

ISO 14064

International Standard for GHG Emissions Inventories and Verification

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**FIRST
ENVIRONMENT**



ISO 14001 CERTIFIED

What is ISO?



- International Organization for Standardization
- Non-governmental organization formed in 1947 and based in Geneva which coordinates cooperation between its 140 member countries' national standard bodies

U.S.	ANSI
U.K.	BSI
France	AFNOR
Japan	JISC
Germany	DIN



What is ISO

- Supports the development, and publishes, international standards or documented international agreements for technical or management issues
 - ISO 9000 (quality)
 - ISO 14000 (environmental management)
- Standards are
 - voluntary;
 - consensus based;
 - private sector



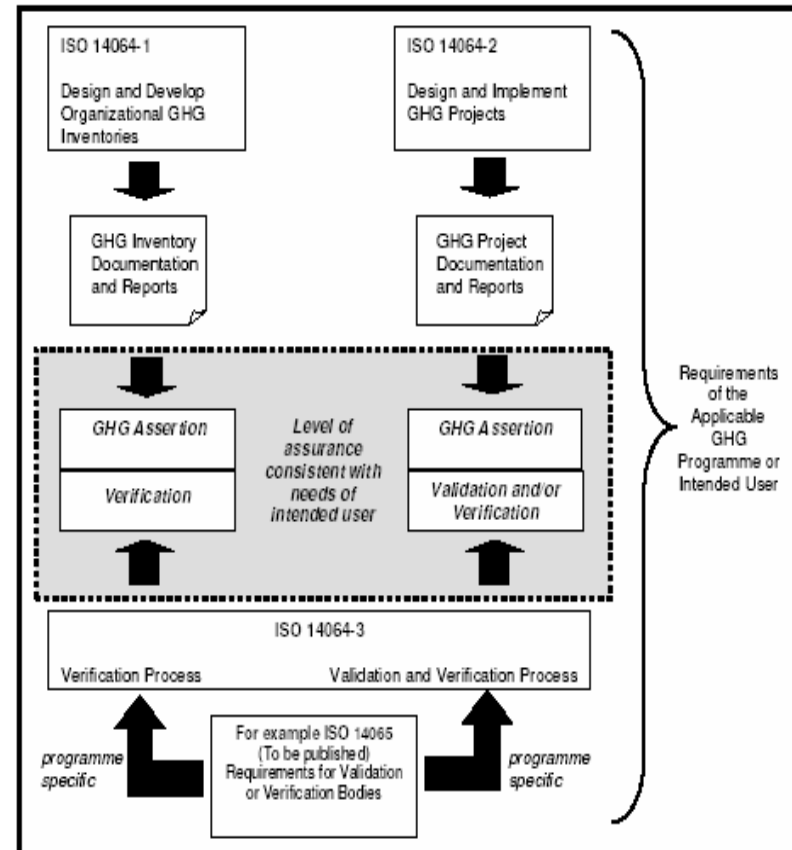
ISO 14064 Standard for Climate Change

- Began in 2002 with identification of need for harmonization of diverse GHG programs proliferating at international, national, regional and local levels
- The development process included over 11 international negotiation meetings and the efforts of 175 experts representing over 45 countries.
- Approved for international use in March 2006.
- Approved by the American National Standards Institute as an American National Standard in August 2006.



Structure of the ISO 14064 Standard

- **Part 1: GHG Inventories**
 - Specifications for the quantification, monitoring and reporting of *entity* emissions and removals
- **Part 2: GHG Projects**
 - Specifications for the quantification, monitoring and reporting of *project* emissions and removals
- **Part 3: Verification**
 - Specifications and guidance for *validation, verification and certification*



Source: ISO FDIS 14064, Part 2

ISO 14064, Part 1

- Standard for developing inventory of entities
 - Companies, agencies, and other organizations

- Bottom up approach

- Eight major sections with over 21 subsections

discussing GHG inventory issues



ISO 14064, Part 1

- Establishes principles for conducting entity GHG inventories
 - relevance, completeness, consistency, accuracy, and transparency
- Identifies key aspects for developing a greenhouse gas inventory for organization
 - Setting inventory boundaries,
 - Quantifying GHGs, and
 - Reporting GHG emissions

ISO 14064, Part 1: Setting Boundaries

- Organizational boundaries
 - Operational control
 - Equity share
- Operational boundaries
 - Direct emissions
 - Control of the sources
 - Indirect emissions
 - Result from organization's activities but sources not controlled



ISO 14064, Part 1: Quantifying GHGs

- Identification of emission sources within the operational boundaries
- Selection of established emissions quantification methodologies for identified sources
 - Determination of recognized emission factors
 - Collection of source data relative to methodology
 - Application of the quantification methodology using collected data
 - Consolidation of the source data
 - Keeping direct and indirect emissions separate



ISO 14064, Part 1: Reporting

- Reports should identify:
 - Organizational boundaries,
 - GHG emissions from individual operational categories, and
 - Methodologies used to quantify those emissions
- Disclose exclusions or other relevant clarifications
- Identify other standards or protocols used in developing GHG inventory



ISO 14064 and The Greenhouse Gas Protocol

- ISO 14064 Part 1 is generally consistent and compatible with The GHG Protocol developed by the World Business Council for Sustainable Development (WBCSD) and World Resources Institute (WRI)
 - ISO 14064 identifies the what
GHG Protocol provides the how and why
 - ISO 14064 can be audited
GHG Protocol provides choices

ISO 14064, Part 3: Verification



- Established for the first time a process for conducting a verification of a GHG assertion
- Developed using best practices derived from:
 - Financial accounting
 - Environmental auditing
- Considered verification experiences from emerging GHG schemes and programs, including
 - Kyoto Protocol's Clean Development Mechanism
 - United Kingdom's Emission Trading Scheme



ISO 14064, Part 3: Verification

- Establishes GHG verification principles
 - independence, ethical conduct, fair presentation, and due professional care
- Defines the verification fundamentals
 - level of assurance, objectives, criteria, and scope
 - materiality threshold
 - identifies when omissions, errors or misstatements are considered significant or insignificant

ISO 14064, Part 3: Verification

- Verification assessments
 - Review of the GHG information system,
 - Where might errors occur?
 - Evaluation of the GHG data, and
 - Where did they occur?
 - Compare the report against verification criteria
 - Did report meet minimum requirements?



ISO 14064, Part 3: Verification

- Verification produces a verification statement or opinion
 - Favorable opinion identifies that inventory report:
 - Is consistent with the criteria identified, and
 - Contains information that would allow users to make accurate decisions based upon that assertion
 - Opinions may also:
 - Identify qualifications regarding the report or limitations in the information it contains
 - Assert that the report may not be reliable for application to the intended user's decision-making

Benefits to organizations using ISO 14064

- Transparent and comparable GHG reporting
- Simplification of the GHG inventory and its verification
 - Reduced effort and costs
- Greater confidence in GHG inventory
- Improved credibility with stakeholders



Applying ISO 14064 to GHG Reporting Programs

- ISO 14064 is designed to be policy and sector neutral
 - Provides foundation upon which additional requirements can be layered
- Consistent Technical Approach
 - Simplifies Verification
 - Facilitates Emission Trading
 - Decreases Transaction Costs
- Allows linking of individual programs



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