

ISO 14001 GENERAL REQUIREMENTS

ISO 14001 FRAMEWORK

ISO 14001 is based on a principle of continual improvement, starting with planning the EMS and development of an environmental policy, through implementation and operation of the EMS, to checking the effectiveness and correcting deficiencies in the EMS, to periodic review by executive management of the overall suitability and performance of the EMS, which leads to setting new goals and a new cycle beginning with planning. In other words, an EMS is both mechanical, with structure and interlocks, yet also organic, needing flexibility to grow and adapt to changing circumstances. Above all, to function effectively, an EMS relies on people and other resources.

ISO 14001 Definition of an EMS

The part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes, and resources for developing, implementing, achieving, reviewing, and maintaining the environmental policy.

ISO 14001 contains 17 sections, called elements, each of which inter-relates with, and is dependent on, every other element. There are no optional elements in ISO 14001; all are essential and have equal importance, though some are more equal than others!

The elements, in sequence, are:

- Environmental Policy
- Planning
 - Environmental Aspects
 - Legal and Other Requirements
 - Objectives and Targets
 - Environmental Management Programs
- Implementation and Operation
 - Structure and Responsibility
 - Training, Awareness, and Competence
 - Communication
 - EMS Documentation
 - Document Control
 - Operational Control
 - Emergency Preparedness and Response
- Checking and Corrective Action
 - Monitoring and Measurement
 - Non-conformance, Corrective and Preventive Action
 - Records
 - EMS Audit
- Management Review.

ISO 14001 – A BIRD’S EYE VIEW

The journey from good intentions to demonstrable performance and successful registration to ISO 14001 need not be difficult or excessively demanding, but it does require focus, guidance, and above all, commitment.

For most organizations, the first requirement will be to identify their environmental aspects, the ISO 14001 term for all the organization's activities, products, or services that may impact the environment. The next step is to assess the relative risks to the environment from each aspect and identify the top priorities. Another requirement of ISO 14001 is that all applicable laws and regulations relating to environmental performance must be identified and complied with by the organization.

Next, the organization must set objectives and targets for improving environmental performance. These must address the most significant environmental aspects of the operation based on the previously mentioned risk assessment, the appropriate legal requirements, and must consider the views of interested parties (e.g., local community groups, governments, non government organizations, and other stakeholders). An action plan, called an environmental management program in ISO 14001, then has to be developed to move the organization towards achieving its objectives and targets, and a principal goal of the Standard, continual improvement of the EMS and of environmental performance.

Concurrently with these activities, and interdependent with them, top management of the organization will need to develop and communicate an environmental policy that meets ISO 14001 criteria, and is the foundation for the EMS. The policy must fit the organization's culture, philosophy, values, and purpose, and fulfil ISO 14001 specifications.

The foregoing activities are all considered to be part of the planning process for ISO 14001. Implementing

the requirements of the Standard is the next phase of the journey, though in practice this will overlap with previous steps. To implement the environmental management program (i.e., designed to achieve objectives and targets, consistent with the organization's environmental policy), clear roles and responsibilities must be assigned to all personnel in the organization, and an environmental management representative appointed to act as liaison with top management. Awareness and training needs must be assessed and met; communication pathways, both internal and external to the organization, must be addressed; and documentation of key procedures undertaken.

To conclude the implementation phase, an organization must ensure that effective operational controls are in place to prevent pollution – these controls may be technological or procedural – and have developed a functioning emergency response plan.

A further requirement of ISO 14001 is ongoing checking and corrective action, which involves monitoring and measurement of key environmental performance factors, recording the results, and taking prompt corrective and preventive action when necessary. Regular audits of the EMS must be conducted to ensure overall compliance with ISO 14001 criteria.

Finally, top management, as part of its commitment to continual improvement in environmental performance, must conduct regular reviews and appraisals of the EMS, for which audit reports and information from the environmental management representative are key. When necessary, executive management must redirect the focus and priorities of the

EMS, and ensure adequate resources are available to implement the changes.

An EMS can provide synergies when integrated with other elements of an organization's management systems, such as quality control, financial, and strategic business planning. Indeed, placing decisions on environmental matters on an equal footing with these other management responsibilities is what ISO 14001 is all about. An organization may decide to implement ISO 14001 EMS across the whole corporation, in a single facility, or in a single operating area, provided it is a self-contained unit.

CONDUCTING AN INITIAL REVIEW OF AN EMS

Every organization has some components of an environmental management system in place, however rudimentary they may be to begin with. The first step in planning the implementation of an ISO 14001 EMS is to assess what has already been established by an organization. The process, called an initial review, is outlined in ISO 14004 EMS – General Guidelines on Principles, Systems, and Supporting Techniques, and involves the following tasks:

1. Review legal and regulatory requirements concerning environmental performance. These will probably extend beyond direct environmental and pollution control legislation into property, transportation, shipping, coastal marine, health, and other statutes and regulations.
2. Assess existing environmental performance in relation to these legislative and regulatory requirements, codes of conduct, and other non-legal guidelines relevant to the organization, including internal company policies, and procedures.
3. Identify activities, products, and services undertaken by the organization that may have environmental effects, and/or pose legal risks.
4. Identify policies and procedures that deal with external services, contractors, and suppliers, and review them for potential environmental liabilities to the organization.
5. Assess trends and outcomes of environmental incidents and 'near misses', the thoroughness of follow-up investigations, and the effectiveness of any corrective and preventive measures.
6. Obtain the views of interested parties (e.g., stakeholders, individual, groups, associations with legitimate concerns about the organization's environmental performance).
7. Assess how existing internal management systems help or hinder environmental performance.
8. Conduct a 'gap analysis' comparing what is in place now with what ISO 14001 requires.
9. Consider benchmarking desired performance with what has been achieved by other organizations in the same business or functional area, and in other, dissimilar businesses, i.e., learn from the best in class.
10. Develop action plans to fill the gaps in performance, including schedules, responsibilities, resources needed, and rewards for completion.

SOME ESSENTIAL CORE TRUTHS ABOUT ISO 14001

- Continual improvement is an ISO 14001 mantra, as is 'prevention' of pollution (i.e., distinct from correcting pollution after it has occurred).
- Top managers have a pivotal role to play in leading by example in the planning and implementation of an ISO 14001 EMS. Mere rhetoric and exhortation are not enough. They must walk the talk themselves.
- In addition, it is true that environmental performance and the success of the EMS is EVERYONE'S responsibility. So awareness, adequate training, skills, and knowledge are also essential to an effective EMS.
- All elements of ISO 14001 are key to the health of the EMS. An EMS with even one element that is missing or substandard is like a ship with a hole below the waterline. It will sink, sooner or later. All elements of the Standard must be working well for the whole system to function properly.
- Once an ISO 14001 EMS has been implemented, that is just the start. There is no going back or letting up. Continual improvement in performance goes on forever.

SUMMARY OF KEY POINTS

- The goal of ISO 14001 is continual improvement in environmental management through a cycle of policy setting, planning, implementing and operating, checking and corrective action, and management review.
- All elements of the Standard are vital to an effective EMS.
- Some core themes of ISO 14001 are;
 - Prevent pollution
 - Everyone shares responsibility for environmental management and performance
 - Top management must lead by personal example.
- The first step on the path to ISO 14001 registration is to conduct an initial review of the current status of the organization's EMS and compare it with requirements of the Standard.