

California Climate Action Registry Certification Protocol

October 2002

California Climate Action Registry 515 S. Flower Street, Suite 1305 Los Angeles, CA 90071

Reporting Assistance Hotline: 1-877-CO2-CCAR (1-877-262-2227)

Email: help@climateregistry.org

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Abbreviations and Acronyms

CARROT	Climate Action Registry Reporting Online Tool
CEC	California Energy Commission
CEMS	Continuous Emissions Monitoring Systems
CH ₄	methane
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
GHG	greenhouse gas
GWP	global warming potential
HFC	hydrofluorocarbon
IPCC	Intergovernmental Panel on Climate Change
N ₂ O	nitrous oxide
PFC	perfluorocarbon
RFA	Request for Applications
SAR	IPCC Second Assessment Report (1996)
SF ₆	sulfur hexafluoride

Key Terms

Baseline	Datum against which to measure GHG emissions performance over time, usually annual emissions in a selected base year.
Batch Certification	Simultaneous certification process arranged by the Registry for multiple participants with simple GHG emissions (typically only indirect emissions from electricity consumption and direct emissions from stationary combustion at a single site and/or direct emissions from five or less vehicles).
CO ₂ -equivalent*	(CO_2e) The quantity of a given GHG multiplied by its total global warming potential. This is the standard unit for comparing the degree of harm which can be caused by different GHGs.
Certification	The process used to ensure that a given participant's GHG emissions inventory (either the baseline or annual result) has met a minimum quality standard and complied with the Registry's procedures and protocols for calculating and reporting GHG emissions.
Datum	A reference or starting point.
De Minimis	A quantity of GHG emissions from one or more sources, for one or more gases, which, when summed equal less than 5% of an organization's total emissions.
Direct Emissions	Emissions from sources that are owned or controlled by the reporting organization.
Emissions Factor*	A factor relating activity data and absolute GHG emissions.
Equity Share	Fractional percentage or share of an interest in an entity based either on ownership interest, or on some other contractual basis negotiated among the entity's stakeholders.
Fugitive Emissions*	Intentional and unintentional releases of GHGs from joints, seals, gaskets, etc.
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 six gases identified in the Kyoto Protocol: Carbon Dioxide (CO_2), Nitrous Oxide (N_20), Methane (CH_4), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulphur Hexafluoride (SF_6).
Indirect Emissions	Emissions that are a consequence of the actions of a reporting entity, but are produced by sources owned or controlled by another entity.
Management Control	The ability of an entity to govern the operating policies of another entity or facility so as to obtain benefits from its activities.

Material	Any emission of GHG that is not de minimis in quantity.	
Mobile Combustion*	Burning of fuels by transportation devices such as cars, trucks, airplanes, vessels, etc.	
Outsourcing*	The contracting out of activities to other businesses.	
Process Emissions*	Emissions generated from manufacturing processes, such as cement or ammonia production.	
Stationary Combustion*	Burning of fuels to generate electricity, steam, or heat.	

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

Overview

The California Climate Action Registry created this Certification Protocol to provide Registryapproved certifiers with clear instructions for executing a standardized approach to the independent verification of greenhouse gas (GHG) emissions baselines and annual emissions reported by Registry participants. This standardized approach defines a certification process that promotes the credibility, accuracy, transparency, and usefulness of emissions data reported to the Registry. While this Protocol is written for certification process participants who are interested in understanding and preparing for the certification process may also find it useful.

This Protocol is intended to be used in combination with the Registry's General Reporting Protocol and web-based calculation and reporting tools. Approved Certifiers will certify participants' GHG Emission Reports against the Registry's General Reporting Protocol using the process outlined in this Certification Protocol. While the specific certification activities will differ based on the length and complexity of a participant's Emission Report, the certification process will include the following steps:

- Scoping and planning a participant's certification activities
- Conducting certification activities
 - 1. Identifying emissions sources
 - 2. Reviewing methodologies and management systems
 - 3. Verifying emission estimates
- Preparing a participant's Certification Report and Certification Opinion
- Submitting a participant-authorized Certification Opinion to the Registry
- Retaining proper records

Upon the completion of the above steps, the Registry will accept a participant's certified Emission Report into its emissions database.

While certification is required annually, in some instances it can be thought of as a three-year process. In Year 1, a certifier will need to form a detailed understanding of a participant's operations and consequential GHG emissions. Assuming that there have been no significant changes in a participant's boundaries, GHG emissions sources and/or management systems, a certifier may streamline and expedite the certification activities in Years 2 and 3 to focus on verifying emissions estimates. To ensure data integrity, all of the core certification activities should be completed again in Year 4.

Registry Technical Assistance 1-877-CO2-CCAR The core certification activities each year will likely be as follows:

Year 1: Identify Emission Sources, Review Management Systems, Verify Emissions Estimates

Year 2: Verify Emissions Estimates

Year 3: Verify Emissions Estimates

Year 4: Same as Year 1

The Registry assumes that certifiers will use their best professional judgment when conducting certification activities, and thus, will modify the suggested annual process described above as necessary.

Organization of this Certification Protocol

This Certification Protocol is divided into four Parts which outline the necessary steps a certifier must follow to initiate and complete the certification of a participant's Emission Report.

Part I, *Introduction* (this section), provides a brief overview of the purposes and requirements of the certification process, describes the principles of certification, highlights important definitions, and answers some key questions.

Part II, *Preparing for Certification*, focuses on those activities that will take place prior to beginning the certification activities, including bidding for and negotiating a contract with participants, providing required notifications, and designing appropriate certification activities for each participant.

Part III, *Core Certification Activities*, provides guidance on conducting the primary activities that the certifier will complete, including: identifying sources; reviewing management systems and methodologies; and verifying emission estimates.

Part IV, Completing the Certification Process, covers procedures for completing the certification process including: preparing a Certification Report and Certification Opinion, completing the certification form to submit a participant's certified data to the Registry, and recording and retaining proper records.

Principles of Certification

The purpose of certification is to provide an independent review of data and information being submitted to the Registry to ensure that they meet certain quality criteria. To fulfill this purpose, the independent certification process maintains the criteria of completeness, consistency, accuracy, comparability and transparency as its underlying principles.

Completeness. Certification should ensure accounting of all material GHG emissions sources and activities within the specified scope of the participant's inventory. Baseline and annual emissions results should include all sources that are not de minimis in quantity and for which vertical and horizontal integration should be properly accounted.

Consistency. An Emission Report should allow for meaningful comparison of emissions performance over time. Independent certification should ensure that consistent methodologies and measurements are used between the baseline results and annual

emissions results. Additionally, changes to participant emission baselines are certified to ensure appropriate comparisons.

Comparability. A certified Emission Report should be comparable across similar organizations reporting to the Registry. The report should allow comparison of direct and indirect emissions against those of other reports with similar geographic and organizational scopes.

Accuracy. Entity-wide reported data should be within the materiality threshold of 5% of the certifier's estimate of total emissions. Calculations and estimates need to be as accurate and as possible to prevent material errors.

Transparency. Certification should be a transparent exercise itself. Certification activities should be clearly and thoroughly documented to allow the possibility for outside reviews by the California Energy Commission (CEC) or the Registry.

Certification Standard

Certifiers must certify participants' GHG Emission Reports against the Registry's General Reporting Protocol using the process outlined in this Certification Protocol. If a participant is reporting process or fugitive emissions, a separate industry specific protocol may also be used and cited. Some participants may wish to use their GHG Emission Report for additional purposes such as, registering in another registry, participating in emissions trading schemes, crediting programs, etc., and thus may add additional standards for certification.

Minimum Quality Standard

A certified Emission Report submitted to the Registry must be free of material misstatements to be certified. For an Emission Report to be free of material misstatements it must achieve a level of at least 95% accuracy. It is possible that during the certification process, differences will arise between the emissions totals estimated by participants and those estimated by certifiers. Differences of this nature may be classified as either material (significant) or immaterial (insignificant). A discrepancy is considered to be material if the overall reported emissions differ from the overall emissions estimated by the certifier by 5% or more. A difference is immaterial if it is less than 5%.

Reporting Uncertainty vs. Inherent Uncertainty

When evaluating participants' Emission Reports, certifiers should concentrate on determining if the reporting uncertainty (vs. the inherent uncertainty) is less than the minimum quality standard. Reporting uncertainty entails the mistakes made in identifying emissions sources and managing and calculating GHG emissions. Inherent uncertainty refers to scientific uncertainty associated with measuring GHG emissions. The Registry is aware that there is inherent uncertainty in emissions factors and measurement of activity data through metering and instrumentation (even after the calibration of meters and other data collection methods are certified as accurate), but determining scientific accuracy is not the focus of the Registry or its General Reporting Protocol.

Participant Classes

The Registry has divided participants into three classes based on the level of effort necessary for certifiers to review and certify participants' Emission Reports.

- Class I: The smallest participants with the simplest operations and only one site. These entities will have a brief, straightforward certification process and may choose to be batch certified directly through the Registry.
- Class II: Larger entities than Class I participants with a greater volume and diversity of basic emissions (more than one site). Class II entities will also have a fairly simple certification process.
- Class III: Firms with a large and diverse set of emission sources, including process and fugitive emissions. Class III participants may experience a longer and more detailed certification process to appropriately evaluate their complex emissions.

Professional Judgment

Approved Certifiers must certify participants' GHG Emission Reports against the Registry's General Reporting Protocol using the process outlined in this Certification Protocol. However, since a certifier is approved based on their professional qualifications and relevant GHG experience, the Registry asks certifiers to use their professional judgment when executing the certification activities described in this Certification Protocol.

Application of a certifier's professional judgment is expected in the following areas:

- Implementation of certification activities with appropriate rigor for the size and complexity of a participant's organization and with regard to the uncertainty of calculations associated with the participant's emissions sources;
- Review of the efficacy of a participant's GHG emissions tracking, monitoring, and management systems;
- Evaluation of participant compliance with the Registry's General Reporting Protocol;
- Assessment of methods used for estimating emissions from sources for which the General Reporting Protocol does not provide specific guidance, such as process and fugitive emissions, and indirect emissions from sources other than electricity and imported steam; and
- Appraisal of estimation methods and emission factors that are selected as alternatives to those provided in the General Reporting Protocol.

Conflict of Interest

In order to ensure the credibility of the emissions data reported to the Registry and its potential utility under any future regulatory regime, it is critical that the certification process be viewed as completely independent from the influence of the participant submitting the Emission Report. Therefore, certifiers may not engage in both consulting and certification services with the same client. Because even the appearance of a conflict of interest can impair the integrity of the data in the Registry database, this prohibition applies to not only technical assistance related to GHG emissions estimation, but to any and all consulting

See Part II Catering Certification Activities Based on Participant Characteristics

services. A certifier may not engage in certification services with a participant if the certifier's firm has provided consulting services of any kind to that client within the previous three years.

In the event that a certifier violates these conditions, the Registry, in consultation with the CEC, and at its discretion, may disqualify an approved certifier for a period of up to five years.

This conflict of interest clause does not preclude a certifier from engaging in consulting services for other clients that participate in the Registry for whom the certifier does not provide any certification activities.

Key Questions

Certifier Approval: Who may qualify as a certifier?

All certifiers must be approved by the CEC and the Registry before they are qualified to conduct certification activities for Registry participants.

In order to become approved, a certifier must complete a two-step process by 1) submitting a successful response to the CEC's Request for Applications (RFA) and 2) attending a certification training workshop facilitated by the Registry.

Applicants who wish to be qualified as approved certifiers need to demonstrate experience in certification and verification of financial data, technical data, quality control, and/or environmental management systems. Certifiers must also demonstrate the means to accept financial liability for certification activities undertaken for a participant. *Firms providing certification services to a participant may not provide any other consulting services to the same participant for three years both prior to and after certification.*

Liability: What liability will a certifier incur? What liability coverage must a certifier accept?

At a minimum, a certifier is responsible for planning a participant's certification activities, conducting the certification activities, preparing a Certification Report and Opinion, and submitting authorized Certification Opinions to the Registry. If a Registry-approved certifier fails to complete the contracted activities, they are financially liable for the cost of hiring a different Registry-approved certifier to complete a proper certification from start to finish (as defined in the existing contract). The certifier may incur additional liability based on the negotiated terms of the contract. This liability may include the future value of GHG emissions or emission reductions, damages, or any other element agreed to by the certifier and the participant.

Certifiers must demonstrate the means to accept financial liability for certification activities undertaken for a Registry participant, specify such liability in any contract for certification activities, and make adequate arrangements (e.g., professional liability insurance coverage) to cover liabilities arising from its activities or operations. However, certifier liability may also be limited in the contract with the Registry participant.

"Batch Certification": How does it work? How will it affect bidding, contracting, and the overall certification process?

In an effort to minimize certification costs, Class I participants may request to be "batch certified" with similar organizations by the Registry. Bidding and negotiating of contracts will take place between the certifier and the Registry. Standard terms and conditions will apply

See Part II Becoming an Approved Certifier

See Part I Conflict of Interest

See Part II Negotiating a Contract

See Part II Catering Certification Activities for all contract elements. Class I certification will usually not require a site visit, but rather, activities will be conducted via the phone.

Certification Deadlines: What is the deadline for completing the certification process?

While there is no deadline for submitting an Emission Report, the preferred timing for completing an Emission Report for the current year, is December 31st of the following year. For example, certification of 2002 emissions should be completed by December 31, 2003.

Similarly, the preferred timing for beginning certification activities is as soon after completing an Emission Report as possible, and preferably by December 31st of the year the Emission Report is completed. For example, if a 2002 Emission Report is completed in June of 2003, certification activities should begin by December 31, 2003 and should be completed within one calendar year of when the Emission Report was submitted to the Registry. (June 2004.)

Certification Report and Certification Opinion: What are the Certification Report and Certification Opinion and how are they different?

The Certification Report is a detailed report that a certifier prepares for a participant. The Certification Report should describe the scope of the certification activities, standards used, emissions sources identified, sampling techniques, evaluation of participants' compliance with the General Reporting Protocol, and a list of material and immaterial misstatements, if any. The Certification Report is a confidential document between the certifier and the participant, and is not shared with the Registry or the public.

The Certification Opinion is a brief, one-page summary of the certifier's findings that simply states if the participant's Emission Report is certifiable or not. The Certification Opinion is submitted to both the participant and the Registry. A majority of the contents of the Opinion will be available to the public.

Certification and Remediation: What if a participant's Emission Report is not certified?

After completing certification activities, the certifier will prepare a Certification Report and forward it to the responsible official representing the participant. (The responsible official includes anyone authorized by the participant to approve the GHG Emission Report for submission to the Registry and will typically be a corporate official or the technical manager of the certification contract.)

If the certifier identifies material misstatements that prevent a clean Certification Opinion, those material misstatements should be listed and described in the Certification Report. If possible, the participant may correct those material misstatements and resubmit the Emission Report for certification within a reasonable amount of time. The participant may retain technical assistance to correct material misstatements but the certifier may not provide such technical assistance as it would create a conflict of interest.

If the participant is unable to correct the material misstatements, the Registry will retain the participant's data in the Registry database for up to two years pending certification. Participants who have submitted an Emission Report and undergone certification as part of a "learning by doing" process may wish to retain a pending status for their Emission Report for up to two years while the Emission Report is enhanced.

See Part IV Completing a Certification Report



Confidentiality: Are the results of the certification kept confidential? Is emissions data kept confidential?

All aggregated entity-level emissions data and metrics reported to the Registry will be available to the public. However, the Registry intends to keep confidential all reported emissions, activity data, methodologies, and emissions factors with a higher granularity (at facility, project, or source levels). Confidential information will only be accessible to the participant, the Registry, and the certifier, unless the participant allows others access to such information or wishes to have it available to the public. As noted in an earlier question, the Certification Report is a private document between a participant and certifier, while the Certification Opinion is shared with the Registry. A majority of the contents of the Certification Opinion will also be shared with the public.

Certification Protocol Revisions Policy: Will this Certification Protocol change over time? How can certifiers provide feedback to the Registry?

The Registry expects to regularly review, revise, update, and augment this Certification Protocol. The Registry invites all parties, certifiers, Registry participants, California State agencies, and the public to provide insights and experiences that will help improve the Certification Protocol. Anyone with suggestions or concerns is encouraged to contact the Registry at any time at **213-891-1444** or by email at **info@climateregistry.org**.

Stakeholders will also be able to present suggestions directly to the Registry's Board of Directors for consideration at their meetings. All suggestions and requests for modifications must be made by utilizing the "Registry Protocol Comment Form" available on the Registry's website at www.climateregistry.org.

Certification Activity Punch List

The "punch list" below provides a step by step outline of the standardized certification activities that all certifiers must consider. Not all activities will be required of all participants or during each year, depending on a participant's specific circumstances, but this punch list should be considered a general rule of thumb.

Activity	Date Achieved
Preparing for Certification (Part II)	
Bid on a Certification Contract	
Negotiate Contract with Registry Participant	
Notify CEC and Registry of Planned Certification Activities	
Host Kick-off Meeting With Participant	
Plan Certification Activities Based on Participant Characteristics	
Core Certification Activities (Part III)	
Identify Emission Sources	
Identify and list all Facilities in the Entity	
Identify and list all Emission Sources (of Indirect, Mobile, Stationary, Process and Fugitive Emissions)	
Identify and list all Fuel Types	
Rank All Sources by Magnitude on a Carbon Dioxide Equivalent Basis	
Assess Any Changes in Geographic and Organizational Boundaries	
Review Methodologies and Management Systems	
Evaluate Procedures and Systems for Preparing Emission Report	
Evaluate Personnel and Training for Preparing Emission Report	
Consider the uncertainty associated with methodologies and management systems	
Assess Risk of Material Misstatement Associated with Management Systems and Procedures for	
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Overview

Before a certifier can initiate any certification activities, a number of procedural steps must be taken to ensure that the obligations and responsibilities of both the certifier and participant are clear.

First and foremost, the Registry and the CEC must approve the certifier as qualified to certify participants' GHG Emission Reports. Next, Registry participants will select an approved certifier to certify their GHG Emission Report--either as a sole-source provider or via a competitive bidding process and a negotiated contract. The selected certifier will notify the Registry and CEC of the scheduled certification activities. The participant and the certifier will exchange information at a kick-off meeting and the certifier will develop a certification process appropriate to the characteristics of the reporting entity.

Becoming an Approved Certifier

Only those firms approved by the Registry and the CEC may provide certification services to Registry participants. In order to become approved, a certifier must complete a two-step process by 1) submitting a successful response to the CEC's Request for Applications (RFA) and 2) attending a certification training workshop facilitated by the Registry.

The first RFA closed on July 31, 2002 and a second round is planned for November 2002. Future rounds will be scheduled several times a year. Information on the next RFA can be found at http://www.climateregistry.org. Applicants who wish to be qualified as certifiers will need to demonstrate experience in certification and verification of financial data, technical data, quality control, and/or environmental management systems.

Certifiers must also demonstrate the means to accept financial liability for certification activities undertaken for a Registry participant. Such liability shall be specified in any contract for certification activities and may be limited by that contract. All certifying organizations must have adequate arrangements (e.g., professional liability insurance coverage) to cover liabilities arising from its activities or operations. A Registry participant entering into a contract with a certifier may request verification of these arrangements.

The second step of the approval process requires that the designated lead certifiers of successful RFA applicants attend a certification training workshop facilitated by the Registry. Workshops will be held shortly after each RFA process is complete. After completing the training workshop, the certification firm will become an "approved certifier." Once a firm has been approved as a certifier, they may approach current or prospective Registry participants to market their services and capabilities. All approved certifiers will be listed on the Registry's website.

Bidding on a Certification Contract

The Registry recommends that those participants with complex GHG Emission Reports solicit competitive bids for certification services from at least three approved certifiers. Those participants with simpler GHG Emission Reports who do not seek, or are not eligible for,

For information about the RFAs, go to the Registry's website at www.climateregistry.org batch certification may wish to secure competitive bids or may wish to sole source the certification contract in order to reduce costs and expedite the certification process.

When preparing to send out a request for bids from certifiers, participants should first review the list of approved certifiers and select some (or all) as prospective bidders. Due to the possibility of access to proprietary information, participants may want to send each prospective bidder a non-disclosure agreement. The Registry suggests that participants distribute requests for bids to prospective certifiers only after they have received signed non-disclosure agreement from certifiers.

The Registry recommends that participants include the following information in their requests for bids from certifiers:

- 1. The expected contract duration;
- 2. A general description of the participant's organization;
- 3. The geographic boundaries of the participant's Emission Report;
- 4. The number and locations of facilities and operations;
- 5. The GHGs reported in the participant's Emission Report;
- 6. The emission source categories (and possibly emission sources) in the participant's Emission Report; and
- 7. The password to a read-only version of the participant's Emission Report in CARROT.

The Registry suggests that participants request Commercial and Technical Proposals from potential certifiers that include the following components:

Commercial Proposal

- 1. History and Description of Company
- 2. Explanation of Core Competencies
- 3. Proposed Price for Certification Services
- 4. Proposed Staff
- 5. Statement of Certifier Liability
- 6. Confidentiality Policy
- 7. Duration of Contract

Technical Proposal

- 1. Approach to Preparing for Certification
- 2. Approach for Completing Core Certification Activities
- 3. Approach for Completing the Certification Process

See Part III Core Certification Activities The Registry expects only limited variation in the technical proposals, since all of the approved certifiers are trained to implement the Registry's standardized certification process, so the commercial proposals should be as competitive as possible.

Negotiating a Contract with the Participant

After a certifier has been selected by a Registry participant, the two parties should negotiate complete contract terms. This contract is exclusively between the participant and the certifier, and the particulars of any given contract are at the discretion of the two parties. However, contracts for certification services typically include the following components:

- Scope of the Certification Process. This component of the contract should outline the exact geographic and organizational boundaries of the participant's emissions inventory to be examined. This should, but may not necessarily, match the boundaries used in the GHG Emission Report to the Registry. This scope should indicate whether California-only emissions are included or if both California and U.S. emissions are included. It should also identify whether the participant has used the management control, equity share, or other methods based on contractual relationships to determine organizational boundaries.
- Confirmation of Approved Certifier Status. This is a simple statement that the certifier has been approved by both the CEC and the Registry to certify Emission Reports covering the scope listed above.
- Certification Standard. Approved certifiers must certify participants' GHG Emission Reports against the Registry's General Reporting Protocol using the process outlined in this Certification Protocol. However, if a participant is reporting process or fugitive emissions, a separate industry specific protocol may also be used and cited. Some participants may wish to use their GHG Emission Report for additional purposes such as, registering in another registry, participating in an emissions trading scheme or crediting program, etc., and thus may add additional standards for certification.
- Non-disclosure Terms. The certifier and the participant should agree in advance on methods for identifying and protecting proprietary and business confidential data that may be revealed during certification.
- Site Access. The certifier and the participant should agree in advance to the time, place, and conditions of certifier's site visits, if any are required.
- **Documentation and Data Requirements.** The certifier and participant should agree on how and when the participant will provide emissions data to the certifier. The range of required documentation will largely be determined by the size and complexity of participant operations, and whether the participant has used the on line calculation tools available through CARROT.
- **Period of Performance.** The period of performance for certification services will typically be for three years, given that the certification process required by the Registry is more streamlined in Year 2 and Year 3, if participant operations do not change. However, there may be instances where contracts are negotiated for a single year, pending renewal.
- **Performance Schedule.** Participants and certifiers may wish to agree on a schedule to complete the certification process and for the certifier to deliver a Certification Report and Certification Opinion. Certification should be initiated by

See General Reporting Protocol Chapter 2, Organizational Boundaries

See Part IV Sample Certification Opinion December 31 of the year the participant's data is submitted, and should be completed within one calendar year of when the Emission Report was submitted.

- **Payment Terms.** Typical payment terms include total value, schedule of payments, and method of payment (e.g., electronic funds transfer).
- **Re-certification Terms.** If the certifier identifies material misstatements, the participant may choose to revise its GHG Emission Report. At that time, the participant may ask the certifier to re-certify the report or seek certification from another provider. A certifier may not provide guidance, technical assistance, or implementation work on the remediation of material misstatements, as this would be viewed as consulting services and result in a conflict of interest.
- **Liability.** All certifiers are subject to the minimum liability associated with completing the certification per the terms of the certification contract. The participant may require and the certifier may agree to additional liability under this contract.
- **Contacts.** The contact should identify technical leads for the participant and certifier, as well as responsible corporate officials of each party.

Notification of Planned Certification Activities

After certifiers and participants have negotiated complete contract terms, the certifier must notify both the Registry and the CEC by at least two weeks (10 business days) prior to the beginning of certification activities. Notification should include:

- The certifying company
- The participant
- The year of emissions data being certified
- The date certification activities are scheduled to begin
- The approved staff members conducting the certification activities.

Notification should be sent by email to:

info@climateregistry.org, and

jewilson@energy.state.ca.us

This notification period is necessary to allow the CEC the opportunity to occasionally accompany certifiers on visits to participants' sites. The CEC is required to observe, evaluate, and report on the quality and consistency of certification activities. A certifier that does not provide proper notification to the Registry and the CEC may be disqualified as an approved certifier.

Kick-off Meeting with the Participant

After contract terms have been negotiated and the Registry and CEC have been notified of planned certification activities, certifiers should host a kick-off meeting with participants. The agenda for that meeting should include:

- 1. Introduction of the certification team;
- 2. Review and confirmation of certification process and scope;
- 3. Transfer of background information and underlying activity data (See Table 2); and
- 4. Review and confirmation of the certification process schedule;

Based on the information provided in agenda items 2 and 3, the certifier should determine the most effective, efficient, and credible detailed certification approach tailored to the particular characteristics of the participant.

Catering Certification Activities Based on Participant Characteristics

The certification process outlined in this Certification Protocol is designed to be applied consistently across all participants. However, based on the size and complexity of participants' operations and management systems, certification activities and the duration of the process will vary. The documents that will need to be reviewed during certification will also vary depending on the nature of the emission sources contained in the participant's Emission Report.

Online Reporting

If a participant chooses to use the Registry's on-line calculation tool (the CARROT) and the certifier's document review suggests that data have been collected properly and entered accurately, the certifier will not need to re-calculate the emissions, as the calculations will be automatic. Due to the time savings, this should result in a less expensive and expedited certification process.

Participant Classes

To guide certifiers in their determination of an appropriate certification activities, the Registry divides participants into three classes based on the level of effort necessary to certify their emissions. The characteristics of the certification approach for each of these classes are listed below. Of course, certifiers are expected to use their professional judgment to augment or narrow these approaches based on uncertainty in emissions estimates and other items affecting material accuracy.

Class I – Very Small Participants with Simple Operations. This class includes those participants who have only the following material emissions sources:

- indirect emissions from electricity consumption at a single site;
- direct emissions from stationary combustion at a single site; and/or
- direct emissions from five or less vehicles.

See Table 2 Recommended Documents to be Reviewed During Certification Activities In an effort to minimize certification costs, Class I participants may elect to be batch certified with like organizations by the Registry. In that case, bidding and negotiating of contracts will take place between the certifier and the Registry. Standard terms and conditions will apply for all contract elements. Class I certification will usually not require a site visit, but rather, activities will be conducted via the phone.

Alternatively, Class I participants may choose to contract out certification services through a sole source procurement or competitive bidding process.

Class II – Larger Participants with More Complex Operations. This class includes those participants with only the following material emissions sources;

- indirect emissions from electricity consumption at more than one site;
- direct emissions from stationary combustion at more than one site;
- direct emissions from more than five vehicles; and/or
- no material process or fugitive emissions.

For Class II participants, at least one site visit (unless deemed unnecessary by the certifier) will be required. Additional visits may be required if any characteristics of the participant changes (e.g., new sites, changed location, began new operations). Site visits are used to ensure that all material GHG emission sources have been included and appropriately accounted for.

Class III – Participants with Process or Fugitive Emissions. For participants with material process or fugitive emissions or other emissions not covered under Class II, certification activities must be more detailed. Because these emission sources are not currently covered explicitly in the General Reporting Protocol, additional professional judgment is required.

See Table 4 Suggested Number of Sites to be Visited Based on Participant Size

Activity or Emissions Source	Documents
Identifying Emission Sources	
Emission Source Inventory	Facility Inventory
	Emission Source Inventory Stationary Source Inventory Mobile Source Inventory Fuel Inventory
Understanding Management Systems and Methodo	logies
Responsibilities for Implementing GHG Management Plan	Organization Chart, Greenhouse Gas Management Plan, Documentation and Retention Plan
Training	Training Manual, Procedures Manual, Consultant Quals Statement
Methodologies	Protocols Used (if in addition to the Registry's General Reporting Protocol)
Verifying Emission Estimates	
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)
Direct Emissions from Stationary Combustion	Monthly Utility Bills, Fuel Purchase Records, CEMs Data, Inventory of Stationary Combustion Facilities, Emission Factors (if not default)
Indirect Emissions from Cogeneration	Monthly Utility Bills, Fuel and Efficiency Data from Supplier, Emission Factors (if not default)
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 Manufacturing Processes	Raw Material Inputs, Production Output, Calculation Methodology, Emission Factors
Direct Fugitive Emissions	
Refrigeration Systems	Refrigerant Purchase Records, Refrigerant Sales Records, Calculation Methodology, Emission Factors
Landfills	Waste in Place Data, Waste Landfilled, Calculation Methodology, Emission Factors
Coal Mines	Coal Production Data Submitted to EIA, Quarterly MSHA Reports, Calculation Methodology, Emission Factors
Natural Gas Pipelines	Gas Throughput Data, Calculation Methodology, Emission Factors
Electric Transmission and Distribution	Sulfur Hexafluoride Purchase Records, Calculation Methodology, Emission Factors

Table 2. Recommended Documents to be Reviewed During Certification Activities

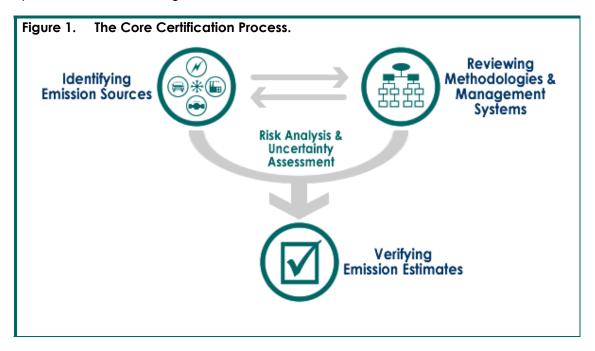
Overview

Once certifiers have completed the preparations for certification, they are ready to begin the core certification activities.

The core certification activities include three primary elements:

- 1. Identifying emissions sources in five emission source categories (Indirect, Mobile, Stationary, Process, and Fugitive Emissions);
- 2. Understanding management systems and estimation methods used; and
- 3. Verifying emission estimates.

The core certification activities are fundamentally a risk assessment and data sampling effort aimed at ensuring that no material sources are excluded and that the risk of error is assessed and addressed through appropriate sampling and review. The complete core certification process is illustrated in Figure 1 below.



Step 1: Identifying Emission Sources

Certifiers should review a participant's reported emission source inventories (facility, source, and fuel) to ensure that all sources are identified. Certifiers should then determine the GHGs that will result from the identified sources and estimate their magnitude. GHGs that are not required to be reported can be disregarded. Finally, certifiers should rank the remaining reported emissions by CO_2e (using the Global Warming Potentials [GWPs] contained in the

Intergovernmental Panel on Climate Change's (IPCC) Second Assessment Report (SAR)-see Table 3, this page) to determine environmental risk associated with the emissions.

	ning Potentials from econd Assessment
Greenhouse Gas	GWP (SAR, 1996)
CO ₂	1
CH ₄	21
N ₂ O	310
HFC-23	11,700
HFC-125	2,800
HFC-134a	1,300
HFC-143a	3,800
HFC-152a	140
HFC-227ea	2,900
HFC-236fa	6,300
HFC-43-10mee	1,300
CF ₄	6,500
C ₂ F ₆	9,200
C ₄ F ₁₀	7,000
C ₆ F ₁₄	7,400
SF6	23,900

Source: U.S. Environmental Protection Agency, U.S. Greenhouse Gas Emissions and Sinks: 1990-2000 (April 2002).

When the emission source inventory is complete, certifiers should review participant's Emission Report and consider the following questions:

- 1. Does the GHG Emission Report include all processes and facilities under the management control of the participant? If not, why?
- 2. Does the report include all sources of GHG emissions within the geographic and organizational boundaries of the participant?
- 3. Does the report include all applicable types of GHGs from each emission source within the geographic and organizational boundaries of the participant? (Note, only carbon dioxide emission estimates are required during the first three years of Registry operation).
- 4. Have any mergers, acquisitions, or divestitures occurred during the current reporting year? If so, has the emissions baseline been adjusted accordingly?
- 5. Have any activities been outsourced in the current year? If so, has the emissions baseline been adjusted accordingly?

After these questions have been answered, certifiers will be able to determine if the GHG Emission Report reflects the geographic, organizational, and operational scope of the participant. Once all emission sources have been identified, certifiers may proceed to Step 2 to review the calculation methods used and the management systems employed.

Step 2: Reviewing Methodologies and Management Systems

After the scope and comprehensiveness of the participant's Emission Report has been confirmed, certifiers should review the methodologies and management systems that the

See General Reporting Protocol Chapter 3, Estimating and Updating Your Baseline participant used to calculate their emissions. This is principally a risk assessment exercise, in which the certifier must weight the relative complexity of the scope of the participant's Emission Report, the participant's methodologies and management systems used in preparing the GHG Emission Report, and the risk of calculation error as a result of reporting uncertainty or misstatement. For example, the absence of a comprehensive GHG management system for a participant with a single retail outlet and solely indirect emissions from electricity purchases will not add significant risk of material misstatement. In contrast, a large vertically-integrated manufacturing company with facilities in 31 states may require a much more robust management system for tracking and reporting its GHG emissions.

A certifier's general review of a participant's GHG management systems should consider the following questions:

- 1. What calculation methodologies/procedures are used to manage GHG emissions at the source level? Are they appropriate given the uncertainty/risk associated with the emissions?
- 2. What methods are used to manage and implement entity-wide GHG emissions reporting programs? If the participant has more than one facility, how is the emissions data aggregated and monitored?
- 3. Who is responsible for managing and reporting GHG emissions?
- 4. What training is provided to personnel assigned to GHG emissions reporting duties? If the participant relies on external staff to perform required activities, what are the contractors' qualifications to undertake such work?
- 5. What documents are created to support and/or substantiate activities related to GHG emissions reporting activities, and where is such documentation retained? For example, is such documentation maintained through reporting plans or procedures, utility bills, etc.?
- 6. What mechanisms are used to measure and review the effectiveness of GHG emissions reporting programs? For example, how often are policies, procedures, and practices evaluated and updated?

The answers to these questions should be reviewed in the context of the complexity of a participant's operations in order to assess the overall risk of material misstatement associated with the participant's GHG Emission Report.

Certifiers should also consider how participants' management systems are designed to support reporting five categories of emission sources (indirect, mobile, stationary, process and fugitive). Consequently, in reviewing a participant's emissions report, certifiers should consider the following questions:

- 1. What is the diversity of the sources that comprise each emission category? For example, are there multiple types of vehicles and other transportation devices that use different emission estimation methodologies?
- 2. What is the diversity of GHGs emitted from each emission source category?
- 3. Has the participant used the default emission factors standardized estimation methods in the Registry's General Reporting Protocol to calculate emissions in each source category, or has the participant or its technical assistance provider developed estimation methods independently? If participant uses alternative emission factors, are they documented and explained appropriately?

4. Does the participant's GHG management system appropriately track emissions in all of the emission source categories?

Once the certifier has assessed the overall risk associated with the management systems, the risks should be assessed in conjunction with the weighted CO_2e estimates determined in Step 1 (Identifying Emission Sources). Certifiers should then identify the greatest levels of risk (either based on volume of emissions, lack of management systems, or both) to determine the best risk-based strategy to identify a representative sample of emissions to recalculate.

Step 3: Verifying Emission Estimates

Based on identified emission sources, management systems, and corresponding risk profile of GHG emissions, certifiers should select a representative sample of calculations to verify and sites to visit. Sampling procedures may entail conducting site visits, reviewing documents such as utility bills or laboratory results, or simply recalculating emission estimates based on underlying activity data. The Registry provides guidance on the number of sites that should be visited based on the size of the entity, although the certifier should use professional judgment in this area. See Table 4, below.

Table 4.	Table 4.Suggested Number of Sitesto Be Visited Based on Participant Size		
Total	Sites	Suggested Minimum Sample Size	
2-10		30%	
11-25		20%	
26-50		15%	
51-100		10%	
101-250		5%	
251-500		3%	
501-1,000		2%	
Over 1,000		1-2%	

Targeted Review & Recalculation of GHG Emissions

The Registry does not expect that the certifier will review all documents and recheck all calculations. To ensure that data meet a minimum quality standard on an entity-wide basis, it is most efficient to demonstrate that the areas that have the greatest uncertainty and highest impacts are free of material misstatement (at least 95% accurate). Certifiers should calculate emissions for these sources and compare those calculations to emission levels reported by the participant. If they are free of material misstatement, the certifier should be confident in declaring the participant's full report free of material misstatement. If they are not free of material misstatement the certifier should include this information in its Certification Report and may wish to expand its sampling effort to other sources. Once certifiers have confirmed that reported participant emissions are free of material misstatement, they should estimate total emissions and confirm that all material GHG emissions are reported.

De Minimis Emissions

De minimis emissions are a quantity of GHG emissions from one or more sources, for one or more gases, when summed equal less than 5% of an organization's total emissions. The percentage applies to California emissions for the purposes of California-only emissions reporting, and applies separately to U.S. emissions for national reporting. Participants have

See General Reporting Protocol Chapter 4, De Minimis Emissions and Materiality some discretion in choosing which sources and/or GHGs are de minimis, but are expected to report no less than 95% of its overall emissions. Certifiers should review participants' documentation and explanation of how de minimis emissions were calculated to confirm that not more than 5% of total emissions are considered de minimis.

Identifying Material or Immaterial Misstatements

In order for certifiers to certify a GHG Emission Report, it must be free of material misstatement. It is possible that during the certification process differences will arise between the emissions estimated by the participant and those estimated by the certifier. Differences of this nature may be classified as either material (significant) or immaterial (insignificant). A discrepancy is considered to be material if the overall reported emissions differ from the overall emissions estimated by the certifier by 5% or more. A difference is immaterial if it is less than 5%.

Overview

Once certifiers have completed reviewing participants' Emission Reports, they must do the following to complete the certification process:

- 1. Complete a detailed Certification Report, and deliver it to the participant;
- 2. Prepare a concise Certification Opinion, and deliver it to the participant;
- Host an Exit Meeting with the participant to discuss the Certification Report and Certification Opinion and determine if material misstatements (if any) can be corrected. If so, the certifier and participant should schedule a second set of certification activities to re-evaluate the revised Emission Report;
- 4. Forward the authorized Certification Opinion to the Registry;
- 5. Complete the certification form in the CARROT to notify the Registry of the participant's certified status.
- 6. Retain important records and documents.

Completing a Certification Report

Certification Report Contents

The certifier should prepare a detailed Certification Report that, when cleared through internal review process, will be forwarded to the appropriate body within the participant's organization. The Certification Report is a confidential document that is shared between a certifier and a participant—it is not available to the Registry or the public.

The Certification Report should include the following elements:

- The scope of the certification process undertaken;
- The standard used to certify emissions (this is the Registry's General Reporting Protocol, but may also include other protocols or methodologies for those sources for which the Registry has yet to provide detailed guidance);
- A descriptions of the certification activities, based on the size and complexity of the participant's operations;
- A list of emissions sources identified;
- A description of the sampling techniques and risk assessment methodologies employed for each source;
- An evaluation of whether the participant's Emission Report is in compliance with the Registry's General Reporting Protocol;

- A comparison of the participant's overall emission estimates with the certifiers overall emission estimates;
- A list of material misstatements, if any; and
- A list of immaterial misstatements, if any;
- A general conclusion to be reflected in the Certification Opinion forwarded to the Registry.

Quality Assurance Check

When the Certification Report is completed, it should be forwarded to an independent senior reviewer within the certifiers firm for a quality assurance check. No Certification Report should be forwarded to a participant until it has had an independent internal review.

Participant Review of Certification Report

Once a participant receives a Certification Report from their certifier, they should have at least 30 days to review and comment on the Certification Report. At the end of that review, the certifier and the appropriate official at the participant's organization should hold a meeting to discuss the nature of any material or immaterial misstatements.

Preparing a Certification Opinion

Certification Opinion Contents

Certifiers should prepare a Certification Opinion using the template in Figure 2 on the next page. The Certification Opinion is a simple confirmation of the certification activities and outcomes for all stakeholders (participants, certifiers, the Registry, and the public). The Certification Opinion must also follow the same internal review process as the Certification Report, and consequently must be reviewed and signed by an independent senior reviewer within the certifier's firm.

Closing Out the Certification Contract

Exit Meeting

Certifiers should prepare a brief summary presentation of their certification findings for the participant's key personnel. At the exit meeting certifiers and participants might exchange lessons learned about the certification process and share thoughts for improving the certification process in the future. Certifiers and participants may wish to consider joint feedback to the Registry.

The goals of this meeting should be:

 Acceptance of the Certification Report and Opinion (unless material misstatements exist and can be remediated, in which case the certification contract may need to be revised, and a second certification process scheduled). If the participant does not wish to retain the certifier for the re-certification process, the certifier shall turn over all relevant documentation to the participant within 30 days. • Authorization for the certifier to submit the Certification Opinion to the Registry and complete the certification form in the CARROT

If the certifier is under contract for certification activities in future years, the certifier and participant may wish to establish a schedule for the next year's certification activities.

	Sample Certification Opinion	
	California Clim	ate Action Registry
	Certifica	ation Opinion
Name	of Certifier	
Califorr	to certify that ons report covering the period nia Climate Action Registry's Certifica al reporting Protocol.	has had its greenhouse gas to certified according to the tion Protocol against a standard of the Registry's
Geogra	aphic Scope of Certification	
	California Only Emissions	
	U.S. Emissions	
Certifie	cation Opinion	
	Certified without Qualification	
	_ Unable to Certify	
Attesta	ation	
Lead C	Certifier	Date
Senior	Internal Reviewer	Date
Author	rization	
I Certific	auth aution Opinion to the California Climate	norize the above named certifier to submit this Action Registry.

Limits to Certifier Feedback

If participants' Emission Reports are not certifiable due to material misstatements, *certifiers must not provide guidance on how to remediate the identified misstatements*. Such guidance

would be considered a consulting activity and therefore, a conflict of interest. However, certifiers should provide any existing documentation that may be useful to participants in preparing remediation plans. Certifiers should also enumerate any shortcomings in participants' GHG tracking and management systems.

The Registry will retain the participant's uncertified Emission Report in the Registry database for up to two years pending certification. After two years, if the Emission Report is still not certifiable, the Registry will render the Emission Report inactive.

Submitting the Emission Report to the Registry

Once the Certification Opinion is complete and has been authorized by the participant, the certifier must complete the certification form in the CARROT (www.climateregistry.org) and send the original Certification Opinion to the Registry at the address listed below:

Technical Director California Climate Action Registry 515 S. Flower Street, Suite 1305 Los Angeles, CA 90071

Once the certification form is completed and the Registry receives a hardcopy of the Certification Opinion, the participant's report will be formally accepted into the Registry database, and the annual certification process will be completed.

*Note: Participants are *not* required to submit their Certification Opinions to the Registry for the first two years of their participation. However, it is important to note that a participant's emissions data will not be considered accepted by the Registry unless the Registry receives a Certification Opinion indicating a "certified without qualification" assessment.

Record Keeping and Retention

While the Registry views the certification process essentially as a private exchange between the certifier and the participant, the certifier should retain sufficient records to enable an expost certification of the participant's emissions. The Registry recommends that the following records be retained for a minimum of five years as specified by contract with the participant.

Key records certifiers should retain include hard and electronic copies, as applicable, of:

- The participant's GHG Emission Report (printable from CARROT);
- The Certification Report; and
- The Certification Opinion.

Other key information to retain from the certification process specifically includes:

- Contact information for the lead certifier and a responsible corporate officer at the participant's organization;
- A general description of the participant's organization;
- The geographic boundaries;

- The number of facilities and operations assessed in the certification activities;
- The GHGs evaluated;
- The sources of emissions identified;
- Certification methodology used based on the size and complexity of the participant;
- Sampling procedures for selecting site visits;
- Dates of site visits;
- The certifier's evaluation of the participant's management systems; and
- The certifier's estimates of the participant's emissions.

Congratulations! The annual certification process is now complete!

Questions?

If you have any questions regarding GHG emissions reporting or certification under the Registry Protocols, please feel free to contact the Registry by phone (213-891-1444) or email (info@climateregistry.org)

Activity	Data Ashiewad
	Date Achieved
Preparing for Certification (Part II) Bid on a Certification Contract	
Negotiate Contract with Registry Participant	
Notify CEC and Registry of Planned Certification Activities	
Host Kick-off Meeting With Participant	
Plan Certification Activities Based on Participant Characteristics	
Core Certification Activities (Part III)	
Identify Emission Sources	
Identify and list all Facilities in the Entity	
Identify and list all Emission Sources (of Indirect, Mobile, Stationary, Process and Fugitive Emissions)	
Identify and list all Fuel Types	
Rank All Sources by Magnitude on a Carbon Dioxide Equivalent Basis	
Assess Any Changes in Geographic and Organizational Boundaries	
Review Methodologies and Management Systems	
Evaluate Procedures and Systems for Preparing Emission Report	
Evaluate Personnel and Training for Preparing Emission Report	
Consider the uncertainty associated with methodologies and management systems	
Assess Risk of Material Misstatement Associated with Management Systems and Procedures for Preparing Emissions Report	
Assess Risk of Material Misstatement Associated with Each Source in Order of Magnitude	
Develop Sampling Procedures for Sources Based on Risk of Material Misstatement	
Verify Emission Estimates	
Verify Emission Estimates Confirm Total Fuel Consumption	
Verify Emission Estimates Confirm Total Fuel Consumption Confirm Vehicle Miles Traveled, if applicable	
Verify Emission Estimates Confirm Total Fuel Consumption Confirm Vehicle Miles Traveled, if applicable Confirm that appropriate Emission Factors are Used. If not Default Factors, ensure the Derivation and Explanation of increased Accuracy is properly Documented	
Verify Emission Estimates Confirm Total Fuel Consumption Confirm Vehicle Miles Traveled, if applicable Confirm that appropriate Emission Factors are Used. If not Default Factors, ensure the	
Verify Emission Estimates Confirm Total Fuel Consumption Confirm Vehicle Miles Traveled, if applicable Confirm that appropriate Emission Factors are Used. If not Default Factors, ensure the Derivation and Explanation of increased Accuracy is properly Documented Calculate Direct (Mobile, Stationary, Process & Fugitive)& Indirect Emissions Based on Sampling	
Verify Emission Estimates Confirm Total Fuel Consumption Confirm Vehicle Miles Traveled, if applicable Confirm that appropriate Emission Factors are Used. If not Default Factors, ensure the Derivation and Explanation of increased Accuracy is properly Documented Calculate Direct (Mobile, Stationary, Process & Fugitive)& Indirect Emissions Based on Sampling Procedures	
Verify Emission Estimates Confirm Total Fuel Consumption Confirm Vehicle Miles Traveled, if applicable Confirm that appropriate Emission Factors are Used. If not Default Factors, ensure the Derivation and Explanation of increased Accuracy is properly Documented Calculate Direct (Mobile, Stationary, Process & Fugitive)& Indirect Emissions Based on Sampling Procedures Compare Estimates from Sample Calculations to Reported Emissions Determine if There are Any Discrepancies Between Sample Calculation and Reported Emissions Confirm that All Material GHG Emissions are Included (that all Emissions not Included are either not De minimis or not Required)	
Verify Emission Estimates Confirm Total Fuel Consumption Confirm Vehicle Miles Traveled, if applicable Confirm that appropriate Emission Factors are Used. If not Default Factors, ensure the Derivation and Explanation of increased Accuracy is properly Documented Calculate Direct (Mobile, Stationary, Process & Fugitive)& Indirect Emissions Based on Sampling Procedures Compare Estimates from Sample Calculations to Reported Emissions Determine if There are Any Discrepancies Between Sample Calculation and Reported Emissions Confirm that All Material GHG Emissions are Included (that all Emissions not Included are either	
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Table 2. Recommended Documents to be Reviewed During Certification Activities			
Activity or Emissions Source	Documents		
Identifying Emission Sources			
Emission Source Inventory	Facility Inventory		
	Emission Source Inventory Stationary Source Inventory Mobile Source Inventory Fuel Inventory		
Understanding Management Systems and Method	lologies		
Responsibilities for Implementing GHG Management Plan	Organization Chart, Greenhouse Gas Management Plan, Documentation and Retention Plan		
Training	Training Manual, Procedures Manual, Consultant Quals Statement		
Methodologies	Protocols Used (if in addition to the Registry's General Reporting Protocol)		
Verifying Emission Estimates			
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)		
Direct Emissions from Stationary Combustion	Monthly Utility Bills, Fuel Purchase Records, CEMs Data, Inventory of Stationary Combustion Facilities, Emission Factors (if not default)		
Indirect Emissions from Cogeneration	Monthly Utility Bills, Fuel and Efficiency Data from Supplier, Emission Factors (if not default)		
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 Manufacturing Processes	Raw Material Inputs, Production Output, Calculation Methodology Emission Factors		
Direct Fugitive Emissions			
Refrigeration Systems	Refrigerant Purchase Records, Refrigerant Sales Records, Calculation Methodology, Emission Factors		
Landfills	Waste in Place Data, Waste Landfilled, Calculation Methodology, Emission Factors		
Coal Mines	Coal Production Data Submitted to EIA, Quarterly MSHA Reports, Calculation Methodology, Emission Factors		
Natural Gas Pipelines	Gas Throughput Data, Calculation Methodology, Emission Factors		
Electric Transmission and Distribution	Sulfur Hexafluoride Purchase Records, Calculation Methodology, Emission Factors		

Figure 2. Sample Certification Opinion
California Climate Action Registry
Certification Opinion
Name of Certifier
This is to certify that has had its greenhouse gas emissions report covering the period to certified according to the California Climate Action Registry's Certification Protocol against a standard of the Registry's General reporting Protocol.
Geographic Scope of Certification
California Only Emissions
U.S. Emissions
Certification Opinion
Certified without Qualification
Unable to Certify
Attestation
Lead Certifier Date
Senior Internal Reviewer Date
Authorization
Iauthorize the above named certifier to submit this Certification Opinion to the California Climate Action Registry.
Participant Name Date



California Climate Action Registry 515 S. Flower Street, Suite 1305 Los Angeles, California 90071

Reporting Assistance: 1-877-CO2-CCAR Email: help@climateregistry.org Internet: http://www.climateregistry.org Copyright © California Climate Action Registry, October 2002, Printed in Los Angeles, CA.