

US EPA ARCHIVE DOCUMENT

## Appendix B

# Integration of Environmental Management Systems and Quality Management Systems

Integrating management systems has become an increasingly important competitive issue. A growing body of information indicates that facilities that integrate their environmental management system (EMS) and quality management systems (QMS) can realize significant benefits, such as streamlined operations and decision-making, simplified employee training, more efficient use of resources, and a reduction in audit costs. Systems for managing health and safety and other organizational functions can be similarly integrated (See Appendix C).

The two most common models for QMS and EMS (ISO 9001 and ISO 14001, respectively) share many common elements. This should be no great surprise, because ISO 9001: 1994 was one of the source documents used by the drafters of ISO 14001. The two standards are very compatible in their current forms. The ISO committees responsible for the development and maintenance of these two standards continue to examine potential opportunities to increase the compatibility or alignment of the two standards.

Facilities that choose to implement both of these standards generally find that they can use many common processes to conform. In general, the elements of a QMS and EMS can be categorized as either (1) essentially the same, (2) similar, or (3) unique (See *Exhibit B-1: Relationship of EMS Elements to QMS*). System elements in both the “essentially the same” and “similar” categories can often be addressed by a common procedure (or parallel procedures), although some customization may be needed to address the differing overall purposes of these systems. Unique elements are typically dealt with in separate EMS or QMS procedures. Some of the typical elements for integration include: document control; corrective/preventive action; training; records management; and manage-

ment review. However, some facilities have gone much further—for example, some have developed common quality and environmental policies. The degree of system integration varies widely from facility to facility.

While an EMS can be readily integrated with an existing QMS, the overall purposes of these two systems must be kept in mind. A QMS is intended primarily to ensure that a facility satisfies its customers by assuring the quality of its products. An EMS generally has a broader context—the relationship between a facility and the environment in which it operates. Also, an EMS often concerns itself with a broader range of stakeholders, such as neighboring communities, customers, and regulatory agencies.

System integration can have environmental benefits. By linking environmental management more closely with day-to-day planning and operation, some facilities have been able to raise the visibility of environmental management as a core organizational issue. In addition, these facilities enhance their abilities to address environmental issues when making modifications to products or processes for quality purposes.

Facilities that have a QMS in place generally are better off when implementing an EMS for several reasons. First, employees typically are already familiar with management system concepts and are involved in making the system work. Second, many of the processes needed for the EMS might already be in place. Finally (and perhaps most importantly), top management has committed the use of management systems to achieve facility goals.

Exhibit B-1: **Relationship** of **EMS Elements** to **QMS** (based on ISO 9001: 1994)

*Elements that are Essentially the Same*

- Training, Awareness, and Competence
- Document Control
- Nonconformance, Corrective, and Preventive Action
- Calibration  
(part of the Monitoring and Measurement element)
- Records

*Elements that are Similar*

- Policy
- Structure and Responsibility
- Documentation
- Operational Control
- Monitoring and Measurement
- Audit
- Management Review

*Elements that are Unique to EMS*

- Environmental Aspects
- Legal and Other Requirements
- Objectives and Targets
- Environmental Management Program(s)
- Communications
- Emergency Preparedness and Response

## Tips on System Integration

For facilities that have an existing QMS and wish to integrate an EMS with it, some tips are provided below.

- Understand the existing QMS, its effectiveness, and how the workforce perceives the system. Is the existing QMS documentation clear and workable? Do employees believe that the system is helping the facility to achieve desired results?
- Ensure that the scope of the two systems will be consistent (i.e., that the systems will cover the same facilities, products, activities, and/or services). In particular, this will be an important issue if third-party registration will be sought.
- Establish a Cross Functional Team (including, at a minimum, representatives from the environmental and quality functions) to determine the optimal approach to system integration.
- Manage resistance to change as needed. Some employees and managers may be reluctant to change a system with which they are already familiar and/or in which they have important roles.
- Understand how QMS and EMS differ in purpose. While there are many common management system elements, there are elements of each system that are unique. In the case of EMS, these include, for example, environmental aspects, communications, and emergency preparedness and response. These differences must be acknowledged and accommodated within the integrated management system.
- Modify system documentation as required. Keep procedures simple and clear for users. Review proposed changes with affected managers and employees.
- Consider whether to integrate procedures or keep them separate on a procedure-by-procedure basis. While integration can reduce the total number of procedures or work instructions, it also can confuse the overall purpose of such procedures, in some cases.
- Train managers and employees on the integrated system once the integrated system documentation has been prepared.
- Audit the integrated system and take actions as necessary.

### Final Thoughts on System Integration

- Can your facility afford to have two or more separate systems?
- Are there compelling reasons to keep these systems separate?
- What is the optimal approach from a strategic and operational standpoint?
- Which approach is best suited for the facility's change and growth?