THE OUTLINE OF ISO14000 SERIES

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PREFACE

- In 1991, BCSD (Business Council for Sustainable Development) required ISO (International Organization for Standardization) to formulate the standards for the universal application for the environmental issues
- ISO formulated 1996 ISO14001 environmental management system based on BS7750 environmental management system previously formulated by England

PURPOSE AND APPLICATION OF THE STANDARD

- Social Background in formulating the standard
- Applicable to all organizations in all countries
- Application of PDCA Cycling
- Participation of top management and participation by all members
- Implementation of the best available techniques
- EMS varies from organization to organization

4.1 GENERAL REQUIREMENTS

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

4.2 ENVIRONMENTAL POLICY

Top management shall define the organization’s environmental policy and ensure
- appropriate to the nature, scale and environmental impacts of its activities, products and services,
- Includes a commitment to continual improvement and prevention of pollution,
- includes a commitment to comply with applicable legal requirements and with other requirements to which the organization subscribes which relate to the environmental aspects,
- and so on

4.3.1 ENVIRONMENTAL ASPECTS

The organization shall establish, implement and maintain a procedure(s)
- 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
- to determine those aspects that have or can have significant impact(s) on the environment (i.e. significant environmental aspects)
4.3.2 LEGAL AND OTHER REQUIREMENTS

The organization shall establish, implement and maintain a procedure(s)
• to identify and have access to the applicable legal requirements and other requirements to which the organization subscribes related to its environmental aspects and
• to determine how these requirements apply to its environmental aspects.

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.

4.3.3 OBJECTIVES, TARGETS AND PROGRAMME(S) — 2

• The organization shall establish, implement and maintain a programme(s) for achieving its objectives and targets. Programme(s) shall include
• designation of responsibility for achieving objectives and targets at relevant functions and levels of the organization, and
• the means and time-frame by which they are to be achieved.

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 specified skill, organizational infrastructure, technology and financial resources.

4.4.2 COMPETENCE, TRAINING AND AWARENESS

• The organization shall ensure that any person(s) performing tasks for its behalf that have the potential to ensure 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.

4.3.3 COMMUNICATION

• With regard to its environmental aspects and environmental management system, the organization shall establish, implement and maintain a procedure(s) for
• internal communication among the various levels and functions of the organization,
• reviewing, 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 external communication.
4.4.4 DOCUMENTATION

The environmental management system documentation shall include

- the environmental policy, objectives and targets,
- description of the scope of the environmental management system,
- description of the main elements of the environmental management system and their interaction, and reference to related documents,
- documents including records required by this International Standard, and so on.

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
  - approve documents for adequacy prior to issue,
  - review and update as necessary and approve documents,
  - ensure that changes and the current revision status of documents are identified,
  - ensure that relevant versions of applicable documents are available at points of use,
  - ensure that documents remain legible and readily identifiable,
  - And so on.

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, establishing, implementing and maintain procedures related to the identified significant environmental aspects of goods and services used by the organization and communicating applicable procedure(s) 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 environmental and how it will respond to them.

- The organization shall periodically review and, where necessary, revise its emergency preparedness and response procedures, in particular, after the occurrence of accident or emergency situations.
- The organization shall also periodically test that such procedures where practicable.

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.
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 4.4.2.1 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 requirement for:
- identifying and correcting nonconformity(ies) and taking action(s) to mitigate their environmental impacts,
- investigating nonconformity(ies), determining their cause(s) and taking actions in order to avoid their recurrence,
- evaluating the need for action(s) prevent nonconformity(ies) and implementing appropriate actions designed to avoid their occurrence.

And so on

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 audit of the environmental management system are conducted at planned intervals to:
- determine whether the environmental management system conforms to planned arrangements for environmental management including the requirements of this International Standard, and
- has been properly implemented and is maintained, and
- provide information on the results of audits to management.

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 need for changes to the environmental management system, including the environmental policy and environmental objectives and targets. Records of management reviews shall be retained.

Input to management review shall include:
- results of internal audits and evaluation of compliance with legal requirements and with other requirements to which the organization subscribes,
- communication(s) from external interested parties, including complaints,
- the environmental performance of the organization,
And so on
ISO 14004

- Environmental management systems – general guidelines on principles, systems, and support techniques
- "general guide" and "practical guide" are the specific examples.

ISO 14005

- Environmental management systems – guidelines for the phased implementation of an environmental management system, including the use of environmental performance evaluation
- The relevant requirements, basically speaking, comply with 14001 based on 4-5 steps in the pattern of Phase= Procedure, so it requires the implementation of all procedures, if necessary.

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