

DRAFT
General Verification Protocol v. 2.1
for public comment

DRAFT

TABLE OF CONTENTS

PART 1:	INTRODUCTION	1
1.1	Introduction to the GVP.....	1
1.1.1	Background on The Registry's Verification Program	1
1.1.2	International GHG Standards.....	1
1.2	Overview of the Verification Process.....	2
1.2.1	Key Players.....	3
1.2.2	Becoming a Registry-Recognized Verification Body.....	6
1.2.3	Verification Documentation	6
1.2.4	Climate Registry Information System (CRIS).....	6
1.2.5	Registry Review and Public Release of Data.....	7
1.3	Organization of the GVP.....	7
1.4	Updates to the GVP	7
PART 2:	SUMMARY OF THE VERIFICATION PROCESS AND REQUIREMENTS	8
2.1	Principles of Verification.....	8
2.2	Verification Process Overview.....	8
2.3	Level of Assurance	9
2.4	Verification Criteria.....	10
2.5	Materiality	10
2.5.1	Mitigating Discrepancies	19
2.6	Risk-Based Approach to Verification.....	20
2.7	Scope of Verification	20
2.7.1	Data from Regulatory Programs	21
2.7.2	Transitional Reporting.....	21
2.7.3	Historical Emissions Data	21
2.7.4	Other Optional Emissions Data.....	22
2.7.5	Other (Non-Emissions) Data	23
2.8	Verification Cycle.....	24
2.9	Batch Verification Process.....	29
PART 3:	PREPARING FOR VERIFICATION	31
3.1	Responding to a Member's Request for Proposal for Verification Activities.....	31
3.2	Conflict of Interest (COI).....	31
3.2.1	Case-Specific COI	32
3.2.2	Mitigating COI	35

3.2.3 Emerging COI	37
3.2.4 Evaluating COI in Subsequent Years	37
3.3 Assembling the Verification Team	37
3.3.1 Using Experts or Subcontractors	38
3.4 Kick-off Meeting with the Member.....	38

PART 4: CONDUCTING VERIFICATION ACTIVITIES.....40

4.1 Overview.....	40
4.2 Developing a Verification Plan.....	40
4.3 Core Verification Activities	44
4.3.1 Assessing Conformance with The Registry’s Requirements	44
4.3.2 Assessing Completeness of the Emission Report	44
4.3.3 Performing Risk Assessment Based on Review of Information Systems and Controls.....	44
4.3.4 Selecting a Sample / Developing a Sampling Plan	46
Notification of Planned Verification Activities	55
4.3.5 Verifying Emission Estimates Against Verification Criteria	55

PART 5: COMPLETING THE VERIFICATION PROCESS.....58

5.1 Overview.....	58
5.2 Preparing a Verification Report	58
5.3 Preparing a Verification Statement	59
5.4 Quality Assurance Check.....	59
5.5 Finalizing Verification Activities	59
5.5.1 Procedure in the Event of a Negative Verification Statement	60
5.5.2 Dispute Resolution Process	60
5.6 Completing the Verification Process	61
5.7 Record Keeping and Retention.....	61
5.8 Facts Discovered After Verification Process is Complete	61

GLOSSARY OF TERMS.....63

APPENDIX A: REQUIRED FORMS.....70

Appendix A1: COI-A: Case-Specific Conflict of Interest Assessment Form	71
Appendix A2: Form COI-B: Mitigation Plan	77
Appendix A3: Notification of Planned Facility Visits Form.....	78
Appendix A4: Verification Statement.....	82

APPENDIX B: OPTIONAL FORMS AND TEMPLATES.....85

Appendix B1: Guidance for Completing Verification Activities (<i>Optional</i>)..	86
--	----

Appendix B2: Standard Verification Report Template (*Optional*)..... 90

APPENDIX C: SECTOR-SPECIFIC GVP ADDENDA94

Appendix C1: Local Government Operations Addendum to the General
Verification Protocol Version 1.0 (January 2010) 94

Appendix C2: Electric Power Sector Addendum to the General Verification
Protocol Version 1.0 (January 2010)..... 100

Appendix C3: Oil & Gas Production Sector Addendum to the General
Verification Protocol Version 1.0 115

LIST OF TABLES

Table 4.1 Documents that may be Reviewed During Verification Activities 42

LIST OF FIGURES

Figure 1.1 Responsibilities and Interactions of the Key Players 5

Figure 2.1 Conceptual Application of the Materiality Threshold 14

Figure 2.2 Materiality Hierarchy..... 18

Figure 2.3 Three-Year Verification Cycle 28

ABBREVIATIONS AND ACRONYMS

1		
2	AR4	IPCC Fourth Assessment Report (2007)
3	Btu	British thermal unit(s)
4	CEMS	Continuous Emissions Monitoring Systems
5	CHP	Combined Heat and Power
6	CH ₄	Methane
7	COP	Coefficient of Performance
8	CO ₂	Carbon Dioxide
9	CO ₂ -e	Carbon Dioxide Equivalent
10	COI	Conflict of Interest
11	EU-ETS	European Union Emission Trading Scheme
12	GCV	Gross Caloric Value
13	GHG	Greenhouse Gas
14	GWP	Global Warming Potential
15	HFC	Hydrofluorocarbon
16	HHV	Higher Heating Value
17	IPCC	Intergovernmental Panel on Climate Change
18	kg	Kilogram(s)
19	kWh	kilowatt-hour(s)
20	lb	Pound
21	LHV	Lower Heating Value
22	LPG	Liquefied Petroleum Gas
23	MMBtu	Million British thermal units
24	MWh	Megawatt-hour(s)
25	NO _x	Oxides of Nitrogen
26	N ₂ O	Nitrous Oxide
27	PFC	Perfluorocarbon
28	RFP	Request for Proposals
29	SAR	IPCC Second Assessment Report (1996)
30	SF ₆	Sulfur Hexafluoride
31	TAR	IPCC Third Assessment Report (2002)
32	U.S. EPA	United States Environmental Protection Agency
33	WBCSD	World Business Council for Sustainable Development
34	WRI	World Resources Institute
35		

PART 1: INTRODUCTION

1 1.1 Introduction to the GVP

2 This General Verification Protocol (GVP)
3 presents the verification requirements for The
4 Climate Registry's (The Registry) voluntary
5 greenhouse gas (GHG) emissions reporting
6 program. The Registry developed this GVP to
7 provide Registry-recognized¹ verification bodies
8 with clear instructions for executing a
9 standardized approach to the independent
10 verification of annual GHG emissions reported
11 to The Registry. This standardized approach
12 defines a verification process that promotes the
13 completeness, consistency, comparability,
14 accuracy and transparency of emissions data
15 reported to The Registry. The GVP is written
16 primarily for verification bodies; however,
17 Members may also find the document useful.²

18 1.1.1 Background on The Registry's 19 Verification Program

20 One of the guiding principles of The Registry is
21 to establish a high level of environmental
22 integrity in reported emissions. In part, the
23 measurement, estimation, and reporting
24 requirements articulated in The Registry's
25 *General Reporting Protocol* will assure the
26 quality and integrity of the collected data.
27 Equally important is the third-party evaluation of
28 the accuracy of Members' annual emission
29 reports and their conformity with the *General*
30 *Reporting Protocol's* prescriptions³. Third-party
31 verification is defined as an independent expert
32 assessment of the accuracy of Members'
33 emission reports, and its conformity with agreed
34 upon criteria.
35

¹ The Registry recognizes verification bodies that are accredited to ISO 14065 by a partnering accreditation body.

² In addition, Chapter 19 of The Registry's *General Reporting Protocol* contains an overview of the verification process that focuses on Members' responsibilities in the process.

³ Including approved Member-Developed Methodologies and General Reporting Protocol Updates and Clarifications published by The Registry on its website.

36 The purpose of third-party verification is to
37 provide confidence to users (state regulatory
38 agencies, native sovereign nation authorities,
39 investors, suppliers, customers, local
40 governments, the public, etc.) that the
41 emissions data submitted to The Registry
42 represents a faithful, true and fair account of
43 emissions—free of material misstatements and
44 conforming to The Registry's accounting and
45 reporting rules.

46
47 Third-party verification is a widely accepted
48 practice for ensuring accurate emissions data.
49 Verification has been employed in the context
50 of a number of voluntary and mandatory GHG
51 reporting programs. In the U.S., the
52 Environmental Protection Agency (EPA) does
53 not require third-party verification of GHG
54 emissions reported under its mandatory
55 reporting rule; however, third-party verification
56 is relied upon by several GHG regulatory
57 programs, including the California Air
58 Resources Board (CARB), the Western Climate
59 Initiative (WCI), Massachusetts Department of
60 Environmental Protection (MassDEP), the
61 European Union's Emissions Trading System
62 (EU ETS), the United Kingdom's GHG
63 Emissions Trading System, Alberta's Specified
64 Gas Emitters Program, and British Columbia's
65 Greenhouse Gas Reduction Act.
66
67

68 1.1.2 International GHG Standards

69 The Registry developed this GVP to facilitate
70 consistency with the following international
71 GHG standards:
72

- 73 • **ISO14064-3:2006 – Greenhouse Gases –**
74 **Part 3: Specification with Guidance for**
75 **the Validation and Verification of**
76 **Greenhouse Gas assertions.** The Registry
77 based its verification process on the
78 principles of ISO 14064-3, and aims to
79 maintain as much consistency with the

1 standard as is possible. While ISO 14064-3
 2 serves as the foundation for The Registry’s
 3 verification program, The Registry provides
 4 additional guidance, verification
 5 requirements, and specificity in this GVP.
 6
 7 • **ISO14065:2013 – Greenhouse Gases –**
 8 **Requirements for Greenhouse Gas**
 9 **Validation and Verification Bodies for**
 10 **Use in Accreditation or Other Forms of**

11 **Recognition.** This standard provides a
 12 framework for accrediting verification
 13 bodies. The Registry has developed a
 14 separate document that describes its
 15 accreditation process (*Guidance on*
 16 *Accreditation*). Like the GVP, this document
 17 is based in large part on the international
 18 standard, but supplements the framework
 19 with program-specific processes and
 20 criteria.

The International Organization for Standardization (ISO) (www.iso.org)

ISO is the recognized institution that sets agreed international standards for a wide range of products, services and systems; since 1947 it has published more than 16,500 International Standards. Membership in ISO is composed of the single national body “most representative of standardization in its country.”

ISO members participate in the standards development process by convening a series of working groups comprised of experts in the relevant field and other interested parties (such as regulators, academia and non-governmental organizations). These working groups draft and determine the text language of proposed voluntary standards designed for global application. Wherever possible, the working groups draw from existing best practices and standards that may have been pioneered at a national level.

In 2002, ISO recognized that the various schemes emerging in the international, national and voluntary arenas were using different rules for GHG accounting, thereby giving rise to inconsistencies in the quality of the various GHG programs. To remedy this they decided to create a series of standards that would:

- Enhance environmental integrity by promoting consistency, transparency and credibility in GHG quantification, monitoring, reporting and verification;
- Enable organizations to identify and manage GHG-related liabilities, assets and risks;
- Facilitate the trade of GHG allowances or credits; and
- Support the design, development and implementation of comparable and consistent GHG schemes or programs.

10

1 **1.2 Overview of the Verification**
 2 **Process**

3 Members and verification bodies must use this
 4 GVP in combination with The Registry’s
 5 *General Reporting Protocol* and *Guidance on*
 6 *Accreditation* to conform with The Registry’s
 7 reporting and verification requirements.
 8 verification bodies must verify that Members’
 9 annual GHG emission reports comply with the

11 standards set forth in the *General Reporting*
 12 *Protocol*⁴. Through this document, The Registry
 13 provides guidance to verification bodies for
 14 completing annual verification activities.

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

1 1.2.1 Key Players

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

- 5
- 6 • **Accreditation body:** Responsible for
7 approving verification bodies to perform
8 verification activities for The Registry's
9 voluntary reporting program. This includes
10 complying with the ISO 14065 standard as
11 well as The Registry's additional
12 accreditation criteria. Accreditation Bodies
13 are also responsible for ensuring the
14 consistency and quality of The Registry's
15 verification process by monitoring each
16 verification body's conformance with
17 program requirements; assessing the
18 accuracy of each verification body's work;
19 and sanctioning verification bodies which do
20 not continue to meet program
21 requirements.⁵ In addition, if disputes
22 between Members and verification bodies
23 cannot be resolved, parties may bring such
24 disputes to the accreditation body⁶ for
25 resolution. Refer to The Registry's
26 *Guidance on Accreditation* for more
27 information on the accreditation process
28 and the role of an accreditation body.
- 29 • **Verification body:** A Registry-recognized
30 firm responsible for verifying emission
31 reports submitted to The Registry. Each
32 verification engagement undertaken by a
33 verification body will utilize the following four
34 types of experts:

35 **Lead verifier (Required):** Responsible
36 for leading the verification engagement,
37 including the assignment of individual
38 verification team members to specific

⁵The Registry is currently partnered with the American National Standards Institute (ANSI) to administer its accreditation process. In the future, The Registry intends to consider expanding this accreditation partnership to include other relevant accreditation bodies in North America.

⁶ The accreditation body designates an "Accreditation Committee" to respond to such disputes. The Registry has representation on this Committee, and thus contributes to the resolution of any disputes.

39
40
41
42
43
44
45
46

47
48
49
50
51
52
53
54
55
56
57
58
59
60
61

62
63
64
65
66
67
68
69
70

71
72
73
74
75
76
77
78
79

80
81
82
83
84
85

tasks and quality assurance of each team member's work. The lead verifier must indicate his or her approval of the verification team's effort by signing the verification report and the verification statement. The lead verifier and the independent peer reviewer cannot be the same person.

Independent Peer Reviewer

(Required): Another individual qualified as a lead verifier and independent peer reviewer, with no involvement in the specific verification engagement. The independent peer reviewer is assigned to conduct an independent quality assurance review of the work of the verification team. The independent peer reviewer must indicate his or her approval of the verification team's efforts by signing the verification report and the verification statement. The lead verifier and the independent peer reviewer cannot be the same person.

While it is neither The Registry's intent nor recommendation that independent peer reviewers observe facility visits, The Registry does not prohibit the independent peer reviewer's observation of the facility visits as long as the independent peer reviewer is strictly an observer and does not engage in verification activities.

Verifier (Optional): An individual member of the verification team responsible for performing specific verification tasks within his or her area(s) of expertise, as directed by the lead verifier. The number of verifiers needed on a verification team will vary based on the scope and complexity of a Member's emissions.

Technical Expert (Optional, based on the technical needs of the verification activities): An individual who provides specific industry knowledge to the verification team, as directed by the lead verifier. Technical experts may not be

1 needed if either the lead verifier or one
 2 or more of the verifiers possesses the
 3 requisite industry knowledge. Technical
 4 experts can have expertise in GHG
 5 quantification within a sector, specific
 6 emitting technologies, or both. Technical
 7 experts will likely be subcontractors
 8 brought in to supplement the verification
 9 body’s staff competencies to complete
 10 the needed verification activities.

46
47
48
49
50
51
52
53
54

- 3. Other Stakeholders: between 5 and 10 representatives (for example, Registry jurisdictional representatives, voluntary and mandatory GHG programs, environmental organizations).
- 4. Advisors are consulted on an as-needed basis for legal, ethical, and other areas of expertise.

11 *Note: Verification bodies may hire*
 12 *subcontractors to perform any or all of*
 13 *the above roles within their verification*
 14 *teams. All subcontractors must be*
 15 *identified and disclosed on the*
 16 *verification body’s Case Specific Conflict*
 17 *of Interest Assessment Form. All*
 18 *subcontractors must meet the Personal*
 19 *Conflict of Interest requirements as*
 20 *stipulated in Section 3.2.*

55
56
57
58
59
60
61
62
63

The responsibilities of the Verification Advisory Group are as follows:

- **Member:** Responsible for reporting its GHG emissions and selecting a Registry-recognized verification body to assess the quality of their emission report. A Member must provide the information, documents, and site access a verification body needs to complete the verification effort, and must correct any material errors, omissions, or misrepresentations in the emission report discovered by the verification body.

64
65
66
67
68
69
70
71

- Review draft sector-specific verification requirements and guidance.
- Review draft GVP Updates and Clarifications documents.
- Bring to the attention of The Registry any emerging verification or accreditation issues.
- Provide feedback on verification and accreditation issues on an as-needed basis via e-mail and/or surveys.
- A representative of the VA Group may be invited by the Director of Verification Services to serve for a one-year term on a partnering accreditation body’s Accreditation Committee.

- **Verification Advisory Group (VA Group):** Verification Advisory Group to be comprised of the following representatives:

72
73
74
75
76
77
78
79
80
81

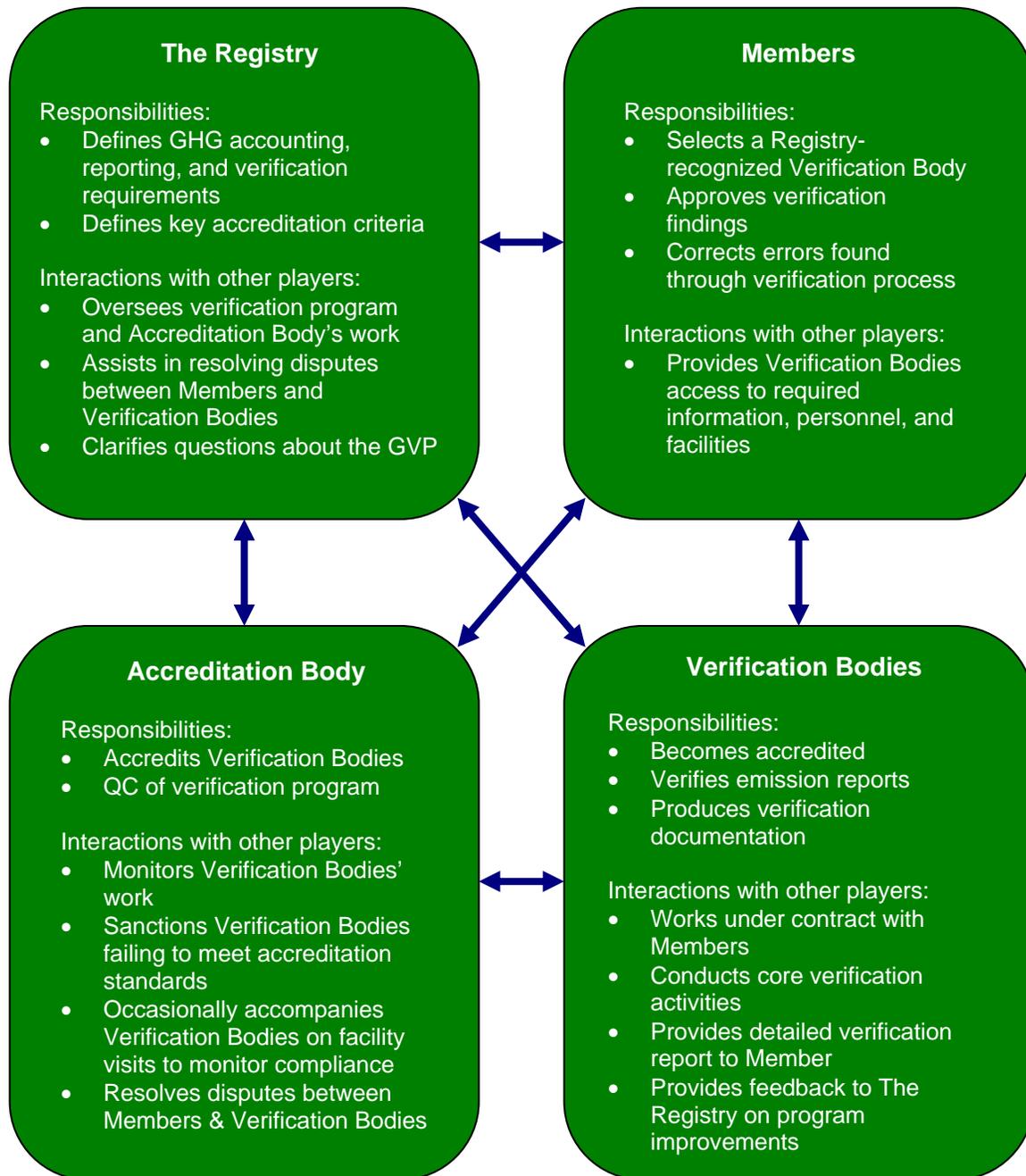
- **Audit & Verification Oversight Committee:** This Committee exercises the authority of the Board to oversee The Registry’s accreditation and verification programs, and recommends resolutions to any disputes arising between a Member and verification body related to the verification statement or verification report⁷ and other ethical concerns or complaints that may arise.

1. Registry-recognized verification body representatives: 1 individual from each accredited body. As the number of Registry-recognized verification bodies grows, The Registry will reconsider whether a subset of verification bodies can represent the entire group.
2. Members: 1 individual from up to 10 different Member organizations of various sizes and representing various sectors.

⁷Note: Any other disputes between a Member and a verification body must be resolved consistent with their contract terms (arbitration, etc.).

Figure 1.1 illustrates the responsibilities and interactions of the key players in the verification process.

Figure 1.1 Responsibilities and Interactions of the Key



1 1.2.2 Becoming a Registry-Recognized 2 Verification Body

3 Prospective verification bodies must become
4 accredited by a partnering accreditation body
5 before they can conduct verification activities
6 for The Registry's voluntary reporting program.
7 The Registry designed its accreditation process
8 to be consistent with the ISO 14065 standard
9 (*Greenhouse Gases – Requirements for*
10 *Greenhouse Gas Validation and Verification*
11 *Bodies for use in Accreditation or other forms of*
12 *Recognition*). Please refer to The Registry's
13 *Guidance on Accreditation* for details about
14 accreditation.

15 To undertake verification for any Registry
16 Member, a verification body must be accredited
17 to the organizational-level general scope (e.g.
18 ANSI Group 1⁸) by a Registry partner
19 accreditation body.

20 If the verification body is not accredited for the
21 sector in which it will undertake verification
22 activities, it shall not make reference to its
23 accreditation status or use the accreditation
24 body's accreditation symbol for that sector.

25 The Registry's requirements for sector-specific
26 accreditation are as follows:

- 27 • Power Generation (e.g. ANSI Group 3):
28 verification bodies must be accredited to
29 this sector in order to verify inventories
30 prepared in accordance with The Registry's
31 Electric Power Sector Protocol.
- 32 • Electric Power Transactions (e.g. ANSI
33 Group 4): Verification bodies must be
34 accredited to this sector in order to verify
35 inventories prepared in accordance with
36 The Registry's Electric Power Sector
37 Protocol for Members with electric power
38 transactions.
- 39 • Oil & Gas Production (e.g. ANSI Group 8):
40 Verification bodies must be accredited to
41 this sector in order to verify inventories

⁸ ANSI's policy and assessment requirements for accrediting firms to industry sector scopes can be viewed through [ANSI's website](#).

42 prepare in accordance with The Registry's
43 Oil & Gas Production Protocol.

- 44 • All Other Sectors: Verification bodies must
45 be accredited to the organizational-level
46 general scope (e.g. ANSI Group 1).

47 The Registry's sector-specific requirements for
48 verification are specified in the GVP addenda
49 provided in Appendix C.

50 While The Registry does not explicitly require a
51 verification body be accredited to other
52 organizational-level scopes (for example,
53 manufacturing, waste, mining and mineral
54 production, etc.) in order to provide verification
55 services for Members, the verification body
56 must assemble a verification team with the
57 necessary competence and an appropriate
58 level of knowledge and understanding of source
59 types in the Member's inventory.

60 1.2.3 Verification Documentation

61 Upon completion of all verification activities,
62 verification bodies must produce the following
63 documentation (Please refer to Part 5 for
64 detailed guidance on completing verification
65 documentation):

- 66 • Verification report
- 67 • Verification statement

68 In addition, verification bodies must retain all
69 verification documentation (i.e. working papers)
70 pertaining to verification activities for all
71 Members for at least five years.

72 73 1.2.4 Climate Registry Information 74 System (CRIS)

75 The Registry has developed a sophisticated
76 GHG emissions calculation, reporting, and
77 verification tool for all stakeholders (Members,
78 Registry Directors, verification bodies, The
79 Registry, and the public) to use to enter, review,
80 and access GHG data. In the verification
81 process, verification bodies will use CRIS to
82 review a Member's emissions.

83

1 To access CRIS, go to:
2 www.theclimateregistry.org

3 4 **1.2.5 Registry Review and Public** 5 **Release of Data**

6 To complete the GHG reporting process,
7 The Registry reviews a Member's verification
8 statement and releases the Member's
9 successfully verified data to the public.

10 **1.3 Organization of the GVP**

11 This GVP is divided into five Parts which outline
12 the necessary steps a verification body must
13 follow to initiate and complete the verification of
14 a Member's GHG emissions.

15 **Part 1, Introduction** (this section): Provides a
16 brief background on The Registry's verification
17 program, an overview of the purposes of the
18 verification, and definitions of key terms.

19 **Part 2, Summary of the Verification Process**
20 **and Requirements:** Provides an overview of
21 the entire verification process. This Part also
22 outlines The Registry's requirements on issues
23 such as the level of assurance, materiality,
24 scope of verification, and the frequency of
25 verification.

26 **Part 3, Preparing for Verification:** Describes
27 the activities that take place prior to a
28 verification body executing the core verification
29 activities. This Part includes bidding for a
30 contract with a Member, assessing potential
31 conflicts of interest, providing required
32 notifications to The Registry, and designing an
33 appropriate verification plan for each Member.

34 **Part 4, Core Verification Activities:** Explains
35 how verification bodies should assess a
36 Member's emissions.

37 **Part 5, Completing the Verification Process:**
38 Covers procedures for completing the

39 verification process, including preparing a
40 verification report and verification statement,
41 and recording and retaining proper records.

42 **1.4 Updates to the GVP**

43 While the GVP is intended to guide most
44 verification activities, The Registry may update
45 this document in the future to reflect changes in
46 international best practices and to provide
47 additional clarity and guidance.

48
49 Any updates to the GVP will be documented in
50 an Updates and Clarifications document that
51 will be posted on The Registry's website at
52 www.theclimateregistry.org. Until the next
53 version of the GVP is released, all Members
54 and verification bodies should refer to the latest
55 Updates and Clarifications document for the
56 most current interpretation and explanation of
57 verification policies, processes, and activities.

58
59 In addition, The Registry has developed
60 additional sector-specific addenda to this GVP
61 to accompany corresponding sector-specific
62 reporting protocols, including the Local
63 Government Operations Protocol, the Electric
64 Power Sector Protocol, and the Oil and Gas
65 Production Protocol. These addenda are
66 included in Appendix C. The Registry will
67 develop additional GVP addenda to accompany
68 any future sector-specific reporting protocols.

69
70 The Registry will inform stakeholders of
71 changes to the GVP in a timely manner, and
72 will provide explicit direction for when new
73 verification policies or procedures will be
74 required.

75
76 The Registry welcomes feedback and
77 suggestions for improving the GVP from all
78 stakeholders. Interested parties may submit
79 feedback to The Registry by e-mailing
80 verification@theclimateregistry.org.

PART 2: SUMMARY OF THE VERIFICATION PROCESS AND REQUIREMENTS

1 2.1 Principles of Verification

2 Several verification principles underpin and
3 guide The Registry's verification process. They
4 provide a compass to direct verification bodies
5 in cases where assessments are not black and
6 white. As an overarching principle, verification
7 bodies must seek consistency with the
8 principles defined in ISO 14064-3, which are:

- 9 1. **Independence:** To ensure the credibility of
10 the emissions data reported to The
11 Registry, the verification process must
12 remain free from bias and conflicts of
13 interest. Verification bodies must maintain
14 objectivity throughout the verification
15 process to ensure that findings and
16 conclusions will be based on objective
17 evidence. Refer to Section 3.2 for
18 additional guidance on conflict of interest.
- 19 2. **Ethical Conduct:** Verification bodies must
20 demonstrate ethical conduct through trust,
21 integrity, confidentiality, and discretion
22 throughout the verification process.
- 23 3. **Fair Presentation:** Verification bodies must
24 reflect truthfully and accurately the results of
25 the verification activities.
- 26 4. **Due Professional Care.** Verification
27 bodies must exercise due professional care
28 and judgment in accordance with the
29 importance of the task performed and the
30 confidence placed by clients and intended
31 users. In addition, verification bodies must
32 have the necessary skills and competences
33 when executing the verification activities
34 described in this GVP.

35 In addition to the above principles of
36 verification, verification bodies must ensure that
37 Members' emissions conform to the GHG
38 reporting principles as defined in The Registry's
39 *General Reporting Protocol*.

40 2.2 Verification Process Overview

41 Before any verification activities take place,
42 verification bodies must take a number of
43 procedural steps to ensure that the obligations
44 and responsibilities of both the verification body
45 and Member are clear.

46 The complete verification process consists of
47 the following 12 steps:

- 48 1. **Member submits CRIS report for**
49 **verification:** Once the report is submitted
50 for verification, data is "read-only" to the
51 Member.
- 52 2. **Member selects a verification body:**
53 Member contacts one or more Registry-
54 recognized verification bodies to request a
55 proposal for verification services. Member
56 selects a verification body and negotiates
57 contract terms.
- 58 3. **Verification body submits a Case-**
59 **Specific Conflict of Interest (COI)**
60 **Assessment Form:** After a Member
61 chooses a verification body, the verification
62 body must submit a Case-Specific COI
63 Assessment Form to The Registry. The
64 Registry reviews the COI assessment and
65 notifies the verification body of its
66 determination within 15 business days.
- 67 4. **Verification body and Member finalize**
68 **verification contract:** The Registry strongly
69 recommends that the verification body and
70 Member do not finalize a contract for
71 verification services or begin verification
72 activities unless the verification body
73 receives a COI determination letter from
74 The Registry indicating that the potential for
75 COI is low.
- 76 5. **Verification body develops verification**
77 **plan:** The verification body develops a risk-
78 based sampling plan, identifies facilities to
79 be visited, and submits a Notification of

1 Planned Facility Visits (NOPFV) form to The
2 Registry at least 10 business days before
3 the scheduled visits. It is not necessary to
4 submit the NOPFV form if no site visits will
5 be conducted (e.g. for a streamlined
6 verification).

7 **6. Verification body conducts core**
8 **verification activities:** The verification
9 body follows the guidance in the General
10 Verification Protocol to evaluate a Member's
11 annual GHG emission report and conducts
12 core verification activities

13 **8. Verification body informs Member of**
14 **reporting errors:** The verification body
15 prepares a detailed summary (e.g. draft
16 verification report) of the verification
17 activities and misstatements (both material
18 and immaterial) and reviews it with the
19 Member.

20 **9. Member implements corrective action:**
21 The Member corrects all material
22 misstatements in their CRIS report.

23 **10. Verification body prepares final**
24 **verification report and verification**
25 **statement:** The verification body assesses
26 corrective actions taken by Member,
27 prepares a final verification report and
28 verification statement and reviews these
29 documents with the Member.

30 **11. Verification statement is submitted**
31 **through CRIS:** The verification body
32 uploads the fully-executed⁹ verification
33 statement in CRIS..

34 **12. The Registry reviews verification**
35 **documentation:** The Registry reviews the
36 verification statement and evaluates the
37 Member's emission report. Once accepted
38 by The Registry, the Member's emission
39 report and the verification statement
40 become available to the public.

⁹ The verification statement must be signed by both the Member and verification body prior to being uploaded as a pdf file in CRIS. The Registry does not accept typed signatures; signatures must be digital signatures or handwritten and scanned.

41 These steps must be repeated annually to
42 complete The Registry's verification process.

43 If there are any changes to the information
44 provided on the Case-Specific COI Assessment
45 Form or the Notification of Planned Facility
46 Visits Form, the verification body must notify
47 The Registry in writing within 7 business days
48 of the change and resubmit the applicable form
49 if requested.

50 **2.3 Level of Assurance**

51 The level of assurance a verification body
52 attaches to its verification work dictates the
53 relative degree of confidence the verification
54 body has in its assessment of the accuracy of
55 the reported data, and by extension the level of
56 confidence that The Registry or other users can
57 place in the reported information. The Registry
58 accepts both inventories verified to a
59 reasonable level of assurance, as well as those
60 verified to a limited level of assurance.
61 Members must decide on the level of assurance
62 they wish to obtain based on their objectives
63 (e.g. to inform reduction efforts, regulatory
64 compliance, to seek recognition for reductions
65 achieved).

Reasonable Assurance: Reasonable assurance statements are usually crafted in a positive fashion; a verification body provides reasonable assurance that an emission report *is* materially correct. A reasonable assurance opinion is generally considered to generate the highest possible level of confidence.

Limited Assurance: Limited assurance statements are usually crafted in a negative fashion; a verification body asserts that there is no evidence that an emission report is not materially correct. Limited assurance statements generally involve less detailed testing of GHG data and less examination of supporting documentation. Findings of limited assurance provide less confidence in the reported data than those of reasonable assurance.

1 The level of assurance determines the type and
 2 extent of verification activities and,
 3 correspondingly, the level of confidence offered
 4 to stakeholders. Factors in determining which
 5 level of assurance is appropriate include cost,
 6 resources, time, use of data, and importance to
 7 stakeholders.

8
 9 Level of assurance is not determined by the
 10 integrity of the inventory. If it is not practicable
 11 to provide a reasonable level of assurance, the
 12 verifier must consider whether this is because
 13 there are concerns about the integrity of the
 14 underlying data, or because the underlying data
 15 is not readily accessible. If the verifier suspects
 16 that it would not be possible to provide
 17 reasonable assurance due to inadequacies in
 18 the organization's underlying data, then it is not
 19 appropriate to provide limited assurance
 20 either.¹⁰

21
 22 If there is no reason to suspect inadequacies in
 23 the underlying data, but it is not desirable or
 24 practicable to conduct a reasonable assurance
 25 engagement due to factors such as the
 26 Member's objective, cost, resources, or time
 27 constraints, then a limited assurance
 28 engagement may be appropriate.

29
 30 Given the nature of Batch Verification¹¹ (desk
 31 review and phone interview) The Registry
 32 realizes that it may be difficult for Batch
 33 Verification Bodies to verify qualifying emission
 34 reports to a standard of reasonable assurance.
 35 Batch Verification applies only to small office-
 36 based organizations with less than 1000 tonnes
 37 of CO₂-e per year, and therefore it is likely that
 38 the emissions data will be used primarily for
 39 tracking internal energy usage (the majority of
 40 most Batch Members' emissions are indirect
 41 emissions). Therefore, The Registry requires
 42 Batch Verification Bodies to apply a limited
 43 assurance standard when reviewing Batch
 44 Members' emissions.

46 To ensure transparency to stakeholders, the
 47 level of assurance is clearly indicated on
 48 verified reports published by The Registry.
 49

50 2.4 Verification Criteria

51 Verification bodies must verify Members' GHG
 52 emission reports using the following criteria:

- 53 • The Registry's *General Reporting Protocol*¹²
 54 (for guidance on GHG calculation and
 55 reporting)
- 56 • ISO 14064-3¹³ (*Specification with Guidance
 57 for the Validation and Verification of
 58 Greenhouse Gas Assertions*)
- 59 • This GVP for supplementary guidance on
 60 verification activities

61 To the extent that any requirement of ISO
 62 14064-3 might prohibit a verification body from
 63 complying with this GVP, the requirements
 64 contained in the GVP take precedence.

65 2.5 Materiality

66 Verification bodies use the concept of
 67 materiality to determine if omitted or misstated
 68 GHG emissions information will lead to
 69 significant misrepresentation of a Member's
 70 emissions, thereby influencing conclusions or
 71 decisions made on the basis of those emissions
 72 by intended users. A material misstatement is
 73 the aggregate of errors, omissions, non-
 74 compliance with program requirements, and/or
 75 misrepresentations that could affect the
 76 decisions of intended users.

77
 78 The Registry sets the entity-level materiality
 79 threshold at five percent (for both
 80 understatements and overstatements), which
 81 applies separately to a Member's direct (scope
 82 1, including any reported biogenic emissions)
 83 and indirect (scope 2) CO₂-e emissions. Thus,

¹⁰ Proposed International Standard on Assurance Engagements (ISAE) 3000 (Revised), Assurance Engagements Other Than Audits or Reviews of Historical Financial Information, Paragraph 37, April 2011.

¹¹ Refer to Section 2.9.

¹² Including approved Member-Developed Methodologies and General Reporting Protocol Updates and Clarifications published by The Registry on its website

¹³ ISO 14064-3: 2006 (E)

1 The Registry requires verification bodies to
2 assess the accuracy of a Member's direct and
3 indirect emissions separately. A Member's
4 direct and indirect emissions must both be
5 deemed as accurate (within five percent) for a
6 verification body to issue a positive verification
7 statement for the Member.

8
9 If a Member reports emissions based on both
10 equity share and control consolidation
11 methodologies, the verification body is required
12 to assess materiality separately for each
13 consolidation methodology.

14
15 The materiality threshold is the same (five
16 percent) for both limited and reasonable
17 assurance engagements; in both cases, the
18 verification body must obtain sufficient
19 supporting evidence. If the verifier has doubts
20 about the reliability of information to serve as
21 evidence for material aspects of the assertion,
22 the verifier may not issue a positive verification
23 statement unless these doubts are resolved
24 through additional verification activities.

25
26 Since the verification body bases its verification
27 opinion on the results of risk-based sampling,
28 the verification body must establish a
29 performance materiality threshold for the
30 sample. The purpose of this threshold, which
31 must be set at less than the five percent entity-
32 level materiality threshold, is to ensure an
33 acceptably low probability that the aggregate of
34 uncorrected and undetected misstatements
35 exceeds the entity-level materiality threshold.¹⁴

36
37 **Material Misstatement:** A discrepancy is
38 considered to be material if the collective
39 magnitude of compliance and calculation
40 errors in a Member's emission report alters
41 a Member's direct or indirect emissions by
42 plus or minus five percent at the entity level.

43
44 The total emissions from each of these two
45 broad categories (direct and indirect) may be
46 orders of magnitude different, so the tolerance

¹⁴ ISAE 3410, Assurance Engagements on Greenhouse Gas Statements, the International Auditing and Assurance Standards Board (IAASB), June 2012, Definitions, page 14.

47 for error will also be significantly different in
48 these cases. In some cases (e.g. power
49 generators), the direct emissions may
50 overwhelm the indirect emissions, and in other
51 cases (e.g. transmission companies), the
52 opposite will be true. Consequently, a small
53 misstatement within, for example a
54 transmission company's direct emissions total,
55 may be materially far more significant than a
56 relatively large misstatement within a
57 generator's direct emissions.

58
59 Verification bodies are required to assess
60 materiality only at the entity level; however, it is
61 good practice to consider the risk for error at
62 the facility and source/unit level.

63
64 As illustrated in Figure 2.1, The Registry
65 requires verification bodies to assess the
66 positive and negative errors outside of an
67 inherent uncertainty band surrounding the true
68 value of a Member's emissions. Due to the
69 inherent uncertainty associated with metering
70 equipment, emission factors, etc., a Member's
71 emissions will more than likely deviate to some
72 extent from their "true" emissions. The Registry
73 recognizes and accepts this inherent
74 uncertainty surrounding reported emissions.

75
76 The Registry defines inherent uncertainty as the
77 uncertainty associated with: 1) the inexact
78 nature of measuring and calculating GHG
79 emissions (rounding errors, significant digits,
80 default emission factors, etc.) and 2) the inexact
81 nature of the calculations associated with The
82 Registry's permitted use of simplified estimation
83 methods (for up to five percent of the sum of an
84 entity's scope 1, scope 2, and biogenic
85 emissions from stationary and mobile
86 combustion).

87
88 If a verification body deems that a Member's
89 use of simplified estimation methods is correct
90 and appropriate, these emissions should be
91 considered part of the inherent uncertainty of a
92 Member's emission report. Therefore, they
93 should be excluded from a verification body's
94 assessment of material misstatements.
95 Please refer to the Simplified Estimation
96 Methods text box on page 13 for additional

1 information on verifying simplified estimation
2 methods.

3
4 The Registry maintains a list of miniscule
5 sources that are eligible for exclusion on the
6 Exclusion of Miniscule Sources Form.

7
8 If a Member chooses to exclude miniscule
9 sources from their inventory, they must identify
10 the sources on The Registry's Exclusion of
11 Miniscule Sources Form. Excluded sources are
12 not included in the scope of the assertion and
13 therefore not subject to verification. The
14 verification body must confirm that the Member
15 has identified all excluded sources on The
16 Registry's Exclusion of Miniscule Sources Form
17 and disclosed this form as a public entity-level
18 document in CRIS.

19
20 The verifier is neither required nor expected to
21 confirm that sources listed on The Registry's
22 Exclusion of Miniscule Sources Form are
23 insignificant to the Member's inventory;
24 however, if during the course of verification
25 activities, the verifier becomes aware that a
26 source identified on Exclusion of Miniscule
27 Sources Form is, in fact, significant to the
28 Member's inventory, the verifier must notify The
29 Registry.

Simplified Estimation Methods

In general, Members must use the emission estimation methodologies prescribed in the *General Reporting Protocol* to compute their emissions. However, to reduce reporting burden and focus efforts on the main sources of emissions, the *General Reporting Protocol* allows the application of alternative simplified estimation methods for small emission sources or those with difficult to calculate emissions. The sum of emissions estimated using such simplified methods cannot exceed five percent of an organization's total emissions on a CO₂-e basis. This five percent threshold applies separately for North America and also for the overall worldwide inventory, if optionally reported.

Members have discretion in choosing which sources and/or GHGs to estimate using simplified methods, as long as the five percent threshold is not exceeded. Verification Bodies must undertake the following steps to verify the use of simplified methods:

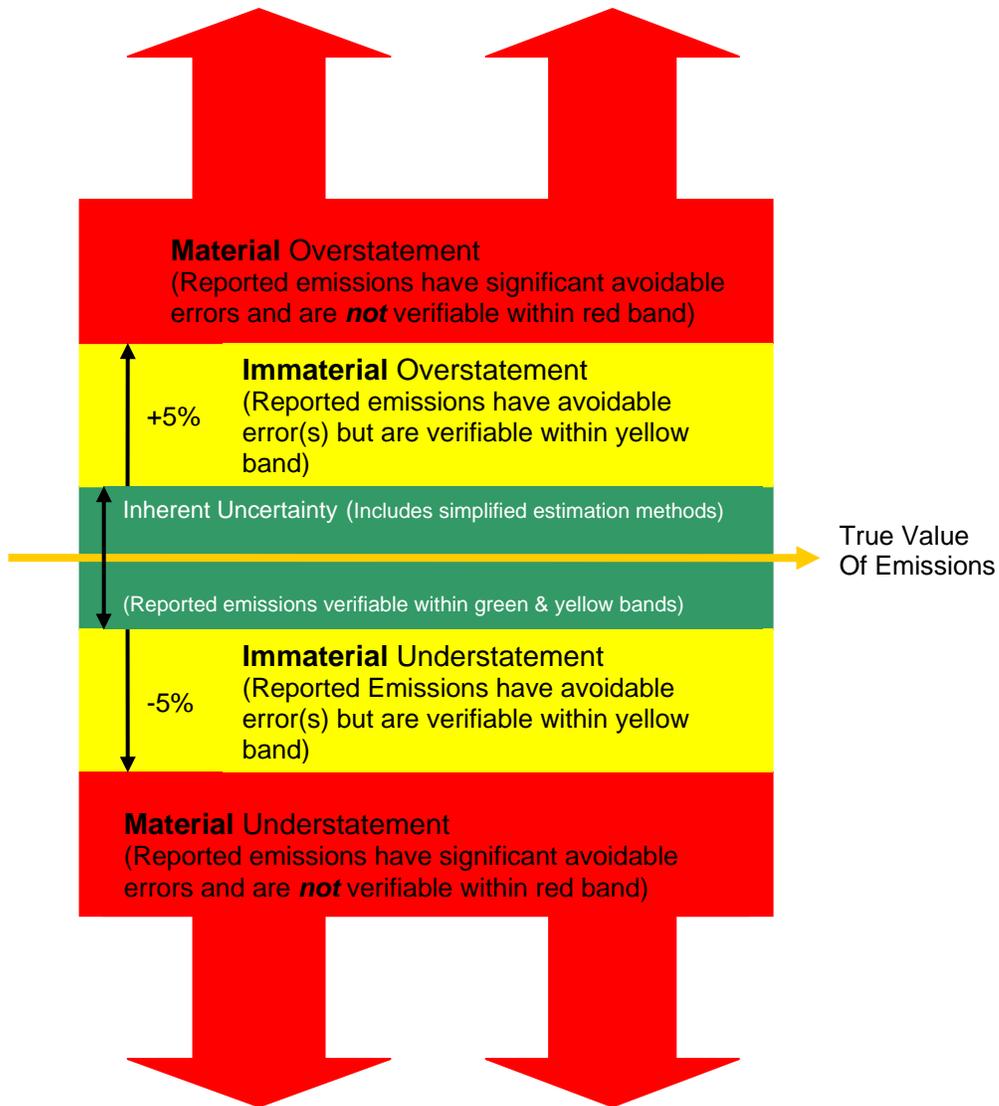
1. Review Members' documentation and explanations of how emissions were calculated to confirm that not more than five percent of total emissions have been estimated using simplified methods not prescribed in the *General Reporting Protocol*.
2. Review any simplified estimation methods used to ensure that they are appropriate to the emissions source(s) to which they have been applied, and that the resulting emission estimates are reasonably accurate.

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

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

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

Figure 2.1 Conceptual Application of the Materiality Threshold



1 Verification bodies must ensure that errors
2 discovered do not cause a Member's stated
3 direct or indirect emissions to vary by more than
4 five percent above or below the band of
5 (acceptable) inherent uncertainty surrounding a
6 Member's stated emissions in order to issue the
7 Member a finding of "Verified."
8

9 In determining whether a material misstatement
10 has occurred, the verification body must
11 compare the *aggregate total* of individual
12 misstatements (separately for direct and
13 indirect emissions) against the five percent
14 materiality threshold. Thus, the discovery of
15 many small reporting errors, each of which
16 might be immaterial when considered in
17 isolation, may nonetheless lead to a material
18 misstatement when aggregated to the entity
19 level.
20

21 Although the materiality threshold is applied at
22 the entity level, verification bodies must conduct
23 a risk-based assessment of all of the facilities
24 associated with an entity and sample an
25 appropriate number of systems, sources, and
26 calculation methodologies to look for errors or
27 omissions within the emission report. If
28 verification bodies discover reporting errors,
29 they must determine if these errors, when
30 extrapolated throughout the Member's
31 operations, will result in a material
32 misstatement.
33

34 To facilitate this analysis, the verification body
35 must assess the performance materiality for the
36 sample. If the performance materiality for the
37 sample is exceeded, the verification body must
38 revisit the risk assessment to determine the
39 extent of additional verification activities
40 necessary to provide assurance. For example,
41 if a verification body determines errors and
42 omissions in the selected sample that result in a
43 10 percent understatement of scope 1
44 emissions for the sample, even if these specific
45 errors and omissions constitute only a 2 percent
46 understatement of entity-level scope 1
47 emissions, it is likely that the undetected and
48 uncorrected errors in the portion of the
49 inventory that was not sampled result in a
50 material misstatement at the entity level.

51 It is possible that a verification body may
52 discover more than one form of misstatements
53 during their risk assessment. Since The
54 Registry is ultimately interested in ensuring that
55 a Member's total scope 1 and scope 2
56 emissions are within five percent of the reported
57 emissions, The Registry directs verification
58 bodies to sum the total discrepancies of direct
59 and indirect emission separately to determine if
60 a material misstatement has been made in
61 either category at the entity level.
62

63 In assessing whether misstatements are
64 material, the verification body shall determine
65 whether the total reported emissions,
66 separately for scope 1 and scope 2, are at least
67 95 percent accurate using the following
68 equation:
69

70 Percent accuracy =
71

$$72 \quad 100 - \frac{(\text{sum of errors, omissions, misreporting}) * 100}{\text{total reported emissions}}$$

73
74 When conducting a verification to a reasonable
75 level of assurance, the verifier must
76 quantitatively estimate the sum of errors,
77 omissions and misreporting based on the
78 results of tests performed on sampled data and
79 recalculation of emissions estimates. When
80 conducting a verification to a limited level of
81 assurance, the verifier must consider whether
82 the information reviewed suggests that there
83 could be a misstatement of five percent or more
84 (i.e. it may not be possible to quantify the
85 percent accuracy).
86

87 As long as the Member correctly applied one of
88 The Registry's approved quantification
89 methodologies for an emissions source, the
90 verification body should not associate any error
91 or misreporting with the Member's estimate.
92 For example, if a Member decides to use an
93 approved methodology that uses a default
94 emission factor, then the verification body
95 should not associate any error with the
96 difference between that methodology and the
97 quantity of emissions that would have resulted
98 based on direct measurement.

Example 2.1 Application of the Five Percent Materiality Threshold

A Verification Body has been contracted to verify the emission report submitted by a small regional bank. The bank has 20 branches located in Illinois. The Verification Body has completed its review of the bank's direct (scope 1) emissions, and has found no material errors. However, in reviewing the bank's indirect (scope 2) emissions from electricity use, the Verification Body discovers that the bank incorrectly applied the electricity emission factors for eGRID Subregion SERC Midwest to *all* of its branches. Although most of Illinois falls within Subregion SERC Midwest, the northern tier of the state is in Subregion RFC West, and six of the bank's branches are located in this northern tier.

The difference between the emission factors for Subregion RFC West and Subregion SERC Midwest is 13 percent. However, this 13 percent error applies only to the six branches in northern Illinois. Reviewing the emission report, the Verification Body determines that these six branches accounted for 40 percent of the bank's indirect (scope 2) emissions. Therefore, the use of the incorrect emission factor leads to an error of $(0.4 \times 13\% =) 5.2$ percent in the bank's *total entity-level* indirect CO₂-e emissions. Although the bank had no material discrepancies in its reported *direct* emissions, the 5.2 percent discrepancy in *indirect* emissions exceeds the 5 percent materiality threshold, and therefore the Verification Body concludes that the bank's emission report has a material misstatement.

In this example, it should be emphasized that considerable uncertainty surrounds the eGRID emission factors. Thus, even after the bank corrects its report by applying the correct eGRID emission factor to the six northern Illinois branches, uncertainty will remain in the reported scope 2 emissions estimate. However, the uncertainty associated with the eGRID electricity emission factors (as with *all* emission factors and methodologies approved for use by The Registry and included in the *General Reporting Protocol*) is considered to be inherent uncertainty, and therefore need not be estimated and should not be treated as a discrepancy for the purposes of determining whether or not material misstatements have occurred.

1
2 *Note: As defined earlier, The Registry's GVP*
3 *sets verification guidelines for its voluntary*
4 *reporting program. Therefore the entity-wide*
5 *materiality threshold of five percent of direct*
6 *emissions and five percent of indirect emissions*
7 *pertain to The Registry's voluntary reporting*
8 *program as detailed in the General Reporting*
9 *Protocol. Any state/provincial/regional/federal*
10 *mandatory GHG reporting programs may have*
11 *different materiality thresholds.*

Example 2.2 Offsetting Errors

During verification, a Verification Body finds that a Member used an incorrect emission factor to calculate its CO₂ emissions, resulting in an overstatement of direct CO₂ emissions by seven percent. The Verification Body also discovers that the Member underestimated its SF₆ emissions from one facility, resulting in an understatement of direct emissions by four percent on a CO₂-e basis. In this situation, a Verification Body must total the misstatements to determine if their sum exceeds the five percent materiality threshold.

$$(+7\%) + (-4\%) = 3\% \text{ total variance of reported emissions due to discrepancies}$$

In this case, assuming these were the only misstatements a Verification Body discovered, the Member's emission report would be verifiable, as the total discrepancy (three percent) is less than The Registry's materiality threshold of five percent.

If the above Member *overstated* rather than understated its SF₆ emissions by four percent, then the discrepancies would total 11 percent, and the Member's emissions would not be verifiable:

$$(+7\%) + (+4\%) = 11\% \text{ total variance of reported emissions due to discrepancies}$$

Example 2.3 Non-Offsetting Errors: Direct vs. Indirect Emissions

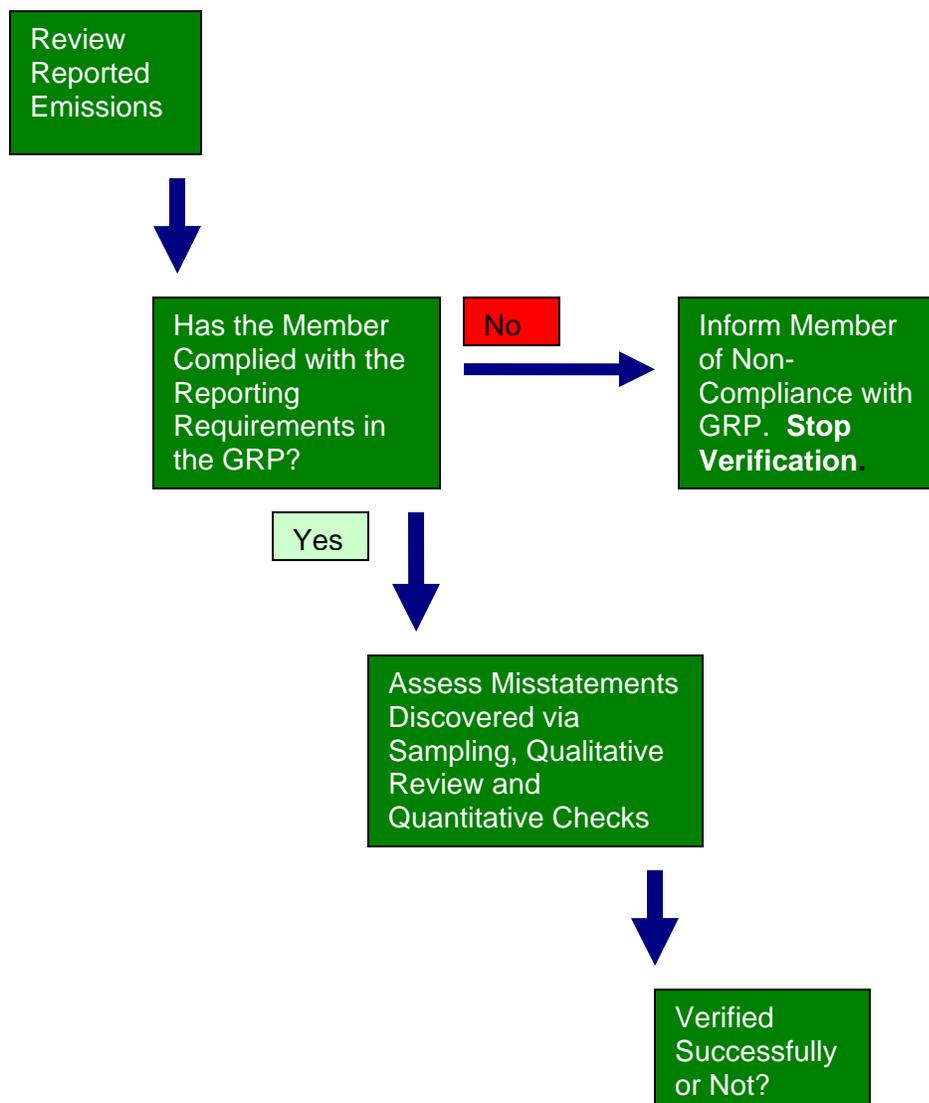
During verification, a Verification Body finds that a Member applied an incorrect emissions factor to calculate its CO₂ emissions from natural gas combustion, resulting in an overstatement of its *direct* emissions by seven percent. The Verification Body also discovers that this Member used an incorrect emissions factor for its electricity consumption in California, leading to an underestimation of its *indirect* emissions by four percent. In this case, while the four percent indirect emissions discrepancy is acceptable, the seven percent direct emissions discrepancy leads to a finding that a material misstatement has occurred. The Member must correct its direct emissions estimates for natural gas combustion before its emission report can be accepted as verified.

As this example illustrates, while discrepancies must be summed *within* scope 1 (direct emissions) and scope 2 (indirect emissions) to determine whether a material misstatement has occurred, discrepancies are never summed *across* scopes. Instead, the five percent materiality threshold must be applied separately to scope 1 and scope 2 emissions. If the sum of discrepancies for *either* scope 1 or scope 2 emissions is found to exceed five percent, a material misstatement has occurred.

1 The application of a materiality threshold
2 involves qualitative as well as quantitative
3 considerations (see Figure 2.2 and Examples
4 2.4 through 2.6). The Registry requires
5 that verification bodies follow a hierarchical
6 assessment when evaluating material
7 misstatements. First, a verification body
8 must confirm that a Member meets all of
9 The Registry's reporting and programmatic
10 requirements (qualitative assessment).

11 Then, a verification body must conduct a risk
12 assessment to sample for reporting errors
13 (quantitative assessment). If a verification body
14 discovers that a Member has not complied with
15 The Registry's program requirements (e.g. has
16 not reported its Canadian operations) then it
17 must inform the Member, and cease further
18 verification activities until the Member can
19 correct the error.

Figure 2.2 Materiality Hierarchy



Example 2.4 Qualitative Misstatement Due to Systemic Omission of GHGs

During verification, a Verification Body finds that a Member has not included HFCs in its emissions reporting. Upon further inspection, the Verification Body discovers that there were HFC emissions from air conditioning units for the company vehicles and buildings. The Verification Body's estimate of the omitted HFC emissions is less than two percent of the Member's reported direct emissions. In this case, while quantitatively the oversight would be immaterial (below the five percent materiality threshold), the systemic omission of one of the GHGs required to be reported by The Registry constitutes a qualitative material misstatement that requires corrective action.

If, however, the Member reported HFCs but accidentally omitted emissions from a couple of HVAC units that comprised 0.5 percent of the Member's direct emissions, then this would constitute an immaterial misstatement.

As this example illustrates, basic Registry program requirements must be met. Systemic omission of one of the GHGs required to be reported by The Registry constitutes a material misstatement.

Example 2.5 Qualitative Misstatement Due to Omission of a Facility or Emissions Source

During verification, a Verification Body finds that the Member has omitted one of its warehouses and one satellite office from its reported inventory. The Verification Body estimates that, combined, these emissions constitute less than two percent of the Member's total indirect emissions. Furthermore, for the main headquarters, the Verification Body finds that the Member has omitted its emergency generator (which was operated during the emissions year). From upper bounds calculations, the Verification Body concludes that the emissions from the emergency generators constitute less than one percent of the Member's total direct emissions.

Though the quantity of emissions associated with the omitted warehouse and satellite office may not be quantitatively material, the omission of these facilities constitutes a lack of complete reporting and a qualitative material misstatement. Conversely, the isolated omission of the emergency generator from the headquarters can be considered an immaterial misstatement. If the Member were to systemically omit emergency generators from several of its facilities, then this would be a qualitative material misstatement due to failure to report emissions sources as required by The Registry.

As this example illustrates, even if an omitted facility or systemic omission of a particular emissions source is below the five percent materiality threshold, the omission still represents a qualitative material misstatement due to The Registry's requirements for complete reporting.

Example 2.6 Qualitative Misstatement Due to Miscategorization of Emissions

During verification, a Verification Body finds that the Member has correctly quantified the emissions from its emergency generators; however those emissions have been miscategorized as mobile combustion rather than stationary combustion. Furthermore, the Verification Body finds that some fugitive emissions have also been incorrectly identified as process emissions. Though the reported numbers are correct, the miscategorization of emission sources is a qualitative misstatement. If the quantity of miscategorized emissions, in combination with any other errors, omissions, and misrepresentations identified, is greater than five percent of the entity total scope 1 emissions, this constitutes a qualitative material misstatement that must be corrected.

1 **2.5.1 Mitigating Discrepancies**

2 If during the course of conducting the
3 verification activities, a verification body
4 discovers a discrepancy (either material or not),
5 it must inform the Member of the error in a
6 timely fashion, so that the Member may work to
7 correct the error or discrepancy. The Registry
8 requires Members to correct as many
9 misstatements as is possible; however, it
10 realizes that some misstatements may not be
11 able to be corrected in a timely manner or at all
12 (missing data, etc.). As a result, The Registry
13 allows non-material misstatements to remain in
14 a Member's report.

15
16 Verification bodies must communicate with
17 Members to determine how much time a
18 Member will require to correct any discovered
19 misstatements, so that they can plan another
20 assessment of the corrected misstatements
21 accordingly.

22
23 While The Registry requires verification bodies
24 to inform Members of discrepancies and
25 encourages the correction of errors before
26 completing a final verification statement, The
27 Registry strictly *prohibits* verification bodies
28 from providing any consulting services to the
29 Member to help them correct the discovered
30 error or discrepancy. In summary, verification
31 bodies must clearly explain the error to the
32 Member, but cannot help the Member correct
33 the error. Verification bodies should agree to a
34 typical and reasonable response that will allow
35 for ample time for Members to correct
36 discrepancies before completing the verification
37 statement.

39 **2.6 Risk-Based Approach to** 40 **Verification**

41 Given the impossibility of assessing and
42 confirming the accuracy of every piece of GHG
43 information that goes into an emission report,
44 The Registry has adopted ISO 14064-3's risk-
45 based approach to verification. This approach
46 directs verification bodies to focus their
47 attention on those data systems, processes,

48 emissions sources, and calculations that pose
49 the greatest risk of generating a material
50 discrepancy in an effort to locate systemic
51 reporting errors.

52
53 The main objective of the verification effort is to
54 confirm that the Member's stated emissions
55 comply with The Registry's materiality threshold
56 of five percent. Thus, a verification body's risk
57 assessment of a Member's emissions will focus
58 on those errors that might materially affect the
59 Member's stated emissions. Verification bodies
60 must perform risk assessments at the entity-
61 level.

62
63 This means that verification bodies must survey
64 a Member's emission sources, facilities, GHG
65 gases, processes, policies, and operations and
66 identify those that pose the greatest threat to
67 causing material misstatements in the reported
68 emissions. From this entity-level risk
69 assessment, verification bodies will identify
70 certain facilities, sources, policies, etc. to
71 sample for errors. Thus, a verification body will
72 visit some individual facilities and they will be
73 assessing the overall entity-level risk of the
74 Member's emissions.

76 **2.7 Scope of Verification**

77 The scope of a verification body's assessment
78 of GHG emissions is defined by the required
79 components of The Registry's *General*
80 *Reporting Protocol* and the complexity of the
81 Member's operations. All verification bodies
82 must be familiar with this document, and they
83 should refer to it regularly during their
84 verification activities.

85
86 While CRIS prepares multiple emission reports
87 for a single Member for each emissions year,
88 The Registry requires verification bodies to
89 verify only the emissions contained **in a**
90 **Member's Entity Emissions Detail Report**
91 **(Private)** (which summarizes a Member's total
92 entity emission in North America, as well as all
93 facility emissions, and includes a list of
94 emissions sources for each facility). All other
95 CRIS reports are generated based on the GHG

1 data contained in the Entity Emission Report.
2 Since CRIS will aggregate a Member's data
3 automatically to create other reports, The
4 Registry accepts these additional reports as
5 correct if the underlying Entity Emissions
6 Report is verifiable. If a Member optionally
7 reports its worldwide emissions inventory, the
8 verification body must additionally verify the
9 Worldwide or Non-North America Entity
10 Emissions Detail Report (Private); however, as
11 discussed in Section 2.7.4, the verification body
12 may apply the verification criteria to all
13 worldwide emissions (including North America).

15 **2.7.1 Data from Regulatory Programs**

16 Some Members will include GHG data in their
17 entity-wide emissions footprint that they have
18 also reported to government agencies for
19 regulatory purposes (e.g., CO₂ from CEMS as
20 required by the U.S. Environmental Protection
21 Agency's (EPA) Acid Rain program: 40 CFR
22 Part 75).

23
24 While The Registry requires verification bodies
25 to include regulatory data in their entity-wide
26 risk assessment, it encourages verification
27 bodies to take into account the providence of
28 the regulatory data in developing their risk-
29 based assessment. Thus, if a verification body
30 judges that certain emissions reported under
31 regulatory programs are likely to be accurate, it
32 might assign a low risk value to these reported
33 emissions.

35 **2.7.2 Transitional Reporting**

36 The General Reporting Protocol provides
37 Members with the option to report less than
38 complete emissions data during their first five
39 years of participation in The Registry, after
40 which point a Member must apply for a waiver
41 to continue to report on a transitional basis.
42 Members reporting transitional inventories must
43 publicly define, disclose, and justify their own
44 transitional inventory boundaries in CRIS.
45 Parameters that must be used to define a
46 transitional inventory boundary include:

- 47
- 48 • Scopes
- 49 • Gases

- 50 • Activity types (stationary combustion,
51 etc.)
- 52 • Geographic/operational boundaries
53 (country, state, business units, facility,
54 etc.)

55
56 Transitional reports must be complete within the
57 boundaries defined by the Member. Members
58 may elect to additionally report emissions
59 outside of their self-defined transitional
60 inventory boundary.

61
62 If a Member chooses to report on a transitional
63 basis, the verification body must first confirm
64 that the Member is in fact eligible to submit a
65 transitional report. The verification body should
66 then check to make sure that the Member has
67 reported completely within their self-defined
68 transitional boundary.

69
70 Beyond these eligibility and reporting
71 requirement checks, the verification process for
72 a transitional inventory is the same as for
73 complete inventories. The only difference is the
74 scope of the verification which, for transitional
75 inventories, is limited to those scopes, gases,
76 activity types, and geographic regions that the
77 Member has chosen to include in the emission
78 report. Please refer to Chapter 8 of the General
79 Reporting Protocol to learn about transitional
80 reporting in greater detail.

82 **2.7.3 Historical Emissions Data**

83 Members may also choose to report any
84 number of years of historical GHG emissions to
85 The Registry. Historical data is data that has
86 been previously calculated but may not meet
87 The Registry's reporting and verification
88 requirements.

89
90 The minimum reporting requirements for
91 historical data are described in the *General
92 Reporting Protocol*. Please refer to Chapter 9
93 in the *General Reporting Protocol* for more
94 information.

95
96 If historical data was third-party verified as part
97 of another GHG program, The Registry does
98 not require this data to be re-verified, however,
99 a formal written attestation of verified data by a

1 third-party verification body must be submitted
2 to The Registry along with the historical
3 emission report.

4
5 If a Member's historical data is calculated, but
6 has not previously been third-party verified, The
7 Registry recommends that Members use a
8 Registry-recognized verification body to verify
9 this data.

10
11 If a Member chooses to report GHG emissions
12 for a past year in accordance with The
13 Registry's reporting requirements and the
14 Member does not want the emissions report be
15 classified as "historical," then the Member must
16 have the emissions report verified by a
17 Registry-recognized verification body in
18 accordance with The Registry's verification
19 requirements.

21 **2.7.4 Other Optional Emissions Data**

22 Members may choose to report emissions in
23 addition to those required by The Registry. For
24 example, in addition to their scope 1 and 2
25 emissions, Members may voluntarily choose to
26 report their:

- 27 • Renewable energy certificates (RECs) and
28 offsets
- 29 • Scope 3 emissions (e.g., indirect emissions
30 from sources outside scope 2). Scope 3
31 emissions will be clearly identified.
- 32 • Unit-level emissions (individual sources,
33 etc.)
- 34 • Emissions based on both equity share and
35 control consolidation methodologies
- 36 • Performance metrics
- 37 • GHG reduction goals
- 38 • Worldwide emissions

39 In general, The Registry does not require
40 optional emissions to be verified. Thus these
41 types of emissions are outside the normal
42 verification scope. Three exceptions to the rule
43 which must be verified are:

- 44 1. Accounting for RECs in the Member's
45 inventory, and/or application of offsets to
46 the Member's adjusted inventory;
- 47 2. The optional category of scope 1 and
48 scope 2 worldwide emissions; and,
- 49 3. Equity share consolidation methodology.

50 Although other categories of optional data are
51 not included in the scope of verification, should
52 the verifier observe a miscategorization of
53 optional data (e.g. scope 3 reported as scope 1
54 optional) that affects a significant quantity of
55 emissions, the verifier is encouraged to share
56 their observation with the Member. To the
57 extent The Registry identifies a significant
58 miscategorization of optional data, The Registry
59 may require correction before publishing the
60 report, and it is helpful if this correction can be
61 made during the normal corrective action
62 period.

63 **Climate Registered™ Program**

64 Climate Registered™ is a program that
65 recognizes organizations for voluntarily
66 reducing their greenhouse gas (GHG)
67 emissions. The program includes four levels of
68 recognition, ranging from Climate Registered™
69 - if an organization has reported and verified its
70 complete GHG inventory to The Registry - to
71 Climate Registered™ Silver, Gold and
72 Platinum, which are achieved through absolute
73 GHG reductions and other measures.

74
75 Although it is up to the Member to determine
76 the level of assurance, The Registry will not
77 accept inventories verified to a limited level of
78 assurance for Climate Registered™ Silver,
79 Gold, or Platinum. Similarly, inventories must
80 be verified to a reasonable level of assurance in
81 order to be labeled/published as a base year
82 report through The Registry (this does not
83 mean all first year reports—just those reports
84 specifically submitted as base years).

85
86 Verification bodies are not required to verify
87 emissions reductions claimed by organizations
88 as part of the Climate Registered™ program.

1 **Verifying Worldwide Emissions**

2 Since The Registry's reporting requirements are
3 limited to a Member's North American GHG
4 emissions, The Registry requires verification
5 bodies to prepare verification statements
6 attesting to the quality of a Member's stated
7 North American emissions. These verification
8 bodies must be recognized by The Registry to
9 conduct verification activities—meaning that
10 they must be accredited to ISO 14065 and meet
11 The Registry's additional accreditation criteria
12 (Refer to The Registry's *Guidance on*
13 *Accreditation*).

14 If a Member chooses to report their worldwide
15 emissions, they must decide between one of
16 the following two options:

17 Option 1: The Member may choose to prepare
18 two separate emissions reports, one for North
19 America only and one for non-North America,
20 and have these emissions reports verified
21 separately. The Member must use a Registry-
22 recognized verification body for verification of
23 the North American emissions report but may
24 choose a different, ISO 14065-accredited
25 verifier (not necessarily Registry-recognized) for
26 verification of the non-North American
27 emissions report. Each report and verification
28 must conform to The Registry's criteria (e.g. five
29 percent materiality threshold, five percent
30 threshold for simplified estimation
31 methodologies, etc.). The Member may also
32 choose to have one Registry-recognized
33 verification body conduct both the North
34 American and non-North American verifications;
35 however, separate verification statements are
36 still required for each emissions report.

37 Option 2: The Member may choose to prepare
38 separate emissions reports, one for North
39 America only and one for worldwide (including
40 North America). The Member must use one
41 Registry-recognized verifier for both reports and
42 separate verification statements must be
43 provided for each emissions report. The
44 verification body will need to verify the
45 Worldwide Entity Emissions Detail Report
46 (Private).

47 Regardless of which option is selected for
48 verification of worldwide emissions, the
49 verification must be conducted to the same
50 level of assurance as the North American
51 inventory.

52 Since reporting worldwide emissions is optional,
53 The Registry does *not* routinely provide
54 oversight of the verification of worldwide
55 emissions (e.g. The Registry does not
56 necessarily perform its final quality check on
57 non-North American emissions). Nonetheless,
58 The Registry strives to ensure the high quality
59 of any emissions data reported to its voluntary
60 program. Consequently, verification bodies
61 used to conduct verification activities related to
62 non-North American emissions for Registry
63 Members must still be accredited to ISO 14065.

64 **RECs and Offsets**

66 If the Member has optionally accounted for
67 renewable energy certificates (RECs) in their
68 scope 2 emissions, then the verification body
69 must confirm that the Member owns and has
70 retired RECs which meet The Registry's quality
71 and eligibility criteria, and that the Member has
72 correctly quantified emissions associated with
73 the RECs. Likewise, if the Member has
74 optionally applied offsets to their adjusted
75 inventory summary, the verification body must
76 confirm that the offsets have been retired and
77 meet The Registry's accounting criteria, and
78 that the Member has disclosed the correct
79 quantity of offsets. The verification body is not
80 responsible for verifying the offsets; the offset
81 verifier is responsible for verifying that the
82 offsets are real, additional, permanent and
83 otherwise meet the criteria of the offset
84 program.

85 **2.7.5 Other (Non-Emissions) Data**

87 Beyond GHG emissions, Members' emission
88 reports will also contain other organizational
89 information that will need to be sampled and/or
90 assessed as part of the verification activities.
91 This additional information includes:
92

- 1 1. **Activity level emissions data.** This
 2 includes data used to compute emissions
 3 (emission factors, fuel use, etc.)
 4
- 5 2. **Quantification methods used for entering
 6 pre-calculated emissions in CRIS.** If the
 7 Member has chosen to calculate any
 8 emissions off-line (rather than using the
 9 automated calculation procedures included
 10 in CRIS, verification bodies must confirm
 11 that the Member's offline quantification
 12 methodologies are appropriate, valid, of a
 13 comparable accuracy as those defined in
 14 the GRP and are transparently documented
 15 in the Member's emission report..
 16
- 17 3. **Other Descriptive Entity Information.** This
 18 includes documentation on management
 19 systems, information systems, ownership,
 20 etc.
 21

22 2.7.6 Parent Companies and 23 Subsidiaries

24 When providing verification services to a
 25 Member that is a parent company of a
 26 subsidiary that is also reporting to The Registry,
 27 the verification body must confirm the following
 28 conditions are met:

- 29 • The parent company reports using the
 30 same consolidation methodology as the
 31 subsidiary,
- 32 • The emission totals of the subsidiary are
 33 included within the parent company's
 34 report,
- 35 • The subsidiary's entity emission totals
 36 by scope and GHG are identical in the
 37 subsidiary's report and the parent
 38 company's report.
 39

40 2.7.7 Government Agencies

41 When providing verification services to a
 42 Member that is a governing agency of another
 43 Member that is also reporting to The Registry,
 44 the verification body must confirm the following
 45 conditions are met:

- 46 • The governing agency reports using the
 47 same consolidation methodology as the
 48 governed agency,

- 49 • The emission totals of the governed
 50 agency are included within governing
 51 agency's report,
- 52 • The governed agency's entity emission
 53 totals by scope and GHG are identical in
 54 the governed agency's report and the
 55 governing agency's report.
 56

57 2.8 Verification Cycle

58 The Registry requires annual verification of all
 59 GHG data and allows for Members to contract
 60 with the same verification body for up to six
 61 consecutive years.

62 For verifications conducted to a reasonable
 63 level of assurance, The Registry allows for a
 64 three-year verification cycle as described in this
 65 section. This cycle does not apply to
 66 verifications conducted to a limited level of
 67 assurance. The verification body must use
 68 professional judgment, considering the results
 69 of their risk assessment, in determining nature
 70 and extent of verification activities and whether
 71 or not one or more site visits are necessary to
 72 achieve a limited level of assurance.

73 Verification bodies must conduct verification
 74 activities every year of the verification body-
 75 Member relationship. However, if a Member's
 76 management systems and/or emissions
 77 sources do not change from year to year, then
 78 The Registry allows verification bodies to use
 79 their professional judgment to determine the
 80 appropriate level of a verification assessment in
 81 order to issue a verification statement with
 82 reasonable assurance of a Member's stated
 83 emissions. At a minimum, each year a
 84 verification body must conduct an entity-wide
 85 risk assessment and check for reporting errors
 86 and misstatements.

87 The Registry allows verification bodies to
 88 streamline verification activities for Members in
 89 the years following a successful comprehensive
 90 verification process in order to minimize
 91 verification costs whenever this is possible
 92 without compromising the integrity and
 93 credibility of the reported GHG data. To this
 94 end, The Registry allows for a three-year

1 verification cycle, which permits a streamlined
2 verification process in the second and third
3 years of the cycle, assuming a Member does
4 not experience any significant changes to their
5 organizational structure or GHG emissions (see
6 Figure 2.3 below).

7 In Year 1 of the three-year cycle, a verification
8 body must comprehensively assess a
9 Member's emission report and its compliance
10 with Registry requirements; confirm its
11 emissions sources and GHGs; review its
12 management policies and systems; and sample
13 data for calculation and reporting errors in order
14 to gain a detailed understanding of a Member's
15 operations and resulting GHG emissions.

16 If a Member's organizational structure and GHG
17 emissions have not changed significantly, then
18 a verification body may choose to streamline
19 their verification activities, as long as the
20 verification body can still provide reasonable
21 assurance that the Member has accurately
22 reported its emissions within five percent.

23 While The Registry largely defers to a
24 verification body's professional judgment to
25 assess if the Member's organizational structure
26 or emissions have changed significantly after
27 the first year of the verification cycle, The
28 Registry deems the following changes as being
29 material, and therefore as triggering a review on
30 the part of the verification body as to whether
31 more comprehensive (or more substantial)
32 verification activities might be required:

- 33 • A Member that previously reported on a
34 transitional basis is reporting completely
- 35 • A Member's emissions change by more than
36 five percent from the previous year's emissions
- 37 • Changes to GHG data collection,
38 management, and/or reporting systems and/or
39 the key persons responsible
- 40 • Misstatements identified through the course of
41 verification activities
- 42 • Other issues as deemed appropriate by the
43 verification body

44 While some of the above changes might
45 necessitate a full verification, other changes
46 may still be addressed as part of a streamlined
47 process, depending on the professional
48 judgment of the verification body. A full
49 verification, including one or more facility visits,
50 is required if:

- 51 1. The Member selects a new verification
52 body, unless all of the following criteria are
53 met:
 - 54 • No material misstatements were
55 detected during the verification of the
56 previous year's emissions inventory
57 report;
 - 58 • The new verification body has access to
59 the verification report and detailed
60 findings (e.g. risk assessment, sampling
61 plan, notes from site visits, and
62 corrective action log) for the previous
63 year's inventory verification as well as
64 the last full verification.
 - 65 • There have been no significant changes
66 to the inventory or GHG management
67 system.
 - 68 • It has been less than three years since a
69 full verification was performed.

70 If all of the above conditions are satisfied, the
71 new verification body may conduct a
72 streamlined verification to a reasonable level of
73 assurance. In this case, facility visits would not
74 be required unless the verification body's risk
75 assessment identifies a need for facility visits.
76 To the extent the new verification body does not
77 feel that the previous verification activities
78 adequately support a reasonable assurance
79 conclusion, then the new verification body may
80 expand the scope of verification activities as
81 necessary.

82 When a Member switches to a new verification
83 body at the start of a new verification cycle, the
84 new verification body must conduct a full
85 verification with facility visits (in conformance
86 with Section 4.3.4) to a reasonable level of
87 assurance.

1 2. The Member's overall scope 1 emissions
2 increase or decrease by more than 10
3 percent on a CO₂-e basis as a result of:

- 4 • Acquired or new facilities and/or
5 operations;
- 6 • Changes in the nature of emissions
7 sources, emissions control technology,
8 and/or emissions monitoring equipment.

9 Changes in the quantity of emissions generated
10 as a result of the following are exempt from this
11 analysis: increased or decreased energy use
12 due to increases or decreases of previously
13 existing production operations, divestiture of
14 facilities, cessation of operations.

15 If a full verification is triggered, at least one
16 facility visit must be conducted. The minimum
17 number and selection of facilities to be visited
18 shall be based on the verification body's risk
19 assessment and the methodologies provided in
20 Section 4.3.4. For example, if during Year 1,
21 the verification body identified that a minimum
22 of five facility visits was required, and the
23 following year, due to an increase in emissions
24 from acquired facilities, application of the
25 methodology indicates a minimum of seven
26 facility visits, then the verification body must
27 make up the difference in number of facility
28 visits required and visit at least two ($7 - 5 = 2$)
29 additional facilities in Year 2.

30 The specific activities that constitute
31 streamlined verification will vary depending on
32 the circumstances, but in all cases the
33 verification body must perform the minimum set
34 of activities that will allow it to conduct a risk-
35 based assessment of materiality and to attain
36 reasonable assurance in the findings presented
37 in its verification statement. The minimum
38 required activities include the risk-based
39 assessment and the verification of emission
40 estimates against the verification criteria.

41 Beyond these required activities, the verification
42 body should use its professional judgment to
43 determine the set of verification activities that
44 will be required to meet the reasonable
45 assurance goal. Suppose, for example, that a
46 Member divested itself of a subsidiary but all of

47 the existing information systems and controls
48 remain unchanged from the first year of the
49 verification cycle. In this case, a full review of
50 the information systems and controls may not
51 be necessary.

52 Similarly, if a Member opens a new facility but
53 retains its existing GHG information system, the
54 verification body may need to ensure that the
55 new facility has been properly incorporated into
56 the information system but may not need to
57 conduct another detailed review of that
58 information system.

59 In short, The Registry does not prescribe the
60 specific activities that should constitute a
61 streamlined verification (beyond the activities
62 noted above), but rather encourages verification
63 bodies to use professional judgment in tailoring
64 a verification process appropriate to the specific
65 circumstances of each Member. This latitude to
66 tailor the verification process to the
67 circumstances applies *only* to streamlined
68 verifications; not to the full verification that the
69 verification body *must* conduct at least once
70 every three years.

71 *NOTE: The Registry articulates this process to*
72 *serve as guidance for ways to streamline the*
73 *verification process. Verification bodies are not*
74 *required to follow this three-year cycle, but are*
75 *allowed to do so, as long as they can meet the*
76 *intent of the verification process, appropriately*
77 *manage their own risks, and thus are able to*
78 *provide reasonable assurance that a Member's*
79 *emissions contain no material errors, omissions*
80 *or misrepresentations.*

81 Another full verification is required for Year 1 of
82 the second three-year verification cycle.
83 Facilities visited by the same verification body
84 in the previous verification cycle may be exempt
85 from site visit requirements in second
86 verification cycle, as long as the verification
87 body does not have any concerns that warrant
88 revisiting the facilities, and there have not been
89 any significant changes to the operations,
90 emission sources, GHG inventory management
91 plan, or responsible personnel. Based on risk
92 assessment findings, in Year 1 of the second
93 verification cycle, it may be appropriate for the

1 verification body to visit other facilities, not
2 previously visited in the first cycle.

3 **Verifying Multiple Years of Data**

4 If a Member needs to correct a previously
5 reported and verified year of data, a verification
6 body may verify this information together with
7 the Member's current emission report. This will
8 count as one year in the three-year verification
9 cycle.

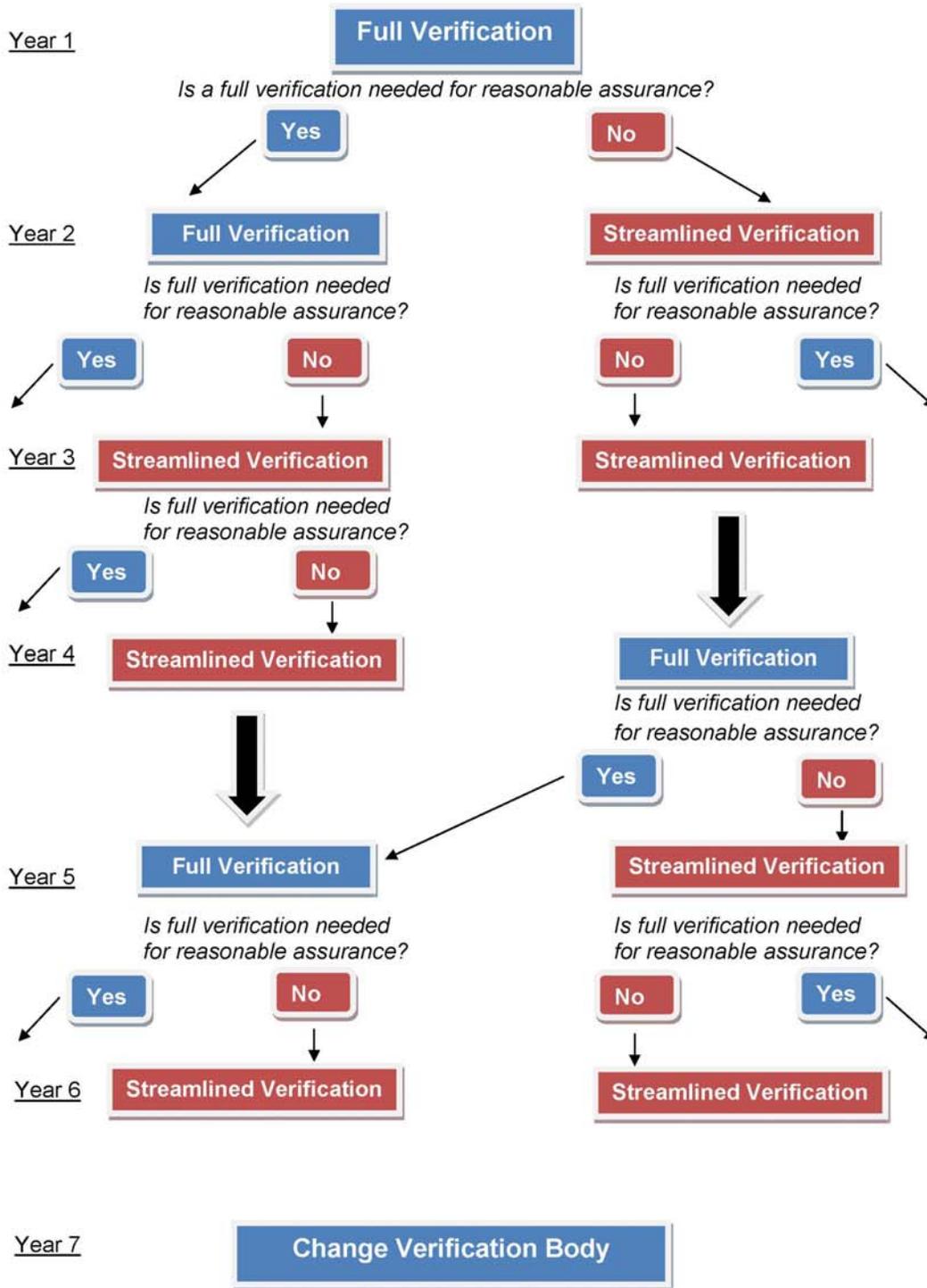
10
11 If a Member requests its verification body to
12 verify multiple prior years of data along with its
13 current emission report, they may do so. There
14 is no limit to the number of prior years of data
15 that can be verified during the three-year
16 verification cycle. In other words, prior years of
17 data are not counted toward the three-year
18 verification cycle. For example, if in 2014 a
19 verification body verifies a Member's current
20 (2013) emission report in addition to four
21 consecutive years of prior data (2009 through
22 2012), the verification body will have completed
23 only one year of the six-year relationship and
24 will be eligible to serve as the Member's verifier
25 for another five years.

26 27 **Previous Verification Body- Member** 28 **Relationships**

29 If a verification body has a pre-existing
30 relationship with a Member through a different
31 registry or program (e.g. CDP, CARB,
32 MassDEP, British Columbia) then the prior
33 GHG verification work will count toward The
34 Registry's six-year limit on the verification body-
35 Member relationship.

36
37 The six-year limit begins at the time the
38 verification body is retained by the Member for
39 verification services, whether for The Registry
40 or another program. The verification body-
41 Member relationship must not exceed
42 verification of six (current) emissions years. The
43 Registry does not limit the number of past years
44 of data that a verification body can verify for a
45 Member during this six-year period. For
46 example, if a verification body has provided
47 verification services to a CDP reporter for two
48 years and the reporter joins The Registry, the
49 maximum number of years the verification body
50 will be able to continue to provide verification
51 services to the Member under The Registry is
52 four years. If a verification body has provided
53 six years of verification services to a CDP
54 reporter and the reporter joins The Registry,
55 then the verification body must wait three years
56 before providing verification services to the
57 Member under The Registry.

Figure 2.3 Three-Year Verification Cycle



1 2.9 Batch Verification Process

2 To reduce the transaction costs associated
3 with the verification of small office-based
4 organizations, The Registry offers a modified
5 version of its standard verification process.
6 The Registry refers to this modified process
7 as “batch verification.”

8 The Registry offers batch verification options to
9 Members that have:

- 10 • Not more than 1000 tonnes total CO₂-e
11 emissions per emissions year,
- 12 • No process emissions; and
- 13 • Fugitive emissions that comprise less
14 than five percent of the entity’s total
15 emissions.

16 In addition, scope 1 and scope 2 emissions
17 must originate from only the following sources:

- 18 • Indirect emissions from electricity
19 consumption;
- 20 • Direct emissions from stationary
21 combustion for heating, cooling, or
22 emergency electricity generation;
- 23 • Direct emissions from mobile
24 combustion; and,
- 25 • Fugitive emissions from refrigeration, air
26 conditioning, and/or fire suppression.

27 For Members whose emissions are just outside
28 of the above parameters, the Batch Verification
29 Body will determine eligibility on a case by case
30 basis.

31 The following is a summary of the steps of the
32 batch verification process.

33 1. **Registry Selects a Batch Verification**
34 **Body Each Year:** Each year, The Registry
35 will solicit competitive bids from accredited
36 verification bodies interested in providing
37 batch verification services. The Registry will
38 select one or more verification bodies to
39 perform all eligible verifications for the

40 current and any previous emissions years.
41 Upon serving as a Batch Verification Body,
42 a verification body will be ineligible to bid on
43 batch verification for the following three
44 years, but may continue to conduct
45 individual verifications for the current
46 emissions year as well as future emissions
47 years.

48 2. **The Registry and Batch Verification**
49 **Body Develop Standardized Contract**

50 3. **Members Calculate and Report Their**
51 **Annual GHG Data**

52 4. **Members Communicate Interest in Batch**
53 **Verification and Batch Verification Body**
54 **Determines if They Are Eligible:**

55 Members interested in batch verification
56 must submit an application to the Batch
57 Verification Body (listed on The Registry’s
58 website). The Batch Verification Body will
59 be responsible for determining the eligibility
60 of Members.

61 5. **Batch Verification Body and Members**
62 **Sign Contract:** Each Member signs a
63 standardized contract with the Batch
64 Verification Body. If Members require non-
65 standard contract language, they may
66 request to negotiate a specific contract for
67 an additional fee as The Registry’s contract
68 with the Batch Verification Body permits.

69 6. **Batch Verification Body Receives**
70 **Members’ Documentation:** Once the
71 respective parties have signed the
72 contracts, the Batch Verification Body will
73 review all batch Members’ emission
74 information. Members must supply
75 information using standardized templates
76 provided by The Registry. Members are
77 required to submit their reports for
78 verification in CRIS and submit supporting
79 documentation to the Batch Verification
80 Body.

81 **Continue to steps 6-12 of the verification**
82 **process (Refer to Section 2.2).**

1 At the beginning of each year, The Registry
2 will publish as schedule for batch verification,
3 including deadlines for submittal of the
4 application and for submittal of data in CRIS.
5 The verification deadline for Batch Verification
6 may be accelerated (e.g. Members may be
7 required to upload the final verification
8 statements in CRIS by the beginning of July).

9 Since The Registry selects Batch Verification
10 Bodies on an annual basis, there will be little
11 risk that a Batch Verification Body will have an
12 ongoing potential for conflict of interest with a
13 Batch Member. Therefore, The Registry waives
14 the requirement for Batch Verification Bodies to
15 conduct case-specific COI assessments¹⁵ prior
16 to commencing a batch verification. The Batch
17 Verification Body is however required to provide
18 a letter to The Registry attesting that they have
19 not provided GHG inventory development
20 consultancy services to the Members whose
21 inventories it will verify.

22
23 If the Batch Verification Body is unable to
24 provide a finding of limited assurance of a
25 Member's emissions without visiting a facility,
26 the Batch Verification Body must inform the
27 Member that they are not eligible for batch
28 verification. At that time, the Member must
29 contract with a verification body to conduct
30 normal verification activities. The Batch
31 Verification Body may bid on this contract.

¹⁵ Refer to Section 3.2.

PART 3: PREPARING FOR VERIFICATION

3.1 Responding to a Member's Request for Proposal for Verification Activities

Members may approach verification bodies to discuss verification activities at any point in the emission reporting process. However, it will be most efficient for verification bodies to discuss verification activities and prepare a verification proposal for a Member if the Member has completed entering their annual GHG emissions into CRIS, as then verification bodies will understand the total scope of the Member's operations and emissions.

Verification bodies will likely need to respond to a Member's Request for Proposal (RFP) before the Member selects them to conduct the verification activities. Verification bodies should review the Member's request, evaluate if they have the needed competency to assess the Member's emissions, evaluate any potential conflicts between the Member and the verification body, and respond to the Member's request, if they are interested. Two key components of this process are: 1) assessing case-specific conflict of interest, and 2) assembling a verification team.

3.2 Conflict of Interest (COI)

To protect the credibility and rigor of The Registry's verification process, the relationship between verification bodies and Members must not create or appear to create a high potential for COI. In some instances, where potential or real conflicts do exist, verification bodies must take steps to mitigate COIs before The Registry will allow verification activities to proceed.

While conducting verification activities for Members, the verification bodies must work in a credible, independent, nondiscriminatory and transparent manner, as outlined in ISO 14065 Annex B. In addition to the guidance in ISO 14065, The Registry requires verification bodies to adhere to additional rules to protect

against unacceptable potential for COI between parties. The Registry developed these rules to minimize the risk of potential and real COIs between verification bodies and Members.

Throughout the verification process The Registry requires verification bodies to assess three types of COI with Members:

- 1. Case-Specific COI.** A direct conflict between a Member (including its parent company and all related organizations) and their chosen verification body (including its parent company and all related organizations). Every year a Member requests a verification body to conduct verification services, the verification body must evaluate and document all pre-existing relationships and conflicts between it and the Member before a contract for services is negotiated and signed. The Registry will screen each case-specific COI Assessment Form and respond with a determination letter. Additionally, the accreditation body will reevaluate and confirm the COI evaluation during their surveillance audits. This process will ensure that a verification body can render an impartial opinion of a Member's GHG emission report. Additional details about this process are explained below in Section 3.2.1.

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

Note: The Registry automatically deems the potential for COI between the Batch Verification Body and an eligible Member as low, provided that the Batch Verification Body has not

1 provided GHG inventory development
2 consultancy services to the Member. Given that
3 Batch Verification Bodies are selected by The
4 Registry (not the Member) and will change on
5 an annual basis, there will be little risk that a
6 Batch Verification Body will have an ongoing
7 conflict with a Batch Member. Therefore, The
8 Registry waives the requirement to conduct
9 case-specific COI assessments prior to
10 commencing a batch verification. The Batch
11 Verification Body is however required to provide
12 a letter to The Registry attesting that they have
13 not provided GHG inventory development
14 consultancy services to the Member.

15 3.2.1 Case-Specific COI

16 For purposes of The Registry's voluntary
17 reporting program, a case-specific COI is
18 defined as a situation in which a verification
19 body has competing professional and/or
20 personal interests that could impede its ability
21 to objectively review and evaluate a Member's
22 conformance with The Registry's reporting
23 requirements. Even without explicit indication of
24 a compromised relationship between a Member
25 and a verification body, a COI could also
26 involve a situation in which the appearance of
27 impropriety could undermine confidence in the
28 verification body's ability to assess the reported
29 emissions.

30
31 In evaluating their case-specific COIs,
32 verification bodies must thoroughly assess any
33 prior or existing relationships with the Member,
34 and the Member's GHG inventory technical
35 assistance provider (if one), as well as
36 relationships between subcontractors and all
37 individual members of the proposed verification
38 team and the Member. The COI assessment
39 findings must be reported to The Registry using
40 the COI Assessment Form in Appendix A1. In
41 general, The Registry will deem a verification
42 body to have a high potential for COI with a
43 Member if: 1) the verification body has a conflict

44 with a Member, and/or 2) any member of the
45 proposed verification team has a conflict with
46 the Member. Any verification body that
47 determines that its risk for COI is anything other
48 than low may not provide verification services to
49 that Member.

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

- 53
54 1. A verification body will have a high potential
55 for COI if;
- 56
57 • It and a Member share any
58 management.
 - 59
60 • It has provided any GHG consultancy
61 services to the Member (as described in
62 the box below).
 - 63
64 • It has provided non-GHG consultancy
65 services that may influence the
66 verification body's impartiality (as
67 described in the box below).
- 68
69 2. Additionally, a verification body must assess
70 personal COI as a part of its case-specific
71 COI assessment. A member of the
72 verification team will have a high potential
73 for personal COI with a Member if they:
- 74
75 • Have a direct conflict with the Member.
 - 76
77 • Have been an employee of the Member
within the last three years.
 - 78
79 • Have provided any of the prohibited
80 services (as described in the box below)
to the Member.
 - 81
82 • Currently have a direct financial interest
83 (mutual funds and exchange-traded
84 funds excluded) in the Member's
organization in excess of \$5,000.

GHG Consultancy Services (High Potential for COI)

GHG consultancy services are defined as including any of the following activities:

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

Non-GHG Consultancy Services (High Potential for COI)

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

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

5
6 *Note: While verification bodies must NOT*
7 *conduct both GHG consultancy services and*
8 *verification services for the same Member,*
9 *verification bodies may offer both types of*
10 *services to Members. Verification bodies must*
11 *choose which of the two services they want to*
12 *offer to each Member as they are prohibited*
13 *from providing both to the same Member.*

14
15 If unique circumstances exist that are not
16 covered by the provisions above and might
17 otherwise lead to a COI or the perception of a
18 COI, a verification body must err on the side of
19 caution and determine the risk of COI to be
20 medium or high. If a verification body
21 determines that it has a medium or high
22 potential for COI with a Member, it must
23 mitigate the COI to a lower and acceptable level
24 following the guidance below, or it must not
25 proceed with the verification activities.

26
27 Verification bodies must submit a Case-Specific
28 COI Assessment Form (Appendix A1) to The
29 Registry prior to conducting any verification
30 activities. The Registry will review each form to
31 ensure that any verification bodies with a
32 medium or high potential for COI are prohibited
33 from conducting verification activities for the
34 Member to which the conflict applies. The
35 purpose of The Registry's screening is to
36 protect the integrity of the verification process
37 and the quality of the Member's emissions
38 report by identifying and avoiding situations in
39 which a verification body may be viewed as
40 having an impaired ability to objectively review
41 a Member's GHG inventory, usually from a pre-
42 existing business or personal relationship.

43
44 The Registry understands that complex
45 relationships might exist between a verification
46 body and a Member, and therefore, it may be
47 difficult to make an obvious judgment regarding
48 the potential for COI. The Registry will conduct
49 its evaluation process and review each
50 relationship conservatively with the aim to not
51 only ensure the integrity of the emission reports

52 submitted to The Registry, but also to avoid the
53 perception of a conflict.¹⁶

54
55 The Registry will use objective criteria and
56 professional judgment to review COI
57 assessment forms and work with all interested
58 parties to resolve risks that can be mitigated. If
59 The Registry determines that a medium or high
60 potential for COI might exist, it will request that
61 the verification body demonstrate how it can
62 avoid, eliminate, or otherwise mitigate the COI.
63 As necessary, The Registry may request that
64 the verification body provide additional
65 information to assist in evaluating its COI
66 assessment.

67
68 Verification bodies must maintain all COI
69 assessment documentation with their
70 verification paperwork. The accreditation body
71 will assess the appropriateness of a verification
72 body's COI determination during its regular
73 surveillance audits to enforce the COI policies.
74 If the accreditation body finds a verification
75 body's COI assessment to be invalid, or
76 otherwise out of conformance with The
77 Registry's policies, the accreditation body may
78 sanction the verification body, which could
79 include rescinding its accreditation status.

80
81 Verification bodies should refer to Annex B of
82 ISO 14065¹⁷ for additional guidance evaluating
83 impartiality.

84 85 **Case-Specific COI Assessment Form**

86 To assist verification bodies in identifying and
87 describing the nature and extent of their
88 relationship with a Member, The Registry
89 requires verification bodies to complete a COI
90 Assessment Form. The COI Assessment Form
91 prompts verification bodies to describe the
92 following information:

93

¹⁶ Identifying situations that could lead to the perception of a conflict of interest is particularly difficult. Generally, the guiding principle is called "The Press Test"; it asks, "would the verification body or the Member be uncomfortable if the nature of their relationship were reported in the press, or received public attention?"

¹⁷ ISO 14065: 2013 (E)

- 1 • Nature of its relationship with a Member and
2 the Member's GHG inventory technical
3 assistance provider, if one.
4
- 5 • Prior and existing service agreements with a
6 Member.
7
- 8 • Financial magnitude of service agreements
9 with a Member.
10

11 If a verification body plans to utilize any
12 subcontractors to complete the verification
13 activities, the verification body must assess the
14 potential for personal COI for all subcontractors.
15

16 Cause for Automatic COI Rejection

17 Due to the inherent conflicts between a
18 verification body and a Member, the following
19 two situations may not be mitigated:
20

- 21 • **Preparation of a Member's GHG**
22 **inventory.** The Registry prohibits
23 verification bodies from verifying emissions
24 inventories for Members for which they
25 have consulted on or prepared any part of
26 the GHG emissions inventory, regardless of
27 the point in time that service may have
28 occurred. A verification body must declare
29 all of its previous, existing, and planned
30 involvement with the Member's GHG
31 monitoring, accounting, reporting, and
32 reduction activities. This includes identifying
33 the group(s)/department(s) of the respective
34 organizations involved, and a description of
35 the specific activities. For each activity
36 identified, the verification body must clearly
37 define the links with other parts of its
38 organization, in particular the unit(s) that
39 performs verification services.
40
- 41 • **Off-cycle applicants.** Verification bodies
42 may provide verification services to a given
43 Member for a maximum of six consecutive
44 emissions years. Upon reaching six years
45 from the time the Member retained the
46 verification body for verification services, the
47 Member must contract with a different
48 verification body. The original verification

49 body may not provide verification services
50 to that Member for the next three years.
51

52 3.2.2 Mitigating COI

53 If a verification body determines the potential
54 for COI to be medium or high it may develop a
55 mitigation plan to lower the risk of COI to an
56 acceptable level in order to conduct verification
57 activities. Verification bodies must complete the
58 COI Mitigation Form in Appendix A2 and submit
59 it to The Registry to explain where it has
60 identified the potential for COI and how it will
61 mitigate it to an acceptable level.
62

63 At a minimum, a mitigation plan must include:
64

- 65 • Demonstration that any conflicted
66 individuals (verification body or
67 subcontractor staff) have been removed and
68 insulated from the project, if applicable.
69
- 70 • Explanation of any changes to
71 organizational structure or verification team,
72 if applicable. For example, demonstration
73 that any conflicted unit has been divested or
74 moved into an independent entity or any
75 conflicted subcontractor has been removed.
76
- 77 • Other circumstances that specifically
78 address other sources for potential COI.
79

80 Potential Mitigating Factors

81 The following are examples of factors that
82 mitigate potentially conflicting relationships
83 between a verification body and a Member. The
84 Registry will consider these factors when
85 evaluating COI assessments.
86

- 87 • **Time of Service.** The Registry will view
88 most services delivered by the verification
89 body to the Member that occurred more
90 than three years before as a lower risk than
91 those that occurred within the last three
92 years. However, services rendered related
93 to the design, development, implementation
94 or maintenance of a GHG emissions
95 inventory must be fully disclosed, regardless
96 of the time of delivery, and will always
97 constitute a high potential for COI.

1
2 • **Location.** The Registry may consider
3 verification services provided by a
4 verification body to a Member's business
5 unit, facility or office located outside of North
6 America (or outside the boundary of the
7 emissions report) a lower risk than those
8 conducted within North America.

9
10 • **Type of Services.** The Registry will
11 consider services that do not appear in the
12 text box outlining GHG consultancy and
13 other high potential for COI services in
14 Section 3.2.1 to be a lower risk than those
15 that do.

16
17 • **Financial Value of Services.** The Registry
18 will view the provision of other services by
19 the verification body wherein the monetary
20 value is small relative to the value of
21 verification services as a low risk for COI.
22 Instances where the total value of services
23 provided to the Member is very small as a
24 percentage of the verification body's
25 revenue over the same period may also be
26 less cause of concern.

27 28 **Response to COI Assessments**

29 The Registry will screen all COI assessment
30 forms and provide its response and evaluation
31 within 15 business days. As a part of this
32 screening process, The Registry may also
33 select COI assessments to undergo a more
34 thorough review. The Registry will inform a
35 verification body within 15 business days if The
36 Registry has selected their COI assessment for
37 further review. This review may take an
38 additional 15 business days. If selected for
39 further COI assessment review, verification
40 bodies must not proceed with verification
41 activities until The Registry completes its review
42 and provides them with instruction to do so.

43
44 The Registry's response will be an e-mail to the
45 verification body documenting The Registry's
46 determination of the case-specific potential for
47 COI. If The Registry has not initially responded
48 to the verification body within 15 business days,
49 the verification body may begin to conduct
50 verification activities. The verification body and

51 Member may begin verification activities prior to
52 receiving a COI determination letter; however, if
53 The Registry finds that the potential for COI is
54 not low, then the verification will not be able to
55 proceed.

56
57 If The Registry disagrees with a COI
58 assessment, or finds fault with a verification
59 body's mitigation plan, it will either reject the
60 verification body's COI assessment or request
61 an amendment to it (addition of a mitigation
62 plan or modifications to an existing one). If
63 after completing its COI assessment review,
64 The Registry determines that the risk of
65 potential for COI between a Member and a
66 verification body is low and no mitigating
67 measures are necessary, the verification body
68 may initiate verification activities.

69
70 If The Registry rejects a verification body's COI
71 assessment, a verification body can: 1)
72 abandon the proposed contract; 2) work with
73 the Member and The Registry to identify
74 measures to alleviate the COI risk; or 3) appeal
75 the decision to The Registry.

76 77 **COI Appeal Process**

78 Verification bodies and/or Members may
79 dispute and appeal The Registry's COI review
80 by e-mailing the Verification Program at
81 COI@theclimateregistry.org.

82
83 The Registry's verification program staff and the
84 Audit & Verification Oversight Committee may
85 consult with the Verification Advisory Group
86 and/or experts to assess the dispute, but such
87 experts will not have a vote in the final decision.
88 All information will be kept confidential. The
89 Audit & Verification Oversight Committee will
90 provide a final answer based on a majority vote.
91 Their decision will be binding.

92 93 **Corrective Action**

94 The accreditation body will review a verification
95 body's COI assessment documentation during
96 their surveillance audits. If the accreditation
97 body or The Registry finds that a verification
98 body has intentionally violated its COI policies,
99 The Registry and the accreditation body

1 reserve the right to rescind a verification body's
2 accreditation status or annul the verification
3 statement. If a verification statement is annulled
4 or if accreditation is rescinded, the verification
5 body will be responsible for reimbursing the
6 Member for the cost of the verification services.
7 Please refer to the *Guidance on Accreditation*
8 for more information relating to sanctioning
9 activities.

11 3.2.3 Emerging COI

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

20
21 A verification body must immediately disclose
22 any potentially emerging COI to The Registry.
23 If, for any reason, The Registry determines that
24 a new relationship constitutes a COI that cannot
25 be mitigated, The Registry will require the
26 Member to contract with a new verification body
27 going forward. The Registry or the
28 accreditation body may also invalidate any
29 verification results from the time at which such
30 a conflict of interest arose and could not be
31 mitigated.

33 3.2.4 Evaluating COI in Subsequent 34 Years

35 The Registry permits verification bodies to
36 contract with Members for a maximum of six
37 consecutive years. A verification body must
38 complete a COI Assessment Form each year
39 prior to commencing its verification activities.
40 Following The Registry's review and
41 acceptance of the COI Assessment Form in
42 the first year of the Member-verification body
43 relationship, a verification body's subsequent
44 COI Assessment Forms should focus on any
45 changes in the relationship between a
46 verification body and a Member, or between the
47 verification team staff and the Member.
48 If a verification body and Member have had a
49 relationship for six years, The Registry prohibits

50 the verification body from contracting with
51 the Member for the next three calendar years.
52 After no relationship has existed for three years,
53 the verification body may again contract with
54 the Member for up to six years.

55
56 This cycling of verification bodies helps to avoid
57 potential COIs due to lengthy and ongoing
58 relationships. Also, this cycling ensures that
59 another verification body will review material
60 previously reviewed by the initial verification
61 body, thus providing another check on the
62 consistency and appropriateness of
63 professional judgments made.

65 3.3 Assembling the Verification 66 Team

67 During the accreditation process, verification
68 bodies must identify all staff members who will
69 participate in their verification team. Verification
70 bodies must also identify proposed lead
71 verifiers. Upon becoming an accredited
72 verification body, a firm may add or delete
73 verification staff to its roster, but must maintain
74 The Registry's minimum staffing requirements.
75 Additionally, new verification staff must
76 demonstrate all necessary competencies.

77
78 Verification bodies must meet the requirements
79 regarding verification team competencies set
80 forth in ISO 14064-3: A.2.2.3, ISO 14065: 6.2.,
81 the IAF Mandatory Document for the
82 Application of ISO 14065 (IAF MD 6:2009), and
83 ISO 14066¹⁸.

84
85 *Note: While neither The Registry nor the*
86 *accreditation body provides specific*
87 *technical training to teach verifiers core*
88 *verification skills, outside training*
89 *opportunities do exist. As a reference,*
90 *currently, the following organizations offer*
91 *rigorous training courses on a variety of*
92 *GHG accounting and verification activities:*
93

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

- 1 • **Canadian Standards Association**
- 2 (<http://shop.csa.ca/>)
- 3 • **The GHG Management Institute**
- 4 (www.ghginstitute.org) and
- 5 • **Future Perfect**
- 6 (www.fpsustainability.com)

7
8 In addition to the ISO requirements, The
9 Registry requires verification bodies to meet the
10 following requirements when assembling their
11 verification team:

- 12
- 13 1. A verification team must be assembled prior
14 to the commencement of a verification
15 engagement. The verification body must
16 notify The Registry of the verification team
17 prior to initiating verification activities by
18 submitting the COI Assessment Form to
19 COI@theclimateregistry.org.
- 20
- 21 2. A verification body must assign a lead
22 verifier to the verification team.
- 23
- 24 3. All verification team members must be
25 clearly identified in the verification body's
26 documentation of the engagement,
27 including the verification report.
- 28
- 29 4. At least one verification team member must
30 have competencies in evaluating GHG
31 inventories. In addition, an appropriate
32 number of team members must also
33 possess relevant industry experience, if
34 needed.
- 35
- 36 5. The work of the verification team must be
37 reviewed by an independent peer reviewer
38 who has not participated in the verification
39 activities. The independent peer reviewer
40 must be qualified as a lead verifier.

41 **3.3.1 Using Experts or Subcontractors**

42
43 In some cases, verification bodies may not
44 have the in-house expertise needed to verify
45 emissions from some of the types of sources
46 owned or controlled by a particular Member.
47 In these cases, verification bodies may add
48 expert subcontractors to the verification team.

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

- 52
- 53 • Subcontractor(s) must work under the
54 supervision of the verification body's lead
55 verifier for the verification effort; in the case
56 where a subcontractor IS the lead verifier or
57 the independent peer reviewer, the
58 verification body's contract with the
59 subcontractor must acknowledge the
60 verification body's liability for the lead
61 verifier's and/or independent peer
62 reviewer's findings.
- 63
- 64 • Only one level of subcontracting is allowed.
- 65
- 66 • Experts and subcontractors hired for
67 specific verification efforts must possess the
68 competence and expertise needed to
69 perform their specific assignments;
- 70
- 71 • Experts and subcontractors must be
72 characterized by integrity, objectivity, and
73 freedom from any COI with the Member.¹⁹
74 These verification team members are
75 subject to the same COI provisions as the
76 verification team members that are
77 employees of a verification body; and
- 78 • Verification bodies must clearly identify any
79 subcontractors that are part of the
80 verification team in all documentation
81 related to the engagement, including the
82 verification report.
- 83

84 **3.4 Kick-off Meeting with the** 85 **Member**

86 After a verification body and a Member have
87 completed contract terms, the verification body
88 must conduct a kick-off meeting with the
89 Member either in person or via phone. At a
90 minimum, the agenda for that meeting should
91 include:

- 92 1. Introduction of the verification team;

¹⁹ ISO 14064-3:2006 (E) Section A.2.2.4

- 1 2. Review of verification activities and scope;
- 2 3. Transfer of background information (See
- 3 Table 4.1); and
- 4 4. Review and confirmation of the verification
- 5 process schedule.

- 6 After completing the kick-off meeting, the
- 7 verification body should determine the most
- 8 effective, efficient, and credible approach to the
- 9 verification activities and then tailor their
- 10 verification plan to address a Member's
- 11 particular characteristics.

PART 4: CONDUCTING VERIFICATION ACTIVITIES

1 4.1 Overview

2 The heart of the verification process lies in
3 conducting the verification activities. Part 4
4 of this GVP lays out the necessary actions
5 verification bodies must take when they conduct
6 verification activities, including:

- 7 • Develop a verification plan
- 8 • Implement the verification plan
- 9 • Conduct the core verification activities

10 4.2 Developing a Verification Plan

11 Verification bodies must verify that Members'
12 stated GHG emissions in CRIS meet the
13 standards of The Registry's *General Reporting*
14 *Protocol*²⁰. Verification bodies must develop a
15 plan outlining the specific activities to be
16 conducted as part of a verification effort.
17 There are a number of factors that verification
18 bodies must consider in developing this plan,
19 including:

20 **Contract Terms & Objectives:** The terms
21 of the contract between the verification body
22 and the Member, the scope of the work, and
23 the deadlines associated with the
24 verification activities.

25
26 **Team Capabilities:** The number, skills,
27 roles and responsibilities of the verification
28 team members (including outside experts
29 and subcontractors).

30
31 **Verification Documentation:** The
32 documentation required to be delivered to
33 the Member and The Registry, and any
34 conditions requiring special attention, such
35 as joint ventures and outsourcing.
36

37 Based on these factors, the verification
38 planning effort consists of:

- 39
40 1. A preliminary assessment to identify the
41 root causes of actual or potential errors and
42 control system weaknesses;
43
- 44 2. An assessment of past verifications either of
45 the Member or of similar organizations in
46 the same industry;
47
- 48 3. An identification of specific risks and types
49 of material discrepancies to which the
50 Member is exposed; and, finally,
51
- 52 4. The design of appropriate sampling plan to
53 detect material discrepancies.
54

55 The verification plan must address risks of
56 material misstatement as identified by the
57 verification body's risk assessment and include
58 analytical procedures (e.g. evaluating changes
59 to the inventory from the previous year).

60
61 The verification plan should be viewed as
62 dynamic; as new evidence of actual or potential
63 misstatements are discovered, the verification
64 body may need to revise the verification plan to
65 further assess these errors and any underlying
66 weaknesses that may be contributing to them.²¹
67

68 The verification plan should describe the
69 verification activities to be conducted and the
70 rationale for the sampling plan (e.g. the reasons
71 for selecting information to be sampled and
72 facilities to be visited). It is not necessary for the
73 verifier to visit all facilities and sources included
74 in the sampling plan (i.e. the sampling plan can
75 include a desktop review of supporting
76 evidence for sampled emission sources). Table
77 4.1 provides a list of documents that verifiers
78 may review during their assessment of a
79 Member's emissions.

²⁰ Including approved Member-Developed Methodologies and General Reporting Protocol Updates and Clarifications published by The Registry on its website

²¹ ISO 14064-3:2006 (E) Section A.2.4.5.

1 Although a limited level of assurance provides a
2 lesser degree of confidence than a reasonable
3 level of assurance, it is important that the extent
4 of verification activities conducted to support a
5 limited assurance engagement is substantial
6 enough to provide a meaningful result and
7 enhance stakeholders' confidence in the
8 reported emissions to a degree that is more
9 than inconsequential.²²

²² Proposed International Standard on Assurance Engagements (ISAE) 3000 (Revised), Assurance Engagements Other Than Audits or Reviews of Historical Financial Information, Paragraph 37, April 2011.

Table 4.1 Documents that may be Reviewed During Verification Activities

Activity or Emissions Source	Documents
Assessing Conformance with The Registry's Requirements	
General Conformance Assessment	Emission Report, The Registry's <i>General Reporting Protocol</i> , including approved Member-Developed Methodologies and General Reporting Protocol Updates and Clarifications published by The Registry on its website
Mergers, Acquisitions, Divestitures	Annual Report to Shareholders, SEC Filings
Assessing Completeness of Emissions Report	
Comprehensive Coverage of Facilities	Facility inventory
Comprehensive Coverage of Emission Sources	Emission source inventory <ul style="list-style-type: none"> • Stationary source inventory • Mobile source inventory • Fuel inventory • Air emissions permits
Performing Risk Assessment Based on Review of Information Systems and Controls	
Responsibilities for Implementing GHG Management Plan	Organization chart, GHG inventory management plan, GHG management documentation and retention Plan
Training	Training manual, procedures manual, consultant qualifications statement
Methodologies	Control systems documentation, software/program documentation and users' guides, any other protocol's used (in addition to The Registry's General Reporting Protocol)
Selecting a Sample	
Sample Size and Selection	Facility inventory, emission source inventory, description of operations
Verifying Emission Estimates Against Verification Criteria	
Indirect Emissions from Electricity Use	Monthly electric utility bills, emission factors (if not default)
Direct Emissions from Mobile Combustion	Fuel purchase records, fuel in stock, vehicle miles traveled, inventory of vehicles, emission factors (if not default), combustion efficiency, oxidation factors, GWPs, meter calibration information
Direct Emissions from Stationary Combustion	Monthly utility bills, fuel purchase records, CEMs data, inventory of stationary combustion facilities, emission factors (if not default), combustion efficiency, oxidation factors, meter calibration information
Indirect Emissions from Cogeneration	Monthly utility bills, fuel and efficiency data from supplier, emission factors (if not default)

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

1 **4.3 Core Verification Activities**

2 The following sections, 4.3.1- 4.3.5, describe
3 the five core verification activities involved in
4 the verification effort. The actions are:

- 5
- 6 1. Assessing conformance with The Registry's
7 requirements
- 8
- 9 2. Assessing completeness of emission report
- 10
- 11 3. Performing risk assessment based on
12 review of information systems and controls
- 13
- 14 4. Selecting a sample/developing a sampling
15 plan
- 16
- 17 5. Evaluating GHG information systems and
18 controls and emission estimates against
19 verification criteria
- 20

21 In conducting the core verification activities
22 verification bodies should consider the issues
23 highlighted in the following sections. Given the
24 diversity of Members, it is impossible for The
25 Registry to predict all of the questions that
26 should be asked and the checks that should be
27 made during a verification effort; however, The
28 Registry has outlined below many of the key
29 issues that verification bodies should consider
30 when conducting core verification activities.
31 The Registry relies on verification bodies to use
32 their skills and training to determine how to
33 assess if a Member's emissions have been
34 reported accurately.

35 **4.3.1 Assessing Conformance with The** 36 **Registry's Requirements**

37 Verification bodies must determine whether the
38 basic rules governing eligibility to report and
39 data to be reported have been followed. At a
40 minimum, verification bodies should consider
41 the following:

- 42
- 43 • Eligibility requirements
- 44
- 45 • Geographic boundaries
- 46
- 47 • Organizational boundaries

- 48
- 49 • Transitional/complete reporting
50 requirements
- 51
- 52 • Appropriate use of simplified emission
53 estimation methods
- 54
- 55 • Historical reporting requirements
- 56

57 **4.3.2 Assessing Completeness of the** 58 **Emission Report**

59 Verification bodies must assess and sample a
60 Member's emission inventory (facility, source,
61 and fuel) to ensure that the emission sources
62 are accurately identified. In the verification
63 body's assessment it must determine that a
64 Member's stated emissions inventory reflects
65 the appropriate:

- 66
- 67 • Geographic boundaries
- 68
- 69 • Organizational boundaries
- 70
- 71 • Operational boundaries
- 72
- 73 • Consolidation methodology requirements
- 74
- 75 • GHG emissions
- 76

77 After a verification body has considered these
78 and other issues, it will be able to determine if
79 an emission report is complete. Verification
80 bodies must also determine if any detected
81 reporting errors will significantly affect a
82 Member's reported emissions.

83 **4.3.3 Performing Risk Assessment** 84 **Based on Review of Information** 85 **Systems and Controls**

86 A verification body must assess the level of
87 uncertainty (excluding inherent uncertainty)
88 associated with each emissions source in the
89 Member's inventory to identify the particular
90 facilities, emission sources, and GHGs that
91 pose the greatest risk of material
92 misstatements.

1 Verification bodies must review the
2 methodologies and control systems that a
3 Member uses to calculate their emissions. This
4 is principally a risk assessment exercise in
5 which the verification body must weigh the
6 following factors:

- 7 • The relative complexity of the scope of the
8 Member's emissions;
- 9 • The Member's data collection and control
10 systems used to prepare the GHG emission
11 report; and
- 12 • The risk of calculation error as a result of
13 reporting uncertainty or misstatement.

14 Through these assessments, the verification
15 body must determine the capability of the
16 control systems to provide accurate required
17 data to The Registry. For example, the absence
18 of a comprehensive GHG control system for a
19 Member with a single retail outlet and solely
20 indirect emissions from electricity purchases
21 may not add significant risk of material
22 misstatement (although there must at a
23 minimum be a system in place to ensure
24 adequate retention of information and
25 documents). In contrast, a large vertically-
26 integrated manufacturing company with
27 facilities in multiple states would require a much
28 more robust information and control system for
29 tracking and reporting its GHG emissions.

30 A verification body must review information
31 systems and controls at the broad
32 organizational level and may perform analytical
33 tests on initial emission estimates, with a goal
34 towards identifying potential areas of significant
35 risk during the verification effort.

36 A verification body's general review of a
37 Member's GHG control systems should
38 consider, at a minimum the following
39 components (Also refer to ISO 14064-
40 3:2006(E), Section A.2.5.2):

- 41 • Calculation methodologies/procedures used
- 42 • Management systems

- 43 • IT systems
 - 44 • Staff competency
 - 45 • Document management systems
 - 46 • Design of information and control systems
47 to support required reporting at the facility
48 level
 - 49 • The existence and adequacy of processes
50 for the periodic comparisons and
51 reconciliation of emissions data with other
52 Member data (e.g., are the emission
53 estimates as expected given production and
54 capacity utilization data?)
 - 55 • The existence and adequacy of internal
56 audits and management reviews
 - 57 • The existence and adequacy of input,
58 output, and transformation error checking
59 routines
- 60 ISO 14064-3:2006 (E), Annex A contains
61 additional guidance on error checking tests and
62 controls that verification bodies might use.

63 Once the verification body has assessed the
64 overall risk associated with the GHG
65 information and control systems, it must assess
66 these risks in conjunction with the preliminary
67 emission and uncertainty estimates it derived
68 when it assessed the completeness of the
69 emission report. Verification bodies must then
70 identify the areas with the greatest potential for
71 material misstatements (either based on
72 volume of emissions, lack of control systems, or
73 both) to determine the best risk-based
74 approach to verification activities.

75 Since the materiality threshold applies
76 separately to direct and indirect CO₂-e
77 emissions and also applies separately to control
78 and equity share consolidation methodologies,
79 the verification body must separately assess
80 the risk for material misstatement in each of
81 these categories and consolidations of
82 emissions.

1 4.3.4 Selecting a Sample / Developing a 2 Sampling Plan

3 The core verification activities pertain to
4 reviewing emissions data for all Members.
5 However, it is not cost-effective to attempt to
6 verify ALL of the emissions data provided in an
7 emission report. Rather, a verification body
8 must choose a sample of the data for detailed
9 evaluation. This risk-based approach to
10 verification involves focusing on those emission
11 sources, facilities, data systems and processes
12 that pose the greatest risks as sources of
13 material discrepancies. Thus while the general
14 approach to verification activities must be the
15 same across Members, verification bodies must
16 tailor a specific verification sampling plan to
17 each individual Member. This plan should be
18 based on a review designed to identify the
19 specific sources of potential errors for a given
20 Member, and an assessment of the risk of
21 material discrepancies arising from each
22 identified potential error source.

23 ISO14064-3:2006 (E), Section A.2.4.6 identifies
24 the typical actions involved in the development
25 of a risk-based sampling plan as follows:

- 26 • Review and assess the scale, complexity
27 and nature of the reporting organization
- 28 • Identify the key risks, including:
 - 29 ▪ Incompleteness (e.g., failure to account
30 for all emission sources, inaccurate
31 delineation of organizational boundaries,
32 etc.);
 - 33 ▪ Inaccuracies (e.g., incorrect emission
34 factors, data transfer errors)
 - 35 ▪ Inconsistencies (e.g., failure to
36 document changes in emission
37 calculation methodologies from one year
38 to the next); and
 - 39 ▪ Data management and control
40 weaknesses (e.g. no internal audit or
41 review process).
- 42 • Review and assess the control risks which
43 arise from weaknesses in a Member's

44 control system in place for preventing and
45 detecting errors. Control risks may include:

- 46 ▪ Insufficient checking of manual data
47 transfers;
- 48 ▪ Lack of internal audit processes;
- 49 ▪ Inconsistent monitoring; and
- 50 ▪ Failure to keep meters calibrated and
51 maintained.
- 52 • Identify residual risks
- 53 • Include residual risks in the sampling plan
54 for audit investigation

55 Based on the above review of risks, sampling
56 should focus on those areas of the organization
57 subject to the greatest inherent, control, and
58 detection risks (the latter being the risks that the
59 verification body will fail to identify an error.
60 Samples may be selected based on one or
61 more of the following:

- 62 • Organizations (e.g., subsidiaries);
- 63 • Facilities;
- 64 • Sources; and
- 65 • GHG types.

66 Sampling methods that may be considered in
67 the sampling plan include both statistical and
68 non-statistical methods (e.g., random sampling,
69 stratified sampling, purposive sampling, etc.).
70 The sampling plan should be viewed as
71 dynamic rather than static, to be revised based
72 on early feedback. For example, if early
73 verification findings indicate that inherent and
74 control risks (and hence residual risk) are
75 particularly significant at one subsidiary, this
76 may indicate a need to increase the number of
77 facilities sampled for that particular subsidiary.
78 Also refer to ISO 14064-3: 2006 (E), Section
79 A.2.4.6.

80 Sampling procedures generally entail
81 conducting facility visits. While verification
82 bodies may determine what type of sampling
83

- 1 and visits are appropriate to confirm a
2 Member's emissions usually such activities
3 include:
- 4 • Assessing data control systems at the
5 facility level;
 - 6 • Reviewing documents such as utility bills or
7 emissions monitor results;
 - 8 • Recalculating emission estimates based on
9 underlying activity data; and
 - 10 • Generally attempting to detect material
11 discrepancies by gathering different types of
12 evidence.

13 The set of verification activities conducted to
14 support a limited level of assurance will vary in
15 nature and form, and are less in extent than for
16 a reasonable level of assurance. Limited
17 assurance verifications generally involve less
18 detailed testing of GHG data and less intensive
19 examination of supporting documentation.

20 For example, to achieve a reasonable level of
21 assurance, the verifier must sample and test
22 primary data sources (e.g. CEMs data, fuel
23 receipts, utility invoices, laboratory analyses,
24 and log books of meter readings and
25 calibrations). The verifier uses data from these
26 primary sources to recalculate a portion of the
27 emissions inventory. The verifier also reviews
28 secondary sources of information (e.g.
29 interviews with personnel, summary
30 spreadsheets, the GHG inventory management
31 plan, and annual reports). While secondary
32 sources of information are useful, alone, they
33 cannot support a reasonable assurance
34 conclusion because they are only an
35 interpretation or indicator of underlying data.

36 On the other hand, to achieve a limited level of
37 assurance, the verifier may largely rely on
38 secondary sources of information. If, in
39 reviewing this information, the verifier has
40 doubts or concerns about the potential for
41 material misstatement, it may be necessary to
42 sample and test primary data sources to
43 adequately resolve these concerns. If the
44 verifier is not able to eradicate the concern

45 regarding the potential for material
46 misstatement through additional verification
47 activities (e.g. due to limitations in the scope of
48 work and cost of services), then they must not
49 issue a positive opinion.²³

50 When a verifier conducts a facility visit (e.g. to
51 headquarters) to support a limited level of
52 assurance, the verifier may focus on making
53 inquiries of personnel responsible for the GHG
54 inventory management system (e.g.
55 interviewing personnel to obtain information
56 about operations, emission sources, data
57 collection procedures, calculation
58 methodologies, frequency of meter calibrations,
59 internal audit findings, etc.). Typically, facility
60 visits conducted to support a reasonable level
61 of assurance additionally entail physical
62 observation of emission sources and inspection
63 of primary data records.

64 Table 4.2 compares The Registry's minimum
65 requirements for verifications conducted to a
66 limited level of assurance against those for a
67 reasonable level of assurance.

68
69 Verification bodies must use Methods A, B,
70 and/or C as described below when determining
71 the minimum number of facilities to visit to
72 achieve a reasonable level of assurance. In
73 determining the number and location of facilities
74 to visit, the verification body must consider the
75 nature and homogeneity of the different
76 facilities and document its evaluation of whether
77 it is necessary to exceed the minimum number
78 indicated by the methodology (refer below to
79 "*When is it Necessary to Exceed the Minimum
80 Requirement?*").

²³ Proposed ISAE 3000 (Revised), Paragraph 38, April 2011.

Table 4.2 Comparison of Verification Activities for Limited and Reasonable Levels of Assurance

Activity	Limited Assurance	Reasonable Assurance
COI assessment	Same requirements, as set forth in Section 3.2.	
Risk assessment	Same requirements; a case-specific risk assessment must be performed per Section 4.3.3.	
Materiality	Same threshold; both quantitative and qualitative, as established by Section 2.5. The five percent threshold guides development of the verification and sampling plans.	
	The verifier must consider whether the information reviewed suggests that there could be a misstatement of five percent or more.	Based on the results of tests performed on sampled data and recalculation of emissions estimates, the verifier calculates the percent accuracy using the equation in Section 2.5.
Verification and sampling plans / sufficient supporting evidence	The verification plan must address risks of material misstatement as identified by the risk assessment and include analytical procedures (e.g. evaluating changes to the inventory from the previous year).	
	<p>The verification body may largely rely on secondary sources of supporting evidence, and may not necessarily sample or test primary supporting evidence unless warranted to resolve concerns regarding the potential for material misstatement.</p> <p>The verification body must use professional judgment in determining whether or not one or more site visits are necessary.</p>	<p>The verification body must sample primary supporting evidence and recalculate a portion of the emissions.</p> <p>The verification body must conform with the requirement for minimum number of facility visits set forth in Section 4.3.4.</p>
Notification of facility visits	Same notification form.	
Corrective action	The verification plan should allow for the Member to conduct a least one round of corrective actions to address misstatements, errors and omissions identified during the verification process.	
Verification report	The verification body must provide the Member with a verification report, per Section 5.2.	
Verification statement	The verification body must issue a verification statement. A positive opinion must not be issued unless all concerns regarding the potential for material misstatement have been adequately resolved.	
	Usually crafted in a negative fashion; a verification body asserts that there is no evidence that an emission report is not materially correct.	Usually crafted in a positive fashion; a verification body provides reasonable assurance that an emission report is materially correct

Determining Minimum Number of Facilities to Visit

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

1. Conduct a risk assessment as described in Section 4.3.3.
2. Evaluate the completeness of the Members inventory.
3. Evaluate the reasonableness of the emissions source types and emissions quantities reported for each facility given the scale and nature of the operations.
4. Determine the total number of facilities in the Member's inventory.
 - a. This number must be based on the definition of a facility (installation or establishment located on a single site or on contiguous adjacent sites that are owned or operated by an entity, plus any mobile sources such as on-road vehicles and fleets, also taking into account industry-specific rules for facilities such as oil fields). This number must not be based on aggregation of any facility types.
 - b. Identify the number of non-commercial facilities (X) and the number of commercial facilities (Y). For the purpose of this evaluation, commercial facilities are defined as office-based or retail facilities that do not conduct industrial operations and for which emission sources are limited to:
 - i. Purchased or acquired electricity, heating or cooling
 - ii. Stationary combustion of fuel for building heating
 - iii. Refrigerants for building and vehicle air conditioning;
 - iv. Standard fire extinguishers (as opposed to more complex PFC systems)
 - v. Non-commercial refrigeration;
 - vi. Commercial refrigeration operations when an organization centrally manages refrigerant stocks;
 - vii. Emergency generators;
 - ix. Automobiles and on-road trucks; and,
 - x. Off-road equipment limited to building and landscape maintenance.

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

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

Pipelines and transmission and distribution systems can be treated as single facilities as provided in the General Reporting Protocol.

- c. If applicable, identify the number of North American facilities (X_{NA} , Y_{NA}) and the number of worldwide facilities, including North America (X_{WW} , Y_{WW})
5. Use either Method A or Method B below as appropriate to determine the minimum number of North American, and worldwide if applicable, non-commercial facilities to be visited.
6. Use Method C to determine the minimum number of North American, and worldwide if applicable, commercial facilities to be visited.

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

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

1. North American inventory:

- a. Apply the total number of North American non-commercial facilities (X_{NA}) to Equation 4.2:

Minimum number of North American facility visits = $0.6\sqrt{X_{NA}}$ (round up to nearest whole number, as shown in Table 4.2 below)

2. Worldwide inventory:

- a. Apply X_{NA} to Equation 4.2. to determine the number of facility visits for North America as instructed above.
- b. Apply X_{WW} to Equation 4.2. and subtract from this result the number of facility visits already determined for North America to arrive at the minimum number of facility visits to be conducted outside North America.

Total Number of Facilities (X)	Minimum Number of Facility Visits ($0.6\sqrt{X}$)
1	0.6 = 1
3	1.04 = 2
5	1.34 = 2
10	1.90 = 2
50	4.24 = 5
51	4.28 = 5
100	6.00 = 6
101	6.03 = 7
250	9.49 = 10
251	9.51 = 10
501	13.43 = 14
1000	18.97 = 19
1001	18.98 = 19
5000	42.43 = 43

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

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

1. North American inventory:
 - a. Rank all North American non-commercial facilities in decreasing order of quantity of direct (scope 1 and biogenic) emissions generated.
 - b. Determine the lesser of
 - i. The minimum number of facilities that are able to constitute 75 percent or more of the overall North American direct emissions.
 - ii. The number of facilities that individually constitute greater than 5 percent of the North American direct emissions. These facilities must comprise at least 40 percent of overall North American direct emissions; otherwise, Method B.1.b.i. or Method A must be used.
 - c. All of these facilities must be visited under this method, even if the facilities are not identified through the worldwide analysis described below.
2. Worldwide inventory:
 - a. Rank all worldwide (including North American) non-commercial facilities in decreasing order of quantity of direct (scope 1 and biogenic) emissions generated.
 - b. Determine the lesser of
 - i. The minimum number of facilities that are able to constitute 75 percent or more of the worldwide direct emissions.
 - ii. The number of facilities that individually constitute greater than 5 percent of the worldwide direct emissions. These facilities must comprise at least 40 percent of overall worldwide direct emissions; otherwise, Method B.2.b.i. or Method A must be used.
 - c. All of these facilities must be visited under this method, even if the facilities are not identified through the North American analysis described above.

As noted in below under “***When is it Necessary to Exceed the Minimum Requirement***” Verification Bodies must evaluate the need to exceed the minimum number of facility visits and potential appropriateness of random or stratified sampling. This evaluation is particularly critical when using Method B for determining the minimum number of facility visits.

Method C: Commercial Facilities

When to Use Method C: This method is permitted only for commercial facilities as previously defined.

1. Determine whether Member has a centralized inventory management system, more than one inventory management system, or no inventory management system. For the purposes of this evaluation, a centralized inventory management system is considered to be a system that is developed, maintained and managed at a central location or through a central network or web-based system.
2. For Members with a centralized inventory management system, at minimum, a facility visit must be conducted at the office location responsible for overseeing the development and implementation of the inventory management system.
3. Even if the Member has a centralized inventory management system, if more than one person is responsible for final quality assurance of reported data, then the Verification Body must interview a subset of these responsible personnel to inform their risk assessment and sampling plan. The interviews may be conducted in person or by phone.
4. For Members with a decentralized inventory management system or no inventory management system, facility visits must be conducted at a representative number of office locations to be determined by either:
 - a. Each facility that is responsible for overseeing a particular inventory management system.
 - b. A sample of facilities to be determined based on Equation 4.3:
Minimum number of North American facility visits = $0.6\sqrt{Y_{NA}}$ (round up to nearest whole number)
If applicable, apply the same approach detailed in Method A.2 to determine the minimum number of worldwide facility visits.

When is it Necessary to Exceed the Minimum Requirement?

Verification Bodies must conduct additional facility visits if the minimum number of facility visits, in combination with desktop sampling of supporting documentation, is not adequate to deliver reasonable assurance that the inventory is free from material misstatements. At minimum, Verification Bodies must evaluate the following considerations that may result in the need to exceed the minimum number of facility visits:

1. The nature and diversity of facilities in the inventory.
2. The complexity of quantifying emissions sources generated at facilities;
3. The quality and centralization of the GHG data management system and potential appropriateness of random or stratified sampling;
4. The need to address other risks identified through the risk assessment; and,
5. Misstatements identified through the course of verification activities that may necessitate changes to the verification and sampling plan.

1 In general, the more complex the Member's
2 organization, the more facility visits may be
3 needed. In cases where a Member is
4 characterized by a set of homogeneous
5 facilities (e.g., a large retail operation), the
6 minimum number of facility visits may suffice.
7 On the other hand, if the Member's facilities are
8 more complex and differ substantially from each
9 other, additional facility visits beyond the
10 minimum may be necessary. For example, the
11 number of facility visits required for an
12 integrated concrete producer with 30 facilities
13 including quarries, treatment plants and cement
14 plants may be significantly larger than the
15 number of visits for a Member consisting of 30
16 manufacturing facilities that all conduct the
17 same operations.

18 Once the verification body has determined the
19 sample size, it must independently select the
20 specific facilities to be visited, without
21 recommendation or input from the Member.
22 The verification body should not necessarily
23 visit the largest facilities (i.e. rely solely on
24 Method B), but should rather select facility visits
25 on the basis of the verification body's risk
26 assessment findings regarding potential for
27 material misstatement associated with the
28 facility.

29 The Registry relies on a verification body's
30 discretion in determining how many facilities is
31 appropriate and necessary to visit; however,
32 The Registry will not accept verifications
33 conducted to a reasonable level of assurance
34 that do not incorporate at least the minimum
35 number of facility visits as determined through
36 the methodologies provided herein. Given the
37 flexibility in these methodologies and the need
38 to ensure consistency amongst verification
39 bodies, The Registry will not entertain
40 justifications for fewer facility visits.

41 The verification body should inform the Member
42 of the number of facilities it will visit during the
43 verification scope discussion with the Member.
44 The number of facilities to be visited should be
45 amended as appropriate as part of the dynamic
46 sampling plan.

47 The following examples illustrate the application
48 of Methods A, B, and C for determining the
49 minimum number of facility visits that the
50 verification body must conduct.

51
52

Example 4.1: Using Method A to Determine Number of Non-Commercial Facility Visits

After conducting the risk assessment for a waste-to-energy company, the Verification Body determines the Member has 40 non-commercial facilities, all waste-to-energy facilities. The emissions are fairly evenly distributed among the 40 facilities. Utilizing the equation for Method A, the Verification Body calculates that the minimum number of facility visits for the non-commercial facilities would be: $0.6\sqrt{40} = 3.79$, which rounds up to 4.

In addition, the Member has one headquarters and 5 other office locations. The Verification Body then applies Method C to determine the minimum number of commercial facility visits.

Example 4.2: Using Method B to Determine Number of Non-Commercial Facility Visits

After conducting the risk assessment for a manufacturing company, the Verification Body determines that the Member has 21 non-commercial facilities, 1 manufacturing plant that generates power onsite, 5 other manufacturing plants, 5 warehouses, and 10 fleets of trucks. The majority of the direct emissions from these non-commercial facilities come from the manufacturing plant with onsite power generation. The Verification Body determines that Method B is most appropriate for determining the number of facilities to visit and ranks the facilities as shown in the table below:

Facility ID	Facility Type	% Direct CO ₂ -e
1	Manufacturing plant with onsite power generation	70%
2	Manufacturing Plant	12%
3 through 6	Manufacturing Plant	10% combined
7 through 17	Truck fleet	6% combined
18 through 21	Warehouse	2% combined

The Verification Body concludes that since the manufacturing plant with the onsite power generation and the next largest manufacturing plant contribute over 75 percent of scope 1 CO₂-e emissions, that Method B.1.b.i would minimally require visits to these two facilities.

Example 4.3: Using Method C to Determine Number of Commercial Facility Visits

After conducting the risk assessment for a national bank, the Verification Body determines that the Member has 215 commercial facilities, including its headquarters, regional offices, and branch locations. On a quarterly basis, each of the regional office managers is responsible for populating a central database with the energy consumption of the branch locations within their region and for maintaining electronic records of associated invoices for purchased electricity and natural gas on the central network. The GHG inventory manager based at headquarters extracts the necessary information from the database, cross checks a sampling of the data against the invoices, and enters the data into CRIS.

The Verification Body concludes that Method C would minimally require a visit to the headquarters and phone interviews with a subset of regional office managers.

1 **Notification of Planned Verification** 2 **Activities**

3 After the verification body develops the
4 sampling plan for a Member, it must notify The
5 Registry by submitting the *Notification of*
6 *Verification Activities* Form at least 10 business
7 days prior to the beginning of facility visits. A
8 copy of this form is provided in Appendix A3; in
9 addition, verification bodies may obtain an
10 electronic version of this form from The
11 Registry's website
12 (www.theclimateregistry.org).

13
14 Notification must be sent by e-mail to
15 notification@theclimateregistry.org
16 This notification period is necessary to allow
17 The Registry the opportunity to periodically
18 accompany verification bodies on visits to
19 Members' facilities. The accreditation body is
20 responsible for observing, evaluating, and
21 reporting on the quality and consistency of
22 verification activities to The Registry. However,
23 Registry staff members also have the authority
24 to participate directly in such observation. A
25 verification body that does not provide proper
26 notification to The Registry may be disqualified
27 as a Registry-recognized verification body.

28 **4.3.5 Verifying Emissions Estimates** 29 **Against Verification Criteria**

30 This section provides guidance to verification
31 bodies on verifying emissions estimates for
32 verifications conducted to a reasonable level of
33 assurance.

34 The Registry does not expect nor require
35 verification bodies to review all of the Members'
36 documents and recheck all their calculations.
37 To ensure that data meet a minimum quality
38 standard on an entity-wide basis, verification
39 bodies should concentrate their activities in the
40 areas that have the greatest uncertainty and
41 amount of emissions. Verification bodies must
42 calculate emissions for these sources and
43 compare those calculations to emission levels
44 reported by the Member. If they are free of
45 material misstatement (have a difference of less
46 than five percent), the verification body will

47 declare that the Member's report conforms to
48 The Registry's Protocols.

49 The verification of emissions estimates involve
50 several parts, including:

51 **Gathering of Evidence.** The verification body
52 must begin the emission estimate verification
53 process by gathering all of the evidence that it
54 will use to check the emission estimates.
55 Specific evidence to be gathered generally falls
56 into three separate categories:

- 57 • Physical evidence, which can be gathered
58 through direct observation of equipment
59 (e.g., fuel meters, CEMs, and calibration
60 equipment) during facility visits;
- 61 • Documentary evidence (e.g., control and
62 procedures manuals, invoices, log books,
63 and laboratory test results, etc.); and
- 64 • Testimonial evidence gathered through
65 interviews with Member personnel.

66 **Detailed Review of GHG Data.** Once the
67 verification body has collected the necessary
68 evidence, it can begin the detailed reviews of
69 the GHG data. The verification body should
70 undertake these reviews with the goal of
71 identifying material discrepancies.

72
73 The verification body should employ a variety of
74 verification tests to detect material
75 discrepancies, including:

- 76 • Retracing data from spreadsheets back to
77 their sources;
- 78 • Re-computing emission estimates to check
79 original calculations; and
- 80 • Reviewing documentary evidence to check
81 that inspections, calibrations, etc., were
82 completed.

83 **Crosschecking of GHG Calculations.** The
84 verification body must crosscheck GHG
85 calculations whenever the Member used more
86 than one computational approach or raw data
87 source. Refer to ISO 14064-3:2006 (E) A.2.6.3.

1 Types of crosschecks that may be employed
2 include:

- 3 • Internal checks within a process;
- 4 • Internal checks within an organization;
- 5 • Checks within an industry or sector;
- 6 • Checks against international information;
7 and
- 8 • Checks against quantities of emissions
9 reported for previous emissions years.²⁴

10 **Evaluating Material Discrepancy.** In order to
11 assess whether individual identified
12 discrepancies rise to the level of a material
13 discrepancy, the verification body must convert
14 its emission estimates for different GHGs to a
15 CO₂-e basis. When the verifier's estimate of
16 emissions (for a particular source) does not
17 compare well with that included in the
18 Member's emissions report, the verifier should
19 assess whether the error is a systemic issue
20 that implies there is the same degree of
21 uncertainty in all similar sources. The verifier
22 may expand the sample size as appropriate to
23 determine if the same inconsistency is evident
24 in a broader sample of data and may request
25 that the Member provide evidence of correction
26 of systemic errors. In arriving at its estimate, the
27 verifier must consider the impact of
28 extrapolation of systemic errors identified in the
29 sample to the entire dataset. The verification
30 body must compare its estimated GHG
31 emissions to those in the reported inventory to
32 determine if there are any material
33 misstatements. If the verifier's emission totals
34 differ by more than five percent from the
35 originally reported totals, then the discrepancies
36 are material.

37 **Assess Reported Emissions and Document**
38 **Findings.** Once verification bodies have
39 evaluated all emission estimates for all facilities
40 and emission sources included in the sample,
41 they must determine if any individual material
42 errors are identified, consider if these errors are
43 systemic and compare these results with the

44 entity-level emissions in the Member's emission
45 report. If several non-material errors are found,
46 a compilation of these errors should be
47 compared against the original reported
48 emission estimates to determine if the
49 aggregate errors exceed the materiality
50 threshold. Differences may be classified as
51 either material (significant) or immaterial
52 (insignificant). The Registry considers a
53 discrepancy to be quantitatively material if the
54 overall reported emissions differ from the
55 overall emissions estimated by the verification
56 body by five percent or more. A difference of
57 less than five percent is quantitatively
58 immaterial.

59

Online Reporting and Verification

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

It is the Member's responsibility to provide the verification body with access to CRIS. A verification body will have read-only access to the Member's Entity Emissions Detail Report (Private), which provides a detailed summary of all the information that the Member has reported.

Additional instructions for navigating and using CRIS are provided on The Registry's website. For questions about CRIS, contact The Registry at **(866) 523-0764** or help@theclimateregistry.org. Verification bodies may also request temporary access to CRIS for training purposes by contacting The Registry.

PART 5: COMPLETING THE VERIFICATION PROCESS

1 5.1 Overview

2 Once a verification body has completed
3 reviewing a Member's annual GHG emission
4 report, they must do the following to complete
5 the verification process:

- 6 1. Complete a detailed verification report and
7 deliver it to the Member;
- 8 2. Prepare a verification statement and deliver
9 it to the Member;
- 10 3. Conduct an exit meeting with the Member to
11 discuss and finalize the verification report
12 and verification statement.
- 13 4. Indicate Member's verified status in CRIS;
14 and
- 15 5. Securely file electronic and hardcopy
16 versions of records and documents needed
17 to support the verification statement for
18 retention (for a minimum of five years).

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

22 5.2 Preparing a Verification Report

23 A verification report is typically shared only
24 between a verification body and a Member. In
25 some cases the accreditation body and The
26 Registry may request to review the verification
27 report. In these cases, the verification report will
28 be treated as a confidential document. No part
29 of it will be made available to the public or to
30 any person or organization outside of the
31 accreditation body or The Registry.

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

- 34 • The scope, objectives, criteria, and level of
35 assurance of the verification process
36 undertaken and description of the
37 verification plan employed for the Member;

38 • The standard used to verify emissions (this
39 is The Registry's *General Reporting
40 Protocol*, but may also include other
41 protocols or methodologies for those
42 sources for which The Registry has yet to
43 provide detailed guidance);

44 • A description of the verification plan, based
45 on the size and complexity of the Member's
46 operations;

47 • A list of facilities and/or emissions sources
48 using calculation methods not prescribed in
49 the *General Reporting Protocol*;

50 • A description of the sampling plan as well
51 as techniques and risk assessment
52 methodologies employed for each source
53 identified to be sampled;

54 • An evaluation of whether the Member's
55 annual GHG emission report is in
56 compliance with The Registry's reporting
57 requirements (as described in the *General
58 Reporting Protocol*);

59 • For verifications conducted to a reasonable
60 level of assurance, the total discrepancy (in
61 tonnes of CO₂-e) between the verification
62 body's emissions estimate and the
63 Member's reported emissions as well as a
64 percentage of the material discrepancies
65 within a Member's total reported emissions
66 at the entity level (separate totals and
67 percentages must be provided for direct and
68 indirect emissions).

69 • A list of all of the discovered discrepancies,
70 including each discrepancy's estimated
71 magnitude as a percentage of the total
72 emissions (direct or indirect, as appropriate)
73 reported at the entity level.

74 The Registry developed a "Standard
75 Verification Report Template" to guide
76 verification bodies in preparing their verification
77 report. This template is Appendix B2. Use of
78 this template is optional; verification bodies may

1 instead use their own format for the report as
2 long as the resulting verification reports include
3 all of the above-listed information required by
4 The Registry. Electronic versions of the
5 Verification Report Template, and all other
6 forms, are available on The Registry’s website
7 (www.theclimateregistry.org).

8 **5.3 Preparing a Verification** 9 **Statement**

10 Verification bodies must prepare a verification
11 statement for each Member using the form in
12 Appendix A4. A verification statement
13 documents the verification activities and
14 outcomes. The Registry makes this document
15 available to all stakeholders (Members,
16 verification bodies, The Registry, and the
17 public), upon completion of the verification
18 process.

19 While Members are required to report all GHG
20 emissions sources within the defined inventory
21 boundary and are required to correct as many
22 misstatements as is possible, The Registry
23 allows immaterial misstatements to remain
24 in a Member’s emissions report. As such,
25 verification bodies are not expected to withhold
26 a positive verification statement due to
27 immaterial misstatements or omission of
28 immaterial sources.

29 **5.4 Quality Assurance Check**

30 When a lead verifier prepares a verification
31 report and verification statement for a Member,
32 they must forward the documents to their
33 independent peer reviewer for review and
34 confirmation if its findings before sharing the
35 documents with a Member. Lead verifiers must
36 provide the following information to their
37 independent peer reviewer (at a minimum):

- 38 • a copy of the Member’s emission report,
- 39 • a copy of the verification report,
- 40 • a copy of the verification statement, and

- 41 • any additional information that the
42 independent peer reviewer may need to
43 assess the quality of the verification
44 activities and the accuracy of the verification
45 statement.

46 All verification reports and verification
47 statements must undergo independent internal
48 review before they are forwarded as final
49 documents to Members.

50 **5.5 Finalizing Verification Activities**

51 After a lead verifier prepares and an
52 independent peer reviewer reviews a
53 verification report and verification statement,
54 the verification body must share these
55 documents with the Member and schedule a
56 time to discuss and finalize these documents.
57 This meeting may be conducted in person or
58 over the phone.

59 The goals of the exit meeting are for the
60 verification body to:

- 61 • Review the verification activities with the
62 Member and answer any questions about
63 the verification process. Verification bodies
64 must not provide any GHG consultancy
65 services when answering a Member’s
66 questions.
- 67 • Seek the Member’s acceptance of the
68 verification report and verification statement
- 69 • Obtain the Member’s authorization to input
70 its verification findings in CRIS
- 71 • Exchange lessons learned about the
72 verification process, and consider providing
73 useful feedback to The Registry
- 74 • Discuss schedule for next year’s verification
75 activities, if the verification body is under
76 contract to provide verification services to
77 the Member in future years

1 **5.5.1 Procedure in the Event of a** 2 **Negative Verification Statement**

3 If a Member's emission report is not verifiable
4 due to material misstatements, the Member
5 must correct the report and have it re-verified.
6 As stated in Section 2.5.1, **verification bodies**
7 **must NOT remediate the identified**
8 **misstatement(s), or explain how the**
9 **misstatement(s) might be corrected.** Such
10 guidance would be considered a consulting
11 activity and therefore, a conflict of interest.
12 However, *this prohibition does not preclude a*
13 *verification body from explaining the identified*
14 *error(s) to the Member.* Verification bodies must
15 always fully explain the nature of the error(s) to
16 the Member.

17 Furthermore, verification bodies may provide
18 any existing documentation that may be useful
19 to Members in preparing remediation plans.
20 Verification bodies should also enumerate any
21 shortcomings in Members' GHG tracking and
22 management systems.

23 The Registry will retain a Member's unverified
24 emission report in the CRIS for up to one year
25 pending correction by the Member and re-
26 verification of the revised report (either by the
27 original verification body or a new verification
28 body). The Member must pass the re-
29 verification process by December 15th of the
30 following year to remain an active Member in
31 The Registry. Upon completion of a successful
32 re-verification, The Registry will formally accept
33 the revised emission report into CRIS for
34 release to the public.
35

36 **5.5.2 Dispute Resolution Process**

37 There may be instances where verification
38 bodies and Members do not agree on the
39 verification findings as expressed in the
40 verification report and/or verification statement.
41 In such instances, the Member and verification
42 body should attempt to reach a resolution,
43 relying first on the verification body's internal
44 dispute resolution process (as required by ISO
45 14065).

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

52 Additionally, Members or verification bodies
53 may e-mail The Registry directly
54 (verification@theclimater registry.org) if they
55 have any questions about resolving disputes.

56 The accreditation body will review the area of
57 dispute and reach a unanimous, binding
58 decision concerning verifiability. In doing so it
59 may interview the Member and the verification
60 body and/or request documentation related to
61 the dispute. The accreditation body will notify
62 the verification body and Member of its
63 decision.

64 In the event that the accreditation body
65 overturns the verification body's original
66 verification statement, the reasons for this
67 finding will be discussed with the verification
68 body and Member. If, at the conclusion of this
69 discussion, the verification body indicates that it
70 is in agreement with the accreditation body, it
71 will be provided with an opportunity to issue a
72 new verification statement reversing the original
73 verification statement.

74 The decision to issue a new verification
75 statement is up to the verification body. If for
76 any reason the verification body chooses not to
77 issue a new verification statement, the
78 accreditation body will complete the "Dispute
79 Resolution Addendum" to the verification
80 statement, indicating that the original finding of
81 the verification body has been overturned upon
82 review by the accreditation body.

83 Verification bodies are free to disagree with the
84 findings of the accreditation body, and will not
85 be instructed or in any way pressured to issue a
86 new verification statement. The purpose of the
87 above-outlined procedure is merely to provide a
88 verification body with an opportunity to revise its
89 verification statement during the dispute
90 resolution process if, on the basis of the
91 evidence and reasons cited by the accreditation

1 body, the verification body changes its original
2 opinion and wishes to issue a new opinion.
3 However, while the verification body (or the
4 Member) is free to disagree with the findings of
5 the accreditation body, those findings are
6 nonetheless binding on both parties once the
7 dispute resolution process has been completed.

8 In the event that the accreditation body finds
9 that the original verification statement was
10 correct, they will complete the “Dispute
11 Resolution Addendum” to the verification
12 statement to indicate that the original
13 verification statement has been upheld upon
14 review by the accreditation body.

15 **5.6 Completing the Verification** 16 **Process**

17 Once a verification statement has been
18 authorized by the Member, verification bodies
19 must input their findings into CRIS.

20 The Registry will then perform a final review of
21 the verified emissions report and verification
22 statement. The Registry will not accept a
23 Member’s emission report until it receives a
24 signed positive verification statement indicating
25 ‘verified’.

26 Verification bodies must use the most current
27 Verification Statement Form that is posted on
28 The Registry’s website.

29 The Registry will review the verification
30 statement and a Member’s emission report for
31 completeness. In doing so, The Registry may
32 request additional information from verification
33 bodies and/or Members. If The Registry agrees
34 that the emission report is correct and the
35 verification statement indicates that no material
36 misstatements have occurred, The Registry will
37 formally accept the verification statement.

38 Once The Registry accepts a Member’s verified
39 emissions report and verification statement, the
40 data will become available to the public.

41 **5.7 Record Keeping and Retention**

42 While The Registry views the verification
43 process as a private exchange between a
44 verification body and a Member, verification
45 bodies must keep detailed records related to
46 every verification process.²⁵ The Registry
47 requires that the following records be retained
48 for a minimum of five years²⁶ as specified by
49 contract with the Member.

50
51 Verification bodies should, at a minimum, retain
52 hard and electronic copies, as applicable, of:

- 53 • The Member’s GHG emission report
54 (printable from CRIS)
- 55 • Verification plan and notes
- 56 • Sampling plan and notes, including copies
57 of original activity data records and other
58 data necessary to perform an ex-post
59 assessment of the verification activities.
- 60 • Verification report
- 61 • Verification statement
- 62 • Backup documentation, verification notes,
63 etc.

64 **5.8 Facts Discovered After** 65 **Verification Process is Complete**

66 In some cases, errors in an emission report or
67 verification statement may be discovered after
68 the completion of the verification process, either
69 by the Member, the verification body, the
70 accreditation body, The Registry, or another
71 party (e.g., a user of the data).

72 If such errors result in a cumulative change in
73 total reported emissions of less than five
74 percent, The Registry will encourage the
75 appropriate party to correct the error. However,

²⁵ The verification body should also consult ISO 14064-3 for a discussion of documentation and retention.

²⁶ The minimum five-year document retention period is measured from the date that a verification statement is accepted by The Registry.

1 if the errors cause a material misstatement of
2 the reported emissions, The Registry requires
3 that the appropriate party corrects the error(s)
4 and re-verify the affected emission report.

5 Stakeholders discovering any reporting or
6 verification errors after the fact should contact
7 The Registry via e-mail
8 (verification@theclimateregistry.org). The
9 Registry will evaluate the error and contact the
10 appropriate parties. If The Registry determines
11 that the reported error constitutes a material
12 misstatement, it will change the verification
13 status of the affected emission report to
14 “unverified”. The Registry requires that the
15 Member correct their emission report and have
16 it re-verified (either by the original verification
17 body or a new verification body) within one year
18 from the time The Registry informs the Member
19 of the error.

20 Upon completion of a successful re-verification,
21 The Registry will formally accept the revised
22 emission report into The Registry database.

23 All material misstatements discovered after a
24 verification process is complete will be reported
25 to both the verification body and the
26 accreditation body. The Registry may require
51

27 the verification body to perform a root cause
28 analysis to determine why the error was not
29 discovered during the verification process and
30 to identify “lessons learned” that may help the
31 verification body to reduce the risk of future
32 undetected material misstatements. While The
33 Registry recognizes that material
34 misstatements may occasionally be missed
35 during the verification process, a pattern of
36 undiscovered material misstatements on the
37 part of a verification body will be considered by
38 the accreditation body as cause for review and,
39 if necessary, revocation of the verification
40 body’s accreditation status.

41 **5.9 Questions or Comments?**

42 The Registry encourages verification bodies to
43 contact The Registry whenever they have any
44 questions or need assistance interpreting
45 requirements for verification. Verification
46 bodies may contact The Registry by phone or
47 e-mail as indicated below:

48
49
50

<p style="text-align: center;">866-523-0764 or verification@theclimateregistry.org</p>
--

GLOSSARY OF TERMS

Term	Definition
Applicant	A firm, or lead firm (if part of a team), responding to a request for application for verification bodies.
Batch Verification	Verification process arranged by The Registry for multiple Members with relatively simple GHG emissions (less than 1000 tonnes of CO ₂ -e emissions, and no significant process or fugitive emissions).
Case-Specific Conflict of Interest	Instances where the ability of a specific verification body to render objective GHG verification services to a Member may be affected by the nature of other business services provided to the Member by the verification body or a related organization, shared management and/or financial resources between the Member and the verification body or a related organization, or other situations created by the verification body or another related entity.
Calculation-Based	Any of various emission quantification methodologies that involve the calculation of emissions based on emission factors and activity data such as input material flow, fuel consumption, or product output.
Centralized Inventory Management System	A system that is developed, maintained and managed at a central location or through a central network or web-based system.
Control Approach	An emission accounting approach for defining organizational boundaries in which a company reports 100 percent of the GHG emissions from operations under its financial or operational control.
CO ₂ equivalent*	(CO ₂ -e) The quantity of a given GHG multiplied by its total global warming potential. This is the standard unit for comparing emissions of different GHGs.
Conflict of Interest	(COI) A situation in which, because of other activities or relationships with a potential client, a person or firm is unable or potentially unable to render an impartial verification statement of the potential client's greenhouse gas (GHG) emissions, or the person or firm's objectivity in performing verification activities is or might be otherwise compromised.
Datum	A reference or starting point.
Direct Emissions	Emissions from sources within the reporting entity's organizational boundaries that are owned or controlled by the reporting entity, including stationary combustion emissions, mobile combustion emissions, process emissions, and fugitive emissions.

Emerging Conflict of Interest	A potential or actual COI situation that arises, or becomes known, during verification or for a period of one year after the completion of verification activities.
Emissions Factor*	GHG emissions expressed on a per unit activity basis (for example tonnes of CO ₂ emitted per million Btus of coal combusted, or tonnes of CO ₂ emitted per kWh of electricity consumed).
Emissions year	The year in which the emissions being reported to The Registry occurred. For example, if it is 2010 and emissions that occurred in 2009 are being reported, the emissions year is 2009.
Entity	Any business, corporation, institution, organization, government agency, etc. recognized under U.S., Canadian, or Mexican law. A reporting entity is comprised of all the facilities and emission sources delimited by the organizational boundary developed by the entity, taken in their entirety.
Equity Share Approach	An emissions accounting approach for defining organizational boundaries in which a company accounts for GHG emissions from each operation according to its share of economic interest in the operation, which is the extent of rights a company has to the risks and rewards flowing from an operation.
Facility	Any installation or establishment located on a single site or on contiguous or adjacent sites in actual physical contact or separated solely by a public roadway or other public right-of way that are owned and operated by an entity. A facility includes not only all of the stationary installations and equipment located at the site, but all mobile equipment that is under the control of the reporting entity and operates exclusively on a particular facility's premises. Examples of such site-specific mobile equipment include forklifts, front-end loaders, off-road trucks, mobile cranes, etc. Mobile sources that operate beyond the confines of a single facility (e.g. automobiles and on-road trucks) may also be reported as part of a facility. Pipelines, pipeline systems, and electricity T&D systems are considered discrete facilities for reporting purposes.
Financial Control	The ability to direct the financial and operating policies of an operation with an interest in gaining economic benefits from its activities. Financial control is one of two ways to define the control approach.
Fugitive Emissions	Intentional and unintentional releases from the production, processing, transmission, storage, and use of fuels and other substances, that do not pass through a stack, chimney, vent, exhaust pipe or other functionally-equivalent opening (such as releases of sulfur hexafluoride from electrical equipment; hydrofluorocarbon releases during the use of refrigeration and air conditioning equipment; landfill gas emissions; and methane leakage from natural gas transport)..

Global Warming Potential*	(GWP) The ratio of radiative forcing (degree of harm to the atmosphere) that would result from the emission of one unit of a given GHG to one unit of CO ₂ .
Greenhouse Gases	(GHG) For the purposes of The Registry, GHGs are the internationally recognized gases identified in the Kyoto Protocol: carbon dioxide (CO ₂), nitrous oxide (N ₂ O), methane (CH ₄), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF ₆), and nitrogen trifluoride (NF ₃).
Greenhouse Gas Activity Data**	Quantitative measure of activity that results in a GHG emission removal.
Greenhouse Gas Emission**	Total mass of a GHG released to the atmosphere over a specified period of time.
Greenhouse Gas Information System**	Policies, processes and procedures to establish, manage and maintain GHG information.
Greenhouse Gas Source**	Physical unit or process that releases a GHG into the atmosphere.
Indirect Emissions	Emissions that are a consequence of activities that take place within the organizational boundaries of the reporting entity, but that occur at sources owned or controlled by another entity. For example, emissions from electricity used by a manufacturing entity that occur at a power plant represent the manufacturer's indirect emissions.
Inherent Uncertainty	The scientific uncertainty associated with measuring GHG emissions due to limitations on monitoring equipment or measurement methodologies.
Lead Verifier	An employee of an accredited verification body that is qualified by that verification body to lead a verification team.
Level of Assurance**	Degree of assurance the intended user requires in a validation or verification. There are two levels of assurance, reasonable or limited, which result in differently worded validation or verification statements.
Materiality**	Concept that individual or the aggregation of errors, omissions and misrepresentations could affect the greenhouse gas assertion and could influence the intended users' decisions.
Material Discrepancy**	Individual or the aggregate of actual errors, omissions and misrepresentations in the greenhouse gas assertion that could affect the decisions of the intended users.
Measurement-Based	Any of various emission quantification methodologies that involve the determination of emissions by means of direct measurement of the flue gas flow, as well as the concentration of the relevant GHG(s) in the flue gas.

Minimum Quality Standard	Data that is free of material misstatements, and meets The Registry's minimum level of accuracy of at least 95 percent.
Miniscule Sources	<p>Emissions sources listed on The Registry's Exclusion of Miniscule Sources Form which The Registry has deemed may be excluded from an inventory without:</p> <ul style="list-style-type: none"> • Compromising the relevance of the reported inventory; • Significantly reducing the combined quantity of scope 1, scope 2, and biogenic CO₂-e emissions reported; • Impacting ability to identify the Member's viable opportunities for emissions reductions projects; • Impacting the ability to ascertain whether the Member has achieved a reduction (of five percent or greater) in total entity emissions from one year to the next; • Impacting ability to assess the Member's climate change related risk exposure; or, • Impacting the decision-making needs of users.
Mobile Emissions	Emissions from the combustion of fuels and refrigerant leaks in transportation sources (e.g., cars, trucks, buses, trains, airplanes, and marine vessels), emissions from non-road equipment such as equipment used in construction, agriculture, and forestry and other mobile sources.
Mobile Sources	Emissions sources designed and capable of emitting GHG emissions while moving from one location to another. An emissions source is not a mobile source if it is a piece of equipment that is designed and capable of being moved from one location to another but does not combust fuel while it is being moved (e.g., an emergency generator).
Operational Control	Full authority to introduce and implement operating policies at an operation. Operational control is one of two ways to define the control approach.
Organization**	Company, corporation, firm, enterprise, authority or institution, or part or combination thereof, whether incorporated or not, public or private, that has its own functions and administration.
Organizational Boundaries	The boundaries that determine the operations owned or controlled by the reporting entity, depending on the consolidation approach taken (either equity share or control approach).
Outsourcing*	The contracting out of activities to other businesses.

Personal Conflict of Interest	A relationship of an individual member of a verification team that may impair the objectivity of the member in performing verification activities.
Process Emissions*	Emissions from physical or chemical processing other than from fuel combustion. Examples include emissions from manufacturing cement, aluminum, adipic acid, ammonia, etc..
Reasonable Assurance**	A reasonable, but not absolute, level of assurance that the responsible party's GHG assertion is materially correct.
Related Entity	An organization that is linked to the verification body by: common ownership or directors, contractual arrangement, a common name, informal understanding, or other means such that the related organization has a vested interest in the outcome of an assessment or has a potential ability to influence the outcome of an accredited management system assessment, or greenhouse gas verification effort.
Reporting Uncertainty	The errors made in identifying emissions sources and managing and calculating GHG emissions. This differs from inherent uncertainty due to incomplete understanding of climate science or a lack of ability to measure greenhouse gas emissions.
Scope 1 Emissions	All direct GHG emissions, with the exception of direct CO ₂ emissions from biogenic sources.
Scope 2 Emissions	Indirect GHG emissions associated with the consumption of purchased electricity, heating, cooling, or steam.
Scope 3 Emissions	All indirect emissions not covered in scope 2. Examples include upstream and downstream emissions, emissions resulting from the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, use of sold products and services, outsourced activities, waste disposal, etc.

Simplified Estimation Methodologies	<p>Rough, upper-bound methods for estimating emissions. Approved methodologies in the GRP that are not found in Part III, Appendix D or annexes of the GRP or those that meet The Registry’s definition of Industry Best Practices are not Simplified Estimation Methods (SEMs). SEMs may be used to calculate emissions from one or more sources, for one or more gases, that, when aggregated, equal no more than five percent of the sum of an entity’s scope 1, scope 2 and biogenic emissions from stationary combustion, as determined on a CO₂-e basis.</p> <p>SEMs include Registry-approved calculations where non-accepted activity data is used as an input.</p> <p>Where emission sources are small enough to be included within the five percent SEMs threshold, Members may elect to use non-Registry approved methods that are more accurate than the simplified upper bounds methods generally used to estimate very small sources without submitting a Member Derived Methodology Form, as long as the emissions are designated as SEMs.</p>
Stationary Combustion Emissions	<p>Emissions from the combustion of fuels in any stationary equipment including boilers, furnaces, burners, turbines, heaters, incinerators, engines, flares, etc.</p>
Stationary Source	<p>An emissions source that is confined to a distinct geographic location and is not designed to operate while in motion.</p>
Streamlined Verification	<p>Verification services provided in interim years between full verifications. The verification body must perform the minimum set of activities that will allow it to conduct a risk-based assessment of materiality and to attain reasonable assurance in the findings presented in its verification statement. The minimum required activities include the risk-based assessment and the verification of emission estimates against the verification criteria.</p>
Transitional Inventory	<p>The reporting boundary of a transitional inventory is self-defined by the Member based on the following parameters:</p> <ul style="list-style-type: none"> • Scopes • Gases • Activity types (stationary combustion, etc.) • Geographic/operational boundaries (country, state, business units, facility, etc.) <p>The transitional reporting option is available only during a Member’s first five emissions years, after which time a waiver is required to continue to report on a transitional basis. The waiver must set a target date for complete reporting, provide justification for the requested extension, identifies the steps being taken to achieve a complete inventory (such as an inventory management plan) and identify any obstacles or limitations prohibiting you from reporting completely to The Registry after five years.</p>
Tonnes (t)	<p>Metric tons.</p>

Verification	The process used to ensure that a given Member's greenhouse gas emissions inventory has met a minimum quality standard and complied with The Registry's procedures and protocols for calculating and reporting GHG emissions.
Verification Activities	Activities undertaken during the third-party verification that include reviewing reported emissions, verifying their accuracy according to standards specified in The Registry's GVP, and submitting a verification statement to The Registry.
Verification Body	A firm that has been recognized by The Registry to conduct verification activities under The Registry program. The Registry recognizes only verification bodies that are accredited to ISO 14065 and meet the additional requirements set forth in The Registry's Guidance on Accreditation.
Verification Statement	A document stating the verification body's findings that the Member's emission report is verifiable (or not).
Verification Report	A detailed report that a verification body prepares for a Member, describing the scope of the verification activities, standards used, emissions sources identified, sampling techniques, evaluation of Member's compliance with the General Reporting Protocol, assumptions, and a list of material and immaterial misstatements, if any.
Verification Team	Employees or subcontractors of a verification body, acting for the verification body to provide verification services for a Member.
Verified Emissions Report	An annual GHG emission report that has been reviewed and approved by a third-party verification body and accepted by The Registry.
Verifier	A single employee or member of a verification team assembled by a Registry-recognized firm (verification body) that conducts verification activities.

**Definitions from "The Greenhouse Gas Protocol, A Corporate Accounting and Reporting Standard," World Business Council for Sustainable Development and World Resources Institute, Switzerland, September 2001.*

***Definitions from "ISO 14064-3, Greenhouse Gases, Part 3: Specification with Guidance for the Validation and Verification of Greenhouse Gas Assertions," 2006.*

APPENDIX A: REQUIRED FORMS

This appendix provides a sample set of forms and templates that verification bodies are required to use to document their COI and verification findings, and to notify The Registry of their verification activities.

Specifically, the appendix includes:

- Form COI-A: Case-Specific Conflict of Interest Assessment (see Appendix A1);
- Form COI-B: Mitigation Plan (see Appendix A2);
- Notification of Verification Activities Form (see Appendix A3); and
- Verification Statement Form (see Appendix A4).

The Registry occasionally updates and improves its verification forms to ease the completion and submission of these forms. Thus, please always refer to the forms on The Registry's website rather than those included in this GVP, as these forms may become outdated.

Please note that The Registry can receive e-mails only up to 5 MB in size. To ensure receipt of your forms, all forms should be submitted to The Registry in pdf format to the e-mail addresses noted on the forms.

Appendix A1: COI-A: Case-Specific Conflict of Interest Assessment Form



The Climate Registry

All accredited verification bodies must complete this form prior to conducting any verification activities for a Member. The Registry will screen all COI Assessments for completeness and evaluate submitted Assessment Forms within 15 business days. Periodically, The Registry will select assessment forms for a more thorough review. In this instance, The Registry will inform the verification body of the additional review. The Registry will provide its finding to the verification body within an additional 15 business days.

Please submit this completed form as a pdf file to COI@theclimateregistry.org.

Date: _____
Member Name: _____
Parent Company Name: _____
Member Contact Name: _____
Title: _____
Telephone: _____
E-mail: _____
Mailing address: _____
Verification Body Name: _____
Parent Company Name: _____
Verification Body Contact Name: _____
Title: _____
Telephone: _____
E-mail: _____
Mailing address: _____
<p>To the best of my knowledge, I (<u>printed name</u>) attest that the information provided in support of this assessment is true and complete and that I have complied with The Registry's Conflict of Interest policies as described in its <i>General Verification Protocol</i>.</p>

(Authorized signature)
<input type="checkbox"/> For digital signature: By checking the "Digital Signature Acknowledgement" box, I agree that this Conflict of Interest Assessment Form shall be deemed to be "in writing" and to have been "signed" for all purposes and that any electronic record will be deemed to be in "writing." I will not contest the legally binding nature, validity, or enforceability of this Conflict of Interest Assessment Form and any corresponding documents based on the fact that they were entered and executed electronically, and expressly waive any and all rights I may have to assert any such claim.
Based on the information provided in the following pages, we believe that our risk of COI is:
<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low

Please respond fully and in detail to all of the following questions. If you are using subcontractors to complete the proposed verification activities or if the Member used a technical assistance provider to prepare their GHG inventory, you must also provide this information for all subcontractors and technical assistance providers.

For the purposes of this form, all references to the verification body/entity mean the verification body and all related entities, including the parent company and all companies that share the common parent company. All references to the Member/entity mean the Member and all related entities, including the parent company and all companies that share the common parent company.

If you have no prior relationship with the Member, you may answer “No” or “Does Not Apply” to many of the following questions, but you must answer every question.

All confidential information should be so designated, and will be kept confidential by The Registry.

- Has your verification body/entity ever provided GHG verification services for this Member/entity (excluding the current proposed services)?

YES NO

If yes, Emissions Year(s) verified: _____
 Dates of service (month/date to month/date): _____

- Has your verification body/entity at any time provided any GHG Consultancy Services or other Non-GHG Consultancy Services that Pose a High Potential for COI²⁷ to the Member/entity?

YES NO

Please declare all of your verification body/entity’s previous, existing, and planned involvement with the Member/Entity’s GHG monitoring, accounting, reporting, and reduction activities, regardless of date of service. For each activity, identify the group(s)/department(s) of the organizations involved, and a description of each activity. Please clearly define the links between organizations, in particular your company’s business unit(s) that performs certification and verification services. You may attach additional pages to this form as needed to respond fully.

All GHG Consulting Services Performed for Member

GHG Consultancy Services	Dates of Service (mo/yr-mo/yr)	Verification Body		Member		Description of Activities
		Business Unit	Location	Business Unit	Location	

²⁷ GHG Consultancy Services and Non-GHG Consultancy Services (High Potential for COI) are defined and described in Section 3.2.1 of the General Verification Protocol.

Please provide any other relevant information that explains or describes any involvement with the Member/Entity's GHG monitoring, accounting, reporting, and reduction activities, including a description of your firm's relationship with the Member's GHG inventory technical assistance provider, if one.

3. Does your verification body/entity currently provide other non-GHG services to the Member/entity?
 YES NO

Has your verification body/entity done so in the past?
 YES NO

- a. Please list and describe any contracts or arrangements to perform work, other than GHG Consultancy Services or GHG verification work, your verification body/entity has, or had, with the Member/entity in the past three years within North America. Please explain the purpose and nature of this work. Please also describe its geographic location and the business unit(s) within the organizational structure of the Member/entity for which the services were performed. If no work has been performed, please fill in the field with "N/A."

Work Performed in the Previous Three Years

Non-GHG Services	Dates of Service (mo/year-mo/year)	Potential COI?	Verification Body		Member		Description of Activities
			Business Unit	Location	Business Unit	Location	
		<input type="checkbox"/>					
		<input type="checkbox"/>					
		<input type="checkbox"/>					
		<input type="checkbox"/>					
		<input type="checkbox"/>					
		<input type="checkbox"/>					

Please provide any other relevant information that explains or describes any of these prior and existing relationships with the Member/Entity.

4. What is, or was, the nature of the relationship between any part of your verification body/entity and the Member/entity contracting for the work? Please describe.

- a. Does your verification body/entity have any formal affiliation or management with the Member/entity?
 YES NO If yes, please describe.

- b. Is your verification body/entity currently engaged in any joint ventures or partnerships with the Member/entity?

YES NO If yes, please describe.

--

- c. List each staff member that will contribute to the proposed verification activities, identifying any previous work these individuals have conducted for the Member/Entity in the past three years including while in the employment of other organizations.

Name:	
Telephone number:	
E-mail address:	
Business location (city, state):	
Previous work for Registry Member (description of services):	
Date of Services (month/year to month/year):	
Employer at time of service:	
Direct Financial Investment of >\$5,000?	<input type="checkbox"/> YES <input type="checkbox"/> NO
Role(s) for Proposed Verification:	<input type="checkbox"/> Lead Verifier <input type="checkbox"/> Verifier <input type="checkbox"/> Independent Peer Reviewer <input type="checkbox"/> Technical Expert <input type="checkbox"/> Subcontractor

Please copy and paste additional tables here as needed to identify all staff who will be assigned to the verification activities:

Name:	
Telephone number:	
E-mail address:	
Business location (city, state):	
Previous work for Registry Member (description of services):	
Date of Services (month/year to month/year):	
Employer at time of service:	
Direct Financial Investment of >\$5,000?	<input type="checkbox"/> YES <input type="checkbox"/> NO
Role(s) for Proposed Verification:	<input type="checkbox"/> Lead Verifier <input type="checkbox"/> Verifier <input type="checkbox"/> Independent Peer Reviewer <input type="checkbox"/> Technical Expert <input type="checkbox"/> Subcontractor

5. Please complete the table below to answer questions about the financial magnitude of service agreements. Add space as needed to respond fully. All confidential information should be so designated, and will be kept confidential by The Registry

Financial Assessment of Related Services

Member Reporting Boundary:		<input type="checkbox"/> Transitional Boundary: (specify): _____ <input type="checkbox"/> North America <input type="checkbox"/> Worldwide	
Proposed Registry Verification Services:		Current emissions year to be verified (e.g. 2013): _____ Level of assurance: <input type="checkbox"/> Reasonable <input type="checkbox"/> Limited If reasonable, type of verification: <input type="checkbox"/> Full <input type="checkbox"/> Streamlined Duration of contract: <input type="checkbox"/> 1 Calendar Year <input type="checkbox"/> Multiple Calendar Years; emissions years covered (e.g. 2012, 2013): _____	
Expected Value of Proposed Registry Verification Services:		\$ _____ for current emissions years; \$ _____ for all emissions years listed above	
Prior Registry Verification Services for Member in Reporting Boundary (calendar year)	Value of Prior Verification Services for Member	% of Your Total Revenue	Emissions Year(s) Verified
	\$		
	\$		
	\$		
Other Prior Services for Member/Entity in Reporting Boundary (calendar year)	Value of Other Services for Member	% of Your Revenue	Types of Services (excluding Registry Verification)
	\$		
	\$		
	\$		
	\$		
Value of Anticipated Future Services for the Member/Entity within the Reporting Boundary (excluding potential Registry Verification Services)			Types of Services (excluding Registry Verification)
Current Year:	\$		
	\$		

Please provide any relevant information about any of these services. If you have provided any GHG Consulting Services, please describe those in detail, including dollar value of services and percent of your total revenue.

6. Are there any extenuating circumstances that might cause your proposed GHG Verification Services to be considered sensitive or highly visible? Would you or the Member be uncomfortable if the nature of your relationship were reported in the press, or received public attention?

YES NO If yes, please describe

Please submit this completed form as a pdf file to COI@theclimateregistry.org.

If the verification body make changes to the verification team after this Form COI-A has been submitted, it must notify The Registry at COI@theclimateregistry.org by submitting either an updated Form COA-A or a copy of Table 4.c of this form that reflects the additions to the team.

The verification body must notify The Registry prior to reassigning any qualified verification team member from serving as a verifier to serving as a peer reviewer; should this occur, the verification body must also demonstrate that the peer reviewer has remained independent for the verification concerned and attest that the peer reviewer has not been involved in any of the verification activities to date.

Appendix A2: Form COI-B: Mitigation Plan



The Climate Registry

Please submit this completed form as a pdf file to COI@theclimateregistry.org.

Date:	_____
Verification Body Name:	_____
Verification Body Contact Name:	_____
Title:	_____
Telephone:	_____
E-mail:	_____
Mailing address:	_____
Member Name:	_____
Member Contact Name:	_____
Title:	_____
Telephone:	_____
E-mail:	_____
Mailing address:	_____

Verification bodies must provide a mitigation plan for every situation in which there may be a high risk for a conflict of interest. Mitigation Plans must include at least the following:

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

Please describe your mitigation plan here or attach it as a separate document:

Appendix A3: Notification of Planned Facility Visits Form



The Climate Registry

All verification bodies must submit this form to The Registry at least 10 business days prior to beginning facility visits. Please e-mail the completed form as a pdf file to notification@theclimateregistry.org. This form is not required if no facility visits are planned. Periodically, The Registry may choose to observe a facility visit. In this instance, The Registry will inform the verification body of its intent.

Date: _____

VERIFICATION BODY INFORMATION:

Verification Body Name:
Lead Verifier Name:
Telephone:
E-mail:

MEMBER INFORMATION:

Member Name:
Member Contact Name:
Telephone:
E-mail:

Emission year:

Reporting for: Transitional boundary (specify):
 North America
 Worldwide

Reporting Protocol Used: General Reporting Protocol
 Additional protocols (specify):

SCOPE OF VERIFICATION ACTIVITIES:

Level of assurance: Reasonable Limited
If reasonable level of assurance, specify type: Full Streamlined

For North America:

Within the Member's entity inventory, total number of:

Commercial Facilities:
Non-Commercial Facilities:

Number of North American facilities selected for visits during verification activities:

Percent of Scope 1 Emissions:
Covered by facility visits: _____ %
Covered by records sampled (not including emissions covered by facility visits): _____ %

Percent of Scope 2 Emissions:
Covered by facility visits: _____ %
Covered by records sampled (not including emissions covered by facility visits): _____ %

For non-North America:

Check this box if not applicable:

Within the Member's entity inventory, total number of:

Commercial Facilities:
Non-Commercial Facilities:

Number of non-North American facilities selected for visits during verification activities:

Percent of Scope 1 Emissions:
Covered by facility visits: _____ %
Covered by records sampled (not including emissions covered by facility visits): _____ %

Percent of Scope 2 Emissions:
Covered by facility visits: _____ %
Covered by records sampled (not including emissions covered by facility visits): _____ %

Please briefly explain how the number of facilities selected for visits conforms with GVP v. 2.0 Section 4.3.4:

Number of facilities visited in previous verification work, if any (please specify the calendar year in which the facilities were visited):

☆Please provide a list of facilities you plan to visit, including the facility address, facility contact, and anticipated date of visits. Please use the space provided below or attach a document.

Please indicate the date you anticipate completing all verification activities:

☆Please provide your verification plan for the proposed verification services. Please use the space provided below or attach a document. The verification plan must address case-specific risk assessment findings.

MEMBER ACKNOWLEDGEMENT OF POTENTIAL ACCREDITATION BODY AND REGISTRY VISITS

I, the official named below, am authorized to represent the Member to the provision listed below.

<i>Member (Organization to be verified)</i>	<i>Verification Body Name (Printed)</i>
<p><i>By (Authorized Signature of Member Representative)</i></p> <p><input type="checkbox"/> For digital signature: By checking the “Digital Signature Acknowledgement” box, I agree that this acknowledgement shall be deemed to be “in writing” and to have been “signed” for all purposes and that any electronic record will be deemed to be in “writing.” I will not contest the legally binding nature, validity, or enforceability of this acknowledgement and any corresponding documents based on the fact that they were entered and executed electronically, and expressly waive any and all rights I may have to assert any such claim.</p>	
<i>Printed Name and Title of Person Signing</i>	
<i>Date</i>	

I [Name] of [Member] have been informed by [Verification Body] that a representative from The Registry, the accreditation body, or their contractors may accompany the verification body to our facilities during their verification work, and may request to see information necessary to ascertain the reasonableness of our reported GHG emissions results and our compliance with The Registry’s reporting requirements.

I understand that any information obtained by The Registry, the accreditation body, or their contractors will be used solely for purposes of evaluating the verification process, and will otherwise be kept confidential.

Appendix A4: Verification Statement Form



The Climate Registry

This verification statement documents that [Verification Body] has conducted verification activities in conformance with ISO 14064-3 and The Registry's General Verification Protocol for the emissions report described below.

Member Name: _____

Emissions Year: [January 1, Year] through [December 31, Year]

Reporting Classification: Complete Transitional Historical

Reporting Boundary: North American Worldwide (including North America) Worldwide (non-North America); Transitional or Historical, specify boundary: _____

Consolidation Methodology:

- Control Only: (Financial or Operational)
- Equity Share and Control (Financial or Operational)

Verification Opinion:

- Conformance
- Unable to verify conformance; summarize reason (e.g., "due to data errors" or "due to insufficient supporting evidence"): _____

[Verification Body] has conducted a [full / streamlined / batch (leave blank for limited if not batch)] verification of [Member Name's] emission report to a [reasonable / limited] level of assurance. Based on [Verification Body's] verification activities and findings, [(for limited assurance only; omit for negative finding) nothing has come to our attention that] [Member Name's] emissions report is [(for limited assurance or negative finding only): not] prepared in all material respects in accordance with the reporting criteria identified below.

GHG Reporting Criteria against which Verification was Conducted:

- The Climate Registry's *General Reporting Protocol Version [2.0]*, dated [March 2013]
- The Climate Registry's GRP Updates and Clarifications document dated [Month Day, Year]
- Others (specify): _____

GHG Verification Protocols used to Conduct the Verification:

- The Climate Registry's *General Verification Protocol Version [2.1]*, dated [Month Year]
- The Climate Registry's GVP Updates and Clarifications document dated [Month Day, Year]
- Others (specify): _____

Total Entity-Wide Emissions Verified (Control Criteria):

Total scope 1 emissions: _____ tonnes CO₂-e, consisting of tonnes of each GHG as follows:

_____ CO₂ _____ CH₄ _____ N₂O _____ HFCs (CO₂-e) _____ PFCs (CO₂-e) _____ SF₆

Total scope 2 emissions: _____ tonnes CO₂-e, consisting of tonnes of each GHG as follows:

_____ CO₂ _____ CH₄ _____ N₂O

Biogenic CO₂ (stationary & mobile combustion only): _____ tonnes CO₂

Total Entity-Wide Emissions Verified (Equity Share Criteria, if applicable):

Total scope 1 emissions: _____ tonnes CO₂-e, consisting of tonnes of each GHG as follows:

_____ CO₂ _____ CH₄ _____ N₂O _____ HFCs (CO₂-e) _____ PFCs (CO₂-e) _____ SF₆

Total scope 2 emissions: _____ tonnes CO₂-e, consisting of tonnes of each GHG as follows:

_____ CO₂ _____ CH₄ _____ N₂O

Biogenic CO₂ (stationary & mobile combustion only): _____ tonnes CO₂

Comment: _____

Attestation:

[Insert Name], Lead Verifier

Date

Digital Signature Acknowledgement*

[Insert Name], Independent Peer Reviewer

Date

Digital Signature Acknowledgement*

Authorization:

I [Name of Member Representative] accept the findings in this verification statement and authorize the submission of this verification statement to The Climate Registry on behalf of [Name of Member].

[Member Representative Signature]

Date

Digital Signature Acknowledgement*

*For digital signature: By checking the "Digital Signature Acknowledgement" box, I agree that this verification statement shall be deemed to be "in writing" and to have been "signed" for all purposes and that any electronic record will be deemed to be in "writing." I will not contest the legally binding nature, validity, or enforceability of this verification statement and any corresponding documents based on the fact that they were entered and executed electronically, and expressly waive any and all rights I may have to assert any such claim.



The Climate Registry

Verification Statement Dispute Resolution Addendum

This verification statement has been disputed and submitted to an accreditation body to conduct a dispute resolution process. Upon review, the accreditation body:

- Upholds the original verification statement
- Overturns the original verification statement and issues the following revised verification statement:
 - Conformance
 - Unable to verify conformance; summarize reason (e.g., “due to data errors” or “due to insufficient supporting evidence): _____
 - Comment: _____

Accreditation Body Authorization:

[Manager of GHG Accreditation Program]

Date

Digital Signature Acknowledgement*

The Climate Registry Authorization:

[Director of Verification Services]

Date

Digital Signature Acknowledgement*

* For digital signature: By checking the “Digital Signature Acknowledgement” box, I agree that this statement shall be deemed to be “in writing” and to have been “signed” for all purposes and that any electronic record will be deemed to be in “writing.” I will not contest the legally binding nature, validity, or enforceability of this statement and any corresponding documents based on the fact that they were entered and executed electronically, and expressly waive any and all rights I may have to assert any such claim.

APPENDIX B: OPTIONAL FORMS AND TEMPLATES

This appendix provides a set of forms and templates that verification bodies *may* use to document and/or guide their verification efforts. Specifically, the appendix provides a Verification Activities Checklist, which can be used to ensure that all of The Registry’s verification requirements have been met, and a Standard Verification Report Template, which can be used by verification bodies as a template or guideline to ensure the preparation of comprehensive verification reports. Use of these forms/templates is purely optional; verification bodies may instead choose to use their own internally-developed documentation forms and templates as long as they fully meet the requirements set forth in the GVP.

Appendix B1: Guidance for Completing Verification Activities (*Optional*)

Verification Activities Check List		
Preparing for Verification		Date Achieved
<ol style="list-style-type: none"> 1. Bid on a verification contract 2. Submit case-specific COI assessment form to The Registry 3. Negotiate contract with Member 4. Notify The Registry of planned verification activities 5. Conduct kick-off meeting with Member 6. Develop verification plan 		
Verification Activities		
Assessing Conformance with The Registry's Requirements		Yes No
<ol style="list-style-type: none"> 7. Is the Member a legal entity under U.S., Canadian or Mexican law? 8. Is the Member a subsidiary of any other company, and if so is the parent company also reporting to The Registry? 9. If the Member is submitting a transitional inventory report, is the Member eligible to do so? 10. Are all emissions calculated using simplified estimation methodologies (SEMs) included in the inventory and documented as such? 11. If the answer to Question 10 is yes, are the SEMs used appropriate, and are the results reasonable? 12. If the answer to Question 10 is yes, do the emissions estimated using SEMs constitute 5% or less of the sum of an entity's scope 1, scope 2, and biogenic emissions from stationary and mobile combustion? 13. Have any mergers, acquisitions, or divestitures occurred during the current emissions year? 14. Have any activities been outsourced or insourced in the current year? 15. Has the Member provided all required emissions data? 16. Have you performed data triangulations where reasonable? 17. Are any discrepancies between your emissions estimates and the Member's material? If so, has the Member addressed those discrepancies and corrected the data in CRIS? 		
Verification Activities		
Assessing Completeness of Emission Report		Date Achieved
<ol style="list-style-type: none"> 18. Identify and list all facilities in the entity 19. Identify and list all emission sources (of scope 1 mobile, scope 1 stationary, scope 1 process, scope 1 fugitive, scope 2, direct biogenic CO₂ mobile, and direct biogenic CO₂ stationary emissions) 20. Identify and list all fuel types 21. Rank all sources by magnitude on a CO₂-e basis 22. Assess any changes in geographic and organizational boundaries 		

	Yes	No
23. [For Members using the equity share approach] Does the emission report include all processes and facilities for which the Member holds an equity share? If not, why?		
24. [For Members using the financial control approach] Does the emission report include all processes and facilities under the financial control of the Member? If not, why?		
25. [For Members using the operational control approach] Does the emission report include all processes and facilities under the operational control of the Member? If not, why?		
26. Does the report include all facilities and sources of GHG emissions within the geographic boundaries of the Member?		
27. Does the report include all applicable types of GHGs from each facility and emission source within the geographic and organizational boundaries of the Member?		
28. [For Members reporting transitional inventories] Has the Member publicly defined, disclosed, and justified their transitional inventory boundary in CRIS?		
29. If the Member excluded any miniscule sources, did they properly disclose the exclusions?		
30. Has the reporting entity included all of its scope 1, scope 2, and biogenic emissions for each facility?		
31. Have the scope 1 emissions been broken down by source type (stationary combustion, mobile combustion, fugitive and process)?		
32. Have biogenic CO ₂ emissions been reported separately from the scope 1 emissions?		
33. What type of records were used as the basis for calculating emissions, and were these records appropriate?		
Performing Risk Assessment Based on Review of Information Systems and Controls	Date Achieved	
34. Evaluate procedures and systems for preparing emission report		
35. Evaluate personnel and training - Does the Member's management system define what is "qualified" and what constitutes "appropriate training"?		
36. Assess if the uncertainty associated with methodologies and management systems is more than appropriate		
	Yes	No
37. Are the calculation methodologies/procedures used to compute GHG emissions at the source level among those described in the General Reporting Protocol? If not, why?		
38. If a non-GRP methodology has been used because the General Reporting Protocol does not provide any methodology for the particular source(s) in question, is the methodology that was used an industry standard for this source type(s)?		
39. If alternative emission factors were used, did the Member establish a basis for concluding that they were more accurate than the default factors?		
40. If the Member used a utility-developed (non-EPS/PUP) delivery metric for purchased electricity, did the Member upload the necessary supporting documentation?		
41. Are appropriate methods used to manage and implement entity-wide GHG emissions reporting programs? If the Member has more than one facility, is		

- the emissions data correctly monitored?
42. Is a qualified individual responsible for managing and reporting GHG emissions?
 43. Is appropriate training provided to personnel assigned to GHG emissions reporting duties? If the Member relies on external staff to perform required activities, are the contractors' qualified to undertake such work?
 44. Are appropriate documents created to support and/or substantiate activities related to GHG emissions reporting activities, and is such documentation retained appropriately? For example, is such documentation maintained through reporting plans or procedures, utility bills, etc.?
 45. Are appropriate mechanisms used to measure and review the effectiveness of GHG emissions reporting programs? For example, are policies, procedures, and practices evaluated and updated at appropriate intervals?
 46. Does the system account for the diversity of the sources that comprise each emission category? For example, are there multiple types of vehicles and other transportation devices that require different emission estimation methodologies?
 47. Do you know the diversity of GHGs emitted from each emission source category?
 48. When available, has the Member used the emission factors, GWPs and standardized estimation methods in The Registry's General Reporting Protocol to calculate emissions in each source category?
 - a. Are the methodologies, data sources and emission factors documented and explained appropriately?
 49. Does the Member's GHG management system appropriately track emissions in all of the emission source categories?

Developing a Sample Plan	Date Achieved
---------------------------------	----------------------

50. Develop sampling procedures for sources based on risk of material misstatement
51. Was the overall verification plan and the types of facilities and their materiality considered when developing the facility visit list?
52. Were direct and indirect emissions considered separately?

	Yes	No
--	------------	-----------

53. Based on GVP Section 4.3.4, have you visited an appropriate number of facilities?

Verifying Emission Estimates Against Verification Criteria	Date Achieved
---	----------------------

54. Confirm total fuel consumption
55. Confirm vehicle miles traveled
56. Confirm that appropriate emission factors are used. If not default factors, ensure the derivation and explanation of increased accuracy is properly documented
57. Calculate scope 1 (mobile, stationary, process & fugitive), scope 2, and direct biogenic CO₂ (mobile and stationary) based on sampling procedures
58. Compare estimates from sample calculations to reported emissions
59. Determine if there are any discrepancies between sample calculation and reported emissions
60. Determine if any reporting errors have caused material misstatements

	Yes	No
--	------------	-----------

61. Are the reported electricity, steam, and district heating and cooling use consistent

with utility bills?

62. Is the reported total stationary fuel use by fuel type consistent with the fuel use records?
63. Is the reported total consumption of fuels in motor vehicles consistent with available documentation and by vehicle type? If the entity calculates transportation emissions based on vehicle mileage, is the reported vehicle mileage consistent with vehicle mileage records?
64. Is the reported process and fugitive emissions consistent with activity data or maintenance records?
65. Are the emission factors used by the Member appropriate?
 - a. If Registry default factors are not used, do the alternative emission factors provide increased accuracy?
 - b. Is the derivation and explanation of increased accuracy properly documented and reasonable?
66. Does a sample of the Member's calculations agree with your re-calculated scope 1 (mobile, stationary, process & fugitive), scope 2, and direct biogenic CO₂ (mobile and stationary) emissions estimates? Have you documented your process for determining the appropriate sampling plan?
67. Are all required GHG emissions included?
68. Are discrepancies between your emissions estimates and the Member's immaterial?

Completing the Verification Process

Date
Achieved

- 69. Prepare a detailed verification report & submit to Member**
- 70. Prepare a verification statement & submit to Member**
- 71. Conduct exit meeting with Member to discuss & finalize verification report & statement**
- 72. Communicate verification findings to The Registry through CRIS**
- 73. Retain relevant verification documents & records**

Appendix B2: Standard Verification Report Template (Optional)



The Climate Registry

Section 1: Overview

Date of Verification Report: _____

Member Name: _____

Emissions Year Report Verified: _____

Reporting Classification: Transitional Complete Historical

Member's Organizational Boundaries:

Control Only: (Financial **or** Operational)

Equity Share and Control (Financial **or** Operational)

Geographic Scope of Emissions Report:

Transitional, specify boundary: _____

North American

Worldwide (including North America) Worldwide (non-North America)

Verification Body Name: _____

Verification Body Contact: _____

Title: _____

Telephone: _____

E-mail: _____

Subcontractors: _____

Verification Team Members:

Lead Verifier: _____

Other Verification Team Members: _____

Independent Peer Reviewer: _____

Level of Assurance: Reasonable Limited

If reasonable assurance, type of verification: Streamlined Full

GHG Reporting Protocols against which Verification was Conducted:

The Climate Registry's *General Reporting Protocol Version* _____, dated _____

The Climate Registry's GRP Updates and Clarifications document dated _____

Others (specify): _____

GHG Verification Protocols used to Conduct the Verification:

The Climate Registry's *General Verification Protocol Version* _____, dated _____

The Climate Registry's GVP Updates and Clarifications document dated _____

Others (specify): _____

Total Entity-Wide Emissions Verified:

Total Scope 1 Emissions: _____ CO₂-e

_____ CO₂ _____ CH₄ _____ N₂O _____ HFCs _____ PFCs _____ SF₆

Total Scope 2 Emissions: _____ CO₂-e

_____ CO₂ _____ CH₄ _____ N₂O

Biogenic CO₂: _____ tonnes CO₂

Summary of Verification Findings:

Conformance

Unable to verify conformance; summarize reason (e.g., "due to data errors" or "due to insufficient supporting evidence"): _____ Comment: _____

Section 2: Verification Plan

Describe the verification plan, including the risk assessment methodologies employed and the sampling plan (either in the space below or attached separately):

Section 3: Identification of Emission Sources

List all facilities/emission sources/GHGs identified through verification activities within the geographic and organizational boundaries of the emissions report.

Facility Name/Identifier	Facility Location	Emission Source	GHG	Included in Emission Report?
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No

Section 4: Verification Activities Log and Evaluation of Compliance

[Insert completed Verification Activities Checklist from GVP Appendix B-1]
 [Attach sector-specific checklists from GVP Addenda as appropriate]

Section 7: Findings

List all misstatements of direct scope 1 and biogenic emissions discovered during the verification and their magnitude at the entity level

Discrepancy	Magnitude as a Percent of Reported Direct Entity-Level Emissions	Current Disposition of the Discrepancy
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected

Discrepancy	Magnitude as a Percent of Reported Direct Entity-Level Emissions	Current Disposition of the Discrepancy
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected

Net sum of all discrepancies of direct emissions at the entity level: _____%

List all scope 2 misstatements discovered during the verification and their magnitude at the entity level

Discrepancy	Magnitude as a Percent of Reported Scope 2 Entity-Level Emissions	Current Disposition of the Discrepancy
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected
		<input type="checkbox"/> Corrected <input type="checkbox"/> Not Corrected

Net sum of all scope 2 discrepancies at the entity level: _____%

APPENDIX C: SECTOR-SPECIFIC GVP ADDENDA

Appendix C1: Local Government Operations Addendum to the General Verification Protocol Version 1.1 (April 2014)

1 Part 1: Introduction

2 1.1 Background and Purpose

3 The Climate Registry's (The Registry's) General
4 Verification Protocol (GVP) presents the
5 verification requirements for The Registry's
6 voluntary greenhouse gas (GHG) emissions
7 reporting program for all Members. The GVP
8 was developed to provide Registry-recognized
9 verification bodies with clear instructions for
10 executing a standardized approach to the
11 independent verification of GHG emissions
12 reported to The Registry.

13
14 For local government Members and verification
15 bodies serving local government Members, the
16 GVP remains the primary verification protocol.
17 While the program-neutral Local Government
18 Operations (LGO) Protocol, supplemented by
19 Appendix D, The Climate Registry's Reporting
20 Requirements specify some additional reporting
21 requirements for local government Members
22 not contained within the General Reporting
23 Protocol, these additional requirements do not
24 necessitate changes in the verification process,
25 as the emissions sources are generally not
26 unique to local governments.

27
28 This LGO Addendum to the General Verification
29 Protocol is intended to serve as an aid to
30 verification bodies conducting verification
31 activities for local governments and to promote
32 standard practices. To that end, the
33 requirements and guidance in this document
34 are primarily focused on the additional LGO-
35 specific reporting elements that are included in
36 the LGO Protocol.

37
38 The information contained in this document is
39 structured in a way that mirrors the organization
40 of the body of the GVP. Accordingly, this
41 addendum is presented under five headings

42 that correspond to the core parts of the GVP.
43 The section numbers and topics addressed in
44 this document also parallel those of the GVP.
45 However, subsections with no additional or
46 specific requirements for the LGO sector are
47 not included in this addendum.

48 49 1.2 Overview of the LGO Verification 50 Process

51
52 Part 1 of the GVP provides an overview of the
53 verification process as it pertains to The
54 Registry's voluntary reporting program. The
55 accreditation requirements described in Part 1
56 of the GVP are extended here to the LGO.²⁸

57
58 To undertake verification for a Registry Member
59 reporting using the LGO Protocol, the
60 verification body must be accredited to the
61 organizational-level general scope by a
62 Registry partner accreditation body²⁹. If the
63 local government has one or more EPS
64 facilities, the verification body must additionally
65 demonstrate competency within the EPS and
66 attain accreditation to the industry sector-
67 specific scope³⁰. EPS and local government
68 Members are required to report in accordance
69 with the LGO and EPS Protocols starting with
70 their emissions year 2010 data. Likewise, EPS
71 Members must retain a verification body that is
72 accredited to the relevant (power generation
73 and/or electric power transactions) sector(s) to
74 verify their emissions year 2010 reports and
75 subsequent emissions year reports. If an EPS
76 Member chooses to report and verify in

²⁸ Accreditation is generally covered under Section 1.2.2 of the GVP.

²⁹ Currently the only accreditation body with which The Registry has an agreement to provide accreditation services is the American National Standards Institute (ANSI).

³⁰ ANSI's policy and assessment requirements for accrediting firms to industry sector scopes can be viewed through [ANSI's website](#).

1 accordance with the EPS Protocol in advance
2 of their emissions year 2010 data, then the EPS
3 Member must retain a verification body
4 accredited to the relevant (power generation
5 and/or electric power transactions) sector(s).
6

7 While The Registry does not explicitly require a
8 verification body be accredited to other
9 inventory-level scopes (for example, waste) in
10 order to provide services for local government
11 Members, the verification body must assemble
12 a verification team with the necessary
13 competence and an appropriate level of
14 knowledge and understanding of source types
15 in the local government Member's inventory.
16

17 **Part 2 – Summary of Verification** 18 **Process and Requirements**

19 **2.4 Verification Standard**

20 The verification standards applicable to the
21 verification of local government Member's GHG
22 emissions inventory are as follows:
23
24

- 25 • ISO 14063-3 – *Specification with*
26 *Guidance for the Validation and*
27 *Verification of Greenhouse Gas*
28 *Assertions* (relevant to all Members)
- 29 • The Registry's General Verification
30 Protocol (relevant to all Members)
- 31 • LGO Protocol (program-neutral)
- 32 • LGO Appendix D, The Climate
33 Registry's Reporting Requirements
- 34 • The Registry's LGO Addendum to the
35 GVP (this document, relevant to local
36 government Members)
- 37 • The Registry's Electric Power Sector
38 Protocol (relevant to local government
39 Members with EPS facilities)
- 40 • The Registry's Electric Power Sector
41 GVP Addendum (relevant to local
42 government Members with EPS
43 facilities)
- 44

45
46 The program-neutral LGO Protocol was
47 designed to support several GHG reporting
48 programs and the needs of many stakeholders.
49 As a result, the program-neutral LGO Protocol
50 contains some calculation methodologies for

51 quantifying GHG emissions that are not
52 accepted by The Registry for its voluntary
53 reporting program.
54

55 The Registry will accept GHG emission data
56 calculated using all calculation methodologies
57 contained within The Registry's GRP, Appendix
58 D to the LGO Protocol and The Registry's other
59 relevant industry-specific protocols (unless
60 otherwise stated within the industry-specific
61 protocol).
62

63 **2.7 Scope of Verification**

64
65 The LGO Protocol Section 4.2 provides a list of
66 local government sectors (buildings, streetlights
67 and traffic signals, water delivery facilities, port
68 facilities, airport facilities, vehicle fleet, transit
69 fleet, power generation facilities, solid waste
70 facilities, wastewater facilities, other process
71 and fugitive emissions). An important initial step
72 in the verification process is to confirm that the
73 local government Member's inventory is
74 complete and includes all relevant sources of
75 emissions that may occur as a result of the
76 Member's operations.

77 In order to highlight the factors that may have
78 an impact on a local government's GHG
79 emissions, The Registry requires the reporting
80 of the local government profile information listed
81 below:

- 82 • Size (square miles)
- 83 • Population (based on best available
84 data at the time of reporting)
- 85 • Annual Budget (can be based on
86 either fiscal year or calendar year)
- 87 • Services Provided (checklist
88 included in Appendix D)
- 89 • Employees (FTE)
- 90 • Climate Zone
- 91 • Heating and Cooling Degree Days
92

93 While The Registry requires reporting of these
94 data, these data are not subject to verification.
95

96 Local government Members of The Registry are
97 encouraged to report any applicable indicators
98 found in Section 13.1.2.4 of the program-neutral
99 LGO Protocol. Any indicators that are optionally
100 reported are not subject to verification

Table 2.1 summarizes some of the LGO-specific reporting and verification requirements.

Table 2.1 Summary of Verification Requirements for LGO Inventory Reports

LGO Reporting Element	Required or Optional Reporting	Verification Required?
Local Government Profile Information listed in Appendix D	Required	No
Biogenic CO ₂ from biomass combustion	Required	Yes
Indicators listed in LGO Protocol Section 13.1.2.4 (e.g. gallons water treated, passengers boarded at airport, etc.)	Optional	No
Other Information Items (excluding biomass) listed in LGO Protocol Section 13.1.2.5 (e.g. carbon offsets retired and sold and renewable energy certificates)	Optional	Not if the Member discloses RECs and offsets as additional information; however, RECs and offsets are subject to verification if the Member has incorporated / applied them to their inventory
Other Scope 3 Emissions	Optional	No

1 **Part 3 – Preparing for Verification**

2
 3 For Part 3, the GVP requirements are relevant
 4 and applicable to verifications for local
 5 government Members. This guidance makes
 6 one addition to Section 3.3 (Assembling the
 7 Verification team). If the local government has
 8 an EPS facility and is required to report in
 9 accordance with The Registry’s EPS Protocol,
 10 the verification body must be accredited to the
 11 relevant (power generation and/or electric
 12 power transactions) sector(s) and assemble a
 13 team that is competent to conduct verifications
 14 in the EPS.

15
 16 Depending on the local government’s
 17 operations, the Member may be required to
 18 report emissions from more complex source
 19 types such as landfills and wastewater
 20 treatment plants. As explained in Section 1.2 of
 21 this document, while The Registry does not
 22 explicitly require a verification body to be
 23 accredited to other inventory-level scopes (for

24 example, waste) in order to provide services for
 25 local government Members, the verification
 26 body must assemble a verification team with
 27 the necessary competence and an appropriate
 28 level of knowledge and understanding of source
 29 types in the Member’s inventory.

30
 31 **Part 4 – Conducting Verification**
 32 **Activities**

33
 34 **Conformance and Completeness**

35
 36 Attachment 1 includes a checklist of questions
 37 for the verification body to consider in
 38 assessing the Member’s conformance with The
 39 Registry’s requirements and completeness of
 40 the inventory. This checklist is provided as a
 41 guide for the verifier, but it is not a requirement
 42 to complete this checklist as part of the
 43 verification documentation. The LGO
 44 verification checklist is a supplemental checklist
 45 to be used with the GVP checklists, rather than

1 a stand-alone checklist for local government
2 Members.
3
4 **Selecting a Sample / Developing a Sampling**
5 **Plan**
6
7 Based on the risk assessment, the verifier
8 should identify sources with the greatest
9 potential for material misstatement (taking into
10 account the volume of emissions, uncertainty in
11 the measurement method, the degree of
12 deficiencies in the management systems and
13 also a random sampling). This approach should
14 be used to identify a representative sample of
15 emissions to recalculate.

16 **Part 5 – Completing the Verification** 17 **Process**

18
19 There are no specific LGO requirements for
20 Part 5. The verification report and the
21 verification statement will be prepared by the
22 verification body in the same manner as for the
23 general verification process.

24 Local government Members are likely to have a
25 greater diversity in types of facilities,
26 operations, and emissions sources than other
27 Registry Members. For example, a local
28 government Member may have emissions from
29 wastewater treatment, landfills, airport
30 operations, electricity generation, etc. In
31 developing a sampling plan, the verification
32 body must not only consider the minimum
33 number of facility visits set forth in GVP Part 4,
34 but also must ensure that the verification plan
35 and selected facility visits adequately account
36 for the diversity of sources in the local
37 government Member's inventory.

38 While The Registry's GVP limits which type of
39 facilities can be aggregated for reporting
40 purposes, LGO Appendix D Section 4.6
41 indicates that, "Facilities of the same type can
42 often optionally be aggregated." It is important
43 to note that for purposes of conducting a risk
44 assessment and for determining the type and
45 number of facilities to visit, the Verification
46 Body must understand and consider the total
47 (disaggregated) facilities in the Member's
48 inventory.

1
2 **Attachment 1: Questions to Consider in Verifying LGO**
3 **Inventory Emissions Estimates**
4

5 This list of questions is intended to address
6 considerations specific to local government
7 verifications and is additional to the general
8 checklist included in GVP Appendix B.1. If the
9 local government Member is also required
10 report in accordance with the EPS Protocol, the
11 verification body should also use the checklist
12 provided in the EPS Addendum to the GVP.

13 **Preparing for Verification**

14 1. Has the Member explained how common
15 sources were consolidated and reported as
16 single facilities in CRIS?

17 **Conformance**

18 2. Did the Member report their emissions into
19 The Registry's reporting software?

20
21 3. If the Member's inventory includes any EPS
22 facilities, did they report these facilities in
23 accordance with the EPS Protocol?

24
25 4. If the Member is part of a Joint Power
26 Authority or Special District, or Community
27 Choice Aggregation, did the Member treat
28 the organization as a distinct entity separate
29 from the local government and appropriately
30 exclude scope 1 and scope 2 emissions
31 from this distinct entity?

32
33 5. Did the Member report in accordance with
34 the LGO Protocol and Registry-specific
35 requirements set forth in Appendix D?

36
37 a. Excluding simplified estimation
38 methods, did the Member use only
39 calculation methodologies that are
40 acceptable to The Registry as noted in
41 Appendix D (i.e. did the Member avoid
42 use of calculation methodologies
43 included in the LGO Protocol that are
44 not accepted by The Registry)?

46 b. Are emissions from solid waste disposal
47 facilities reported in accordance with the
48 LGO Protocol and Appendix D?

49
50 c. Are emissions from wastewater
51 treatment facilities reported in
52 accordance with the LGO Protocol and
53 Appendix D?

54
55 i. If site-specific information and
56 calculation methodologies were
57 used to calculate emissions from
58 wastewater treatment facilities, are
59 the site-specific methods verifiable?

60
61 d. If the Member aggregated facilities, did
62 they only aggregate similar facilities?

63
64 **Completeness**

65
66 6. Did the Member report emissions from
67 combustion of biomass (indicated as
68 optional in the program-neutral LGO
69 Protocol, but required by Appendix D)?

70
71 7. Did the Member report the Local
72 Government Profile Information listed in
73 Appendix D?

74
75 8. Did the Member identify all emissions
76 sources (consider the local government
77 sectors of buildings, streetlights and
78 traffic signals, water delivery facilities,
79 port facilities, airport facilities, vehicle
80 fleet, transit fleet, power generation
81 facilities, solid waste facilities,
82 wastewater facilities, other process and
83 fugitive emissions)?

84
85
86
87
88
89
90
91

1 **Risk Assessment**

2

- 3 9. Does the Member's management
4 system address the need for personnel
5 who are knowledgeable of the diversity
6 of emissions source types, when
7 applicable?
8

9 **Sampling Plan**

10

- 11 10. Did you consider the number
12 (disaggregated), type, and diversity of
13 facilities in the Member's inventory in
14 developing the sampling plan and
15 determining the facility visits?
16

Appendix C2: Electric Power Sector Addendum to the General Verification Protocol Version 1.1 (April 2014)

Part 1 - Introduction

1.1 Background and Purpose

The Climate Registry's (The Registry's) General Verification Protocol (GVP) presents the verification requirements for The Registry's voluntary greenhouse gas (GHG) emissions reporting program for all Members. The GVP was developed to provide Registry-recognized verification bodies with clear instructions for executing a standardized approach to the independent verification of GHG emissions reported to The Registry.

For Electric Power Sector (EPS) Members and verification bodies serving this sector, the GVP remains the primary verification protocol. The EPS Protocol specifies additional reporting requirements for EPS Members not contained within the General Reporting Protocol. Therefore, verification bodies performing verifications of EPS emissions reports must verify conformance with the reporting requirements specified in both the GRP and the EPS Protocol.

This EPS Addendum to the General Verification Protocol is intended to serve as an aid to verification bodies conducting verification activities in the sector and to promote standard practices. To that end, the requirements and guidance in this document are primarily focused on the additional sector-specific reporting elements that are included in the EPS Protocol.

The information contained in this document is structured in a way that mirrors the organization of the body of the GVP. Accordingly, this addendum is presented under five headings that correspond to the core parts of the GVP. The section numbers and topics addressed in this document also parallel those of the GVP. However, subsections with no additional or

specific requirements for the EPS are not included in this addendum to the GVP.

1.2 Overview of the EPS Verification Process

Part 1 of the GVP provides an overview of the verification process as it pertains to The Registry's voluntary reporting program. Within Part 1 there is one sector-specific issue which extends to the EPS: the sector-specific accreditation needed to conduct EPS verifications.³¹

To undertake verification for a Registry Member within the EPS, the verification body must be accredited by a Registry partner accreditation body³². The verification body must then demonstrate competency within the EPS and attain accreditation to the industry sector-specific scope³³. EPS Members are required to report in accordance with the EPS Protocol starting with their emissions year 2010 data, and likewise, EPS Members must retain a verification body that is accredited to the relevant (power generation and/or electric power transactions) sector(s) to verify their emissions year 2010 reports and subsequent emissions year reports. If an EPS Member chooses to report and verify in accordance with the EPS Protocol in advance of their emissions year 2010 data, then the EPS Member must retain a verification body accredited to the relevant (power generation and/or electric power transactions) sector(s).

³¹ Accreditation is generally covered under Section 1.2.2 of the GVP.

³² Currently the only accreditation body with which The Registry has an agreement to provide accreditation services is the American National Standards Institute (ANSI).

³³ ANSI's policy and assessment requirements for accrediting firms to industry sector scopes can be viewed through [ANSI's website](#).

1 Part 2 – Summary of Verification 2 Process and Requirements

3 4 2.3 Level of Assurance

5
6 The Registry accepts both inventories verified
7 to a reasonable level of assurance, as well as
8 those verified to a limited level of assurance.
9 EPS Members must decide on the level of
10 assurance they wish to obtain based on their
11 objectives (e.g. to inform reduction efforts,
12 regulatory compliance, to seek recognition for
13 reductions achieved); however, The Registry
14 requires EPS Members seeking to publicly
15 report power delivery metrics for use by their
16 customers to have their inventories and metrics
17 verified to a reasonable level of assurance.

18 19 2.4 Verification Standard

20
21 The verification standards applicable to the
22 verification of EPS Member's GHG emissions
23 inventory are as follows:

- 24
25 • The Registry's General Reporting
26 Protocol (relevant to all Members)
- 27 • ISO 14063-3 – *Specification with*
28 *Guidance for the Validation and*
29 *Verification of Greenhouse Gas*
30 *Assertions* (relevant to all Members)
- 31 • The Registry's General Verification
32 Protocol (relevant to all Members)
- 33 • The Registry's Electric Power Sector
34 Protocol (relevant to EPS Members)
- 35 • The Registry's Electric Power Sector
36 GVP Addendum (this document,
37 relevant to EPS Members)

38
39 Verification bodies must confirm that EPS
40 emissions sources are quantified using EPS
41 Protocol-approved calculation methodologies
42 (or simplified estimation methodologies, if the
43 sources represent less than five percent of the
44 CO₂-e emissions). Unless otherwise noted,
45 calculation methodologies included in the GRP
46 or EPS Protocols are *not* simplified methods,
47 and hence emissions calculated using these
48 Registry-approved methods do not count
49 towards the five percent threshold for the use of
50 simplified methods.

51 2.5 Materiality

52
53 The verification body will need to pay particular
54 attention to the separation of direct (scope 1
55 and biogenic) and indirect (scope 2) emissions
56 and the GVP's requirement that a five percent
57 materiality threshold be applied to each
58 category separately. For power generators
59 there is an additional requirement to achieve
60 the materiality threshold at the facility level. This
61 requirement extends only to facilities with the
62 primary purpose of power generation, not to
63 other types of facilities within an EPS Member's
64 inventory. The EPS protocol also requires
65 Member companies composed of subsidiaries
66 that operate distinct electricity delivery systems
67 (i.e. retail electricity providers with distinct
68 customer bases) to report the emissions from
69 such subsidiaries separately. In these cases
70 verifiers must apply the materiality threshold to
71 each of the distinct subsidiaries and its
72 constituent emissions. These distinct
73 subsidiaries are also separately required to
74 comply with the five percent threshold for use of
75 simplified estimation methodologies.

76
77 Consistent with the requirements of the GVP,
78 direct biogenic emissions must be separately
79 reported, but grouped with scope 1 emissions
80 for the purposes of evaluating compliance with
81 the five percent materiality threshold.

82
83 Since other Members of The Registry will use
84 the metrics developed through the EPS sector-
85 specific reporting, The Registry has established
86 a materiality threshold of five percent for all
87 metrics developed using the methods provided
88 in the EPS Protocol. Each metric must meet
89 this five percent materiality threshold, so the
90 parameters that contribute to the metric will
91 have to be of sufficient accuracy to meet this
92 standard. This standard of verification must be
93 met (and verified) for the power generation
94 metrics (for each facility and entity-wide) and for
95 the power deliveries metrics (for each T&D
96 system and entity-wide).

97 98 2.7 Scope of Verification

99
100 In the EPS Protocol, Table 5.2 provides a
101 detailed list of potential emission sources

1 relevant to power generation and electric power
 2 transmission and distribution. An important
 3 initial step in the verification process is to
 4 confirm that the EPS Member's inventory is
 5 complete and includes all relevant sources of
 6 emissions that may occur as a result of the
 7 Member's operations.

8
 9 The scope 3 emissions which contribute to the
 10 indirect emissions from transmission and
 11 distribution system losses must be verified. It is
 12 not necessary to verify other scope 3
 13 emissions.

14
 15 In addition to these sources of emissions, other
 16 "non-emissions data" must be reported to
 17 provide the outputs which are used in
 18 developing the performance metrics. The
 19 metrics derived from the following non-
 20 emissions data must meet the five percent
 21 materiality threshold discussed above (Section
 22 2.5):

- 23 • Net power generated (MWh) for power
 24 generators
- 25 • Equity share for power generating
 26 facilities (and units if they are shared at
 27 the unit level)

28
 29
 30
 31
 32
 33
 34
 35
 36

- Net electricity purchased (MWh),
 purchased wholesale and retail
- Power flows through transmission and
 distribution systems
- Net electricity (MWh) associated with
 the purchase of renewable energy
 certificates (RECs) and/or other special
 power certificates

37 For RECs and special power certificates, the
 38 reporting requirements include several data
 39 items that are unique to the EPS protocol.
 40 These include the quantity purchased (MWh)
 41 and the generation/energy source used in
 42 producing the certificates. Eligibility
 43 requirements of special power certificates,
 44 articulated in the EPS Protocol are also subject
 45 to verification.

46
 47 The EPS Protocol also has certain reporting
 48 elements which are optional, but once reported,
 49 are subject to verification. Other optional
 50 elements do not need to be verified. Table 2.1
 51 (below) summarizes which sections of the EPS
 52 inventory report must be verified.

Table 2.1 Summary of Verification Requirements for EPS Inventory Reports

EPS Reporting Element	Required or Optional Reporting	Verification Required?
Direct Emissions (Chapters 12, 15 and 16)	Required	Yes
Scope 1 Hydropower Reservoir Fugitive Emissions (Chapter 15)	Optional	No
Scope 2 T&D Emissions (Chapter 14)	Required	Yes
Scope 3 Emissions Needed to Calculate T&D Scope 2 Emissions (Chapter 14)	Required	Yes
Generation Metrics (Chapter 18)	Required	Yes
Power Deliveries Metrics (Section 19.2)	Optional	Yes – if reported
Accounting for RECs (Section 19.3)	Optional	Yes – if reported
Other Scope 3 Emissions	Optional	No

1 **Part 3 – Preparing for Verification**

2
3 For Part 3, the GVP requirements are relevant
4 and applicable to verifications for EPS
5 Members. This addendum makes one addition
6 to Section 3.3 (Assembling the Verification
7 team). The verification body must be accredited
8 to the relevant (power generation and/or electric
9 power transactions) sector(s) and assemble a
10 team that is competent to conduct verifications
11 in the EPS.

13 **Part 4 – Conducting Verification 14 Activities**

16 **Developing a Verification Plan**

17
18 The requirement to develop a verification plan
19 and the elements that need to be in the plan are
20 explained in the GVP, Sections 4.2 and 4.3,
21 including the types of documents that should be
22 reviewed as part of the verification process. The
23 same requirements apply for EPS verifications.
24 However, there are several additional EPS-
25 specific documents and reports that a verifier
26 may review during the verification of an EPS
27 inventory report. Table 4.1 lists some of the
28 documents that a verifier may refer to during
29 the verification process for an EPS inventory.
30

31 These documents will help the verifier to assess
32 conformance with the GRP and EPS protocol,
33 assess the completeness of the inventory, and
34 assess the risks of material misstatement
35 associated with deficient internal controls. Also,
36 some of the documents listed in this table will
37 provide useful information to help the verifier

38 evaluate the EPS Member's emissions
39 inventory against the verification criteria.
40 As shown in Table 4.1, there are several
41 reports with information on assets, operations
42 and financial data that the EPS Member may
43 have submitted to local, state and federal
44 agencies, including FERC, SEC, USEPA,
45 Environment Canada, State and Provincial
46 Utilities Commissions, and local air agencies.
47 Where these reports are third-party audited
48 and/or verified by the receiving agencies, then
49 the verifier should factor that into the
50 assessment of risk. Verifiers should check that
51 the data have been transferred into the
52 inventory correctly, and also review the EPS
53 Member's operations to ensure that the meters,
54 sensors and monitoring systems that collect
55 data reported to these agencies are properly
56 maintained and functioning.

57 As a general rule, the verifier should ensure
58 that the data being used are applicable to the
59 intended purpose in the inventory. For example,
60 the verifier should confirm:

- 61 • Net generation data are used when
62 specified (not gross generation);
- 63 • Power flows (MWh) onto the system are
64 those power flows at the location where
65 power is received into the system (and
66 not adjusted to the point of
67 delivery/sale);
- 68 • Emissions are expressed in metric tons
69 (not short tons); and,
- 70 • Power flows (and emissions) are
71 adjusted for equity share by unit when
72 called for by the EPS Protocol.

EPS Addendum to the GVP Table 4.1 Additional Documents to be Reviewed During Verification Activities for EPS Inventory Reports³⁴

<i>Activity or Emissions Source</i>	<i>Documents</i>
<i>Emission Source Inventory</i>	<ul style="list-style-type: none"> • <i>List of facility permits</i> • <i>Facility plot plans showing direct emissions sources</i> • <i>Process flow diagrams</i> • <i>Air emission inventory reports</i> • <i>EPA Acid Rain Reports</i>
<i>Organizational, Operational and Geographic Boundaries</i>	<ul style="list-style-type: none"> • <i>SEC 10K Annual Shareholder Report</i> • <i>Federal Energy Regulatory Commission (FERC) Form 1: Annual Report of Major Electric Utility</i> • <i>Energy Information Administration: Forms 176, 191, 412, 423, 767, 857, 860, 861, 906, 920</i> • <i>State Utility Commission filings</i> • <i>Operating contracts and power purchase agreements</i>
<i>Methodologies and Management Systems</i>	<ul style="list-style-type: none"> • <i>Any protocols and emission factors used (in addition to the GRP and PUP)</i> • <i>Quality assurance/quality control plans for continuous emissions monitoring systems</i>
<i>Verifying Emissions - Direct Emissions from Stationary Combustion</i>	<ul style="list-style-type: none"> • <i>FERC Form 1</i> • <i>EIA forms</i> • <i>Fuel purchase records</i> • <i>EPA Electronic Data Reports for Acid Rain program</i> • <i>Data acquisition and handling system</i> • <i>Relative accuracy test audit (RATA) results</i> • <i>Basis Adjustment Factor (if any) applied to CEMS data</i> • <i>Fuel meter data</i> • <i>Fuel flow meter calibration and maintenance records</i> • <i>Electric generation data (MWh)</i> • <i>Steam generation data (Mlbs)</i>
<i>Verifying Emissions - Direct Process Emissions</i>	<ul style="list-style-type: none"> • <i>SO₂ scrubber installation and operation records</i> • <i>Sorbent inventory and purchase records</i> • <i>Documentation to support geothermal process emissions</i> • <i>Documentation related to emissions of nitrous oxide from selective catalytic reaction (SCR) systems used for post-combustion control of oxides of nitrogen (NO_x)</i> • <i>Records of venting of CO₂ during purge of hydrogen from electricity generators</i> • <i>Records of venting CO₂, HFCs and/or PFCs during the testing of fire suppression systems</i> • <i>Records of venting natural gas (methane) during the start-up and/or shut-down for some gas-fired turbines used as compressors or prime movers in power generation</i>

³⁴ The documents and reports to be reviewed during verification include the documents listed in this table *in addition* to those listed in Table 4.1 of the GVP. Note that this is not intended to be a complete list, nor does it imply that all of these documents must be reviewed during the verification process. It is left to the verifier to determine which documents are most useful to form a verification statement.

Activity or Emissions Source	Documents
Verifying Emissions - Direct Fugitive Emissions	<ul style="list-style-type: none"> • EPA SF₆ Annual Reporting Form • Transmission/substation maintenance and installation logs for SF₆ • SF₆ purchase, sales and recycling records • SF₆ activity logs • Refrigerant inventory and purchase records (for use in air intake chillers) • CO₂ compressed gas, HFC, or PFC purchases for fire suppression systems associated with power generation • Coal purchase records • Biomass purchase records • Annual coal pile assessment/reconciliation/audit reports • Reservoir size and/or measured CO₂ and CH₄ fluxes above reservoir surfaces • Length of natural gas pipeline
Verifying Emissions - Indirect Emissions from Electricity Transmission and Distribution Losses	<ul style="list-style-type: none"> • Wholesale power purchases and sales records including purchase agreements • Special power sales or deliveries (e.g. green power), and the power generation or power purchases assigned to those sales • Records of wheeled power • Direct access records • Total receipts and delivery of electricity to consumers • Emission factors (if not default)
Verifying Emissions - Indirect Emissions Associated with Imported/Exported Electricity/Steam from CHP	<ul style="list-style-type: none"> • Monthly utility bills • Fuel and efficiency data from supplier • Emission factors (if not default)
Verifying Metrics	<ul style="list-style-type: none"> • Records of power generation (MWh) • Records of heat delivered (MMBtu or J) • Purchases and sales of special power certificates

1 **Core Verification Activities**

2
3 This section of the EPS Addendum to the GVP
4 includes specific guidance for verifiers to use as
5 they proceed with the core verification activities
6 for EPS inventories. This guidance is intended
7 to help verifiers determine the conformance of
8 the inventory with The Registry's expectations
9 and the degree of completeness of the
10 emissions report. The next sections provide
11 specific suggestions and recommendations for
12 performing the risk assessment, developing a
13 robust sampling plan and a relevant list of
14 facilities to visit, how to cross-check the GHG
15 emissions reported in the inventory.
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30

16 **Conformance and Completeness**

17
18 Attachment 1 includes a checklist of questions
19 for the verification body to consider in
20 assessing the Member's conformance with The
21 Registry's requirements and completeness of
22 the inventory. This checklist is provided as a
23 guide for the verifier, but it is not a requirement
24 to complete this checklist as part of the
25 verification documentation. The EPS verification
26 checklist is a supplemental checklist to be used
27 with the GVP checklists, rather than a stand-
28 alone checklist for EPS Members.
29

1
2 **Performing Risk Assessment**

3
4 The verification body's risk assessment needs
5 to address direct and indirect emissions
6 separately. Depending on the EPS Member's
7 operational profile, it is possible for the scope 1
8 and biogenic total emissions quantity to be
9 substantially different than the scope 2 total
10 emissions, presenting certain verification
11 challenges. For example, accuracy may be
12 higher for some of the larger sources of direct
13 emissions (for example, coal power generation
14 with CEMS), and less accurate for relatively
15 small sources, such as fugitive emissions of
16 SF₆ from high voltage equipment. These factors
17 should be factored in to the risk assessment on
18 a case-by-case basis.

19
20 The emissions reported for each scope will
21 influence the tolerance for error and factor into
22 the sampling plan for each category. The
23 assessment of risk needs to address this
24 potential variation for each particular Member's
25 emissions inventory. This consideration must
26 often be balanced with the fact that often,
27 among the largest sources of direct emissions
28 in the EPS (i.e. electric generating units), there
29 is a relatively high degree of precision in the
30 measurement method, so the risk of material
31 misstatement is reduced. Conversely,
32 measurement or estimation of emissions from
33 smaller sources may have more uncertainty
34 and a higher risk of material misstatement if
35 they are indirect emissions being evaluated
36 against a much lower tolerance for error.

37
38 Biogenic emissions must also be accounted for
39 in the risk assessment. The biogenic emissions
40 sources should be considered separately from
41 other sources of direct (anthropogenic)
42 emissions. These sources are especially
43 important in the risk assessment if they are
44 used to generate a large portion power.

45
46 **Selecting a Sample / Developing a Sampling**
47 **Plan**

48
49 Based on the risk assessment, the verifier
50 should identify sources with the greatest
51 potential for material misstatement (taking into

52 account the volume of emissions, uncertainty in
53 the measurement method, the degree of
54 deficiencies in the management systems and
55 also a random sampling). This approach should
56 be used to identify a representative sample of
57 emissions to recalculate.

58 In the EPS, it is likely that electricity distribution
59 systems, in which there may be hundreds of
60 substations and thousands of electrical
61 components, may be grouped into a single
62 facility for reporting in CRIS.

63
64 This scenario is particularly relevant to SF₆
65 emissions, and how they are reported and
66 verified. Even if the SF₆ emissions are included
67 in a CRIS report or sampling plan as a single
68 facility, the verifier should consider visiting a
69 sample of substations and a sample of the
70 central storage and maintenance locations
71 where SF₆ cylinders are staged. During such
72 visits, the verifier will have an opportunity to
73 check the process used to maintain an
74 inventory of SF₆ equipment and the data
75 tracking systems used to calculate emissions.

76
77 **Verifying Emissions**

78
79 When verifying emission calculations following
80 Section 4.3.5 of the GVP, the following aspects
81 of the EPS methodologies warrant specific
82 guidance:

83
84 **Unique Reporting Requirements**

85
86 Specific items – required by the EPS Protocol –
87 that need to be verified (in addition to
88 emissions) are listed below. The verifier will
89 need to determine which of these items are
90 applicable to the EPS Member, based on the
91 Member's operations and activities, and verify
92 that the reported data are within the standards
93 for accuracy included in this guidance (based
94 on the selected sample). The verifier may use a
95 risk-based sampling approach to verify that the
96 following information has been accurately
97 reported:

- 98
99
- Equity share for power generating facilities (and sub-facilities) included in

- 1 the inventory. This requirement applies
 2 to generating units as well as
 3 combustion devices.
- 4 • Power purchase agreements (contracts)
 5 and the power received (MWh) for the
 6 year, and an emission factor for each
 7 counterparty.
 - 8 • Electricity trade data (scheduled and
 9 actual)
 - 10 • Facility-specific and entity-level metrics
 11 (and unit metrics for shared units)
 - 12 • Sales and purchases of registered
 13 RECs and other certificates (see below)
 - 14 • Special power sales or deliveries (e.g.
 15 green power), and the power generation
 16 or power purchases assigned to those
 17 sales

18
 19 The verifier should consider these in the
 20 verification sampling plan and implement
 21 appropriate activities to check the data as
 22 reported. The sampling plan must account for
 23 the requirement to provide assurance that all
 24 reported metrics individually comply with the
 25 five percent materiality threshold.

27 **Uses and Limitations of Existing Data Sets**

28
 29 EPS reporters, generators, and distributors of
 30 power are required to submit a range of reports
 31 to state and federal agencies, which often
 32 include data sets that can be used to cross-
 33 check the calculations of GHG emissions.
 34 When available, such reports can provide
 35 useful information for the verifier to perform
 36 “triangulation” analyses as a way of confirming
 37 the emissions calculations. However, in many
 38 cases, the data in one report may not be
 39 consistent with data in another report, which
 40 can present a challenge to the Member and the
 41 verifier if the differences cannot be readily
 42 explained.

43
 44 In the EPS Protocol, several references are
 45 identified as examples of reports where an EPS
 46 Member or a verifier can obtain activity data or
 47 emissions data that are helpful in calculating
 48 emissions and/or for documenting power

49 generation. However, the EPS Protocol does
 50 not require EPS Members to use any particular
 51 source. Whether or not an existing data set is
 52 appropriate for calculating emissions is left to
 53 the discretion of the Member, and the verifier
 54 has an important role assessing whether the
 55 dataset is indeed appropriate.

56
 57 The comments in the preceding paragraphs
 58 apply to direct and indirect emissions
 59 calculation methods and to power generation
 60 data. For example, a Member may obtain fuel
 61 use data from several sources including reports
 62 to federal agencies (such as EIA), reports to
 63 local agencies (such as air agencies), or from
 64 various annual reports. When these reports
 65 show different figures for the fuel flow, it is
 66 important for the verifier to understand the
 67 reason for and implications of these differences.
 68 For example, when coal use is determined as
 69 the sum of coal tonnage delivered to a feed
 70 hopper from rail cars, one would expect that
 71 this sum would differ from the coal tonnage
 72 measured by weigh scales on the conveyor belt
 73 to the boiler. In such cases, the verifier should
 74 use professional judgment in determining which
 75 data set is more accurate and appropriate.

76
 77 Also, there may be a need for an EPS member
 78 to report preliminary data to an agency within a
 79 certain number of days of year-end, and then
 80 report a final number for the same data item at
 81 a later date when quality control checks have
 82 been completed. There are many other
 83 examples where the verifier is likely to
 84 encounter these apparent discrepancies. Since
 85 it is not possible to identify a full range of
 86 scenarios, this guidance simply calls attention
 87 to this issue, and recommends that verifiers call
 88 in their more experienced team members to
 89 help resolve these apparent differences in a
 90 constructive and logical manner.

92 **CEMS Data Verification**

93
 94 For participants reporting CO₂ emissions from
 95 their stationary combustion sources using
 96 CEMS data obtained under a regulatory
 97 program (such as 40 CFR Part 75), the verifier
 98 should review sufficient data associated with
 99 the CEMS data submittal to provide assurance

1 that reported data were complete. Documents
2 that should be reviewed include CEMS-specific
3 monitoring plans, CEMS-specific QA/QC plans,
4 CEMS-specific maintenance records, data
5 acquisition and handling system (DAHS), and
6 Relative Accuracy Test Audits (RATA).

7 The verifier may look to a federal agency's
8 online database (if available) to obtain the
9 CEMS data from an independent source as a
10 way to check the emissions reported by the
11 EPS Member. Depending on the regulatory
12 program and The Registry reporting deadlines,
13 there may be a timing issue such that the
14 agency's database may show preliminary data
15 rather than final data during the time of the
16 verification. The verifier will need to take that
17 into consideration as part of the risk
18 assessment when reviewing the quality of the
19 reported data.

21 Heat Input Calculations

22
23 When an EPS Member uses the fuel-based
24 method for calculating emissions, the verifier
25 should understand the details of the EPS
26 Member's calculations to determine
27 conformance with the methods provided in
28 Chapter 12 of the EPS Protocol. The accuracy
29 of the emissions will depend on whether higher
30 heating value (HHV) is measured or default,
31 and if measured, how often the fuel is analyzed.
32 At times, a fuel-based measurement system
33 that supports a CEMS system for reporting
34 emissions may have the HHV value set to pre-
35 determined default to satisfy a regulatory
36 requirement (e.g., 1050 btu/scf for natural gas),
37 and this may represent an overestimate of the
38 actual HHV (typically about 1027 btu/scf for
39 natural gas). The verifier should make every
40 effort possible to obtain the original, measured
41 data and calculate the inventory from those
42 base measurements (such as fuel flows and
43 HHV values), rather than to depend on derived
44 data (such as heat inputs for the year).

45
46 The verification body should try to understand
47 any differences between its estimate of the
48 Member's emissions and the Member's
49 emissions as reported to satisfy regulatory
50 requirements. If the reason for the difference is

51 not readily apparent, then further investigation
52 may be required. If the difference can be
53 explained and the Member's reported
54 emissions are in compliance with the applicable
55 regulation, the verification body should note the
56 difference in the verification report; however,
57 the difference should not be considered a
58 misstatement, as the EPS Protocol specifically
59 allows for the use of regulatory-approved
60 CEMS data as part of an inventory.

62 CEMS versus Heat Input

63
64 If the verification body is uncertain of the
65 accuracy of the CO₂ emissions obtained from
66 the CEMS data, it may cross-check these data
67 with the CO₂ emissions based on fuel use
68 calculations. In any instance where an EPS
69 Member's CO₂ emissions reported from CEMS
70 data differs significantly (greater than 10%)
71 from that calculated from fuel use, this
72 discrepancy should be noted in the verification
73 report. However, these discrepancies should
74 not be considered material misstatements
75 without further review if the CEMS data has
76 been otherwise verified to meet regulatory
77 reporting requirements, as the EPS Protocol
78 specifically allows for the use of regulatory-
79 approved CEMS data as part of an inventory.

81 Biogenic Emissions

80
81
82
83 There are some unique verification issues
84 associated with the use of biomass, biogas and
85 other fuels that may produce biogenic
86 emissions through combustion. Some examples
87 are as follows:

- 88 • Variability of moisture and carbon
89 content of wood fuels
- 90 • Treatment of biogas that includes a
91 substantial amount of carbon dioxide as
92 well as methane
- 93 • The combination of biogenic and
94 anthropogenic CO₂ emissions when
95 multiple fuels are co-fired or from the
96 combustion of municipal solid waste for
97 electric power generation

98
99 The GRP and the EPS Protocol provide
100 methods for addressing these issues, but

1 because of the complexity of some of the power
2 generation configurations, the variability of the
3 fuel sources, and the limitations of the
4 measurement and analysis methods, there is
5 often a higher degree of uncertainty in the
6 emissions estimates which the verifier must
7 account for in its verification plan.

8 9 **Common Errors and Challenges of** 10 **Consistency**

11
12 Some common errors that verifier should watch
13 for when reviewing emissions reports from EPS
14 Members are as follows:

- 15 • Use of short tons instead of metric tons,
16 especially when CEMS CO₂ emissions
17 are taken from United States
18 government databases
- 19 • Use of gross generation instead of net
20 generation
- 21 • Use of delivered power flow data
22 instead of power flows received
- 23 • Use of volumetric fuel data (scf or
24 gallons) instead of heat input data
25 (MMBtu) as required by the EPS
26 Protocol.
- 27 • Use of scheduled power trades rather
28 than actual power trades to assess
29 power purchases and sales

30
31 A verifier is also likely to encounter
32 inconsistencies in the data obtained from
33 different sources. For example, in the United
34 States, the net generation data provided in the
35 EIA databases may differ from the net
36 generation data provided in a FERC Form 1. In
37 some cases, these differences can be
38 explained by understanding the rules for
39 reporting to each agency or the timing of the
40 report (e.g., preliminary or final data), but in
41 some cases the differences are not readily
42 apparent. When this occurs, the verifier should
43 draw attention to this inconsistency, and make
44 a professional judgment about the data and
45 how it affects the verification statement.

46 47 48 **Part 5 – Completing the** 49 **Verification Process**

50
51 There are no specific EPS requirements for
52 Part 5. The verification report and the
53 verification statement are prepared by the
54 verification body in the same manner as for the
55 general verification process. However, the
56 actual Verification Statement Form (Attachment
57 2) is specific to EPS verifications.

Attachment 1: Checklist of Questions to Consider in Verifying EPS Inventory Emissions Estimates

1	This list of questions corresponds to GVP	40	each system been reported separately
2	Appendix B.1.	41	as a “system”?
3	Preparing for Verification	42	
4	1. Has the EPS Member explained how	43	10. Are mergers, acquisitions and
5	common sources were consolidated and	44	divestitures considered on a sub-facility
6	reported as single facilities in CRIS?	45	level where they involved shared assets
7	Conformance	46	before or after the transaction?
8	2. For power generation using biogenic	47	11. For stationary combustion power
9	sources (such as landfills and WWT	48	generation emissions, has the same
10	digesters), have the operational	49	method (CEMS or fuel use) been used
11	boundaries been correctly defined?	50	year-to-year?
12	3. Are the GHG calculation	51	12. For EPS Members choosing to use
13	methodologies/procedures properly	52	report transitionally, did they omit T&D
14	entered in CRIS at the facility or unit	53	line losses, scope 3 power purchases,
15	level, as appropriate?	54	and power delivery metrics as strongly
16	4. Are the GHG calculation	55	recommended by the EPS Protocol?
17	methodologies/procedures consistent	56	Completeness
18	with GRP/EPS requirements and with	57	13. For power generation sources, does the
19	other EPS industry standards?	58	diversity of emission source categories
20	5. Are calculation methods used by the	59	include stationary combustion, process
21	EPS Member consistent with the EPS	60	and fugitive emissions, and also
22	protocol, as well as the GRP?	61	biogenic emissions as well as
23	6. Does the EPS Member use an approved	62	anthropogenic emissions?
24	CEMS configuration to measure and	63	14. Has the EPS Member addressed all
25	report GHG emissions?	64	applicable sections of the EPS Protocol,
26	7. If the EPS Member is reporting CO ₂	65	including the need for sub-facility data,
27	emissions to The Registry using CEMS,	66	power flow data and scope 3 emissions,
28	does the fuel-based calculation	67	metrics, etc., where applicable?
29	corroborate the CO ₂ emissions	68	15. Does the inventory report include all
30	reported?	69	non-emissions data items required by
31	8. Has the CO ₂ emission rate (lb	70	the EPS protocol (MWh, equity share,
32	CO ₂ /MWh) changed by 10 percent or	71	generation metrics, etc.)?
33	more from the previous year at a unit	72	16. Are all generating assets, transmission
34	that CEMS is used to report emissions?	73	and distribution assets, and buildings
35	If so, do the fuel-based calculations	74	clearly and accurately defined and
36	corroborate this change?	75	grouped as “facilities” in CRIS?
37	9. If the Member controls separate T&D	76	17. Are process and fugitive emissions
38	systems (e.g., operated as separate	77	properly categorized (e.g., for landfills
39	companies under the parent entity), has	78	and geothermal power generation) and
		79	included in the inventory?

1	18. Are all fuel types identified for power	47	27. For those facilities where electricity use
2	generation (co-firing, start-up fuels,	48	is not metered, how were indirect
3	auxiliary boilers, etc.)?	49	emissions estimated or otherwise
4		50	captured in the inventory?
5	Completeness	51	
6	19. Does the emission report include equity	52	28. Has the EPS Member used appropriate
7	share and power received for all power	53	emission factors for each counterparty
8	generation facilities?	54	purchase listed in the annual summary
9		55	of purchased power?
10	20. Does the report include all process and	56	
11	fugitive emissions from biogenic power	57	29. If an EPS Member has chosen to
12	generation as well as biogenic	58	optionally report Metric D-2, has the
13	combustion emissions?	59	system average metric (D-1) been
14		60	adjusted accordingly?
15	21. Are biogenic emissions sources (direct	61	
16	and indirect) properly segregated from	62	Verification of Emission Estimates
17	anthropogenic – for direct and indirect	63	
18	emissions sources?	64	30. Did the EPS Member have sufficient
19		65	basis for designating power purchases
20	22. Are all required GHG emissions and	66	as specified purchases (e.g. evidence
21	<i>power flow data</i> included?	67	linking that power purchase to a specific
22		68	facility with known emissions intensity)?
23	23. For an EPS Member that reports	69	
24	purchased power wholesale, has it	70	31. Does a sample of the Member's
25	eliminated "virtual energy" reflective of	71	required non-emissions data agree with
26	hedge or speculative trades of energy	72	your recalculated values? Consider
27	that were not delivered to the system?	73	power generation (gross/net), power
28		74	purchases, and power deliveries and
29	24. Has the EPS Member opted to report	75	sales. Also consider organizational
30	RECs or other electricity certificates,	76	boundary (equity) issues and power
31	and if yes, does the inventory include a	77	flows and power generation types
32	complete list of REC purchases and	78	associated with reported special power
33	sales?	79	certificates.
34		80	
35	Risk Assessment	81	32. If the EPS entity consists of more than
36	25. Does the EPS Member's management	82	one power delivery system (Load
37	system address the need for inventory	83	Serving Entity), are the verification
38	input from personnel who are	84	criteria (5% materiality threshold, 5%
39	knowledgeable of the power purchases,	85	threshold for simplified estimation
40	power trades and power sales, when	86	methodologies, etc.) met for each
41	applicable?	87	system?
42		88	
43	Sampling Plan	89	33. Has the EPS Member provided
44	26. Does the sampling plan address direct	90	sufficient evidence to support the
45	and indirect emissions separately?	91	reported power flows for wheeled power
46		92	and power purchased for resale?
		93	
		94	34. Has EPS Member converted EPA
		95	CEMS data from short tons to metric
			tons?



The Climate Registry

Attachment 2: Electric Power Sector Verification Statement Form

This verification statement documents that [Verification Body] has conducted verification activities in conformance with ISO 14064-3 and The Registry's General Verification Protocol for the emissions report described below.

Member Name: _____

Emissions Year: [January 1, Year] through [December 31, Year]

Reporting classification: Transitional Complete Historical

Reporting Boundary: North American Worldwide (including North America) Worldwide (non-North America); Transitional or Historical, specify boundary: _____

Consolidation Methodology:

Control Only: (Financial **or** Operational)

Equity Share and Control (Financial **or** Operational)

Verification Opinion:

Conformance

Unable to verify conformance; summarize reason (e.g., "due to data errors" or "due to insufficient supporting evidence"): _____

[Verification Body] has conducted a [full / streamlined (leave blank for limited)] verification of [Member Name's] emission report to a [reasonable / limited] level of assurance. Based on [Verification Body's] verification activities and findings, [(for limited assurance only; omit for negative finding) nothing has come to our attention that] [Member Name's] emissions report is [(for limited assurance or negative finding only): not] prepared in all material respects in accordance with the reporting criteria identified below.

GHG reporting criteria against which verification was conducted:

The Climate Registry's General Reporting Protocol Version [2.0], dated [March 2013]

The Climate Registry's GRP Updates and Clarifications document dated [Month Day, Year]

The Climate Registry's Electric Power Sector (EPS) Protocol version 1.0 dated June 2009

The Climate Registry's EPS Protocol Updates and Clarifications dated August 16, 2010

Others (specify): _____

GHG verification protocols used to conduct the verification:

- The Climate Registry’s General Verification Protocol version 2.1, dated [Month Year]
- The Climate Registry’s GVP Updates and Clarifications document dated [Month Day, Year]
- The Climate Registry’s Electric Power Sector Addendum to the General Verification Protocol, version 1.1 dated [Month Year]
- Others (specify): _____

Total Entity-Wide Emissions Verified (Control Criteria):

Total scope 1 emissions: _____ tonnes CO₂-e, consisting of tonnes of each GHG as follows:

_____ CO₂ _____ CH₄ _____ N₂O _____ HFCs (CO₂-e) _____ PFCs (CO₂-e) _____ SF₆

Total scope 2 emissions: _____ tonnes CO₂-e, consisting of tonnes of each GHG as follows:

_____ CO₂ _____ CH₄ _____ N₂O

Biogenic CO₂ (stationary & mobile combustion only): _____ tonnes CO₂

Total Entity-Wide Emissions Verified (Equity Share Criteria, if applicable):

Total scope 1 emissions: _____ tonnes CO₂-e, consisting of tonnes of each GHG as follows:

_____ CO₂ _____ CH₄ _____ N₂O _____ HFCs (CO₂-e) _____ PFCs (CO₂-e) _____ SF₆

Total scope 2 emissions: _____ tonnes CO₂-e, consisting of tonnes of each GHG as follows:

_____ CO₂ _____ CH₄ _____ N₂O

Biogenic CO₂ (stationary & mobile combustion only): _____ tonnes CO₂

Verified Metrics:

Please complete the table below to indicate which of the following metrics have been verified and meet The Registry’s EPS Protocol reporting requirements and the five percent materiality threshold:

YES	NO*	N/A**	EPS Metrics
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All facility-specific generation metrics (EPS Metrics G-1 through G-3, as applicable)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EPS Metric G-4 (company average)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Average power deliveries metric for system mix
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All optionally reported power delivery metrics (EPS Metrics D-1 through D-3, as applicable)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All “Certificate-Adjusted” power delivery metrics

* A finding of “Unable to Verify Conformance” must be issued if the response to any of the metrics above is “No”
 ** Response of N/A is acceptable only if Member is a transitional reporter or if optional metrics were not reported.

Comment: _____

Attestation:

[Insert Name], Lead Verifier

Date

Digital Signature Acknowledgement*

[Insert Name], Independent Peer Reviewer

Date

Digital Signature Acknowledgement*

Authorization:

I [Name of Member Representative] accept the findings in this verification statement and authorize the submission of this verification statement to The Climate Registry on behalf of [Name of Member].

[Member Representative Signature]

Date

Digital Signature Acknowledgement*

* For digital signature: By checking the "Digital Signature Acknowledgement" box, I agree that this verification statement shall be deemed to be "in writing" and to have been "signed" for all purposes and that any electronic record will be deemed to be in "writing." I will not contest the legally binding nature, validity, or enforceability of this verification statement and any corresponding documents based on the fact that they were entered and executed electronically, and expressly waive any and all rights I may have to assert any such claim.

Appendix C3: Oil & Gas Production Sector Addendum to the General Verification Protocol Version 1.1 (April 2014)

Part 1 – Introduction

1.1 Background and Purpose

The Climate Registry's (The Registry's) General Verification Protocol (GVP) presents the verification requirements for The Registry's voluntary greenhouse gas (GHG) emissions reporting program for all Members. The GVP was developed to provide Registry-recognized verification bodies with clear instructions for executing a standardized approach to the independent verification of GHG emissions reported to The Registry.

For oil and gas production (O&GP) Members and verification bodies serving this sector, the GVP remains the primary verification protocol. The O&GP Protocol specifies a number of reporting requirements specific to this sector that are in addition to, or differ from, the requirements presented in The Registry's General Reporting Protocol (GRP). Therefore, verification bodies performing verifications of O&GP sector emissions reports must verify conformance with the reporting requirements specified in both the GRP and the O&GP Protocol.

This O&GP Addendum to the General Verification Protocol is intended to serve as an aid to verification bodies conducting verification activities in the sector and to promote standard practices. To that end, the requirements and guidance in this document are primarily focused on the additional sector-specific reporting elements that are included in the O&GP Protocol.

The information contained in this document is structured in a way that mirrors the organization of the body of the GVP. Accordingly, this addendum is presented under five headings that correspond to the core parts of the GVP.

The section numbers and topics addressed in this document also parallel those of the GVP. However, subsections with no additional or specific requirements for the O&GP sector are not included in this addendum to the GVP.

1.2 Overview of the O&GP Verification Process

Part 1 of the GVP provides an overview of the verification process as it pertains to The Registry's voluntary reporting program. Within Part 1 there is one sector-specific issue which extends to the O&GP sector: the sector-specific accreditation needed to conduct O&GP sector verifications.³⁵

To undertake verification for a Registry Member within the O&GP sector, the verification body must be accredited by a Registry partner accreditation body³⁶ to ISO 14065. The verification body must then demonstrate competency within the O&G sector and attain accreditation to this industry sector scope.³⁷ O&GP Members are required to report in accordance with the O&GP Protocol starting with their emissions year 2010 data, and likewise, O&GP Members must retain a verification body that is accredited to the O&G sector to verify their emissions year 2010 reports and subsequent emissions year reports. If an O&GP Member chooses to report and verify in accordance with the O&GP Protocol in advance of their emissions year 2010 data, then the O&GP Member must retain a

³⁵ Accreditation is generally covered under Section 1.2.2 of the GVP.

³⁶ Currently the only accreditation body with which The Registry has an agreement to provide accreditation services is the American National Standards Institute (ANSI).

³⁷ ANSI's policy and assessment requirements for accrediting firms to industry sector scopes can be viewed through [ANSI's website](#).

1 verification body accredited to the O&GP
2 sector.

3

4 **Part 2 – Summary of Verification** 5 **Process and Requirements**

6

7 **2.4 Verification Standard**

8

9 The verification standards applicable to the
10 verification of OG&P Member's GHG emissions
11 inventory are as follows:

12

- 13 • The Registry's General Reporting
14 Protocol (relevant to all Members)
- 15 • ISO 14063-3 – *Specification with*
16 *Guidance for the Validation and Verification of*
17 *Greenhouse Gas Assertions* (relevant to all
18 Members)
- 19 • The Registry's General Verification
20 Protocol (relevant to all Members)
- 21 • The Registry's Oil & Gas Production
22 Protocol (relevant to O&GP Members)
- 23 • The Registry's Oil & Gas Production
24 GVP Addendum (this document, relevant to
25 O&GP Members)

26

27 Verification bodies must confirm that O&GP
28 emissions sources are quantified using O&GP
29 Protocol-approved calculation methodologies
30 (or simplified estimation methodologies, if the
31 sources represent less than five percent of the
32 CO₂-e emissions). Unless otherwise noted,
33 calculation methodologies included in the GRP
34 or O&GP Protocols are *not* simplified methods,
35 and hence emissions calculated using these
36 Registry-approved methods do not count

37 towards the five percent threshold for the use of
38 simplified methods.

39

40

41 **2.7 Scope of Verification**

42

43 Optionally reported metrics are not subject to
44 verification.

45

46 **Part 3 – Preparing for Verification**

47

48 For Part 3, the GVP requirements are relevant
49 and applicable to verifications for O&GP
50 Members. This addendum makes one addition
51 to Section 3.3 (Assembling the Verification
52 team). The verification body must be accredited
53 to the O&GP sector and assemble a team that
54 is competent to conduct verifications in the
55 O&GP sector.

56

57

58 **Part 4 – Conducting Verification** 59 **Activities**

60

61 **Developing a Verification Plan**

62

63 Table 4.1 in the GVP provides a list of general
64 documents verifiers may review during the
65 verification effort. In addition, there are a
66 number of documents more specific to the O&G
67 sector that may prove useful to verifiers in
68 assessing conformance with the GRP and
69 O&GP protocols, the completeness of the
70 inventory, and risks of material misstatement
71 associated with deficient internal controls.
72 These sector-specific documents are listed in
73 Table 4.1 below.

O&GP Addendum to the GVP Table 4.1 Additional Documents to be Reviewed During Verification Activities for O&GP Inventory Reports³⁸

<i>Activity or Emissions Source</i>	<i>Documents</i>
Emission Source Inventory	<ul style="list-style-type: none"> • <i>List of facility and field permits</i> • <i>Facility and field plot plans showing direct emission sources</i> • <i>Process flow diagrams</i> • <i>Air emission inventory reports</i> • <i>EPA Title V Reports</i>
Organizational, Operational and Geographic Boundaries	<ul style="list-style-type: none"> • <i>State oil and gas production reports</i> • <i>Summary of lease and royalty information</i> • <i>List of JV partners, if applicable</i>
Methodologies and Management Systems	<ul style="list-style-type: none"> • <i>Any protocols and emission factors used (in addition to the GRP and O&GP)</i> • <i>Quality assurance/quality control plans for any continuous emissions monitoring systems</i>
Verifying Emissions - Direct Emissions from Stationary Combustion	<ul style="list-style-type: none"> • <i>Fuel purchase records</i> • <i>Other fuel volume records</i> • <i>Data acquisition and handling system</i> • <i>Relative Accuracy Test Audit (RATA) results (cogeneration units)</i> • <i>Basis adjustment factor (if any) applied to CEMS data</i> • <i>Fuel meter data</i> • <i>Fuel flow meter calibration and maintenance records</i> • <i>Fuel compositional analysis</i> • <i>Electric generation data (MWh) (cogeneration units)</i> • <i>Steam generation data (Mlbs) (cogeneration units)</i>
Verifying Emissions - Direct Vented Emissions	<ul style="list-style-type: none"> • <i>When directly measured, records of vented volumes and gas compositions</i> • <i>Records of scheduled and unscheduled maintenance activities involving equipment blowdowns and startups</i> • <i>Inventory of venting equipment by type and number</i> • <i>Any records from metering equipment up and downstream of vented emission sources</i> • <i>When using a software or simulation, details of all relevant input data</i> • <i>Records of mud volumes</i> • <i>Records of type of mud used</i> • <i>Records of loaded volumes and gas composition</i> • <i>Emission factors used</i>

³⁸ The documents and reports to be reviewed during verification include the documents listed in this table *in addition* to those listed in Table 4.1 of the GVP. Note that this is not intended to be a complete list, nor does it imply that all of these documents must be reviewed during the verification process. It is left to the verifier to determine which documents are most useful to form a verification statement.

Activity or Emissions Source	Documents
Verifying Emissions - Direct Fugitive Emissions	<ul style="list-style-type: none"> • When using a software or simulation, details of all relevant input data (i.e. pressure, temperature, etc) • Inventory of equipment with potential to generate fugitive emissions by type and number • Any records from metering equipment up and downstream of fugitive emission sources • Records of production volumes • Records of types of pneumatic devices and bleed rates • Record of type of components used in a E&P field (i.e. pumps, valves, flanges, seals, etc) • Records of gas composition • Emission factors used
Verifying Emissions – Flaring Emissions	<ul style="list-style-type: none"> • Records of volumes sent to flares • Records of gas composition • Records of manufacturer data (i.e. equipment combustion efficiency) • Emission factors used
Verifying Emissions - Indirect Emissions Associated with Imported/Exported Electricity/Steam	<ul style="list-style-type: none"> • Monthly utility bills • Records of imported or exported steam quantities and energy content • Emission factors
Verifying Metrics	<ul style="list-style-type: none"> • Records of oil and gas produced • Alternative metrics (i.e. field age, total energy input)

1 **Conformance and Completeness**

2
3 Attachment 1 includes a checklist of questions
4 for the verification body to consider in
5 assessing the Member’s conformance with The
6 Registry’s requirements and completeness of
7 the inventory. This checklist is provided as a
8 guide for the verifier, but it is not a requirement
9 to complete this checklist as part of the
10 verification documentation. The O&GP
11 verification checklist is a supplemental checklist
12 to be used with the GVP checklists, rather than
13 a stand-alone checklist for O&GP Members.

14
15 **Selecting a Sample / Developing a Sampling**
16 **Plan**

17
18 As discussed in Chapter 6 of the O&GP
19 Protocol, a field is considered to be the
20 equivalent of a facility for purposes of
21 aggregating emissions from O&GP activities. In
22 recognition of unique geographic realities in the
23 O&GP sector, The Registry requires that
24 distributed emission sources be aggregated
25 and reported by oil or gas field, while facilities

49

26 that conform to the traditional definition of a
27 facility continue to be reported as separate
28 facilities.

29
30 Part 4 of the GVP provides verification bodies
31 guidance on determining the number of facilities
32 to be visited during the verification process.
33 The verification body should treat each field in
34 which a Member has operations as equivalent
35 to a single facility when selecting the sample of
36 facilities to visit. More specifically, the
37 verification body should understand the term
38 “facility” in to refer to either a standard facility
39 (i.e., a single physical premises) or a field.

40
41 **Part 5 – Completing the**
42 **Verification Process**

43
44 There are no specific O&GP requirements for
45 Part 5. The verification report and the
46 verification statement will be prepared by the
47 verification body in the same manner as for the
48 general verification process.

Attachment 1: Checklist of Questions to Consider in Verifying O&GP Inventory Emissions Estimates

1	This list of questions corresponds to GVP		
2	Appendix B1.		
3	Preparing for Verification	39	emissions from stationary combustion,
4	1. Has the O&GP Member explained how	40	vented and fugitive emissions, flaring
5	sources were consolidated and reported	41	emissions, and emissions from oil sands
6	as facilities or fields in CRIS?	42	and oil shales operations when
		43	applicable?
7	Conformance		
8	2. Are the GHG calculation	44	10. Does the inventory report include all
9	methodologies/procedures properly	45	non-emissions data items required by
10	entered in CRIS at the facility or field	46	the GRP and O&GP protocol
11	level, as appropriate?	47	(consolidation approaches used, equity
		48	shares if applicable, quantification
		49	methods used if the O&GP Member did
12	3. Are the GHG calculation	50	not use CRIS to calculate emissions,
13	methodologies/procedures consistent	51	etc.)?
14	with GRP/O&GP requirements and with		
15	other O&GP industry standards?	52	11. Are all facilities and fields clearly and
		53	accurately defined and grouped in
16	4. Are calculation methods used by O&GP	54	CRIS?
17	Member consistent with O&GP protocol,		
18	as well as GRP?	55	12. Are vented and fugitive emissions
		56	properly categorized and included in the
19	5. Are all CEMS-calculated emissions	57	inventory?
20	included and documented as such?		
		58	13. Are all fuel types identified for stationary
21	6. For stationary combustion emissions,	59	combustion (start-up fuels, biomass,
22	has the same method (fuel use, load	60	etc.)?
23	factors or CEMS) been used year-to-		
24	year?	61	14. Are all required GHG emissions data
		62	included?
25	7. If CEMS is being used, does the O&GP	63	Risk Assessment
26	Member have an approved CEMS	64	15. Does the O&GP Member's management
27	configuration to measure and report	65	system address the need for emissions
28	GHG emissions?	66	inventory input from personnel who are
29	8. If the O&GP Member is reporting CO ₂	67	knowledgeable of the oil and gas
30	emissions to The Registry using CEMS,	68	operations?
31	does the fuel-based calculation		
32	corroborate the CO ₂ emissions	69	Sampling Plan
33	reported?	70	16. Does the sampling plan address direct
34	Completeness	71	and indirect emissions separately for
35	9. Has the O&GP Member addressed all	72	O&GP Members?
36	applicable sections of the O&GP		
37	Protocol, including the need for field-	73	
38	level aggregation of data, as well as all		