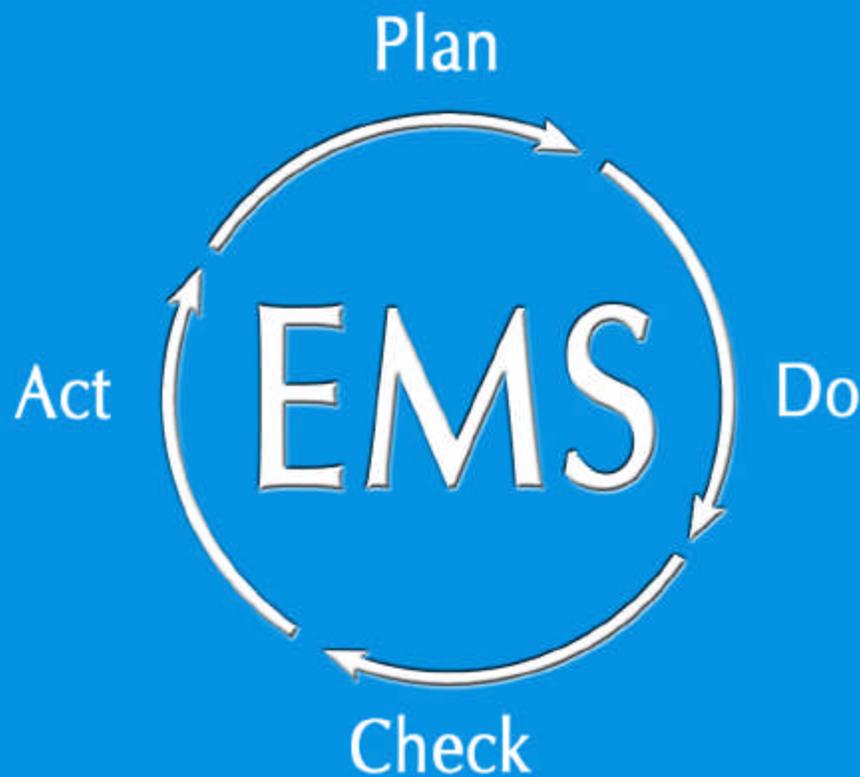


# Understanding and Implementing an Environmental Management System

A Step-by-Step Guide  
for  
Small and Medium-Sized Organizations



## Step 3: EMS Template

New York State Department of Environmental Conservation  
Pollution Prevention Unit

George E. Pataki, Governor

Erin M. Crotty, Commissioner



## HOW TO USE THE EMS TEMPLATE

This section of the guide includes an EMS Template. It is recommended that you read through all of STEP 1, and at least Chapter 2 of STEP 2 before beginning to look through the material presented in this template. After reading the EMS basics included in STEP 1, and the EMS documentation information included in Chapter 2 of STEP 2, you will be ready to concurrently read the remaining chapters of STEP 2 along with the EMS Template that follows.

As you proceed through the chapters of STEP 2, the EMS Template will provide you with additional detail regarding how the various aspects of an EMS can be documented. Where applicable the EMS Template references chapters in STEP 2 that provide additional details. These references to STEP 2 will be noted with bold, italics font located within brackets (i.e., ***[See STEP 2: Section 12.2]***). Also, you will see that the EMS Template includes page numbers that refer you to the location of procedures, appendices, and forms. These page number references are included to make the EMS Template easier to use. When you develop an actual EMS manual, it is not advisable to include page number references since the EMS document will continually be modified and expanded as you proceed in implementing your EMS.

As you read through the EMS Template keep in mind that it is merely an example of what an EMS Manual might look like. Since the template is also quite generic, it is critical that your EMS team proceeds through the chapters in STEP 2 to develop an EMS that is focused on the specific needs of your facility. The EMS Template will provide you with some ideas on how to document your EMS, but you must add, eliminate, and/or modify the procedures and other manual elements to fit the specific needs of your company's EMS. The template includes some EMS records in the Appendices, while other records have not been incorporated into the template. There is no right or wrong location for records. Your company must decide what records (if any) will be appended to the EMS manual, and what records will be maintained elsewhere.

Some other points to consider when using this EMS Template are:

- *Incorporate existing procedures* - Your company probably has some environmental, quality, or control procedures already developed. When possible, these procedures, guidelines, manuals, or processes should be updated as necessary and incorporated, or referenced, in your EMS manual.
- *Consider an appropriate level of detail* - The level of detail presented in your procedures and other manual elements should be specific to your company's organization. A large company with a complex management structure will require procedures that are more detailed than a small organization with a simple management structure.
- *Only include procedures you need* - The procedures included in the template may not be applicable to your EMS. Do not include procedures that you have no need for, and be sure to include all procedures that are needed for implementing your EMS. Remember, procedures can always be added or modified if the need arises in the future.

- *Consider whether the EMS manual will be an electronic document* - At this point you should consider whether you want your entire EMS document to be prepared in a manner suitable for posting on an internet site. This may influence the document format and the support you will need in preparing and updating the document.



*Facility/Company Name*

**Environmental Management System (EMS) Manual**

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*Date*

**Revision 1.0**

**Prepared By:**

\_\_\_\_\_  
**(EMS Champion)**

**Approved and Authorized By:**

\_\_\_\_\_  
**(President)**

**Environmental Policy**  
**Facility/Company Name**  
**[See STEP 2: Chapter 4]**

*Facility/Company Name* is committed to managing health, safety and environmental (HS&E) matters as an integral part of our business. In particular, it is our policy to assure the HS&E integrity of our processes and facilities at all times and at all places. We will do so by adhering to the following principles:

**Compliance**

We will comply with applicable laws and regulations and will implement programs and procedures to assure compliance. Compliance with HS&E standards will be a key ingredient in the training, performance reviews, and incentives of all employees.

**Risk Reduction, Prevention, and Resource Management**

We will seek opportunities, beyond compliance requirements, for reducing risk to human health and the environment, and we will establish and meet our own HS&E quality standards where appropriate.

We will employ management systems and procedures specifically designed to prevent activities and/or conditions that pose a threat to human health, safety, or the environment. We will look for ways to minimize risk and protect our employees and the communities in which we operate by employing clean technology, including safe technologies and operating procedures, as well as being prepared for emergencies.

We will strive to minimize releases to the air, land, or water through use of cleaner technologies and the safer use of chemicals. We will minimize the amount and toxicity of waste generated and will ensure the safe treatment and disposal of waste.

We will manage scarce resources, such as water, energy, land, and forests in an environmentally sensitive manner.

**Communication**

We will communicate our commitment to HS&E quality to our employees, vendors, and customers. We will solicit their input in meeting our HS&E goals and in turn will offer assistance to meet their goals.

**Continuous Improvement**

We will measure our progress as best we can. We will review our progress at least on an annual basis. We will continuously seek opportunities to improve our adherence to these principles, and will periodically report progress to our stakeholders.

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**(President)**

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**(Date)**

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**R-16: EMS Manual Revisions**

<b>Revision Date</b>	<b>Description</b>	<b>Sections Affected</b>	<b>Revised By (Initial)</b>	<b>Approved By (Initial)</b>

*[Insert Company Organizational Chart - Be sure to note key staff and their role in the EMS development and implementation]*

## 1.0 Purpose of This Manual

In order to improve upon the environmental performance of *Facility/Plant Name* an environmental management system (EMS) has been implemented. This EMS manual defines the scope of the *Facility/Plant Name's* EMS.

The principal elements of the EMS described in this manual are:

- Environmental Policy
- Environmental Aspects
- Legal and Other Requirements
- Objectives and Targets
- Environmental Management Programs
- Organizational Structure and Responsibility
- Training, Awareness and Competence
- Communications
- Environmental Management System Documentation
- Document Control
- Operational Control
- Emergency Preparedness and Response
- Monitoring and Measurement
- Nonconformance and Corrective/Preventive Action
- Records
- Environmental Management System Audit
- Management Review

The EMS provides a mechanism for environmental management throughout all functional areas of our facility. The EMS is designed to cover environmental aspects that a facility can control and directly manage as well as those aspects it does not control or directly manage but can be expected to influence.

The manual will be controlled by the EMS Champion. This individual will be responsible for maintaining an up-to-date manual that includes all revisions and modifications. The EMS Champion is also responsible for ensuring that all applicable employees receive copies of this document and subsequent revisions.

## 2.0 Statement of Purpose [see STEP 2 - Chapter 2]

The following sections present a statement of purpose for each of the elements covered in the EMS. These statements explain why *Facility/Plant Name* needs to conform to the particular element and assigns responsibility for implementation of each element. Each statement of purpose is quite general but references standard operating procedures and other reference material that will assist in the implementation of the element.

## **2.1 Environmental Policy [see STEP 2 - Chapter 4]**

A copy of *Facility/Plant Name's* Environmental Policy is included at the beginning of this manual. This policy is endorsed by the highest level of management at our facility. The policy covers all activities at the facility and states in broad terms our commitment to protecting the environment. Specifically, the policy includes a commitment to continual improvement and prevention of pollution, as well as a commitment to meet or exceed relevant environmental legislation, regulations and other requirements. The policy will be reviewed annually by the EMS team in compliance with the Environmental Policy procedure (**P-03**). The initial policy and all subsequent activities will be communicated to all employees and made available to the public in accordance with the Communication (**P-02**) and Environmental Policy (**P-03**) procedures.

### *Applicable Procedures:*

P-02: Communications (p. 16)

P-03: Environmental Policy (p. 20)

### *Reference Material:*

ISO 14001 Standard (4.2)

## **2.2 Environmental Aspects [see STEP 2 - Chapter 5, Section 1]**

The EMS Team has identified all environmental aspects and related impacts that the facility controls or on which it may be expected to have an influence. The EMS team has further determined those aspects that are considered significant. This activity has been completed in compliance with the Environmental Aspects Identification procedure (**P-04**). Information pertaining to the environmental aspects identified is included in Appendix A: Aspects, Objectives and Targets.

The EMS Champion is responsible for ensuring that all functional units are aware of the significant environmental aspects that were identified. Further, each department manager is responsible for ensuring that these significant environmental aspects are considered in setting their environmental objectives and targets. This should be accomplished in compliance with the Setting and Tracking Environmental Objectives and Targets procedure (**P-06**).

The EMS team shall be responsible for re-evaluating the list of environmental aspects and related impacts whenever the facility changes a process, produces a new product, or makes major changes to facility equipment or infrastructure. At a minimum, the environmental aspects will be re-evaluated on an annual basis.

### *Applicable Procedures:*

P-04: Environmental Aspects Identification (p. 22)

P-05: Legal and Other Requirements (p. 26)

P-06: Setting and Tracking Environmental Objectives and Targets (p. 28)

*Reference Material:*

ISO 14001 Standard (4.3.1)

Appendix A: Aspects, Objectives and Targets (p. 54)

### **2.3 Legal and Other Requirements [see STEP 2 - Chapter 5, Sections 1.1 and 1.3]**

The Facility/Plant Name has established an environmental procedure for the purpose of identifying, accessing and communicating legal and other requirements that are applicable to the facility. The EMS Team has developed a list of the facility's legal and other requirements. This information is included in Appendix B: Legal and Other Requirements.

The EMS Champion will be responsible for ensuring that all department managers have an updated list of all the facility's legal and other requirements. This will be done in accordance with the Legal and Other Requirements (P-05) and the Communications procedure (P-02). The department managers will be responsible for ensuring that their staff are appropriately trained on these requirements. This will be done in accordance with the Training procedure (P-07). At least annually the EMS Champion, along with the EMS Team and department managers, will review the most current national, regional, provincial, state and local legal and other requirements as applicable to Facility/Plant Name. In addition, the current list will be reviewed and revised as appropriate, whenever a new requirement that is applicable to the facility is adopted.

*Applicable Procedures:*

P-02: Communications (p. 16)

P-05: Legal and Other Requirements (p. 26)

P-07: Training (p. 31)

*Reference Materials:*

Appendix B: Legal and Other Requirements (p.62)

ISO 14001 Standard (4.3.2)

### **2.4 Objectives and Targets [see STEP 2 - Chapter 5, Section 2]**

The EMS Team has set objectives to improve upon the environmental performance of the Facility/Plant Name. The appropriate operational managers have assisted with the development of targets and action plans to meet those objectives. The Facility/Plant Name's management has approved of these objectives. More information on the objectives can be found in Appendix A - Aspects, Objectives and Targets.

Objectives and targets are developed considering significant environmental aspects; technological options; prevention of pollution; financial, operational and business plans; legal and other requirements; and the views of interested parties. These objectives and targets will be documented and maintained in accordance with the Setting and Tracking Environmental Objectives and Targets procedure (P-06).

On at least an annual basis the EMS Champion and the EMS Team will be responsible for evaluating the progress made toward meeting existing objectives and for considering the need to develop new objectives. The findings from this annual evaluation should be incorporated into the management review. These activities will be completed in accordance with the Setting and Tracking Environmental Objectives and Targets procedure (**P-06**), and the Management Review procedure (**P-14**). In addition, the EMS Team will be responsible for amending objectives and targets, if deemed necessary, as a result of new or revised operations, activities, and/or regulations.

*Applicable Procedures:*

P-06: Setting and Tracking Environmental Objectives and Targets (p. 28)

P-14: Management Review (p. 51)

*Reference Material:*

ISO 14001 Standard (4.3.3)

Appendix A - Aspects, Objectives and Targets (p. 54)

## **2.5 Environmental Management Programs [see STEP 2 - Chapter 5, Section 3]**

The EMS Team establishes environmental management programs (EMPs) as a means for achieving objectives and targets. These programs define the principal actions to be taken, those responsible for undertaking those actions and the scheduled times for their implementation. The EMPs are developed by the EMS Team with input provided by managers of applicable functional units. The EMPs will be developed in accordance with the Setting and Tracking Environmental Objectives and Targets procedure (**P-06**). The EMPs will be placed in Appendix C - Environmental Management Programs.

The specific roles associated with the implementation of the EMP will be included in the EMP documentation. Aside from these specific responsibilities, the EMS Champion will coordinate the effort to ensure that the EMP is being implemented, monitored and maintained in an appropriate fashion. On an annual basis, the EMS Team will evaluate the progress of the EMP and document their findings and recommendations. These findings and recommendations will be considered by management during the EMS management review. These activities will be conducted in accordance with the Setting and Tracking Environmental Objectives and Targets procedure(**P-06**), and the Management Review procedure (**P-14**).

*Applicable Procedures:*

P-06: Setting and Tracking Environmental Objectives and Targets (p. 28)

P-14: Management Review (p. 51)

*Reference Material:*

ISO 14001 Standard (4.3.4)

Appendix C - Environmental Management Programs (p. 64)

## **2.6 Structure and Responsibility [see STEP 2 - Chapter 6, Section 3]**

Environmental management system roles, responsibilities and authorities are defined at relevant functions and levels within the organization. The Facility/Plant Name management jointly provides the resources essential to the implementation and control of the EMS, including: training, human resources, specialty services, financial resources, and technical and informational services. The EMS Champion has primary responsibility for establishing, operating and maintaining the EMS. In this capacity the EMS Champion will report on the performance of the EMS to management and delegate authority to complete tasks to other facility personnel. An EMS Team provides routine EMS support as directed by the EMS Champion. Documentation of the EMS structure and various responsibilities of personnel is included in Appendix D - Structure and Responsibilities. The structure and responsibilities of the EMS will be developed in accordance with the Structure and Responsibility procedure (P-01).

### *Applicable Procedures:*

P-01: Structure and Responsibility (p. 14)

### *Reference Material:*

ISO 14001 Standard (4.4.1)

Appendix D - Structure and Responsibilities (p. 66)

## **2.7 Training, Awareness and Competence [see STEP 2 - Chapter 6, Section 5]**

All employees within the Facility/Plant Name will be provided with introductory training on the EMS. In addition, the EMS team, with input from the operational managers, has developed an Environmental Training Plan (ETP) that identifies, plans, monitors and records training needs for personnel whose work may create a significant impact upon the environment. The training plan will also document specific competence levels required for certain key positions at the facility. The development of the ETP will be done in accordance with the Training procedure (P-07).

The ETP will be updated on an annual basis by the EMS team when they evaluate the facility's list of environmental aspects. In addition, the EMS Team will be responsible for amending the ETP, if deemed necessary, as a result of new or revised operations, activities, and regulations. An ETP is included in Appendix E - Environmental Training Plan.

### *Applicable Procedures:*

P-07: Training (p. 31)

### *Reference Material:*

ISO 14001 Standard (4.4.2)

Appendix E - Environmental Training Plan (p. 70)

## 2.8 Communications [see STEP 2 - Chapter 3]

The Facility/Plant Name has developed a Communications Plan (CP) to ensure that information regarding our environmental aspects and EMS is appropriately communicated to internal personnel and external stakeholders. The CP has been developed to handle internal communications between various levels and functions of the facility, and to receive, document and respond to relevant communications from external stakeholders. The CP is included in Appendix F - Communications Plan.

In general the EMS Champion is responsible for communicating information relevant to the EMS to the facility's management. As authorized by the EMS Champion, the EMS team and operational managers will communicate information to their staff and to other external stakeholders. All communications relevant to the EMS and the development of the CP will be conducted in accordance with the Communications procedure (P-02).

*Applicable Procedures:*

P-02: Communications (p. 16)

*Reference Material:*

ISO 14001 Standard (4.4.3)

Appendix F - Communications Plan (p. 73)

## 2.9 Environmental Management System Documentation [see STEP 2 - Chapter 2]

To ensure effective operation of the EMS the Facility/Plant Name is committed to documenting the EMS and the records associated with the outcome of the process. This Manual identifies all documents relevant to the EMS. A copy of EMS documents, other than visual aids and records, can be obtained from the Environmental Management System Champion or designee. The EMS documentation system is organized along a three-tier structure that includes:

Statement of Purpose for each EMS element	Tier 1
Standard Operating Procedures	Tier 2
Forms, Records and Plans	Tier 3

*Applicable Procedures:*

P-11: Control of EMS Documents (p. 40)

P-12: Records (p. 43)

*Reference Material:*

ISO 14001 Standard (4.4.4)

EMS Manual

## **2.10 Document Control [see STEP 2 - Chapter 6, Section 4]**

The Facility/Plant Name has established the Control of EMS Documents procedure (**P-11**) for controlling all documents related to the EMS. This procedure describes where documents are located and how and when they are reviewed. The procedure gives the EMS Champion the responsibility of ensuring that current versions are available and that obsolete documents are promptly removed from use or are suitably identified.

### *Applicable Procedures:*

P-11: Control of EMS Documents (p. 40)

### *Reference Material:*

ISO 14001 Standard (4.4.5)

## **2.11 Operational Control [see STEP 2 - Chapter 6, Section 1]**

The EMS Team, along with the managers of specific facility operations, will identify operations and activities related to facility compliance and the identified significant environmental aspects. If applicable, operational controls will be developed or existing controls will be evaluated for each identified operation and activity.

The EMS Champion will delegate authority to a member of the EMS team for the development of each of the operational controls that are determined to be necessary. The EMS Team member will work with the manager in the specific operational area to draft the operational control. The operational control will take the form of explicit work instructions that set forth the required steps or measures to maintain compliance and move closer to meeting the objectives of the EMS. These operational controls will be developed along with the Environmental Management Programs and in accordance with the Setting and Tracking Environmental Objectives and Targets procedure (**P-06**). The operational controls will be included in Appendix C: Environmental Management Programs.

### *Applicable Procedures:*

P-06: Setting and Tracking Environmental Objectives and Targets (p. 28)

### *Reference Material:*

ISO 14001 Standard (4.4.6)

Appendix C: Environmental Management Programs (p. 64)

## **2.12 Emergency Preparedness and Response [see STEP 2 - Chapter 6, Section 2]**

The Facility/Plant Name has developed the Emergency Response and Preparedness procedure (P-10) to identify the potential for and to respond to accidents and emergency situations, and to prevent and mitigate the environmental impacts that may be associated with them. Emergency Preparedness and Response plans are reviewed by the EMS Team on an annual basis and after the occurrence of accidents or emergency situations.

*Applicable Procedures:*

P-10: Emergency Response and Preparedness (p. 38)

*Reference Material:*

ISO 14001 Standard (4.4.7)

Emergency Preparedness and Response Plans

## **2.13 Monitoring and Measurement [see STEP 2 - Chapter 7, Section 1]**

The Facility/Plant Name has established the Measurement and Monitoring procedure (P-08) to monitor and measure the key characteristics of its operations and activities that can impact compliance and that have a significant impact on the environment. This procedure includes calibration and maintenance requirements and ensures that records will be retained. Performance relevant data that is obtained from these monitoring and measurement efforts will be utilized in the management review in accordance with the Management Review procedure (P-14).

*Applicable Procedures:*

P-08: Measurement and Monitoring (p. 33)

P-14: Management Review (p. 51)

*Reference Material:*

ISO 14001 Standard (4.5.1)

Compliance Audit Procedures and Documentation

## **2.14 Nonconformance and Corrective/Preventive Action [see STEP 2 - Chapter 7, Section 2]**

The Facility/Plant Name has developed the Preventive and Corrective Action procedure (P-09) to define responsibility and authority for handling and investigating nonconformance, for taking action to mitigate impacts, and for initiating and completing corrective and preventive action. Any changes in procedures resulting from corrective and preventive actions are implemented and recorded.

*Applicable Procedures:*

P-09: Preventive and Corrective Action (p. 35)

*Reference Material:*

ISO 14001 Standard (4.5.2)

## **2.15 Records [see STEP 2 - Chapter 7, Section 3]**

The Facility/Plant Name has a Records procedure (**P-12**) for the identification, maintenance and disposition of environmental records. These records include training records and the results of audits and reviews. These records are kept to demonstrate conformance with the EMS and applicable regulations. The EMS Champion is responsible for maintaining records that are relevant to the EMS. The functional units are responsible for maintaining their own environmental records that are not applicable to the EMS.

*Applicable Procedures:*

P-12: Records (p. 43)

*Reference Material:*

ISO 14001 Standard (4.5.3)

## **2.16 Environmental Management System Audit [see STEP 2 - Chapter 7, Section 4]**

The Facility/Plant Name developed an Environmental Management System Audit procedure (**P-13**) to ensure that the EMS has been properly implemented and maintained. The EMS audits are coordinated by the EMS Champion and conducted on an annual basis. The results are provided to management in accordance with the Management Review procedure (**P-14**). Audits are performed according to a schedule, that is based on the environmental importance of an activity and the results of previous audits. All auditors are trained and audit records are kept with the EMS Champion.

*Applicable Procedures:*

P-13: Environmental Management System Audits (p. 45)

P-14: Management Review (p. 51)

*Reference Material:*

ISO 14001 Standard (4.5.4)

## **2.17 Management Review [see STEP 2 - Chapter 8]**

The Facility/Plant Name management reviews all elements of the EMS annually to ensure its continuing suitability, adequacy and effectiveness. This review is conducted in accordance with the Management Review procedure (**P-14**). The management review will address the need for changes to the environmental policy, objectives, and other EMS elements. All applicable observations, conclusions and recommendations that result from the management review will be documented and used by the EMS Team to modify the EMS as necessary.

### *Applicable Procedures:*

P-14: Management Review (p. 51)

### *Reference Material:*

ISO 14001 Standard (4.6)

### **3.0 Standard Operating Procedures [see STEP 2 - Chapter 2, Section 2]**

A statement of purpose has been developed for each of the EMS elements and presented in section 2.0 of this manual. In order to properly implement each of these EMS elements the Facility/Plant Name has developed standard operating procedures (SOP). The SOPs that have been developed to implement the Facility/Plant Name's EMS are included in this section.

## **Standard Operating Procedure**

### **P-01: Structure and Responsibility**

*[see STEP 2 - Chapter 6, Section 3]*

#### 1.0 Purpose/Scope

This procedure is used to determine the organizational roles and personnel responsibilities for the company's EMS.

#### 2.0 Definitions

*EMS Champion* - a management representative who will be responsible for leading the implementation of the EMS.

*EMS Team* - a group of 6 to 8 supervisors and employees from major groups or areas within the plant who will assist with the development and implementation of the EMS.

#### 3.0 Responsibilities

The EMS Champion has the primary responsibility for assuring that the appropriate structure is in place to develop and implement the EMS. As needed the EMS Champion will assign responsibility for specific tasks and make assignments to EMS Team members and other facility personnel.

#### 4.0 Procedure

A. The company will first designate an EMS Champion whose role is to provide general oversight of the implementation of the EMS. The EMS Champion, and other facility personnel selected by the EMS Champion, are responsible for implementing the EMS.

B. The EMS Champion, with input provided from facility management, will select personnel to participate on the EMS Team. The EMS Team will be limited to a maximum of eight individuals that represent key management functions, production or service areas.

C. The EMS Champion will develop and assign EMS roles and responsibilities and document them using standard correspondence and/or the following records:

1. R-01: Persons Responsible for EMS Development (see Appendix D)

2. R-02: EMS Development Schedule and Resources Worksheet (see Appendix D)

D. The EMS Champion will communicate EMS roles and responsibilities to all employees.

E. The EMS Champion and other facility personnel will review and update the EMS roles and responsibilities on an annual basis, or as needed.

F. Roles and responsibilities documentation will be retained in Appendix D: Structure and Responsibility of the EMS manual.

## 5.0 Frequency

The EMS Champion along with the EMS Team will evaluate the applicability of the assigned roles and responsibilities on an annual basis, or as deemed necessary. If necessary the assigned roles and responsibilities will be modified.

## 6.0 Related Documents

### *Records*

R-01: Persons Responsible for EMS Development (*p. 67*)

R-02: EMS Development Schedule and Resources Worksheet (*p. 68*)

### *References*

Appendix D: Structure and Responsibilities (*p. 66*)

## Standard Operating Procedure

### P-02: Communications

*[see STEP 2 - Chapter 3]*

#### 1.0 Purpose/Scope

The purpose of this procedure is to ensure effective and timely communication of environmentally-related information within the organization and to external entities. This procedure describes processes for communications on various elements of the organization's EMS.

A variety of processes are used for communication on environmentally-related matters. The effectiveness of these communication processes is evaluated on an ongoing basis, through employee surveys, environmental training programs, organization audits and inspections, and informal discussions.

Major topics of communication include:

- Environmental policy, objectives, and targets.
- Environmental management roles and responsibilities.
- Organization performance compared to environmental compliance requirements.
- Organization performance compared to environmental objectives and targets.
- Environmental policies and procedures.
- Hazards and emergency situation.
- Response to queries, comments, or complaints from stakeholders.

#### 2.0 Definitions

*Internal Communication* - all forms of communications between those within the organization.

*External Communication* - all forms of communication between the organization's personnel and external stakeholders.

*Stakeholders* - individual or group concerned with or affected by the environmental performance of an organization.

### 3.0 Responsibilities

A. The EMS Champion is responsible for communicating the organization's environmental policies and procedures to all employees. The EMS Champion is also responsible for communicating roles and responsibilities for environmental management and the results of facility measurement and monitoring activities.

B. Area and functional managers are responsible for communicating environmental targets (and performance vs. objectives and targets) to employees in their areas or functions, as well as to the management team. They are also responsible for communicating environmental procedures (and any changes to the procedures), results of accident and "near miss" investigations in their areas, and other significant environmentally-related information (such as upcoming training classes). In addition, the area and functional managers will be responsible for responding to communications from external stakeholders when requested to do so.

### 4.0 Procedure

#### A. General

1. The EMS Team, with input from area and functional managers, will develop a Communications Plan. At a minimum, the plan should address the following:

- a. Targets of Communication - What needs to be communicated to internal personnel, and external stakeholders?
- b. Means of Communication - What is the most effective means to efficiently communicate to our personnel and stakeholders?
- c. Frequency of Communication - How often do you need to communicate specific information?
- d. Communication Objectives - What do you expect to achieve through improved communication?

2. The Communication Plan will be documented in Appendix F, using the forms R-03: Communications Work Plan, R-04: Communications Form, R-05: Communications Channels, and R-06: Identification of Stakeholders.

#### B. Internal Communication

1. All internal communication will be conducted in accordance with the Communications Plan located in Appendix F. At a minimum, internal communications should be conducted as follows:

- a. All communications with internal personnel that are relevant to the EMS should be initiated and coordinated by the EMS Champion.

- b. The EMS Champion will ensure that all employees are aware of the facility's environmental policy, the results of the facility's compliance audit, and other measurement and monitoring results. The EMS Champion will also assure that applicable area and functional managers are aware of relevant significant aspects, legal requirements, objectives and targets, environmental management programs, and all information required to ensure that the EMS is being implemented correctly.
- c. The EMS Champion will ensure that facility management is communicating the vision reflected in the company environmental policy to all employees on a regular basis
- d. At their discretion, the EMS Champion will delegate authority to communicate some of the items listed above to EMS team members or other facility personnel.
- e. Area and functional managers will communicate to their staff all relevant procedures, operational controls, objectives and targets that they should be familiar with in order to meet the requirements of the EMS.

### C. External Communication

1. All external communication will be conducted in accordance with the Communications Plan located in Appendix F. At a minimum, external communications should be conducted as follows:

- a. The EMS Champion will ensure that facility management is communicating the vision reflected in the company environmental policy to all external stakeholders on a regular basis.
- b. All communications relevant to environmental issues should be forwarded to the EMS Champion.
- c. The EMS Champion will document the receipt of the correspondence on R-07: External Communications Log.
- d. The EMS Champion will respond to the external communication or forward the communication to an applicable area or functional manager to prepare a response.
- e. If an area or functional manager is asked to respond to external communications, the EMS Champion should receive a copy of the response.
- f. The EMS Champion will be responsible for tracking all external communications on R-07: External Communications Log. This information will be included in Appendix F along with the Communications Plan.

## 5.0 Frequency

The EMS team will evaluate the Communications Plan on an annual basis or as deemed necessary.

## 6.0 Related Documents

### *Records*

R-03: Communications Work Plan (*p. 74*)

R-04: Communications Form (*p. 75*)

R-05: Communications Channels (*p. 76*)

R-06: Identification of Stakeholders (*p. 77*)

R-07: External Communications Log (*p. 78*)

### *References*

Appendix F: Communications Plan (*p. 73*)

## Standard Operating Procedure

### P-03: Environmental Policy

*[see STEP 2 - Chapter 4]*

#### 1.0 Purpose/Scope

This procedure is used to develop, evaluate and continually improve the company's environmental policy.

#### 2.0 Definitions

*Environmental Policy*- statement of intentions and principles in relation to the overall environmental performance which provides a framework for action and for setting environmental objectives and targets.

#### 3.0 Responsibilities

The EMS Champion and the EMS team are responsible for the development and evaluation of the environmental policy. Facility management will ultimately approve the initial policy and subsequent changes.

#### 4.0 Procedure

##### A. Environmental Policy Development

1. The EMS Champion will form an EMS Team responsible for developing and writing the environmental policy. The policy will address, at a minimum, compliance, pollution prevention, and continual improvement.
2. Once an environmental policy is drafted by the EMS Team, management will approve the content prior to adoption.
3. The policy will be communicated to all employees and introduced to new employees in accordance with the Communications procedure (**P-02**); the policy will be available in other languages (as appropriate), to the public (on request), and to customers (as appropriate).
4. The EMS Champion will ensure that a current copy of the environmental policy is located at the front of the EMS manual.

##### B. Environmental Policy Evaluation and Improvement

1. The EMS Team will evaluate the applicability of the environmental policy on an annual basis, or as specific situations warrant.

2. If any changes to the environmental policy are required as a result of this evaluation, the EMS Team will document their recommendations.
3. The recommended changes to the environmental policy that have been documented by the EMS Team will be considered during the management review in accordance with the Management Review procedure (**P-14**).
4. If changes are made to the environmental policy, the modified policy will be communicated to all employees in accordance with the Communications procedure (**P-02**).

## 5.0 Frequency

The environmental policy will be evaluated on an annual basis or as specific situations warrant.

## 6.0 Related Documents

### *Applicable Procedures*

P-02: Communications (*p. 16*)

P-14: Management Review (*p. 51*)

### *References*

Environmental Policy

## Standard Operating Procedure

### P-04: Environmental Aspects Identification

*[see STEP 2 - Chapter 5, Section 1]*

#### 1.0 Purpose/Scope

To identify the environmental aspects of the organization's activities, products and services in order to determine those which may have a significant impact on the environment.

This procedure covers those environmental aspects of activities, products and services that the organization can control or over which it can be expected to have an influence. Significant environmental aspects identified through this process are considered in the setting of environmental objectives and targets.

A baseline evaluation will be conducted of existing products, activities, services, and compliance requirements. The need for follow-up evaluations is determined based on changes in evaluation methodology or significant changes in the organization's mission, products, or processes.

#### 2.0 Definitions

*Environment* - surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans, and their interactions.

*Environmental Aspects* - element of an organization's activities, products or services that can interact with the environment.

*Significant Environmental Aspect* - an environmental aspect that has or can have a significant environmental impact.

*Environmental Impact* - any change to the environment, whether adverse or beneficial, wholly or partially resulting from the activities, products or services of the organization.

#### 3.0 Responsibilities

The EMS Champion and the EMS Team are responsible for maintaining a list of environmental aspects, and determining which of the aspects are considered significant. Facility management will be responsible for approving the list of significant environmental aspects that are developed by the EMS Team.

#### 4.0 Procedure

A. The EMS Team will evaluate the listing of compliance requirements that have been developed in accordance with the Legal and Other Requirements procedure (**P-05**), in order to ensure that compliance requirements are given consideration when developing a list of environmental aspects.

B. The EMS Team will solicit input from representatives from environmental health and safety, product design, engineering, line management, maintenance, and shipping/receiving, or other functions as appropriate in order to develop a list of environmental aspects. Separate teams may be formed to evaluate particular groups of products, activities and services. The EMS Team may call upon other individuals in the organization, as needed.

C. The team considers each of the stages in the life cycle of the organization's products, services and activities, including (where appropriate):

1. Pre-production or service strategy (design, procurement, etc.).
2. Manufacturing.
3. Production/distribution.
4. Use/service.
5. Disposal/waste management.

For purposes of this evaluation, "activities" are those activities that are not directly linked to a specific product, service or activity (such as equipment maintenance). Activities that are directly linked to the manufacture of a particular product are evaluated when that product is evaluated. Products, services or activities may be "grouped" such that those with similar characteristics can be evaluated concurrently (for instance, energy use can be included as a single aspect even though numerous facility activities consume energy).

D. Results of EMS Team findings are documented. If the EMS Team determines that additional information is needed to evaluate a particular product or activity, the EMS Champion assigns the responsibility for collecting that information to an appropriate team member.

E. The EMS Champion will be responsible for maintaining the list of environmental aspects on form R-08: Identifying Environmental Aspects. A completed copy of this form should be included in Appendix A: Aspects, Objectives and Targets.

F. After developing a list of environmental aspects, the EMS Team will determine which aspects are significant. This determination will be conducted as follows:

1. Any environmental aspects that are associated with non-compliant activities will be considered significant.
2. Once the EMS Team has identified those aspects associated with non-compliant activities, the EMS Team will rate the remaining environmental aspect with respect to the following criteria: regulatory concerns, pollution, risk, and natural resource use.
3. Using form R-09: Criteria to Determine Significant Aspects, the EMS Team will develop a total score by scoring each environmental aspect with respect to the criteria noted above.

4. Using form R-09; each aspect can be assigned a relative value of L (lowest impact), M-L (lower impact), M (medium impact), M-H (more impact), and H (most impact). Based on the relative values assigned a total score for each aspect can be derived using the following numerical values: L=1; M-L= 2; M=3; M-H=4; and H=5.

5. The EMS Team can then focus on the environmental aspects that have the highest scores and determine which should be considered significant aspects.

G. Once the EMS Team determines which environmental aspects are significant, the EMS Champion will document the list of significant aspects and obtain approval of the list from facility management. Documentation of the list of significant environmental aspects for each year should be included in Appendix A of the EMS Manual.

H. The EMS Champion is responsible for working with area and functional managers to ensure that significant environmental aspects identified by the team are considered in setting environmental objectives and targets for the site. This should be conducted in accordance with the Communications (**P-02**) procedure and the Setting and Tracking Environmental Objectives and Targets (**P-06**) procedure.

I. The EMS Team should repeat this process on an annual basis. Changes to assessment methodologies or major changes to the organization's mission, products, and processes may require the EMS Team to repeat this process more frequently than on annual basis. The EMS Team should document their recommended changes to the list of significant environmental aspects. These recommendations will be submitted to facility management and considered as part of the annual management review in accordance with the Management Review procedure (**P-15**).

## 5.0 Frequency

This procedure should be repeated on an annual basis or as circumstances require.

## 6.0 Related Documents

### *Records*

R-08: Identifying Environmental Aspects (*p. 56*)

R-09: Criteria to Determine Significant Aspects (*p. 57*)

### *Applicable Procedures*

P-02: Communications (*p. 16*)

P-05: Legal and Other Requirements (*p. 26*)

P-06: Setting and Tracking Environmental Objectives and Targets (*p. 28*)

P-14: Management Review (*p. 51*)

*References*

Appendix A: Aspects, Objectives and Targets (*p. 54*)

## Standard Operating Procedure

### P-05: Legal and Other Requirements

*[see STEP 2 - Chapter 5, Sections 1.1 and 1.3]*

#### 1.0 Purpose/Scope

To ensure that the organization identifies, has access to, and evaluates laws, regulations, and internal organizational requirements that apply to the environmental aspects of its activities, products, and services.

This procedure covers laws, regulations, and other requirements established at the federal, state, and local level that apply to the environmental aspects of the organization's activities, services and products. The organization takes these requirements into account when developing a list of significant environmental aspects in accordance with the Environmental Aspects Identification procedure (**P-04**), and setting its environmental objectives in accordance with the Setting and Tracking Environmental Objectives and Targets procedure (**P-06**). This procedure will ensure that all the facilities' compliance requirements are documented.

#### 2.0 Definitions

*Applicable laws and regulations* - Legal requirements promulgated by federal, state or local government authorities that apply to environmental aspects of the organization's products, activities or services.

#### 3.0 Responsibilities

The EMS Champion is responsible for maintaining a current listing of applicable laws and regulations, and communicating this information to area and functional managers. The area and functional managers are responsible for ensuring that their staff are aware of the laws and regulations that are applicable to their work assignments, and that their activities are in compliance with applicable requirements.

#### 4.0 Procedure

A. The EMS Champion is responsible for maintaining a listing of applicable laws and regulations. A current list of applicable laws and regulations will be documented on form R-10: Applicable Legal Requirements, and included in Appendix B: Legal and Other Requirements. The EMS Champion will utilize internal personnel resources such as members of the EMS Team, as well as area and functional managers, to assist with this effort and to identify how these laws and regulations impact specific facility functions.

B. The EMS Champion will utilize a variety of information sources to maintain a current listing of applicable laws and regulations. These include, but are not limited to: commercial services/databases; information provided by its trade association; communications with federal and state regulatory agencies; company environmental meetings; and periodic environmental

refresher training. The EMS Champion monitors these information sources on a regular basis to ensure that new issues are identified on a timely basis.

C. As necessary, "off-site" resources (such as consultants and attorneys) may be called upon to assist the EMS Champion in evaluating applicable laws and regulations or in developing programs in response to applicable laws and regulations. Where off-site resources are used in this manner, the organization's EMS Champion coordinates such efforts.

D. The EMS Champion will be responsible for ensuring that all department managers have an updated list of all the facilities legal and other requirements. This will be done in accordance with the Communications procedure (**P-02**).

E. The area and functional managers will be responsible for ensuring that their staff are appropriately trained on these requirements. This will be done in accordance with the Training procedure (**P-07**).

F. At least annually, the EMS Champion along with the EMS team and department managers will review the most current national, regional, provincial, state and local legal and other requirements as applicable to *Facility/Plant Name*. In addition, the current list will be reviewed and revised as appropriate, whenever a new requirement that is applicable to the facility is adopted.

## 5.0 Frequency

This listing of applicable laws and regulations will be evaluated and updated on an annual basis or whenever new requirements applicable to the facility are adopted.

## 6.0 Related Documents

### *Records*

R-10: Applicable Legal Requirements (*p. 63*)

### *Applicable Procedures*

P-02: Communications (*p. 16*)

P-04: Environmental Aspects Identification (*p. 22*)

P-06: Setting and Tracking Environmental Objectives and Targets (*p. 28*)

P-07: Training (*p. 31*)

### *References*

Appendix B: Legal and Other Requirements (*p. 62*)

## Standard Operating Procedure

### P-06: Setting and Tracking of Environmental Objectives and Targets

*[see STEP 2 - Chapter 5, Section 2]*

#### 1.0 Purpose/Scope

The purpose of this procedure is to ensure that the organization establishes and maintains documented environmental objectives and targets. This procedure applies to environmental objectives and targets set at all relevant levels within the organization.

The organization establishes environmental objectives and targets in order to implement the environmental policies. Objectives and targets also provide a means for the organization to measure the effectiveness of its environmental efforts and improve the performance of the environmental management system.

#### 2.0 Definitions

*Environmental Objective* - overall environmental goal, arising from the environmental policy, that an organization sets itself to achieve and that is quantified where practicable.

*Environmental Target* - detailed performance requirement, quantified where practicable, this is applicable to the organization or parts thereof, that arises from the environmental objectives, and that needs to be set and met in order to achieve those objectives.

*Environmental Management Program* - a program that is linked directly to your objectives and targets by providing a description of the how the goals will be translated into concrete actions so that environmental objectives and targets will be achieved.

*Operational Controls* - work instructions that outline how processes, activities or steps can be controlled in order to mitigate the impact of significant environmental aspects and to ensure that objectives and targets are achieved.

#### 3.0 Responsibilities

The EMS Champion is responsible for providing facility management with a preliminary set of environmental objectives. Facility management is responsible for approval of the objectives. The EMS Champion and EMS Team are responsible for authorizing specific targets and developing environmental management programs to achieve each objective.

#### 4.0 Procedure

A. The EMS Champion is responsible for initiating the development of environmental objectives. The EMS Team will begin this process by considering input from area and functional managers, legal requirements, and significant environmental aspects. The EMS Team will then develop a preliminary set of objectives and distribute them to the area and functional

managers for review. After weighing commentary from area and functional managers, the EMS Team will modify the preliminary list of environmental objectives as necessary.

1. In establishing environmental objectives, the organization considers:

- a. applicable laws and regulations
- b. significant environmental aspects of the organization's activities and products
- c. technological, financial, operational, and other business requirements
- d. the views of employees and other interested parties.

B. The preliminary list of environmental objectives will be forwarded to the facility's management for review. The organization's top management is responsible for approving environmental objectives.

C. The EMS Champion is responsible for communicating the list of environmental objectives to all area and functional managers. This will be accomplished in accordance with the Communications procedure (**P-02**). The EMS Champion will document the environmental objectives on form R-11: Environmental Objectives, and ensure that a current version of this form is included in Appendix A: Aspects, Objectives and Targets.

D. Once environmental objectives are finalized, each area and functional manager identifies the impacts of the objectives in their function or area, establishes targets to achieve the objectives, and develops appropriate measures to track progress toward meeting the objectives and targets.

E. The targets identified by the area and functional managers will be evaluated and approved by the EMS Team.

F. Once targets are finalized, the EMS Champion will document the targets for each environmental objective on form R-12: Targets to Achieve Environmental Objectives. These forms will be updated as necessary and included in Appendix A: Aspects, Objectives and Targets.

G. The area and functional managers will identify the need to develop operational controls to achieve the objectives and targets. The development of these controls will be the responsibility of the area and functional managers.

H. The EMS Champion will take the targets and operational controls developed by all the functional areas and develop an Environmental Management Program for each objective. The Environmental Management Program for each objective should be summarized on form R-13: Environmental Management Program. The operational controls that are applicable to each Environmental Management Program should be included with the summary sheets. The EMS Champion will ensure that current copies of this material are available in Appendix C: Environmental Management Programs.

I. Each area and functional manager is responsible for communicating objectives, targets and operational controls to others in their part of the organization.

J. Each area and functional manager is responsible for ensuring that their staff have received appropriate training for each operational control that they have developed. This will be conducted in accordance with the Training procedure (**P-07**).

K. Progress toward the objectives and targets is reviewed on an annual basis by the EMS Team. The progress is also communicated to plant employees via bulletin boards and other similar means.

L. The need for new objectives, or modifying existing objectives, is considered by the EMS Team on an annual basis. This information, along with a report discussing the progress toward meeting the objectives and targets, is provided to management on an annual basis. Management will consider this material during their management review in accordance with the Management Review procedure (**P-14**).

## 5.0 Frequency

The objectives and targets will be evaluated and modified if necessary, on an annual basis.

## 6.0 Related Documents

### *Records*

R-11: Environmental Objectives (*p. 60*)

R-12: Targets to Achieve Environmental Objectives (*p. 61*)

R-13: Environmental Management Program (*p. 65*)

### *Applicable Procedures*

P-02: Communications (*p. 16*)

P-07: Training (*p. 31*)

P-14: Management Review (*p. 51*)

### *References*

Appendix A: Aspects, Objectives and Targets (*p. 54*)

Appendix C: Environmental Management Programs (*p. 64*)

## Standard Operating Procedure

### P-07: Training

*[see STEP 2 - Chapter 6, Section 5]*

#### 1.0 Purpose/Scope

This procedure is used to develop and implement a training program that (1) complies with environmental regulations requiring training and (2) addresses high-priority environmental aspects and objectives and targets.

#### 2.0 Definitions

#### 3.0 Responsibility

The EMS Team, in conjunction with the area and operational managers, will be responsible for the development of an environmental training plan. The area and functional managers are responsible for ensuring that the appropriate employees receive training required under the plan. The company's human resources representative will be responsible for ensuring that all employees receive introductory training on the EMS.

#### 4.0. Procedure

##### A. Task-Specific Training

1. A training program will be developed to ensure that employees are capable of accomplishing the tasks required to meet EMS objectives and targets. This program will identify training topics, who should receive the training, when training should be given, and the training method. The program will also distinguish between training conducted to comply with environmental regulations and other training.
2. A critical first step in developing a training program is to assess employee training needs. The EMS Champion, the EMS Team, and area and functional managers will review past training and the nature of the employee's work. Based on this review, specific training requirements for each employee or type of employee will be documented.
3. The EMS Champion will document the training plan on form R-14: Training Plan and include a copy in Appendix E: Environmental Training Program.
4. The training plan will be implemented by the area and functional managers. Upon completion of training by employees, the area and functional managers shall make the EMS Champion aware of the training completed.
5. The EMS Champion will document the training completed on form R-15: EMS Training Log, and include a copy in Appendix E: Training Program.

6. Specific documentation pertaining to training received will be maintained by the operational work areas for a minimum of two years, or as required by regulation.

7. Training effectiveness will be evaluated to ensure that the EMS is being implemented effectively when changes are made to significant environmental aspects, objectives, targets or operational controls. Improvements to the training plan will be made accordingly.

## B. General EMS Training

1. All employees shall receive introductory training to make them aware of the EMS.
2. The human resources representative shall be responsible for coordinating the effort to assure that all new and existing employees have received suitable training.

## 5.0 Frequency

The training plan shall be updated whenever changes are made to the significant environmental aspects, objectives, targets, or operational controls. General EMS training shall be made available on a continual basis to ensure that new employees are made aware of the EMS.

## 6.0 Related Documents

### *Records*

R-14: Training Plan (*p. 71*)

R-15: EMS Training Log (*p. 72*)

### *References*

Appendix E: Training Program (*p. 70*)

## Standard Operating Procedure

### P-08: Measurement and Monitoring

*[see STEP 2 - Chapter 7, Section 1]*

#### 1.0. Purpose/Scope

This procedure is used to implement a measurement and monitoring program designed to support the EMS and specific EMS objectives and targets.

#### 2.0 Definitions

#### 3.0 Responsibility

The area and functional managers will be responsible for providing data and monitoring operations that are specific to their functions. The EMS Champion will be responsible for consolidating all the data and conducting facility-wide monitoring.

#### 4.0 Procedure

##### A. Measurement

1. The area and functional managers will track the following facility metrics by collecting and charting data relevant to the metric at the frequency indicated below. The EMS Champion shall be responsible for consolidating the data from each functional unit and shall document the following metrics on a facility wide basis.

Facility Metric	Data Collection Frequency
Rejects/Rework Rate	
Water Use	
Wastewater Discharge Quality	
Treatment Residuals	
Chemical Use Rate	
Bath Dumps	
Energy Use	
Production	

2. The area and functional managers will measure unique parameters that were developed during the Setting and Tracking Environmental Objectives and Targets procedure (P-06).

3. The area and functional managers will measure the instances of non-compliance in their areas. This data will be consolidated by the EMS Champion in order to assess facility wide compliance.
4. The developed metrics shall be evaluated and revised as objectives and targets are modified and/or added.

## B. Monitoring

1. The EMS Champion, the EMS Team and key facility staff will review facility and target-specific measurement and monitoring data every 3 months to identify trends, evaluate progress toward meeting EMS objectives and targets, and discuss overall environmental performance.
2. The area and functional managers will ensure that data obtained to monitor their specific activities is continually evaluated to ensure compliance with applicable environmental statutes and regulations.
3. The EMS Champion will be responsible for providing an annual summary of the results of the facility monitoring program to facility management. The EMS Champion will also be responsible for ensuring that the results of the facility monitoring program are broadly communicated to all employees in accordance with the Communications procedure (**P-02**).
4. Facility management will review the annual monitoring report during their management review in accordance with the Management Review procedure (**P-14**).

## 5.0 Frequency

The monitoring and measurement aspects will be evaluated as objectives and targets are modified or added. A Facility Monitoring Report shall be developed on an annual basis.

## 6.0 Related Documents

### *Applicable Procedures*

P-02: Communications (*p. 16*)

P-06: Setting and Tracking Environmental Objectives and Targets (*p. 28*)

P-14 Management Review (*p. 51*)

### *References*

Annual Facility Monitoring Report

## Standard Operating Procedure

### P-09: Preventive and Corrective Action

*[see STEP 2 - Chapter 7, Section 2]*

#### 1.0 Purpose/Scope

The purpose of this procedure is to establish and outline the process for identifying, documenting, analyzing, and implementing preventive and corrective actions. Preventive or corrective actions may be initiated using this procedure for any environmental problem affecting the organization.

#### 2.0 Definitions

*Preventive Action* - is generally a proactive process intended to prevent potential problems before they occur or become more severe.

*Corrective Action* - is generally a reactive process used to address problems after they have occurred.

#### 3.0 Responsibility

The EMS Champion is responsible for ensuring that actions are taken to prevent and correct identified problems. The EMS Champion shall delegate responsibility for dealing with individual problems to specific individuals. These individuals are responsible for the development and implementation of the preventive and corrective actions.

#### 4.0 Procedure

##### A. General

1. Corrective action is initiated using the Corrective Action Notice (CAN) document as the primary vehicle for communication. Corrective action may be triggered by a variety of events, including internal audits and management reviews. Other items which might result in a CAN include neighbor complaints or results of monitoring and measurement.
2. Preventive action is initiated using the Preventive Action Notice (PAN). Preventive action focuses on identifying negative trends and addressing them before they become significant. Events that might trigger a PAN include monitoring and measurement, trends analysis, tracking of progress on achieving objectives and targets, response to emergencies and near misses, and customer or neighbor complaints, among other events.
3. Preventive and corrective action notices are prepared, managed and tracked using the preventive and corrective action log.
4. The EMS Champion (or designee) is responsible for reviewing issues affecting the EMS, the application and maintenance of this procedure, and any updates to EMS documents affected by the preventive and corrective actions.

5. The EMS Champion is responsible for documenting the PAN or CAN on the preventive and corrective action log, and tracking and recording submission of solutions. The requester and recipient of the CAN or PAN are responsible for verifying the effectiveness of the solution. The EMS Champion is responsible for overall tracking and reporting on preventive and corrective actions.

6. Personnel receiving PANs and CANs are responsible for implementing the required corrective or preventive action, reporting completion of the required action to the EMS Champion, and assuring sustained effectiveness.

7. Completed records of PANs and CANs are maintained by the EMS Champion for at least two years after completion of the corrective or preventive action.

#### B. Issuing a CAN or PAN

1. A CAN or PAN may be requested by any employee. The employee requesting the CAN or PAN is responsible for bringing the problem to the attention of the manager of their functional area. The area manager then consults with the EMS Champion to determine whether a CAN or PAN is appropriate and enters the appropriate information into the corrective and preventive action log. Responsibility for resolving the problem is assigned to a specific individual (“the recipient”).

2. The EMS Champion, working with the recipient, determines an appropriate due date for resolving the CAN or PAN.

#### C. Determining and Implementing Corrective and Preventive Actions

1. The CAN or PAN is issued to the recipient, who is responsible for investigation and resolution of the problem. The recipient is also responsible for communicating the corrective or preventive action taken.

2. If the recipient cannot resolve the problem by the specified due date, the recipient is responsible for determining an acceptable alternate due date with the EMS Champion.

#### D. Tracking CANs and PANs

1. CANs or PANs whose resolution dates are overdue appear as such on the preventive and corrective action log. The EMS Champion is responsible for notifying the recipients of any overdue CANs or PANs.

2. Records of PANs and CANs are maintained for at least two years after completion of the corrective or preventive action.

#### E. Tracking Effectiveness of Solutions

1. The recipient of a CAN or PAN, in conjunction with the requester, is responsible for verifying the effectiveness of the solution. If the solution is not deemed effective, the CAN or PAN will be reissued to the original recipient.

## 5.0 Frequency

Corrective or preventive actions shall be initiated whenever the need to take action arises.

## 6.0 Related Documents

### *Records*

Corrective Action Notices (CANs)

Preventive Action Notices (PANs)

Preventive and Corrective Action Log

## Standard Operating Procedure

### P-10: Emergency Response and Preparedness

*[see STEP 2 - Chapter 6, Section 2]*

#### 1.0 Purpose/Scope

This procedure is used to anticipate, document, prepare, and review emergency events and preparedness plans.

#### 2.0 Definitions

#### 3.0 Responsibility

The EMS Champion is responsible for coordinating the development of a facility Emergency Response Plan, and developing Emergency Incident Reports for all emergency response activities.

#### 4.0 Procedure

A. The EMS Champion, the EMS Team, and other facility personnel are responsible for identifying dangers, taking proactive steps to prevent emergency incidents, and completing tasks in preparation for emergencies.

B. The EMS Champion will coordinate the preparation and upkeep of an Emergency Response Plan that contains all emergency procedures required by local, state and federal regulatory agencies.

C. The EMS Champion will require the area and functional managers to prepare an Emergency Response Plan relevant to their activities.

D. The area and functional managers will familiarize and train employees and emergency personnel on the procedures described in the Emergency Response Plan. This shall be accomplished in accordance with the Training procedure (P-07).

E. For each emergency incident, the EMS Champion, area and functional managers, and the involved employees will determine the cause of the emergency, evaluate the response to the incident, and identify actions to be taken to minimize its recurrence. The EMS Champion shall be responsible for documenting this information in an Emergency Incident Report.

F. At least annually, the EMS Champion, the EMS Team and other facility personnel will review the Emergency Response Plan and any emergency incidents that occurred since the last review. This activity will be conducting on a more frequent basis if facility conditions warrant.

G. The EMS Champion will maintain documentation on emergency response and preparedness, and emergency incidents for at least five years.

#### 5.0 Frequency

The Emergency Response Plan will be evaluated on an annual basis or as conditions warrant. Emergency incidents will be documented in compliance with this procedure as they occur.

## 6.0 Related Documents

### *Records*

Emergency Incident Reports

### *Applicable Procedures*

P-07: Training (*p. 31*)

### *References*

Emergency Response Plan

## **Standard Operating Procedure**

### **P-11: Control of EMS Documents**

*[see STEP 2 - Chapter 6, Section 4]*

#### 1.0 Purpose/Scope

This procedure establishes a process for the review, distribution, and implementation of documents that describe and control the EMS. The procedure applies to the following documents (and any changes to them) that must be controlled: the EMS manual; facility-wide environmental procedures; process-specific or activity-specific procedures and work instructions; and forms, checklists, and drawings used for EMS purposes.

#### 2.0 Definitions

#### 3.0 Responsibility

The control of the EMS manual and all facility-wide procedures and records is the responsibility of the EMS Champion. The control of process or activity specific procedures and records is the responsibility of the applicable area or functional manager.

#### 4.0 Procedure

##### A. General

1. Distribution lists are maintained by the EMS Champion (or designee). Document distribution may be either controlled or uncontrolled.
2. Depending on the type of document, controlled copies are identified by stamp, signature or other similar means.
3. Uncontrolled copies of documents may exist for illustrative, instructional, knowledge preservation, or external distribution purposes only.
4. All controlled documents are approved prior to issue and are marked with the revision number and date.
5. Initial distribution of documents may be determined by the originator of the document or the EMS Champion.
6. Unless otherwise specified, the originator of a document is responsible for review and approval of any subsequent changes to the document.
7. The EMS Champion (or designee) is responsible for removal of obsolete controlled documents from all points of issue and use.

8. The EMS Champion (or designee) is responsible for ensuring that changes to controlled documents are understood, distributed, and communicated to the affected functions within the organization.

9. All controlled documents are listed on the EMS Document Index. The Index shows the date(s) of any revisions and the person(s) initiating the revisions. The EMS Champion shall be responsible for maintaining this list.

10. All revisions to documents included in the EMS manual shall be noted on form R-16: EMS Manual Revisions. This form shall be kept up-to-date by the EMS Champion and shall be located at the beginning of the EMS manual.

## B. EMS Manual

1. Copies of the EMS manual are numbered sequentially. Distribution of controlled copies is the responsibility of the EMS Champion (or designee).

a. Controlled copies are stamped "Controlled" with the distribution date.

b. Uncontrolled copies can be issued by the EMS Champion (or designee). All uncontrolled copies are stamped "Uncontrolled - For Reference Only."

2. A Distribution List of controlled documents is maintained by the EMS Champion (or designee). Each recipient initials the Distribution List to indicate his/her receipt of the Manual.

3. Each individual issued a controlled copy of the EMS Manual is responsible for its safekeeping.

4. Uncontrolled copies of the EMS Manual may be distributed outside the organization (for example, to customers). All uncontrolled copies are stamped "Uncontrolled - For Reference Only."

## C. Facility-wide Procedures

1. Revision of facility-wide procedures is controlled and is the responsibility of the EMS Champion (or designee).

2. Distribution of facility-wide procedures is specified on the Distribution List.

3. The EMS Champion (or designee) is responsible for distributing new and revised procedures. A copy of the Distribution List is signed and dated by the EMS Champion and initialed by each recipient. This copy of this list is maintained for at least one year.

4. When a new individual must be added to the controlled distribution of a procedure, the requester notifies the EMS Champion. The EMS Champion is then responsible for updating the Distribution List.

5. Control of forms, checklists, and drawings used for EMS purposes follows the same process as described in steps B.1 through B.4 (above).

#### D. Process-Specific or Activity-Specific Procedures and Work Instructions

1. Revision of process-specific or activity-specific procedures and work instructions is the responsibility of the applicable area or functional manager (or designee).
2. Distribution of process-specific or activity-specific procedures and work instructions is specified on the Distribution List. Controlled copies are stamped “Controlled” with the distribution date.
3. The area or functional manager (or designee) is responsible for distribution of new or revised activity-specific procedures and work instructions. A copy of the Distribution List is signed and dated by the area and functional manager and initialed by each recipient. This copy of the list is maintained for at least one year.

#### 5.0 Frequency

This procedure shall be implemented on a continual basis.

#### 6.0 Related Documents

##### *Records*

R-16: EMS Manual Revisions (*p. 1*)

##### *Applicable Procedures*

P-12: Records (*p. 43*)

##### *References*

Distribution Lists

EMS Document Index

## Standard Operating Procedure

### P-12: Records

*[see STEP 2 - Chapter 7, Section 3]*

#### 1.0 Purpose/Scope

This procedure is used to identify, maintain, and dispose of EMS records. The procedure is applicable to all facility activities that create records associated with the EMS.

#### 2.0 Definitions

*Records* - documented information that is evidence of an environmental activity or event that has been performed or that is required to be retained for future reference.

#### 3.0 Responsibility

The EMS Champion is responsible for identifying records that must be maintained as part of the EMS. The records that pertain to the entire facility will be maintained by the EMS Champion. The records that are specific to a process or activity will be maintained by the applicable area or functional manager.

#### 4.0 Procedure

A. The EMS Champion, the EMS Team, and other facility personnel are responsible for identifying records that will be maintained by the company as part of the EMS and ensuring compliance with environmental statutes and regulations.

B. The EMS Champion will maintain all records that pertain to the entire facility in a single location. The area or functional managers will be responsible for maintaining records that are applicable to their specific operations and activities.

C. The EMS Champion will maintain an EMS Document Index of all records that are maintained as part of the EMS. The EMS Document Index will note the person responsible for the last revision and the length of retention for each type of record.

D. The EMS Champion will identify and note on the EMS Document Index any restrictions on records necessary for security.

E. The EMS Champion, the EMS Team, and other facility personnel will review the records and purge obsolete records at least every 3 months.

#### 5.0 Frequency

This procedure shall be implemented on a continual basis.

## 6.0 Related Documents

### *Applicable Procedures*

P-11: Control of EMS Documents (p. 40)

### *References*

EMS Document Index

## Standard Operating Procedure

### P-13: Environmental Management System Audit

*[see STEP 2 - Chapter 7, Section 4]*

#### 1.0 Purpose/Scope

To define the process for conducting periodic audits of the EMS. The procedure defines the process for scheduling, conducting, and reporting of EMS audits.

This procedure applies to all internal EMS audits conducted at the site. The scope of EMS audits may cover all activities and processes comprising the EMS or selected elements thereof.

#### 2.0 Definitions

#### 3.0 Responsibility

The EMS Champion is responsible for coordinating the completion of all audits and for maintaining relevant records. The Lead Auditor is responsible for conducting the audit and documenting the results. The area or functional managers are responsible for implementing any follow-up activities that result from the audit.

#### 4.0 Procedure

##### A. General

1. Internal EMS audits will focus on verifying that activities conform with documented procedures and that corrective actions are undertaken and are effective.
2. All audits are conducted by trained auditors. Records of auditor training are maintained in accordance with the Records procedure (**P-12**).
3. When a candidate for EMS auditor is assigned to an audit team, the Lead Auditor will prepare an evaluation of the candidate auditor's performance following the audit.
4. The EMS Champion is responsible for maintaining EMS audit records including a list of trained auditors, auditor training records, audit schedules and protocols, and audit reports.
5. EMS audits are scheduled to ensure that all EMS elements and plant functions are audited at least once each year.
6. The EMS Champion is responsible for notifying EMS auditors of any upcoming audits a reasonable time prior to the scheduled audit date. Plant areas and functions subject to the EMS audit will also be notified a reasonable time prior to the audit.

7. The Lead Auditor is responsible for ensuring that the audit, audit report and any feedback to the plant areas or functions covered by the audit is completed per the audit schedule.

8. The EMS Champion, in conjunction with the Lead Auditor, is responsible for ensuring that Corrective Action Notices are prepared for audit findings, as appropriate. This shall be conducted in accordance with the Preventive and Corrective Action Procedure (**P-09**).

B. Audit Team Selection - One or more auditors comprise an audit team. When the team consists of more than one auditor, a Lead Auditor will be designated by the EMS Champion. The Lead Auditor is responsible for audit team orientation, coordinating the audit process, and coordinating the preparation of the audit report.

C. Audit Team Orientation - The Lead Auditor will assure that the team is adequately prepared to initiate the audit. Pertinent policies, procedures, standards, regulatory requirements and prior audit reports are made available for review by the audit team.

D. Written Audit Plan - The Lead Auditor is responsible for ensuring the preparation of a written plan for the audit. The EMS Audit Plan Summary form may be used as a guide for this plan.

E. Prior Notification - The plant areas and/or functions to be audited are to be notified a reasonable time prior to the audit.

F. Conducting the Audit

1. A pre-audit conference is held with appropriate personnel to review the scope, plan and schedule for the audit.

2. Auditors are at liberty to modify the audit scope and plan if conditions warrant.

3. Objective evidence is examined to verify conformance to EMS requirements, including operating procedures. All audit findings must be documented.

4. Specific attention is given to corrective actions for audit findings from previous audits.

5. A post-audit conference is held to present audit findings, clarify any misunderstandings, and summarize the audit results.

G. Reporting Audit Results

1. The Lead Auditor prepares the audit report, which summarizes the audit scope, identifies the audit team, describes sources of evidence used, and summarizes the audit results.

2. Findings requiring corrective action shall be dealt with in accordance with the Preventive and Corrective Action procedure (**P-09**).

#### H. Audit Report Distribution

1. The EMS Champion is responsible for communicating the audit results to responsible area or functional managers. Copies of the audit report are made available by the EMS Champion.
2. The EMS Champion is responsible for ensuring availability of audit reports for purposes of the annual management review.

#### I. Audit Follow-up

1. Management in the affected areas or functions are responsible for any follow-up actions needed as a result of the audit.
2. The EMS Champion is responsible for tracking the completion and effectiveness of corrective actions.

#### J. Record Keeping

1. Audit reports are retained for at least two years after the date of audit completion. The EMS Champion is responsible for maintaining such records.

#### 5.0 Frequency

All EMS activities shall be audited on an annual basis.

#### 6.0 Related Documents

##### *Records*

EMS Audit Report

Corrective Action Notices (CANs)

##### *Applicable Procedures*

P-09: Preventive and Corrective Action (*p. 35*)

P-12: Records (*p. 43*)

P-14: Management Review (*p. 51*)

##### *References*

EMS Audit Plans





## **Sample Communication to Audit Team**

### **ENVIRONMENTAL MANAGEMENT SYSTEM AUDIT**

Lead Auditor:

Audit Team Members:

Audit Area:

Target Due Date:

Listed above is the area to be audited. The due date given is the target to have the entire audit completed, including the report and follow-up meeting with the responsible area management. Listed below are the areas of EMS criteria that you are to assess. If you have any questions, please call me.

Special instructions, if any, are listed below. Thank you for your help. Effective audits help make an effective EMS.

- |  |   |
|--|---|
| <input type="checkbox"/> Policy                              | <input type="checkbox"/> Legal and Other Requirements       |
| <input type="checkbox"/> Environmental Aspect Identification | <input type="checkbox"/> Objectives and Targets             |
| <input type="checkbox"/> Environmental Management Program    | <input type="checkbox"/> Structure and Responsibility       |
| <input type="checkbox"/> Training, Awareness, Competence     | <input type="checkbox"/> Communication                      |
| <input type="checkbox"/> EMS Documentation                   | <input type="checkbox"/> Document Control                   |
| <input type="checkbox"/> Operational Controls                | <input type="checkbox"/> Emergency Preparedness             |
| <input type="checkbox"/> Monitoring and Measurement          | <input type="checkbox"/> Nonconformance / Corrective Action |
| <input type="checkbox"/> Records                             | <input type="checkbox"/> Management System Audits           |
| <input type="checkbox"/> Management Review                   |   |

Special Instructions:

EMS Representative (signature)

## Standard Operating Procedure

### P-14: Management Review

*[see STEP 2 - Chapter 8]*

#### 1.0 Purpose/Scope

The purpose of this procedure is to document the process and primary agenda of issues to be included in the Management Review meetings for evaluating the status of the organization's EMS. This procedure applies to all Management Review meetings conducted by the organization.

#### 2.0 Definitions

#### 3.0 Responsibility

The EMS Champion shall be responsible for coordinating the Management Review and providing the data and information needed to accomplish the review. The EMS Champion shall also be responsible for action items that result from this effort.

#### 4.0 Procedure

A. The Management Review process is intended to provide a forum for discussing needed improvements to the EMS. It provides management with a vehicle for making changes to the EMS that are necessary to achieve the organization's goals.

B. The EMS Champion is responsible for scheduling and conducting at least one Management Review meeting per year. The EMS Champion is also responsible for ensuring that necessary data and information are collected prior to the meeting.

C. At a minimum, each Management Review meeting will consider the following:

1. the suitability, adequacy and effectiveness of the environmental policy
2. the suitability, adequacy and effectiveness of the environmental objectives (as well as the organization's current status against these objectives)
3. the overall suitability, adequacy and effectiveness of the EMS
4. the status of corrective and preventive actions
5. the results of any EMS audits conducted since the last Management Review meeting

6. the suitability, adequacy and effectiveness of training efforts
7. the suitability and adequacy of resources needed to implement the EMS
8. the results of any action items from the previous Management Review meeting

D. Minutes of the Management Review meeting will be documented. These meeting minutes will include, at a minimum:

1. a list of attendees
2. a summary of key issues discussed
3. any actions items arising from the meeting

E. A copy of the meeting minutes will be distributed to attendees and to any individual assigned action items. A copy of the meeting minutes will also be retained on file.

F. The EMS Champion is responsible for ensuring that action items resulting from the Management Review receive appropriate attention. These action items shall be dealt with in accordance with the applicable standard operating procedures.

## 5.0 Frequency

A Management Review shall be conducted on an annual basis.

## 6.0 Related Documents

### *Records*

Management Review Meeting Minutes

### *Applicable Procedures*

P-03: Environmental Policy (p. 20)

P-06: Setting and Tracking Environmental Objectives and Targets (*p. 28*)

P-08: Measurement and Monitoring (*p. 33*)

P-09: Preventive and Corrective Action (*p. 35*)

P-13: Environmental Management System Audits (*p. 45*)

## **Appendix A: Aspects, Objectives, and Targets**

## **Environmental Aspects**

*[see STEP 2 - Chapter 5, Section 1]*

**R-08: Identifying Environmental Aspects**

<b>Input/Output</b>	<b>Environmental Aspect</b>	<b>Environmental Impact</b>
	<b>Office Operations</b>	
	<b>Manufacturing Operations</b>	





## **Environmental Objectives and Targets**

*[see STEP 2 - Chapter 5, Section 2]*

**R-11: Environmental Objectives**      **Year** \_\_\_\_\_

<b>Objective</b>	<b>Applicable Significant Environmental Aspect</b>	<b>Related Environmental Policy Provision</b>	<b>Performance Measurement Indicator</b>

**R-12: Targets to Achieve Environmental Objectives**

**Environmental Objective # \_\_\_\_\_:** \_\_\_\_\_

<b>Target</b>	<b>Description of Target</b>

**Appendix B: Legal and Other Requirements**  
*[see STEP 2 - Chapter 5, Sections 1.1 and 1.3]*

**R-10 : Applicable Legal Requirements**

Regulatory Agency	Regulation and Specific Provision	Operation to which Provision Applies

## **Appendix C: Environmental Management Programs**

*[see STEP 2 - Chapter 5, Section 3]*

**R-13: Environmental Management Program**

Objective:

Year: \_\_\_\_\_

Target #1	
Action Items	
Operational Controls	
Responsible Person(s)	
Schedule	
Budget	
Comments	
Target #2	
Action Items	
Operational Controls	
Responsible Person(s)	
Schedule	
Budget	
Comments	
Target #3	
Action Items	
Operational Controls	
Responsible Person(s)	
Schedule	
Budget	
Comments	

## **Appendix D: Structure and Responsibilities**

*[see STEP 2 - Chapter 6, Section 3]*

**R-01: Persons Responsible for EMS Development**

<b>Roles</b>	<b>Individual Responsible</b>	<b>% of Time Designated</b>
“Management representative” having responsibility for implementing the EMS (in a small business, this person could be the owner)		
Identifying and determining applicability of legal and other requirements		
Competency-based training		
Operational controls		
Emergency preparedness and response		
Monitoring and measurement of “key characteristics” of operations and activities that can have significant environmental impacts (i.e., the “significant environmental aspects”)		
Periodic evaluations of environmental compliance		
Handling and investigating nonconformance with the EMS		
Records management		
Internal EMS audits		

**R-02: EMS Development Schedule and Resources Worksheet (Page 1 of 2)**

Section	Participants	Budget	Target Completion
Getting Started: Management Commitment, Champion, Team, Employee Support, Preliminary Review, Schedule and Plan			
Intermediate steps: (Fill in)			
Identify Environmental Aspects			
Intermediate steps: (Fill in)			
Establish Objectives and Targets			
Intermediate steps: (Fill in)			
Develop Environmental Management Program			
Intermediate steps: (Fill in)			
Prepare Procedures and Documents			

R-02: EMS Development Schedule and Resource Worksheet (Page 2 of 2)

Section	Participants	Budget	Target Completion
Intermediate steps: (Fill in)			
Assess EMS Performance: Monitoring and Measurement, Nonconformance and Corrective and Preventive Action, Audits			
Intermediate steps: (Fill in)			
Establish Continuing Improvement: Management Review			
Intermediate steps: (Fill in)			
Date completed:		Contact person:	

## **Appendix E: Environmental Training Plan**

**R-14: EMS Training Plan**

Jobs Affecting Environment	Training Needs	What Vehicle	When/Length	Budget	Completion Date	Who is Responsible?



## **Appendix F - Communications Plan**

*[see STEP 2 - Chapter 3]*



## R-04: Communications Form

Type of Information	Frequency of Communication	Audience	Training	Staff Meeting	Individual Meeting	Bulletin Board	Newsletter	Other
Company Environmental Policy								
Identification of Environmental Aspects								
Prioritization of Environmental Aspects								
Compliance Awareness								
Targets and Objectives								
Individual EMS Responsibilities								
Process Change								
Emergency Response and Preparedness								
Measurement and Monitoring								
Corrective and Preventive Action								
Results of Audits and Management Review								
Other								

**R-05: Communication Channels**

	<b>What ?</b>	<b>How Often/When?</b>	<b>To Whom ?</b>
	<b>Newsletter</b>	_____ / _____	
	<b>Bulletin Board</b>	_____ / _____	
	<b>Information Meetings</b>	_____ / _____	
	<b>E-Mail</b>	_____ / _____	
	<b>Pay Check Inserts</b>	_____ / _____	
	<b>Advertising</b>	_____ / _____	
	<b>Other:</b>	_____ / _____	



**R-07: External Communications Log**

<b>Communication From</b>	<b>Type</b>	<b>Subject</b>	<b>Date Received</b>	<b>Response Needed (Y/N)</b>	<b>Who Will Respond</b>	<b>Response Type</b>	<b>Response Date</b>	<b>Follow Up Needed (Y/N)</b>