



## KEY ELEMENTS OF AN EMS

### 1.1 EMS Scope

Every organization has its own goals that stem from the vision and aspirations of its founders and leaders. These may span the gamut from client service to social service to national defense goals. The possibilities can be virtually limitless. An EMS takes this as a fact, as a pre-existing condition from which the awareness and desire to be environmentally responsible emerge. That desire itself becomes an organizational goal when it is transformed into a commitment. This commitment must be specifically expressed in a written environmental policy when the organization decides to implement an EMS.

### 1.2 Environmental Policy

The Environmental Policy verbalizes the organization's commitment to be environmentally responsible. The content of the environmental policy describes the organizations aspirations, evoking the degree of commitment by top management and serving as a beacon to influence the behavior and actions of all members of the organization to high achievement for environmental protection.

### 1.3 Planning

EMS planning activities determine the environmental aspects and impacts of the work conducted at the ESC. Environmental management programs (EMPs) are designed to control and reduce, where possible, the impacts associated with the identified aspects.

#### 1.3.1 Environmental Aspects

The organization's interactions with the environment are its environmental aspects. These interactions are identified by reviewing all the activities, products and services of the organization and assessing the possibility of each of them to have an environmental impact. It is important to recognize that these impacts may be positive or negative and that the organization should set objectives to increase positive impacts and reduce negative impacts. The organization can then develop programs to manage the environmental aspects they believe are significant either to the environment or to the organization.

#### 1.3.2 Legal and Other Requirements

An EMS recognizes that certain environmental aspects are significant for an organization because they impinge upon certain legal or other requirements, which can affect the organization's ability to carry out its mission. These may include federal and state requirements, industry standards, or organizational standards. The organizations must establish a procedure to identify these requirements. In most cases it is prudent for all environmental aspects with legal implications to be designated as significant.

#### 1.3.3 Objectives and Targets

Generally objectives and targets are established to address each of the organization's significant environmental aspects and are integrated at all levels and functions of the entity. Objectives and targets are set by considering, in part, the legal and other requirements, the views of interested parties, as well as, technological, financial and other operational considerations. This ensures that objectives and targets are robust, that they respond to legitimate concerns, that they are realistic for the organization, and that it is possible to develop strong management programs to achieve them.

#### 1.3.4 Environmental Management Programs (EMPs)

Environmental management programs serve to achieve the organization's objectives and targets, and are therefore linked directly to them. EMPs contain details on the resources (e.g., financial, human, and technological) and timeframes to accomplish the objectives and targets. They also contain information describing the approaches and strategies for achieving objectives and targets, as well as the performance indicators, the operational controls, the roles and responsibilities to accomplish tasks, and the competency of individuals to accomplish those tasks. The EMP ties many

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elements of the EMS together (e.g., significant aspects, objectives and targets, resources, responsibilities, and capabilities) and provides an integrated view of the disparate requirements in the EMS.

## **1.4 Implementation and Operation**

### **1.4.1 Roles, Authorities and Responsibilities**

Roles and responsibilities for activities under the EMS must be clearly defined and as stated above, many of these appear in the EMPs. While an EMS is largely sustained by the voluntary participation and commitment of members of the organization, certain duties are assigned with clear roles and responsibilities and with attendant accountability for performance and results. For example, top management must appoint a management representative to be responsible for leading the creation, implementation, and maintenance of the EMS. Other roles are assigned to members at various levels and functions throughout the organization where significant environmental aspects are present.

### **1.4.2 Training, Awareness, and Competence**

An EMS requires two types of training: general awareness, and competence training. General awareness training for all employees focuses on the importance of the environmental policy, the role of employees, and the potential consequences of failing to provide environmental care. Competence training is prescribed for members that work in proximity to significant environmental aspects and focuses on the possible significant impacts of those aspects, their specific roles and responsibilities, the objectives and targets for those aspects, and the operational controls in place to avert the actualization of the potential impacts. Competence training is detailed in the EMPs and in the documentation of operational controls. The EMS Coordinator ensures that both types of training are conducted as appropriate to satisfy these requirements.

### **1.4.3 Communication**

Clearly, effective integrated environmental management demands effective communications to coordinate staff internally and to liaise with external stakeholders. Maintaining employee awareness of EMS initiatives, motivating them, and supplying them with knowledge of their roles and responsibilities all require communication. It is also true that communication is a two-way process; that employees can make recommendations to management and give their views when necessary.

One must remember that views of interested parties should be considered in the EMS. This means that there must be effective two-way communication between external stakeholders and the facility. Interested parties should be able to communicate their views to the facility, and the facility should be able to respond to these parties.

### **1.4.4 EMS Documentation**

It is important that the organization maintain information that would allow someone with a legitimate interest in the EMS to understand how it is designed and implemented. This information is essential for employees who need to know about an EMS issue, as well as for external parties such as customers, regulators, registrars and other interested parties. In many cases the EMS Manual will fulfill this documentation requirement. However it is likely that some documents will be maintained outside the EMS Manual in which case they must be referenced in the Manual.

### **1.4.5 Document Control**

Due to the wide variety of documents used in the EMS it is essential that a formal approach be developed to control and organize them. This document control procedure must ensure that the documents being used are the most up-to-date versions. This includes removing obsolete documents from circulation.

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#### **1.4.6 Operational Control**

It is important to control those activities, products or services that might cause a deviation from the organization's environmental policy or result in significant impacts. These controls are designed to support the achievement of EMS objectives and targets. An operational control is a specified engineering or administrative measure implemented to reduce the risk that an impact will occur. Operational controls are included as integral components of the EMPs. Because of their volume, they may be physically separated from the EMP but must be referenced in such instances with a pointer in the EMP.

#### **1.4.7 Emergency Preparedness and Response**

The EMS provides a systematic method to manage known and expected elements of the organization's operations. However, despite best efforts there is the possibility of unpredictable accidents and emergencies. Those that are predictable should have been addressed in the EMS through the EMPs and the operational controls. The organization's emergency preparedness and response plan provides for the unexpected. From the perspective of the EMS, it is necessary that measures be included in this plan to address the environmental consequences of such occurrences. It is expected that such measures work to control and mitigate those possible environmental consequences.

### **1.5 Checking and Corrective Action**

#### **1.5.1 Monitoring and Measurement**

Monitoring and measurement is fundamental to the EMS, it ensures that management plans; controls, and training are effective. Furthermore, it enables the organization to identify its progress toward achieving objectives and targets, and the reasons for its level of achievement. Without effective monitoring and measurement it is impossible to continually improve which is the basis of the EMS. Organizations are required to periodically monitor performance, operational controls, and general conformance with EMS objectives and targets.

#### **1.5.2 Nonconformance and Corrective and Preventive Action**

When an organization identifies a weakness in the EMS or an ineffective part thereof it needs to initiate and effect a correction. The EMS requires a procedure to receive, document and investigate problems, understand their root causes, and then implement corrective actions that prevent recurrence.

#### **1.5.3 Records**

While it is critical to effectively implement and carry out all the various elements of the EMS, it is also important to be able to demonstrate that you have done so. This is done through the creation and management of records of various implementation activities and other EMS results from training, audits and management reviews. These records must be managed so that they can be easily accessed and retrieved. Importantly, they must be assigned retention dates that specify how long they need to be kept by the organization.

#### **1.5.4 EMS Internal Audits.**

EMS audits test whether the system has been implemented and maintained as designed. Importantly, they are not compliance audits. The reason to look at compliance data during an EMS audit, for example, is not to test the organization's regulatory posture, but rather to test whether the programs (EMPs) that have been implemented are actually working as they were intended to work to achieve and maintain compliance. Organizations will also use the EMS internal audits to gauge their status on regulatory compliance.

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## **1.6 Management Review.**

The EMS reserves a special role for top management, as well it should. Not only must they formulate and articulate the environmental commitments of the organization in the environmental policy, they must also render judgment on whether the EMS continues to be suitable, adequate and effective. This is accomplished through the periodic management review that affords them the opportunity to judge the EMS and its results. On that basis, they are then expected to make decisions relative to the EMS so that it continues to perform and deliver as expected.