INTERNATIONAL STANDARD

ISO
14001

Environmental management systems — Requirements with guidance for use

Systèmes de management environnemental — Exigences et lignes directrices pour son utilisation

IMPORTANT — PLEASE NOTE

This is a mark-up copy and uses the following colour coding:

Text example 1 — indicates added text (in green)

~~Text example 2~~ — indicates removed text (in red)

— indicates added graphic figure

— indicates removed graphic figure

1.x ... — Heading numbers containing modifications are highlighted in yellow in the Table of Contents

All changes in this document have yet to reach concensus by vote and as such should only be used internally for review purposes.

DISCLAIMER

This Redline version provides you with a quick and easy way to compare the main changes between this edition of the standard and its previous edition. It doesn't capture all single changes such as punctuation but highlights the modifications providing customers with the most valuable information. Therefore it is important to note that this Redline version is not the official ISO standard and that the users must consult with the clean version of the standard, which is the official standard, for implementation purposes.

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

~~International Standards are~~ The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the ~~rules given in~~ editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

~~The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.~~

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

~~ISO 14001 was prepared by~~ The committee responsible for this document is Technical Committee ISO/TC 207, *Environmental management,* Subcommittee SC 1, *Environmental management systems*.

This ~~second~~ third edition cancels and replaces the ~~first~~ second edition (ISO 14001:~~1996~~2004), which has been technically revised. It also incorporates the Technical Corrigendum ISO 14001:2004/Cor.1:2009.

Introduction

0.1 Background

Achieving a balance between the environment, society and the economy is considered essential to meet the needs of the present without compromising the ability of future generations to meet their needs. Sustainable development as a goal is achieved by balancing the three pillars of sustainability.

Organizations of all kinds are increasingly concerned with achieving and demonstrating sound environmental performance by controlling the impacts of their activities, products and services on the environment, consistent with their environmental policy and objectives. They do so in the context ofSocietal expectations for sustainable development, transparency and accountability have evolved with increasingly stringent legislation, the development of economic policies and other measures that foster environmental protection, and increased concern expressed by interested parties about environmental matters and sustainable developmentgrowing pressures on the environment from pollution, inefficient use of resources, improper waste management, climate change, degradation of ecosystems and loss of biodiversity.

Many organizations have undertaken environmental "reviews" or "audits" to assess their environmental performance. On their own, however, these "reviews" and "audits" may not be sufficient to provide an organization with the assurance that its performance not only meets, but will continue to meet, its legal and policy requirements. To be effective, they need to be conducted within a structured management system that is integrated within the organization.This has led organizations to adopt a systematic approach to environmental management by implementing environmental management systems with the aim of contributing to the environmental pillar of sustainability.

0.2 Aim of an environmental management system

The purpose of this International Standard is to provide organizations with a framework to protect the environment and respond to changing environmental conditions in balance with socio-economic needs. It specifies requirements that enable an organization to achieve the intended outcomes it sets for its environmental management system.

A systematic approach to environmental management can provide top management with information to build success over the long term and create options for contributing to sustainable development by:

— protecting the environment by preventing or mitigating adverse environmental impacts;

— mitigating the potential adverse effect of environmental conditions on the organization;

— assisting the organization in the fulfilment of compliance obligations;

— enhancing environmental performance;

— controlling or influencing the way the organization's products and services are designed, manufactured, distributed, consumed and disposed by using a life cycle perspective that can prevent environmental impacts from being unintentionally shifted elsewhere within the life cycle;

— achieving financial and operational benefits that can result from implementing environmentally sound alternatives that strengthen the organization's market position;

— communicating environmental information to relevant interested parties.

International Standards covering environmental management are intended to provide organizations with the elements of an effective environmental management system (EMS) that can be integrated with other management requirements and help organizations achieve environmental and economic goals. These standardsThis International Standard, like other International Standards, areis not intended to be used to create non-tariff trade barriers or toincrease or change an organization's legal obligationsorganization's legal requirements.

0.3   Success factors ~~This International Standard specifies requirements for an environmental management system to enable an organization to develop and implement a policy and objectives which take into account legal requirements and information about significant environmental aspects. It is intended to apply to all types and sizes of organization and to accommodate diverse geographical, cultural and social conditions. The basis of the approach is shown in Figure 1. The success of the system depends on commitment from all levels and functions of the organization, and especially from top management. A system of this kind enables an organization to develop an environmental policy, establish objectives and processes to achieve the policy commitments, take action as needed to improve its performance and demonstrate the conformity of the system to the requirements of this International Standard. The overall aim of this International Standard is to support environmental protection and prevention of pollution in balance with socio-economic needs. It should be noted that many of the requirements can be addressed concurrently or revisited at any time.~~

~~The second edition of this International Standard is focused on clarification of the first edition, and has taken due consideration of the provisions of ISO 9001 to enhance the compatibility of the two standards for the benefit of the user community.~~

~~For ease of use, the subclause numbers in Clause 4 of the body of this International Standard and in Annex A have been related. For example, 4.3.3 and A.3.3 both deal with objectives, targets and programme(s), and 4.5.5 and A.5.5 both deal with internal audit.~~

~~There is an important distinction between this International Standard, which describes the requirements for an organization's~~ The success of an environmental management system ~~and can be used for certification/registration and/or self-declaration of an organization's environmental management system, and a non-certifiable guideline intended to provide generic assistance to an organization for establishing, implementing or improving an environmental management system. Environmental management encompasses a full range of issues, including those with strategic and competitive implications~~ depends on commitment from all levels and functions of the organization, led by top management. Organizations can leverage opportunities to prevent or mitigate adverse environmental impacts and enhance beneficial environmental impacts, particularly those with strategic and competitive implications. Top management can effectively address its risks and opportunities by integrating environmental management into the organization's business processes, strategic direction and decision making, aligning them with other business priorities, and incorporating environmental governance into its overall management system. Demonstration of successful implementation of this International Standard can be used ~~by an organization~~ to assure interested parties that an ~~appropriate~~ effective environmental management system is in place.

~~Guidance on supporting environmental management techniques is contained in other International Standards, particularly those on environmental management in the documents established by ISO/TC 207. Any reference to other International Standards is for information only.~~
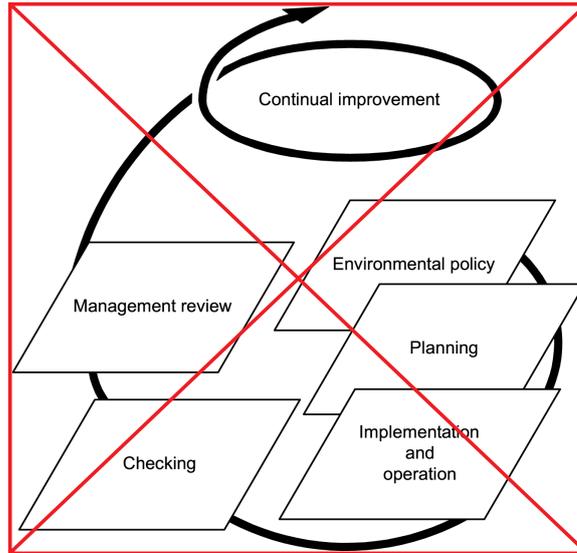
NOTE   This International Standard is based on the methodology known as Plan-Do-Check-Act (PDCA). PDCA can be briefly described as follows.

—   Plan: establish the objectives and processes necessary to deliver results in accordance with the organization's environmental policy.

—   Do: implement the processes.

—   Check: monitor and measure processes against environmental policy, objectives, targets, legal and other requirements, and report the results.

—   Act: take actions to continually improve performance of the environmental management system.

Many organizations manage their operations via the application of a system of processes and their interactions, which can be referred to as the "process approach". ISO 9001 promotes the use of the process approach. Since PDCA can be applied to all processes, the two methodologies are considered to be compatible.

Figure 1 — Environmental management system model for this International Standard

This International Standard contains only those requirements that can be objectively audited. Those organizations requiring more general guidance on a broad range of environmental management system issues are referred to ISO 14004.

This International Standard does not establish absolute requirements for environmental performance beyond the commitments, in the environmental policy, to comply with applicable legal requirements and with other requirements to which the organization subscribes, to prevention of pollution and to continual improvement. Thus, two organizations carrying out similar operations but having different environmental performance can both conform to its requirements.

The adoption and implementation of a range of environmental management techniques in a systematic manner can contribute to optimal outcomes for all interested parties. However, adoption of Adoption of this International Standard, however, will not in itself guarantee optimal environmental outcomes. In order to achieve environmental objectives, the environmental management system can encourage organizations to consider implementation of the best available techniques, where appropriate and where economically viable, and fully take into account the cost-effectiveness of such techniques Application of this International Standard can differ from one organization to another due to the context of the organization. Two organizations can carry out similar activities but can have different compliance obligations, commitments in their environmental policy, environmental technologies and environmental performance goals, yet both can conform to the requirements of this International Standard.

The level of detail and complexity of the environmental management system will vary depending on the context of the organization, the scope of its environmental management system, its compliance

obligations, and the nature of its activities, products and services, including its environmental aspects and associated environmental impacts.

0.4 Plan-Do-Check-Act model

The basis for the approach underlying an environmental management system is founded on the concept of Plan-Do-Check-Act (PDCA). The PDCA model provides an iterative process used by organizations to achieve continual improvement. It can be applied to an environmental management system and to each of its individual elements. It can be briefly described as follows.

— Plan: establish environmental objectives and processes necessary to deliver results in accordance with the organization's environmental policy.

— Do: implement the processes as planned.

— Check: monitor and measure processes against the environmental policy, including its commitments, environmental objectives and operating criteria, and report the results.

— Act: take actions to continually improve.

Figure 1 shows how the framework introduced in this International Standard could be integrated into a PDCA model, which can help new and existing users to understand the importance of a systems approach.
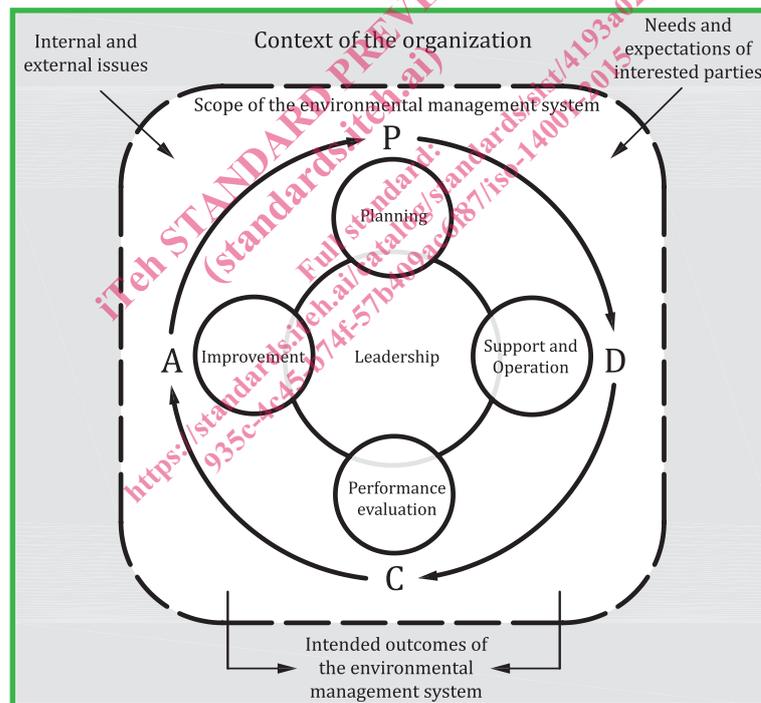
Figure 1 — Relationship between PDCA and the framework in this International Standard

0.5 Contents of this International Standard

This International Standard conforms to ISO's requirements for management system standards. These requirements include a high level structure, identical core text, and common terms with core definitions, designed to benefit users implementing multiple ISO management system standards.

This International Standard does not include requirements specific to other management systems, such as those for quality, occupational health and safety, financial or risk management, though its elements can be aligned or integrated with those of other management systems. It is possible for energy or financial management. However, this International Standard enables an organization to adapt its existing management system(s) in order to establish an use a common approach and risk-based thinking to integrate its environmental management system that conforms to with the requirements

of ~~this International Standard. It is pointed out, however, that the application of various elements of the management system might differ depending on the intended purpose and the interested parties involved~~other management systems.

This International Standard contains the requirements used to assess conformity. An organization that wishes to demonstrate conformity with this International Standard can do so by:

— making a self-determination and self-declaration, or

— seeking confirmation of its conformance by parties having an interest in the organization, such as customers, or

— seeking confirmation of its self-declaration by a party external to the organization, or

— seeking certification/registration of its environmental management system by an external organization.

Annex A provides explanatory information to prevent misinterpretation of the requirements of this International Standard. Implementation guidance on environmental management systems is included in ISO 14004.

In this International Standard, the following verbal forms are used:

— "shall" indicates a requirement;

— "should" indicates a recommendation;

— "may" indicates a permission;

— "can" indicates a possibility or a capability.

Information marked as "NOTE" is intended to assist the understanding or use of the document. "Notes to entry" used in Clause 3 provide additional information that supplements the terminological data and can contain provisions relating to the use of a term.

The ~~level of detail and complexity of the environmental management system~~terms and definitions in Clause 3~~, the extent of documentation and the resources devoted to it depend on a number of factors, such as the scope of the system, the size of an organization and the nature of its activities, products and services. This may be the case in particular for small and medium-sized enterprises.~~ are arranged in conceptual order, with an alphabetical index provided at the end of the document.

Environmental management systems — Requirements with guidance for use

1 Scope

This International Standard specifies the requirements for an environmental management system that an organization can use to enhance its environmental performance. This International Standard is intended for use by an organization seeking to manage its environmental responsibilities in a systematic manner that contributes to the environmental pillar of sustainability.

This International Standard helps an organization achieve the intended outcomes of its environmental management system, which provide value for the environment, the organization itself and interested parties. Consistent with the organization's environmental policy, the intended outcomes of an environmental management system include:

— enhancement of environmental performance;

— fulfilment of compliance obligations;

— achievement of environmental objectives.

This International Standard specifies requirements for an environmental management system to enable an organization to develop and implement a policy and objectives which take into account legal requirements and other requirements to which the organization subscribes, and information about significant environmental aspects. It applies to those environmental aspects is applicable to any organization, regardless of size, type and nature, and applies to the environmental aspects of its activities, products and services that the organization identifies as those which determines it can control and those which it can influence. It does not itself either control or influence considering a life cycle perspective. This International Standard does not state specific environmental performance criteria.

This International Standard is applicable to any organization that wishes to

a) establish, implement, maintain and improve an environmental management system;

b) assure itself of conformity with its stated environmental policy;

c) demonstrate conformity with this International Standard by

1) making a self-determination and self-declaration, or

2) seeking confirmation of its conformance by parties having an interest in the organization, such as customers, or

3) seeking confirmation of its self-declaration by a party external to the organization, or

4) seeking certification/registration of its environmental management system by an external organization.

All the requirements in This International Standard can be used in whole or in part to systematically improve environmental management. Claims of conformity to this International Standard are intended to be incorporated into any, however, are not acceptable unless all its requirements are incorporated into an organization's environmental management system. The extent of the application depends on factors such as the environmental policy of the organization, the nature of its activities, products and services and the location where and the conditions in which it functions. This International Standard also provides, in and fulfilled without exclusion. Annex A, informative guidance on its use.

2 Normative references

~~No normative references are cited. This clause is included in order to retain clause numbering identical with the previous edition (~~There are ~~ISO 14001:1996)~~no normative references.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

~~**3.1**~~
~~**auditor**~~
~~person with the competence to conduct an audit~~

~~[SOURCE: ISO 9000:2000, 3.9.9]~~

~~**3.2**~~
~~**continual improvement**~~
~~recurring process of enhancing the~~ *environmental management system* (3.8) ~~in order to achieve improvements in overall~~ *environmental performance* (3.10) ~~consistent with the~~ *organization's* (3.16) *environmental policy* (3.11)

~~Note 1 to entry: The process need not take place in all areas of activity simultaneously.~~

~~**3.3**~~
~~**corrective action**~~
~~action to eliminate the cause of a detected~~ *nonconformity* (3.15)

~~**3.4**~~
~~**document**~~
~~information and its supporting medium~~

~~Note 1 to entry: The medium can be paper, magnetic, electronic or optical computer disc, photograph or master sample, or a combination thereof.~~

~~Note 2 to entry: Adapted from ISO 9000:2000, 3.7.2.~~

~~**3.5**~~
~~**environment**~~
~~surroundings in which an~~ *organization* (3.16) ~~operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelation~~

~~Note 1 to entry: Surroundings in this context extend from within an~~ *organization* (3.16) ~~to the global system.~~

~~**3.6**~~
~~**environmental aspect**~~
~~element of an~~ *organization's* (3.16) ~~activities or products or services that can interact with the~~ *environment* (3.5)

~~Note 1 to entry: A significant environmental aspect has or can have a significant~~ *environmental impact* (3.7):

~~**3.7**~~
~~**environmental impact**~~
~~any change to the~~ *environment* (3.5)~~, whether adverse or beneficial, wholly or partially resulting from an~~ *organization's* (3.16)*environmental aspects* (3.6)

3.8
environmental management system
EMS
part of an *organization's* (3.16) management system used to develop and implement its *environmental policy* (3.11) and manage its *environmental aspects* (3.6)

Note 1 to entry: A management system is a set of interrelated elements used to establish policy and objectives and to achieve those objectives.

Note 2 to entry: A management system includes organizational structure, planning activities, responsibilities, practices, *procedures* (3.19), processes and resources.

3.9
environmental objective
overall environmental goal, consistent with the *environmental policy* (3.11), that an *organization* (3.16) sets itself to achieve

3.10
environmental performance
measurable results of an *organization's* (3.16) management of its *environmental aspects* (3.6)

Note 1 to entry: In the context of *environmental management systems* (3.8), results can be measured against the *organization's* (3.16)environmental policy (3.11), *environmental objectives* (3.9), *environmental targets* (3.12) and other environmental performance requirements.

3.11
environmental policy
overall intentions and direction of an *organization* (3.16) related to its *environmental performance* (3.10) as formally expressed by top management

Note 1 to entry: The environmental policy provides a framework for action and for the setting of *environmental objectives* (3.9) and *environmental targets* (3.12).

3.12
environmental target
detailed performance requirement, applicable to the *organization* (3.16) or parts thereof, that arises from the *environmental objectives* (3.9) and that needs to be set and met in order to achieve those objectives

3.13
interested party
person or group concerned with or affected by the *environmental performance* (3.10) of an *organization* (3.16)

3.14
internal audit
systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the environmental management system audit criteria set by the *organization* (3.16) are fulfilled

Note 1 to entry: In many cases, particularly in smaller organizations, independence can be demonstrated by the freedom from responsibility for the activity being audited.

3.15
nonconformity
non-fulfilment of a requirement

[SOURCE: ISO 9000:2000, 3.6.2]