



Greenhouse Gas Reporting in British Columbia

Verification

B.C. Greenhouse Gas Reduction
(Cap and Trade) Act

B.C. Ministry of Environment

December 3, 2009



Session Purpose

- ✓ To provide detail about B.C. verification requirements
- ✓ To educate those new to the practice of verification
- ✓ To provide an opportunity for feedback about additional guidance and support needed



Session Agenda

- 1:00 – 1:45 p.m. **Verification Requirements**
- 1:45 – 2:15 p.m. **Verification Question and Discussion Session**
- BREAK
- 2:30 – 3:00 p.m. **Identifying Additional Verification Guidance Needs**
- 3:00 – 3:15 p.m. **Afternoon Session Wrap-Up**
- 3:15 – 4:00 p.m. *Further verification discussion on topics of interest*



Topics

1. Applicability
2. What is verification?
3. What to expect during verification
4. Who can conduct verification?
5. How to prepare for verification
6. Verification timeline for a facility
7. How to reduce verification costs



Key Information

- ✓ Verification Requirements
 - Applicability and deadlines
 - Verification process and ISO 14064-3
 - Materiality
 - Verification statement contents
 - Accreditation of verification bodies
 - Conflict of Interest
 - Verification manual



Applicability

Reporting Regulation under the *Greenhouse Gas Reduction (Cap and Trade) Act*

- ✓ Third party verification required for annual emissions $\geq 25,000$ tonnes CO₂e
 - large sawmill or greenhouse with a fossil fuel boiler or kiln
 - oil and gas production and processing linear facility
 - mid-sized mine
- ✓ Schedule C Biomass excluded from this threshold

Applicability

	Fossil fuel /process CO₂e annual emissions	Biomass CO₂ emissions	Required to Verify?
Operation A	emissions >25kt	any amount	Yes
Operation B	25kt > emissions >10kt	>25kt	No (must report)
Operation C	emissions <10kt	>10kt	No



Applicability

- ✓ Deadline for verification statement
 - September 1 for 2010 and 2011 emissions
 - March 31 thereafter



What is verification?

- Evaluation of your GHG emissions report against the regulation requirements
- Must be conducted in accordance with ISO 14064-3 *Specification with guidance for the validation and verification of greenhouse gas assertions*
- B.C. Reporting Regulation requirements
- Verification Manual



What is verification?

- B.C. requirements build on consensus-based sources (ISO standards)
 - consistency, integrity
- ISO 14064-3 includes **Principles:**
 - Independence
 - Ethical conduct
 - Fair presentation
 - Due professional care

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



What is verification?

- Different from traditional compliance assessment under the *Environmental Management Act*
 - Similar to a financial audit
 - Third party, not ministry staff
 - Facility chooses when, before the deadline
 - Know you're in compliance before you report emissions



What is verification?

Steps:

1. Verification Plan and Sampling Plan
2. Assessment of
 - Data and information
 - Information system controls
3. Assessment against requirements (quantification methods)
4. Evaluation of reported emissions
5. Verification Statement



What is verification?

Terminology:

- ✓ Material misstatement
- ✓ Level of assurance: reasonable
- ✓ Materiality threshold: 5%



What to expect during verification

	Step	Verification Body Action	Facility Action
1	Verification Plan and Sampling Plan	<ul style="list-style-type: none"> • preliminary document review • scheduling of verification activities (interviews, site visits) • prepare plans • retain plans • modify plans as necessary during verification 	<ul style="list-style-type: none"> • communicate with verification body • provide documents requested • participate in preliminary meetings and interviews • review draft plans ↔



What to expect during verification

Step	Verification Body Action	Facility Action
<p>2</p> <p>Assessment of</p> <ul style="list-style-type: none"> • Data and information • Information system controls 	<ul style="list-style-type: none"> • detailed records and calculations review • review of data management systems • site visits • office visits / interviews 	<ul style="list-style-type: none"> • provide records and documents requested • participate in site visits and interviews, ensure key personnel are available



What to expect during verification

Step	Verification Body Action	Facility Action
<p>3</p> <p>Assessment against regulation requirements</p>	<ul style="list-style-type: none"> • were monitoring, measurement and calibration as required? • were quantification methods followed? • were QA/QC procedures in place and effective? • was data management sufficient? • other regulation requirements met? 	<ul style="list-style-type: none"> • none



What to expect during verification

Step	Verification Body Action	Facility Action
4 Evaluation of reported emissions	<ul style="list-style-type: none">• does evidence collected support emissions report?• use <u>materiality threshold</u> (5%)• determine if they can provide <u>reasonable assurance</u>	<ul style="list-style-type: none">• none




What to expect during verification

	Step	Verification Body Action	Facility Action
5	Verification Statement	<ul style="list-style-type: none"> • prepare verification statement, addressed to the facility • provide facility with a chance to correct errors identified • re-assessment possible 	<ul style="list-style-type: none"> • participate in exit interview • address errors as facility chooses ↔ • <i>include verification statement in emissions report or supplementary report</i>



What to expect during verification

Do not expect consulting



Who can conduct verification for emissions reported in B.C.?

- A verification body must be accredited in accordance with ISO 14065
 - Standards Council of Canada (**SCC**)
 - American National Standards Institute (**ANSI**)
- Also for 2010 and 2011 emissions: verification bodies accredited by the California Air Resources Board



Who can conduct verification for emissions reported in B.C.?

- Team approach: **•Lead verifier**
 - Independent Peer Reviewer**
 - Audit specialists**
 - Technical experts**
- Collectively, team expertise to include:
 - emission sources and quantification methods
 - auditing, data sampling methodologies
 - risk assessment methodologies
- Also: team must understand the Reporting Regulation and the verification body's procedures



How to prepare for verification

- Review the regulation
- Identify activities, sources and quantification methods and record this investigation
- Identify and engage an accredited verification body with appropriate technical expertise

How to prepare for verification

- Facility should address:
 - monitoring, measurement and calibration
 - QA/QC procedures
 - data management and audit trail
- Keep records: receipts, etc.
- If concerned about systems in place
 - pre-compliance audit /
 - pre-verification assessment(accredited verification body not required)

Verification Timeline

Date	Considerations for Facility Operators / Owners
Early 2010	Prepare for verification
During 2010	Collect emissions data anticipating verification Make contact with accredited verification bodies
Early 2011	Engage verification body for 2010 emissions report*
Mar. 31, 2011	Submit emissions report (no verification statement)
Sep. 1, 2011	Submit supplementary report that includes a verification statement for 2010 emissions



How to reduce verification costs

- Useful guide on cost factors –
The Climate Registry's website, under Resources for
Members:

<http://www.theclimateregistry.org/downloads/2009-01-15%20TCR%20Guidance%20on%20Verification%20Cost%20Factors.pdf>

Facility type	Manage to reduce costs
<ul style="list-style-type: none">- Facility complexity- Emission sources	<ul style="list-style-type: none">- Data monitoring system transparency- Organized data management- Quality assurance



Questions and discussion

- Where is additional guidance needed?

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