
EPA Standards Network Fact Sheet

ISO 14000: International Environmental Management Standards



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In recent years, there has been heightened international interest in and commitment to improved environmental management practices by both the public and private sectors. This interest is reflected in the success of collaborative international efforts to address environmental problems and in the global recognition of trade-related environmental issues. The Montreal Protocol, the environmental side agreements of the North American Free Trade Agreement and the mandates resulting from the 1992 Earth Summit of the United Nations Conference on Environment and Development in Rio de Janeiro are some of the successes.

Another indication of the interest in improved environmental practices is the emergence of voluntary environmental management standards developed by national standards bodies throughout the world. To address the growing need for an international consensus approach, ISO, the International Organization for Standardization, has undertaken the development of international voluntary environmental management standards through ISO Technical Committee 207. ISO's 14000 series Environmental Management Standards are expected to have a significant impact on trade in the same way that the ISO 9000 series Quality Management Standards have.

The U.S. EPA has a long-standing interest in promoting improved environmental management practices and is engaged both in the development of the ISO 14000 standards and in evaluating their usefulness for environmental benefit.

What Is ISO?

ISO is a private sector, international standards body based in Geneva, Switzerland. Founded in 1947, ISO promotes the international harmonization and development of manufacturing, product and communications standards. ISO has promulgated more than 8,000 internationally accepted standards for everything from paper sizes to film speeds. More than 120 countries belong to ISO as Participating members, while several other countries serve as Observer members. The United States is a full voting, Participating, member and is officially represented by the American National Standards Institute (ANSI).

ISO produces internationally harmonized standards through a structure of Technical Committees (TCs). The TCs usually subdivide into Subcommittees which are further subdivided into Working Groups where the actual standards writing occurs. Figure 1 shows the structure for TC-207, which is responsible for the ISO 14000 standards. All standards work is done by country member volunteers.

What are ISO's Environmental Management Standards?

ISO's Environmental Management Standards are a series of voluntary standards and guidelines which include environmental management systems (EMS), eco-labeling, environmental auditing, life cycle assessment, environmental performance evaluation, and environmental aspects in product standards.

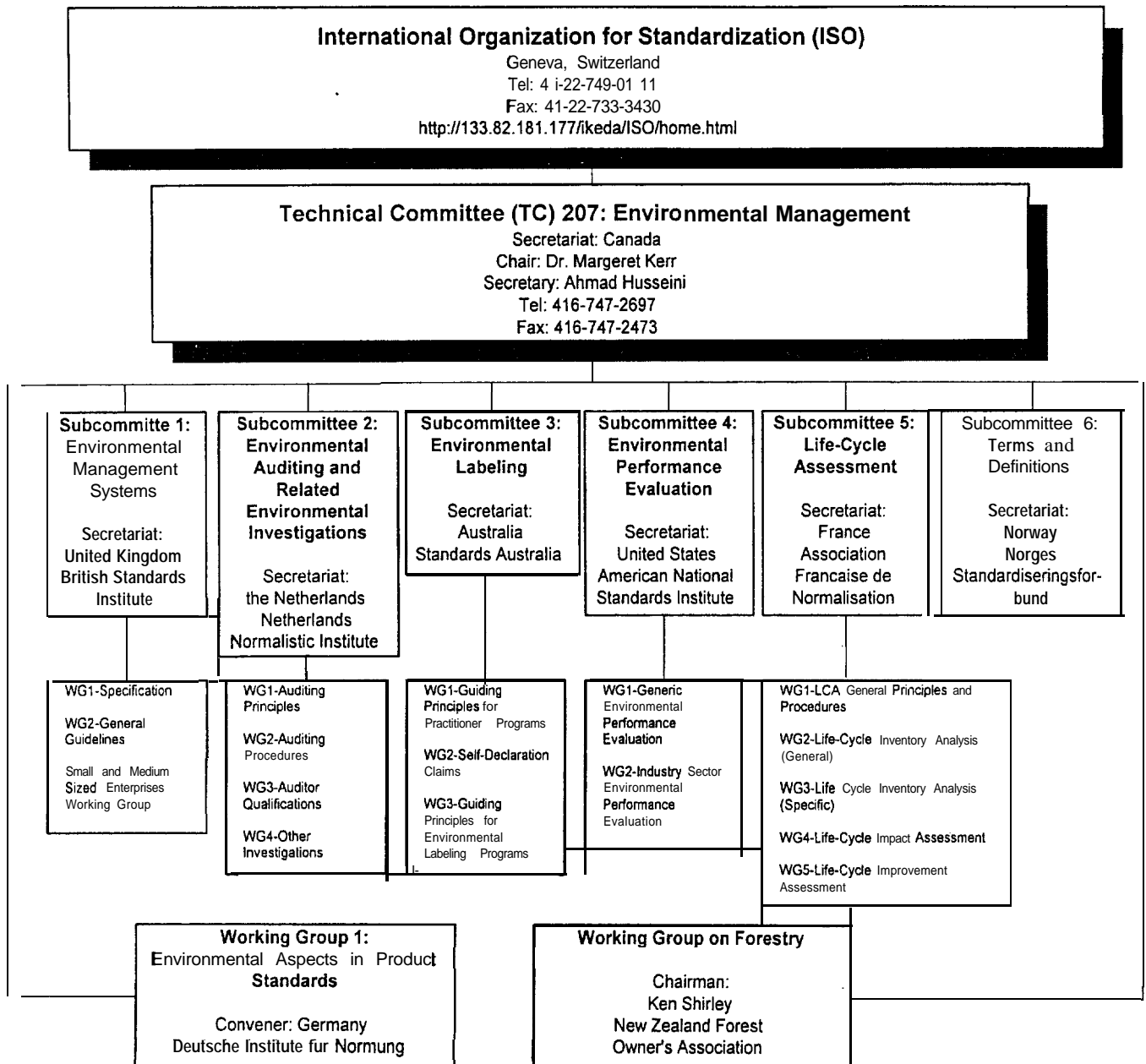


Figure 7. Structure of ISO Technical Committee 207.

What Is the ISO Environmental Management Systems Standard?

The key document in the ISO 14000 series of standards is ISO 14001, which specifies “verifiable core elements” required for an organization to receive ISO 14001 certification. This standard can apply to a wide range of organizations including industrial and commercial corporations, government agencies and nonprofit organizations. Among the verifiable core elements listed in ISO 14001 are:

- An environmental policy signed by senior management, including a commitment to compliance, the prevention of pollution and continual improvement;
- Objectives and targets developed by the organization for itself based on its assessment of its “significant environmental aspects,” its compliance requirements and its consideration of stakeholder interests;
- Implementation and control;
- Performance monitoring and measurement, and senior management review.

The ISO 14001 standard establishes management systems requirements rather than performance objectives. The latter are set by the organization for itself.

EMS helps an organization to establish and meet its own policy goals through objectives and targets, organizational structures and accountability, management controls and review functions, all with top management oversight. A companion document to ISO 14001, ISO 14004, provides optional guidance to organizations on the development of environmental management systems.

What are the Other ISO 14000 Standards About?

The ISO 14001 standard is the only one in the 14000 series that is written to be auditable. All the other standards are guidance or guide documents. Similar to ISO 14004, the ISO guidance standards for environmental auditing and environmental performance evaluation are intended both to stand as helpful documents on their own and also to help implement a system based on 14001.

In addition, the other ISO 14000 guidance standards address environmental auditing, environmental labeling, life cycle assessment and environmental **performance** evaluation (see Figure 1). The environmental performance of product standards has been published as an ISO Guide, not a standard. A separate document on “terms and definitions” is designed to ensure that terms are used consistently across all the ISO 14000 series documents.

The environmental labeling and life cycle assessment documents lay out frameworks. As with the 14001 document, the labeling standards focus on principles for labeling, but do not specify product performance or environmental requirements. The labeling standards also characterize types of programs -- third party, self-declaration, seal, etc. -- but do not compare the operations or benefits among such programs.

The life cycle assessment standards address the principles and framework for inventory and assessment practices. The standards do not prescribe specific methods or practices.

The environmental performance evaluation (EPE) standard, ISO 14031, provides organizations with guidance on a process for determining their environmental performance. Collecting EPE information can help an organization’s EMS by providing management with information for setting environmental baselines, objectives and targets, and tracking progress over time.

How Does ISO 14000 Relate to TC-207?

ISO assigns a document numbering system to each Technical Committee. Standards produced by TC-207 are assigned the 14000 designation. For example, the Environmental Management System (EMS) Specification document is ISO 14001. The EMS Guidance Standard is ISO 14004. Figure 2 lists each of the standards and documents in the 14000 series.

Who From the U.S. May Participate?

The process is completely open and any interested party may participate. Industry, government, small and medium sized businesses, academia and environmental groups **currently** make up the U.S. Technical Advisory Group (TAG) membership. Environmental groups and small and medium sized businesses are particularly encouraged to become more involved. Individuals interested in becoming part of the U.S. TAG should contact ASTM at 610-832-9721. Figure 3 shows the structure of the U.S. TAG and provides the names and phone numbers of the U.S. **SubTAG** chairs.

What Is The EPA Standards Network?

The EPA Standards Network is the means by which the Agency participates, with full voting membership, in the U.S. TAG to TC-207. Through the Network, the official EPA representatives to the U.S. TAG disseminate information throughout the Agency and coordinate EPA comments on the documents in development. The Network develops and coordinates draft policies for the Agency in the implementation of ISO 14000 standards.

Figure 2. Standards in the ISO 14000 Series

ISO 14001	*	Environmental Management Systems—Specifications with Guidance for Use
ISO 14004	*	Environmental Management Systems—General Guidelines on Principles, Systems, and Supporting Techniques
ISO 14010	*	Guidelines for Environmental Auditing-General Principles on Environmental Auditing
ISO 14011/1	*	Guidelines for Environmental Auditing-Audit Procedures-Audit of Environmental Management Systems
ISO 14012	*	Guidelines for Environmental Auditing-Qualification Criteria for Environmental Auditors
ISO 14015		Environmental Site Assessments
ISO 14020		Goals and Principles of All Environmental Labeling
ISO 14021		Environmental Labels and Declarations-Self Declaration Environmental Claims-Terms and Definitions
ISO 14022		Environmental Labels and Declarations-Self Declaration Environmental Claims-Symbols
ISO 14023		Environmental Labels and Declarations-Self Declaration Environmental Claims-Testing and Verification
ISO 14024		Environmental Labels and Declarations-Environmental Labeling Type I-Guiding Principles and Procedures
ISO 14025		Environmental Labels and Declarations-Environmental Information Profiles-Type III Guiding Principles and Procedures
ISO 14031		Evaluation of Environmental Performance
ISO 14040		Environmental Management-Life Cycle Analysis—Principles and Framework
ISO 14041		Environmental Management-Life Cycle Analysis-Life Cycle Inventory Analysis
ISO 14042		Environmental Management-Life Cycle Analysis-Impact Assessment
ISO 14043		Environmental Management-Life Cycle Analysis-Interpretation
ISO 14050		Terms and Definitions-Guide on the Principles for ISO/TC 207/SC6 Terminology Work
ISO Guide 64	*	Guide for Inclusion of Environmental Aspects in Product Standards
* Completed and Published		

How Can I Contact U.S.
TAG Representatives?

Figure 3. US. Technical Advisory Group to ISO TC-207

American National Standards Institute (ANSI) 212-642-4900			
US TAG to ISO/TC 207			
Chair: Joe Cascio 703-750-6401 jcascio@gnet.org		Vice-Chair:	Mary McKiel 202-260-3584 mckiel.mary@epamail.epa.gov
ST1—Environmental Management Systems			
Chair: Joel Charm 201-455-4057 joel.charm@alliedsignal.com		EPA Rep:	Jim Home 202-260-5802 home.james@epamail.epa.gov
ST2—Environmental Auditing			
Chair: Cornelius (Bud) Smith 203-778-6114 203-778-6487 Fax		EPA Rep:	Cheryl Wasserman 202-260-8797 wasserman.cheryl@epamail.epa.gov
ST3—Environmental Labeling			
Chair: Jim Connaughton 202-736-8364 jconnaugh@sidley.com		EPA Rep:	Julie Winters 202-260-4000 winters.julie@epamail.epa.gov
ST4—Environmental Performance Evaluation			
Chair: John Master 610-359-4810 610-359-4862 Fax		EPA Rep:	John Harman 202-260-6395 harman.john@epamail.epa.gov
ST5—Life Cycle Assessment			
Chair: James Fava 610-701-3636 favaj@wcpot2.rfweston.com		EPA Rep:	Mary Ann Curran 513-569-7837 curran.maryann@epamail.epa.gov
ST6—Terms and Definitions			
Chair: Christopher Bell 202-736-8118 cbell@sidley.com		EPA Rep:	Mary McKiel 202-260-3584 mckiel.mary@epamail.epa.gov
SW&Environmental Aspects in Product Standards			
Chair: Stanley Rhodes 510-832-1415		EPA Rep:	John Shoaff 202-260-1831 shoaff.john@epamail.epa.gov

How Can I Join the U.S. TAG?

For information on joining the U.S. TAG, contact ASTM at 610-832-9721.

Where Can I Get More Information?

For more information about ISO 14000, contact:

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