INTRODUCTION

With the expansion of trade markets into the global arena, the voluntary standards ISO 14000 are a significant model for a common world-wide approach to management systems and protection of the environment in conjunction with international trade and commerce. These international voluntary standards were developed under the direction of the International Organization of Standardization (ISO), a non-governmental federation of representatives from more than 112 countries based in Switzerland and started in 1947. When ISO 14000 is implemented, these standards will contribute to the harmonization of national environmental standards within an international framework, provide consistency in environmental management practice, and provide a single system for transnational subsidiaries. The standards provide a framework for an organization to seek improvement in its environmental performance through a systems management approach and continuous improvement principles. In the future, countries and industries may choose to adopt ISO standards as requirements for doing business, thereby making them virtually mandatory.

NEED FOR INTERNATIONAL ENVIRONMENTAL STANDARDS

Many international efforts have addressed environmental problems and trade-related environmental issues that affect industries. One outcome of these efforts was the formation of an ISO Technical Committee (TC) in 1993 to review the need for standardized environmental management systems (EMS). Many factors fuel the need for international standards: a primary one is the competitive disadvantage that certain countries face because of inconsistencies in international environmental regulations and the enforcement of those regulations. For example, the environmental regulatory burden on the U.S. gross national product, which has been estimated at between three to eight percent, places companies at a great disadvantage as they compete against products from companies without such environmental regulatory burdens. Other driving factors include non-tariff trade barriers such as European environmental product labeling requirements.

The ISO 14000 series of environmental management standards and guidance seeks a more level playing field. ISO 14000 standards establish the foundation so that companies strive for improved environmental performance in order to increase their competitive advantage, not to meet regulatory mandates.

ISO 14000 SERIES

The family of ISO 14000 standards address a broad range of environmental disciplines that include a basic EMS, auditing, performance evaluation, product labeling, life cycle assessment, and product standards. All the standards except the standard for an EMS are “guidance” documents. Only one standard, ISO 14001, is a “specification” standard to which an organization can receive certification or registration. ISO 14001 is considered the foundation document of the entire series, and most other documents in the series are proposed as guidelines that will support an organization’s environmental management system. The ISO 14000 standards can be classified into two general categories: organizational evaluation and product evaluations. The EMS (14001, 14004), the environmental auditing (14010, 14011, 14012), and the environmental performance standard (14031, 14032)
focus on organization evaluation. It should be noted that the auditing standards in ISO 14000 will likely soon be replaced with a common auditing standard – ISO 19011 – that may be used for auditing both ISO 9001 and ISO 14001. The standards with a product focus include life cycle assessment (14040, 14041, 14042, 14043, 14048) and environmental labeling (14020, 14021, 14024, 14025).

EMS - ISO 14001

As outlined in the ISO 14001 specification, the EMS standard presents a generic model for an environmental management system for an organization. The EMS is a tool that will provide companies with a method to systematically manage their environmental activities, products, and services. The basic components of the EMS standard include:

- A policy statement (including a commitment to compliance, prevention of pollution, and continuous improvement)
- An analysis of environmental impacts and legal requirements
- A statement of goals/objectives/targets and initiatives
- A corrective action plan
- A management review system

The EMS does not establish additional environmental compliance requirements or any performance levels but provides instead the framework for a company to meet the environmental goals and objectives that it sets for itself. The EMS does not prescribe additional environmental protection but does provide a structure to protect the environment in a reliable and consistent manner and offers a tool for an organization to go beyond compliance. An organization may be self-certified or third-party certified.

THE STANDARDS DEVELOPMENT PROCESS

The ISO 14000 standards are developed by the ISO Technical Committee 207 (TC 207) which meets annually. The American National Standards Institute (ANSI) is the official U.S. member to ISO. However, for TC 207, the American Society for Testing and Materials (ASTM) is the coordinating body for the U.S. delegation. While the ISO 14000 environmental standards were developed as a private sector initiative, the committee and its working groups include representatives from a broad range of industrial, consulting, governmental, non-governmental, and academic entities. The standards are developed by a process in which, first, each participating country formulates a national position. Next, a working draft (WD), a committee draft (CD), and a draft international standard (DIS) and final DIS are developed in turn, and commenting and formal balloting take place along the way. All interested parties are encouraged to participate in the standard development process. As of March 2000, these ISO 14000 documents have been adopted: ISO 14001, 14004, 14010, 14011, 14012, 14020, 14021, 14024, 14025, 14031, 14032, 14040, 14041, 14050.

EFFECTS OF ISO 14000 STANDARDS ON BUSINESSES

The ISO 14000 standards are designed to apply to all businesses and industries – large and small – and service industries, as well as government agencies. Businesses serving an international market either directly or indirectly will be the first to be affected. While businesses can expect Japanese and European businesses to lead in requiring suppliers to be ISO 14001 certified, even the U.S. Department of Energy is investigating where to require certification by certain contractors. Because of its universal applicability, the ISO 14000 series has the potential for much broader acceptance and adherence than the ISO 9000 quality standards.

POTENTIAL BENEFITS AND IMPLICATIONS

The potential benefits of the ISO 14000 standard are numerous. Above all, a company with an ISO 14001 certification will have a strong competitive advantage in the international and national marketplace. Environmental trade barriers will be reduced to facilitate trade. An enhanced public image, demonstration of environmental commitment, and improved environmental recognition of products will accompany ISO 14001 certification. The EMS will undoubtedly lead to the implementation of more efficient and cost-saving pollution prevention projects, reductions in potential liabilities, potentially lower insurance premiums, more favorable lending status, a shift toward more proactive and integrated environmental strategies, and greater personnel awareness and involvement in multimedia environment-related issues.
Regulatory flexibility for companies that are third-party certified is being considered by federal and state regulatory programs. Regulatory authorities recognize that organizations with formalized environmental management systems in place are less likely to violate environmental laws. The ISO 14001 standard is consistent with governmental policies on compliance assurance systems and is, in fact, a more detailed and comprehensive system. Oregon, Illinois, Wisconsin, Colorado, and Connecticut have adopted legislation offering regulatory flexibility or incentives to companies with environmental management systems. EPA and some states have also included EMS requirements in some settlement and consent orders.

TO PREPARE FOR ISO 14001...

There are a number of resources available to assist an organization that is interested in pursuing ISO 14001. In the United States, the Registrar Accreditation Board (RAB) has a list of accredited ISO 14001 course providers. Contact RAB for a current listing of course providers and accredited registrars to ISO 14001. The US EPA has sponsored several teleconferences about ISO 14001. In North Carolina, classes or workshops on ISO 14001 have been offered by N.C. DENR, N.C. State University’s Industrial Extension Service, the N.C. chapter of the American Society for Quality (ASQ), and others. Interested parties may also wish to work with their trade associations or participate in on-line information exchanges. For instance, EMS models are being developed specifically for the screenprinting sector and the metal finishing sector. Companies already certified under the ISO 9000 quality standards and those with strong environmental management frameworks may be better prepared for implementing ISO 14001. The success of ISO 14001 will depend on a visionary approach by businesses toward market-driven environmental performance with a new “systems” approach to incorporating environmental aspects into all levels of operations.

The ISO 14000 family of standards and guidelines are the most comprehensive environmental management initiatives ever undertaken by the private sector. The standards are expected to be the international environmental benchmark for conducting business in the global market place for the 21st century. ISO 14000 series represents a fundamental shift toward market-driven environmental management standards. ANSI, ASQ, and NSF International make available to the public final published ISO 14000 standards.

FOR MORE INFORMATION

American National Standards Institute
212.624.4900
web.ansi.org/default.htm
Official U.S. member to TC 207

American Society for Quality
Patricia Kopp, 800.248.1946 ext. 7246
standardsgroup.asq.org
Provides administrative support for the U.S. delegation to TC 207

American Society for Testing and Materials
Kathie Morgan, 610.832.9666
standardsgroup.asq.org
Coordinating body for the U.S. delegation to TC 207

NSF International
734.827.6800 or 888.NSF:9000
www.nsf-isr.org
Copies of standards and various reports on case studies and implementation models for ISO 14001

The North Carolina Division of Pollution Prevention and Environmental Assistance provides free, non-regulatory technical assistance and education on methods to eliminate, reduce, or recycle wastes before they become pollutants or require disposal. Call DPPEA at 919.715.6500 or 800.763.0136 or e-mail nowaste@p2pays.org, or visit DPPEA’s Web site at www.p2pays.org for assistance with issues in this Fact Sheet or any of your waste reduction concerns.