ASAE 3410
(January 2025)

Standard on Assurance Engagements ASAE 3410 *Assurance Engagements on Greenhouse Gas Statements*

Issued by the **Auditing and Assurance Standards Board**

Australian Government
Auditing and Assurance Standards Board

Obtaining a Copy of this Standard on Assurance Engagements

This Standard on Assurance Engagements is available on the Auditing and Assurance Standards Board (AUASB) website: www.auasb.gov.au

Contact Details

Auditing and Assurance Standards Board
Phone: (03) 8080 7400
E-mail: enquiries@auasb.gov.au

Postal Address:
PO Box 204
Collins Street West
Melbourne Victoria 8007
AUSTRALIA

COPYRIGHT

ISSN 1834-4860

CONTENTS

PREFACE

Reasons for Issuing ASAE 3410

The AUASB issues Standard on Assurance Engagements ASAE 3410 *Assurance Engagements on Greenhouse Gas Statements* pursuant to the requirements of the legislative provisions explained below.

The AUASB is an independent, non-corporate Commonwealth entity of the Australian Government, established under section 227A of the *Australian Securities and Investments Commission Act 2001*, as amended (ASIC Act). Under section 227B of the ASIC Act, the AUASB may formulate assurance standards for purposes other than the corporations legislation.

Under the Strategic Direction given to the AUASB by the Financial Reporting Council, the AUASB is required to have regard to any programme initiated by the International Auditing and Assurance Standards Board (IAASB) for the revision and enhancement of International Standards on Auditing and to make appropriate consequential amendments to the Australian Auditing Standards.

The amendments are consistent with changes made by the International Auditing and Assurance Standards Board (IAASB) on the issuing of International Standard on Sustainability Assurance ISSA 5000 *General Requirements for Sustainability Assurance Engagements*.

Main Features

This Standard on Assurance Engagements establishes requirements and provides application and other explanatory material regarding the assurance practitioner's responsibilities when accepting, conducting and reporting on an engagement to provide reasonable or limited assurance on a greenhouse gas statement.

The AUASB intends for this standard to mirror ISAE 3410 to ensure conformity with IAASB standards. In Australia, greenhouse gas statements include reports on emissions, energy consumption and energy production under the *National Greenhouse and Energy Reporting* (NGER) *Act 2007* and legislative requirements for assurance on those reports are also provided under the NGER Act and related regulations. These reporting and assurance requirements underpin the NGER Scheme, which provides for greenhouse gas emissions and energy reporting. The AUASB has issued Guidance Statement GS 021 *Engagements under the National Greenhouse and Energy Reporting Scheme, Carbon Pricing Mechanism and Related Schemes* which provides guidance for the assurance practitioner on how to meet these legislative and regulatory requirements when conducting an engagement under ASAE 3410. These legislative requirements are not addressed in detail in this standard.

This Standard on Assurance Engagements will replace the current ASAE 3410 *Assurance Engagements on Greenhouse Gas Statements* issued by the AUASB in December 2022.

AUTHORITY STATEMENT

The Auditing and Assurance Standards Board (AUASB) formulates this Standard on Assurance Engagements ASAE 3410 *Assurance Engagements on Greenhouse Gas Statements,* pursuant to section 227B of the *Australian Securities and Investments Commission Act 2001*.

This Standard on Assurance Engagements is to be read in conjunction with ASA 101 *Preamble to AUASB Standards*, which sets out how AUASB Standards are to be understood, interpreted and applied.

Dated: 28 January 2025

Doug Niven
Chair – AUASB

Conformity with International Standards on Assurance Engagements

This Standard on Assurance Engagements conforms with International Standard on Assurance Engagements ISAE 3410 *Assurance Engagements on Greenhouse Gas Statements* issued by the International Auditing and Assurance Standards Board (IAASB), an independent standard-setting board of the International Federation of Accountants (IFAC).

Paragraphs that have been added to this Standard on Assurance Engagements (and do not appear in the text of the equivalent ISAE) are identified with the prefix "Aus".

This Standard on Assurance Engagements incorporates terminology and definitions used in Australia.

The equivalent requirements and related application and other explanatory material included in ISAE 3410 in respect of "relevant ethical requirements", have been included in another Auditing Standard, ASA 102 *Compliance with Ethical Requirements when Performing Audits, Reviews and Other Assurance Engagements*. There is no international equivalent to ASA 102.

Compliance with this Standard on Assurance Engagements enables compliance with ISAE 3410.

STANDARD ON ASSURANCE ENGAGEMENTS ASAE 3410

Assurance Engagements on Greenhouse Gas Statements

Application

Aus 0.1 This Standard on Assurance Engagements applies to an assurance engagement to provide either a reasonable assurance or limited assurance report on a greenhouse gas statement for the purposes of the *National Greenhouse and Energy Reporting (NGER) Act 2007*.

Operative Date

Aus 0.2 This Standard on Assurance Engagements is operative for reporting periods commencing from 15 December 2022 to 14 December 2026.

Introduction

1. Given the link between greenhouse gas (GHG) emissions and climate change, many entities are quantifying their GHG emissions for internal management purposes, and many are also preparing a GHG statement:

   (a) As part of a regulatory disclosure regime;[#]

   (b) As part of an emissions trading scheme;[†] or

   (c) To inform investors and others on a voluntary basis. Voluntary disclosures may be, for example, published as a stand-alone document; included as part of a broader sustainability report or in an entity's annual report; or made to support inclusion in a "carbon register."

Scope of this Standard on Assurance Engagements

2. This Standard on Assurance Engagements (ASAE) deals with assurance engagements to report on an entity's GHG statement.

3. The assurance practitioner's conclusion in an assurance engagement may cover information in addition to a GHG statement, for example, when the assurance practitioner is engaged to report on a sustainability report of which a GHG statement is only one part. In such cases: (Ref: Para. A1–A2)

   (a) This ASAE applies to assurance procedures performed with respect to the GHG statement other than when the GHG statement is a relatively minor part of the overall information subject to assurance; and

   (b) ASAE 3000[1] (or another ASAE dealing with a specific underlying subject matter) applies to assurance procedures performed with respect to the remainder of the information covered by the assurance practitioner's conclusion.

4. This ASAE does not deal with, or provide specific guidance for, assurance engagements to report on the following:

[#] In Australia this includes the National Greenhouse and Energy Reporting Scheme (NGERS), which establishes emission, energy consumption and energy production reporting.

[†] In Australia this includes the Clean Energy Scheme, which establishes a carbon pricing mechanism.

[1] ASAE 3000 *Assurance Engagements Other than Audits or Reviews of Historical Financial Information.*

(a) Statements of emissions other than GHG emissions, for example, nitrogen oxides (NO_x) and sulphur dioxide (SO_2). This ASAE may nonetheless provide guidance for such engagements;[2]

(b) Other GHG-related information, such as product lifecycle "footprints," hypothetical "baseline" information, and key performance indicators based on emissions data; or (Ref: Para. A3)

(c) Instruments, processes or mechanisms, such as offset projects, used by other entities as emissions deductions. However, where an entity's GHG statement includes emissions deductions that are subject to assurance, the requirements of this ASAE apply in relation to those emissions deductions as appropriate (see paragraph 76(f)).

Attestation and Direct Engagements

5. The *Framework for Assurance Engagements* (the Assurance Framework) notes that an assurance engagement may be either an attestation engagement or a direct engagement. This ASAE deals only with attestation engagements.[3]

Procedures for Reasonable Assurance and Limited Assurance Engagements

6. ASAE 3000 notes that an assurance engagement may be either a reasonable assurance engagement or a limited assurance engagement.[4] This ASAE deals with both reasonable and limited assurance engagements.

7. In both reasonable assurance and limited assurance engagements on a GHG statement, the assurance practitioner chooses a combination of assurance procedures, which can include: inspection; observation; confirmation; recalculation; re-performance; analytical procedures; and enquiry. Determining the assurance procedures to be performed on a particular engagement is a matter of professional judgement. Because GHG statements cover a wide range of circumstances, the nature, timing and extent of procedures are likely to vary considerably from engagement to engagement.

8. Unless otherwise stated, each requirement of this ASAE applies to both reasonable and limited assurance engagements. Because the level of assurance obtained in a limited assurance engagement is lower than in a reasonable assurance engagement, the procedures the assurance practitioner will perform in a limited assurance engagement will vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement.[5] Requirements that apply to only one or the other type of engagement have been presented in a columnar format with the letter "L" (limited assurance) or "R" (reasonable assurance) after the paragraph number. Although some procedures are required only for reasonable assurance engagements, they may nonetheless be appropriate in some limited assurance engagements (see also paragraph A90, which outlines the primary differences between the assurance practitioner's further procedures for a reasonable assurance engagement and a limited assurance engagement on a GHG statement). (Ref: Para. A4, A90)

Relationship with ASAE 3000, Other Pronouncements, and Other Requirements

9. The assurance practitioner is required to comply with ASAE 3000 and this ASAE when performing an assurance engagement to report on an entity's GHG statement. This ASAE supplements, but does not replace, ASAE 3000, and expands on how ASAE 3000 is to be applied in an assurance engagement to report on an entity's GHG statement. (Ref: Para. A17)

---

2 NO_x (i.e., NO and NO_2, which differ from the GHG nitrous oxide, N_2O) and SO_2 are associated with "acid rain" rather than climate change.
3 ASAE 3000, paragraph 12(a)(ii).
4 ASAE 3000, paragraph 12(a)(i)(b).
5 ASAE 3000, paragraph 12(a)(iii).

10. [Deleted by the AUASB. Refer Aus 10.1.[6,7]]

Aus 10.1 Compliance with ASAE 3000 requires, amongst other things, that the assurance practitioner comply with relevant ethical requirements related to assurance engagements,[*] or other professional requirements, or requirements imposed by law or regulation, that are at least as demanding. It also requires the lead assurance practitioner[#] to be a member of a firm that applies ASQM 1,[†] or other professional requirements, or requirements in law or regulation, that are at least as demanding as ASQM 1. (Ref: Para. A5–A6)

11. Where the engagement is subject to law or regulation or the provisions of an emissions trading scheme, this ASAE does not override that law, regulation or provision. In the event that law or regulation or the provisions of an emissions trading scheme differ from this ASAE, an engagement conducted in accordance with law or regulation or the provisions of a particular scheme will not automatically comply with this ASAE. The assurance practitioner is entitled to represent compliance with this ASAE in addition to compliance with law or regulation or the provisions of the emissions trading scheme only when all applicable requirements of this ASAE have been met. (Ref: Para. A7)

Effective Date

12. [Deleted by the AUASB. Refer Aus 0.2.]

Objectives

13. The objectives of the assurance practitioner are:

    (a) To obtain either reasonable assurance or limited assurance, as appropriate, about whether the GHG statement is free from material misstatement, whether due to fraud or error, thereby enabling the assurance practitioner to express a reasonable assurance or limited assurance conclusion;

    (b) To report, in accordance with the assurance practitioner's findings, about whether:

        (i) In the case of a reasonable assurance engagement, the GHG statement is prepared, in all material respects, in accordance with the applicable criteria; or

        (ii) In the case of a limited assurance engagement, anything has come to the assurance practitioner's attention that causes the assurance practitioner to believe, on the basis of the procedures performed and evidence obtained, that the GHG statement is not prepared, in all material respects, in accordance with the applicable criteria; and

    (c) To communicate as otherwise required by this ASAE, in accordance with the assurance practitioner's findings.

Definitions

14. For the purposes of this ASAE, the following terms have the meanings attributed below:[8]

---

6 [Footnote deleted by the AUASB.]
7 [Footnote deleted by the AUASB.]
* ASAE 3000, paragraphs 3(a), Aus 20.1 and 34. ASA 102 *Compliance with Ethical Requirements when Performing Audits, Reviews and Other Assurance Engagements*, paragraph 5.
# The term "lead assurance practitioner" is referred to in ASQM 1 *Quality Management for Firms that Perform Audits or Reviews of Financial Reports and Other Financial Information, or Other Assurance or Related Services Engagements* as the "engagement partner".
† ASAE 3000, paragraphs 3(b) and 31(a).
8 The definitions in ASAE 3000 also apply to this ASAE.

(a) Applicable criteria – The criteria used by the entity to quantify and report its emissions in the GHG statement.

(b) Assertions – Representations by the entity, explicit or otherwise, that are embodied in the GHG statement, as used by the assurance practitioner to consider the different types of potential misstatements that may occur.

(c) Base year – A specific year or an average over multiple years against which an entity's emissions are compared over time.

(d) Cap and trade – A system that sets overall emissions limits, allocates emissions allowances to participants, and allows them to trade allowances and emission credits with each other.

(e) Comparative information – The amounts and disclosures included in the GHG statement in respect of one or more prior periods.

(f) Emissions – The GHGs that, during the relevant period, have been emitted into the atmosphere or would have been emitted into the atmosphere had they not been captured and channelled into a sink. Emissions can be categorised as:

- Direct emissions (also known as Scope 1 emissions), which are emissions from sources that are owned or controlled by the entity. (Ref: Para. A8)
- Indirect emissions, which are emissions that are a consequence of the activities of the entity, but which occur at sources that are owned or controlled by another entity. Indirect emissions can be further categorised as:
  - Scope 2 emissions, which are emissions associated with energy that is transferred to and consumed by the entity. (Ref: Para. A9)
  - Scope 3 emissions, which are all other indirect emissions. (Ref: Para. A10)

(g) Emissions deduction – Any item included in the entity's GHG statement that is deducted from the total reported emissions, but which is not a removal; it commonly includes purchased offsets, but can also include a variety of other instruments or mechanisms such as performance credits and allowances that are recognised by a regulatory or other scheme of which the entity is a part. (Ref: Para. A11–A12)

(h) Emissions factor – A mathematical factor or ratio for converting the measure of an activity (for example, litres of fuel consumed, kilometres travelled, the number of animals in husbandry, or tonnes of product produced) into an estimate of the quantity of GHGs associated with that activity.

(i) Emissions trading scheme – A market-based approach used to control greenhouse gases by providing economic incentives for achieving reductions in the emissions of such gases.

(j) Entity – The legal entity, economic entity, or the identifiable portion of a legal or economic entity (for example, a single factory or other form of facility, such as a land fill site), or combination of legal or other entities or portions of those entities (for example, a joint venture) to which the emissions in the GHG statement relate.

(k) Fraud – An intentional act by one or more individuals among management, those charged with governance, employees, or third parties, involving the use of deception to obtain an unjust or illegal advantage.

(l) Further procedures – Procedures performed in response to assessed risks of material misstatement, including tests of controls (if any), tests of details and analytical procedures.

(m) GHG statement – A statement setting out constituent elements and quantifying an entity's GHG emissions for a period (sometimes known as an emissions inventory) and, where applicable, comparative information and explanatory notes including a summary of significant quantification and reporting policies. An entity's GHG statement may also include a categorised listing of removals or emissions deductions. Where the engagement does not cover the entire GHG statement, the term "GHG statement" is to be read as that portion that is covered by the engagement. The GHG statement is the "subject matter information" of the engagement.[9]

(n) Greenhouse gases (GHGs) – Carbon dioxide (CO_2) and any other gases required by the applicable criteria to be included in the GHG statement, such as: methane; nitrous oxide; sulphur hexafluoride; hydro fluorocarbons; perfluorocarbons; and chlorofluorocarbons. Gases other than carbon dioxide are often expressed in terms of carbon dioxide equivalents ($CO_{2\text{-}e}$).

(o) Organisational boundary – The boundary that determines which operations to include in the entity's GHG statement.

(p) Performance materiality – The amount or amounts set by the assurance practitioner at less than materiality for the GHG statement to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality for the GHG statement. If applicable, performance materiality also refers to the amount or amounts set by the assurance practitioner at less than the materiality level or levels for particular types of emissions or disclosures.

(q) Purchased offset – An emissions deduction in which the entity pays for the lowering of another entity's emissions (emissions reductions) or the increasing of another entity's removals (removal enhancements), compared to a hypothetical baseline. (Ref: Para. A13)

(r) Quantification – The process of determining the quantity of GHGs that relate to the entity, either directly or indirectly, as emitted (or removed) by particular sources (or sinks).

(s) Removal – The GHGs that the entity has, during the period, removed from the atmosphere, or that would have been emitted to the atmosphere had they not been captured and channelled to a sink. (Ref: Para. A14)

(t) Significant facility – A facility that is of individual significance due to the size of its emissions relative to the aggregate emissions included in the GHG statement or its specific nature or circumstances which give rise to particular risks of material misstatement. (Ref: Para. A15–A16)

(u) Sink – A physical unit or process that removes GHGs from the atmosphere.

(v) Source – A physical unit or process that releases GHGs into the atmosphere.

(w) Type of emission – A grouping of emissions based on, for example, source of emission, type of gas, region, or facility.

[9] ASAE 3000, paragraph 12(x).

Requirements

ASAE 3000

15. The assurance practitioner shall not represent compliance with this ASAE unless the assurance practitioner has complied with the requirements of both this ASAE and ASAE 3000. (Ref: Para. A5–A6, A17, A21–A22, A37, A127)

Acceptance and Continuance of the Engagement

Skills, Knowledge and Experience

16. The lead assurance practitioner shall:

    (a) Have competence in assurance skills and techniques developed through extensive training and practical application, and sufficient competence in the quantification and reporting of emissions, to accept responsibility for the assurance conclusion; and

    (b) Be satisfied that those persons who are to perform the engagement collectively have the appropriate competence and capabilities, including in the quantification and reporting of emissions and in assurance, to perform the assurance engagement in accordance with this ASAE. (Ref: Para. A18–A19)

Preconditions for the Engagement

17. In order to establish whether the preconditions for the engagement are present:

    (a) The lead assurance practitioner shall determine that both the GHG statement and the engagement have sufficient scope to be useful to intended users, considering, in particular: (Ref: Para. A20)

        (i) If the GHG statement is to exclude significant emissions that have been, or could readily be, quantified, whether such exclusions are reasonable in the circumstances;

        (ii) If the engagement is to exclude assurance with respect to significant emissions that are reported by the entity, whether such exclusions are reasonable in the circumstances; and

        (iii) If the engagement is to include assurance with respect to emissions deductions, whether the nature of the assurance the assurance practitioner will obtain with respect to the deductions and the intended content of the assurance report with respect to them are clear, reasonable in the circumstances, and understood by the engaging party. (Ref: Para. A11-A12)

    (b) When determining the suitability of the applicable criteria, as required by ASAE 3000,[10] the assurance practitioner shall determine whether the criteria encompass at a minimum: (Ref: Para. A23–A26)

        (i) The method for determining the entity's organisational boundary; (Ref: Para. A27–A28)

        (ii) The GHGs to be accounted for;

        (iii) Acceptable quantification methods, including methods for making adjustments to the base year (if applicable); and

[10] ASAE 3000, paragraphs 24(b)(ii) and 41.

(iv) Adequate disclosures such that intended users can understand the significant judgements made in preparing the GHG statement. (Ref: Para. A29–A34)

(c) The assurance practitioner shall obtain the agreement of the entity that it acknowledges and understands its responsibility:

(i) For designing, implementing and maintaining such internal control as the entity determines is necessary to enable the preparation of a GHG statement that is free from material misstatement, whether due to fraud or error;

(ii) For the preparation of its GHG statement in accordance with the applicable criteria; and (Ref: Para. A35)

(iii) For referring to or describing in its GHG statement the applicable criteria it has used and, when it is not readily apparent from the engagement circumstances, who developed them. (Ref: Para. A36)

Agreement on the Terms of the Engagement

18. The terms of the engagement required to be agreed by ASAE 3000[11] shall include: (Ref: Para. A37)

(a) The objective and scope of the engagement;

(b) The responsibilities of the assurance practitioner;

(c) The responsibilities of the entity, including those described in paragraph 17(c);

(d) Identification of the applicable criteria for the preparation of the GHG statement;

(e) Reference to the expected form and content of any reports to be issued by the assurance practitioner and a statement that there may be circumstances in which a report may differ from its expected form and content; and

(f) An acknowledgement that the entity agrees to provide written representations at the conclusion of the engagement.

Planning

19. When planning the engagement as required by ASAE 3000,[12] the assurance practitioner shall: (Ref: Para. A38–A41)

(a) Identify the characteristics of the engagement that define its scope;

(b) Ascertain the reporting objectives of the engagement to plan the timing of the engagement and the nature of the communications required;

(c) Consider the factors that, in the assurance practitioner's professional judgement, are significant in directing the engagement team's efforts;

(d) Consider the results of engagement acceptance or continuance procedures and, where applicable, whether knowledge gained on other engagements performed by the lead assurance practitioner for the entity is relevant;

[11] ASAE 3000, paragraph 27.
[12] ASAE 3000, paragraph 40.

(e) Ascertain the nature, timing and extent of resources necessary to perform the engagement, including the involvement of experts and of other assurance practitioners; and (Ref: Para. A42– A43)

(f) Determine the impact of the entity's internal audit function, if any, on the engagement.

Materiality in Planning and Performing the Engagement

Determining Materiality and Performance Materiality When Planning the Engagement

20. When establishing the overall engagement strategy, the assurance practitioner shall determine materiality for the GHG statement. (Ref: Para. A44–A50)

21. The assurance practitioner shall determine performance materiality for purposes of assessing the risks of material misstatement and determining the nature, timing and extent of further procedures.

Revision as the Engagement Progresses

22. The assurance practitioner shall revise materiality for the GHG statement in the event of becoming aware of information during the engagement that would have caused the assurance practitioner to have determined a different amount initially. (Ref: Para. A51)

Understanding the Entity and Its Environment, Including the Entity's Internal Control, and Identifying and Assessing Risks of Material Misstatement

Obtaining an Understanding of the Entity and Its Environment

23. The assurance practitioner shall obtain an understanding of the following: (Ref: Para. A52–A53)

(a) Relevant industry, regulatory, and other external factors including the applicable criteria.

(b) The nature of the entity, including:

(i) The nature of the operations included in the entity's organisational boundary, including: (Ref: Para. A27–A28)

a. The sources and completeness of emissions and, if any, sinks and emissions deductions;

b. The contribution of each to the entity's overall emissions; and

c. The uncertainties associated with the quantities reported in the GHG statement. (Ref: Para. A54–A59)

(ii) Changes from the prior period in the nature or extent of operations, including whether there have been any mergers, acquisitions, or sales of emissions sources, or outsourcing of functions with significant emissions; and

(iii) The frequency and nature of interruptions to operations. (Ref: Para. A60)

(c) The entity's selection and application of quantification methods and reporting policies, including the reasons for changes thereto and the potential for double-counting of emissions in the GHG statement.

(d) The requirements of the applicable criteria relevant to estimates, including related disclosures.

(e) The entity's climate change objective and strategy, if any, and associated economic, regulatory, physical and reputational risks. (Ref: Para. A61)

(f) The oversight of, and responsibility for, emissions information within the entity.

(g) Whether the entity has an internal audit function and, if so, its activities and main findings with respect to emissions.

Procedures to Obtain an Understanding and to Identify and Assess Risks of Material Misstatement

24. The procedures to obtain an understanding of the entity and its environment and to identify and assess risks of material misstatement shall include the following: (Ref: Para. A52–A53, A62)

(a) Enquiries of those within the entity who, in the assurance practitioner's judgement, have information that is likely to assist in identifying and assessing risks of material misstatement due to fraud or error.

(b) Analytical procedures. (Ref: Para. A63–A65)

(c) Observation and inspection. (Ref: Para. A66–A68)

Obtaining an Understanding of the Entity's Internal Control

Limited Assurance	Reasonable Assurance
25L. For internal control relevant to emissions quantification and reporting, as the basis for identifying and assessing the risks of material misstatement, the assurance practitioner shall obtain an understanding, through enquiries, about: (Ref: Para. A52–A53, A69–A70) (a) The control environment; (b) The information system, including the related business processes, and communication of emissions reporting roles and responsibilities and significant matters relating to emissions reporting; and (c) The results of the entity's risk assessment process.	25R. The assurance practitioner shall obtain an understanding of the following components of the entity's internal control relevant to emissions quantification and reporting as the basis for identifying and assessing risks of material misstatement: (Ref: Para. A52–A53, A70) (a) The control environment; (b) The information system, including the related business processes, and communication of emissions reporting roles and responsibilities and significant matters relating to emissions reporting; (c) The entity's risk assessment process; (d) Control activities relevant to the engagement, being those the assurance practitioner judges it necessary to understand in order to assess the risks of material misstatement at the assertion level and design further procedures responsive to assessed risks. An assurance engagement does not require an understanding of all the control activities related to each significant type of emission and disclosure in the GHG statement or to

Limited Assurance	Reasonable Assurance
	every assertion relevant to them; and (Ref: Para. A71–A72) (e) Monitoring of controls.
	26R. When obtaining the understanding required by paragraph 25R, the assurance practitioner shall evaluate the design of controls and determine whether they have been implemented by performing procedures in addition to enquiry of the entity's personnel responsible for the GHG statement. (Ref: Para. A52–A53)

Other Procedures to Obtain an Understanding and to Identify and Assess Risks of Material Misstatement

27. If the lead assurance practitioner has performed other engagements for the entity, the lead assurance practitioner shall consider whether information obtained is relevant to identifying and assessing risks of material misstatement. (Ref: Para. A73)

28. The assurance practitioner shall make enquiries of management, and others within the entity as appropriate, to determine whether they have knowledge of any actual, suspected or alleged fraud or non-compliance with law or regulation affecting the GHG statement. (Ref: Para. A84–A86)

29. The lead assurance practitioner and other key members of the engagement team, and any key assurance practitioner's external experts, shall discuss the susceptibility of the entity's GHG statement to material misstatement whether due to fraud or error, and the application of the applicable criteria to the entity's facts and circumstances. The lead assurance practitioner shall determine which matters are to be communicated to members of the engagement team, and to any assurance practitioner's external experts not involved in the discussion.

30. The assurance practitioner shall evaluate whether the entity's quantification methods and reporting policies, including the determination of the entity's organisational boundary, are appropriate for its operations, and are consistent with the applicable criteria and quantification and reporting policies used in the relevant industry and in prior periods.

Performing Procedures on Location at the Entity's Facilities

31. The assurance practitioner shall determine whether it is necessary in the circumstances of the engagement to perform procedures on location at significant facilities. (Ref: Para. A15–A16, A74–A77)

Internal Audit

32. Where the entity has an internal audit function that is relevant to the engagement, the assurance practitioner shall: (Ref: Para. A78)

    (a) Determine whether, and to what extent, to use specific work of the internal audit function; and

    (b) If using the specific work of the internal audit function, determine whether that work is adequate for the purposes of the engagement.

Identifying and Assessing Risks of Material Misstatement

Limited Assurance	**Reasonable Assurance**
33L. The assurance practitioner shall identify and assess risks of material misstatement: (a) At the GHG statement level; and (Ref: Para. A79–A80) (b) For material types of emissions and disclosures, (Ref: Para. A81) as the basis for designing and performing procedures whose nature, timing and extent: (c) Are responsive to assessed risks of material misstatement; and (d) Allow the assurance practitioner to obtain limited assurance about whether the GHG statement is prepared, in all material respects, in accordance with the applicable criteria.	33R. The assurance practitioner shall identify and assess risks of material misstatement: (a) At the GHG statement level; and (Ref: Para. A79–A80) (b) At the assertion level for material types of emissions and disclosures, (Ref: Para. A81–A82) as the basis for designing and performing procedures whose nature, timing and extent: (Ref: Para. A83) (c) Are responsive to assessed risks of material misstatement; and (d) Allow the assurance practitioner to obtain reasonable assurance about whether the GHG statement is prepared, in all material respects, in accordance with the applicable criteria.

Causes of Risks of Material Misstatement

34. When performing the procedures required by paragraphs 33L or 33R of this ASAE, the assurance practitioner shall consider at least the following factors: (Ref: Para. A84–A89)

    (a) The likelihood of intentional misstatement in the GHG statement; (Ref: Para. A84–A86)

    (b) The likelihood of non-compliance with the provisions of those laws and regulations generally recognised to have a direct effect on the content of the GHG statement; (Ref: Para. A87)

    (c) The likelihood of omission of a potentially significant emission; (Ref: Para. A88(a))

    (d) Significant economic or regulatory changes; (Ref: Para. A88(b))

    (e) The nature of operations; (Ref: Para. A88(c))

    (f) The nature of quantification methods; (Ref: Para. A88(d))

    (g) The degree of complexity in determining the organisational boundary and whether related parties are involved; (Ref: Para. A27–A28)

    (h) Whether there are significant emissions that are outside the normal course of business for the entity, or that otherwise appear to be unusual; (Ref: Para. A88(e))

    (i) The degree of subjectivity in the quantification of emissions; (Ref: Para. A88(e))

    (j) Whether Scope 3 emissions are included in the GHG statement; and (Ref: Para. A88(f))

(k) How the entity makes significant estimates and the data on which they are based. (Ref: Para. A88(g))

Overall Responses to Assessed Risks of Material Misstatement and Further Procedures

35. The assurance practitioner shall design and implement overall responses to address the assessed risks of material misstatement at the GHG statement level. (Ref: Para. A90–A93)

36. The assurance practitioner shall design and perform further procedures whose nature, timing and extent are responsive to the assessed risks of material misstatement, having regard to the level of assurance, reasonable or limited, as appropriate. (Ref: Para. A90)

Limited Assurance	Reasonable Assurance
37L. In designing and performing the further procedures in accordance with paragraph 36, the assurance practitioner shall: (Ref: Para. A90, A94) (a) Consider the reasons for the assessment given to the risks of material misstatement for material types of emissions and disclosures; and (Ref: Para. A95) (b) Obtain more persuasive evidence the higher the assurance practitioner's assessment of risk. (Ref: Para. A97)	37R. In designing and performing the further procedures in accordance with paragraph 36, the assurance practitioner shall: (Ref: Para. A90, A94) (a) Consider the reasons for the assessment given to the risks of material misstatement at the assertion level for material types of emissions and disclosures, including: (Ref: Para. A95) (i) The likelihood of material misstatement due to the particular characteristics of the relevant type of emission or disclosure (that is, the inherent risk); and (ii) Whether the assurance practitioner intends to rely on the operating effectiveness of controls in determining the nature, timing and extent of other procedures; and (Ref: Para. A96) (b) Obtain more persuasive evidence the higher the assurance practitioner's assessment of risk. (Ref: Para. A97)
	Tests of Controls 38R. The assurance practitioner shall design and perform tests of controls to obtain sufficient appropriate evidence as to the operating effectiveness of relevant controls if: (a) The assurance practitioner intends to rely on the operating effectiveness of controls in determining the nature, timing and

Limited Assurance	Reasonable Assurance
	extent of other procedures; or (Ref: Para. A96) (b) Procedures other than tests of controls cannot alone provide sufficient appropriate evidence at the assertion level. (Ref: Para. A98)
	39R. If deviations from controls upon which the assurance practitioner intends to rely are detected, the assurance practitioner shall make specific enquiries to understand these matters and their potential consequences, and shall determine whether: (a) The tests of controls that have been performed provide an appropriate basis for reliance on the controls; (b) Additional tests of controls are necessary; or (c) The potential risks of material misstatement need to be addressed using other procedures.
	Procedures Other than Tests of Controls 40R. Irrespective of the assessed risks of material misstatement, the assurance practitioner shall design and perform tests of details or analytical procedures in addition to tests of controls, if any, for each material type of emission and disclosure. (Ref: Para. A94)
	41R. The assurance practitioner shall consider whether external confirmation procedures are to be performed. (Ref: Para. A99)
Analytical Procedures Performed in Response to Assessed Risks of Material Misstatement 42L. If designing and performing analytical procedures, the assurance practitioner shall: (Ref: Para. A90(c), A100–A102) (a) Determine the suitability of particular analytical procedures, taking account of the assessed risks of material misstatement and tests of details, if any; (b) Evaluate the reliability of data from which the assurance practitioner's	*Analytical Procedures Performed in Response to Assessed Risks of Material Misstatement* 42R. If designing and performing analytical procedures, the assurance practitioner shall: (Ref: Para. A90(c), A100–A102) (a) Determine the suitability of particular analytical procedures for given assertions, taking account of the assessed risks of material misstatement and tests of details, if any, for these assertions;

Limited Assurance	Reasonable Assurance
expectation of recorded quantities or ratios is developed, taking account of the source, comparability, and nature and relevance of information available, and controls over preparation; and (c) Develop an expectation with respect to recorded quantities or ratios.	(b) Evaluate the reliability of data from which the assurance practitioner's expectation of recorded quantities or ratios is developed, taking account of the source, comparability, and nature and relevance of information available, and controls over preparation; and (c) Develop an expectation of recorded quantities or ratios which is sufficiently precise to identify possible material misstatements.
43L. If analytical procedures identify fluctuations or relationships that are inconsistent with other relevant information or that differ significantly from expected quantities or ratios, the assurance practitioner shall make enquiries of the entity about such differences. The assurance practitioner shall consider the responses to these enquiries to determine whether other procedures are necessary in the circumstances. (Ref: Para. A90(c))	43R. If analytical procedures identify fluctuations or relationships that are inconsistent with other relevant information or that differ significantly from expected quantities or ratios, the assurance practitioner shall investigate such differences by: (Ref: Para. A90(c)) (a) Enquiring of the entity and obtaining additional evidence relevant to the entity's responses; and (b) Performing other procedures as necessary in the circumstances.
Procedures Regarding Estimates 44L. Based on the assessed risks of material misstatement, the assurance practitioner shall: (Ref: Para. A103–A104) (a) Evaluate whether: (i) The entity has appropriately applied the requirements of the applicable criteria relevant to estimates; and (ii) The methods for making estimates are appropriate and have been applied consistently, and whether changes, if any, in reported estimates or in the method for making them from the prior period are appropriate in the circumstances; and (b) Consider whether other procedures are necessary in the circumstances.	*Procedures Regarding Estimates* 44R. Based on the assessed risks of material misstatement, the assurance practitioner shall evaluate whether: (Ref: Para. A103) (a) The entity has appropriately applied the requirements of the applicable criteria relevant to estimates; and (b) The methods for making estimates are appropriate and have been applied consistently, and whether changes, if any, in reported estimates or in the method for making them from the prior period are appropriate in the circumstances.

Limited Assurance	Reasonable Assurance
	45R. In responding to an assessed risk of material misstatement, the assurance practitioner shall undertake one or more of the following, taking account of the nature of estimates: (Ref: Para. A103) (a) Test how the entity made the estimate and the data on which it is based. In doing so, the assurance practitioner shall evaluate whether: (i) The method of quantification used is appropriate in the circumstances; and (ii) The assumptions used by the entity are reasonable. (b) Test the operating effectiveness of the controls over how the entity made the estimate, together with other appropriate procedures. (c) Develop a point estimate or a range to evaluate the entity's estimate. For this purpose: (i) If the assurance practitioner uses assumptions or methods that differ from the entity's, the assurance practitioner shall obtain an understanding of the entity's assumptions or methods sufficient to establish that the assurance practitioner's point estimate or range takes into account relevant variables and to evaluate any significant differences from the entity's point estimate. (ii) If the assurance practitioner concludes that it is appropriate to use a range, the assurance practitioner shall narrow the range, based on evidence available, until all outcomes within the range are considered reasonable.

Sampling

46. If sampling is used, the assurance practitioner shall, when designing the sample, consider the purpose of the procedure and the characteristics of the population from which the sample will be drawn. (Ref: Para. A90(b), A105)

Fraud, Law and Regulation

47. The assurance practitioner shall respond appropriately to fraud or suspected fraud and non-compliance or suspected non-compliance with law or regulation identified during the engagement. (Ref: Para. A106–A107)

<table>
<tr><th>Limited Assurance</th><th>Reasonable Assurance</th></tr>
<tr><td>Procedures Regarding the GHG Statement Aggregation Process

48L. The assurance practitioner's procedures shall include the following procedures related to the GHG statement aggregation process: (Ref: Para. A108)

(a) Agreeing or reconciling the GHG statement with the underlying records; and

(b) Obtaining, through enquiry of the entity, an understanding of material adjustments made during the course of preparing the GHG statement and considering whether other procedures are necessary in the circumstances.</td><td>Procedures Regarding the GHG Statement Aggregation Process

48R. The assurance practitioner's procedures shall include the following procedures related to the GHG statement aggregation process: (Ref: Para. A108)

(a) Agreeing or reconciling the GHG statement with the underlying records; and

(b) Examining material adjustments made during the course of preparing the GHG statement.</td></tr>
<tr><td>Determining Whether Additional Procedures Are Necessary in a Limited Assurance Engagement

49L. If the assurance practitioner becomes aware of a matter(s) that causes the assurance practitioner to believe the GHG statement may be materially misstated, the assurance practitioner shall design and perform additional procedures to obtain further evidence until the assurance practitioner is able to: (Ref: Para. A109-A110)

(a) Conclude that the matter(s) is not likely to cause the GHG statement to be materially misstated; or

(b) Determine that the matter(s) causes the GHG statement to be materially misstated. (Ref: Para. A111)</td><td>Revision of Risk Assessment in a Reasonable Assurance Engagement

49R. The assurance practitioner's assessment of the risks of material misstatement at the assertion level may change during the course of the engagement as additional evidence is obtained. In circumstances where the assurance practitioner obtains evidence which is inconsistent with the evidence on which the assurance practitioner originally based the assessment, the assurance practitioner shall revise the assessment and modify the planned procedures accordingly. (Ref: Para. A109)</td></tr>
</table>

Accumulation of Identified Misstatements

50. The assurance practitioner shall accumulate misstatements identified during the engagement, other than those that are clearly trivial. (Ref: Para. A112)

Consideration of Identified Misstatements as the Engagement Progresses

51. The assurance practitioner shall determine whether the overall engagement strategy and engagement plan need to be revised if:

(a) The nature of identified misstatements and the circumstances of their occurrence indicate that other misstatements may exist that, when aggregated with misstatements accumulated during the engagement, could be material; or

(b) The aggregate of misstatements accumulated during the engagement approaches materiality determined in accordance with paragraphs 20–22 of this ASAE.

52. If, at the assurance practitioner's request, the entity has examined a type of emission or disclosure and corrected misstatements that were detected, the assurance practitioner shall perform procedures with respect to the work performed by the entity to determine whether material misstatements remain.

Communication and Correction of Misstatements

53. The assurance practitioner shall communicate on a timely basis all misstatements accumulated during the engagement with the appropriate level within the entity and shall request the entity to correct those misstatements.

54. If the entity refuses to correct some or all of the misstatements communicated by the assurance practitioner, the assurance practitioner shall obtain an understanding of the entity's reasons for not making the corrections and shall take that understanding into account when forming the assurance practitioner's conclusion.

Evaluating the Effect of Uncorrected Misstatements

55. Prior to evaluating the effect of uncorrected misstatements, the assurance practitioner shall reassess materiality determined in accordance with paragraphs 20–22 of this ASAE to confirm whether it remains appropriate in the context of the entity's actual emissions.

56. The assurance practitioner shall determine whether uncorrected misstatements are material, individually or in the aggregate. In making this determination, the assurance practitioner shall consider the size and nature of the misstatements, and the particular circumstances of their occurrence, in relation to particular types of emissions or disclosures and the GHG statement. (See paragraph 72).

Using the Work of Another Assurance Practitioner

57. When the assurance practitioner intends to use the work of another assurance practitioner, the assurance practitioner shall:

(a) Communicate clearly with the other assurance practitioner about the scope and timing of the work and findings of the other assurance practitioner; and (Ref: Para. A113–A114)

(b) Evaluate the sufficiency and appropriateness of evidence obtained and the process for including related information in the GHG statement. (Ref: Para. A115)

Written Representations

58. The assurance practitioner shall request written representations from a person(s) within the entity with appropriate responsibilities for, and knowledge of, the matters concerned: (Ref: Para. A116)

(a) That they have fulfilled their responsibility for the preparation of the GHG statement, including comparative information where appropriate, in accordance with the applicable criteria, as set out in the terms of the engagement;

(b) That they have provided the assurance practitioner with all relevant information and access as agreed in the terms of the engagement and reflected all relevant matters in the GHG statement;

(c) Whether they believe the effects of uncorrected misstatements are immaterial, individually and in the aggregate, to the GHG statement. A summary of such items shall be included in, or attached to, the written representation;

(d) Whether they believe that significant assumptions used in making estimates are reasonable;

(e) That they have communicated to the assurance practitioner all deficiencies in internal control relevant to the engagement that are not clearly trivial of which they are aware; and

(f) Whether they have disclosed to the assurance practitioner their knowledge of actual, suspected or alleged fraud or non-compliance with law or regulation where the fraud or non-compliance could have a material effect on the GHG statement.

59. The date of the written representations shall be as near as practicable to, but not after, the date of the assurance report.

60. The assurance practitioner shall disclaim a conclusion on the GHG statement or withdraw from the engagement, where withdrawal is possible under applicable law or regulation, if:

(a) The assurance practitioner concludes that there is sufficient doubt about the integrity of the person(s) providing the written representations required by paragraphs 58(a) and (b) of this ASAE that written representations in these regards are not reliable; or

(b) The entity does not provide the written representations required by paragraphs 58(a) and (b) of this ASAE.

Subsequent Events

61. The assurance practitioner shall: (Ref: Para. A117)

(a) Consider whether events occurring between the date of the GHG statement and the date of the assurance report require adjustment of, or disclosure in, the GHG statement, and evaluate the sufficiency and appropriateness of evidence obtained about whether such events are appropriately reflected in that GHG statement in accordance with the applicable criteria; and

(b) Respond appropriately to facts that become known to the assurance practitioner after the date of the assurance report, that, had they been known to the assurance practitioner at that date, may have caused the assurance practitioner to amend the assurance report.

Comparative Information

62. When comparative information is presented with the current emissions information and some or all of that comparative information is covered by the assurance practitioner's conclusion, the assurance practitioner's procedures with respect to the comparative information shall include evaluating whether: (Ref: Para. A118–A121)

(a) The comparative information agrees with the amounts and other disclosures presented in the prior period or, when appropriate, has been properly restated and that restatement has been adequately disclosed; and (Ref Para. A121)

(b) The quantification policies reflected in the comparative information are consistent with those applied in the current period or, if there have been changes, whether they have been properly applied and adequately disclosed.

63. Irrespective of whether the assurance practitioner's conclusion covers the comparative information, if the assurance practitioner becomes aware that there may be a material misstatement in the comparative information presented the assurance practitioner shall:

    (a) Discuss the matter with those person(s) within the entity with appropriate responsibilities for, and knowledge of, the matters concerned and perform procedures appropriate in the circumstances; and (Ref: Para. A122–A123)

    (b) Consider the effect on the assurance report. If the comparative information presented contains a material misstatement, and the comparative information has not been restated:

        (i) Where the assurance practitioner's conclusion covers the comparative information, the assurance practitioner shall express a qualified conclusion or an adverse conclusion in the assurance report; or

        (ii) Where the assurance practitioner's conclusion does not cover the comparative information, the assurance practitioner shall include an Other Matter paragraph in the assurance report describing the circumstances affecting the comparative information.

Other Information

64. The assurance practitioner shall read other information included in documents containing the GHG statement and the assurance report thereon to identify material inconsistencies, if any, with the GHG statement or the assurance report and, if on reading that other information, the assurance practitioner: (Ref: Para. A139)

    (a) Identifies a material inconsistency between that other information and the GHG statement or the assurance report; or

    (b) Becomes aware of a material misstatement of fact in that other information that is unrelated to matters appearing in the GHG statement or the assurance report,

    the assurance practitioner shall discuss the matter with the entity and take further action as appropriate. (Ref: Para. A124–A126)

Documentation

65. In documenting the nature, timing and extent of procedures performed, the assurance practitioner shall record: (Ref: Para. A127)

    (a) The identifying characteristics of the specific items or matters tested;

    (b) Who performed the engagement work and the date such work was completed; and

    (c) Who reviewed the engagement work performed and the date and extent of such review.

66. The assurance practitioner shall document discussions of significant matters with the entity and others, including the nature of the significant matters discussed, and when and with whom the discussions took place. (Ref: Para. A127)

Quality Management

67. The assurance practitioner shall include in the engagement documentation:

    (a) Issues identified with respect to compliance with relevant ethical requirements and how they were resolved;

(b) Conclusions on compliance with independence requirements that apply to the engagement, and any relevant discussions with the firm that support these conclusions;

(c) Conclusions reached regarding the acceptance and continuance of client relationships and assurance engagements; and

(d) The nature and scope of, and conclusions resulting from, consultations undertaken during the course of the engagement.

Matters Arising after the Date of the Assurance Report

68. If, in exceptional circumstances, the assurance practitioner performs new or additional procedures or draws new conclusions after the date of the assurance report, the assurance practitioner shall document: (Ref: Para. A128)

(a) The circumstances encountered;

(b) The new or additional procedures performed, evidence obtained, and conclusions reached, and their effect on the assurance report; and

(c) When and by whom the resulting changes to engagement documentation were made and reviewed.

Assembly of the Final Engagement File

69. The assurance practitioner shall assemble the engagement documentation in an engagement file and complete the administrative process of assembling the final engagement file on a timely basis after the date of the assurance report. After the assembly of the final engagement file has been completed, the assurance practitioner shall not delete or discard engagement documentation of any nature before the end of its retention period. (Ref: Para. A129)

70. In circumstances other than those envisaged in paragraph 68 where the assurance practitioner finds it necessary to modify existing engagement documentation or add new engagement documentation after the assembly of the final engagement file has been completed, the assurance practitioner shall, regardless of the nature of the modifications or additions, document:

(a) The specific reasons for making them; and

(b) When and by whom they were made and reviewed.

Forming the Assurance Conclusion

71. The assurance practitioner shall form a conclusion about whether the assurance practitioner has obtained reasonable or limited assurance, as appropriate, about the GHG statement. That conclusion shall take into account the requirements of paragraphs 56 and 73–75 of this ASAE.

Limited Assurance	**Reasonable Assurance**
72L. The assurance practitioner shall evaluate whether anything has come to the assurance practitioner's attention that causes the assurance practitioner to believe that the GHG statement is not prepared, in all material respects, in accordance with the applicable criteria.	72R. The assurance practitioner shall evaluate whether the GHG statement is prepared, in all material respects, in accordance with the applicable criteria.

73 This evaluation shall include consideration of the qualitative aspects of the entity's quantification methods and reporting practices, including indicators of possible bias in judgements and decisions in the making of estimates and in preparing the GHG statement,[13] and whether, in view of the applicable criteria:

(a) The quantification methods and reporting policies selected and applied are consistent with the applicable criteria and are appropriate;

(b) Estimates made in preparing the GHG statement are reasonable;

(c) The information presented in the GHG statement is relevant, reliable, complete, comparable and understandable;

(d) The GHG statement provides adequate disclosure of the applicable criteria, and other matters, including uncertainties, such that intended users can understand the significant judgements made in its preparation; and (Ref: Para. A29, A131–A133)

(e) The terminology used in the GHG statement is appropriate.

74 The evaluation required by paragraph 73 shall also include consideration of:

a. The overall presentation, structure and content of the GHG statement; and

b. When appropriate in the context of the criteria, the wording of the assurance conclusion, or other engagement circumstances, whether the GHG statement represents the underlying emissions in a manner that achieves fair presentation.

Assurance Report Content

75 The assurance report, at a minimum, shall include the following basic elements: (Ref: Para. A134)

a. A title that clearly indicates the report is an independent assurance report.

b. An addressee.

c. An identification or description of the level of assurance, either reasonable or limited, obtained by the assurance practitioner.

d. Identification of the GHG statement, including the period(s) it covers, and, if any information in that statement is not covered by the assurance practitioner's conclusion, clear identification of the information subject to assurance as well as the excluded information, together with a statement that the assurance practitioner has not performed any procedures with respect to the excluded information and, therefore, that no conclusion on it is expressed. (Ref: Para. A120, A135)

e. A description of the entity's responsibilities. (Ref: Para. A35)

f. A statement that GHG quantification is subject to inherent uncertainty. (Ref: Para. A54–A59)

g. If the GHG statement includes emissions deductions that are covered by the assurance practitioner's conclusion, identification of those emissions deductions, and a statement of the assurance practitioner's responsibility with respect to them. (Ref: Para. A136–A139)

[13] Indicators of possible bias do not themselves constitute misstatements for the purposes of drawing conclusions on the reasonableness of individual estimates.

h. (i) Identification of the applicable criteria;

(ii) Identification of how those criteria can be accessed;

(iii) If those criteria are available only to specific intended users, or are relevant only to a specific purpose, a statement alerting readers to this fact and that, as a result, the GHG statement may not be suitable for another purpose. The statement shall also restrict the use of the assurance report to those intended users or that purpose; and (Ref: Para. A140–A141)

(iv) If established criteria need to be supplemented by disclosures in the explanatory notes to the GHG statement for those criteria to be suitable, identification of the relevant note(s). (Ref: Para. A131)

i A statement that the firm of which the assurance practitioner is a member applies ASQM 1, or other professional requirements, or requirements in law or regulation, that are at least as demanding as ASQM 1. If the assurance practitioner is not a professional accountant, the statement shall identify the professional requirements, or requirements in law or regulation, applied that are at least as demanding as ASQM 1.

a. [Deleted by the AUASB. Refer Aus 76.1(j).]

76.1(j) A statement that the assurance practitioner complies with relevant ethical requirements related to other assurance engagements* or other professional requirements, or requirements imposed by law or regulation, that are at least as demanding. If the assurance practitioner is not a professional accountant, the statement shall identify the professional requirements, or requirements imposed by law or regulation, applied that are at least as demanding as ASA 102 related to assurance engagements.

b. A description of the assurance practitioner's responsibility, including:

i. A statement that the engagement was performed in accordance with ASAE 3410 *Assurance Engagements on Greenhouse Gas Statements*; and

ii. An informative summary of the worked performed as a basis for the assurance practitioner's conclusion. In the case of a limited assurance engagement, an appreciation of the nature, timing, and extent of procedures performed is essential to understanding the assurance practitioner's conclusion. In a limited assurance engagement, the summary of the work performed shall state that:

- The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement; and
- Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. (Ref: Para. A142–A144)

c. The assurance practitioner's conclusion:

i. In a reasonable assurance engagement, the conclusion shall be expressed in a positive form; or

* Relevant ethical requirements are contained in ASA 102.

ii. In a limited assurance engagement, the conclusion shall be expressed in a form that conveys whether, based on the procedures performed and evidence obtained, a matter(s) has come to the assurance practitioner's attention to cause the assurance practitioner to believe that the GHG statement is not prepared, in all material respects, in accordance with the applicable criteria.

iii. When the assurance practitioner expresses a modified conclusion, the assurance report shall contain:

d. A section that provides a description of the matter(s) giving rise to the modification; and

e. A section that contains the assurance practitioner's modified conclusion.

f. The assurance practitioner's signature. (Ref: Para. A145)

g. The date of the assurance report. The assurance report shall be dated no earlier than the date on which:

iv. The assurance practitioner has obtained the evidence on which the assurance practitioner's conclusion is based, including evidence that those with the recognised authority have asserted that they have taken responsibility for the GHG statement; and

v. When an engagement quality review is required in accordance with ASQM 1 or the firm's policies or procedures, the engagement quality review is complete.

h. The location in the jurisdiction where the assurance practitioner practices.

Emphasis of Matter Paragraphs and Other Matter Paragraphs

i. If the assurance practitioner considers it necessary to: (Ref: Para. A146–A152)

77. Draw intended users' attention to a matter presented or disclosed in the GHG statement that, in the assurance practitioner's judgement, is of such importance that it is fundamental to intended users' understanding of the GHG statement (an Emphasis of Matter paragraph); or

78 Communicate a matter other than those that are presented or disclosed in the GHG statement that, in the assurance practitioner's judgement, is relevant to intended users' understanding of the engagement, the assurance practitioner's responsibilities or the assurance report (an Other Matter paragraph),

and this is not prohibited by law or regulation, the assurance practitioner shall do so in a paragraph in the assurance report, with an appropriate heading, that clearly indicates the assurance practitioner's conclusion is not modified in respect of the matter.

Other Communication Requirements

79 The assurance practitioner shall communicate, unless prohibited by law or regulation, with those person(s) with oversight responsibilities for the GHG statement the following matters that come to the assurance practitioner's attention during the course of the engagement, and shall determine whether there is a responsibility to report them to another party within or outside the entity:

80 Deficiencies in internal control that, in the assurance practitioner's professional judgement, are of sufficient importance to merit attention;

81 Identified or suspected fraud; and

82 Matters involving identified or suspected non-compliance with laws and regulations, other than when the matters are clearly trivial. (Ref: Para. A87)

* * *

Application and Other Explanatory Material

Introduction

Assurance Engagements Covering Information in Addition to the GHG Statement (Ref: Para. 3)

A1. In some cases, the assurance practitioner may perform an assurance engagement on a report that includes GHG information, but that GHG information does not comprise a GHG statement as defined in paragraph 14(m). In such cases, this ASAE may provide guidance for such an engagement.

A2. Where a GHG statement is a relatively minor part of the overall information that is covered by the assurance practitioner's conclusion, the extent to which this ASAE is relevant is a matter for the assurance practitioner's professional judgement in the circumstances of the engagement.

Key Performance Indicators Based on GHG Data (Ref: Para. 4(b))

A3. An example of a key performance indicator based on GHG data is the weighted average of emissions per kilometre of vehicles manufactured by an entity during a period, which is required to be calculated and disclosed by law or regulation in some jurisdictions.

Procedures for Reasonable Assurance and Limited Assurance Engagements (Ref: Para. 8)

A4. Some procedures that are required only for reasonable assurance engagements may nonetheless be appropriate in some limited assurance engagements. For example, although obtaining an understanding of control activities is not required for limited assurance engagements, in some cases, such as when information is recorded, processed, or reported only in electronic form, the assurance practitioner may nonetheless decide that testing controls, and therefore obtaining an understanding of relevant control activities, is necessary for a limited assurance engagement (see also paragraph A90).

Independence (Ref: Para. Aus 10.1 and 15)

A5. Relevant ethical requirements related to assurance engagements[*] set out Independence Standards required to be complied with in relation to these engagements. Compliance with relevant ethical requirements may potentially be threatened by a broad range of circumstances. Many threats fall into the following categories:

- Self-interest, for example, undue dependence on total fees from the entity.
- Self-review, for example, performing another service for the entity that directly affects the GHG statement, such as involvement in the quantification of the entity's emissions.
- Advocacy, for example, acting as an advocate on behalf of the entity with respect to the interpretation of the applicable criteria.
- Familiarity, for example, a member of the engagement team having a long association, or close or immediate family relationship, with an employee of the entity who is in a position to exert direct and significant influence over the preparation of the GHG statement.
- Intimidation, for example, being pressured to reduce inappropriately the extent of work performed in order to lower fees, or being threatened with withdrawal of the

[*] Relevant ethical requirements are contained in ASA 102.

assurance practitioner's registration by a registering authority that is associated with the entity's industry group.

A6. In cases when identified threats are not at an acceptable level, relevant ethical requirements require that the threats be addressed by eliminating the circumstances that create the threats, applying safeguards to reduce threats to an acceptable level, or withdrawing from the engagement, where withdrawal is possible under applicable law or regulation.

Law or Regulation and the Provisions of an Emissions Trading Scheme (Ref: Para. 11)

A7. Law or regulation or the provisions of an emissions trading scheme may: include requirements in addition to the requirements of this ASAE; require that specific procedures be undertaken on all engagements; or require that procedures be undertaken in a particular way. For example, law or regulation or the provisions of an emissions trading scheme may require the assurance practitioner to report in a format that is not in compliance with this ASAE. When the law or regulation prescribes the layout or wording of the assurance report in a form or in terms that are significantly different from this ASAE, and the assurance practitioner concludes that additional explanation in the assurance report cannot mitigate possible misunderstanding, the assurance practitioner may consider including a statement in the report that the engagement is not conducted in accordance with this ASAE.

Definitions

Emissions (Ref: Para. 14(f), Appendix 1)

A8. Scope 1 emissions may include stationary combustion (from fuel burned in the entity's stationary equipment, such as boilers, incinerators, engines, and flares), mobile combustion (from fuel burned in the entity's transport devices, such as trucks, trains, airplanes and boats), process emissions (from physical or chemical processes, such as cement manufacturing, petrochemical processing, and aluminium smelting), and fugitive emissions (intentional and unintentional releases, such as equipment leaks from joints and seals and emissions from wastewater treatment, pits, and cooling towers).

A9. Almost all entities purchase energy in a form such as electricity, heat or steam; therefore, almost all entities have Scope 2 emissions. Scope 2 emissions are indirect because the emissions associated with, for example, electricity that the entity purchases occur at the power station, which is outside the entity's organisational boundary.

A10. Scope 3 emissions may include emissions associated with, for example: employee business travel; outsourced activities; consumption of fossil fuel or electricity required to use the entity's products; extraction and production of materials purchased as inputs to the entity's processes; and transportation of purchased fuels. Scope 3 emissions are further discussed in paragraphs A31–A34.

Emissions Deductions (Ref: Para. 14(g), 17(a)(iii), Appendix 1)

A11. In some cases, emissions deductions include jurisdiction-specific credits and allowances for which there is no established link between the quantity of emissions allowed by the criteria to be deducted, and any lowering of emissions that may occur as a result of money paid or other action taken by the entity in order for it to claim the emissions deduction.

A12. Where an entity's GHG statement includes emissions deductions that are within the scope of the engagement, the requirements of this ASAE apply in relation to emissions deductions as appropriate (see also paragraphs A136-A139).

Purchased Offset (Ref: Para. 14(q), Appendix 1)

A13. When the entity purchases an offset from another entity, that other entity may spend the money it receives from the sale on emissions reduction projects (such as replacing energy generation using fossil fuels with renewable energy sources, or implementing energy efficiency measures), or on removing emissions from the atmosphere (for example, by planting and maintaining trees that would otherwise not have been planted or maintained), or the money may be compensation for not undertaking an action that would otherwise be undertaken (such as deforestation or forest degradation). In some jurisdictions, offsets can only be purchased if the emissions reduction or removal enhancement has already occurred.

Removal (Ref: Para. 14(s), Appendix 1)

A14. Removal may be achieved by storing GHGs in geological sinks (for example, underground) or biological sinks (for example, trees). Where the GHG statement includes the removal of GHGs that the entity would have otherwise emitted to the atmosphere, they are commonly reported in the GHG statement on a gross basis, that is, both the source and the sink are quantified in the GHG statement. Where removals are covered by the assurance practitioner's conclusion, the requirements of this ASAE apply in relation to those removals as appropriate.

Significant Facility (Ref: Para. 14(t) and 31)

A15. As the individual contribution of a facility to the aggregate emissions reported in the GHG statement increases, the risks of material misstatement to the GHG statement ordinarily increase. The assurance practitioner may apply a percentage to a chosen benchmark as an aid to identify facilities that are of individual significance due to the size of their emissions relative to the aggregate emissions included in the GHG statement. Identifying a benchmark and determining a percentage to be applied to it involve the exercise of professional judgement. For example, the assurance practitioner may consider that facilities exceeding 15% of total production volume are significant facilities. A higher or lower percentage may, however, be determined to be appropriate in the circumstances in the assurance practitioner's professional judgement. This may be the case when, for example: there is a small number of facilities, none of which is less than 15% of total production volume, but in the assurance practitioner's professional judgement not all the facilities are significant; or when there are a number of facilities that are marginally below 15% of total production volume which in the assurance practitioner's professional judgement are significant.

A16. The assurance practitioner may also identify a facility as significant due to its specific nature or circumstances which give rise to particular risks of material misstatement. For example, a facility could be using different data gathering processes or quantification techniques from other facilities, require the use of particularly complex or specialised calculations, or involve particularly complex or specialised chemical or physical processes.

ASAE 3000 (Ref: Para. 9, 15)

A17. ASAE 3000 includes requirements that apply to assurance engagements, (other than audits or reviews of historical financial information), including engagements in accordance with this ASAE. In some cases, this ASAE may include additional requirements or application material in relation to those topics.

Acceptance and Continuance of the Engagement

Competency (Ref: Para 16(b))

A18. GHG competencies may include:

- General understanding of climate science, including the scientific processes that relate GHGs to climate change.
- Understanding who the intended users of the information in the entity's GHG statement are, and how they are likely to use that information (see paragraph A47).

- Understanding emissions trading schemes and related market mechanisms, when relevant.
- Knowledge of applicable law and regulation, if any, that affect how the entity should report its emissions, and may also, for example, impose a limit on the entity's emissions.
- GHG quantification and measurement methodologies, including the associated scientific and estimation uncertainties, and alternative methodologies available.
- Knowledge of the applicable criteria, including, for example:
    - o Identifying appropriate emissions factors.
    - o Identifying those aspects of the criteria that call for significant or sensitive estimates to be made, or for the application of considerable judgement.
    - o Methods used for determining organisational boundaries, i.e., the entities whose emissions are to be included in the GHG statement.
    - o Which emissions deductions are permitted to be included in the entity's GHG statement.

A19. The complexity of assurance engagements with respect to a GHG statement varies. In some cases, the engagement may be relatively straightforward, for instance, when an entity has no Scope 1 emissions and is reporting only Scope 2 emissions using an emissions factor specified in regulation, applied to electricity consumption at a single location. In this case, the engagement may focus largely on the system used to record and process electricity consumption figures identified on invoices, and arithmetical application of the specified emissions factor. When, however, the engagement is relatively complex, it is likely to require specialist competence in the quantification and reporting of emissions. Particular areas of expertise that may be relevant in such cases include:

Information systems expertise

- Understanding how emissions information is generated, including how data is initiated, recorded, processed, corrected as necessary, collated and reported in a GHG statement.

Scientific and engineering expertise

- Mapping the flow of materials through a production process, and the accompanying processes that create emissions, including identifying the relevant points at which source data is gathered. This may be particularly important in considering whether the entity's identification of emissions sources is complete.
- Analysing chemical and physical relationships between inputs, processes and outputs, and relationships between emissions and other variables. The capacity to understand and analyse these relationships will often be important in designing analytical procedures.
- Identifying the effect of uncertainty on the GHG statement.
- Knowledge of the quality control policies and procedures implemented at testing laboratories, whether internal or external.
- Experience with specific industries and related emissions creation and removal processes. Procedures for Scope 1 emissions quantification vary greatly depending on the industries and processes involved, for example, the nature of electrolytic processes

in aluminium production; combustion processes in the production of electricity using fossil fuels; and chemical processes in cement production are all different.

- The operation of physical sensors and other quantification methods, and the selection of appropriate emissions factors.

Scope of the GHG Statement and the Engagement (Ref: Para. 17(a))

A20. Examples of circumstances where the reasons for excluding known emissions sources from the GHG statement, or excluding disclosed emissions sources from the engagement, may not be reasonable in the circumstances include where:

- The entity has significant Scope 1 emissions but only includes Scope 2 emissions in the GHG statement.
- The entity is a part of a larger legal entity that has significant emissions that are not being reported on because of the way the organisational boundary has been determined when this is likely to mislead intended users.
- The emissions that the assurance practitioner is reporting on are only a small proportion of the total emissions included in the GHG statement.

Determining the Appropriateness of the Subject Matter (Ref: Para. 15)

A21. ASAE 3000 requires the assurance practitioner to determine whether the underlying subject matter is appropriate.[14] In the case of a GHG statement, the entity's emissions (and removals and emissions deductions if applicable) are the underlying subject matter of the engagement. That underlying subject matter will be appropriate if, among other things, the entity's emissions are capable of consistent quantification using suitable criteria.[15]

A22. GHG sources may be quantified by:

(a) Direct measurement (or direct monitoring) of GHG concentration and flow rates using continuous emissions monitoring or periodic sampling; or

83 Measuring a surrogate activity, such as fuel consumption, and calculating emissions using, for example, mass balance equations,[16] entity-specific emissions factors, or average emissions factors for a region, source, industry or process.

Determining the Suitability of the Criteria

Specifically Developed and Established Criteria (Ref: Para. 17(b))

A23. Suitable criteria exhibit the following characteristics: relevance, completeness, reliability, neutrality, and understandability. Criteria may be "specifically developed" or they may be "established," for example, embodied in law or regulation, or issued by authorised or recognised bodies of experts that follow a transparent due process.[17] Although criteria established by a regulator can be presumed to be relevant when that regulator is the intended user, some established criteria may be developed for a special purpose and be unsuitable for application in other circumstances. For example, criteria developed by a regulator that include emissions factors for a particular region may render misleading information if used for emissions in another region; or criteria that are designed to report only on particular regulatory

[14] ASAE 3000, paragraph 24(b)(i).
[15] ASAE 3000, paragraph 24(b)(ii).
[16] That is, equating the amount of a substance entering and exiting a defined boundary, for example, the amount of carbon in a hydrocarbon-based fuel entering a combustion device equals the amount of carbon exiting the device in the form of carbon dioxide.
[17] ASAE 3000, paragraphs A45-A48.

aspects of emissions may be unsuitable for reporting to intended users other than the regulator that established the criteria.

A24. Specifically developed criteria may be appropriate when, for example, the entity has very specialised machinery or is aggregating emissions information from different jurisdictions where the established criteria used in those jurisdictions differ. Special care may be necessary when assessing the neutrality and other characteristics of specifically developed criteria, particularly if they are not substantially based on established criteria generally used in the entity's industry or region, or are inconsistent with such criteria.

A25. The criteria may comprise established criteria supplemented by disclosures, in the explanatory notes to the GHG statement, of specific boundaries, methods, assumptions, emissions factors, etc. In some cases, established criteria may not be suitable, even when supplemented by disclosures in the explanatory notes to the GHG statement, for example, when they do not encompass the matters noted in paragraph 17(b).

A26. It should be noted that the suitability of the criteria is not affected by the level of assurance, that is, if they are not suitable for a reasonable assurance engagement, they are also not suitable for a limited assurance engagement, and vice versa.

Operations Included in the Entity's Organisational Boundary (Ref: Para. 17(b)(i), 23(b)(i), 34(g))

A27. Determining which operations owned or controlled by the entity to include in the entity's GHG statement is known as determining the entity's organisational boundary. In some cases, law or regulation define the boundaries of the entity for reporting GHG emissions for regulatory purposes. In other cases, the applicable criteria may allow a choice between different methods for determining the entity's organisational boundary, for example, the criteria may allow a choice between an approach that aligns the entity's GHG statement with its financial statements and another approach that treats, for example, joint ventures or associates differently. Determining the entity's organisational boundary may require the analysis of complex organisational structures such as joint ventures, partnerships, and trusts, and complex or unusual contractual relationships. For example, a facility may be owned by one party, operated by another, and process materials solely for another party.

A28. Determining the entity's organisational boundary is different from what some criteria describe as determining the entity's "operational boundary." The operational boundary relates to which categories of Scope 1, 2 and 3 emissions will be included in the GHG statement, and is determined after setting the organisational boundary.

Adequate Disclosures (Ref: Para. 17(b)(iv), 74(d))

A29. In regulatory disclosure regimes, disclosures specified in the relevant law or regulation are adequate for reporting to the regulator. Disclosure in the GHG statement of such matters as the following may be necessary in voluntary reporting situations for intended users to understand the significant judgements made in preparing the GHG statement:

(a) Which operations are included in the entity's organisational boundary, and the method used for determining that boundary if the applicable criteria allow a choice between different methods (see paragraphs A27–A28);

(b) Significant quantification methods and reporting policies selected, including:

(i) The method used to determine which Scope 1 and Scope 2 emissions have been included in the GHG statement (see paragraph A30);

(ii) Any significant interpretations made in applying the applicable criteria in the entity's circumstances, including data sources and, when choices between different methods are allowed, or entity-specific methods are used, disclosure of the method used and the rationale for doing so; and

(iii) How the entity determines whether previously reported emissions should be restated.

(c) The categorisation of emissions in the GHG statement. As noted in paragraph A14, where the GHG statement includes the removal of GHGs that the entity would have otherwise emitted to the atmosphere, both emissions and removals are commonly reported in the GHG statement on a gross basis, that is, both the source and the sink are quantified in the GHG statement;

(d) A statement regarding the uncertainties relevant to the entity's quantification of its emissions, including: their causes; how they have been addressed; their effects on the GHG statement; and, where the GHG statement includes Scope 3 emissions, an explanation of: (see paragraphs A31–A34)

(i) The nature of Scope 3 emissions, including that it is not practicable for an entity to include all Scope 3 emissions in its GHG statement; and

(ii) The basis for selecting those Scope 3 emissions sources that have been included; and

(e) Changes, if any, in the matters mentioned in this paragraph or in other matters that materially affect the comparability of the GHG statement with a prior period(s) or base year.

Scope 1 and Scope 2 Emissions

A30. Criteria commonly call for all material Scope 1, Scope 2, or both Scope 1 and Scope 2 emissions to be included in the GHG statement. Where some Scope 1 or Scope 2 emissions have been excluded, it is important that the explanatory notes to the GHG statement disclose the basis for determining which emissions are included and which are excluded, particularly if those that are included are not likely to be the largest for which the entity is responsible.

Scope 3 Emissions

A31. While some criteria require the reporting of specific Scope 3 emissions, more commonly the inclusion of Scope 3 emissions is optional because it would be impracticable for nearly any entity to attempt to quantify the full extent of its indirect emissions as this includes all sources both up and down the entity's supply chain. For some entities, reporting particular categories of Scope 3 emissions provides important information for intended users, for example, where an entity's Scope 3 emissions are considerably larger than its Scope 1 and Scope 2 emissions, as may be the case with many service sector entities. In these cases, the assurance practitioner may consider it inappropriate to undertake an assurance engagement if significant Scope 3 emissions are not included in the GHG statement.

A32. Where some Scope 3 emissions sources have been included in the GHG statement, it is important that the basis for selecting which sources to include is reasonable, particularly if those included are not likely to be the largest sources for which the entity is responsible.

A33. In some cases, the source data used to quantify Scope 3 emissions may be maintained by the entity. For example, the entity may keep detailed records as the basis for quantifying emissions associated with employee air travel. In some other cases, the source data used to quantify Scope 3 emissions may be maintained in a well-controlled and accessible source outside the entity. Where this is not the case, however, it may be unlikely that the assurance practitioner will be able to obtain sufficient appropriate evidence with respect to such Scope 3 emissions. In such cases, it may be appropriate to exclude those Scope 3 emissions sources from the engagement.

A34. It may also be appropriate to exclude Scope 3 emissions from the engagement where the quantification methods in use are heavily dependent on estimation and lead to a high degree of uncertainty in reported emissions. For example, various quantification methods for estimating the emissions associated with air travel can give widely varying quantifications even when identical source data is used. If such Scope 3 emissions sources are included in the engagement, it is important that the quantification methods used are selected objectively and that they are fully described along with the uncertainties associated with their use.

The Entity's Responsibility for the Preparation of the GHG Statement (Ref: Para. 17(c)(ii), 76(d))

A35. As noted in paragraph A70, for some engagements concerns about the condition and reliability of an entity's records may cause the assurance practitioner to conclude that it is unlikely that sufficient appropriate evidence will be available to support an unmodified conclusion on the GHG statement. This may occur when the entity has little experience with the preparation of GHG statements. In such circumstances, it may be more appropriate for the quantification and reporting of emissions to be subject to an agreed-upon procedures engagement or a consulting engagement in preparation for an assurance engagement in a later period.

Who Developed the Criteria (Ref: Para. 17(c)(iii))

A36. When the GHG statement has been prepared for a regulatory disclosure regime or emissions trading scheme where the applicable criteria and form of reporting are prescribed, it is likely to be apparent from the engagement circumstances that it is the regulator or body in charge of the scheme that developed the criteria. In voluntary reporting situations, however, it may not be clear who developed the criteria unless it is stated in the explanatory notes to the GHG statement.

Changing the Terms of the Engagement (Ref: Para. 15, 18)

A37. ASAE 3000 requires that the assurance practitioner not agree to a change in the terms of the engagement where there is no reasonable justification for doing so.[18] A request to change the scope of the engagement may not have a reasonable justification when, for example, the request is made to exclude certain emissions sources from the scope of the engagement because of the likelihood that the assurance practitioner's conclusion would be modified.

Planning (Ref: Para. 19)

A38. When establishing the overall engagement strategy, it may be relevant to consider the emphasis given to different aspects of the design and implementation of the GHG information system. For example, in some cases the entity may have been particularly conscious of the need for adequate internal control to ensure the reliability of reported information, while in other cases the entity may have focused more on accurately determining the scientific, operational or technical characteristics of the information to be gathered.

A39. Smaller engagements or more straightforward engagements (see paragraph A19) may be conducted by a very small engagement team. With a smaller team, co-ordination of, and communication between, team members is easier. Establishing the overall engagement strategy for a smaller engagement, or for a more straightforward engagement, need not be a complex or time-consuming exercise. For example, a brief memorandum, based on discussions with the entity, may serve as the documented engagement strategy if it covers the matters noted in paragraph 19.

A40. The assurance practitioner may decide to discuss elements of planning with the entity when determining the scope of the engagement or to facilitate the conduct and management of the engagement (for example, to co-ordinate some of the planned procedures with the work of the entity's personnel). Although these discussions often occur, the overall engagement strategy and the engagement plan remain the assurance practitioner's responsibility. When discussing matters included in the overall engagement strategy or engagement plan, care is required in

[18] ASAE 3000, paragraph 29.

order not to compromise the effectiveness of the engagement. For example, discussing the nature and timing of detailed procedures with the entity may compromise the effectiveness of the engagement by making the procedures too predictable.

A41. The performance of an assurance engagement is an iterative process. As the assurance practitioner performs planned procedures, the evidence obtained may cause the assurance practitioner to modify the nature, timing or extent of other planned procedures. In some cases, information may come to the assurance practitioner's attention that differs significantly from that expected at an earlier stage of the engagement. For example, systematic errors discovered when performing procedures on location at selected facilities may indicate that it is necessary to visit additional facilities.

Planning to Use an Assurance Practitioner's Expert or Another Assurance Practitioner (Ref: Para. 19(e))

A42. The engagement may be performed by a multi-disciplinary team that includes one or more experts, particularly on relatively complex engagements when specialist competence in the quantification and reporting of emissions is likely to be required (see paragraph A19). ASAE 3000 contains a number of requirements with respect to using the work of an expert that may need to be considered at the planning stage when ascertaining the nature, timing and extent of resources necessary to perform the engagement.[19]

A43. The work of another assurance practitioner may be used in relation to, for example, a factory or other form of facility at a remote location; a subsidiary, division or branch in a foreign jurisdiction; or a joint venture or associate. Relevant considerations when the engagement team plans to request another assurance practitioner to perform work on information to be included in the GHG statement may include:

- Whether the other assurance practitioner understands and complies with the ethical requirements that are relevant to the engagement and, in particular, is independent.
- The other assurance practitioner's professional competence.
- The extent of the engagement team's involvement in the work of the other assurance practitioner.
- Whether the other assurance practitioner operates in a regulatory environment that actively oversees that assurance practitioner.

Materiality in Planning and Performing the Engagement

Determining Materiality When Planning the Engagement (Ref: Para. 20–21)

A44. The criteria may discuss the concept of materiality in the context of the preparation and presentation of the GHG statement. Although criteria may discuss materiality in different terms, the concept of materiality generally includes that:

- Misstatements, including omissions, are considered to be material if they, individually or in the aggregate, could reasonably be expected to influence relevant decisions of users taken on the basis of the GHG statement;
- Judgements about materiality are made in light of surrounding circumstances, and are affected by the size or nature of a misstatement, or a combination of both; and
- Judgements about matters that are material to intended users of the GHG statement are based on a consideration of the common information needs of intended users as a group. Unless the engagement has been designed to meet the particular information

[19] ASAE 3000, paragraphs 45(c), 52 and 54.

needs of specific users, the possible effect of misstatements on specific users, whose information needs may vary widely, is not ordinarily considered.

A45. Such a discussion, if present in the applicable criteria, provides a frame of reference to the assurance practitioner in determining materiality for the engagement. If the applicable criteria do not include a discussion of the concept of materiality, the characteristics referred to above provide the assurance practitioner with such a frame of reference.

A46. The assurance practitioner's determination of materiality is a matter of professional judgement, and is affected by the assurance practitioner's perception of the common information needs of intended users as a group. In this context, it is reasonable for the assurance practitioner to assume that intended users:

(a) Have a reasonable knowledge of GHG related activities, and a willingness to study the information in the GHG statement with reasonable diligence;

(b) Understand that the GHG statement is prepared and assured to levels of materiality, and have an understanding of any materiality concepts included in the applicable criteria;

(c) Understand that the quantification of emissions involves uncertainties (see paragraphs A54–A59); and

(d) Make reasonable decisions on the basis of the information in the GHG statement.

A47. Intended users and their information needs may include, for example:

- Investors and other stakeholders such as suppliers, customers, employees, and the broader community in the case of voluntary disclosures. Their information needs may relate to decisions to buy or sell equity in the entity; lend to, trade with, or be employed by the entity; or make representations to the entity or others, for example, politicians.
- Market participants in the case of an emissions trading scheme, whose information needs may relate to decisions to trade negotiable instruments (such as permits, credits or allowances) created by the scheme, or impose fines or other penalties on the basis of excess emissions.
- Regulators and policy makers in the case of a regulatory disclosure regime. Their information needs may relate to monitoring compliance with the disclosure regime, and a broad range of government policy decisions related to climate change mitigation and adaptation, usually based on aggregated information.
- Management and those charged with governance of the entity who use information about emissions for strategic and operational decisions, such as choosing between alternative technologies and investment and divestment decisions, perhaps in anticipation of a regulatory disclosure regime or entering an emissions trading scheme.

The assurance practitioner may not be able to identify all those who will read the assurance report, particularly where there are a large number of people who have access to it. In such cases, particularly where possible users are likely to have a broad range of interests with respect to emissions, intended users may be limited to major stakeholders with significant and common interests. Intended users may be identified in different ways, for example, by agreement between the assurance practitioner and the engaging party, or by law or regulation.

A48. Judgements about materiality are made in light of surrounding circumstances, and are affected by both quantitative and qualitative factors. It should be noted, however, that decisions regarding materiality are not affected by the level of assurance, that is, materiality for a reasonable assurance engagement is the same as for a limited assurance engagement.

A49. A percentage is often applied to a chosen benchmark as a starting point in determining materiality. Factors that may affect the identification of an appropriate benchmark and percentage include:

- The elements included in the GHG statement (for example, Scope 1, Scope 2 and Scope 3 emissions, emissions deductions, and removals). A benchmark that may be appropriate, depending on the circumstances, is gross reported emissions, that is, the aggregate of reported Scope 1, Scope 2 and Scope 3 emissions before subtracting any emissions deductions or removals. Materiality relates to the emissions covered by the assurance practitioner's conclusion. Therefore, when the assurance practitioner's conclusion does not cover the entire GHG statement, materiality is set in relation to only that portion of the GHG statement that is covered by the assurance practitioner's conclusion as if it were the GHG statement.
- The quantity of a particular type of emission or the nature of a particular disclosure. In some cases, there are particular types of emissions or disclosures for which misstatements of lesser or greater amounts than materiality for the GHG statement in its entirety are acceptable. For example, the assurance practitioner may consider it appropriate to set a lower or greater materiality for emissions from a particular jurisdiction, or for a particular gas, scope or facility.
- How the GHG statement presents relevant information, for example, whether it includes a comparison of emissions with a prior period(s), a base year, or a "cap," in which case determining materiality in relation to the comparative information may be a relevant consideration. Where a "cap" is relevant, materiality may be set in relation to the entity's allocation of the cap if it is lower than reported emissions.
- The relative volatility of emissions. For example, if emissions vary significantly from period to period, it may be appropriate to set materiality relative to the lower end of the fluctuation range even if the current period is higher.
- The requirements of the applicable criteria. In some cases, the applicable criteria may set a threshold for accuracy and may refer to this as materiality. For example, the criteria may state an expectation that emissions are measured using a stipulated percentage as the "materiality threshold." Where this is the case, the threshold set by the criteria provides a frame of reference to the assurance practitioner in determining materiality for the engagement.

A50. Qualitative factors may include:

- The sources of emissions.
- The types of gases involved.
- The context in which the information in the GHG statement will be used (for example, whether the information is for use in an emissions trading scheme, is for submission to a regulator, or is for inclusion in a widely distributed sustainability report); and the types of decisions that intended users are likely to make.
- Whether there are one or more types of emissions or disclosures on which the attention of the intended users tends to be focused, for example, gases that, as well as contributing to climate change, are ozone depleting.
- The nature of the entity, its climate change strategies and progress toward related objectives.
- The industry and the economic and regulatory environment in which the entity operates.

Revision as the Engagement Progresses (Ref: Para. 22)

A51. Materiality may need to be revised as a result of a change in circumstances during the engagement (for example, the disposal of a major part of the entity's business), new information, or a change in the assurance practitioner's understanding of the entity and its operations as a result of performing procedures. For example, it may become apparent during the engagement that actual emissions are likely to be substantially different from those used initially to determine materiality. If during the engagement the assurance practitioner concludes that a lower materiality for the GHG statement (and, if applicable, materiality level or levels for particular types of emissions or disclosures) than that initially determined is appropriate, it may be necessary to revise performance materiality, and the nature, timing and extent of the further procedures.

Understanding the Entity and Its Environment, Including the Entity's Internal Control, and Identifying and Assessing Risks of Material Misstatement (Ref: Para. 23–26)

A52. The assurance practitioner uses professional judgement to determine the extent of the understanding and the nature, timing and extent of procedures to identify and assess risks of material misstatement that are required to obtain reasonable or limited assurance, as appropriate. The assurance practitioner's primary consideration is whether the understanding that has been obtained and the identification and assessment of risks are sufficient to meet the objective stated in this ASAE. The depth of the understanding that is required by the assurance practitioner is less than that possessed by management in managing the entity, and both the depth of the understanding and the nature, timing and extent of procedures to identify and assess risks of material misstatement are less for a limited assurance engagement than for a reasonable assurance engagement.

A53. Obtaining an understanding and identifying and assessing risks of material misstatement is an iterative process. Procedures to obtain an understanding of the entity and its environment and to identify and assess risks of material misstatement by themselves do not provide sufficient appropriate evidence on which to base the assurance conclusion.

Uncertainty (Ref: Para: 23(b)(i)c, 76(f))

A54. The GHG quantification process can rarely be 100% accurate due to:

(a) *Scientific uncertainty*: This arises because of incomplete scientific knowledge about the measurement of GHGs. For example, the rate of GHG sequestration in biological sinks, and the "global warming potential" values used to combine emissions of different gases and report them as carbon dioxide equivalents, are subject to incomplete scientific knowledge. The degree to which scientific uncertainty affects the quantification of reported emissions is beyond the control of the entity. However, the potential for scientific uncertainty to result in unreasonable variations in reported emissions can be negated by the use of criteria that stipulate particular scientific assumptions to be used in preparing the GHG statement, or particular factors that embody those assumptions; and

(b) *Estimation* (*or measurement*) *uncertainty*: This results from the measurement and calculation processes used to quantify emissions within the bounds of existing scientific knowledge. Estimation uncertainty may relate to the data on which an estimate is based (for example, it may relate to uncertainty inherent in measurement instruments used), or the method, including where applicable the model, used in making the estimate (sometimes known as parameter and model uncertainty, respectively). The degree of estimation uncertainty is often controllable by the entity. Reducing the degree of estimation uncertainty may involve greater cost.

A55. The fact that quantifying an entity's emissions is subject to uncertainty does not mean that an entity's emissions are inappropriate as a subject matter. For example, the applicable criteria may require Scope 2 emissions from electricity to be calculated by applying a prescribed emissions factor to the number of kilowatt hours consumed. The prescribed emissions factor will be based on assumptions and models that may not hold true in all circumstances. However, as long as the assumptions and models are reasonable in the circumstances and adequately disclosed, information in the GHG statement will ordinarily be capable of being subjected to an assurance engagement.

A56. The situation in paragraph A55 can be contrasted with quantification in accordance with criteria that use models and assumptions based on an entity's individual circumstances. Using entity-specific models and assumptions will likely result in more accurate quantification than using, for example, average emissions factors for an industry; it will also likely introduce additional risks of material misstatement with respect to how the entity-specific models and assumptions were arrived at. As noted in paragraph A55, as long as the assumptions and models are reasonable in the circumstances and adequately disclosed, information in the GHG statement will ordinarily be capable of being subjected to an assurance engagement.

A57. In some cases, however, the assurance practitioner may decide that it is inappropriate to undertake an assurance engagement if the impact of uncertainty on information in the GHG statement is very high. This may be the case when, for example, a significant proportion of the entity's reported emissions are from fugitive sources (see paragraph A8) that are not monitored and estimation methods are not sufficiently sophisticated, or when a significant proportion of the entity's reported removals are attributable to biological sinks. It should be noted that decisions whether to undertake an assurance engagement in such circumstances are not affected by the level of assurance, that is, if it is not appropriate for a reasonable assurance engagement, it is also not appropriate for a limited assurance engagement, and vice versa.

A58. A discussion in the explanatory notes to the GHG statement of the nature, causes, and effects of the uncertainties that affect the entity's GHG statement alerts intended users to the uncertainties associated with the quantification of emissions. This may be particularly important where the intended users did not determine the criteria to be used. For example, a GHG statement may be available to a broad range of users even though the criteria used were developed for a particular regulatory purpose.

A59. Because uncertainty is a significant characteristic of all GHG statements, paragraph 76(f) requires it to be mentioned in the assurance report regardless of what, if any, disclosures are included in the explanatory notes to the GHG statement.[20]

The Entity and Its Environment

Interruptions to Operations (Ref: Para. 23(b)(iii))

A60. Interruptions may include incidents such as shut downs, which may occur unexpectedly, or may be planned, for example, as part of a maintenance schedule. In some cases, the nature of operations may be intermittent, for example, when a facility is only used at peak periods.

Climate Change Objectives and Strategies (Ref: Para. 23(e))

A61. Consideration of the entity's climate change strategy, if any, and associated economic, regulatory, physical and reputational risks, may assist the assurance practitioner to identify risks of material misstatement. For example, if the entity has made commitments to become carbon neutral, this may provide an incentive to understate emissions so the target will appear to be achieved within a declared timeframe. Conversely, if the entity is expecting to be subject to a regulated emissions trading scheme in the future, this may provide an incentive to overstate emissions in the meantime to increase the opportunity for it to receive a larger allowance at the outset of the scheme.

[20] ASAE 3000, paragraph 69(e).

Procedures to Obtain an Understanding and to Identify and Assess Risks of Material Misstatement (Ref: Para. 24)

A62. Although the assurance practitioner is required to perform all the procedures in paragraph 24 in the course of obtaining the required understanding of the entity, the assurance practitioner is not required to perform all of them for each aspect of that understanding.

Analytical Procedures for Obtaining an Understanding of the Entity and Its Environment and Identifying and Assessing Risks of Material Misstatement (Ref: Para. 24(b))

A63. Analytical procedures performed to obtain an understanding of the entity and its environment and to identify and assess risks of material misstatement may identify aspects of the entity of which the assurance practitioner was unaware and may assist in assessing the risks of material misstatement in order to provide a basis for designing and implementing responses to the assessed risks. Analytical procedures may include, for example, comparing GHG emissions from various facilities with production figures for those facilities.

A64. Analytical procedures may help identify the existence of unusual events, and amounts, ratios, and trends that might indicate matters that have implications for the engagement. Unusual or unexpected relationships that are identified may assist the assurance practitioner in identifying risks of material misstatement.

A65. However, when such analytical procedures use data aggregated at a high level (which may be the situation with analytical procedures performed to obtain an understanding of the entity and its environment and to identify and assess risks of material misstatement), the results of those analytical procedures only provide a broad initial indication about whether a material misstatement may exist. Accordingly, in such cases, consideration of other evidence that has been gathered when identifying the risks of material misstatement together with the results of such analytical procedures may assist the assurance practitioner in understanding and evaluating the results of the analytical procedures.

Observation and Inspection (Ref: Para. 24(c))

A66. Observation consists of looking at a process or procedure being performed by others, for example, the assurance practitioner's observation of monitoring devices being calibrated by the entity's personnel, or of the performance of control activities. Observation provides evidence about the performance of a process or procedure, but is limited to the point in time at which the observation takes place, and by the fact that the act of being observed may affect how the process or procedure is performed.

A67. Inspection involves:

(a) Examining records or documents, whether internal or external, in paper form, electronic form, or other media, for example, calibration records of a monitoring device. Inspection of records and documents provides evidence of varying degrees of reliability, depending on their nature and source and, in the case of internal records and documents, on the effectiveness of the controls over their production; or

84 A physical examination of, for example, a calibrating device.

A68. Observation and inspection may support enquiries of management and others, and may also provide information about the entity and its environment. Examples of such procedures include observation or inspection of the following:

- The entity's operations. Observing processes and equipment, including monitoring equipment, at facilities may be particularly relevant where significant Scope 1 emissions are included in the GHG statement.

- Documents (such as emissions mitigation plans and strategies), records (such as calibration records and results from testing laboratories), and manuals detailing information collection procedures and internal controls.
- Reports prepared for management or those charged with governance, such as internal or external reports with respect to the entity's environmental management systems.
- Reports prepared by management (such as quarterly management reports) and those charged with governance (such as minutes of board of directors' meetings).

Obtaining an Understanding of the Entity's Internal Control (Ref: Para. 25L–26R)

A69. In a limited assurance engagement, the assurance practitioner is not required to obtain an understanding of all of the components of the entity's internal control relevant to emissions quantification and reporting as is required in a reasonable assurance engagement. In addition, the assurance practitioner is not required to evaluate the design of controls and determine whether they have been implemented. Therefore, in a limited assurance engagement, while it may often be appropriate to enquire of the entity about control activities and monitoring of controls relevant to the quantification and reporting of emissions, it will often not be necessary to obtain a detailed understanding of these components of the entity's internal control.

A70. The assurance practitioner's understanding of relevant components of internal control may raise doubts about whether sufficient appropriate evidence is available for the assurance practitioner to complete the engagement. For example (see also paragraphs A71–A72, A92–A93, and A96):

- Concerns about the integrity of those preparing the GHG statement may be so serious as to cause the assurance practitioner to conclude that the risk of management misrepresentation in the GHG statement is such that an engagement cannot be conducted.
- Concerns about the condition and reliability of an entity's records may cause the assurance practitioner to conclude that it is unlikely that sufficient appropriate evidence will be available to support an unmodified conclusion on the GHG statement.

Control Activities Relevant to the Engagement (Ref: Para. 25R(d))

A71. The assurance practitioner's judgement about whether particular control activities are relevant to the engagement may be affected by the level of sophistication, documentation and formality of the entity's information system, including the related business processes, relevant to reporting emissions. As reporting of emissions evolves, it can be expected that so too will the level of sophistication, documentation and formality of information systems and related control activities relevant to the quantification and reporting of emissions.

A72. In the case of very small entities or immature information systems, particular control activities are likely to be more rudimentary, less well-documented, and may only exist informally. When this is the case, it is less likely the assurance practitioner will judge it necessary to understand particular control activities in order to assess the risks of material misstatement and design further procedures responsive to assessed risks. In some regulated schemes, on the other hand, the information system and control activities may be required to be formally documented and their design approved by the regulator. Even in some of these cases, however, not all relevant data flows and associated controls may be documented. For example, it may be more likely that control activities with respect to source data collection from continuous monitoring are sophisticated, well-documented, and more formal than control activities with respect to subsequent data processing and reporting (see also paragraphs A70, A92–A93, and A96).

Other Engagements Performed for the Entity (Ref: Para. 27)

A73. Information obtained from other engagements performed for the entity may relate to, for example, aspects of the entity's control environment.

Performing Procedures on Location at the Entity's Facilities (Ref: Para. 31)

A74. Performing observation and inspection, as well as other procedures, on location at a facility (often referred to as a "site visit") may be important in building on the understanding of the entity that the assurance practitioner develops by performing procedures at head office. Because the assurance practitioner's understanding of the entity and identification and assessment of risks of material misstatement can be expected to be more comprehensive for a reasonable assurance engagement than for a limited assurance engagement, the number of facilities at which procedures are performed on location in the case of a reasonable assurance engagement will ordinarily be greater than in the case of a limited assurance engagement.

A75. Performing procedures on location at a facility (or having another assurance practitioner perform such procedures on behalf of the assurance practitioner) may be done as part of planning, when performing procedures to identify and assess risks of material misstatement, or when responding to assessed risks of material misstatement. Performing procedures at significant facilities is often particularly important for an engagement being undertaken for the first time when considering the completeness of Scope 1 sources and of sinks included in the GHG statement, and when establishing whether the entity's data collection and processing systems, and its estimation techniques, are appropriate relative to the underlying physical processes and related uncertainties.

A76. As noted in paragraph A74, performing procedures on location at a facility may be important in building on the understanding of the entity that the assurance practitioner develops by performing procedures at head office. For many reasonable assurance engagements, the assurance practitioner will also judge it necessary to perform procedures on location at each significant facility to respond to assessed risks of material misstatement, particularly when the entity has significant facilities with Scope 1 emissions. For a limited assurance engagement where the entity has a number of significant facilities with Scope 1 emissions, a meaningful level of assurance may not be able to be obtained without the assurance practitioner having performed procedures at a selection of significant facilities. Where the entity has significant facilities with Scope 1 emissions and the assurance practitioner determines that effective and efficient procedures cannot be performed on location at the facility by the assurance practitioner (or another assurance practitioner on their behalf), alternative procedures may include one or more of the following:

- Reviewing source documents, energy flow diagrams, and material flow diagrams.
- Analysing questionnaire responses from facility management.
- Inspecting satellite imagery of the facility.

A77. To obtain adequate coverage of total emissions, particularly in a reasonable assurance engagement, the assurance practitioner may decide that it is appropriate to perform procedures on location at a selection of facilities that are not significant facilities. Factors that may be relevant to such a decision include:

- The nature of emissions at different facilities. For example, it is more likely that an assurance practitioner may choose to visit a facility with Scope 1 emissions than a facility with only Scope 2 emissions. In the latter case, the examination of energy invoices at head office is more likely to be a primary source of evidence.
- The number and size of facilities, and their contribution to overall emissions.

- Whether facilities use different processes, or processes using different technologies. Where this is the case, it may be appropriate to perform procedures on location at a selection of facilities using different processes or technologies.
- The methods used at different facilities to gather emissions information.
- The experience of relevant staff at different facilities.
- Varying the selection of facilities over time.

Internal Audit (Ref: Para. 32)

A78. The entity's internal audit function is likely to be relevant to the engagement if the nature of the internal audit function's responsibilities and activities are related to the quantification and reporting of emissions and the assurance practitioner expects to use the work of the internal audit function to modify the nature or timing, or reduce the extent, of procedures to be performed.

Risks of Material Misstatement at the GHG Statement Level (Ref: Para. 33L(a)–33R(a))

A79. Risks of material misstatement at the GHG statement level refer to risks that relate pervasively to the GHG statement as a whole. Risks of this nature are not necessarily risks identifiable with a specific type of emission or disclosure level. Rather, they represent circumstances that may increase the risks of material misstatement more generally, for example, through management override of internal control. Risks of material misstatement at the GHG statement level may be especially relevant to the assurance practitioner's consideration of the risks of material misstatement arising from fraud.

A80. Risks at the GHG statement level may derive in particular from a deficient control environment. For example, deficiencies such as management's lack of competence may have a pervasive effect on the GHG statement and may require an overall response by the assurance practitioner. Other risks of material misstatement at the GHG statement level may include, for example:

- Inadequate, poorly controlled or poorly documented mechanisms for collecting data, quantifying emissions and preparing GHG statements.
- Lack of staff competence in collecting data, quantifying emissions and preparing GHG statements.
- Lack of management involvement in quantifying emissions and preparing GHG statements.
- Failure to identify accurately all sources of GHGs.
- Risk of fraud, for example, in connection with emissions trading markets.
- Presenting information covering prior periods that is not prepared on a consistent basis, for example, because of changed boundaries or changes in measurement methodologies.
- Misleading presentation of information in the GHG statement, for example, unduly highlighting particularly favourable data or trends.
- Inconsistent quantification methods and reporting policies, including different methods for determining the organisational boundary, at different facilities.
- Errors in unit conversion when consolidating information from facilities.

- Inadequate disclosure of scientific uncertainties and key assumptions in relation to estimates.

The Use of Assertions (Ref: Para. 33L(b)–33R(b))

A81. Assertions are used by the assurance practitioner in a reasonable assurance engagement, and may be used in a limited assurance engagement, to consider the different types of potential misstatements that may occur.

A82. In representing that the GHG statement is in accordance with the applicable criteria, the entity implicitly or explicitly makes assertions regarding the quantification, presentation and disclosure of emissions. Assertions fall into the following categories and may take the following forms:

(a) Assertions about the quantification of emissions for the period subject to assurance:

i. Occurrence—emissions that have been recorded have occurred and pertain to the entity.

ii. Completeness—all emissions that should have been recorded, have been recorded (see paragraphs A30–A34 for a discussion of completeness with respect to various Scopes).

iii. Accuracy—the quantification of emissions has been recorded appropriately.

iv. Cut-off—emissions have been recorded in the correct reporting period.

v. Classification—emissions have been recorded as the proper type.

(b) Assertions about presentation and disclosure:

(i) Occurrence and responsibility—disclosed emissions and other matters have occurred and pertain to the entity.

(ii) Completeness—all disclosures that should have been included in the GHG statement have been included.

(iii) Classification and understandability—emissions information is appropriately presented and described, and disclosures are clearly expressed.

(iv) Accuracy and quantification—emissions quantification and related information included in the GHG statement are appropriately disclosed.

(v) Consistency—quantification policies are consistent with those applied in the prior period, or changes are justified and have been properly applied and adequately disclosed; and comparative information, if any, is as reported in the prior period or has been appropriately restated.

Reliance on Internal Control (Ref: Para. 38R)

A83. If the assurance practitioner's assessment of risks of material misstatement at the assertion level includes an expectation that the controls are operating effectively (that is, the assurance practitioner intends to rely on the operating effectiveness of controls in determining the nature, timing and extent of other procedures), the assurance practitioner is required by paragraph 38R to design and perform tests of the operating effectiveness of those controls.

Causes of Risks of Material Misstatement (Ref: Para. 34)

Fraud (Ref: Para. 28, 34(a))

A84. Misstatements in the GHG statement can arise from either fraud or error. The distinguishing factor between fraud and error is whether the underlying action that results in the misstatement of the GHG statement is intentional or unintentional.

A85. Incentives for intentional misstatement of the GHG statement may arise if, for example, those who are directly involved with, or have the opportunity to influence, the emissions reporting process have a significant portion of their compensation contingent upon achieving aggressive GHG targets. As noted in paragraph A61, other incentives to either under or overstate emissions may result from the entity's climate change strategy, if any, and associated economic, regulatory, physical and reputational risks.

A86. Although fraud is a broad legal concept, for the purposes of this ASAE, the assurance practitioner is concerned with fraud that causes a material misstatement in the GHG statement. Although the assurance practitioner may suspect or, in rare cases, identify the occurrence of fraud, the assurance practitioner does not make legal determinations of whether fraud has actually occurred.

Non-Compliance with Law and Regulation (Ref: Para. 34(b), 78(c))

A87. This ASAE distinguishes the assurance practitioner's responsibilities in relation to compliance with two different categories of law and regulation as follows:

(a) The provisions of law and regulation generally recognised to have a direct effect on the determination of material amounts and disclosures in the GHG statement in that they determine the reported quantities and disclosures in an entity's GHG statement. Paragraph 34(b) requires the assurance practitioner to consider the likelihood of material misstatement due to non-compliance with the provisions of such law or regulation when performing the procedures required by paragraphs 33L or 33R; and

(b) Other law or regulation that do not have a direct effect on the determination of the quantities and disclosures in the GHG statement, but compliance with which may be fundamental to the operating aspects of the business, to an entity's ability to continue its business, or to avoid material penalties (for example, compliance with the terms of an operating license, or compliance with environmental regulations). Planning and performing an engagement with professional scepticism, as required by ASAE 3000,[21] is important in the context of remaining alert to the possibility that procedures applied for the purpose of forming a conclusion on the GHG statement may bring instances of identified or suspected non-compliance with such law or regulation to the assurance practitioner's attention.

Other Causes of Risks of Material Misstatement (Ref: Para. 34)

A88. Examples of factors referred to in paragraph 34(c)–(k) include:

(a) Omission of one or more emissions sources is more likely for sources that are less obvious and may be overlooked, such as fugitive emissions.

(b) Significant economic or regulatory changes may include, for example, increases in renewable energy targets or significant price changes for allowances under an emissions trading scheme, which may lead to, for example, increased risk of misclassification of sources at an electricity generator.

[21] ASAE 3000, paragraph 37.

(c) The nature of the entity's operations may be complex (for example, it may involve multiple and disparate facilities and processes), discontinuous (for example, peak load electricity generation), or result in few or weak relationships between the entity's emissions and other measurable activity levels (for example, a cobalt nickel plant). In such cases, the opportunity for meaningful analytical procedures may be significantly reduced.

Changes in operations or boundaries (for example, introduction of new processes, or the sale, acquisition or outsourcing of emissions sources or removal sinks) may also introduce risks of material misstatement (for example, through unfamiliarity with quantification or reporting procedures). Also, double counting of an emissions source or removals sink may occur due to inadequate co-ordination in the identification of sources and sinks at a complex installation.

(d) Selection of an inappropriate quantification method (for example, calculating Scope 1 emissions using an emissions factor when using a more accurate direct measurement method is available and would be more appropriate). Selecting an appropriate quantification method is particularly important when the method has been changed. This is because intended users are often interested in emissions trends over time, or relative to a base year. Some criteria may require that quantification methods are only changed when a more accurate method is to be used. Other factors related to the nature of quantification methods include:

- Incorrect application of a quantification method, such as not calibrating meters or not reading them sufficiently frequently, or use of an emissions factor that is inappropriate in the circumstances. For example, an emissions factor may be predicated on an assumption of continuous use and may not be appropriate to use after a shut down.
- Complexity in quantification methods, which will likely involve higher risk of material misstatement, for example: extensive or complex mathematical manipulation of source data (such as the use of complex mathematical models); extensive use of state conversion factors (such as those to convert measures of liquid to measures of gas); or extensive use of unit conversion factors (such as those to convert imperial measures to metric measures).
- Changes in quantification methods or input variables (for example, if the quantification method used is based on the carbon content of biomass, and the composition of the biomass used changes during the period).

(e) Significant non-routine emissions or judgemental matters are a source of greater risk of material misstatement relative to routine, non-complex emissions that are subject to systematic quantification and reporting. Non-routine emissions are those that are unusual, in size or nature, and that therefore occur infrequently (for example, one-off events such as a plant malfunction or major leak). Judgemental matters may include the development of subjective estimates. Risks of material misstatement may be greater because of matters such as:

- Greater management intervention to specify the quantification methods or reporting treatment.
- Greater manual intervention for data collection and processing.
- Complex calculations or quantification methods and reporting principles.
- The nature of non-routine emissions, which may make it difficult for the entity to implement effective controls over the risks.

- Quantification methods and reporting principles for estimates may be subject to differing interpretation.
- Required judgements may be subjective or complex.

(f) The inclusion of Scope 3 emissions where the source data used in quantification are not maintained by the entity, or where quantification methods commonly in use are imprecise or lead to large variations in reported emissions (see paragraphs A31–A34).

(g) Matters that the assurance practitioner may consider in obtaining an understanding of how the entity makes significant estimates and the data on which they are based include, for example:

- An understanding of the data on which estimates are based;
- The method, including where applicable the model, used in making estimates;
- Relevant aspects of the control environment and information system;
- Whether the entity has used an expert;
- The assumptions underlying estimates;
- Whether there has been or ought to have been a change from the prior period in the methods for making estimates and, if so, why; and
- Whether and, if so, how the entity has assessed the effect of estimation uncertainty on the GHG statement, including:
    - Whether and, if so, how the entity has considered alternative assumptions or outcomes by, for example, performing a sensitivity analysis to determine the effect of changes in the assumptions on an estimate;
    - How the entity determines the estimate when analysis indicates a number of outcome scenarios; and
    - Whether the entity monitors the outcome of estimates made in the prior period, and whether it has appropriately responded to the outcome of that monitoring procedure.

A89. Examples of other factors that may lead to risks of material misstatement include:

- Human error in the quantification of emissions, which may be more likely to occur if personnel are unfamiliar with, or not well-trained regarding, emissions processes or data recording.
- Undue reliance on a poorly designed information system, which may have few effective controls, for example, the use of spreadsheets without adequate controls.
- Manual adjustment of otherwise automatically recorded activity levels, for example, manual input may be required if a flare meter becomes overloaded.
- Significant external developments such as heightened public scrutiny of a particular facility.

Overall Responses to Assessed Risks of Material Misstatement and Further Procedures

Limited and Reasonable Assurance Engagements (Ref: Para. 8, 35–41R, 42L–43R, 46)

A90. Because the level of assurance obtained in a limited assurance engagement is lower than in a reasonable assurance engagement, the procedures the assurance practitioner performs in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. The primary differences between the assurance practitioner's overall responses to address the assessed risks of material misstatement and further procedures for a reasonable assurance engagement and a limited assurance engagement on a GHG statement include:

(a) The emphasis placed on the nature of various procedures as a source of evidence will likely differ, depending on the engagement circumstances. For example:

- The assurance practitioner may judge it to be appropriate in the circumstances of a particular limited assurance engagement to place relatively greater emphasis on enquiries of the entity's personnel and analytical procedures, and relatively less emphasis, if any, on tests of controls and obtaining evidence from external sources than may be the case for a reasonable assurance engagement.
- Where the entity uses continuous measuring equipment to quantify emissions flows, the assurance practitioner may decide in a limited assurance engagement to respond to an assessed risk of material misstatement by enquiring about the frequency with which the equipment is calibrated. In the same circumstances for a reasonable assurance engagement, the assurance practitioner may decide to examine the entity's records of the equipment's calibration or independently test its calibration.
- Where the entity burns coal, the assurance practitioner may decide in a reasonable assurance engagement to independently analyse the characteristics of the coal, but in a limited assurance engagement the assurance practitioner may decide that reviewing the entity's records of laboratory test results is an adequate response to an assessed risk of material misstatement.

(b) In a limited assurance engagement, the further procedures performed are less than in a reasonable assurance engagement. This may involve:

- Selecting less items for examination;
- Performing fewer procedures (for example, performing only analytical procedures in circumstances when, in a reasonable assurance engagement, both analytical procedures and tests of detail would be performed); or
- Performing procedures on location at fewer facilities.

(c) In a reasonable assurance engagement, analytical procedures performed in response to assessed risks of material misstatement involve developing expectations of quantities or ratios that are sufficiently precise to identify material misstatements. In a limited assurance engagement, analytical procedures may be designed to support expectations regarding the direction of trends, relationships and ratios rather than to identify misstatements with the level of precision expected in a reasonable assurance engagement.[22]

[22] This may not always be the case; for example, in some circumstances the assurance practitioner may develop a precise expectation based on fixed physical or chemical relationships even in a limited assurance engagement.

Further, when significant fluctuations, relationships or differences are identified, appropriate evidence in a limited assurance engagement may often be obtained by making enquiries of the entity and considering responses received in the light of known engagement circumstances, without obtaining additional evidence as is required by paragraph 43R(a) in the case of a reasonable assurance engagement.

In addition, when undertaking analytical procedures in a limited assurance engagement the assurance practitioner may, for example:

- Use data that is more highly aggregated, for example, data at a regional level rather than at a facility level, or monthly data rather than weekly data.
- Use data that has not been subjected to separate procedures to test its reliability to the same extent as it would be for a reasonable assurance engagement.

Overall Responses to Assessed Risks of Material Misstatement (Ref: Para. 35)

A91. Overall responses to address the assessed risks of material misstatement at the GHG statement level may include:

- Emphasising to the assurance personnel the need to maintain professional scepticism.
- Assigning more experienced staff or those with special skills or using experts.
- Providing more supervision.
- Incorporating additional elements of unpredictability in the selection of further procedures to be performed.
- Making general changes to the nature, timing, or extent of procedures, for example: performing procedures at the period end instead of at an interim date; or modifying the nature of procedures to obtain more persuasive evidence.

A92. The assessment of the risks of material misstatement at the GHG statement level, and thereby the assurance practitioner's overall responses, is affected by the assurance practitioner's understanding of the control environment. An effective control environment may allow the assurance practitioner to have more confidence in internal control and the reliability of evidence generated internally within the entity and thus, for example, allow the assurance practitioner to conduct some procedures at an interim date rather than at the period end. Deficiencies in the control environment, however, have the opposite effect. For example, the assurance practitioner may respond to an ineffective control environment by:

- Conducting more procedures as of the period end rather than at an interim date.
- Obtaining more extensive evidence from procedures other than tests of controls.
- Increasing sample sizes and the extent of procedures, such as the number of facilities at which procedures are performed.

A93. Such considerations, therefore, have a significant bearing on the assurance practitioner's general approach, for example, the relative emphasis on tests of controls versus other procedures (see also paragraphs A70–A72, and A96).

Examples of Further Procedures (Ref: Para. 37L–37R, 40R)

A94. Further procedures may include, for example:

- Testing the operating effectiveness of controls over the collection and recording of activity data, such as kilowatt hours of electricity purchased.

- Agreeing emissions factors to appropriate sources (for example, government publications), and considering their applicability in the circumstances.
- Reviewing joint venture agreements and other contracts relevant to determining the entity's organisational boundary.
- Reconciling recorded data to, for example, odometers on vehicles owned by the entity.
- Re-performing calculations (for example, mass balance and energy balance calculations), and reconciling differences noted.
- Taking readings from continuous monitoring equipment.
- Observing or re-performing physical measurements, such as dipping oil tanks.
- Analysing the soundness and appropriateness of unique measurement or quantification techniques, particularly complex methods that may involve, for example, recycle or feedback loops.
- Sampling and independently analysing the characteristics of materials such as coal, or observing the entity's sampling techniques and reviewing records of laboratory test results.
- Checking the accuracy of calculations and the suitability of calculation methods used (for example, the conversion and aggregation of input measurements).
- Agreeing recorded data back to source documents, such as production records, fuel usage records, and invoices for purchased energy.

Factors that May Influence Assessed Risks of Material Misstatement (Ref: Para. 37L(a)–37R(a))

A95. Factors that may influence the assessed risks of material misstatement include:

- Inherent limitations on the capabilities of measurement instruments and the frequency of their calibration.
- The number, nature, geographical spread, and ownership characteristics of facilities from which data is collected.
- The number and nature of the various gases and emissions sources included in the GHG statement.
- Whether processes to which emissions relate are continuous or intermittent, and the risk of disruption to such processes.
- The complexity of methods for activity measurement and for calculating emissions, for example, some processes require unique measurement and calculation methods.
- The risk of unidentified fugitive emissions.
- The extent to which the quantity of emissions correlates with readily available input data.
- Whether personnel who perform data collection are trained in relevant methods, and the frequency of turnover of such personnel.
- The nature and level of automation used in data capture and manipulation.
- The quality control policies and procedures implemented at testing laboratories, whether internal or external.

- The complexity of criteria and of quantification and reporting policies, including how the organisational boundary is determined.

Operating Effectiveness of Controls (Ref: Para. 37R(a)(ii), 38R(a))

A96. In the case of very small entities or immature information systems, there may not be many control activities that could be identified by the assurance practitioner, or the extent to which their existence or operation have been documented by the entity may be limited. In such cases, it may be more efficient for the assurance practitioner to perform further procedures that are primarily other than tests of controls. In some rare cases, however, the absence of control activities or of other components of control may make it impossible to obtain sufficient appropriate evidence (see also paragraphs A70–A72, and A92–A93).

Persuasiveness of Evidence (Ref: Para. 37L(b)–37R(b))

A97. To obtain more persuasive evidence because of a higher assessment of risk of material misstatement, the assurance practitioner may increase the quantity of the evidence, or obtain evidence that is more relevant or reliable, for example, by obtaining corroborating evidence from a number of independent sources.

Risks for Which Tests of Controls Are Necessary to Provide Sufficient Appropriate Evidence (Ref: 38R(b))

A98. The quantification of emissions may include processes that are highly automated with little or no manual intervention, for example, where relevant information is recorded, processed, or reported only in electronic form such as in a continuous monitoring system, or when the processing of activity data is integrated with an information technology-based operational or financial reporting system. In such cases:

- Evidence may be available only in electronic form, and its sufficiency and appropriateness dependent on the effectiveness of controls over its accuracy and completeness.
- The potential for improper initiation or alteration of information to occur and not be detected may be greater if appropriate controls are not operating effectively.

Confirmation Procedures (Ref: Para. 41R)

A99. External confirmation procedures may provide relevant evidence about such information as:

- Activity data collected by a third party, such as data about: employee air travel collated by a travel agent; the inflow of energy to a facility metered by a supplier; or kilometres travelled by entity-owned vehicles recorded by an external fleet manager.
- Industry benchmark data used in calculating emissions factors.
- The terms of agreements, contracts, or transactions between the entity and other parties, or information about whether other parties are, or are not, including particular emissions in their GHG statement, when considering the entity's organisational boundary.
- The results of laboratory analysis of samples (for example, the calorific value of input samples).

Analytical Procedures Performed in Response to Assessed Risks of Material Misstatement (Ref: Para. 42L–42R)

A100. In many cases, the fixed nature of physical or chemical relationships between particular emissions and other measurable phenomena allows for the design of powerful analytical procedures (for example, the relationship between fuel consumption and carbon dioxide and nitrous oxide emissions).

A101. Similarly, a reasonably predictable relationship may exist between emissions and financial or operational information (for example, the relationship between Scope 2 emissions from electricity and the general ledger balance for electricity purchases or hours of operation). Other analytical procedures may involve comparisons of information about the entity's emissions with external data such as industry averages; or the analysis of trends during the period to identify anomalies for further investigation and trends across periods for consistency with other circumstances such as the acquisition or disposal of facilities.

A102. Analytical procedures may be particularly effective when disaggregated data is readily available, or when the assurance practitioner has reason to consider the data to be used is reliable, such as when it is extracted from a well-controlled source. In some cases, data to be used may be captured by the financial reporting information system, or may be entered in another information system in parallel with the entry of related financial data and some common input controls applied. For example, the quantity of fuel purchased as recorded on suppliers' invoices may be input under the same conditions that relevant invoices are entered into an accounts payable system. In some cases, data to be used may be an integral input to operational decisions and therefore subject to increased scrutiny by operational personnel, or subject to separate external audit procedures (for example, as part of a joint venture agreement or oversight by a regulator).

Procedures Regarding Estimates (Ref: Para. 44L–45R)

A103. In some cases, it may be appropriate for the assurance practitioner to evaluate how the entity has considered alternative assumptions or outcomes, and why it has rejected them.

A104. In some limited assurance engagements, it may be appropriate for the assurance practitioner to undertake one or more of the procedures identified in paragraph 45R.

Sampling (Ref: Para. 46)

A105. Sampling involves:

(a) Determining a sample size sufficient to reduce sampling risk to an acceptably low level. Because the acceptable level of assurance engagement risk is lower for a reasonable assurance engagement than for a limited assurance engagement, so too may be the level of sampling risk that is acceptable in the case of tests of details. Therefore, when sampling is used for tests of details in a reasonable assurance engagement, the sample size may be larger than when used in similar circumstances in a limited assurance engagement.

(b) Selecting items for the sample in such a way that each sampling unit in the population has a chance of selection, and performing procedures, appropriate to the purpose, on each item selected. If the assurance practitioner is unable to apply the designed procedures, or suitable alternative procedures, to a selected item, that item is treated as a deviation from the prescribed control, in the case of tests of controls, or a misstatement, in the case of tests of details.

(c) Investigating the nature and cause of deviations or misstatements identified, and evaluating their possible effect on the purpose of the procedure and on other areas of the engagement.

(d) Evaluating:

(i) The results of the sample, including, for tests of details, projecting misstatements found in the sample to the population; and

(ii) Whether the use of sampling has provided an appropriate basis for conclusions about the population that has been tested.

Fraud, Law and Regulation (Ref: Para. 47)

A106. In responding to fraud or suspected fraud identified during the engagement, it may be appropriate for the assurance practitioner to, for example:

- Discuss the matter with the entity.
- Request the entity to consult with an appropriately qualified third party, such as the entity's legal counsel or a regulator.
- Consider the implications of the matter in relation to other aspects of the engagement, including the assurance practitioner's risk assessment and the reliability of written representations from the entity.
- Obtain legal advice about the consequences of different courses of action.
- Communicate with third parties (for example, a regulator).
- Withhold the assurance report.
- Withdraw from the engagement.

A107. The actions noted in the paragraph A106 may be appropriate in responding to non-compliance or suspected non-compliance with law and regulation identified during the engagement. It may also be appropriate to describe the matter in an Other Matter paragraph in the assurance report in accordance with paragraph 77 of this ASAE, unless the assurance practitioner:

(a) Concludes that the non-compliance has a material effect on the GHG statement and has not been adequately reflected in the GHG statement; or

(b) Is precluded by the entity from obtaining sufficient appropriate evidence to evaluate whether non-compliance that may be material to the GHG statement has, or is likely to have, occurred, in which case paragraph 66 of ASAE 3000 applies.

Procedures Regarding the GHG Statement Aggregation Process (Ref: Para. 48L–48R)

A108. As noted in paragraph A71, as reporting of emissions evolves, it can be expected that so too will the level of sophistication, documentation and formality of information systems relevant to the quantification and reporting of emissions. In immature information systems, the aggregation process may be very informal. In more sophisticated systems, the aggregation process may be more systematic and formally documented. The nature, and also the extent, of the assurance practitioner's procedures with respect to adjustments and the manner in which the assurance practitioner agrees or reconciles the GHG statement with the underlying records depends on the nature and complexity of the entity's quantifications and reporting process and the related risks of material misstatement.

Additional Procedures (Ref: Para. 49L–49R)

A109. An assurance engagement is an iterative process and information may come to the assurance practitioner's attention that differs significantly from that on which the determination of planned procedures was based. As the assurance practitioner performs planned procedures, the evidence obtained may cause the assurance practitioner to perform additional procedures. Such procedures may include asking the entity to examine the matter(s) identified by the assurance practitioner and to make adjustments to the GHG statement if appropriate.

Determining Whether Additional Procedures Are Necessary in a Limited Assurance Engagement (Ref: Para. 49L)

A110. The assurance practitioner may become aware of a matter(s) that causes the assurance practitioner to believe the GHG statement may be materially misstated. For example, when performing site visits, the assurance practitioner may identify a potential source of emissions which does not appear to be included in the GHG statement. In such cases, the assurance practitioner makes further enquiries as to whether the potential source has been incorporated into the GHG statement. The extent of additional procedures performed, in accordance with paragraph 49L, will be a matter of professional judgement. The greater the likelihood of material misstatement the more persuasive the evidence the assurance practitioner obtains.

A111. If, in the case of a limited assurance engagement, a matter(s) comes to the assurance practitioner's attention that causes the assurance practitioner to believe the GHG statement may be materially misstated, the assurance practitioner is required by paragraph 49L to design and perform additional procedures. If having done so, however, the assurance practitioner is not able to obtain sufficient appropriate evidence to either conclude that the matter(s) is not likely to cause the GHG statement to be materially misstated or determine that it does cause the GHG statement to be materially misstated, a scope limitation exists.

Accumulation of Identified Misstatements (Ref: Para. 50)

A112. The assurance practitioner may designate an amount below which misstatements would be clearly trivial and would not need to be accumulated because the assurance practitioner expects that the accumulation of such amounts clearly would not have a material effect on the GHG statement. "Clearly trivial" is not another expression for "not material." Matters that are clearly trivial will be of a wholly different (smaller) order of magnitude than materiality determined in accordance with this ASAE, and will be matters that are clearly inconsequential, whether taken individually or in the aggregate and whether judged by any criteria of size, nature or circumstances. When there is any uncertainty about whether one or more items are clearly trivial, the matter is considered not to be clearly trivial.

Using the Work of Another Assurance Practitioner

Communication to Another Assurance Practitioner (Ref: Para. 57(a))

A113. Relevant matters that the engagement team may communicate to another assurance practitioner in respect of the work to be performed, the use to be made of that work, and the form and content of the other assurance practitioner's communication with the engagement team may include:

- A request that the other assurance practitioner, knowing the context in which the engagement team will use the work of the other assurance practitioner, confirms that the other assurance practitioner will cooperate with the engagement team.
- Performance materiality for the work of the other assurance practitioner, which may be lower than performance materiality for the GHG statement (and, if applicable, the materiality level or levels for particular types of emissions or disclosures) and the threshold above which misstatements cannot be regarded as clearly trivial to the GHG statement.
- Identified risks of material misstatement of the GHG statement that are relevant to the work of the other assurance practitioner; and a request that the other assurance practitioner communicate on a timely basis any other risks identified during the engagement that may be material to the GHG statement, and the other assurance practitioner's responses to such risks.

Communication from Another Assurance Practitioner (Ref: Para. 57(a))

A114. Relevant matters that the engagement team may request another assurance practitioner to communicate include:

- Whether the other assurance practitioner has complied with ethical requirements that are relevant to the group engagement, including independence and professional competence.
- Whether the other assurance practitioner has complied with the group engagement team's requirements.
- Information on instances of non-compliance with law or regulation that could give rise to a material misstatement of the GHG statement.
- A list of uncorrected misstatements identified by the other assurance practitioner during the engagement that are not clearly trivial.
- Indicators of possible bias in the preparation of relevant information.
- Description of any identified significant deficiencies in internal control identified by the other assurance practitioner during the engagement.
- Other significant matters that the other assurance practitioner has communicated or expects to communicate to the entity, including fraud or suspected fraud.
- Any other matters that may be relevant to the GHG statement, or that the other assurance practitioner wishes to draw to the attention of the engagement team, including exceptions noted in any written representations that the other assurance practitioner requested from the entity.
- The other assurance practitioner's overall findings, conclusion or opinion.

Evidence (Ref: Para. 57(b))

A115. Relevant considerations when obtaining evidence regarding the work of another assurance practitioner may include:

- Discussions with the other assurance practitioner regarding business activities relevant to that other assurance practitioner's work that are significant to the GHG statement.
- Discussions with the other assurance practitioner regarding the susceptibility of relevant information to material misstatement.
- Reviewing the other assurance practitioner's documentation of identified risks of material misstatement, responses to those risks, and conclusions. Such documentation may take the form of a memorandum that reflects the other assurance practitioner's conclusion with regard to the identified risks.

Written Representations (Ref: Para. 58)

A116. In addition to the written representations required by paragraph 58, the assurance practitioner may consider it necessary to request other written representations. The person(s) from whom the assurance practitioner requests written representations will ordinarily be a member of senior management or those charged with governance. However, because management and governance structures vary by jurisdiction and by entity, reflecting influences such as different cultural and legal backgrounds, and size and ownership characteristics, it is not possible for this ASAE to specify for all engagements the appropriate person(s) from whom to request written representations. For example, the entity may be a facility that is not a separate legal entity in its own right. In such cases, identifying the appropriate management personnel or those charged with governance from whom to request written representations may require the exercise of professional judgement.

Subsequent Events (Ref: Para. 61)

A117. Subsequent events may include, for example, the publication of revised emissions factors by a body such as a government agency, changes to relevant legislation or regulations, improved scientific knowledge, significant structural changes in the entity, the availability of more accurate quantification methods, or the discovery of a significant error.

Comparative Information (Ref: Para. 62–63, 76(d))

A118. Law or regulation, or the terms of the engagement, may specify the requirements in respect of presentation, reporting and assurance of the comparative information in a GHG statement. A key difference between financial statements and a GHG statement is that the amounts presented in a GHG statement measures emissions for a discrete period and are not based on cumulative amounts over time. As a result, the comparative information presented does not affect current year information unless emissions have been recorded in the wrong period and therefore the amounts may be based on the incorrect starting period for measurement.

A119. Where a GHG statement includes references to percentage reductions in emissions, or a similar comparison of period on period information, it is important that the assurance practitioner consider the appropriateness of the comparisons. These may be inappropriate due to:

(a) Significant changes in operations from the prior period;

(b) Significant changes in conversion factors; or

(c) Inconsistency of sources or methods of measurement.

A120. When comparative information is presented with the current emissions information but some or all of that comparative information is not covered by the assurance practitioner's conclusion, it is important that the status of such information is clearly identified in both the GHG statement and the assurance report.

Restatements (Ref: Para. 62(a))

A121. The GHG quantities reported in a prior period may need to be restated in accordance with law or regulation or the applicable criteria because of, for example, improved scientific knowledge, significant structural changes in the entity, the availability of more accurate quantification methods, or the discovery of a significant error.

Performing Procedures on Comparative Information (Ref: Para 63(a))

A122. In a limited assurance engagement that includes assurance on comparative information, if the assurance practitioner becomes aware that there may be a material misstatement in the comparative information presented, the procedures to be performed are to be in accordance with the requirements of paragraph 49L. In the case of a reasonable assurance engagement, the procedures to be performed are to be sufficient to form an opinion on the comparative information.

A123. If the engagement does not include assurance on comparative information, the requirement to perform procedures in the circumstances addressed by paragraph 63(a) is to satisfy the assurance practitioner's ethical obligation to not knowingly be associated with materially false or misleading information.

Other Information (Ref: Para. 64)

A124. A GHG statement may be published with other information that is not covered by the assurance practitioner's conclusion, for example, a GHG statement may be included as part of an entity's annual report or sustainability report, or included with other climate change-specific information such as:

- A strategic analysis, including a statement about the impact climate change has on the entity's strategic objectives.
- An explanation and qualitative assessment of current and anticipated significant risks and opportunities associated with climate change.
- Disclosures about the entity's actions, including its long-term and short-term plan to address climate change-related risks, opportunities and impacts.
- Disclosures about future outlook, including trends and factors related to climate change that are likely to affect the entity's strategy or the timescale over which achievement of the strategy is planned.
- A description of governance processes and the entity's resources that have been assigned to the identification, management and oversight of climate change-related issues.

A125. In some cases, the entity may publish emissions information that is calculated on a different basis from that used in preparing the GHG statement, for example, the other information may be prepared on a "like-for-like" basis whereby emissions are recalculated to omit the effect of non-recurring events, such as the commissioning of a new plant or the closing down of a facility. The assurance practitioner may seek to have such information removed if the methods used to prepare it would be disallowed by the criteria used to prepare the GHG statement. The assurance practitioner may also seek to have removed any narrative information that is inconsistent with the quantitative data included in the GHG statement or cannot be substantiated (for example, speculative projections or claims about future action).

A126. Further actions that may be appropriate when other information could undermine the credibility of the GHG statement and the assurance report include, for example:

- Requesting the entity to consult with a qualified third party, such as the entity's legal counsel.
- Obtaining legal advice about the consequences of different courses of action.
- Communicating with third parties, for example, a regulator.
- Withholding the assurance report.
- Withdrawing from the engagement, where withdrawal is possible under applicable law or regulation.
- Describing the matter in the assurance report.

Documentation

Documentation of the Procedures Performed and Evidence Obtained (Ref: Para. 15, 65–66)

A127. ASAE 3000 requires the assurance practitioner to prepare on a timely basis engagement documentation that provides a record of the basis of the assurance report.[23] The following are examples of matters that may be appropriate to include in the engagement documentation:

- Fraud: The risks of material misstatement and the nature, timing and extent of procedures with respect to fraud; and communications about fraud made to the entity, regulators and others.
- Law or Regulation: Identified or suspected non-compliance with law or regulation and the results of discussion with the entity and other parties outside the entity.
- Planning: The overall engagement strategy, the engagement plan, and any significant changes made during the engagement, and the reasons for such changes.
- Materiality: The following amounts and the factors considered in their determination: materiality for the GHG statement; if applicable, the materiality level or levels for particular types of emissions or disclosures; performance materiality; and any revision of materiality as the engagement progresses.
- Risks of Material Misstatement: the discussion required by paragraph 29, and the significant decisions reached, key elements of the understanding obtained regarding each of the aspects of the entity and its environment specified in paragraph 23, and the risks of material misstatement for which in the assurance practitioner's professional judgement further procedures were required.
- Further Procedures: the nature, timing and extent of the further procedures performed, the linkage of those further procedures with the risks of material misstatement, and the results of the procedures.
- Evaluation of Misstatements: The amount below which misstatements would be regarded as clearly trivial, misstatements accumulated during the engagement and whether they have been corrected, and the assurance practitioner's conclusion as to whether uncorrected misstatements are material, individually or in the aggregate, and the basis for that conclusion.

Matters Arising after the Date of the Assurance Report (Ref: Para. 68)

A128. Examples of exceptional circumstances include facts which become known to the assurance practitioner after the date of the assurance report but which existed at that date and which, if known at that date, might have caused the GHG statement to be amended or the assurance practitioner to modify the conclusion in the assurance report, for example, the discovery of a significant uncorrected error. The resulting changes to the engagement documentation are reviewed in accordance with the firm's policies or procedures with respect to the nature, timing and extent of the review of engagement team members' work as required by ASQM 1,[24] with the lead assurance practitioner taking final responsibility for the changes.

Assembly of the Final Engagement File (Ref: Para. 69)

A129. ASQM 1 (or other professional requirements, or requirements in law or regulation that are at least as demanding as ASQM 1) requires firms to establish a quality objective that addresses the assembly of engagement documentation on a timely basis after the date of the engagement

[23] ASAE 3000, paragraph 79.
[24] ASQM 1, paragraph 31(b).

report.[25] An appropriate time limit within which to complete the assembly of the final engagement file is ordinarily not more than 60 days after the date of the assurance report.[26]

Forming the Assurance Conclusion

Description of the Applicable Criteria (Ref: Para. 74(d), 76(h)(iv))

A130. The preparation of the GHG statement by the entity requires the inclusion of an adequate description of the applicable criteria in the explanatory notes to the GHG statement. That description advises intended users of the framework on which the GHG statement is based, and is particularly important when there are significant differences between various criteria regarding how particular matters are treated in a GHG statement, for example: which emissions deductions are included, if any; how they have been quantified and what they represent; and the basis for selecting which Scope 3 emissions are included, and how they have been quantified.

A131. A description that the GHG statement is prepared in accordance with particular criteria is appropriate only if the GHG statement complies with all the requirements of those criteria that are effective during the period covered by the GHG statement.

A132. A description of the applicable criteria that contains imprecise qualifying or limiting language (for example, "the GHG statement is in substantial compliance with the requirements of XYZ") is not an adequate description as it may mislead users of the GHG statement.

Assurance Report Content

Illustrative Assurance Reports (Ref: Para. 76)

A133. Appendix 2 contains illustrations of assurance reports on GHG statements incorporating the elements set forth in paragraph 76.

Information Not Covered by the Assurance Practitioner's Conclusion (Ref: Para. 76(d))

A134. To avoid misunderstanding and undue reliance on information that has not been subject to assurance, where the GHG statement includes information, such as comparatives, that is not covered by the assurance practitioner's conclusion, that information is ordinarily identified as such in the GHG statement and in the assurance practitioner's assurance report.

Emissions Deductions (Ref: Para. 76(g))

A135. The wording of the statement to be included in the assurance report when the GHG statement includes emissions deductions may vary considerably depending on the circumstances.

A136. The availability of relevant and reliable information in relation to offsets and other emissions deductions varies greatly and, therefore, so does the evidence available to assurance practitioners to support entities' claimed emissions deductions.

A137. Because of the varied nature of emissions deductions and the often reduced number and nature of procedures that can be applied to emissions deductions by the assurance practitioner, this ASAE requires identification in the assurance report of those emissions deductions, if any, that are covered by the assurance practitioner's conclusion, and a statement of the assurance practitioner's responsibility with respect to them.

A138. A statement of the assurance practitioner's responsibility with respect to emissions deductions may be worded as follows when the emissions deductions are comprised of offsets: "The GHG statement includes a deduction from ABC's emissions for the year of yyy tonnes of $CO_{2\text{-}e}$

---

[25] ASQM 1, paragraph 31(f).
[26] ASQM 1, paragraph A83.

relating to offsets. We have performed procedures as to whether these offsets were acquired during the year, and whether the description of them in the GHG statement is a reasonable summary of the relevant contracts and related documentation. We have not, however, performed any procedures regarding the external providers of these offsets, and express no conclusion about whether the offsets have resulted, or will result, in a reduction of yyy tonnes of $CO_{2\text{-}e}$."

Use of the Assurance Report (Ref: Para. 76(h)(iii))

A139. As well as identifying the addressee of the assurance report, the assurance practitioner may consider it appropriate to include wording in the body of the assurance report that specifies the purpose for which, or the intended users for whom, the report was prepared. For example, when the GHG statement will be lodged on the public record, it may be appropriate for the explanatory notes to the GHG statement and the assurance report to include a statement that the report is intended for users who have a reasonable knowledge of GHG related activities, and who have studied the information in the GHG statement with reasonable diligence and understand that the GHG statement is prepared and assured to appropriate levels of materiality.

A140. In addition, the assurance practitioner may consider it appropriate to include wording that specifically restricts distribution of the assurance report other than to intended users, its use by others, or its use for other purposes.

Summary of the Assurance Practitioner's Procedures (Ref: Para. 76(k)(ii))

A141. The assurance report in a reasonable assurance engagement normally follows a standard wording and only briefly describes procedures performed. This is because, in a reasonable assurance engagement, describing in any level of detail the specific procedures performed would not assist users to understand that, in all cases where an unmodified report is issued, sufficient appropriate evidence has been obtained to enable the assurance practitioner to express an opinion.

A142. In a limited assurance engagement, an appreciation of the nature, timing and extent of procedures performed is essential for the intended users to understand the conclusion expressed in a limited assurance report. The description of the assurance practitioner's procedures in a limited assurance engagement is therefore ordinarily more detailed than in a reasonable assurance engagement. It also may be appropriate to include a description of procedures that were not performed that would ordinarily be performed in a reasonable assurance engagement. However, a complete identification of all such procedures may not be possible because the assurance practitioner's required understanding and assessment of risks of material misstatement are less than in a reasonable assurance engagement.

Factors to consider in making that determination and the level of detail to be provided include:

- Circumstances specific to the entity (e.g., the differing nature of the entity's activities compared to those typical in the sector).
- Specific engagement circumstances affecting the nature and extent of the procedures performed.
- The intended users' expectations of the level of detail to be provided in the report, based on market practice, or applicable law or regulation.

A143. In describing the procedures performed in the limited assurance report, it is important that they are written in an objective way but are not summarised to the extent that they are ambiguous, nor written in a way that is overstated or embellished or that implies that reasonable assurance has been obtained. It is also important that the description of the procedures not give the impression that an agreed-upon procedures engagement has been undertaken, and in most cases will not detail the entire work plan.

The Assurance Practitioner's Signature (Ref: Para. 76(m))

A144. The assurance practitioner's signature is either in the name of the assurance practitioner's firm, the personal name of the assurance practitioner, or both, as appropriate for the particular jurisdiction. In addition to the assurance practitioner's signature, in certain jurisdictions, the assurance practitioner may be required to declare in the assurance report the assurance practitioner's professional designation or the fact that the assurance practitioner or firm, as appropriate, has been recognised by the appropriate licensing authority in that jurisdiction.

Emphasis of Matter Paragraphs and Other Matter Paragraphs (Ref: Para. 77)

A145. A widespread use of Emphasis of Matter or Other Matter paragraphs diminishes the effectiveness of the assurance practitioner's communication of such matters.

A146. An Emphasis of Matter paragraph may be appropriate when, for example, different criteria have been used or the criteria have been revised, updated or interpreted differently than in prior periods and this has had a fundamental effect on reported emissions, or a system breakdown for part of the period being accounted for means that extrapolation was used to estimate emissions for that time and this has been stated in the GHG statement.

A147. An Other Matter paragraph may be appropriate when, for example, the scope of the engagement has changed significantly from the prior period and this has not been stated in the GHG statement.

A148. The content of an Emphasis of Matter paragraph includes a clear reference to the matter being emphasised and to where relevant disclosures that fully describe the matter can be found in the GHG statement. It also indicates that the assurance practitioner's conclusion is not modified in respect of the matter emphasised. (See also paragraph A125)

A149. The content of an Other Matter paragraph reflects clearly that such other matter is not required to be presented and disclosed in the GHG statement. Paragraph 77 limits the use of an Other Matter paragraph to matters relevant to users' understanding of the engagement, the assurance practitioner's responsibilities or the assurance report, that the assurance practitioner considers it necessary to communicate in the assurance report. (See also paragraph A124)

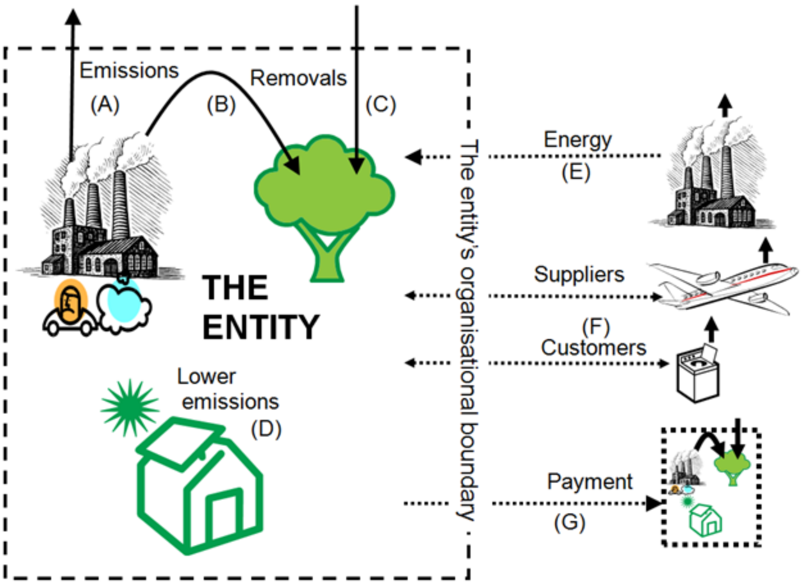
A150. Including the assurance practitioner's recommendations on matters such as improvements to the entity's information system in the assurance report may imply that those matters have not been appropriately dealt with in preparing the GHG statement. Such recommendations may be communicated, for example, in a management letter or in discussion with those charged with governance. Considerations relevant to deciding whether to include recommendations in the assurance report include whether their nature is relevant to the information needs of intended users, and whether they are worded appropriately to ensure they will not be misunderstood as a qualification of the assurance practitioner's conclusion on the GHG statement.

A151. An Other Matter paragraph does not include information that the assurance practitioner is prohibited from providing by law, regulation or other professional standards, for example, ethical standards relating to confidentiality of information. An Other Matter paragraph also does not include information that is required to be provided by management.

Appendix 1

(Ref: Para.A8–A14)

EMISSIONS, REMOVALS AND EMISSIONS DEDUCTIONS



A = Direct, or Scope 1, emissions (see paragraph A8).

B = Removals (emissions that are generated within the entity's boundary but captured and stored within that boundary rather than released into the atmosphere. They are commonly accounted for on a gross basis, that is, as a Scope 1 emission and a removal) (see paragraph A14).

C = Removals (GHGs the entity has removed from the atmosphere) (see paragraph A14).

D = Actions the entity takes to lower its emissions. Such actions might reduce Scope 1 emissions (for example, using more fuel efficient vehicles), Scope 2 emissions (for example, installing solar panels to reduce the quantity of purchased electricity), or Scope 3 emissions (for example, reducing business travel or selling products that require less energy to use). The entity might discuss such actions in the explanatory notes to the GHG statement, but they only affect the quantification of emissions on the face of the entity's GHG statement to the extent that reported emissions are lower than they would otherwise be or they constitute an emissions deduction in accordance with the applicable criteria (see paragraph A11).

E = Scope 2 emissions (see paragraph A9).

F = Scope 3 emissions (see paragraph A10).

G = Emissions deductions, including purchased offsets (see paragraphs A11–A13).

Appendix 2

(Ref: Para. A134)

ILLUSTRATIONS OF ASSURANCE REPORTS ON GHG STATEMENTS

Illustration 1: [*]

Circumstances include the following:

- **Reasonable assurance engagement.**
- **The entity's GHG statement contains no Scope 3 emissions.**
- **The entity's GHG statement contains no emissions deductions.**
- **The GHG statement contains no comparative information.**

The following illustrative report is for guidance only and is not intended to be exhaustive or applicable to all situations.

INDEPENDENT ASSURANCE PRACTITIONER'S REASONABLE ASSURANCE REPORT ON ABC'S GREENHOUSE GAS (GHG) STATEMENT

[Appropriate Addressee]

Report on GHG Statement *(this heading is not needed if this is the only section)*

We have undertaken a reasonable assurance engagement of the accompanying GHG statement of ABC for the year ended 30 June 20X1, comprising the Emissions Inventory and the Explanatory Notes on pages xx–yy. [This engagement was conducted by a multidisciplinary team including assurance practitioners, engineers and environmental scientists.][27]

ABC's Responsibility for the GHG Statement

ABC is responsible for the preparation of the GHG statement in accordance with [*applicable criteria*], applied as explained in Note 1 to the GHG statement. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of a GHG statement that is free from material misstatement, whether due to fraud or error.

[As discussed in Note 1 to the GHG statement,][28] GHG quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the values needed to combine emissions of different gases.

Our Independence and Quality Management

We have complied with the relevant ethical requirements relating to assurance engagements, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

---

[*] When reporting under NGERS, the assurance practitioner needs to comply with the requirements of the NGER (Audit) Determination 2009 and use the reporting templates in the NGER Audit Determination Handbook. For further guidance, refer GS 021 *Engagements Under the National Greenhouse and Energy Reporting Scheme, Carbon Pricing Mechanism and Related Schemes.*

[27] The sentence should be deleted if it is not applicable to the engagement (for example, if the engagement was to report only on Scope 2 emissions and no other experts were used).

[28] Where there is no discussion of the inherent uncertainty in Note 1 to the GHG statement, this should be deleted.

The firm applies Auditing Standard ASQM 1 *Quality Management for Firms that Perform Audits or Reviews of Financial Reports and Other Financial Information, or Other Assurance or Related Services Engagements*, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our Responsibility

Our responsibility is to express an opinion on the GHG statement based on the evidence we have obtained. We conducted our reasonable assurance engagement in accordance with Standard on Assurance Engagements ASAE 3410 *Assurance Engagements on Greenhouse Gas Statements* (ASAE 3410), issued by the Auditing and Assurance Standards Board. That standard requires that we plan and perform this engagement to obtain reasonable assurance about whether the GHG statement is free from material misstatement.

A reasonable assurance engagement in accordance with ASAE 3410 involves performing procedures to obtain evidence about the quantification of emissions and related information in the GHG statement. The nature, timing and extent of procedures selected depend on the assurance practitioner's judgement, including the assessment of the risks of material misstatement, whether due to fraud or error, in the GHG statement. In making those risk assessments, we considered internal control relevant to ABC's preparation of the GHG statement. A reasonable assurance engagement also includes:

- Assessing the suitability in the circumstances of ABC's use of [*applicable criteria*], applied as explained in Note 1 to the GHG statement, as the basis for preparing the GHG statement;
- Evaluating the appropriateness of quantification methods and reporting policies used, and the reasonableness of estimates made by ABC; and
- Evaluating the overall presentation of the GHG statement.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion

In our opinion, the GHG statement for the year ended 30 June 20X1 is prepared, in all material respects, in accordance with the [*applicable criteria*] applied as explained in Note 1 to the GHG statement.

Report on Other Legal and Regulatory Requirements (*applicable for some engagements only*)

[Form and content of this section of the assurance report will vary depending on the nature of the assurance practitioner's other reporting responsibilities.]

[Assurance practitioner's signature]

[Date of the assurance report]

[Assurance practitioner's address]

Illustration 2: [*]

Circumstances include the following:

- **Limited assurance engagement.**
- **The entity's GHG statement contains no Scope 3 emissions.**
- **The entity's GHG statement contains no emissions deductions.**
- **The GHG statement contains no comparative information.**

The following illustrative report is for guidance only and is not intended to be exhaustive or applicable to all situations.

INDEPENDENT ASSURANCE PRACTITIONER'S LIMITED ASSURANCE REPORT ON ABC'S GREENHOUSE GAS (GHG) STATEMENT

[Appropriate Addressee]

Report on GHG Statement *(this heading is not needed if this is the only section)*

We have undertaken a limited assurance engagement of the accompanying GHG statement of ABC for the year ended 30 June 20X1, comprising the Emissions Inventory [and the Explanatory Notes on pages xx–yy]. [This engagement was conducted by a multidisciplinary team including assurance practitioners, engineers and environmental scientists.][29]

ABC's Responsibility for the GHG Statement

ABC is responsible for the preparation of the GHG statement in accordance with [*applicable criteria*], applied as explained in Note 1 to the GHG statement. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of a GHG statement that is free from material misstatement, whether due to fraud or error.

[As discussed in Note 1 to the GHG statement,][30] GHG quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the values needed to combine emissions of different gases.

Our Independence and Quality Management

We have complied with the relevant ethical requirements relating to assurance engagements, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Auditing Standard ASQM 1 *Quality Management for Firms that Perform Audits or Reviews of Financial Reports and Other Financial Information, or Other Assurance or Related Services Engagements*, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

---

[*] When reporting under NGERS the assurance practitioner needs to comply with the form of reporting required by the NGER (Audit) Determination 2009 and use the reporting templates in the NGER Audit Determination Handbook. For further guidance, refer GS 021.

[29] The sentence should be deleted if it is not applicable to the engagement (for example, if the engagement was to report only on Scope 2 emissions and no other experts were used).

[30] Where there is no discussion of the inherent uncertainty in Note 1 to the GHG statement, this should be deleted.

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the GHG statement based on the procedures we have performed and the evidence we have obtained. We conducted our limited assurance engagement in accordance with Standard on Assurance Engagements ASAE 3410, *Assurance Engagements on Greenhouse Gas Statements* (ASAE 3410), issued by the Auditing and Assurance Standards Board. That standard requires that we plan and perform this engagement to obtain limited assurance about whether the GHG statement is free from material misstatement.

A limited assurance engagement undertaken in accordance with ASAE 3410 involves assessing the suitability in the circumstances of ABC's use of [applicable criteria] as the basis for the preparation of the GHG statement, assessing the risks of material misstatement of the GHG statement whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the GHG statement. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

The procedures we performed were based on our professional judgement and included enquiries, observation of processes performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records.

> [*The assurance practitioner may insert a summary of the nature and extent of procedures performed that, in the assurance practitioner's judgement, provides additional information that may be relevant to the users' understanding of the basis for the assurance practitioner's conclusion.*[31] *The following section has been provided as guidance, and the example procedures are not an exhaustive list of either the type, or extent, of the procedures which may be important for the users' understanding of the work done.*][32]
>
> Given the circumstances of the engagement, in performing the procedures listed above we:
>
> - Through enquiries, obtained an understanding of ABC's control environment and information systems relevant to emissions quantification and reporting, but did not evaluate the design of particular control activities, obtain evidence about their implementation or test their operating effectiveness.
> - Evaluated whether ABC's methods for developing estimates are appropriate and had been consistently applied. However, our procedures did not include testing the data on which the estimates are based or separately developing our own estimates against which to evaluate ABC's estimates.
> - Undertook site visits [at three sites] to assess the completeness of the emissions sources, data collection methods, source data and relevant assumptions applicable to the sites. The sites selected for testing were chosen taking into consideration their emissions in relation to total emissions, emissions sources, and sites selected in prior periods. Our procedures [did/did not] include testing information systems to collect and aggregate facility data, or the controls at these sites.][33]

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have

[31] The procedures are to be summarised but not to the extent that they are ambiguous, nor described in a way that is overstated or embellished or that implies that reasonable assurance has been obtained. It is important that the description of the procedures does not give the impression that an agreed-upon procedures engagement has been undertaken, and in most cases will not detail the entire work plan.

[32] In the final report, this explanatory paragraph will be deleted.

[33] This section should be deleted if the assurance practitioner concludes that the expanded information on the procedures performed is not needed in the circumstances of the engagement.

been obtained had we performed a reasonable assurance engagement. Accordingly, we do not express a reasonable assurance opinion about whether ABC's GHG statement has been prepared, in all material respects, in accordance with the [*applicable criteria*] applied as explained in Note 1 to the GHG statement.

Limited Assurance Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that ABC's GHG statement for the year ended 30 June 20X1 is not prepared, in all material respects, in accordance with the [*applicable criteria*] applied as explained in Note 1 to the GHG statement.

Report on Other Legal and Regulatory Requirements (*applicable for some engagements only*)

[Form and content of this section of the assurance report will vary depending on the nature of the assurance practitioner's other reporting responsibilities.]

[Assurance practitioner's signature]

[Date of the assurance report]

[Assurance practitioner's address]