in the verification activities. The independent reviewer must be qualified as a lead verifier.
6. All verifiers are required to view TCR's General Verification Training webinar, which outlines the verification activities and requirements prescribed by the GVP. Please e-mail verification@theclimateregistry.org for the most recent version of the training.

Using Experts or Subcontractors

In some cases, verification bodies may not have the in-house expertise needed to verify emissions from some of the types of sources owned or controlled by a particular member. In these cases, verification bodies may add expert subcontractors to the verification team.

Verification bodies must ensure that any use of subcontractors meets the following requirements:

- » Subcontractor(s) must work under the supervision of the verification body's lead verifier for the verification effort; in the case where a subcontractor is the lead verifier or the independent reviewer, the verification body's contract with the subcontractor must acknowledge the verification body's liability for the lead verifier's and/or independent reviewer's findings.
- » Only one level of subcontracting is allowed.
- » Experts and subcontractors hired for specific verification efforts must possess the competence and expertise needed to perform their specific assignments.
- » Experts and subcontractors must be characterized by integrity, objectivity, and freedom from any COI with the member. These verification team members are subject to the same COI provisions as the verification team members that are employees of a verification body.
- » Verification bodies must clearly identify any subcontractors that are part of the verification team in all documentation related to the engagement, including the verification report.



D. VERIFICATION PLANNING

In the verification planning phase, verification bodies will host a kick-off meeting with the member, undertake a strategic analysis to understand the complexity of a member's organization, complete a risk assessment, and design evidence-gathering activities to collect sufficient evidence to form a conclusion about the member's GHG inventory. These efforts will result in a verification plan outlining the specific verification activities to be conducted to conclude whether a member's stated GHG inventory meets the criteria of the GRP and the risk of material misstatement is acceptably low.

KICK-OFF MEETING

After the contract between a verification body and member has been finalized, the verification body must conduct a kick-off meeting with the member either in person or via phone. At a minimum, the agenda for that meeting should include:

1. Introduction of the verification team
2. Review of verification activities and scope
3. Transfer of background information (See Table 1)
4. Review and confirmation of the verification process schedule

Table 1 provides a list of documents that verifiers may review during the various stages of the verification planning process and while performing verification activities.

Table 1: Documents That May Be Reviewed During Verification Activities

ACTIVITY OR EMISSIONS SOURCE	DOCUMENTS
Assessing Conformance with TCR's Requirements	
General Conformance Assessment	Emissions Report, TCR's GRP, including approved Member-Developed Methodologies and General Reporting Protocol Updates and Clarifications published by TCR on its website
Mergers, Acquisitions, Divestitures	Annual Report to Shareholders, SEC Filings
Assessing Completeness of Emissions Report	
Comprehensive Coverage of Facilities	Facility inventory, cross-checked against other sources (e.g., accounting records, SEC Form 10-K; permit records, locations on company website)
Comprehensive Coverage of Emission Sources	<ul style="list-style-type: none"> Emission source inventory <ul style="list-style-type: none"> » Stationary source inventory » Mobile source inventory » Fuel inventory » Air emissions permits
Performing Risk Assessment Based on Review of Information Systems and Controls	
Responsibilities for Implementing GHG Management Plan	Organization chart, GHG inventory management plan, GHG management documentation and retention plan
Training	Training manual, procedures manual, consultant qualifications statement
Methodologies	Control systems documentation, software/program documentation and users' guides, any other protocols used (in addition to TCR's GRP)
Selecting Information for Testing (e.g., analytical testing, control testing, estimate testing and sampling)	
Data Selection and Sample Size	Facility inventory, emission source inventory, description of operations
Verifying Emission Estimates Against Verification Criteria	
Indirect Emissions from Electricity Use	Monthly electric utility bills, emission factors (if not default), energy attribute certificates such as RECs, contracts such as power purchase agreements, utility/supplier-specific emission factor certifications
Direct Emissions from Mobile Combustion	Fuel purchase records, fuel in stock, vehicle miles traveled, inventory of vehicles, emission factors (if not default), combustion efficiency, oxidation factors, GWPs, meter calibration information
Direct Emissions from Stationary Combustion	Monthly utility bills, fuel purchase records, CEMS data, inventory of stationary combustion facilities, emission factors (if not default), combustion efficiency, oxidation factors, meter calibration information

ACTIVITY OR EMISSIONS SOURCE	DOCUMENTS
Indirect Emissions from Cogeneration	Monthly utility bills, fuel and efficiency data from supplier, emission factors (if not default), utility/supplier-specific emission factors, energy attribute certificates, contracts
Indirect Emissions from Imported Steam	Monthly utility bills, fuel and efficiency data from supplier, emission factors (if not default), utility/supplier-specific emission factors, energy attribute certificates, contracts
Indirect Emissions from District Heating	Monthly utility bills, fuel and efficiency data from supplier, emission factors (if not default), utility/supplier-specific emission factors, energy attribute certificates, contracts
Indirect Emissions from District Cooling	Monthly utility bills, fuel and efficiency data from supplier, emission factors (if not default), utility/supplier-specific emission factors, energy attribute certificates, contracts
Direct Emissions from Process Activities	
Activities	Raw material inputs, production output or hours of operation, calculation methodology, emission factors, control equipment efficiency and reliability, uncontrolled GHG emissions measurements, chemical analyses and methods, CEMS data
Biogenic CO₂ Emissions from Mobile Combustion	Fuel purchase records, fuel in stock, vehicle miles traveled, inventory of vehicles, emission factors (if not default), combustion efficiency, oxidation factors, meter calibration information
Biogenic CO₂ Emissions from Stationary Combustion	Monthly utility bills, fuel purchase records, CEMS data, inventory of stationary combustion facilities, emission factors (if not default), combustion efficiency, oxidation factors, meter calibration information
Direct Fugitive Emissions	
Refrigeration Systems	Refrigerant purchase records, refrigerant sales records, leak test results or maintenance practices, numbers and types of equipment, emissions history, calculation methodology, emission factors
Landfills	Waste-in-place data, waste landfilled, calculation methodology, emission factors, emissions history
Coal Mines	Coal production data submitted to EIA, quarterly MSHA Reports, calculation methodology, emission factors
Natural Gas Pipelines	Gas throughput data, leak test results or maintenance practices, numbers and types of equipment, emissions history, calculation methodology, emission factors
Electric Transmission and Distribution	Sulfur hexafluoride purchase records, leak test results or maintenances practices, numbers and types of equipment, emissions history, calculation methodology, emission factors

STRATEGIC ANALYSIS

A verification body must perform a high-level strategic analysis to understand the activities and complexity of a member organization. This information will be considered in the risk assessment and inform the breadth and type of verification activities. The strategic analysis must consider:

- » The level of assurance, objective, criteria, scope and materiality identified during pre-engagement activities
- » Requirements of the criteria (i.e., TCR's GRP and other criteria included in the scope of verification)
- » Relevant sector information
- » The nature of the member's operations
- » The likely accuracy and completeness of the GHG inventory
- » GHG emissions sources and their contribution to the GHG inventory
- » Changes in GHG emissions from the prior reporting period
- » Appropriateness of quantification and reporting methods, and any changes
- » Sources of GHG information
- » Data management information system and controls
- » Management oversight of the reporting data and supporting processes
- » Availability of evidence for the GHG information and statement
- » Results of previous verifications
- » The applied monitoring methodology (i.e., direct measurement of GHGs or calculation of GHGs with indirect measurement of activity and calculation data)
- » Other relevant information

LIMITED LEVEL OF ASSURANCE

Limited level of assurance verifications do not require a detailed assessment of the design, existence and effectiveness of controls during the strategic analysis phase because of the underlying assumption that the controls are reliable.

RISK ASSESSMENT

The next step of the verification planning process is a risk assessment, in which a verification body identifies risks of material misstatement in the inventory and nonconformity with the criteria. Inherent, control and detection risks must be identified. Verification bodies must consider risk for both qualitative and quantitative material misstatements, and the risk of multiple smaller misstatements to exceed the materiality threshold once aggregated.

To inform the risk assessment, a verification body may refer to background data provided by the client and data obtained in a facility visit. A verification body may also perform high-level (inventory-wide) analytical procedures comparing emissions to industry benchmarks to determine areas of risk.¹

Verification bodies must document their risk assessment activities and will use results of the risk assessment to develop the evidence-gathering plan and the verification plan.

The risk assessment must consider the following:

- » The likelihood of intentional misstatement in the GHG inventory
- » The relative effect of emission sources on the overall GHG inventory and materiality
- » The likelihood of omission of a potentially significant emission source

¹ These high-level analytical procedures may include evaluation of changes in GHG emission intensity, evaluation of changes in GHG emissions over time, and evaluation of expected GHG emissions against reported emissions.

- » Whether there are any significant emissions that are outside the normal course of business for the member or that otherwise appear to be unusual
- » The nature of operations specific to an organization or facility
- » The degree of complexity in determining the organizational boundary and whether related parties are involved
- » Any changes from prior periods²
- » The likelihood of non-compliance with applicable laws and regulations that can have a direct effect on the content of the GHG inventory
- » Any significant economic or regulatory changes that might impact emissions and emissions reporting
- » Selection, quality and sources of GHG data
- » The level of detail of the available documentation
- » The nature and complexity of quantification methods
- » The degree of subjectivity in the quantification of emissions
- » Any significant estimates and the data on which they are based
- » Any controls used to monitor and report GHG data
- » The characteristics of the data management information system and controls, and the apparent effectiveness of the control system in identifying and preventing errors or omissions (refer to GHG Information Systems and Controls in the Evidence-Gathering Activities section below)
- » The experience, skills and training of personnel

The verification body must assess (1) risks of material misstatement in the GHG inventory as a whole, and (2) occurrence, completeness, accuracy, cut-off and classification risks for

material types of emissions. Each of these types of risk assessments are described in the sections below.

Assessing Risks for the GHG Inventory as a Whole

A verification body must evaluate risk of material misstatement through an assessment of a member's data management system and the GHG inventory as a whole. The risks of a material misstatement in the GHG inventory as a whole are risks that are not identifiable with a specific emission source, but result from circumstances that increase the risk more generally, such as:

- » Inadequate or poorly documented procedures or adherence to procedures for collecting data, quantifying emissions and preparing the GHG inventory (e.g., incorrect emission factors, data transfer errors)
- » Lack of staff competence in procedures for collecting data, quantifying emissions and preparing the GHG inventory
- » Lack of management involvement in preparing the GHG inventory (e.g., no internal audit or review process)
- » Failure to identify all material emissions
- » Inconsistent preparation of information from prior periods without disclosure (e.g., failure to document changes in emission calculation methodologies from one year to the next)
- » Misleading presentation of material, such as highlighting favorable data or trends
- » Inconsistent quantification methods or reporting between sites, division or other segments of the GHG inventory
- » Errors in unit conversions
- » Inadequate disclosures of uncertainties and assumptions
- » Inappropriate or out-of-date global warming potentials

² Verification bodies should identify material changes from the previous reporting period (e.g., significant new or deleted facilities/sources, significant increases/decreases in emissions for an existing facility/sources/GHG, changes to categorization of emissions or emission factors) and plan verification activities to reach a conclusion that there is low risk of these changes being indicative of material errors.

- » Management override of internal controls

A verification body must review the methodologies and control systems that a member uses to quantify their emissions and report their inventory. This is principally a risk assessment exercise in which the verification body must weigh the following factors:

- » The relative complexity of the scope of the member's emissions
- » The member's data collection and control systems used to prepare the GHG inventory
- » The risk of calculation error as a result of reporting uncertainty or misstatement

Assessing Risks for Material Types of Emissions

A verification body must assess the level of uncertainty (excluding inherent uncertainty) associated with each type of emissions source in the member's inventory to identify the particular facilities, emission sources, and GHGs that pose the greatest risk of material misstatements. A verification body must evaluate five kinds of risk for each type of emission source, as listed below. Types of emission sources are distinguished by both the activity type (e.g., mobile combustion, stationary combustion, purchased electricity) and the system that controls the data. For example, stationary combustion sources with different measurement techniques would be considered different emissions types for the purpose of risk assessment.

A verification body must assess the following kinds of risk for each type of emission source:

- » **Occurrence:** the emissions recorded have occurred and pertain to the organization
- » **Completeness:** all the emissions and removals that should have been recorded have been recorded
- » **Accuracy:** the emissions and removals have been measured and quantified appropriately
- » **Cut-off:** the emissions and removals have been reported in the correct time period

- » **Classification:** the emissions have been recorded as the proper type

LIMITED LEVEL OF ASSURANCE

When verifying at the limited level of assurance, a verification body must evaluate risks of material misstatement for the GHG statement as a whole, and for material types of emissions. Risk assessment is not as detailed as in a reasonable level of assurance verification. For limited assurance engagements, a verification body is not required to divide risk categories into occurrence, completeness, accuracy, cut-off and classification, but verification bodies should consider the reasons for the risks and obtain more persuasive evidence when the risk is higher. Risks must be categorized as inherent, control or detection risks.

Risk Assessment Conclusions

In summary, a verification body will use the risk assessment to identify the areas with the greatest potential for material misstatements (either based on volume of emissions, lack of control systems, or both) to determine the best risk-based approach to verification activities. Since the materiality threshold applies separately to direct, location-based indirect and market-based indirect CO₂e emissions, and also applies separately to equity share, operational control and financial control consolidation methodologies, a verification body must separately assess the risk for material misstatement in each of these categories and consolidations of emissions.

EVIDENCE-GATHERING PLAN

Verification activities do not involve the testing of all the emissions data provided in an GHG inventory. Rather, a verification body must choose a sample of the data for detailed evaluation. This risk-based approach to verification involves focusing on those emission sources, facilities, data systems and processes that pose the greatest risks as sources of material discrepancies. Thus while the general approach to verification activities must be the same across members, verification bodies must tailor a specific evidence-gathering plan and verification plan to each individual member.

Based on the results of the risk assessment, a verification body must develop an evidence-gathering plan that is designed to collect sufficient and appropriate evidence to form a conclusion about the GHG inventory. The evidence-gathering plan should be iterated continually until the verification risk is lowered to an acceptable level. The evidence-gathering plan should not be communicated to the member.

The evidence-gathering plan must specify the type and extent of evidence-gathering activities. The evidence-gathering plan should focus on those areas of the organization subject to the greatest inherent, control, and detection risks, and verification bodies must plan to obtain more persuasive evidence for higher areas of risk of misstatement identified during the risk assessment. A verification body must design and perform analytical procedures and tests for each type of material emission or removal, regardless of risks identified.

Specific evidence to be gathered generally falls into three separate categories:

- » **Physical evidence**, which can be gathered through direct observation of equipment (e.g., fuel meters, CEMS, and calibration equipment) during facility visits
- » **Documentary evidence** (e.g., control and procedures manuals, invoices, log books, and laboratory test results, etc.)
- » **Testimonial evidence** gathered through interviews with Member personnel

LIMITED LEVEL OF ASSURANCE

For a limited level of assurance verification, a verification body must plan evidence-gathering activities for GHG inventory as a whole and focus on areas where material misstatements are likely to arise. If the verifier becomes aware of potential material misstatements, the verifier must design appropriate evidence-gathering activities to be able to reach a conclusion about those potential material misstatements. Limited level of assurance verifications consist primarily of inquiry and analytical procedures to obtain sufficient and appropriate evidence. Overall, the extent of the evidence-gathering activities is less at the limited level of assurance, particularly for tests of control, analytical procedures, and the assessment of estimates.

In a limited level of assurance engagement, a verification body establishes the initial evidence-gathering plan and resolves any matters that come to their attention by either concluding whether or not the matter is material to the GHG inventory. Although there is some iteration of evidence-gathering plan (i.e., any updates required to investigate potential material misstatements), it is usually significantly less than in verifications performed at the reasonable level of assurance.

Data Trail

The verification body must design evidence-gathering activities to identify data trails for material emissions.

GHG Information Systems and Controls

A verification body must use the results of the risk assessment to inform the extent of the assessment of the GHG information system and controls. Effective controls are designed to prevent and detect errors.

A verification body must determine the capability of the control systems to provide accurate required data in the GHG inventory.

Evidence-gathering activities that assess the effectiveness of the GHG information system and controls must consider:

- » Management systems
- » IT systems
- » The selection and management of the GHG data and information, including the effectiveness of document management systems
- » Processes for collecting, processing, consolidating, quantifying and reporting GHG data and information
- » Staff competency
- » Systems and processes that ensure the validity and accuracy of the GHG data and information (e.g., procedure to check manual data transfers)³
- » The design and maintenance of the GHG information systems
- » Systems, processes and personnel that support the GHG information system, including activities for ensuring data quality (e.g., internal audits and management reviews)

- » The existence and adequacy of input, output, and transformation error checking routines
- » The results of instrument monitoring, maintenance and calibration
- » The results of previous verifications, if available and appropriate

LIMITED LEVEL OF ASSURANCE

When providing a limited-level of assurance, a verification body may limit or forgo tests of GHG information systems and controls when they have an understanding of the organization and its data management systems and controls due to lack of organizational and operational complexity or a prior engagement with the member.

GHG Data and Information

A verification body must design the evidence-gathering activities to review and test GHG data and information with the goal of identifying material discrepancies.

A verification body should employ a variety of verification tests to detect material discrepancies, including:

- » Retracing data from spreadsheets back to their sources
- » Re-computing emission estimates to check original calculations
- » Reviewing documentary evidence to check that inspections, calibrations, etc., were completed
- » Crosschecking GHG quantifications when more than one data source or computational approach.⁴

Further information on types of testing is provided in the Verification Techniques section.

³ This includes the existence and adequacy of processes for the periodic comparisons and reconciliation of emissions data with other member data (e.g., are the emission estimates as expected given production and capacity utilization data?)

⁴ Types of crosschecks that may be employed include: internal checks within a process; internal checks within an organization; checks within an industry or sector; checks against international information; and checks against quantities of emissions reported for previous reporting years.

Data Aggregation Process

A verification body must design and perform evidence-gathering activities related to the data aggregation process, including reconciling the GHG inventory with the underlying records and examining material adjustments made during the course of preparing the GHG inventory.

LIMITED LEVEL OF ASSURANCE

For a limited level of assurance verification, a verification body primarily uses inquiry to gain an understanding of material changes made during the course of preparing the GHG statement (i.e., the data aggregation process). The verification body may design additional evidence-gathering activities to support the results of the inquiry in order to provide sufficient evidence that any material adjustments a member made while compiling the GHG inventory were appropriate (depending on the response).

Verification Techniques

Verification techniques include analytical testing, control testing, estimate testing and sampling.

Analytical Testing

A verification body must consider the following in designing and performing analytical testing:

- » The ability of the analytical test to reduce or mitigate the risk identified
- » The reliability of the data to be analyzed
- » The likelihood that the analytical testing will identify material misstatements (i.e, procedures have sufficient precision to detect material misstatements)

If analytical testing identifies fluctuations or relationships that are inconsistent with other relevant information or that differ significantly from expectations, a verification body must obtain additional evidence and perform other evidence-gathering activities to investigate the differences.

LIMITED LEVEL OF ASSURANCE

When verifying at the limited level of assurance, analytical procedures are designed for the GHG statement as a whole, and do not have to be precise enough to identify likely material misstatements. In designing analytical tests, the verification body must identify an expectation of quantities/ratios, but this expectation does not need to be sufficiently precise to identify potential material misstatements. If the results of the analytical tests are inconsistent with other information or the verification body's expectations, the verification body may attempt to resolve the discrepancies using inquiry. Depending on the responses, inquiry may provide sufficient follow-up evidence, or the verification body may design additional evidence-gathering activities to support the results of the inquiry.

Control Testing

A verification body must design and implement evidence-gathering activities to test the operating effectiveness of controls. If deviations are detected, the verification body must assess whether the deviations affect the ability to rely on those controls, whether additional tests of controls are necessary and whether other types of evidence-gathering activities need to be applied.

LIMITED LEVEL OF ASSURANCE

As explained above, when providing a limited-level of assurance, a verification body typically will limit or forgo tests of GHG information systems and controls. Nevertheless, a verification body may use results of the risk assessment to inform the design of additional evidence-gathering activities to test controls.

Estimate Testing

Estimates are used in GHG quantification in a variety of situations. For example, vehicle emissions can be estimated using distance traveled and assumptions about fuel efficiency when the amount of fuel used is unknown. If the risk assessment has determined that a member's estimated approach to quantify emissions has material impact on the overall GHG inventory, a verification body must evaluate:

- » The appropriateness of the estimate methodology
- » The applicability of the assumptions in the estimate
- » The quality of the data used in the estimate

A verification body must develop evidence-gathering activities that test the operating effectiveness of the controls over how estimates were made. A verification body must develop its own estimate or range to evaluate the member's estimate.

A verification body must evaluate whether the estimates comply with the criteria and whether the methods for making estimates:

- » Have been applied consistently from prior periods
- » Have been changed from prior periods
- » Are appropriate

Refer to the box on [Verifying Sources Calculated with Simplified Estimation Methods in Module C: Pre-engagement Activities](#) for additional requirements for verifying sources quantified with simplified methods that are not provided in the GRP. These requirements apply to verifications at both reasonable and limited levels of assurance.

LIMITED LEVEL OF ASSURANCE

When verifying at the limited level of assurance, a verification body must evaluate whether the estimates comply with the criteria. Generally, a verification body is not required to carry out tests of the operating effectiveness of controls over how an estimate was made and is not required to develop his/ her own point estimate or estimate range to evaluate the member's estimate. As indicated by the risk assessment, a verification body may design additional evidence-gathering activities that:

- » Evaluate the appropriateness of the estimate methodology, the applicability of the assumptions in the estimate and the quality of the data used in the estimate
- » Test the operating effectiveness of the controls governing the development of the estimate
- » Develop their own estimate or range to evaluate the responsible party's estimate

Sampling

If sampling is used, the verification body must consider the purpose of the evidence-gathering activities and the characteristics of the population from which the sample will be drawn when designing the sample. Samples may be selected based on one or more of the following:

- » Organizations (e.g., subsidiaries)
- » Facilities
- » Emissions sources
- » GHG types

Sampling methods that may be considered in the sampling plan include both statistical and non-statistical methods (e.g., random sampling, stratified sampling, purposive sampling). The sampling plan should be viewed as dynamic rather than static, to be revised based on early feedback. For example, if early verification findings indicate that inherent and control risks are particularly significant at one subsidiary, this may indicate a need to increase the number of facilities sampled for that particular subsidiary.

LIMITED LEVEL OF ASSURANCE

In a limited level of assurance verification, since the risk identification is at the level of the GHG statement as a whole, the sampling is conducted at a higher or in a more aggregate form. The verification body must design sampling appropriate to the verification risk.

PLANNING FACILITY VISITS

A verification body must plan and perform facility visits to gather information needed to reduce verification risk and to aid in the design of evidence-gathering activities.

When determining whether to perform a streamlined verification or full verification with facility visits during Pre-engagement, a verification body must determine whether facility visits are required according to the criteria in the section Circumstances Requiring a Full Verification with Facility Visit(s).

Verification bodies must use Methods A, B, and/or C as described below when determining the minimum number of facilities to visit to achieve a reasonable level of assurance. In general, the more complex the member's organization, the more facility visits may be needed. In cases where an organization is characterized by a set of homogeneous facilities (e.g., a large retail operation), the minimum number of facility visits may suffice. On the other hand, if the member's facilities are more complex and differ substantially from each other, additional facility visits beyond the minimum may be necessary.

A verification body must conduct additional facility visits if the minimum number of facility visits, in combination with other evidence-gathering activities, is not adequate to deliver reasonable assurance that the inventory is free from material misstatements.

In determining which facilities to visit, and whether it is necessary to exceed the minimum number of facility visits prescribed by Methods A, B and/or C,

a verification body must consider the following.

- » The results of the risk assessment and efficiencies in collecting evidence
- » The number and size of sites and facilities associated with the organization, project or product
- » The diversity of activities at each site and facility contributing to the GHG inventory
- » The nature and magnitude of the emissions at different sites and facilities, and their contribution to the GHG inventory
- » The complexity of quantifying emissions sources generated at each relevant site or facility
- » The degree of confidence in the GHG data management system
- » Any risks identified through the risk assessment indicating the need to visit specific locations
- » Misstatements identified through the course of verification activities that may necessitate changes to the evidence-gathering plan and verification plan
- » The results of prior verifications or validations, if any

A verification body must independently select the specific facilities to be visited, without recommendation or input from the member. A verification body should not necessarily visit the largest facilities (i.e., rely solely on Method B), but should rather select facility visits on the basis of the verification body's risk assessment findings regarding potential for material misstatement associated with the facility. The verification body should inform the member of the number of facilities it will visit during the verification scope discussion with the member. The number of facilities to be visited should be amended as appropriate as part of the dynamic evidence-gathering plan.

Circumstances That May Indicate a Need for a Facility Visit

A verification body must consider the higher inherent, control and detection risks caused by any of the circumstances listed below:

- » An initial verification
- » A subsequent verification for which the verifier does not have knowledge of the prior verification activities and results
- » A verification where there has been a change of ownership of a site or facility and where the emissions of the site or facility are material to the GHG inventory
- » When misstatements are identified during the verification that indicate a need to visit a site or facility
- » There are unexplained material changes in emissions since the previous verified GHG inventory
- » The addition of a site or facility of GHG sources that are material to the GHG inventory
- » Material changes in scope or boundary of reporting
- » Significant changes in the data management involving the specific site or facility

Regardless of whether the verification is full or streamlined, the verification body must evaluate whether a facility visit is required to mitigate this risk, based on the results of the risk assessment and evidence-gathering plan, and considering the results of any prior verification to the same site or facility. If a verification body determines that a site or facility visit is not necessary, they must justify and document the rationale for the decision.

Note: *Required site visits must be performed as determined in Pre-engagement activities according to the section on Circumstances Requiring a Full Verification with Facility Visit(s) (i.e., there is no flexibility for a verification body to decide site visits are not necessary when evaluating the inventory against the criteria in that section).*

Determining Minimum Number of Facilities to Visit

For verifications conducted to a reasonable level of assurance, a verification body must complete the following steps to determine the minimum number of facility visits required:

1. Conduct a risk assessment.
2. Evaluate the completeness of the member's inventory.
3. Evaluate the reasonableness of the emissions source types and emissions quantities reported for each facility given the scale and nature of the operations.
4. Determine the total number of non-commercial facilities (X) and the number of commercial facilities (Y) in the member's inventory (refer to Facility Definitions box). This number must not be based on aggregation of any facility types.
5. Use either Method A or Method B below as appropriate to determine the minimum number of non-commercial facilities to be visited.
6. Use Method C to determine the minimum number of commercial facilities to be visited.

Facility Definitions

A **facility** is defined as an installation or establishment located on a single site or on contiguous adjacent sites that are owned or operated by an organization, plus any mobile sources such as on-road vehicles and fleets, also taking into account industry-specific rules for facilities such as oil fields. Pipelines and transmission and distribution systems can be treated as single facilities as provided in the GRP.

Commercial facilities are defined as office-based or retail facilities that do not conduct industrial operations and for which emission sources are limited to:

- » Purchased or acquired electricity, heating or cooling
- » Stationary combustion of fuel for building heating

- » Refrigerants for building and vehicle air conditioning
- » Standard fire extinguishers (as opposed to more complex PFC systems)
- » Non-commercial refrigeration
- » Commercial refrigeration operations when an organization centrally manages refrigerant stocks
- » Emergency generators
- » Automobiles and on-road trucks
- » Off-road equipment limited to building and landscape maintenance

Other sources powered by purchased electricity such as transportation, pump stations, parking lot lighting, or traffic signals can be considered a commercial facility for purposes of this methodology.

Non-commercial facilities are defined as all other facilities not meeting the criteria of a commercial facility (e.g., facilities that are used for manufacturing or other industrial operations).

Method A: Based on Number of Non-commercial Facilities and Risk Assessment Findings

When to Use Method A: This method is most appropriate when emissions generated are fairly evenly distributed amongst several facilities in the member’s inventory.

Apply the total number of non-commercial facilities (X) to the following equation:

Minimum number of facility visits	= $0.6 \sqrt{X}$ (round up to nearest whole number, as shown in Table 2 below)
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Table 2: Method A—Minimum Number of Facility Visits

TOTAL NUMBER OF FACILITIES (X)	MINIMUM NUMBER OF FACILITY VISITS (0.6 √X)
1	.6 = 1
3	1.04 = 2
5	1.34 = 2
10	1.90 = 2
50	4.24 = 5
100	6.00 = 6
101	6.03 = 7
250	9.49 = 10
500	13.42 = 14
1,000	18.97 = 19

Method B: Based on Ranking Distribution of Generation of Direct Emissions

When to Use Method B: This method is most appropriate for members that have a large number of facilities in their inventory with a majority of direct emissions generated by a small percentage of the facilities in the member’s inventory.

1. Rank all non-commercial facilities in decreasing order of quantity of direct (Scope 1 and direct biogenic) emissions generated.
2. Determine the lesser of:
 - a. The minimum number of facilities that are able to constitute 75 percent or more of total direct emissions.
 - b. The number of facilities that individually constitute greater than 5 percent of direct emissions. These facilities must comprise at least 40 percent of overall direct emissions; otherwise, Method B.2.a or Method A must be used.
3. At minimum, the number of facilities identified through this method must be visited.

Method C: Commercial Facilities

When to Use Method C: This method is permitted only for commercial facilities as described in the Facility Definitions box.

1. Determine whether the member has a centralized inventory management system, more than one inventory management system, or no inventory management system. For the purposes of this evaluation, a centralized inventory management system is considered to be a system that is developed, maintained and managed at a central location or through a central network or web-based system.
2. For members with a centralized inventory management system, at minimum, a facility visit must be conducted at the office location responsible for overseeing the development and implementation of the inventory management system.
3. Even if the member has a centralized inventory management system, if more than one person is responsible for final quality assurance of reported data, then the verification body must interview a subset of these responsible personnel to inform their risk assessment and evidence-gathering plan. The interviews may be conducted in person, using online meeting platforms, or by phone.
4. For members with a decentralized inventory management system or no inventory management system, facility visits must be conducted at a representative number of office locations to be determined by either:
 - a. Each facility that is responsible for overseeing a particular inventory management system.
 - b. A sample of facilities to be determined based on the following equation:

Minimum number of facility visits	=	$0.6 \sqrt{Y}$ (round up to nearest whole number)
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Remote Site Visit Option for Commercial Facilities

Under certain circumstances, verification bodies may conduct remote facility visits using Information and Communication Technology (ICT), such as online meeting platforms and remote audio/video access. Verification bodies may conduct remote facility visits to satisfy facility visit requirements for commercial facilities as defined in Facility Definitions. Non-commercial facilities, such as those conducting manufacturing or industrial operations, and facilities with complex operations and emissions sources beyond those described in the definition of commercial facilities, are ineligible to be assessed remotely for verifications to a reasonable level of assurance. Verification bodies who choose to perform a remote facility visit must still be able to determine within the agreed assurance level whether the inventory is free from material misstatements and meets the requirements of the 95% materiality threshold.

In order to substitute remote site visits for an in-person site visit of a commercial facility, verification bodies must follow the requirements of IAF MD 4, IAF Mandatory Document for the Use of Information and Communication Technology (ICT) for Auditing/Assessment Purposes.⁵ Verification bodies should also consult IAF ID 12, Principles on Remote Assessment, for guidance on the use of remote assessment. Prior to the remote site visit, verification bodies should ensure that they have sufficiently analyzed the risk using ICT for a remote assessment and have mitigated the risk to low. The risk assessment must assess whether the desired level of assurance can be achieved through remote site visits, and the VB must continue to assess the risk throughout the verification process to ensure nothing has changed. If the risk of a remote site visit cannot be mitigated to low, and the level of assurance cannot be guaranteed, the verification body must not proceed with the remote site visit and must instead conduct an in-person visit.

⁵ IAF Documents found on <https://iaf.nu/en/iaf-documents-categories/>.

Verification bodies who choose to substitute remote site visits for in-person site visits must follow the GVP's requirements for determining the minimum number of facility visits and submit notice of their upcoming facility visit to TCR. Verifiers may be additionally required to provide documentation to TCR of their justification for substituting in-person site visits with remote visits.

- » Quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters

Activities to Perform During Facility Visits

The verification body must perform evidence-gathering activities at the facility to assess, as determined by the risk assessment:

- » Operations and activities relevant to GHG sources
- » Data management and control systems
- » Physical infrastructure
- » Documents, such as utility bills or emissions monitoring results
- » Equipment, such as measuring devices and instruments, to establish traceability to applicable calibration and monitoring information
- » Types of equipment and supporting assumptions and calculations (e.g. verifying that manufacturer information used as a basis for emissions calculations matches installed equipment)
- » Processes and material flows that impact emissions
- » Scope and boundaries
- » Conformity with operational and data collection procedures
- » Personnel activities that have a potential to impact materiality
- » Sampling equipment and sampling methodologies
- » Monitoring practices against the requirements established by the responsible party or specified in criteria
- » Calculations and assumptions made in determining the GHG data and emissions

LIMITED LEVEL OF ASSURANCE

Typically, facility visits are not included in limited level of assurance verifications. Methods A, B and C for determining the minimum number of facility visits do not apply to limited level of assurance verifications. Nevertheless, a verification body must assess whether one or more facility visits are necessary to provide a limited level of assurance using the results of the risk assessment, designed evidence-gathering activities, and consideration of the following:

- » A verification body must review Circumstances That May Indicate a Need for a Facility Visit to determine whether a facility visit is necessary when providing a limited level of assurance. If one of the listed circumstances apply, and a verification body determines that a site or facility visit is not necessary based on their risk assessment, they must justify and document the rationale for the decision.
- » When a verification body does not have prior knowledge of the GHG inventory aggregation process, they must perform an in-person or remote facility visit to the facility responsible for the GHG inventory aggregation.

When a facility visit is included in the verification plan for a limited level of assurance verification, the verification body must perform activities at the facility to assess, as applicable:

- » Operations and activities relevant to GHG sources
- » Physical infrastructure
- » Processes and material flows that impact emissions
- » Scope and boundaries
- » Calculations and assumptions made in determining the GHG data and emissions

The set of verification activities conducted to support a limited level of assurance are less extensive than for a reasonable level of assurance. Limited assurance verifications generally involve less detailed testing of GHG data and less intensive examination of supporting documentation.

For example, to achieve a reasonable level of assurance, the verification body must sample and test primary data sources (e.g., CEMS data, fuel receipts, utility invoices, laboratory analyses, and log books of meter readings and calibrations). The verification body uses data from these primary sources to recalculate a portion of the inventory. The verification body also reviews secondary sources of information (e.g., interviews with personnel, summary spreadsheets, the GHG inventory management plan, and annual reports). While secondary sources of information are useful, alone, they cannot support a reasonable assurance conclusion because they are only an interpretation or indicator of underlying data.

On the other hand, to achieve a limited level of assurance, the verification body may largely rely on secondary sources of information. If, in reviewing this information, the verification body has doubts or concerns about the potential for material misstatement, it may be necessary to sample and test primary data sources to adequately resolve these concerns. If the verification body is not able to eradicate the concern regarding the potential for material misstatement through additional verification activities (e.g., due to limitations in the scope of work and cost of services), then they must not issue a positive opinion.⁶

When a verification body conducts a facility visit (e.g., to headquarters) to support a limited level of assurance, the verification body may focus on making inquiries of personnel responsible for the GHG inventory management system (e.g., interviewing personnel to obtain information about operations, emission sources, data collection procedures, calculation methodologies, frequency of meter calibrations, internal audit findings, etc.). Typically, facility visits conducted to support a reasonable level of assurance additionally entail physical observation of emission sources and inspection of primary data records. Since limited level of assurance facility visits focus on secondary data, it may be appropriate and cost-effective to provide a remote facility visit using videoconferencing technology. Remote facility visits may be conducted for both commercial and non-commercial facilities, as long as the VB's risk assessment determines that it is possible to achieve a limited level of assurance.

⁶ Final Pronouncement ISAE 3000 (Revised), Paragraph 49L, December 2013.

Table 3 compares TCR’s minimum requirements for verifications conducted to a limited level of assurance against those for a reasonable level of assurance.

Table 3: Comparison of Verification Activities for Limited and Reasonable Levels of Assurance

LIMITED ASSURANCE	REASONABLE ASSURANCE
COI assessment	
Same requirements, as set forth in Module C.	
Strategic analysis	
Conduct a strategic analysis to understand the activities and complexity of a member organization according to the requirements of Module D.	
Detailed assessment of design, existence, and effectiveness of controls is not required due to assumption that controls are reliable.	Detailed assessment of design, existence, and effectiveness of controls is required.
Risk analysis	
Conduct a risk analysis to Identify risks of material misstatement (quantitative and qualitative) in the inventory and nonconformity with the criteria as set forth in Module D. Evaluate risk of material misstatement for GHG statement as a whole and material types of emissions. Classify risks as inherent, control, or detection.	
Not as detailed as in a reasonable assurance verification. Not required to divide risk categories into occurrence, completeness, accuracy, cut-off and classification. Consider reasons for risks and obtain more persuasive evidence when the risk is higher	Required to further divide risk categories into occurrence, completeness, accuracy, cut-off and classification for each type of emission source.
Materiality	
Same threshold; both quantitative and qualitative, as established by Module C. The five percent threshold guides development of the verification and evidence-gathering plans.	
The verifier must consider whether the information reviewed suggests that there could be a misstatement of five percent or more.	Based on the results of tests performed on sampled data and recalculation of emissions estimates, the verifier calculates the percent accuracy using the equation in Module C.

LIMITED ASSURANCE	REASONABLE ASSURANCE
Verification and evidence-gathering plans	
<p>The verification body must develop a verification plan and evidence-gathering plan. The verification plan must describe verification activities and schedules, including access requirements for the member.</p> <p>Based on the results of the risk assessment, a verification body must develop an evidence-gathering plan that is designed to collect sufficient and appropriate evidence to form a conclusion about the GHG inventory. Risk of misstatement must be mitigated to low.</p>	
<p>Less extensive and detailed testing and examination activities.</p> <p>Consist primarily of inquiry and analytical procedures to obtain sufficient and appropriate evidence.</p> <p>May forego tests of operating effectiveness of controls.</p> <p>Sampling conducted at a more aggregate level.</p> <p>Facility visit to facility responsible for GHG data aggregation required when verification body does not have prior knowledge of GHG inventory aggregation process. Otherwise not required, but verification body must assess whether one or more facility visits are necessary to provide limited assurance.</p>	<p>More extensive and detailed testing and examination activities</p> <p>Must rely primarily on analytical, control, and estimate testing. Verification body must reconcile GHG inventory with underlying records.</p> <p>Must include tests of operating effectiveness of controls.</p> <p>If sampling included, consider the purpose of the evidence-gathering activities and the characteristics of the population from which the sample will be drawn.</p> <p>The verification body must conform with the requirement for minimum number of facility visits set forth in Module D.</p>
Notification of facility visits	
Same notification form.	
Corrective action	
The verification plan should allow for the member to conduct at least one round of corrective actions to address misstatements, errors and omissions identified during the verification process.	
Verification report	
The verification body must provide the member with a verification report, per Module F.	
Verification opinion	
The verification body must issue a verification opinion. A positive opinion must not be issued unless all concerns regarding the potential for material misstatement have been adequately resolved. A verification body has the option to disclaim issuance of an opinion per requirements in Module F.	
<p>Expressed in the negative, i.e. “nothing has come to our attention that emissions are not fairly stated.”</p> <p>Must include a statement that activities are less extensive than in reasonable assurance verification.</p> <p>Use Limited Assurance Verification Opinion Form.</p>	<p>A verification body expresses an opinion on whether the emissions report is fairly stated and conforms with criteria.</p>

Notification of Planned Facility Visits

After a verification body develops the evidence-gathering plan for a member, it must notify TCR by submitting the Notification of Planned Facility Visits (NOPFV) Form (available at the TCR Member Portal) at least 10 business days prior to the beginning of facility visits. NOPFV forms must include a list of facilities the verification body plans to visit, including the facility addresses, facility contacts, and anticipated dates of visits, and must clearly demonstrate conformance with the minimum number of facility visits. NOPFV forms must include the evidence-gathering plan and verification plan, based on risk assessment findings.

Notification must be sent by e-mail to notification@theclimateregistry.org. This notification period is necessary to allow TCR the opportunity to periodically accompany verification bodies on visits to members' facilities. The accreditation body is responsible for observing, evaluating, and reporting on the quality and consistency of verification activities to TCR. However, TCR staff members also have the authority to participate directly in such observation. A verification body that does not provide proper notification to TCR may be disqualified as a TCR-recognized verification body.

If there are any changes to the information provided on the Notification of Planned Facility Visits Form, the verification body must notify TCR in writing within seven business days of the change and resubmit the applicable form if requested.

VERIFICATION PLAN

A verification body must develop a verification plan that describes verification activities and schedules, including access requirements for the member (e.g., personnel, documentation). The verification plan must be revised as necessary during the verification. As new evidence of actual or potential misstatements is discovered, a verification body may need to revise the plan to further assess these errors and any underlying weaknesses that may be contributing to them.

The verification plan must address the following:

- » The scope and objectives
- » Identification of the verification team and their roles on the team
- » Member contact
- » Schedule of verification activities
- » Level of assurance
- » Verification criteria
- » Materiality
- » Time frame and duration of validation/ verification activities, including schedule for site visits

The verification body must communicate the verification plan to the member and ensure that relevant personnel are notified prior to the beginning of any site visit. Any revisions to the verification plan must be internally documented, including the reasons, and communicated to the member.

APPROVAL OF THE EVIDENCE-GATHERING AND VERIFICATION PLANS

The verification plan and evidence-gathering plan must be approved by the lead verifier.

Amendments to the verification plan and evidence-gathering plan must be approved by the lead verifier in the following circumstances:

- » Change in scope or timing of verification activities
- » Change in evidence-gathering procedures
- » Change in locations and sources of information for evidence-gathering
- » The identification during the verification process of new risks or concerns that could lead to material misstatements or nonconformities

The plans may be reviewed by the independent reviewer before verification activities begin.



E. EXECUTION OF VERIFICATION ACTIVITIES

The verification body must conduct the verification according to the verification plan and conduct the evidence-gathering activities according to the evidence-gathering plan.

A verification body must communicate requests for additional information, requests for clarification, and identification of misstatements and non-conformities with the member as soon as practicable.

Whenever a member makes changes to the GHG inventory as a result of requests for clarification, misstatements and nonconformities, the verification body must assess these changes.

EVALUATION OF THE GHG INVENTORY

Evaluation of Changes

A verification body must evaluate any changes in risks and materiality threshold that occurred over the course of the verification. A verification body must evaluate whether any high-level analytical

procedures applied remain representative and appropriate.

Evaluation of Sufficiency and Appropriateness of Evidence

A verification body must determine whether the evidence collected is sufficient and appropriate to reach a conclusion. If a verifier determines there is insufficient or inappropriate evidence, the verification body must develop additional evidence-gathering activities.

Evaluation of Inventory Completeness and Conformity with Criteria

A verification body must evaluate whether a member meets the reporting criteria (e.g., the GRP and any other identified criteria) and whether their GHG inventory is complete (e.g., that the inventory includes material facilities, sources, and GHGs within their defined reporting boundary and reporting period, is reported accurately according to the selected consolidation methodology, and has satisfied other GRP reporting requirements).

At a minimum, a verification body must consider the following:

- » Inventory boundaries, including organizational and reporting boundaries
- » Reporting requirements for non-emissions data
- » Requirements for special types of reporters, including parent companies/subsidiaries and governing/governed agencies (if relevant)
- » Appropriate use of simplified emission estimation methods

Evaluation of Material Misstatements

A verification body must evaluate and document material misstatements. In order to assess whether individual identified misstatements rise to the level of a material misstatement, a verification body must convert its emission estimates for different GHGs to a CO₂e basis. When the verification body's estimate of emissions (for a particular source) does not compare well with the value reported in the inventory, the verification body should assess whether the error is a systemic issue that implies there is the same degree of uncertainty in all similar sources. The verification body may expand the sample size as appropriate to determine if the same inconsistency is evident in a broader sample of data and may request that the member provide evidence of correction of systemic errors. In arriving at its estimate, the

verification body must consider the impact of extrapolation of systemic errors identified in the sample to the entire dataset. The verification body must compare its estimated GHG emissions to those in the reported inventory to determine if there are any material misstatements. If the verification body's emission totals differ by more than five percent from the originally reported totals, then the discrepancies are material.

If several non-material errors are found, the verification body must compile these errors to determine if the aggregate errors exceed the materiality threshold. Differences may be classified as either material (significant) or immaterial (insignificant). TCR considers a discrepancy to be quantitatively material if the total reported emissions differ from the total emissions estimated by the verification body by five percent or more (assessed separately for direct, location-based indirect, and market-based indirect CO₂e emissions). A difference of less than five percent is quantitatively immaterial.

While members are required to report all GHG emissions sources within the defined inventory boundary and should correct as many misstatements as is possible, immaterial misstatements or omissions of immaterial sources (aggregated at the organizational level for direct, location-based indirect and market-based indirect emissions) are allowed to remain in a member's inventory.

EVALUATION OF EMISSIONS REPORTS IN CRIS

All members must report their emissions using TCR's on-line calculation tool (CRIS). Members may also opt to use CRIS to calculate their emissions from various types of indirect emissions and direct emissions. When members have used CRIS to calculate their emissions, a verification body must verify that the member collected input data properly and entered it accurately into CRIS. Verification bodies should assume CRIS' calculations are correct. Therefore, there is no need for verification bodies to re-calculate the emissions reported in CRIS. Due to the time savings, members can reduce the costs and time required to complete the verification process by calculating their emissions in CRIS.

It is the member's responsibility to provide the verification body with access to CRIS. A verification body will have read-only access to the member's Private Detail Reports and Data Extracts, which provides a detailed summary of all the information that the member has reported.



F. COMPLETING THE VERIFICATION PROCESS

Once a verification body has completed its review of a member's GHG inventory, they must do the following to complete the verification process:

1. Draft a verification report and opinion
2. Conduct an independent review of the verification report and opinion
3. Deliver the verification report to the member, giving the member the opportunity to correct any material misstatements or non-conformities required to issue a positive opinion
4. Assess the member's corrected inventory (if applicable) and prepare a final verification report and opinion, including review by the independent reviewer
5. Conduct an exit meeting with the member to discuss and finalize the verification report and verification opinion
6. Indicate member's verified status in CRIS by uploading the verification opinion

The following subsections outline how a verification body must complete each of these steps.

PREPARING A VERIFICATION REPORT

A verification report is typically shared only between a verification body and a member. In some cases the accreditation body and TCR may request to review the verification report. In these cases, the verification report will be treated as a confidential document. No part of it will be made available to the public or to any person or organization outside of the accreditation body or TCR.

At a minimum, a verification report must include the following elements:

- » An appropriate title
- » An addressee
- » A statement that the member is responsible for the preparation and fair presentation of the GHG inventory in accordance with the criteria

- » A statement that the verification body is responsible for expressing an opinion on the GHG inventory based on the verification
- » The scope, objectives, criteria, and level of assurance of the verification process employed for the member
- » The criteria used to verify emissions (TCR's General Reporting Protocol plus sector-specific protocols or other protocols or methodologies for those sources for which TCR has yet to provide detailed guidance)
- » A summary of the GHG inventory
- » A description of the verification plan, based on the size and complexity of the member's operations
- » A description of the verification evidence-gathering procedures used to assess the GHG Inventory, as well as techniques and risk assessment methodologies employed for each source identified to be sampled
- » A list of facilities and/or emissions sources using calculation methods not prescribed in the General Reporting Protocol
- » For verifications conducted to a reasonable level of assurance, the total discrepancy (in tonnes of CO₂e) between the verification body's emissions estimate and the member's reported emissions, as well as a percentage of the material discrepancies within a member's total reported emissions at the organizational level (separate totals and percentages must be provided for direct, location-based indirect and market-based indirect emissions)
- » A list of all of the discovered discrepancies, including each discrepancy's estimated magnitude as a percentage of the total emissions (direct, location-based indirect or market-based indirect, as appropriate) reported at the organization level
- » An evaluation of whether the member's annual GHG inventory is in compliance with TCR's reporting requirements (as described in the General Reporting Protocol)
- » The verification opinion

- » The date of the report
- » The verification body's location
- » The lead verifier's signature
- » The independent reviewer's signature

A "Standard Verification Report Template" is provided in the Verification Resources page in the Member Portal to guide verification bodies in preparing their verification report. Use of this template is optional; verification bodies may instead use their own format for the report as long as the resulting verification reports include all of the above-listed information required by TCR.

PREPARING A VERIFICATION OPINION

Based upon the evidence gathered and verification activities performed, a verification body will reach a conclusion and draft a verification opinion using the Verification Opinion Form provided in the Verification Resources page in the Member Portal. This form documents the verification activities and outcomes, and is made available to all stakeholders (members, verification bodies, TCR and the public), upon completion of the verification process.

Positive Opinion

In order to draft a positive opinion, a verification body must ensure that:

- » There is sufficient and appropriate evidence to support material emissions
- » The criteria are applied appropriately for material emissions
- » The effectiveness of controls has been evaluated when the verification body intends to rely on those controls

Negative Opinion

In order to draft a negative opinion, the verification body must conclude that:

- » There is insufficient or inappropriate evidence to support a positive opinion, or

- » Criteria are not appropriately applied for material emissions, or
- » The effectiveness of controls cannot be determined when the verification body intends to rely on those controls.

If the member does not correct any material misstatement or nonconformity in an agreed period of time, the verification body must take this into consideration when reaching the conclusion.

Disclaiming the Issuance of an Opinion

In order to disclaim the issuance of an opinion, the verification body must ensure that they have been unable to obtain sufficient appropriate evidence and can conclude that the possible effects on the GHG inventory of undetected material misstatement(s) are material and pervasive.

LIMITED LEVEL OF ASSURANCE

When providing a limited level of assurance, the verification opinion must include a statement that the verification activities applied in a limited level of assurance verification are less extensive in nature, timing and extent than in a reasonable level of assurance verification. The opinion must be expressed in the negative form. A separate Verification Opinion Form is provided for limited level of assurance verifications.

INDEPENDENT REVIEW

A competent independent reviewer(s) that was not involved in conducting the verification must complete an independent review of the draft verification report and opinion before either document may be shared with the member. The independent review may be conducted during the verification process to allow significant issues identified by the independent reviewer to be resolved before the opinion is issued. For example, the independent reviewer may assess the risk assessment, evidence-gathering plan and verification plan before evidence-gathering activities are performed to assess whether the verification has been designed appropriately. The independent reviewer must communicate with the verification team when the need for clarification arises, and the verification team must address concerns raised by the independent reviewer. The independent review results must be documented.

Lead verifiers must provide the following information to their independent reviewer (at a minimum):

- » The member's GHG inventory
- » The verification report
- » The verification opinion
- » Any additional information that the independent reviewer may need to assess the quality of the verification activities and the accuracy of the verification opinion

The independent reviewer(s) must evaluate:

- » The appropriateness of team competencies
- » Whether the verification has been designed appropriately
- » Whether all verification activities have been completed
- » Significant decisions made during the verification
- » Whether sufficient and appropriate evidence was collected to support the opinion
- » Whether the evidence collected supports the opinion proposed by the verification team

- » The GHG inventory and the verification opinion
- » Whether the verification was performed according to this GVP, including whether:
 - The risk assessment, verification plan and evidence-gathering plan address the objective, scope and level of assurance
 - The evidence-gathering activities address the risks identified
 - A data trail has been established for material emissions
 - Any restatements have been adequately assessed
 - The GHG inventory is in accordance with the criteria
 - Misstatements and nonconformities identified by the verification that could affect the opinion have been identified, resolved and documented

PROVIDE DRAFT VERIFICATION REPORT TO THE MEMBER

After the independent reviewer has reviewed the draft verification report, the verification body must provide the draft verification report to the member and allow the member the opportunity to correct any material misstatements and nonconformities.

ASSESSMENT OF CORRECTIONS AND ISSUANCE OF OPINION

Once a verification body has evaluated a member's correction of material misstatements or non-conformities in the inventory (if any), the verification body can issue a positive verification opinion as described above. If material issues remain unresolved, the verification body may issue a negative opinion or disclaim the issuance of an opinion. (Refer to the section on Negative or Disclaimed Verification Opinions below).

The opinion must contain:

- » Identification of the member organization and a statement that the GHG inventory is the responsibility of the member
- » Identification of the GHG inventory, including the date and period covered by GHG inventory
- » Identification of the criteria used to compile and assess the GHG inventory
- » A declaration that the verification of the GHG inventory was conducted in accordance with this GVP
- » The verification body's conclusion (attested to by the lead verifier and independent reviewer) including level of assurance
- » The date of the opinion

The opinion may contain statements that limit the liability of the verification body.

Negative or Disclaimed Verification Opinions

A verification body may disclaim the issuance of an opinion when it is unable to obtain sufficient and appropriate evidence to come to a conclusion. In this case, the verification body shall ensure that it has been unable to obtain sufficient appropriate evidence and can conclude that the possible effects on the environmental information statement of undetected material misstatement(s) are material and pervasive.¹ When the issuance of an opinion is disclaimed, the verification body must state the reasons for the decision.

If a negative verification opinion is issued, the verification body must state the reasons for the negative opinion. If a member's inventory is not verifiable due to material misstatements, the member may correct the report and have it re-verified. As stated in the Conflict of Interest section, verification bodies must NOT remediate the identified misstatement(s), or explain how the misstatement(s) might be corrected. Such guidance would be considered a consulting activity and therefore, a conflict of interest.

¹ ISO 14065:2020

However, this prohibition does not preclude a verification body from explaining the identified error(s) to the member. Verification bodies must always fully explain the nature of the error(s) to the member.

Furthermore, verification bodies may provide any existing documentation that may be useful to members in preparing remediation plans. Verification bodies should also enumerate any shortcomings in members' GHG tracking and management systems.

TCR will retain a member's unverified emissions report in CRIS for up to one year pending correction by the member and reverification of the revised report (either by the original verification body or a new verification body). Upon completion of a successful re-verification, TCR will formally accept the revised emissions report into CRIS for release to the public.

Dispute Resolution Process

There may be instances where verification bodies and members do not agree on the verification findings as expressed in the verification report and/or verification opinion. In such instances, the member and verification body should attempt to reach a resolution, relying first on the verification body's internal dispute resolution process (as required by ISO 14065).

In the event that a resolution cannot be reached, verification bodies can request a resolution from the accreditation body by submitting a request to them as instructed by the accreditation body when they received their accreditation.

Additionally, members or verification bodies may email TCR directly (verification@theclimateregistry.org) if they have any questions about resolving disputes.

The accreditation body will review the area of dispute and reach a unanimous, binding decision concerning verifiability. In doing so it may interview the member and the verification body and/or request documentation related to the dispute. The accreditation body will notify the verification body and member of its decision.

In the event that the accreditation body overturns the verification body's original verification opinion, the reasons for this finding will be discussed with the verification body and member. If, at the conclusion of this discussion, the verification body indicates that it is in agreement with the accreditation body, it will be provided with an opportunity to issue a new verification opinion reversing the original verification opinion.

The decision to issue a new verification opinion is up to the verification body. If for any reason the verification body chooses not to issue a new verification opinion, the accreditation body will complete the "Dispute Resolution Addendum" to the verification opinion, indicating that the original finding of the verification body has been overturned upon review by the accreditation body.

Verification bodies are free to disagree with the findings of the accreditation body, and will not be instructed or in any way pressured to issue a new verification opinion. The purpose of the above-outlined procedure is merely to provide a verification body with an opportunity to revise its verification opinion during the dispute resolution process if, on the basis of the evidence and reasons cited by the accreditation body, the verification body changes its original opinion and wishes to issue a new opinion. However, while the verification body (or the member) is free to disagree with the findings of the accreditation body, those findings are nonetheless binding on both parties once the dispute resolution process has been completed.

In the event that the accreditation body finds that the original verification opinion was correct, they will complete the "Dispute Resolution Addendum" to the verification opinion to indicate that the original verification opinion has been upheld upon review by the accreditation body.

EXIT MEETING

After the verification report and verification opinion have been reviewed by the independent reviewer, the verification body must share these documents with the member and schedule a time to discuss and finalize these documents. This meeting may be conducted in person, via virtual meeting platforms, or over the phone. The goals of the exit meeting are for the verification body to:

- » Review the verification activities with the member and answer any questions about the verification process. Verification bodies must not provide any GHG consultancy services when answering a member's questions.
- » Seek the member's acceptance of the verification report and verification opinion.
- » Obtain the member's authorization to input its verification findings in CRIS.
- » Exchange lessons learned about the verification process, and consider providing useful feedback to TCR.
- » Discuss schedule for next year's verification activities, if the verification body is under contract to provide verification services to the member in future years.

UPLOADING THE VERIFICATION OPINION TO CRIS

Once a verification opinion has been authorized by the member, verification bodies must input their findings into CRIS by uploading the most current Verification Opinion Form provided in the Verification Resources page in the Member Portal.

TCR will then perform a final review of the verified emissions report and verification opinion. TCR will not accept a member's emissions report until it receives a signed positive verification opinion. TCR will review the verification opinion and the member's inventory for completeness. In doing so, TCR may request additional information from verification bodies and/or members. If TCR agrees that the inventory is correct and the verification opinion indicates that no material misstatements

have occurred, TCR will formally accept the verification opinion.

Once TCR accepts a member's verified GHG inventory and verification opinion, the data will become available to the public (if the member has chosen to report publicly).

Note: *If TCR identifies any nonconformities with our policies and procedures, including administrative nonconformities, the verification body must address the issue(s) through its ISO 14065 complaint handling process. Repeated nonconformities, including administrative nonconformities, will result in TCR notifying the accreditation body of the issue and, as appropriate, filing a complaint with the accreditation body regarding the verification body's performance.*

FACTS DISCOVERED AFTER THE VERIFICATION

If facts or new information that could materially affect the verification opinion are discovered after the date of the verification opinion, the verification body must take appropriate action, including communicating the matter as soon as practicable to the member and to TCR.

In some cases, errors in an emissions report or verification opinion may be discovered after the completion of the verification process, either by the member, the verification body, the accreditation body, TCR, or another party (e.g., a user of the data).

If such errors cause a material misstatement of the reported emissions, TCR requires the appropriate party to correct the error(s) and re-verify the affected inventory.

Verification bodies are neither required nor expected to check or verify data outside the scope of their verification. However, if during the course of a verification, a verification body discovers a possible material misstatement in a previous inventory verified by a different verification body, they must contact TCR.

Stakeholders discovering any reporting or verification errors after the fact should contact TCR via email (verification@theclimateregistry.org). TCR will evaluate the error and contact the appropriate parties. If TCR determines that the reported error constitutes a material misstatement, it will change the verification status of the affected emissions report to “unverified.” TCR requires that the member correct their emissions report and have it re-verified (either by the original verification body or a new verification body). Upon completion of a successful re-verification, TCR will formally accept the revised emissions report.

All material misstatements discovered after a verification process is complete will be reported to both the verification body and the accreditation body. TCR may require the verification body to perform a root cause analysis to determine why the error was not discovered during the verification process and to identify “lessons learned” that may help the verification body to reduce the risk of future undetected material misstatements. While TCR recognizes that material misstatements may occasionally be missed during the verification process, a pattern of undiscovered material misstatements on the part of a verification body will be considered by the accreditation body as cause for review and, if necessary, revocation of the verification body’s accreditation status.

TCR encourages verification bodies to contact TCR whenever they have any questions or need assistance interpreting requirements for verification.

ABBREVIATIONS AND ACRONYMS

ANAB	ANSI National Accreditation Body
CEMS	Continuous Emissions Monitoring System
CO ₂ e	Carbon dioxide equivalent
COI	Conflict of interest
CRIS	Climate Registry Information System
GHG	Greenhouse gas
GRP	General Reporting Protocol
GVP	General Verification Protocol
HFC/ HFCs	Hydrofluorocarbons
IAF	International Accreditation Forum
ICT	Information and Communication Technology
ISO	International Organization for Standardization
ISAE	International Standard on Assurance Engagements
MRV	Measuring, reporting and verifying
MSHA	Mine Safety and Health Administration
NOPFV	Notification of planned facility visits
TCR	The Climate Registry
VAC	Verification Advisory Committee

GLOSSARY OF TERMS

AGREED-UPON PROCEDURES**

Engagement that reports on the results of a verification and does not provide an opinion.

ASSURANCE

Confidence in an environmental information statement that is historical in nature.

BASE YEAR

A benchmark against which an organization's current or future emissions are compared.

CARBON FOOTPRINT (GREENHOUSE GAS INVENTORY)

The total amount of greenhouse gases that are emitted into the atmosphere by an organization or company, either directly or indirectly.

CENTRALIZED INVENTORY MANAGEMENT SYSTEM

A system that is developed, maintained and managed at a central location or through a central network or web-based system.

CLIENT**

Organization requesting verification.

COMPLAINT

Expression of dissatisfaction, other than appeal, by any person or organization to a body, relating to the activities of that body, where a response is expected.

CONFLICT OF INTEREST (COI)

A situation in which, because of other activities or relationships with a potential client, a person or firm is unable or potentially unable to render an impartial verification opinion of the potential client's GHG emissions, or the person or firm's objectivity in performing verification activities is or might be otherwise compromised.

CONSOLIDATION METHODOLOGY

Method of determining the sources of emissions that an organization includes within its organizational boundary, depending upon whether they are owned or controlled by the organization. Possible consolidation methodologies include the control approach and the equity share approach.

CONTRACTUAL INSTRUMENT

Any type of contract between two parties for the sale and purchase of energy bundled with energy generation attributes, or for unbundled attribute claims. Contractual instruments applied to an inventory must meet the TCR Eligibility Criteria. Contractual instruments include energy attribute certificates, contracts, and utility-specific emission factors.

CRITERIA

Policy, procedure or requirement used as a reference against which the GHG statement is compared.

CONTROL APPROACH

An emissions accounting approach for defining organizational boundaries in which an organization reports the GHG emissions from operations under its financial or operational control.

CONTROLS**

Responsible party's policies and procedures that help ensure that the GHG statement is free from material misstatements and conforms to the criteria.

DATA TRAIL**

Complete record by which GHG information can be traced to the GHG source.

DIRECT EMISSIONS

Emissions from sources within the reporting organization's organizational boundaries that are owned or controlled by the reporting organization, including stationary combustion emissions, mobile combustion emissions, process emissions, and fugitive emissions.

EMISSION FACTOR

GHG emissions expressed on a per unit activity basis (e.g., metric tons of CO₂ emitted per million Btus of coal combusted, or metric tons of CO₂ emitted per kWh of electricity consumed).

ENERGY ATTRIBUTE CERTIFICATE

A category of contractual instruments that conveys information about energy generation to organizations involved in the sale, distribution, consumption, or regulation of electricity (e.g., renewable energy certificates).

EQUITY SHARE APPROACH

An emissions accounting approach for defining organizational boundaries that reflects activities that are wholly owned and partially owned according to the organization's equity share in each.

EVIDENCE-GATHERING PLAN**

Plan that specifies the type and extent of evidence-gathering activities. The evidence-gathering plan shall be based on the results of the verifier's risk assessment.

FACILITY

Any installation or establishment located on a single site or on contiguous or adjacent sites in actual physical contact or separated solely by a public roadway or other public right-of-way that are owned or operated by an entity. A facility includes not only all of the stationary installations and equipment located at the site, but all mobile equipment that is under the control of the reporting entity and operates exclusively on a particular facility's premises. Pipelines, pipeline systems, and electricity T&D systems are considered discrete facilities for reporting purposes.

FINANCIAL CONTROL

The ability to direct the financial and operating policies of an operation with an interest in gaining economic benefits from its activities. Financial control is one of two ways to define the control approach.

GREENHOUSE GAS (GHG)

(GHG) For the purposes of TCR, GHGs are the internationally recognized gases identified in the Kyoto Protocol: carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆) and nitrogen trifluoride (NF₃).

GHG STATEMENT**

Factual and objective declaration that provides the subject matter for the verification

GHG INFORMATION SYSTEMS**

Policies, processes and procedures to establish, manage and maintain GHG information.

INDEPENDENT REVIEWER

Individual qualified as a lead verifier with no involvement in the specific verification engagement. The independent reviewer is assigned to conduct an independent quality assurance review of the work of the verification team.

INDIRECT EMISSIONS

Emissions that are a consequence of activities that take place within the organizational boundaries of the reporting organization, but that occur at sources owned or controlled by another organization.

INQUIRY

Request for information.

LEAD VERIFIER

Individual responsible for leading the verification engagement, including the assignment of individual verification team members to specific tasks and quality assurance of each team member's work. The lead verifier must indicate their approval of the verification team's effort by signing the verification report and the verification opinion.

LEVEL OF ASSURANCE**

Degree of confidence in the GHG statement.

LOCATION-BASED METHOD

Scope 2 method that quantifies the average emissions from energy generated and consumed in an organization's geographic region(s) of operations within the member's defined boundaries, primarily using grid-average emission factors.

MANAGEMENT SYSTEMS***

Set of interrelated or interacting elements of an organization to establish policies and objectives and processes to achieve those objectives

MARKET-BASED METHOD

Scope 2 method that quantifies emissions from energy generated and consumed that organizations have purposefully purchased, using emission factors conveyed through contractual instruments between the member and the electricity or product provider.

MATERIALITY**

Concept that individual misstatements or the aggregation of misstatements could influence the intended users' decisions.

MATERIAL MISSTATEMENT**

Individual misstatement or the aggregate of actual misstatements in the GHG statement that could affect the decisions of the intended users.

MEMBER

An organization that participates in The Climate Registry's Carbon Footprint Registry and reports an emissions inventory based on the requirements in the General Reporting Protocol.

MISSTATEMENT**

Errors, omissions, misreporting, or misrepresentations in the GHG statement.

NONCONFORMITY**

Nonfulfillment of a requirement.

OFFSETS

Represents the reduction, removal, or avoidance of GHG emissions from a specific project that is used to compensate for (i.e., offset) GHG emissions occurring elsewhere.

OPERATIONAL CONTROL

Full authority to introduce and implement operating policies at an operation. Operational control is one of two ways to define the control approach.

ORGANIZATIONAL BOUNDARY

The boundary that determines the operations owned or controlled by the reporting organization, depending on the consolidation approach taken (either the equity share or control approach).

PROCESS EMISSIONS

Emissions resulting from physical or chemical processes other than from fuel combustion. Examples include emissions from manufacturing cement, aluminum, adipic acid, ammonia, etc.

REASONABLE ASSURANCE**

Level of assurance where the nature and extent of the verification activities have been designed to provide a high but not absolute level of assurance on historical data and information.

RESPONSIBLE PARTY**

Person or persons responsible for the provision of the GHG statement and the supporting GHG information.

RETRACING**

Test that uncovers errors in GHG information by following data trails back to primary data.

** from ISO 14064-3:2019

*** from ISO 22886:2020

RISK ASSESSMENT

Assessment by which the verification body identifies risks of material misstatement in the inventory and nonconformity with the criteria. The risk assessment must consider three types of risk: inherent, control and detection.

TECHNICAL EXPERT

An individual who provides specific industry knowledge to the verification team, as directed by the lead verifier.

TEST**

Technique used to assess a characteristic of items in a sampled population of GHG data and information against verification criteria.

UNCERTAINTY

For the purposes of GHG verification, the inexact nature of measuring and calculating GHG emissions (rounding errors, significant digits, default emission factors, etc.) and the inexact nature of the calculations associated with TCR's permitted use of simplified estimation methods.

VERIFICATION**

Process for evaluating a statement of historical data and information to determine if the statement is materially correct and conforms to criteria.

VERIFIER

A single employee or member of a verification team assembled by a TCR-recognized firm (verification body) that conducts verification activities.

VERIFICATION ACTIVITIES

Activities undertaken during the third-party verification that include reviewing reported emissions, verifying their accuracy according to standards specified in the GVP, and submitting a verification opinion to TCR.

VERIFICATION BODY

A firm that has been recognized by TCR to conduct verification activities under TCR's program. TCR recognizes only verification bodies that are accredited to ISO 14065 and meet the additional requirements set forth in TCR's Guidance on Accreditation.

VERIFICATION OPINION

A document stating the verification body's findings on whether an emissions report is verifiable (or not).

VERIFICATION REPORT

A detailed report that a verification body prepares for a Member, describing the scope of the verification activities, standards used, emissions sources identified, evidence-gathering techniques, evaluation of a Member's compliance with the General Reporting Protocol, assumptions, and a list of material and immaterial misstatements, if any.

** from ISO 14064-3:2019



**THE CLIMATE
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theclimateregistry.org

info@theclimateregistry.org

(866) 523-0764