

# INTERNATIONAL STANDARD - ISO14001

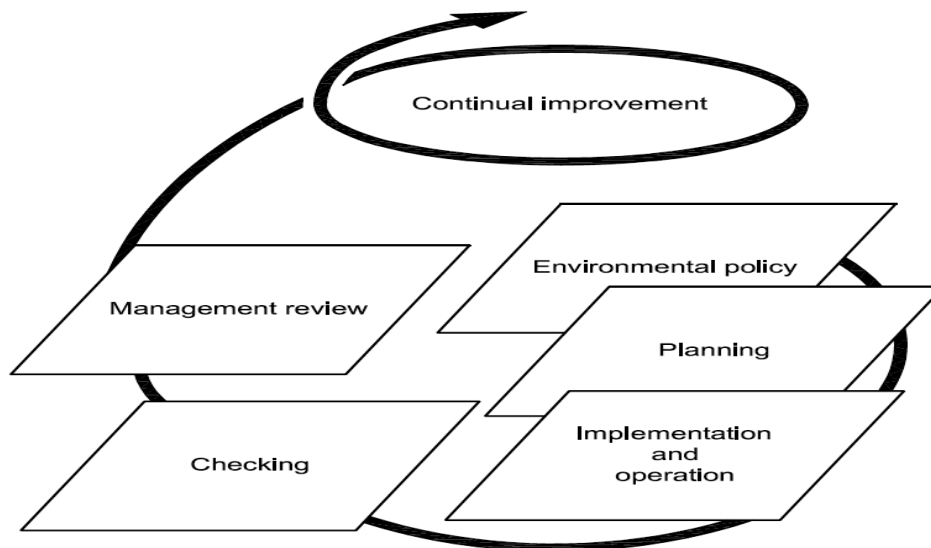
## Environmental management systems – Requirements with guidance for use

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 of 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 development.

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 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. Environmental management encompasses a full range of issues, including those with strategic and competitive implications. Demonstration of successful implementation of this International Standard can be used by an organization to assure interested parties that an appropriate environmental management system is in place.



### The Plan, Do, Check, Act Process

- **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.

## **4 Environmental management system requirements**

### **4.1 General requirements**

The organization shall establish, document, implement, maintain and continually improve an environmental management system in accordance with the requirements of this International Standard and determine how it will fulfill these requirements. The organization shall define and document the scope of its environmental management system.

### **4.2 Environmental policy**

Top management shall define the organization's environmental policy and ensure that, within the defined scope of its environmental management system, it

- a) is appropriate to the nature, scale and environmental impacts of its activities, products and services,
- b) includes a commitment to continual improvement and prevention of pollution,
- c) includes a commitment to comply with applicable legal requirements and with other requirements to which the organization subscribes which relate to its environmental aspects,
- d) provides the framework for setting and reviewing environmental objectives and targets,
- e) is documented, implemented and maintained,
- f) is communicated to all persons working for or on behalf of the organization, and
- g) is available to the public.

### **4.3 Planning**

#### **4.3.1 Environmental aspects**

The organization shall establish, implement and maintain a procedure(s)

- a) to identify the environmental aspects of its activities, products and services within the defined scope of the environmental management system that it can control and those that it can influence taking into account planned or new developments, or new or modified activities, products and services, and
- b) to determine those aspects that have or can have significant impact(s) on the environment (i.e. significant environmental aspects).

The organization shall document this information and keep it up to date.

The organization shall ensure that the significant environmental aspects are taken into account in establishing, implementing and maintaining its environmental management system.

#### **4.3.2 Legal and other requirements**

The organization shall establish, implement and maintain a procedure(s)

- a) to identify and have access to the applicable legal requirements and other requirements to which the organization subscribes related to its environmental aspects, and
- b) to determine how these requirements apply to its environmental aspects.

The organization shall ensure that these applicable legal requirements and other requirements to which the organization subscribes are taken into account in establishing, implementing and maintaining its environmental

management system.

### **4.3.3 Objectives, targets and programme(s)**

The organization shall establish, implement and maintain documented environmental objectives and targets, at relevant functions and levels within the organization. The objectives and targets shall be measurable, where practicable, and consistent with the environmental policy, including the commitments to prevention of pollution, to compliance with applicable legal requirements and with other requirements to which the organization subscribes, and to continual improvement.

When establishing and reviewing its objectives and targets, an organization shall take into account the legal requirements and other requirements to which the organization subscribes, and its significant environmental aspects. It shall also consider its technological options, its financial, operational and business requirements, and the views of interested parties. The organization shall establish, implement and maintain a programme(s) for achieving its objectives and targets.

Program(s) shall include

- a) designation of responsibility for achieving objectives and targets at relevant functions and levels of the organization, and
- b) the means and time-frame by which they are to be achieved.

## **4.4 Implementation and operation**

### **4.4.1 Resources, roles, responsibility and authority**

Management shall ensure the availability of resources essential to establish, implement, maintain and improve the environmental management system. Resources include human resources and specialized skills, organizational infrastructure, technology and financial resources. Roles, responsibilities and authorities shall be defined, documented and communicated in order to facilitate effective environmental management.

The organization's top management shall appoint a specific management representative(s) who, irrespective of other responsibilities, shall have defined roles, responsibilities and authority for

- a) ensuring that an environmental management system is established, implemented and maintained in accordance with the requirements of this International Standard,
- b) reporting to top management on the performance of the environmental management system for review, including recommendations for improvement.

### **4.4.2 Competence, training and awareness**

The organization shall ensure that any person(s) performing tasks for it or on its behalf that have the potential to cause a significant environmental impact(s) identified by the organization is (are) competent on the basis of appropriate education, training or experience, and shall retain associated records.

The organization shall identify training needs associated with its environmental aspects and its environmental management system. It shall provide training or take other action to meet these needs, and shall retain associated records.

The organization shall establish, implement and maintain a procedure(s) to make persons working for it or on its behalf aware of

- a) the importance of conformity with the environmental policy and procedures and with the requirements of the environmental management system,
- b) the significant environmental aspects and related actual or potential impacts associated with their work, and

the environmental benefits of improved personal performance,

c) their roles and responsibilities in achieving conformity with the requirements of the environmental management system, and

d) the potential consequences of departure from specified procedures.

#### **4.4.3 Communication**

With regard to its environmental aspects and environmental management system, the organization shall establish, implement and maintain a procedure(s) for

a) internal communication among the various levels and functions of the organization,

b) receiving, documenting and responding to relevant communication from external interested parties. The organization shall decide whether to communicate externally about its significant environmental aspects, and shall document its decision. If the decision is to communicate, the organization shall establish and implement a method(s) for this external communication.

#### **4.4.4 Documentation**

The environmental management system documentation shall include

a) the environmental policy, objectives and targets,

b) description of the scope of the environmental management system,

c) description of the main elements of the environmental management system and their interaction, and reference to related documents,

d) documents, including records, required by this International Standard, and

e) documents, including records, determined by the organization to be necessary to ensure the effective planning, operation and control of processes that relate to its significant environmental aspects.

#### **4.4.5 Control of documents**

Documents required by the environmental management system and by this International Standard shall be controlled. Records are a special type of document and shall be controlled in accordance with the requirements given in 4.5.4.

The organization shall establish, implement and maintain a procedure(s) to

a) approve documents for adequacy prior to issue,

b) review and update as necessary and re-approve documents,

c) ensure that changes and the current revision status of documents are identified,

d) ensure that relevant versions of applicable documents are available at points of use,

e) ensure that documents remain legible and readily identifiable,

f) ensure that documents of external origin determined by the organization to be necessary for the planning and operation of the environmental management system are identified and their distribution controlled, and

g) prevent the unintended use of obsolete documents and apply suitable identification to them if they are retained for any purpose.

#### **4.4.6 Operational control**

The organization shall identify and plan those operations that are associated with the identified significant environmental aspects consistent with its environmental policy, objectives and targets, in order to ensure that they are carried out under specified conditions, by

- a) establishing, implementing and maintaining a documented procedure(s) to control situations where their absence could lead to deviation from the environmental policy, objectives and targets, and
- b) stipulating the operating criteria in the procedure(s), and
- c) establishing, implementing and maintaining procedures related to the identified significant environmental aspects of goods and services used by the organization and communicating applicable procedures and requirements to suppliers, including contractors.

#### **4.4.7 Emergency preparedness and response**

The organization shall establish, implement and maintain a procedure(s) to identify potential emergency situations and potential accidents that can have an impact(s) on the environment and how it will respond to them.

The organization shall respond to actual emergency situations and accidents and prevent or mitigate associated adverse environmental impacts.

The organization shall periodically review and, where necessary, revise its emergency preparedness and response procedures, in particular, after the occurrence of accidents or emergency situations.

The organization shall also periodically test such procedures where practicable.

### **4.5 Checking**

#### **4.5.1 Monitoring and measurement**

The organization shall establish, implement and maintain a procedure(s) to monitor and measure, on a regular basis, the key characteristics of its operations that can have a significant environmental impact. The procedure(s) shall include the documenting of information to monitor performance, applicable operational controls and conformity with the organization's environmental objectives and targets.

The organization shall ensure that calibrated or verified monitoring and measurement equipment is used and maintained and shall retain associated records.

#### **4.5.2 Evaluation of compliance**

**4.5.2.1** Consistent with its commitment to compliance, the organization shall establish, implement and maintain a procedure(s) for periodically evaluating compliance with applicable legal requirements. The organization shall keep records of the results of the periodic evaluations.

**4.5.2.2** The organization shall evaluate compliance with other requirements to which it subscribes. The organization may wish to combine this evaluation with the evaluation of legal compliance referred to in 4.5.2.1 or to establish a separate procedure(s). The organization shall keep records of the results of the periodic evaluations.

#### **4.5.3 Nonconformity, corrective action and preventive action**

The organization shall establish, implement and maintain a procedure(s) for dealing with actual and potential nonconformity(ies) and for taking corrective action and preventive action. The procedure(s) shall define requirements for

- a) identifying and correcting nonconformity(ies) and taking action(s) to mitigate their environmental impacts,
- b) investigating nonconformity(ies), determining their cause(s) and taking actions in order to avoid their recurrence,
- c) evaluating the need for action(s) to prevent nonconformity(ies) and implementing appropriate actions designed to avoid their occurrence,
- d) recording the results of corrective action(s) and preventive action(s) taken, and
- e) reviewing the effectiveness of corrective action(s) and preventive action(s) taken.

Actions taken shall be appropriate to the magnitude of the problems and the environmental impacts encountered. The organization shall ensure that any necessary changes are made to environmental management system documentation.

#### **4.5.4 Control of records**

The organization shall establish and maintain records as necessary to demonstrate conformity to the requirements of its environmental management system and of this International Standard, and the results achieved.

The organization shall establish, implement and maintain a procedure(s) for the identification, storage, protection, retrieval, retention and disposal of records. Records shall be and remain legible, identifiable and traceable.

#### **4.5.5 Internal audit**

The organization shall ensure that internal audits of the environmental management system are conducted at planned intervals to

- a) determine whether the environmental management system
  - 1) conforms to planned arrangements for environmental management including the requirements of this International Standard, and
  - 2) has been properly implemented and is maintained, and
- b) provide information on the results of audits to management.

Audit program(s) shall be planned, established, implemented and maintained by the organization, taking into consideration the environmental importance of the operation(s) concerned and the results of previous audits.

Audit procedure(s) shall be established, implemented and maintained that address

- the responsibilities and requirements for planning and conducting audits, reporting results and retaining associated records,
- the determination of audit criteria, scope, frequency and methods.

Selection of auditors and conduct of audits shall ensure objectivity and the impartiality of the audit process.

#### **4.6 Management review**

Top management shall review the organization's environmental management system, at planned intervals, to ensure its continuing suitability, adequacy and effectiveness. Reviews shall include assessing opportunities for improvement and the need for changes to the environmental management system, including the environmental

policy and environmental objectives and targets. Records of the management reviews shall be retained.

Input to management reviews shall include

- a) results of internal audits and evaluations of compliance with legal requirements and with other requirements to which the organization subscribes,
- b) communication(s) from external interested parties, including complaints,
- c) the environmental performance of the organization,
- d) the extent to which objectives and targets have been met,
- e) status of corrective and preventive actions,
- f) follow-up actions from previous management reviews,
- g) changing circumstances, including developments in legal and other requirements related to its environmental aspects, and
- h) recommendations for improvement.

The outputs from management reviews shall include any decisions and actions related to possible changes to environmental policy, objectives, targets and other elements of the environmental management system, consistent with the commitment to continual improvement.

(Excerpted from the Standard)

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