



ENVIRONMENTAL MANAGEMENT SYSTEMS AND ISO 14000 AN OVERVIEW

What is an EMS ?

An Environmental Management System (EMS) is a set of management procedures that allows an organization to identify, evaluate and reduce the environmental impact of its activities. A well designed EMS can help an organization address its regulatory demands in a systematic manner thereby reducing the risk of non-compliance. An EMS can also help address non-regulated issues such as pollution prevention, odor management, water and energy conservation. In addition, an EMS can promote stronger operational control, and as a result reduce inefficiency and waste.

EMS Benefits

The expected benefits from an EMS include:

- # improved overall environmental performance
- # identification of pollution prevention opportunities
- # improved compliance
- # enhanced operational control and efficiency
- # cost savings
- # reduced risk (environmental, health and safety)
- # improved internal communication
- # improved external relations and public image

Matching the Environmental Management Approach to the Size of Your Business

If you are a small business owner, you are probably thinking the last thing I need is another management system. However, it is important to note that there are a number of different ways to approach environmental management. In a small business the environmental role will probably fall to one

knowledgeable person - the owner, manager or a key staff person. For this person, time is often at a premium and the approach to environmental management should be straight forward and easy to use. In these situations a checklist based system, designed for your business sector, often works well (see Pollution Prevention Factsheet 2 Business Environmental Checklist for a sample of a generic environmental checklist). It assists the owner/manager to consider opportunities for preventing pollution, improving environmental protection and improving efficiency.

The checklist based system also works well as a starting point for the medium sized business. However, in a medium sized business environmental responsibility may be spread between a number of key staff. In addition, the business will often need to communicate it's environmental activities to staff, customers and the public. The development of an environmental policy will help communicate the businesses's commitment to protecting the environment and outline it plans to reduce it's impacts. Pollution Prevention Factsheet 3 - Developing an Environmental Policy, provides tips to aid in developing an environmental policy.

Large-sized business (and some medium sized businesses) with complex operations need a comprehensive environmental management system that will help them to continuously evaluate the impact their activities have on the environment and work to minimize them. In many cases, this system may have to withstand the scrutiny of the global marketplace if the business is to take full advantage of available export opportunities. For large business the ISO14000 standard for environmental management systems is an excellent and widely accepted standard.

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The ISO14000 Standards

Introduced in 1996, the ISO 14000 series of standards are internationally recognized standards for environmental management. The ISO14000 series includes standards for; environmental management systems, environmental auditing, environmental performance evaluation, environmental labels and declarations and life cycle assessment. Perhaps the best known of these standards is ISO 14001, the standard for environmental management systems. The ISO 14001 standard includes information on all of the elements needed to develop an environmental management system in an organization. This standard provides the requirements that an organization must conform to in order to obtain third party registration or certification.¹

ISO 14001 and Environmental Performance

The ISO14001 standard describes a management system. It does not prescribe environmental performance targets, require the use of particular technologies or set goals for environmental outcomes. It is however, generally accepted that once an organization identifies its environmental aspects, evaluates its potential impacts on the environment and sets up a system to manage those impacts improved environmental performance will occur.

The Standard Elements of an ISO 14001 Compliant EMS

An ISO14000 compliant environmental management system has the following standard elements:

Environmental Policy. The environmental policy is a road map for improving your businesses environmental performance. The policy should be appropriate for the size and complexity of the operation but generally should not exceed 1-2 pages. The policy should include a senior management commitment to continual improvement and pollution prevention and a commitment to follow applicable regulations, standards, guidelines and codes of practice.

Planning. The organizations should identify legal requirements and also consider how its activities interact with the environment. The organization should then develop a plan to reduce any adverse effects its operation may have on the environment. Ideally the planning stage should involve employees from all levels within the business.

Implementation. The policy and plans to improve environmental performance must be documented, communicated to employees, responsibilities must be assigned and training may be required to ensure that staff are aware of the plan and able to perform any required duties related to it. Operation procedures (e.g. work procedures) may be required to identify how specific tasks are to be carried out.

Checking and Correction. The organization should develop a process(es) to monitor and record how well it is doing with respect to the environmental plan and regulatory obligations. An internal or third party audit may be performed at this stage.

Management Review. Senior management should review the EMS at regular intervals e.g. annually.

ISO 14000 Registration vs. Self Declaration

Registration¹ is the formal third party recognition of an organizations environmental management system. Registration is granted after the organizations EMS has been audited by an Standards Council of Canada accredited auditor and found to be in compliance with the requirements of the ISO14001 standard. While registration is of benefit to larger organizations operating in international markets, smaller organizations may wish to use the ISO14000 approach but view the cost and time requirements of full registration as prohibitive. In these cases organizations may choose to perform internal audits and self declare that their EMS meets the requirements of ISO14001.

ISO 14000 Acceptance In Nova Scotia

Currently in Nova Scotia, at least five corporations and one military facility have received ISO 14001 registration. In Canada, in 2002, over 800 organizations have received registration, up from 276 in 1999.

On a world-wide basis, the greatest growth in ISO14000 certification is in Europe and the Far East with Japan showing the highest increase in certified organizations. When viewed by industrial sector the highest number of certificates were in the electrical and optical equipment sectors followed by the chemicals, chemical products and fibers sector.

1 "Registration" is the term used by the Standards Council of Canada (SCC) to indicate formal recognition that an organization's environmental management system is ISO14000 compliant. Other countries may refer to this type of formal recognition as "certification".