ENVIRONMENTAL
AUDIT, CERTIFICATION & TRAINING SERVICES

SGS

HOW CAN YOU DEMONSTRATE YOUR COMMITMENT TO THE ENVIRONMENT?
ENVIRONMENTAL AUDIT, CERTIFICATION & TRAINING SERVICES FROM SGS

Customers, consumers and shareholders are increasingly concerned with the environmental impact of the activities, products and services they consume. They expect companies to comply with environmental standards and demonstrate their commitment to reducing the environmental impact of daily operations. While this may be a challenge, it also provides an opportunity to demonstrate your environmental responsibility, stand out from the competition and show existing and potential customers the proof of your commitment. There are many standards which can help your organisation demonstrate this environmental commitment and continuously improve the performance in this area.

ISO 14001:2004 – ENVIRONMENTAL MANAGEMENT SYSTEMS

The ISO 14001:2004 Environmental Management Systems standard sets a basis for how to more effectively manage the environmental aspects of your business activities, while taking into consideration environmental protection, pollution prevention and socio-economic needs.

The benefits

Implementing ISO 14001:2004 is intended to achieve the following benefits:

- Manages environmental aspects effectively;
- Improves compliance with environmental legislation;
- Prevents pollution;
- Minimises energy and resource usage reducing operating costs;
- Continually improves environmental performance;
- Reduces the risk of penalties and avoids litigation;
- Increases stakeholder confidence;
- Improves employee morale;
- Provides new business opportunities with environmentally aware customers; and
- Demonstrates high levels of environmental compliance when bidding for international contracts or expanding locally to accommodate new business.

How does the certification process work?

The ISO 14001:2004 certification process consists of six steps:

- Step A – SGS provides you with a proposal based on the size and nature of your organisation. You can then proceed with the audit by accepting the proposal;

- Step B – You may ask SGS to perform a 'pre-audit' to give an indication of the readiness of your organisation for the audit. This stage is optional, yet it is often found useful in identifying any weaknesses in your systems and in building confidence before the formal audit;

- Step C – The first part of the formal audit is the 'Stage 1 – Readiness Review'. This lets us evaluate the compliance of your documented system with the requirements of the standard to better understand the nature of your organisation, to plan the rest of the audit as effectively as possible, and to initially examine key elements of the system. You will receive a report after this stage identifying any concerns or observed non-compliances so that you can take immediate action if required;

- Step D – This is 'Stage 2' of the initial audit process. The audit includes interviews with you and your colleagues and examination of records. Observation of your working practices determines how compliant your actual processes are with the standard and with your own documentation system. At the end of this stage, we will present the findings of the audit classified as either major or minor non-conformances along with other observations and opportunities for improvement. Once you have addressed the non-conformities, a technical review of the audit will then be conducted by an authorised SGS Certification Manager to confirm the issuance of a certificate;

- Step E – Our surveillance visits will be scheduled at either 6 or 12 month intervals depending on the contract. During the visits, we review the implementation of the action plan addressing the past non-conformities and examine certain mandatory and other selected parts of the system in line with an audit plan that we provide you before each visit; and

- Step F – Shortly before the third anniversary of the initial certification, our routine visit will be extended to enable a re-certification audit. Surveillance visits will then continue, as before, on a 3-year cycle.
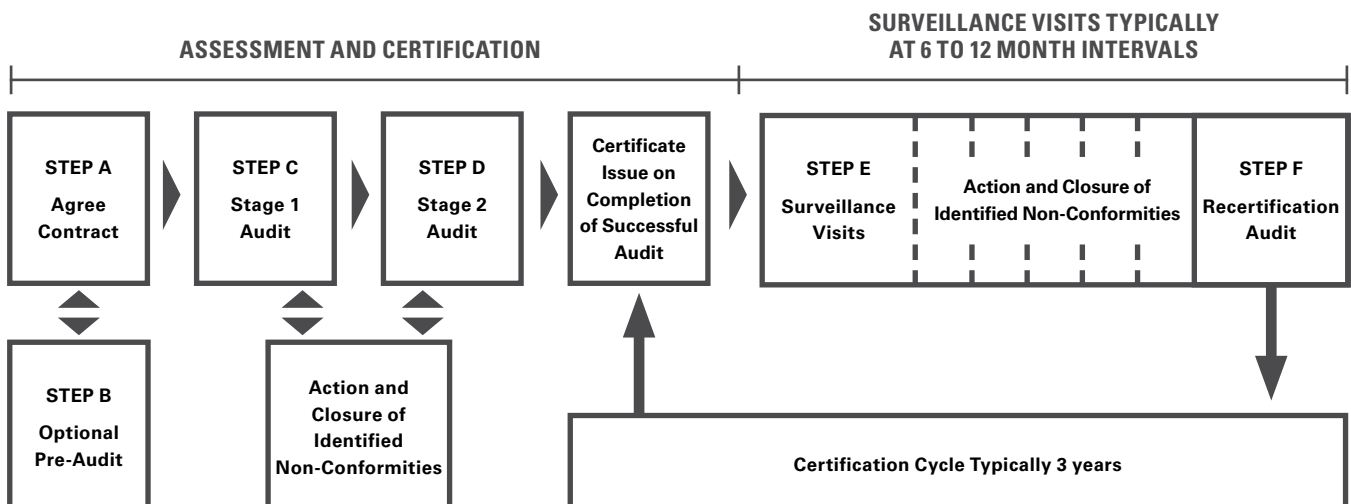
ISO 14001:2004 related training

Our ISO 14001:2004 training course portfolio is designed to meet the requirements of any organisation using the standard, and includes:

- ISO 14001:2004 Introduction Seminar;
- ISO 14001:2004 Aspects, Impacts & Pitfalls Seminar;
- ISO 14001:2004 Internal Auditor Course;
- ISO 14001:2004 Lead Auditor Course (IRCA Accredited);
- ISO 14001:2004/OHSAS18001:2007 Integrated Internal Auditor Course; and
- Process & Aspect Auditing Concepts Seminar.

Please visit www.sgs.com/training to view the ISO 14001:2004 course schedules in your region.

ISO 14001:2004 CERTIFICATION PROCESS

ASSESSMENT AND CERTIFICATION

SURVEILLANCE VISITS TYPICALLY AT 6 TO 12 MONTH INTERVALS

| STEP A Agree Contract | STEP C Stage 1 Audit | STEP D Stage 2 Audit | Certificate Issue on Completion of Successful Audit | STEP E Surveillance Visits | Action and Closure of Identified Non-Conformities | STEP F Recertification Audit |

STEP B Optional Pre-Audit

Action and Closure of Identified Non-Conformities
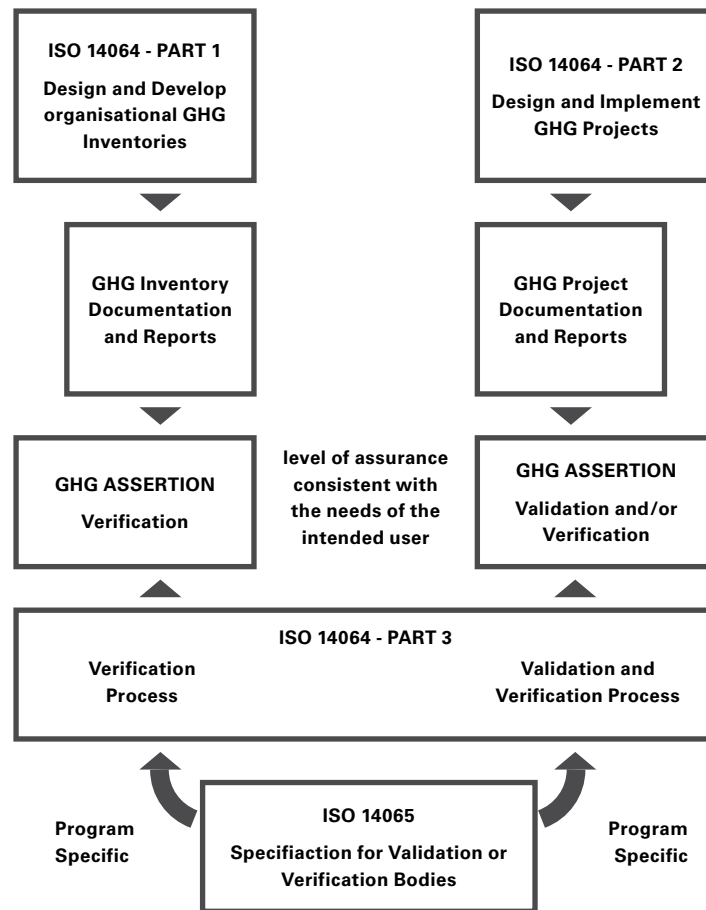
Certification Cycle Typically 3 years

ISO 14064-1/2/3:2006 – GREENHOUSE GAS VALIDATION AND VERIFICATION

The ISO 14064 standard, which is the latest addition to the ISO 14000 family of International Standards for environmental management, provides government and industry with an integrated set of tools to develop programmes aimed at reducing GHG emissions, as well as for emissions trading.

ISO 14064 comprises three standards, respectively detailing specifications and guidance for the organisational and project levels, and for validation and verification.

1. Part 1 specifies requirements for designing and developing organisation or entity-level GHG inventories;

2. Part 2 details requirements for quantifying, monitoring and reporting emission reductions and removal enhancements from GHG projects; and

3. Part 3 provides requirements and guidance for the conducting of GHG information validation and verification.

The standards can be used independently or as an integrated set of tools to meet the varied needs of GHG accounting and verification.

ISO 14064 - PART 1
Design and Develop organisational GHG Inventories

ISO 14064 - PART 2
Design and Implement GHG Projects

GHG Inventory Documentation and Reports

GHG Project Documentation and Reports

GHG ASSERTION
Verification

level of assurance consistent with the needs of the intended user

GHG ASSERTION
Validation and/or Verification

ISO 14064 - PART 3
Verification Process

Validation and Verification Process

Program Specific

ISO 14065
Specifiaction for Validation or Verification Bodies

Program Specific

SOURCE: ISO

The benefits

Implementing ISO 14064 is intended to achieve the following benefits:

- Promotes consistency, transparency and credibility in GHG quantification, monitoring, reporting and verification;

- Demonstrates the commitment to being a greener organisation by reducing carbon emissions and having those reductions independently verified and validated;

- Enables organisations to identify and manage GHG-related liabilities, assets and risks;

- Facilitates the trade of GHG allowances or credits;

- Supports the design, development and implementation of comparable and consistent GHG schemes or programmes;

- Develops robust internal mechanisms for quantifying and reporting GHG emissions;

- The legitimate GHG assertions, claims and reports can be used to build trust with stakeholders;

- Implements robust systems for the monitoring and reporting of GHG emissions;

- Facilitates the development and implementation of organisations' GHG management strategies and plans for the future;

- Provides the ability to track performance and progress in the reduction of GHG emissions and/or the increase in GHG removals; and

- Enhances the credibility, consistency and transparency of GHG quantification, monitoring and reporting to any interested parties.
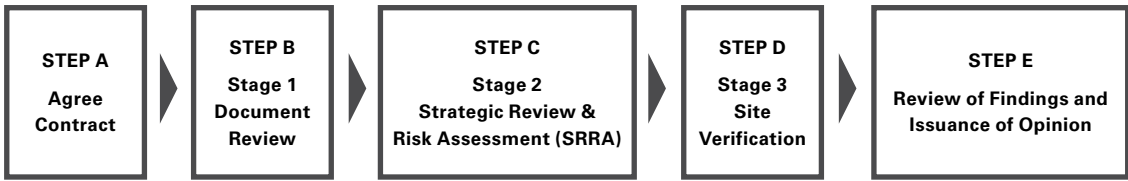
How does the verification process work?

The ISO 14064-1 verification process consists of five steps:

- Step A – SGS provides you with a proposal based on the required level of assurance, size of GHG emissions/removals, number and nature of sources/source streams and nature scale, and complexity of equipment. You can then proceed with the audit by accepting the proposal.

- Step B – The first part of the formal verification is the 'Stage 1 – Document Review'. It allows SGS to develop background understanding of:

  – The nature, scale and complexity of the verification activity to be undertaken;

  – Confidence in the responsible party's GHG information and assertion;

  – Completeness of the responsible party's GHG information and assertion; and

  – The eligibility of the responsible party to participate in the GHG programme, if applicable.

- Step C – This is 'Stage 2 – Strategic Review & Risk Assessment (SRRA)'. SGS applies the risk-based approach to develop a sampling plan, which is the base for developing an audit plan. SRRA, which is the main process tool for SGS, is also a verification process methodology widely adopted by EU ETS and CDM.

STEP A Agree Contract	STEP B Stage 1 Document Review	STEP C Stage 2 Strategic Review & Risk Assessment (SRRA)	STEP D Stage 3 Site Verification	STEP E Review of Findings and Issuance of Opinion

- Step D – This is 'Stage 3 – Site Verification' which includes:

  – Assessment of the GHG information system and its controls;

  – Assessment of GHG data and information;

  – Assessment against verification criteria; and

  – Evaluation of the GHG assertion.

- Step E – Review of Findings and Issuance of Opinion which includes:

  – Submitting an SGS "Findings Overview" to the responsible party, in line with SRRA and verification findings;

  – Sending a final report to Technical Review where an independent assessor reviews the work undertaken; and

  – Issuing of a verification statement.

PAS 2050:2008 – PRODUCTS AND SERVICES CARBON FOOTPRINT VERIFICATION

Carbon footprint mainly measures the GHG emissions accumulated in products and services due to direct and indirect activities of products or services in life cycle. The PAS 2050 (Products and Services in Greenhouse Gas Emission Norms within Life Cycle) verification, created by the British Government and the Carbon Trust, provides businesses with a consistent emission norm of product carbon assessment and an effective tool to promote green products and services.

The benefits

Implementing PAS 2050:2008 is intended to achieve the following benefits:

- Manages the GHG emission from plants and suppliers, as a reference to reduce GHG emissions in future;

- Provides a competitive advantage as an increased number of companies request this type of data to include in their own life cycle assessments from their suppliers;

- Provides a low-carbon and green design concept, reduces the use of raw materials, and increases the use of low-carbon suppliers;

- Synchronises with the latest information from Europe and the United States, and increases the competitiveness of enterprises;

- Meets customers' needs and expectations in order to lead the market and raise consumers' environmental awareness;

- Gains consumer confidence through publicly reported claims of conformity and communication of results;

- Provides a springboard for the carbon label application in future;

- Allows use of the independent verification mark in marketing and communications materials; and

- Supports internal actions taken to reduce emissions through investigation of alternate product configurations, alternative raw materials and processes, and identification of emissions "hot spots".

How does the verification process work?

The carbon footprint verification process consists of five steps:

- Step A – SGS provides you with a proposal based on the complexity of emission sources, supply chain and life cycle of your products and services. You can then proceed with the audit by accepting the proposal.

- Step B – The first part of the formal verification is the 'Stage 1 – Initial Data Review'. It allows SGS to develop background understanding of:

  – Scope of the PAS 2050 statement – Business to Business (B2B) or Business to Consumer (B2C);

  – Definition of functional unit;

  – Production process;

  – Supply chain;

  – Level of vertical integration within company; and

  – Whether system boundaries have been set using product category rules or developed as part of the assessment.
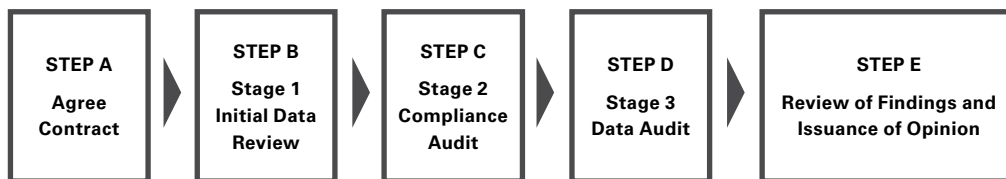
- Step C – This is 'Stage 2 – Compliance Audit'. The methodology used to carry out the assessment is split into 3 areas:

  – Supply Chain. Typical checks / issues include:

    - Whether requirements for primary data have been met;

    - Scope assessment – are all processes and sources included;

    - Review of assumptions associated with supplier provided data to ensure no overlap / omissions at supplier / supplier boundaries;

    - Issues affecting supply chain variability; and

    - Checking of sources for non primary information for comparability to PAS 2050 requirements.

  – Own Operations. Typical checks / issues include:

    - Percentage of emissions from "own operations" and effect on requirement for primary data from suppliers;

- Treatment of rework and scrap;
- Allocation of "overhead emissions";
- Methods for allocation of transport related emissions and treatment of variability in delivery distances; and
- Methods for allocation of warehousing / storage related emissions, residence times, etc.
  – Customers. Typical checks / issues include:
    - Main issue for B2C assessments is determination of use profile;
    - Identification of source of information regarding use profile;
    - Review of assumptions in use profile; and
    - Review of assumptions in final disposal.

- Step D – This is 'Stage 3 –Data Audit' and includes:
  – Strategic Review and Risk Assessment carried out to define a sample of data to be verified in detail back to source;
  – Sample based on level of emissions of source, complexity and risk of error;
  – Selection of a sample of sites to be visited – typically main manufacturing / assembly plants, but could include suppliers dependent upon percentage of emissions from own operations;
  – Site visits carried out to review physical and data processes;
  – Source data requested for sample and tested;
  – Calculations and allocation methodology checks undertaken

e.g. confirmation of GWP and emissions factor values; and
  – Any issues raised are communicated to client to allow correction.
- Step E – Review of Findings and Issuance of Opinion which includes:
  – Compilation of report summarising findings;
  – Sending of final report to Technical Review where an independent assessor reviews the work undertaken; and
  – Issuing of a verification opinion.

PAS 2050 VERIFICATION PROCESS

STEP A	STEP B	STEP C	STEP D	STEP E
Agree Contract	Stage 1 Initial Data Review	Stage 2 Compliance Audit	Stage 3 Data Audit	Review of Findings and Issuance of Opinion

ISO 14067-1/-2 - CARBON FOOTPRINT OF PRODUCTS – QUANTIFICATION/COMMUNICATION

The International Organization for Standardization (ISO) is working on a new standard for Carbon Footprint of Products for the quantification and communication of GHG emissions associated with goods and services. The standard builds largely on the existing ISO standards for life cycle assessments (ISO 14040/44) and environmental labels and declarations (ISO 14025) and is planned to be published by March 2012. In comparison to the existing LCA standards it contains further provisions for the uniform quantification of GHG emissions. The standard currently bears the Committee Draft (CD) status,

implying that the main provisions have been set and commenting is now taking place on a per country basis.

PAS 2050 is a seed document for ISO 14067. Implementing PAS 2050 will help to adopt ISO 14067 faster once it is released.

Carbon footprint related training

Our carbon footprint training course portfolio is designed to meet the requirements of any organisation, and includes:

- Products and Services Carbon Footprint Assessment & Verification

Introduction Seminar;
- Products and Services Carbon Footprint Foundation Course;
- Products and Services Carbon Footprint Lead Verifier Training Course

Please visit www.sgs.com/training to view the course schedules in your region.

SGS performs audits against additional, bespoke environmental performance criteria. We can either help develop the performance criteria and the checklist or simply check performance against existing measures covering your operations and your supplier network.

AUDITS AGAINST CUSTOMER-SPECIFIC CRITERIA

How does the auditing process work?

Second party audit programmes are tailored to suit the particular requirements of each client. A programme typically consists of the following elements:

- Step A – SGS will define an audit programme, which transforms your needs into a checklist of criteria based on the level of control you wish to have over your own organisation and its partners. We also analyse opportunities to foster continuous improvement of your systems and the performance criteria to better meet your own customer requirements;
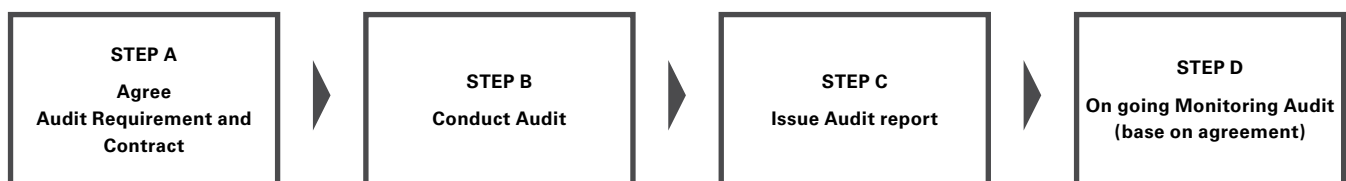
- Step B – SGS conducts the audit. This can be done both off site and/or on site base on agreed audit requirements as in Step A. Auditors will follow the audit protocol as per the agreement;

- Step C – On completion of the audit, we will provide an audit report that will also be submitted to the SGS technical reviewer to review and approve it prior to sending it to all relevant parties as per contractual requirements; and

- Step D – Ongoing monitoring audits will be performed as per the agreement.

PROCESS FOR AUDITS AGAINST CUSTOMER-SPECIFIC CRITERIA

STEP A Agree Audit Requirement and Contract	STEP B Conduct Audit	STEP C Issue Audit report	STEP D On going Monitoring Audit (base on agreement)

OTHER SERVICES RELATED TO ENVIRONMENTAL SYSTEMS AUDIT, CERTIFICATION & TRAINING

SGS is also known for its solutions against other needs related to environmental and quality management, social responsibility, as well as continuous improvement:

- Gap assessment or certification against the requirements of BS EN 16001:2009 and ISO/DIS 50001 (Energy Management Systems): this provides a comprehensive set of controls designed to help organisations establish the systems and processes necessary to improve energy efficiency; Assessment against the requirements of ISO 26000 (Guidance to Social Responsibility);

- Sustainability Report Verification: SGS offers an independent verification of environmental and social reports against international standards, such as GRI and AA1000. Our approach addresses needs that range from assuring the accuracy of the chosen reporting scope to establishing management systems for reporting as well as managing relationships with customers and stakeholders; and

- The SGS Climate Change Programme: SGS offers a range of services addressing the growing need for mandatory and voluntary reporting of GHG emissions. The objectives of the programme are to facilitate trade in GHG emissions and promote the harmonisation of markets through the application of standardised verification procedures. Our services can help you whether you are captured in the EU Emission Trading Scheme (ETS), have a Clean Development Mechanism (CDM) project or simply want to report into one of the growing number of voluntary or state-based initiatives.

WHY SGS

SGS is the world's leading inspection, verification, testing and certification company. Recognised as the global benchmark for quality and integrity, we employ over 59,000 people and operate a network of more than 1,000 offices and laboratories around the world. We are constantly looking beyond customers' and society's expectations in order to deliver market leading services wherever they are needed.

Partnering with SGS opens the door to better performing processes, increasingly skilful talent, consistent and compliant supply chains and more sustainable customer relationships delivering profitable competitive advantage. Work with the global leader and take your commitment to the next level.

We have a history of undertaking and successfully executing large-scale, complex international projects. With a presence in every single region around the globe, our people speak the language and understand the culture of the local market and operate globally in a consistent, reliable and effective manner. In addition, we are the global leader in ISO 14001:2004 certification and ISO 14064:2006 validation/verification and the most widely accredited certification body.

TO LEARN HOW SGS CAN HELP YOU DEMONSTRATE YOUR ENVIRONMENTAL RESPONSIBILTY, VISIT WWW.SGS.COM/ENVIRONMENTAL-CERTIFICATION OR CONTACT CERTIFICATION@SGS.COM FOR MORE INFORMATION.

WWW.SGS.COM

WHEN YOU NEED TO BE SURE

SGS