

# **CONSTRUCTING AN ENVIRONMENTAL MANAGEMENT SYSTEM: *Guidelines and Templates for Contractors***

## **SECTION II: Sample EMS Manual and Sample EMS Records**



*Building Your Quality of Life*

**The Associated General Contractors of America**  
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The examples included in this document are fictional. They are provided solely and exclusively for instructional purposes.

If professional advice or expert assistance is required, the services of a competent professional or expert should be sought.

# ACKNOWLEDGMENTS

As it prepared this publication, *Constructing an Environmental Management System: Guidelines and Templates for Contractors*, the Associated General Contractors of America (AGC) had the invaluable assistance and goodwill of many others. AGC is particularly indebted to the members of its Environmental Management System Task Force:

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AGC also wishes to acknowledge the many contributions made by the U.S. Environmental Protection Agency (EPA), and particularly, the National Environmental Performance Track and Sectors Strategies Programs in EPA's National Center for Environmental Innovation. We also wish to express our sincere gratitude to EPA's Construction Industry Point-of-Contact, Peter Truitt, for his generous support of this project.



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## ABOUT THE GUIDE

The Associated General Contractors of America (AGC) intends these environmental management system (EMS) guidelines and corresponding templates to assist construction contractors who plan to develop an EMS for their company or are exploring that possibility. Section I of this document provides EMS guidelines and Section II contains templates in the form of a Sample EMS Manual and Sample EMS Records.

This publication, *Constructing an Environmental Management System: Guidelines and Templates for Contractors* (hereinafter called the *Guide*), will help your company develop an EMS that facilitates compliance with environmental laws and regulations, prevention of pollution, continual improvement of environmental performance, and communication. The goal is to help construction contractors integrate environmental decision making into their business practices.

The EMS Task Force of the AGC developed this *Guide* using the resources that the U.S. Environmental Protection Agency (EPA) has made available to the public (see Appendix A: EMS Resources, Section I, p. 49). The National Environmental Performance Track (PT) and Sector Strategies Programs in EPA's National Center for Environmental Innovation provided technical review and assistance. This *Guide* is intended to be consistent with the EMS criteria that EPA has developed for its PT Program, of which AGC is a Network Partner. This *Guide* also is intended to assist contractors interested in meeting the EMS standards set by the International Organization for Standardization (ISO) under ISO 14001 (see the Introduction of this section for more information on ISO 14001). As noted earlier, AGC does not, however, intend this document to provide specific or detailed guidance on either the PT Program or ISO 14001.

Section I of this publication provides guidelines for each of the generally accepted elements of an EMS and outlines steps that a company would take to fulfill the purpose of each element (see Elements of an EMS, Section I, p. 2). At the end of each element, this Section I provides a checklist summarizing the important concepts therein. This Section I provides additional information that might be helpful in its Appendixes (e.g., EMS resources, glossary, summary of federal environmental requirements applicable to construction, and a list of available resources to facilitate compliance with those legal requirements).

Section II presents a Sample EMS Manual for a hypothetical construction company, setting forth examples of how to develop, document, assess, refine, and communicate your EMS program and its results. Revising the Sample EMS Manual and examples/blank forms may provide a starting place for your company in developing your own EMS. Section II also provides samples of completed EMS forms, called EMS records. These completed forms are included in Section II under Sample EMS Records.

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# INTRODUCTION

Section II provides a Sample EMS Manual and Sample EMS Records for a hypothetical construction company called XYZ Construction Co.

## Description of Sample EMS Manual

Your company's EMS Manual shows what you do and how you do it. Your EMS records demonstrate that you actually are doing what the EMS Manual says you will do. For the most part, your EMS Manual will only reference your EMS records.

The Sample EMS Manual includes the following information, based on the guidelines in Section I (see Element 10, p. 35):

- A description of the main EMS elements and their interaction and reference to related documents (see Description of EMS Requirements, Section II, Sample EMS Manual, p. 3)
- Your Environmental Policy, objectives, and targets (see Environmental Policy and F2-5: EMS Implementation Form, Section II, Sample EMS Manual, pp. 11 and 17, respectively)
- Other documents and records determined by the company to be integral to the effective planning, operation, and control of processes that relate to its significant environmental aspects (see Integral Documents, Section II, Sample EMS Manual, p. 15)
- Documents and forms required by the ISO 14001 Standard (see Integral Procedures and Blank Forms, Section II, Sample EMS Manual, p. 27)

Your EMS Manual should include or reference—

- Action plans, work instructions, and best management practices (see F2-5: EMS Implementation Form, F9-1: Master Document List, and F10-1: Index of Environmental Records, Section II, Sample EMS Manual, pp. 17, 21, and 25, respectively)
- Other EMS-related documents or EMS records, such as emergency preparedness and response plans or training plans (see F10-1: Index of Environmental Records, Section II, Sample EMS Manual, p. 25).

### **Customizing the example procedures and blank forms**

This *Guide* recommends that companies establish, at a minimum, the documented procedures required by the ISO 14001 EMS Standard (1996 and 2003 draft). The procedures and forms included in this Sample EMS Manual are meant to serve as templates that should be customized by your company to define the roles, responsibilities, activities, and record retention policy of your EMS. Section II does not have a procedure for each of the thirteen EMS elements identified in Section I. In addition, some procedures encompass as many as three elements discussed in Section I.

This Sample EMS Manual may provide more (or fewer) procedures, forms, and details than your company will need. If your company decides that a particular procedure or form needs to be simplified, expanded, or eliminated, then do so. Also remember to incorporate your own procedures and forms, where possible. If your company decides to certify its EMS or to participate in voluntary programs, make sure that all requirements are met when you are inserting, editing, or eliminating procedures and/or forms.

When customizing this Sample EMS Manual, it is crucial to review your company's policies and practices and the most recent federal, state, and local legal requirements.

## Description of Sample EMS Records

EMS records will make up the vast majority of your EMS-related documents—and therefore typically are filed separately and not included in your EMS Manual. Records provide evidence that you are implementing the processes that make up your EMS. Upon completion of a blank form associated with a procedure that form becomes a record. Section II provides Sample EMS Records for your reference. However, this *Guide* does not provide a sample EMS record for every form associated with a given procedure.

### **Types of records**

As previously discussed in Section I (see Element 10, p. 35), the following types of records are typical of EMS documentation:

- Legal, regulatory, and other code requirements
- Results of environmental aspects identification
- Reports of progress toward meeting objectives and targets
- Permits, licenses, and other approvals
- Job descriptions and performance evaluations
- Training records
- Internal audit and legal compliance audit reports
- Reports of corrective action and corrective action tracking data
- Hazardous material spill and other incident reports, including response actions taken
- Communications with customers, suppliers, contractors, and other external parties
- Results of management reviews
- Sampling and monitoring data
- Equipment maintenance and calibration records
- Emergency response drills, results, and changes to emergency preparedness and response plan

## About the Labeling System

When you create your company's EMS, you will want to adopt a labeling system to clearly identify procedures and forms. This *Guide* uses the labeling system outlined below:

- Environmental procedures (P) that apply companywide are labeled P1 to P12.
- The first form (F) associated with a procedure (e.g., P1) is labeled F1-1 and the second form associated with that procedure is labeled F1-2, and so forth.

## **SAMPLE EMS MANUAL**

This Environmental Management System (EMS) Manual defines the scope of the XYZ Construction Co.'s EMS and provides a linkage of system documents to the various elements of the International Organization for Standardization (ISO) 14001: 2003 Draft International Standard for EMS. (Note: Sections I and II of this *Guide* include all of the elements referenced in the 1996 and 2003 draft ISO 14000 standards, although some of those elements have been combined.) Amendments to this EMS Manual will be issued by the Environmental Management Representative, or designee, following approval by the owner of XYZ Construction Co.

### **Description of EMS Requirements (Example Description)**

The principal requirements of the XYZ Construction Co.'s EMS are outlined below (corresponding to the thirteen elements as discussed in Section I). Records that XYZ Construction Co. has determined to be integral to its EMS Manual also are included in this EMS Manual. These records include:

- Environmental Policy
- EMS Roles and Responsibilities Chart
- F1-1: Summary of Applicable Legal and Other Requirements
- F2-5: EMS Implementation Form
- F9-1: Master Document List
- F10-1: Index of Environmental Records
- Integral Procedures and Blank Forms

The principal requirements outlined below of XYZ Construction Co.'s EMS reference specific procedures and their accompanying blank forms, which are provided in XYZ Construction Co.'s EMS Manual (see Integral Procedures and Blank Forms, Section II, p. 27).

### **PLAN**

Note: Referenced procedures, blank forms, and resources associated with the elements below are included in Section II, Sample EMS Manual, unless otherwise indicated.

#### **Element 1: Structure, Responsibility, Purpose, and Scope**

EMS roles, responsibilities, and authorities are defined at relevant functions and levels within XYZ Construction Co. Top management ensures the availability of resources essential to the implementation and control of the EMS, including training, human resources, specialty services, financial resources, and technical and informational services. The Environmental Management Representative, irrespective of other responsibilities, has primary responsibility for establishing, implementing, and maintaining the EMS in accordance with the requirements of ISO 14001; serving as Audit Team Leader for environmental audits; and reporting on the performance of the EMS to top management for its review and as a basis for improvement. An EMS Coordinator provides routine EMS support and reports directly to the Environmental Management Representative. Members of the Cross-Functional Team, which includes members from each major operation within the company, are responsible for representing their area or department in several facets of the EMS, such as identifying environmental aspects, determining significant environmental aspects, setting objectives and targets, implementing action plans, serving on the auditing team, and reviewing and tracking EMS audits results. The Cross-Functional Team is coordinated by the EMS Coordinator.

Reference Material

ISO 14001 Standard (4.1, 4.3., 4.4.1)

Applicable Procedures, Forms, and Resources

EMS Roles and Responsibilities Chart (Example Chart)

**Element 2: Environmental Policy**

The XYZ Construction Co.'s Environmental Policy (hereinafter called the Policy) is endorsed by the company owner. The Policy covers all activities at the company and its project sites. The Policy includes a commitment to meet or exceed applicable environmental legal requirements and other environmental commitments to which the company subscribes, such as the prevention of pollution, continual improvement, and communication. The Policy will be reviewed annually by top management, communicated to all employees, subcontractors, and service providers, and made available to the public.

The XYZ Construction Co.'s EMS provides a mechanism for environmental management throughout all of the company and its project sites in [Any City, Any State]. The scope of XYZ Construction Co.'s EMS, is formally defined within XYZ Construction Co.'s Policy. The EMS is designed to cover environmental aspects that are within a defined scope and under the company's control, taking into account planned or new developments, or new or modified processes or activities.

Reference Material

ISO 14001 Standard (4.2)

Applicable Procedures, Forms, and Resources

Environmental Policy (Example Policy)

**Element 3: Legal and Other Requirements**

XYZ Construction Co. has established a procedure for identifying, accessing, and communicating applicable legal requirements related to the company's environmental aspects and other environmental requirements to which the company subscribes. The EMS Coordinator identifies, communicates to appropriate parties, and makes available, as necessary, applicable federal, state, and local requirements and changes to those requirements. At least annually, the EMS Coordinator reviews the most current national, regional, state, and local legal and other requirements as applicable to XYZ Construction Co.

XYZ Construction Co. also has established as part of its procedure a process to secure any necessary permits and/or approval from regulatory agencies.

XYZ Construction Co. has established an environmental legal compliance program that outlines the requirements to periodically review compliance with legal requirements and report results to management on a yearly basis.

Reference Materials

ISO 14001 Standard (4.3.1, 4.3.2, 4.5.1, 4.5.2)

Applicable Procedures, Forms, and Resources

P1: Legal and Other Requirements Procedure

F1-1: Summary of Applicable Legal and Other Requirements

F1-2: List of Resources for Applicable Legal and Other Requirements

F1-3: Compliance Checklists for Applicable Legal and Other Requirements

F1-4: Compliance Tracking Log

P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure

- P6: Environmental Communication with Stakeholders Procedure
- P10: Environmental Records Procedure
- P11: Environmental Audits Procedure
- Appendix C: Summary of Applicable Legal and Other Requirements (Federal Only), (see Section I, p. 53)
- Appendix D: List of Resources for Applicable Legal and Other Requirements (Federal Only), (see Section I, p. 61)

#### **Element 4: Environmental Aspects**

XYZ Construction Co. has established a procedure for identifying the environmental aspects of processes and activities with the defined scope of the EMS that the company can control. The procedure also describes the process of identification of those aspects that the company can influence. The procedure describes how XYZ Construction Co. determines which of its environmental aspects will be considered significant.

Discussions regarding significance are recorded in Cross-Functional Team meeting minutes. The significant environmental aspects are reviewed at least semi-annually by the Cross-Functional Team or when there is a new or changed process or activity at the company. The Environmental Management Representative maintains Cross-Functional Team minutes and other records.

XYZ Construction Co. also has established a procedure to ensure that environmental management applies to new processes, materials, and projects.

##### Reference Material

ISO 14001 Standard (4.3.1)

##### Applicable Procedures, Forms, and Resources

- P1: Legal and Other Requirements Procedure
- P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure
- F2-1: Company Processes Form
- F2-2: Process Evaluation Form
- F2-3: Aspects and Significance Determination Form
- F2-5: EMS Implementation Form
- P3: Environmental Review of New Processes, Materials, and Projects Procedure
- P4: Environmental Briefing of Subcontractors and Service Providers Procedure
- P6: Environmental Communication with Stakeholders Procedure
- P10: Environmental Records Procedure

#### **Element 5: Objectives and Targets**

The XYZ Construction Co. Cross-Functional Team has established and is maintaining documented objectives and targets for each significant environmental aspect. The objectives and targets are measurable where practicable and consistent with the Policy. In addition to the Policy considerations, objectives and targets are developed considering technological options and financial, operational, and organizational requirements. These objectives and targets define the performance objectives (Investigate/Study, Control/Maintain, or Improve), the specific and quantified targets that define those performance objectives, and the planned deadlines for the achievement of those targets.

##### Reference Material

ISO 14001 Standard (4.3.3)

Applicable Procedures, Forms, and Resources

Environmental Policy (Example Policy)

P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure

F2-3: Aspects and Significance Determination Form

F2-4: Objectives and Targets Form

F2-5: EMS Implementation Form

P5: Environmental Training and Awareness Procedure

P8: Correcting and Preventing Environmental Problems Procedure

P10: Environmental Records Procedure

P11: Environmental Audits Procedure

P12: Top Management Environmental Review Procedure

**Element 6: Action Plans**

XYZ Construction Co. has established three kinds of action plans for achieving the objectives and targets (Investigate/Study, Control/Maintain, or Improve) identified for each significant environmental aspect. In all cases these plans define the principal actions to be taken, those responsible for undertaking those actions (at relevant functions and levels of the company), and the means and time frames by which they are to be achieved. The action plans for each objective and target are developed by the Cross-Functional Team and approved by top management.

XYZ Construction Co. has identified those operations that are associated with the identified significant environmental aspects consistent with its Policy, objectives, and targets. The company has planned these operations in order to ensure that they are carried out under specified conditions by establishing and maintaining documented procedures to control situations where absence of documented procedures could lead to deviations from the Policy and from the objectives and targets and stipulating operating criteria in the procedures.

XYZ Construction Co. also has a procedure for briefing on-site subcontractors and service providers as well as identifying and controlling any Significant Environmental Aspects associated with their processes.

XYZ Construction Co., where applicable, monitors and measures the key characteristics of its operations and activities that can have a significant impact on the environment.

Reference Material

ISO 14001 Standard (4.3.4, 4.4.6, 4.5.1, 4.5.2)

Applicable Procedures, Forms, and Resources

Environmental Policy (Example Policy)

P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure

F2-5: EMS Implementation Form

F2-6: Compliance Action Plan Form

F2-7: Improvement and/or Study Action Plan Form

F2-8: Environmental Work Instruction or Best Management Practice Template

P4: Environmental Briefing of Subcontractors and Service Providers Procedure

F4-1: Environmental Briefing Packet and Method Statement

P10: Environmental Records Procedure

## DO

### **Element 7: Training and Awareness**

XYZ Construction Co. identifies, plans, monitors, and records environmental training needs for employees whose work may have a significant impact upon the environment. XYZ Construction Co. has established a procedure to train employees at each relevant function and level so they are aware of the Policy, significant environmental aspects, their roles and responsibilities in achieving conformance with the procedures, and other requirements of the EMS. The company procedure ensures that any persons performing tasks on its behalf that have the potential to cause significant environmental impact identified by the company are competent on the basis of appropriate education, training, or experience. The training coordinator is responsible for maintaining employee training records. Appropriate records are monitored and reviewed on a scheduled basis.

#### Reference Material

ISO 14001 Standard (4.4.2)

#### Applicable Procedures, Forms, and Resources

P1: Legal and Other Requirements Procedure

P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure

P5: Environmental Training and Awareness Procedure

F5-1: Training Needs—Environmental Courses Analysis

P6: Environmental Communication with Stakeholders Procedure

P10: Environmental Records Procedure

### **Element 8: Communication**

XYZ Construction Co. has established and will maintain a procedure for internal communications among the various levels and functions within the company as well as external communications (e.g., receiving, documenting, and responding to relevant communication from external interested parties regarding the EMS). XYZ Construction Co. has considered a process for external communication on its significant environmental aspects and has decided to make that information available on request.

#### Reference Material

ISO 14001 Standard (4.4.3)

#### Applicable Procedures, Forms, and Resources

Environmental Policy

P1: Legal and Other Requirements Procedure

P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure

P4: Environmental Briefing of Subcontractors and Service Providers Procedure

P5: Environmental Training and Awareness

P6: Environmental Communication with Stakeholders Procedure

F6-1: External Stakeholder Environmental Communication Record

P7: Environmental Emergency Preparedness and Response Procedure

P8: Correcting and Preventing Environmental Problems Procedure

P10: Environmental Records Procedure

P12: Top Management Environmental Review Procedure

### **Element 9: Emergency Preparedness and Response**

XYZ Construction Co. has an environmental procedure to identify the potential for, and to respond to, environmental accidents and emergencies and for preventing and mitigating the environmental impacts that may be associated with those situations. Emergency methods are reviewed by the Cross-Functional Team on an annual basis and after the occurrence of accidents or emergency situations.

#### Reference Material

ISO 14001 Standard (4.4.7)

#### Applicable Procedures, Forms, and Resources

P6: Environmental Communication with Stakeholders Procedure

P7: Environmental Emergency Preparedness and Response Procedure

F7-1: Environmental Emergency Preparedness and Response Requirements Matrix

P8: Correcting and Preventing Environmental Problems Procedure

P10: Environmental Records Procedure

### **Element 10: EMS Manual and Records**

This EMS Manual describes the main elements of the management system and their interaction and reference to related documentation. EMS procedures and blank forms are provided in this EMS Manual. These procedures define the mechanisms for the establishment, implementation, and maintenance of the EMS and ensure that the system is maintained in accordance with the Policy, objectives, and targets and is communicated to employees, subcontractors, and service providers. These procedures are applied companywide.

XYZ Construction Co. has established an environmental procedure for controlling EMS documents. This procedure describes approving documents for adequacy prior to issue, reviewing and updating documents, where documents can be located and how and when they are reviewed. The procedure ensures that current versions are available and that obsolete documents are promptly removed from use or are suitably identified. A list of controlled documents (i.e., master documents) is provided in this EMS Manual.

XYZ Construction Co. also has a procedure to identify, maintain, and dispose of environmental records as necessary to demonstrate conformity to the requirements of its EMS and of the ISO 14001 standard. These records include training records, results of audits, and results of evaluations of compliance with environmental legal requirements. They are readily retrievable and protected against damage, deterioration, and loss. Project sites maintain their own environmental records and report back to the main office upon completion of the project. Record and document retention also is specified in the procedure.

#### Reference Material

ISO 14001 Standard (4.4.5, 4.5.4)

#### Applicable Procedures, Forms, and Resources

P3: Environmental Review of New Processes, Materials, and Projects Procedure

P9: Environmental Document Control Procedure

F9-1: Master Document List

P10: Environmental Records Procedure

F10-1: Index of Environmental Records

## CHECK AND ACT

### **Element 11: Correct and Prevent Problems**

XYZ Construction Co. maintains a procedure for identifying problems and nonconformities with the EMS and for taking action to mitigate impacts. The procedure also describes actions to investigate and eliminate the actual (root) causes of problems and nonconformities in order to prevent recurrence. The company reviews the actions taken and implements and documents changes resulting from corrective and preventive action.

#### Reference Material

ISO 14001 Standard (4.5.3)

#### Applicable Procedures, Forms, and Resources

P8: Correcting and Preventing Environmental Problems Procedure

F8-1: Environmental Corrective and Preventive Action Request (CAR) Form

F8-2: Environmental Corrective and Preventive Action Tracking Log

P10: Environmental Records Procedure

P11: Environmental Audits Procedure

### **Element 12: Internal Audits**

XYZ Construction Co. conducts internal EMS audits at planned intervals to determine whether the system—

- Conforms to planned arrangements and requirements of ISO 14001
- Is properly implemented and maintained
- Is in compliance with applicable environmental legal requirements and other environmental commitments to which the company subscribes

The company maintains an audit procedure that addresses the process for planning and conducting audits, for reporting results; and for determining audit criteria, scope, frequency, and methods. Audits are performed according to a schedule that is based on the environmental importance of an activity, the results of previous audits, and the audit schedule. Selection of auditors and conduct of audits shall ensure objectivity and the impartiality of the audit process. A summary of these audits is provided to top management.

#### Reference Material

ISO 14001 Standard (4.5.2, 4.5.5)

#### Applicable Procedures, Forms, and Resources

P2: Legal and Other Requirements Procedure

P8: Correcting and Preventing Environmental Problems Procedure

F8-1: Environmental Corrective and Preventive Action Request (CAR) Form

F8-2: Environmental Corrective and Preventive Action Tracking Log

P11: Environmental Audits Procedure

F11-1: Internal EMS Audit Checklist

F11-2: Internal EMS Audit Schedule Form

F11-3: EMS Internal Audits—General Company Employee Checklist

F11-4: EMS Internal Audits—General Company Employee Questionnaire in Spanish

P10: Environmental Records Procedure

P12: Top Management Environmental Review Procedure

### Element 13: Management Review

XYZ Construction Co. has a procedure for EMS review by top management. Top management reviews all elements of the EMS at least annually to ensure its continuing suitability, adequacy, and effectiveness.

The input to management review includes, among other information—

- Results of environmental management system audits
- Communication from external interested parties
- The performance of the environmental management system
- The extent to which objectives and targets have been met
- Status of corrective and preventive actions
- Follow-up actions from previous management reviews
- Changing circumstances
- Recommendations for improvement

The outputs from the management review include any decisions and actions related to possible changes to Policy, objectives, and other elements of the EMS, consistent with the commitment to continual improvement.

Meeting minutes record these reviews and are kept by the Environmental Management Representative, or designee.

#### Reference Material

ISO 14001 Standard (4.6)

#### Applicable Procedures, Forms, and Resources

P1: Legal and Other Requirements Procedure

P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure

P8: Correcting and Preventing Environmental Problems Procedure

P10: Environmental Records Procedure

P11: Environmental Audits Procedure

P12: Top Management Environmental Review Procedure

F12-1: Management Review Record

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

#### Record of Revisions

Date	Description of Revision	Sections Affected

## **Environmental Policy (Example Policy)**

XYZ Construction Co. is committed to managing environmental matters as an integral part of our business planning and operations, through design, procurement, and site management. The scope of XYZ Construction Co.'s Environmental Management System (EMS) covers operations from the points of entry of raw materials and energy, to the points of finished products or projects. In addition to construction processes and activities, all other company operations fall within the scope of the EMS, including maintenance, grounds-keeping, and equipment yard activities. The EMS takes into account waste disposal when evaluating the environmental impacts of on-site activities, even though XYZ Construction Co. may not be the final disposer of its waste.

Efficiency and environmental protection are, and must continue to be, compatible goals. To obtain these goals, we will adhere to the following principles:

### **Compliance with Legal Requirements and Voluntary Commitments**

XYZ Construction Co. shall strive to comply with applicable legal requirements and voluntary commitments. We will implement programs and procedures aimed at achieving and maintaining legal compliance. Sustained compliance with legal and company environmental standards will be a key consideration in company training and incentive programs and in periodic reviews of all employees.

XYZ Construction Co. shall promote a workplace in which all employees are properly trained to comply with applicable legal requirements and procedures to meet environmental program goals.

### **Prevention of Pollution**

XYZ Construction Co. shall strive to be a leader in improving environmental quality by minimizing waste and emissions, reusing and recycling materials, reducing the use of natural resources, and promoting efforts to prevent pollution throughout the company.

XYZ Construction Co. shall employ action plans 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 adopting pollution prevention practices, including employing clean technology and operating procedures, as well as being prepared for emergencies.

XYZ Construction Co. shall 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, when possible, and will ensure the safe treatment and disposal of toxic waste.

XYZ Construction Co. shall manage natural resources, such as water, energy, land, habitats, and scenic values in an environmentally-sensitive manner.

### **Sharing Information with the Community**

XYZ Construction Co. shall share information on our commitment to environmental performance improvement with all persons working for (or on behalf of) the company, vendors, customers, and external stakeholders. We will solicit their input in meeting our environmental goals and in turn will offer assistance to meet their goals.

**Continual Improvement**

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

Management at all levels of XYZ Construction Co. shall take steps to ensure that this Policy is communicated and adhered to by all employees and subcontractors, and that it is made available to interested members of the public.

[Insert Signature Here]  
Signed, President  
XYZ Construction Co.

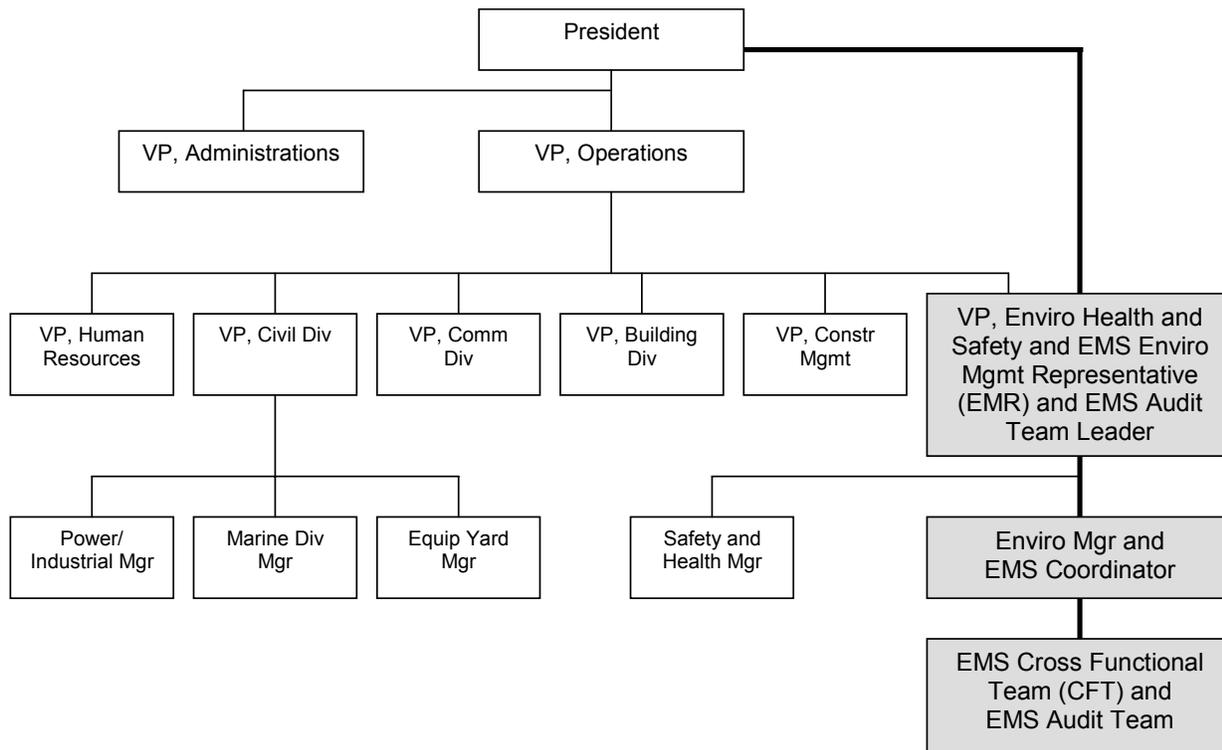
[Insert Date Here]  
Date

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

## EMS Roles and Responsibilities Chart (Example Chart)



Note: This Organization Chart represents a fictitious construction company and illustrates a direct flow of EMS-related information to top management.

XYZ Construction Co. has established an EMS Team made up of the following members: an Environmental Management Representative (EMR), an EMS Coordinator, a Cross-Functional Team, and an Internal EMS Audit Team and the Internal EMS Audit Team Leader. The responsibilities of each are as follows:

**Environmental Management Representative.** The Environmental Management Representative (EMR) is a member of XYZ Construction Co.'s top management responsible for the functioning of the EMS. It is his or her job to ensure that all tasks relating to the EMS are identified and completed in a timely manner. He or she is also responsible for reporting periodically to top management on the progress and results of the EMS. The EMR also serves as the Internal EMS Audit Team Leader.

**EMS Coordinator.** The EMS Coordinator's responsibility is to identify, assign, schedule, provide the necessary support for, and ensure completion of all tasks relating to the EMS. The EMS Coordinator works closely with the EMR and the Cross-Functional Team. The EMS Coordinator is also responsible for maintaining this EMS Manual, under the leadership of the EMR.

**Cross-Functional Team.** The Cross-Functional Team (CFT) is made up of members of the company who are responsible for representing their area or department in several facets of the EMS, such as establishing environmental aspects, determining significant aspects, setting objectives and targets, implementing action plans, reviewing and tracking EMS internal audits results, and serving as an information resource. Each member of the CFT also serves on the Internal EMS Audit Team. The CFT meets to discuss the EMS on a regular basis.

**Internal EMS Audit Team.** The Internal EMS Audit Team is made up of those CFT members who have no responsibility within the respective area or department to be audited.

**Internal EMS Audit Team Leader.** The Internal EMS Audit Team Leader is the EMR, or designee.

EMS Function	Name	Regular Position
<b>Environmental Management Representative</b>	John Doe	VP, Environmental, Health, and Safety
<b>EMS Coordinator</b>	Jane Doe	Environmental Manager
<b>Cross-Functional Team</b>	Jack Doe	VP, Human Resources
	Jen Doe	VP, Civil Division
	Jeff Doe	VP, Commercial Division
	Jean Doe	VP, Building Division
	Joe Doe	VP, Construction Management
	Julie Doe	Power/Industrial Manager
	Jim Doe	Marine Division Manager
	Jamie Doe	Equipment Yard Manager
<b>Internal EMS Audit Team Leader</b>	Jake Doe	VP, Environmental, Health, and Safety
<b>Internal EMS Audit Team</b>	The Internal EMS Audit Team is made up of those Cross-Functional Team members who have no responsibility within the specific area or department to be audited.	

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

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## Integral Documents

### ***F1-1: Summary of Applicable Legal and Other Requirements (Completed Form)***

Note: For a more detailed summary of applicable legal and other requirements (federal only), see Appendix C, Section I, p. 53.

<b>Federal Legal Requirements</b>	
<b>Application</b>	<b>Description</b>
Clean Water Act (CWA)	Storm Water—National Pollutant Discharge Elimination System (NPDES) Permit
CWA	Oil Spill Prevention and Response—Spill Prevention Control and Countermeasure (SPCC) Plan
CWA	Dredge and Fill Activities—Section 404 Permit (e.g., Nationwide Permit), Mitigation
Resource Conservation and Recovery Act (RCRA)	Hazardous and Nonhazardous Solid Waste—RCRA Permit, Remedial Action Plan
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)	Hazardous Substances (Superfund Liability)—Historical Review, Site Remediation, Reporting
Toxic Substances Control Act (TSCA)	Polychlorinated Biphenyl (PCB) Waste—Labeling, Disposal, Maintenance, PCB Activity Form
National Emission Standard for Hazardous Air Pollutants (NESHAP); Asbestos Hazard Emergency Response Act (AHERA); CERCLA	Asbestos—Identification, Testing, Notification, Removal/Remediation
Clean Air Act (CAA)	Air Pollution Permits—Permit, Record Keeping, Monitoring
CAA	Ozone Depleting Substances—Identification, Treatment, Removal, and Disposal of Equipment/Appliances Containing Ozone Depleting Substances
Endangered Species Act (ESA)	Threatened or Endangered Species—Environmental Assessment, Documentation, Biological Assessment, Consultation, Permit, Reduce or Mitigate Effects
<b>State Legal Requirements</b>	
<b>Application</b>	<b>Description</b>
[Insert Application Here]	[Insert Description Here]
<b>Local Legal Requirements</b>	
<b>Application</b>	<b>Description</b>
[Insert Application Here]	[Insert Description Here]

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

### **Record of Revisions**

<b>Date</b>	<b>Description of Revision</b>	<b>Sections Affected</b>

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**F2-5: EMS Implementation Form (Completed Form)**

SEAS BY CATEGORY	OBJECTIVES AND TARGETS		ACTION PLANS	COMPANY PROCESSES										
	Objective Types <small>S = Study C = Control / I = Improve</small>	Objectives		Targets	Demolition/Deconstruction	Dewatering	Earth Disturbing	Equip. Repair/Maint.	Materials Production	Site Clearing	Storage of Liquid Mat.	Storage of Mat./Lay Down Areas	Transport of Mat. Equip. & Personnel	[Insert Add'l Processes]
<b>INPUTS:</b>														
<b>Energy:</b>														
Fuel and Energy Use	S	Investigate Possibilities for Reduction	January 2005	Fuel and Energy Use	X	X	X	X	X	X	X	X	X	X
Petroleum Based Fuels	I	Implement Idling Restrictions	Implement by December 2004	Idling Restrictions	X	X	X	X	X	X	X	X	X	X
<b>Water:</b>														
Potable Water Use	S	Investigate Possibilities for Reduction	April 2005	Potable Water Use	X	X	X	X	X	X	X	X	X	X
<b>Materials:</b>														
None														
<b>Supplies/Consumables:</b>														
None														
<b>Chemicals (see Material Safety Data Sheet log):</b>														
Equipment/Maintenance Products	C	Comply with Applicable Legal Rqmts/Spill Control	Ongoing	Spill Control	X	X	X	X	X	X	X	X	X	X
<b>OUTPUTS</b>														
<b>Air Emissions:</b>														
Dust/Particulate Matter	C	Comply with Applicable Legal Rqmts	Ongoing	Dust Control	X	X	X	X	X	X	X	X	X	X
VOC, NOx, SOX, CO	S	Investigate Possibilities for Reduction	December 2005	Air Emissions Reductions	X	X	X	X	X	X	X	X	X	X
<b>Nuisance:</b>														
Noise	C	Comply with Applicable Legal Rqmts	Ongoing	Noise Control	X	X	X	X	X	X	X	X	X	X



**Record of Revisions**

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**F9-1: Master Document List (Completed Form)**

Note: This Master Document List includes the procedures, blank forms, work instructions, and best management practices (in the most current version) included in Section II that available for use by your company when implementing the your companywide EMS as well as site-specific EMSs. They are filed in one place, typically with the EMS Coordinator, to facilitate copying as needed for inclusion in your site-specific EMSs.

ID	Title	Issue Date	Authorized By
<b>Procedures and Blank Forms</b>			
P1	Legal and Other Requirements Procedure	[Insert Date]	EMR and Top Mgmt, CFT
F1-1	Summary of Applicable Legal and Other Requirements	[Insert Date]	EMR and Top Mgmt, CFT
F1-2	List of Information Resources for Applicable Legal and Other Requirements	[Insert Date]	EMR and Top Mgmt, CFT.
F1-3	Compliance Checklist for Applicable Legal and Other Requirements	[Insert Date]	EMR and Top Mgmt, CFT
F1-4	Compliance Tracking Log	[Insert Date]	EMR and Top Mgmt, CFT
P2	Environmental Aspects, Objectives and Targets, and Action Plans Procedure	[Insert Date]	EMR and Top Mgmt, CFT
F2-1	Company Processes Form	[Insert Date]	EMR and Top Mgmt, CFT
F2-2	Process Evaluation Form	[Insert Date]	EMR and Top Mgmt, CFT
F2-3	Aspects and Significance Determination Form	[Insert Date]	EMR and Top Mgmt, CFT
F2-4	Objectives and Targets Form	[Insert Date]	EMR and Top Mgmt, CFT
F2-5	EMS Implementation Form	[Insert Date]	EMR and Top Mgmt, CFT
F2-6	Compliance Action Plan Form	[Insert Date]	EMR and Top Mgmt, CFT
F2-7	Improvement and/or Study Action Plan Form	[Insert Date]	EMR and Top Mgmt, CFT
F2-8	Environmental Work Instruction and/or Best Management Practice Template	[Insert Date]	EMR and Top Mgmt, CFT
P3	Environmental Review of New Processes, Materials, and Projects Procedure	[Insert Date]	EMR and Top Mgmt, CFT
F3-1	New Processes and Materials Environmental Checklist	[Insert Date]	EMR and Top Mgmt, CFT
F3-2	Project Environmental Checklist and Evaluation	[Insert Date]	EMR and Top Mgmt, CFT*
P4	Environmental Briefing of Subcontractors and Service Providers Procedure	[Insert Date]	EMR and Top Mgmt, CFT
F4-1	Environmental Briefing Packet and Method Statement	[Insert Date]	EMR and Top Mgmt, CFT

ID	Title	Issue Date	Authorized By
P5	Environmental Training and Awareness Procedure	[Insert Date]	EMR and Top Mgmt, CFT
F5-1	Training Needs—Environmental Courses Analysis	[Insert Date]	EMR and Top Mgmt, CFT
P6	Environmental Communication with Stakeholders Procedure	[Insert Date]	EMR and Top Mgmt, CFT
F6-1	External Stakeholder Environmental Communication Record	[Insert Date]	EMR and Top Mgmt, CFT
P7	Environmental Emergency Preparedness and Response Procedure	[Insert Date]	EMR and Top Mgmt, CFT
F7-1	Environmental Emergency Preparedness and Response Requirements Matrix	[Insert Date]	EMR and Top Mgmt, CFT
P8	Correcting and Preventing Environmental Problems Procedure	[Insert Date]	EMR and Top Mgmt, CFT
F8-1	Environmental Corrective and Preventive Action Request (CAR) Form	[Insert Date]	EMR and Top Mgmt, CFT
F8-2	Environmental Corrective and Preventive Action Tracking Log	[Insert Date]	EMR and Top Mgmt, CFT
P9	Environmental Document Control Procedure	[Insert Date]	EMR and Top Mgmt, CFT
F9-1	Master Document List	[Insert Date]	EMR and Top Mgmt, CFT
P10	Environmental Records Procedure	[Insert Date]	EMR and Top Mgmt, CFT
F10-1	Index of Environmental Records	[Insert Date]	EMR and Top Mgmt, CFT
P11	Environmental Audits Procedure	[Insert Date]	EMR and Top Mgmt, CFT
F11-1	Internal EMS Audit Checklist	[Insert Date]	EMR and Top Mgmt, CFT
F11-2	Internal EMS Audit Schedule Form	[Insert Date]	EMR and Top Mgmt, CFT
F11-3	EMS Internal Audits—General Company Employee Checklist	[Insert Date]	EMR and Top Mgmt, CFT
F11-4	EMS Internal Audits—General Company Employee Questionnaire in Spanish	[Insert Date]	EMR and Top Mgmt, CFT
P12	Top Management Environmental Review Procedure	[Insert Date]	EMR and Top Mgmt, CFT
F12-1	Management Review Record	[Insert Date]	EMR and Top Mgmt, CFT
<b>Work Instructions and Best Management Practices</b>			
SS-2	Preservation of Existing Vegetation	[Insert Date]	EMR and Top Mgmt, CFT

\* Environmental Management Representative (EMR), Top Management (Top Mgmt), Cross-Functional Team (CFT)

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

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**F10-1: Index of Environmental Records (Completed Form)**

Note: Only those EMS Records provided in Section II, are listed on this completed form. Your company will have more records than those shown below and this index will be added to as your EMS grows.

Procedure	Record (Completed Form)	Retention (yrs)	Controlled By	Location
P1	F1-1: Summary of Applicable Legal and Other Requirements	[Insert Date]	EMS Coordinator	EMS Manual
	F1-3: Compliance Checklist for Applicable Federal Legal and Other Requirements	[Insert Date]	EMS Coordinator	[Insert Location]
P2	F2-1: Company Processes Form	[Insert Date]	EMS Coordinator	[Insert Location]
	F2-3: Aspects and Significance Determination Form (Waste Management—Nonhazardous)	[Insert Date]	EMS Coordinator	[Insert Location]
	F2-5: EMS Implementation Form	[Insert Date]	EMS Coordinator	[Insert Location]
	F2-6: Compliance Action Plan Form (Storm Water)	[Insert Date]	EMS Coordinator	[Insert Location]
	F2-6: Compliance Action Plan Form (Waste Management and Materials Pollution Control)	[Insert Date]	EMS Coordinator	[Insert Location]
	F2-7: Improvement and/or Study Action Plan Form (Hazardous and Nonhazardous Waste)	[Insert Date]	EMS Coordinator	[Insert Location]
	F2-7: Improvement and/or Study Action Plan Form (Fuel and Energy Use)	[Insert Date]	EMS Coordinator	[Insert Location]
	F2-8: Environmental Work Instruction and/or Best Management Practice Form (SS-2: Preservation of Existing Vegetation)	[Insert Date]	EMS Coordinator	[Insert Location]
P5	F5-1: Training Needs—Environmental Courses Analysis	[Insert Date]	HR/Training Department	[Insert Location]
P9	F9-1: Master Document List	[Insert Date]	EMS Coordinator	EMS Manual
P10	F10-1: Index of Environmental Records	[Insert Date]	EMS Coordinator	EMS Manual

Contact Person: \_\_\_\_\_ Date Completed: \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

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## Integral Procedures and Blank Forms

Note: Procedures 1 through 12 and their corresponding blank forms are included for your reference. The blank forms are included behind the corresponding procedure. The procedures and their associated blank forms must be kept together. Procedures 1 through 12 use the following format for consistency. Do not remove sections that are not in use on a particular procedure, instead, indicate “none” or “not applicable.”

**[Insert Title]**

### **1.0 Purpose**

1.1 [Insert brief purpose or scope of this procedure.]

### **2.0 Activities Affected**

2.1 [Insert activities affected, e.g., all areas and departments.]

### **3.0 Forms Used**

3.1 [Insert forms used.]

### **4.0 References**

4.1 [Insert references, e.g., other procedures, ISO 14001 Standard.]

### **5.0 Definitions**

5.1 [Insert any definitions.]

### **6.0 Exclusions**

6.1 [Insert exclusions.]

### **7.0 Procedure**

7.1 [Insert relevant information on the general requirements of the procedure.]

### **8.0 General Rules**

8.1 [Insert general rules.]

### **9.0 Frequency**

9.1 [Insert frequency.]

### **10.0 Records**

10.1 [Indicate where or how records are maintained.]

Note: In addition, all procedures and forms should include the following contact information and Record of Revisions table.

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

### **Record of Revisions**

<b>Date</b>	<b>Description of Revision</b>	<b>Sections Affected</b>

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## **P1: Legal and Other Requirements Procedure (Example Procedure)**

### **1.0 Purpose**

- 1.0 XYZ Construction Co. is committed to complying with all applicable environmental legal requirements. It also will strive to meet other commitments made in its Policy, such as commitments to community involvement, pollution prevention, and continuous improvement. This procedure describes how XYZ Construction Co. identifies, obtains approval from regulatory agencies, and monitors compliance of applicable legal and other requirements. XYZ Construction Co. will also ensure that environmental requirements to which the company subscribes are considered in developing, implementing, and maintaining its environmental management system.

### **2.0 Activities Affected**

- 2.1 All areas and departments.

### **3.0 Forms Used**

- 3.1 F1-1: Summary of Applicable Legal and Other Requirements
- 3.2 F1-2: List of Resources for Applicable Legal and Other Requirements
- 3.3 F1-3: Compliance Checklists for Applicable Legal and Other Requirements
- 3.4 F1-4: Compliance Tracking Log

### **4.0 References**

- 4.1 P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure
- 4.2 P6: Environmental Communication with Stakeholders Procedure
- 4.3 P10: Environmental Records Procedure
- 4.4 P11: Environmental Audits Procedure
- 4.5 ISO 14001 Standard (4.3.1, 4.3.2, 4.5.1, 4.5.2)

### **5.0 Definitions and Acronyms**

- 5.1 Regulatory Agency: governmental unit with delegated authority for implementing regulations.
- 5.2 Process: materials, activities, equipment associated with operations.
- 5.3 Permit: permit, licenses, certifications, or other authorizations issued by a governmental regulatory unit.

### **6.0 Exclusions (None)**

### **7.0 Procedure**

- 7.1 Identifying Legal and Other Requirements
  - 7.1.1 The Environmental Management Representative (EMR) is responsible for tracking applicable environmental legal requirements and evaluating their potential impact on the company's operations. The EMR uses forms F1-1: Summary of Applicable Legal and Other Requirements to indicate those environmental legal requirements that apply to the company's processes. The EMR employs several techniques to track, identify, and evaluate applicable legal requirements, including commercial databases, information from trade associations, direct communication with federal, regional, state, and local environmental regulatory agencies, and periodic refresher training on environmental laws. The EMR uses F1-2: List of Resources for Applicable Legal and Other Requirements to indicate the resources that the company relies on for more information and updates.

- 7.1.2 As necessary, the EMR may use off-site resources (e.g., consultants, attorneys).
- 7.1.3 The EMR compiles and maintains updated copies of applicable environmental legal requirements.
- 7.1.4 The EMR, working with the EMS Coordinator and the Cross-Functional Team, correlates these legal requirements to the processes and environmental aspects associated with in accordance with the P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure.
- 7.2 Obtaining Agency Approval
  - 7.2.1 Where operations are identified as potentially requiring environmental permits, the EMS Coordinator shall investigate the process through the use of an informal “permit team.” The permit team includes (at least) the EMS Coordinator and, as appropriate, a representative from the area or department that oversees the operation at issue. The EMS Coordinator uses F1-3: Compliance Checklists for Applicable Legal and Other Requirements to ensure that all required environmental permits are obtained for each project site.
  - 7.2.2 The permit team shall develop a strategy to secure permits concurrently with existing operational timing plans. The EMR is responsible for timely communication of the issues to the company’s management.
  - 7.2.3 The EMS Coordinator shall coordinate the preparation, submission and negotiation of permit applications and conditions, operating through the permit team. Permits obtained shall be reviewed to ensure that they adequately cover the operation(s) concerned.
  - 7.2.4 The permit team will review the terms and conditions in new permits and modify or establish operational controls necessary to ensure compliance with the permit.
  - 7.2.5 All communications in connection with permits, and specifically those with the relevant regulatory agencies, shall be undertaken in conformance with the P6: Environmental Communication with Stakeholders Procedure.
- 7.3 The evaluation of compliance with relevant environmental legal requirements shall be accomplished through the implementation of the P11: Environmental Audits Procedure. Compliance monitoring activities shall be documented using the F1-4: Compliance Tracking Log.

**8.0 General Rules (None)**

**9.0 Frequency**

- 9.1 Ongoing.

**10.0 Records**

- 10.1 Records shall be retained consistent with the P10: Environmental Records Procedure.

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

**F1-1: Summary of Applicable Legal and Other Requirements (Blank Form)**

Note: See completed form, Section II, Sample EMS Manual, p. 15.

Federal Legal Requirements	
Application	Description
State Legal Requirements	
Application	Description
Local Legal Requirements	
Application	Description

Contact Person: \_\_\_\_\_ Date Completed: \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected







## **P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure (Example Procedure)**

### **1.0 Purpose**

- 1.1 This procedure defines XYZ Construction Co.'s method for the identification of environmental aspects of its operations and the determination of significance for aspects that have actual or potential significant impacts on the environment. XYZ Construction Co. will establish and maintain documented objectives and targets for the identified environmental aspects at relevant functions and levels within the company. XYZ Construction Co. will implement action plans for achieving the objectives and targets that were developed for each significant environmental aspect.

### **2.0 Activities Affected**

- 2.1 All areas and departments.

### **3.0 Forms Used**

- 3.1 F2-1: Company Processes Form
- 3.2 F2-2: Process Evaluation Form
- 3.3 F2-3: Aspects and Significance Determination Form
- 3.4 F2-4: Objectives and Targets Form
- 3.5 F2-5: EMS Implementation Form
- 3.6 F2-6: Compliance Action Plan Form
- 3.7 F2-7: Improvement and/or Study Action Plan Form
- 3.8 F2-8: Environmental Work Instruction and/or Best Management Practice Template

### **4.0 References**

- 4.1 P1: Legal and Other Requirements Procedure
- 4.2 P3: Environmental Review of New Processes, Materials, and Projects Procedure
- 4.3 P4: Environmental Briefing of Subcontractors and Service Providers Procedure
- 4.4 P5: Environmental Training and Awareness Procedure
- 4.5 P6: Environmental Communication with Stakeholders Procedure
- 4.6 P8: Correcting and Preventing Environmental Problems Procedure
- 4.7 P10: Environmental Records Procedure
- 4.8 P11: Environmental Audits Procedure
- 4.9 P12: Top Management Environmental Review Procedure
- 4.10 ISO 14001 Standard (4.3.1, 4.3.3, 4.3.4)

### **5.0 Definitions**

- 5.1 Environmental Aspect: element of a company's activities, products, or services that can interact with the environment.
- 5.2 Environmental Objective: overall environmental goal, arising from the Environmental Policy, which a company sets itself to achieve and which is quantified where practicable.
- 5.3 Environmental Target: detailed performance requirement, quantified where practicable, applicable to the company or a part thereof, which arises from the environmental objectives and which needs to be set and met to achieve those objectives.
- 5.4 Action Plan: the means, time frames, and personnel responsible for achieving an objective and target.

### **6.0 Exclusions (None)**

## 7.0 Procedure

- 7.1 Procedure for Environmental Aspect Identification
  - 7.1.1 The company Cross-Functional Team (CFT), led by the Environmental Management Representative (EMR), or designee, is responsible for identifying aspects for each core process within the scope of the EMS.
    - 7.1.1.1 The initial step in this process is to list our core process on the F2-1: Company Processes Form.
    - 7.1.1.2 Each process is then broken into activities and examined for environmental aspects using the F2-2: Process Evaluation Form.
    - 7.1.1.3 The total environmental aspects are then transferred to the F2-3: Aspects and Significance Determination Form.
  - 7.1.2 At a minimum, the CFT will review and revise the completed forms, as necessary, at issuance, annually, and before and immediately following implementation of new or modified processes, materials, and projects within the scope of the EMS (see the P3: Environmental Review of New Processes, Materials, and Projects Procedure). Subcontractors and service providers also can impact our environmental aspects (see the P4: Environmental Briefing of Subcontractors and Service Providers Procedure).
  - 7.1.3 The following procedure is used to identify environmental aspects:
    - 7.1.3.1 Identifying all raw materials, chemicals, and utilities used as inputs and all outputs produced as products and by-products. Outputs are all products, wastes produced, recycled materials, water discharges, and air emissions known for the process(es).
    - 7.1.3.2 When identifying inputs and outputs, all modes of operation will be considered because change work orders or emergency operations might introduce additional aspects to the process. When identifying inputs and outputs, the team will make notes of other potentially useful information such as the quantity or volume used per unit time, where available.
- 7.2 Procedure for Determination of Significant Environmental Aspects (SEA)
  - 7.2.1 Where appropriate, individual aspects can be grouped. For example, if the consumption of energy is listed as an environmental aspect in several areas, the CFT can group these listings such that consumption of energy appears just once on a companywide form, such as the F2-5: EMS Implementation Form.
  - 7.2.2 The following criteria will be used to determine significance and are listed in the F2-3: Aspects and Significance Determination Form:
    - 7.2.2.1 Legal Requirements/Voluntary Commitments/Company Policy: Subject to specifically relevant legal requirements that address significant impacts to the environment; subject to or associated with environmentally related company goals, directives, policies; or subject to or associated with voluntary commitments to which the company subscribes (see P1: Legal and Other Requirements Procedure).
    - 7.2.2.2 Community Concern: Subject to or associated with community concerns, such as those previously expressed in the form of complaints or inquiry (see P6: Environmental Communication with Stakeholders Procedure).
    - 7.2.2.3 Pollution Prevention Potential: Based on technical and business conditions, has a high potential for prevention of pollution or reduction in resource use.
    - 7.2.2.4 Potential Impact to the Environment: Associated with potential impact to the environment from high environmental loading due to one or more of the following: toxicity, amounts, frequency, and severity.

- 7.2.3 Using the Significance Determination portion of the F2-3: Aspects and Significance Determination Form, the CFT, or a subset thereof, shall evaluate each identified aspect to determine whether it is significant. The environmental aspects will be considered “significant” if the aspect has an impact on the environment and meets one or more of the four criteria. If any of the columns are assigned a “Yes,” indicate “S” for significant in the appropriate column for that aspect. Otherwise, indicate “N” for not significant. Provide the rationale for “S” or “N” in the appropriate column. When the Legal Requirements/Voluntary Commitments/Company Policy is assigned a “Yes,” the rationale column will include notes regarding how the legal requirements apply to the aspect.
- 7.3 Establishing and Maintaining Objectives and Targets
  - 7.3.1 The CFT shall establish and maintain environmental objectives and targets for all significant aspects using the F2-4: Objectives and Targets Form. Objectives and targets shall be consistent with the XYZ Construction Co. Policy, including commitments to prevention of pollution and compliance with legal and other environmental requirements, and continual improvement. Objectives and targets shall be one of three types: control; improve; or study/investigate. (C=Control or Maintain; I=Improve; S=Study or Investigate). Guidance regarding use of these objectives is provided below for use by the CFT:
    - 7.3.1.1 “Control or Maintain” is an appropriate objective for SEAs that are the subject of environmental legal requirements because the Policy states that we will comply with the law. In these cases, the objective will be to maintain conformance with operational controls, such as applicable procedures and work instructions. The target will be ongoing.
    - 7.3.1.2 “Improve” is appropriate for SEAs that our company goals commit us to improving upon, i.e., are not required by law but fall within our commitment to prevention of pollution or continual improvement. Improvement objectives also can be used for SEAs that have legal drivers and environmental improvement goals.
    - 7.3.1.3 “Study or Investigate” is appropriate in cases where the CFT thinks improvement will be feasible and beneficial, but study is needed to determine how much improvement can be achieved and time frames that are feasible. The objective will be to study the alternatives by a target date in preparation for later setting an improvement objective (or dropping the objective if the study reveals that the changes are not financially, technologically, or logistically feasible).
  - 7.3.2 The CFT is also responsible for developing and recommending potential new environmental objectives to top management (see the P12: Top Management Environmental Review Procedure).
  - 7.3.3 When developing and recommending objectives, the CFT should consider the number of columns that were marked “Yes” on the F2-3: Aspects and Significance Determination Form. These columns relate to the significance criteria established by this EMS (legal/company requirements, community concerns, pollution prevention potential, and/or potential impact on the environment). Those SEAs with two or more “Yes” rankings will likely be good candidates for control, improvement, or investigation.
  - 7.3.4 All employees should be aware of the SEAs and objectives and target that they have the potential to impact. Training should be provided as necessary (see the P5: Environmental Training and Awareness Procedure).
  - 7.3.5 Performance against objectives and targets shall be reviewed at least every six months by the CFT and reported at the management review meeting (see the P12:

- Top Management Environmental Review Procedure). The management review shall endorse the company environmental objectives and targets.
- 7.4 Establishing and Maintaining Action Plans
    - 7.4.1 The CFT establishes and maintains action plans for achieving the objectives and targets that were developed for each significant environmental aspect. The reviews and updates these action plans as needed or at least every six months. Action plans are consistent with the Policy and are one of three types: control or maintain, improve, or study/investigate, based on the objective and target.
    - 7.4.2 Action plans identify the means, time frames and those responsible for achieving associated objectives and targets. Responsibility is identified at each relevant function and level of the company. Use the F2-6: Compliance Action Plan Form and the F2-7: Improvement and/or Study Action Plan Form.
    - 7.4.3 Environmental work instructions or best management practices will be created and referenced on the action plans. Use the F2-8: Environmental Work Instruction and/or Best Management Practice Template.
  - 7.5 Monitoring and Measuring Significant Aspects, Objectives and Targets, and Action Plans
    - 7.5.1 The monitoring and measurement of key characteristics and environmental performance associated with significant aspects will be specified in action plans.
    - 7.5.2 The monitoring and measurement of conformance to the specified environmental objectives and targets will be accomplished through the environmental audit process (see the P11: Environmental Audits Procedure) and through the correcting and preventing problems process (see the P8: Correcting and Preventing Environmental Problems Procedure).
  - 7.6 The F2-5: EMS Implementation Form contains all identified significant environmental aspects, their objectives and targets, action plans, and the processes to which they apply.

## 8.0 General Rules

- 8.1 The CFT shall include representation from all appropriate areas and departments.
- 8.2 The environmental aspects and significant aspects associated with the operations of on-site subcontractors and service providers are covered by this procedure.
- 8.3 Interested parties include employees and the community.

## 9.0 Frequency

- 9.1 This procedure will be repeated at least annually. More frequent updates will be conducted for new projects or processes that affect the list of the company's SEAs.

## 10.0 Records

- 10.1 Records shall be retained consistent with the P10: Environmental Records Procedure.

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

### Record of Revisions

Date	Description of Revision	Sections Affected



**F2-2: Process Evaluation Form (Blank Form)**

<b>Process:</b>		
<b>ORDER</b>	<b>NAME</b>	<b>DESCRIPTION</b>
Activity 1		
Activity 2		
Activity 3		
<b>INPUTS</b>		<b>OUTPUTS</b>
<b>Activity 1 – [Activity Name]</b>		
Energy:		Air Emissions:
Water:		Nuisance:
Materials:		Solid Wastes:
Supplies/Consumables:		Discharges to Water:
Chemicals:		Spillage:
		Habitat Destruction:
<b>Activity 2 – [Activity Name]</b>		
Energy:		Air Emissions:
Water:		Nuisance:
Materials:		Solid Wastes:
Supplies/Consumables:		Discharges to Water:
Chemicals:		Spillage:
		Habitat Destruction:
<b>Activity 3 – [Activity Name]</b>		
Energy:		Air Emissions:
Water:		Nuisance:
Materials:		Solid Wastes:
Supplies/Consumables:		Discharges to Water:
Chemicals:		Spillage:
		Habitat Destruction:
<b>PROCESS TOTALS</b> <b>(Transfer to Aspects Form and Significance Determination)</b>		
Energy:		Air Emissions:
Water:		Nuisance:
Materials:		Solid Wastes:
Supplies/Consumables:		Discharges to Water:
Chemicals:		Spillage:
		Habitat Destruction:

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

<b>Date</b>	<b>Description of Revision</b>	<b>Sections Affected</b>

**F2-3: Aspects and Significance Determination Form (Blank Form)**

Note: See completed form, Section II, Sample EMS Records, p. 131.

<b>Process:</b>		<b>SIGNIFICANCE DETERMINATION</b>					
<b>ASPECT IDENTIFICATION</b>		Legal Requirements, Voluntary Commitments, Company Policy	Community Concern	Waste Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	<b>Rationale for Significance (S) or Nonsignificance (N)</b>
<b>Category/Aspect</b>							
<b>INPUTS</b>							
<b>Energy:</b>							
Petroleum based fuels							
Propane gas							
Butane gas							
Natural gas							
Batteries							
Welding/cutting gases							
Wood (for heating purposes)							
Electricity							
Other							
<b>Water:</b>							
Potable water (treated)							
Secondary water							
Salt water							
Groundwater							
Surface water							
Other							
<b>Materials:</b>							
Lumber							
Sand							
Gravel							
Cement							

<b>Process:</b>		<b>SIGNIFICANCE DETERMINATION</b>					
<b>ASPECT IDENTIFICATION</b>	<b>Category/Aspect</b>	Legal Requirements, Voluntary Commitments, Company Policy	Community Concern	Waste Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	<b>Rationale for Significance (S) or Nonsignificance (N)</b>
	Sheet Rock						
	Lime						
	Soil						
	Steel						
	Other						
	<b>Supplies/Consumables:</b>						
	Lumber (forms)						
	Gloves, etc						
	Caulking						
	Packaging						
	Pallets						
	Silt fences, straw bales, etc.						
	Construction stakes						
	Other						
	<b>Chemicals (see Material Safety Data Sheet log):</b>						
	Curing compounds						
	Form oils						
	Equipment/Maintenance Products						
	Paints						
	Solvents						
	Aerosols						
	Concrete add mixtures						
	Other						
	<b>OUTPUTS</b>						
	<b>Air Emissions:</b>						
	VOCs						

Process: ASPECT IDENTIFICATION	SIGNIFICANCE DETERMINATION					
Category/Aspect	Legal Requirements, Voluntary Commitments, Company Policy	Community Concern	Waste Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance (S) or Nonsignificance (N)
Dust/Particulate Matter						
NOx						
SOx						
CO						
CO <sub>2</sub>						
Other						
<b>Nuisance:</b>						
Noise						
Odor						
Light						
Other						
<b>Solid Wastes:</b>						
Materials drops/residuals						
Packaging						
Pallets						
Construction/demolition debris						
Soil						
Regulated (hazardous waste)						
Other						
<b>Discharges to Water:</b>						
Soil (fill material)						
Storm water (silt, oils, etc.)						
Dewatering						
Wash water						
Make up water						
Irrigation discharges						
Other						

Process: ASPECT IDENTIFICATION	SIGNIFICANCE DETERMINATION					
Category/Aspect	Legal Requirements, Voluntary Commitments, Company Policy	Community Concern	Waste Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance (S) or Nonsignificance (N)
<b>Spillage:</b>						
Petroleum based fuels						
Automotive fluids						
Equipment fluids						
Chemical						
Solvents						
Other						
<b>Habitat Destruction:</b>						
Wetlands						
Vegetation						
Protected Lands						
Wildlife						
Other						

Contact Person: \_\_\_\_\_ Date Completed: \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

**F2-4: Objectives and Targets Form (Blank Form)**

Objective Type (C-I-S)	Objectives	Targets
<b>INPUTS</b>		
Energy:		
Water:		
Materials:		
Supplies/Consumables:		
Chemicals:		
<b>OUTPUTS</b>		
Air Emissions:		
Nuisance:		
Solid Wastes:		
Discharges to Water:		
Spillage:		
Habitat Destruction:		

Contact Person: \_\_\_\_\_ Date Completed: \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

**F2-5: EMS Implementation Form (Blank Form)**

Note: See completed form, Section II, Sample EMS Manual, p. 17.

SEAs BY CATEGORY		OBJECTIVES AND TARGETS		ACTION PLANS	COMPANY PROCESSES			
Significant Environmental Aspects (SEAs) by Category	Objective Types C = Control / I = Improve / S = Study	Objectives	Targets	Action Plans (Reference only the name of the action plan. Action plan details are recorded on the Action Plan Form.)				
	<b>INPUTS:</b>							
Energy:								
Water:								
Materials:								
Supplies/Consumables:								
Chemicals (see Material Safety Data Sheet log):								
<b>OUTPUTS</b>								
Air Emissions:								
Nuisance:								
Solid Wastes:								
Discharges to Water:								
Spillage:								
Habitat Destruction:								

Contact Person: \_\_\_\_\_ Date Completed: \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

**F2-6: Compliance Action Plan Form (Blank Form)**

Note: See completed forms, Section II, Sample EMS Records, pp. 135 and 137.

<b>Affected Media:</b>	
<b>Affected Area/Activity/Process:</b>	
<b>Applicable EMS Procedures:</b>	

SEA	Existing Documented Work Instructions/BMPs	Documented Work Instructions Development/Modification Needed	Monitoring and Measurement	Associated Job Functions

Contact Person: \_\_\_\_\_ Date Completed: \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

**F2-7: Improvement and/or Study Action Plan Form (Blank Form)**

Note: See completed forms, Section II, Sample EMS Records, pp. 139 and 141.

**Action Plan Type (check one):**

<input type="checkbox"/>	Improvement
<input type="checkbox"/>	Study

<b>Significant Environmental Aspect:</b>	
<b>Affected Area/Activity/Process:</b>	
<b>Objective:</b>	
<b>Target:</b>	

Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Comments/Deliverables

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

## **F2-8: Environmental Work Instruction and/or Best Management Practice Template (Blank Form)**

Note: See completed form, Section II, Sample EMS Records, p. 143.

### **[Insert Environmental Work Instruction and/or Best Management Practice Title]**

#### **1.0 Purpose**

1.1 [Insert brief purpose or scope of this BMP.]

#### **2.0 References**

2.1 [Insert references, e.g., a project site's storm water pollution prevention plan.]

#### **3.0 Definitions**

3.1 [Insert any definitions.]

#### **4.0 Responsibility**

4.1 [List persons responsible for maintaining and implementing.]

#### **5.0 Procedure**

5.1 [Insert relevant information on the general requirements, timing, design and layout, installation, maintenance and inspection, etc.]

#### **6.0 Records**

6.1 [Indicate where records are maintained]

**Approved by:**

\_\_\_\_\_  
Environmental Management Representative

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

#### **Record of Revisions**

<b>Date</b>	<b>Description of Revision</b>	<b>Sections Affected</b>

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## **P3: Environmental Review of New Processes, Materials, and Projects Procedure (Example Procedure)**

### **1.0 Purpose**

- 1.1 This procedure defines the method for identifying and evaluating the environmental issues of new projects at XYZ Construction Co. to—
  - 1.1.1 Ensure that appropriate consideration is given to environmental issues prior to project initiation
  - 1.1.2 Ensure that new environmental aspects generated by projects are identified and their significance evaluated
  - 1.1.3 Provide a mechanism for the amendment of EMS elements and action plans, where relevant, to ensure that the EMS applies to such projects

### **2.0 Activities Affected**

- 2.1 All areas and departments.

### **3.0 Forms Used**

- 3.1 F1-3: Compliance Checklists for Applicable Legal and Other Requirements
- 3.2 F2-5: EMS Implementation Form
- 3.3 F3-1: New Processes and Materials Environmental Checklist
- 3.4 F3-2: Project Environmental Checklist and Evaluation

### **4.0 References**

- 4.1 P1: Legal and Other Requirements Procedure
- 4.2 P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure
- 4.3 P10: Environmental Records Procedure
- 4.3 ISO 14001 Standard (4.3.1)

### **5.0 Definitions**

- 5.1 Initiating Party: department/division manager or individual who initiates or is in charge of a new process or material.

### **6.0 Exclusions (None)**

### **7.0 Procedure**

- 7.1 Areas/departments initiate the F3-1 New Processes and Materials Environmental Checklist when a process or material (not project specific) is introduced.
  - 7.1.1 The “initiating party,” or designee, shall identify and evaluate environmental issues associated with the new process and/or material.
    - 7.1.1.1 A summary of this evaluation shall be documented on the F3-1: New Processes and Materials Environmental Checklist.
    - 7.1.1.2 This process may be undertaken in liaison with the EMS Coordinator (or other competent individual) at the discretion of the initiating activity.
    - 7.1.1.3 This environmental review shall include an identification of any environmental aspects and requirements for obtaining approvals from environmental regulatory agencies.
    - 7.1.1.4 The initiating activity shall submit the completed F3-1: New Processes and Materials Environmental Checklist for review to the Environmental Management Representative (EMR).

- 7.1.2 The EMR, or designee, shall review the proposed process and/or material to ensure that all relevant environmental issues have been identified.
  - 7.1.2.1 If incomplete, the EMR shall return the F3-1: New Processes and Materials Environmental Checklist to the initiating activity for correction.
- 7.1.3 Environmental aspects associated with new process and/or material shall be evaluated for significance by the EMR and Cross-Functional Team (CFT) per the P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure.
- 7.1.4 The EMR will submit changes to the EMS resulting from the significance determination for review and approval by top management.
- 7.1.5 Following appropriate review, the EMR, or designee, may approve the process and/or material by returning the F3-1: New Processes and Materials Environmental Checklist to the initiating activity for further processing.
  - 7.1.5.1 If a new process and/or material is not acceptable, the initiating activity will coordinate any necessary actions to satisfy the concerns identified.
- 7.1.6 The initiating activity in conjunction with the EMR, or designee, will coordinate any necessary prevention, mitigation, or control activities associated with the process and/or material.
- 7.2 The Project Manager, or designee, should initiate the F3-2 Project Environmental Checklist and Evaluation when a new project is introduced and throughout the time frame of the project to report back information to headquarters for inclusion in the EMS.
  - 7.2.1 The Project Manager shall identify and evaluate environmental issues associated with the new project.
    - 7.2.1.1 A summary of this evaluation shall be documented on the F3-2 Project Environmental Checklist and Evaluation.
    - 7.2.1.2 This process may be undertaken in liaison with the EMS Coordinator (or other competent individual) at the discretion of the Project Manager.
    - 7.2.1.3 This environmental review shall include an identification of any existing companywide environmental aspects, objectives and targets, action plans, work instructions, best management practices, and requirements for obtaining approvals from environmental regulatory agencies (see F1-3: Compliance Checklists for Applicable Legal and Other Requirements as per the P1: Legal and Other Requirements Procedure) that apply to this project.
    - 7.2.1.4 This environmental review shall include an identification of any new project-specific environmental aspects to be evaluated for significance by the EMR and CFT per the P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure.
    - 7.2.1.5 The Project Manager shall submit the completed F3-2: Project Environmental Checklist and Evaluation for review to the EMR.
  - 7.2.2 The EMR, or designee, shall review the proposed project to ensure that all relevant environmental issues have been identified.
    - 7.1.2.1 If incomplete, the EMR shall return the F3-2: Project Environmental Checklist and Evaluation to the Project Manager for correction.
  - 7.2.3 The EMR will submit changes to the EMS resulting from the significance determination for review and approval by top management.
  - 7.2.4 Following appropriate review, the EMR, or designee, may approve the new project review by returning the F3-2: Project Environmental Checklist and Evaluation to the Project Manager for further processing.
    - 7.2.4.1 If the new project review is not acceptable, the Project Manager will coordinate any necessary actions to satisfy concerns identified.

- 7.2.5 The Project Manager in conjunction with the EMR, or designee, will coordinate any necessary prevention, mitigation, or control activities associated with the new project.
- 7.3 On-site Application of EMS
  - 7.3.1 The Project Manager in conjunction with the EMS Coordinator will prepare site-specific EMS Manual, including the following:
    - 7.3.1.1 Description of EMS
    - 7.3.1.2 Environmental Policy
    - 7.3.1.3 Organization Chart
    - 7.3.1.4 Compliance Checklist
    - 7.3.1.5 EMS Implementation Form (applicable companywide aspects indicated and project-specific information added to bottom)
    - 7.3.1.6 Copies of applicable procedures, action plans, work instructions, and best management practices, and other applicable forms
    - 7.3.1.7 Copy of F3-2: Project Environmental Checklist and Evaluation
  - 7.3.2 The Project Manager shall maintain the project-specific EMS Manual and generated project-specific EMS Records onsite with the associated project files.
  - 7.3.3 The Project Manager shall send updated F2-5: EMS Implementation Form and F3-2: Project Environmental Checklist and Evaluation periodically to company headquarters for inclusion of project information in companywide EMS.
  - 7.3.4 At the completion of the project, the Project Manager shall send a final F2-5: EMS Implementation Form and F3-2: Project Environmental Checklist and Evaluation to company headquarters for inclusion of project information in companywide EMS.
  - 7.3.5 At the completion of the project, the project-specific EMS Manual will be filed with associated project-specific files.

**8.0 General Rules (None)**

**9.0 Frequency**

- 9.1 Ongoing.

**10.0 Records**

- 10.1 Records shall be retained consistent with the P10: Environmental Records Procedure.

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

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**F3-1: New Processes and Materials Environmental Checklist (Blank Form)**

**Check one:**

- New Process
- New Material (attach copy of Material Safety Data Sheet, if applicable)

**Description of new process or material:**

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**New process or material considerations:**

INPUTS	OUTPUTS
Energy:	Air Emissions:
Water:	Nuisance:
Materials:	Solid Wastes:
Supplies/Consumables:	Discharges to Water:
Chemicals:	Spillage:
	Habitat Destruction:

**SIGNIFICANCE DETERMINATION**

- Legal or other requirements?
- Community concern?
- Waste reduction or potential to prevent pollution?
- Potential impact to the environment?
- Please explain:

Yes	No

**ADDITIONAL CONSIDERATIONS (please explain)**

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Initiating Activity Manager (Signed and Dated)

Environmental Management Representative (Signed and Dated)

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

### F3-2: Project Environmental Checklist and Evaluation (Blank Form)

Report Date: \_\_\_\_\_

Project Number: \_\_\_\_\_

Project Name and Location: \_\_\_\_\_

Project Start Up Date: \_\_\_\_\_

Project Manager: \_\_\_\_\_

**This Report:**

- New Project Start Up
- Quarterly
- Final

**EMS ELEMENT CHECKLIST AND EVALUATION:**

Complete the following checklist and evaluation. Attach additional documents as necessary to verify that each EMS element has been addressed.

**1. Structure, Responsibility, Purpose, and Scope**

Have you defined who on the project site is responsible for the on-site EMS Manual and records and who will report back to headquarters for inclusion on the companywide EMS? List responsible parties below:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**2. Environmental Policy**

Does your project-specific EMS Manual contain a copy of the company's Environmental Policy?

- Yes
- No

Explain \_\_\_\_\_

**3. Legal and Other Requirements**

Have you completed an F1-3: Compliance Checklists for Applicable Legal and Other Requirements for this project?

- Yes
- No

Explain \_\_\_\_\_

Have you implemented a method to check and track compliance to applicable legal requirements?

- Yes
- No

Explain \_\_\_\_\_

Have you obtained all the necessary legal permits for this project?

Yes

No

Explain \_\_\_\_\_

#### 4. Environmental Aspects

Please list the companywide significant environmental aspects that apply to your project site:

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Please list any and all project-specific significant environmental aspects that apply to your project site, which are not included on the companywide listing:

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Did you establish objectives, targets, and action plans for these project-specific aspects?

Please list and explain: \_\_\_\_\_

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#### 5. Objectives and Targets

Please list the companywide objectives and targets that apply to your project site:

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Please see Element 4 for project-specific objectives and targets.

## 6. Action Plans

Please list the companywide action plans that apply to your project site:

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Please see Element 4 for project-specific action plans.

Have all subcontractors and service providers on this project received the F4-1: Environmental Briefing Packet and Method Statement?

Yes

No

Explain \_\_\_\_\_

Are these subcontractors and service providers following the company EMS?

Yes

No

Explain \_\_\_\_\_

Do you have copies of all relevant work instructions and best management practices?

Yes

No

Please list: \_\_\_\_\_

---

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## 7. Training and Awareness

Have you performed EMS training and awareness for all employees (including subcontractors and service providers) working on this project? Have you completed an F5-1: Training Needs—Environmental Courses Analysis?

Yes

No

Explain \_\_\_\_\_

## 8. Communication

Have all communications with external stakeholders followed the communication process outlined in the P6: Environmental Communication with Stakeholders Procedure?

Yes

No

Explain \_\_\_\_\_

Have all communications with external stakeholders resulted in a completed F6-1: External Stakeholder Environmental Communication Record?

- Yes  
 No

Explain \_\_\_\_\_

### 9. Emergency Preparedness and Response

Have you followed the P7: Environmental Emergency Preparedness and Response Procedure?

- Yes  
 No

Explain \_\_\_\_\_

Have you completed an F7-1: Emergency Preparedness and Response Requirements Matrix?

- Yes  
 No

Explain \_\_\_\_\_

### 10. EMS Manual and Records

Does your project-specific EMS Manual contain a description of your EMS requirements, Environmental Policy, integral EMS documents, integral EMS procedures and blank forms?

- Yes  
 No

Explain \_\_\_\_\_

Do you have the most current version of the applicable EMS procedures and blank forms?

- Yes  
 No

Explain \_\_\_\_\_

Are your project-specific EMS Records maintained according to the P10: Environmental Records procedure?

- Yes  
 No

Explain \_\_\_\_\_

### 11. Correct and Prevent Problems

Are you correcting and preventing problems as outlined in the P8: Correcting and Preventing Environmental Problems Procedure?

- Yes  
 No

Explain \_\_\_\_\_

Have you completed the F8-1: Environmental Corrective and Preventative Action Request (CAR) Form, as needed, and maintained the F8-2: Environmental Corrective and Preventative Action Tracking Log?

- Yes  
 No

Explain \_\_\_\_\_

### 12. Internal Audits

Have you performed an internal audit since last completing this project checklist and evaluation?

- Yes  
 No

Explain \_\_\_\_\_

Have there been any inspections by regulatory agencies since last completing this project checklist and evaluation?

- Yes  
 No

Explain \_\_\_\_\_

### 13. Management Review

Have you submitted all necessary forms and project checklists and evaluations for management review?

- Yes  
 No

Explain \_\_\_\_\_

Have you addressed any action items identified by top management during the last management review?

- Yes  
 No

Explain \_\_\_\_\_

### ADDITIONAL COMMENTS OR CONSIDERATIONS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Project Manager (Signed and Dated)

\_\_\_\_\_  
Environmental Management Representative (Signed and Dated)

Contact Person: \_\_\_\_\_ Date Completed: \_\_\_\_\_

### Record of Revisions

Date	Description of Revision	Sections Affected

## **P4: Environmental Briefing of Subcontractors and Service Providers Procedure (Example Procedure)**

### **1.0 Purpose**

- 1.1 This procedure defines the process for briefing on-site subcontractors and service providers on the environmental aspects at XYZ Construction Co. project sites.

### **2.0 Activities Affected**

- 2.1 All areas and departments authorizing subcontractors and service providers to work on site.

### **3.0 Forms Used**

- 3.1 F4-1: Environmental Briefing Packet and Method Statement

### **4.0 References**

- 4.1 P6: Environmental Communication with Stakeholders Procedure
- 4.2 P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure
- 4.3 ISO 14001 Standard (4.4.6)

### **5.0 Definitions**

- 5.1 Method Statement: a written statement prepared by a subcontractor or service provider that outlines the work to be undertaken and the method(s) for minimizing and managing environmental impacts. The Method Statement includes an assessment of the environmental issues associated with specified work activities and measures necessary to minimize environmental impacts.

### **6.0 Exclusions**

- 6.1 Subcontractor and service provider activities and services that are not performed at XYZ Construction Co. project sites.
- 6.2 Subcontractors and service providers performing emergency services.
- 6.3 Subcontractors and service providers providing clerical, accounting, or other similar administrative services.

### **7.0 Procedure**

- 7.1 A Cross-Functional Team (CFT) led by the Environmental Management Representative (EMR), or designee, develops a process to obtain and review method statements.
- 7.2 The need for subcontractor and service provider services is identified and a request for an F4-1: Environmental Briefing Packet and Method Statement is prepared by the “initiating party.”
  - 7.2.1 Communications with subcontractors and service providers should follow the guidelines established in the P6: Environmental Communication with Stakeholders Procedure.
- 7.3 Information related to subcontractor and service provider on-site activities shall be documented by the subcontractor and service provider using an F4-1: Environmental Briefing Packet and Method Statement.
- 7.4 Completed F4-1: Environmental Briefing Packet and Method Statement forms will be submitted to the initiating party. The EMR, or designee, will evaluate the F4-1:

Environmental Briefing Packet and Method Statement to identify potential environmental issues and concerns (see the P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure).

- 7.5 Prior to on-site work subcontractors and service providers shall:
  - 7.5.1 Be provided with information and documents to ensure their awareness of the XYZ Construction Co. EMS and their conformance to it.
  - 7.5.2 Submit a completed F4-1: Environmental Briefing Packet and Method Statement to the initiating party.
- 7.6 While on site, subcontractors and service providers shall conform to the XYZ Construction Co. EMS and to all applicable legal and other requirements.
  - 7.6.1 Subcontractors and service providers shall maintain records as specified by the EMS and by contract requirements.

## 8.0 General Rules

- 8.1 Subcontractors and service providers shall ensure their on-site employees are aware of XYZ Construction Co. EMS requirements.

## 9.0 Frequency

- 9.1 Ongoing.

## 10.0 Records

- 10.1 Records shall be retained consistent with the P10: Environmental Records Procedure.

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

### Record of Revisions

Date	Description of Revision	Sections Affected

**F4-1: Environmental Briefing Packet and Method Statement (Blank Form)**

**SUBCONTRACTOR/ SERVICE PROVIDER INFORMATION**

(Check All That Apply)

- Current subcontractor or service provider to XYZ Construction Co.
- New subcontractor or service provider to XYZ Construction Co.
- Currently involved in other XYZ Construction Co. project(s) List project(s) below:

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Name:	
Address:	
City:	
State:	
Phone Number:	
Fax Number:	
President/General Manager:	
Company Site Coordinator:	
E-mail Address:	
Phone Number:	
Mobile Number/ Pager:	
Fax Number:	
24-Hour Emergency Number:	

**ENVIRONMENTAL MANAGEMENT SYSTEM BASICS**

XYZ Construction Co.'s Environmental Management System (EMS) is designed to meet the requirements of the ISO 14001 Standard. The principal elements of the EMS and Environmental Policy are—

1. To establish and operate effective procedures aimed at controlling environmental performance to comply with all applicable environmental legal requirements

2. To set objectives and targets aimed at achieving continual improvement in environmental performance
3. To introduce improvements that contribute to the prevention of pollution at the source, where possible

An important part of the EMS relates to the control of subcontractors and service providers, who are required to comply with XYZ Construction Co.'s environmental policies and procedures.

The nature of the subcontractor and service provider activities is such that subcontractor and service provider personnel have significant potential to affect the environmental performance and legal compliance of XYZ Construction Co. Subcontractors and service providers and XYZ Construction Co. must therefore work together to achieve XYZ Construction Co.'s Environmental Policy, the environmental legal requirements, and the protection of the environment.

Subcontractors and service providers must be aware of the importance of compliance with relevant environmental legal requirements, and the consequences of noncompliance.

Subcontractors and service providers are responsible for completing a Method Statement and returning it to the XYZ Construction Co. Environmental Management Representative (EMR), or designee.

Subcontractors and service providers are responsible for communicating to all their employees the information in this Environmental Briefing Package and Method Statement.

All subcontractors and service providers working at XYZ Construction Co. project sites are required to comply with the requirements of XYZ Construction Co.'s EMS and Environmental Policy.

Subcontractors and service providers are financially responsible for on-site environmental remediation actions resulting from incidents involving their employees.

To minimize the risk of environmental accidents please review and initial the items contained in the Environmental Management Basics table below:

<b>Environmental Management System Basics</b>	<b>Subcontractor/ Service Provider Initials</b>
Subcontractor/service provider understands the importance of compliance with relevant environmental legal requirements and the consequences of noncompliance.	
Subcontractor/service provider working at the XYZ Construction Co. project site are required to comply with and ensure that their employees and any suppliers/subcontractors or agents comply with XYZ Construction Co.'s EMS and Environmental Policy.	
Subcontractor/service provider acknowledges being received or was made aware of the XYZ Construction Co.'s Environmental Policy as well as applicable system procedures and work practices.	
Subcontractor/service provider shall not discharge anything to drains	

Environmental Management System Basics	Subcontractor/ Service Provider Initials
and/or sewers without prior approval from the XYZ Construction Co.'s EMS Coordinator. Spills and other releases to the environment must be immediately reported to the EMS Coordinator and Project Manager.	
Subcontractor/service provider shall provide adequate spill release prevention.	
Subcontractor/service provider shall immediately notify the XYZ Construction Co. EMS Coordinator and the Project Manager of any abnormal conditions found during excavation activities at the XYZ Construction Co. project site.	
Subcontractor/service provider shall properly label, store, and dispose of all of their waste materials used on-site in accordance with XYZ Construction Co. procedures and all legal requirements.	
If XYZ Construction Co. personnel are required to work with potentially hazardous materials brought on-site by a subcontractor or service provider, prior approval of the material by the EMS Coordinator is required.	
Subcontractor/service provider shall minimize the effects of noise, odor, light, fugitive dust emissions, and traffic movement on and/or adjacent to the XYZ Construction Co. project site.	
Subcontractor/service provider shall obtain, prior to commencing work, all necessary environmental approvals or permits and present copies of such permits to the XYZ Construction Co. EMS Coordinator.	
Subcontractor/service provider employees were informed of actions to be taken during an actual emergency situation.	
Subcontractor/service provider understands that XYZ Construction Co. may interrupt subcontractor or service provider activities that violate XYZ Construction Co. policies and/or all legal requirements.	

**METHOD STATEMENT**

Respond to the following questions (use additional space where required):

This Method Statement must be completed, signed, and returned to XYZ Construction Co.'s Environmental Management Representative (EMR) before contracted work commences.

**Work Description**

Briefly describe the work to be performed while on-site.

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**Air Emissions**

Will the work you perform produce or cause the release of any air emissions? YES NO  
If YES, list air emissions and method for preventing impact to the environment.

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**Water Discharges**

Will the work you perform produce or cause the discharge of any storm water or wastewater? YES NO  
If YES, how will the wastewater be handled?

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**Materials**

What materials (chemicals, oils, etc.) and/or equipment will you be handling or bringing on-site to perform the contracted work?

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**Training**

Your employees should be trained on the proper handling of materials and equipment, and the proper response to incidents involving these materials. Describe the training your employees receive.

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**Waste Generation**

Will the work you perform result in any wastes? YES NO  
If YES, list the disposal location as well as amounts and types of wastes expected and the proposed disposal method.

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Will any wastes generated be recyclable? YES NO  
If YES, list the recyclable and where and how they will be recycled.

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**Energy**

Will the work you perform consume energy (electricity, natural gas, steam, etc.)? YES NO  
If YES, explain what type of energy will be consumed, and how you will minimize consumption.

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**Other**

Are there other ways in which your work will affect and/or protect the environment? YES NO  
If YES, please describe below.

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**Other**

Describe methods for minimizing waste, emissions, and energy usage on-site.

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**Other**

Describe any environmental monitoring to be performed including sampling methods, frequency, analytical requirements, and laboratory to be used.

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**Other**

Identify environmental legal requirements applicable to the work that was not already addressed by XYZ Construction Co.

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**Supplier/Contractor Certification (review and sign):**

I have reviewed and understand the information contained in this document. I also understand that XYZ Construction Co. personnel have the right to inspect our on-site activities. I further understand that activities pertaining to service and/or maintenance contracts may only require submission of this form on an annual basis. The XYZ Construction Co.'s Environmental Management Representative should be contacted to make this determination.

Name \_\_\_\_\_

Title \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Contact Person: \_\_\_\_\_ Date Completed: \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

## **P5: Environmental Training and Awareness Procedure (Example Procedure)**

### **1.0 Purpose**

- 1.1 This procedure defines the process for identifying and planning environmental training and awareness in order to assist in ensuring the required competence at XYZ Construction Co.

### **2.0 Activities Affected**

- 2.1 All areas and departments.

### **3.0 Forms Used**

- 3.1 F5-1: Training Needs—Environmental Course Analysis

### **4.0 References**

- 4.1 P1: Legal and Other Requirements Procedure
- 4.2 P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure
- 4.3 P6: Environmental Communication with Stakeholders Procedure
- 4.4 P10: Environmental Records Procedure
- 4.5 ISO 14001 Standard (4.4.2)

### **5.0 Definitions (None)**

### **6.0 Exclusions (None)**

### **7.0 Procedure**

- 7.1 Training and Competence
  - 7.1.1 A training needs analysis (TNA) and training schedule shall be completed and maintained by the Human Resources/Training Department. The TNA should identify the level of instruction needed by those personnel whose jobs may create a significant impact on the environment. This training is part of ensuring compliance with legal requirements (see the P1: Legal and Other Requirements Procedure) and competence with significant environmental aspects (see the P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure). The TNA will consider overall competence (combination of appropriate education, training, or experience) requirements for these personnel.
  - 7.1.2 The TNA and training schedule shall be reviewed and updated where necessary, at least annually, and when requested by the Environmental Management Representative (EMR), or designee, in consultation with the Human Resources/Training Department to ensure its continuing adequacy.
  - 7.1.3 Knowledgeable individuals with appropriate expertise and experience in EMS shall develop the TNA: operational environmental management; relevant environmental legal requirements for environmental training; and training provision at XYZ Construction Co.
  - 7.1.4 New, part-time, transferred employees, and all persons working for or on the behalf of XYZ Construction Co. shall be included in the environmental training program.

7.1.5 The Human Resources/Training Department shall maintain records of each individual's environmental training.

7.2 Awareness

7.2.1 Environmental awareness shall be implemented as specified in the P6: Environmental Communication with Stakeholders Procedure.

**8.0 General Rules** (None)

**9.0 Frequency**

9.1 Ongoing.

**10.0 Records**

10.1 Records shall be retained consistent with the P10: Environmental Records Procedure.

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected



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## **P6: Environmental Communication with Stakeholders Procedure (Example Procedure)**

### **1.0 Purpose**

- 1.1 This procedure defines the process for internal environmental communication/awareness within XYZ Construction Co. and external environmental communication between XYZ Construction Co. and interested parties such as regulatory authorities and the public/local community groups.

### **2.0 Activities Affected**

- 2.1 All areas and departments.

### **3.0 Forms Used**

- 3.1 F6-1: External Stakeholder Environmental Communication Record

### **4.0 References**

- 4.1 Environmental Policy
- 4.2 P1: Legal and Other Requirements Procedure
- 4.3 P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure
- 4.4 P4: Environmental Briefing of Subcontractors and Service Providers Procedure
- 4.5 P5: Environmental Training and Awareness
- 4.6 P7: Environmental Emergency Preparedness and Response Procedure
- 4.7 P8: Correcting and Preventing Environmental Problems Procedure
- 4.8 P10: Environmental Records Procedure
- 4.9 P12: Top Management Environmental Review Procedure
- 4.10 ISO 14001 Standard (4.4.3)

### **5.0 Definitions**

- 5.1 External Communications: written or electronic correspondence, telephone conversations, and discussions or meetings with anyone external to the company.
- 5.2 Stakeholder: anyone who has a stake in your company's environmental performance. Internal stakeholders may include employees, shareholders, customers, suppliers, investors, and insurers. External stakeholders may include neighbors, community organizations, environmental groups, regulatory authorities, larger companies, the media, and the general public.

### **6.0 Exclusions (None)**

### **7.0 Procedure**

- 7.1 Internal Communications/Awareness
  - 7.1.1 Internal environmental communications shall be implemented to ensure that personnel at each relevant level and function are aware of the following—
    - 7.1.1.1 Environmental Management System
    - 7.1.1.2 Importance of conformance with the Policy (see the Environmental Policy) and procedures

- 7.1.1.3 Potential consequences of problems (see the P8: Correcting and Preventing Environmental Problems Procedure) and noncompliance with legal requirements (see the P1: Legal and Other Requirements Procedure)
- 7.1.1.4 Individual roles and responsibilities in achieving conformance with EMS procedures, including emergency preparedness and response (see the P7: Environmental Emergency Preparedness and Response Procedure)
- 7.1.1.5 The significant environmental aspects associated with work activities and the environmental benefits of improved performance (see the P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure)
- 7.1.2 Internal environmental communications may be accomplished by the use of notice boards, awareness training of company personnel, environmental training, (see the P5: Environmental Training and Awareness), newsletters, electronic notes, team meetings, management reviews, and/or Corrective Action Requests (see the P8: Correcting and Preventing Environmental Problems Procedure).
- 7.1.3 Communication of environmental issues from employees to top management shall be handled by the Cross-Functional Team (CFT) member representing the affected area, in coordination with the Environmental Management Representative (EMR) (see the P12: Top Management Environmental Review Procedure). These communications shall be documented.
- 7.1.4 Communication of changes to legal and other requirements to employees shall be handled by the Area or Department Manager, or designee. These communications shall be documented.
- 7.2 External Communications
  - 7.2.1 XYZ Construction Co. will decide whether to communicate externally about its significant environmental aspects and document this decision. The following steps will be taken if the decision is to communicate.
    - 7.2.1.1 External communications concerning the environmental aspects of the company should be directed to the Security Manager, Human Resources Manager, or the EMR.
    - 7.2.1.2 The EMR or EMS Coordinator is responsible for responding to inquiries from interested parties and regulatory agencies.
    - 7.2.1.3 The Human Resources Manager, or designee, is responsible for sending current copies of the Policy to interested parties. These requests will be documented on the F6-1: External Stakeholder Environmental Communication Record.
    - 7.2.1.4 The Human Resources Manager in consultation with the EMR is responsible for responding to media communications. These responses will be documented on the F6-1: External Stakeholder Environmental Communication Record.
    - 7.2.1.5 When community concerns relate to an environmental emergency, the P7: Environmental Emergency Preparedness and Response Procedure shall be implemented.
  - 7.2.2 The EMR, or designee, is responsible for determining the need for and preparation of any notification to regulatory agencies on an as-needed basis (see the P1: Legal and Other Requirements Procedure). These notices will be documented on the F6-1: External Stakeholder Environmental Communication Record

7.2.3 External communications with subcontractors and service providers should be followed in accordance with the P4: Environmental Briefing of Subcontractors and Service Providers Procedure.

**8.0 General Rules** (None)

**9.0 Frequency**

9.1 Ongoing.

**10.0 Records**

10.1 Records shall be retained consistent with the P10: Environmental Records Procedure.

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

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**F6-1: External Stakeholder Environmental Communication Record (Blank Form)**

Date _____ Time _____  Type of Contact: <input type="checkbox"/> Meeting <input type="checkbox"/> E-mail/Letter <input type="checkbox"/> Telephone <input type="checkbox"/> Other (describe): _____	Contact Name(s): _____ _____  Person Completing Form: _____
Environmental Issue/Concern: _____ _____ _____ _____	
Actions to Be Taken: _____ _____ _____ _____ _____	
Type of Follow-up Required: _____ _____ _____ _____	

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

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## **P7: Environmental Emergency Preparedness and Response Procedure (Example Procedure)**

### **1.0 Purpose**

- 1.1 This procedure defines the framework for identifying potential emergency situations and accidents and for responding to and preventing emergency situations involving potential environmental incidents at XYZ Construction Co.

### **2.0 Activities Affected**

- 2.1 All areas and departments.

### **3.0 Forms Used**

- 3.1 F7-1: Environmental Emergency Preparedness and Response Requirements Matrix

### **4.0 References**

- 4.1 P6: Environmental Communication with Stakeholders Procedure
- 4.2 P8: Correcting and Preventing Environmental Problems Procedure
- 4.3 P10: Environmental Records Procedure
- 4.4 ISO 14001 Standard (4.4.7)

### **5.0 Definitions**

- 5.1 Environmental Incident or Emergency Situation: environmental releases that require an emergency response.
- 5.2 Emergency Response: actions taken by personnel outside of the immediate work area to address an environmental incident.

### **6.0 Exclusions (None)**

### **7.0 Procedure**

- 7.1 Potential environmental incidents and emergencies likely to occur at the company shall be identified and documented semiannually by the Cross-Functional Team.
- 7.2 Methods to respond to, mitigate, and prevent environmental emergencies shall be established and maintained at the company and on project sites.
- 7.3 Roles and responsibilities for communications within the company and for obtaining outside support services shall be established and maintained at the company and on project sites via the emergency plans.
- 7.4 Environmental emergency methods and communications will be tested at least annually. The Emergency Response Coordinator shall maintain records of these tests. Methods to respond to, mitigate, and prevent environmental emergencies shall be amended as required based on the results of these tests.
- 7.5 Following an environmental emergency, the cause of the emergency and corresponding emergency methods shall be reviewed. Corrective and/or preventive actions will be identified and undertaken by implementing the P8: Correcting and Preventing Environmental Problems Procedure. Methods to respond to, mitigate, and prevent releases that arise as a consequence of an environmental emergency shall be amended as

required and the Environmental Management Representative or EMS Coordinator notified.

- 7.6 Where applicable, regulatory agencies shall be notified by the EMS Coordinator of environmental incidents consistent with the P6: Environmental Communication with Stakeholders Procedure.

## 8.0 General Rules

- 8.1 All emergency response activities are to be conducted within boundaries of training levels, appropriate procedures, and legal requirements.
- 8.2 The Company Manager shall designate an Emergency Response Coordinator.

## 9.0 Frequency

- 9.1 Ongoing.

## 10.0 Records

- 10.1 Records shall be retained consistent with the P10: Environmental Records Procedure.

Contact Person: \_\_\_\_\_ Date Completed: \_\_\_\_\_

### Record of Revisions

Date	Description of Revision	Sections Affected



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## **P8: Correcting and Preventing Environmental Problems Procedure (Example Procedure)**

### **1.0 Purpose**

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

### **2.0 Activities Affected**

- 2.1 All areas and departments.

### **3.0 Forms Used**

- 3.1 F8-1: Environmental Corrective and Preventive Action Request (CAR) Form
- 3.2 F8-2: Environmental Corrective and Preventive Action Tracking Log

### **4.0 References**

- 4.1 P10: Environmental Records Procedure
- 4.2 P11: Environmental Audits Procedure
- 4.3 ISO 14001 Standard (4.5.3)

### **5.0 Definitions**

- 5.1 Nonconformity: discrepancy between a company's actual EMS activities and the procedures laid out in its EMS Manual and associated documentation.

### **6.0 Exclusions (None)**

### **7.0 Procedure**

- 7.1 Where problems or noncompliances are identified through the environmental audit process (see the P10: Environmental Records Procedure) the responsible and accountable area or department representative, affected area or department manager, audit team member, or Environmental Management Representative (EMR), is responsible for—
  - 7.1.1 Identifying the root cause(s) of the problems or nonconformities
  - 7.1.2 Identifying appropriate corrective and preventive actions (including modifying or creating environmental procedures and work practices)
  - 7.1.3 Planning and implementing corrective and preventive actions
  - 7.1.4 Verifying the closeout and effectiveness of corrective and preventive actions
- 7.2 Where nonconformances are identified outside the environmental audit process, the Quality Manager, or designee, will generate an F8-1: Environmental Corrective and Preventive Action Request (CAR) Form, as appropriate. The affected area or department manager, or designee, is responsible for—
  - 7.2.1 Identifying the root cause(s) of these nonconformities
  - 7.2.2 Identifying appropriate corrective and preventive actions (including modifying or creating environmental procedures and work practices)
  - 7.2.3 Planning and implementing corrective and preventive actions

- 7.2.4 Verifying the closeout and effectiveness of corrective and preventive actions
- 7.3 The Quality Manager, or designee, will verify proper implementation of corrective and preventive actions.
- 7.4 Where nonconformities are identified outside the environmental audit process, the EMR, or designee, will generate an F8-1: Environmental Corrective and Preventive Action Request (CAR) Form, as appropriate.
- 7.5 The EMR, or designee, will track the nonconformities on the F8-2: Environmental Corrective and Preventative Action Tracking Log.

**8.0 General Rules (None)**

**9.0 Frequency**

- 9.1 As needed following reviews.

**10.0 Records**

- 10.1 Records shall be retained consistent with the P10: Environmental Records Procedure.

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected





## **P9: Environmental Document Control Procedure (Example Procedure)**

### **1.0 Purpose**

- 1.1 This procedure defines the mechanism for controlling EMS documents. The purpose of this procedure is to ensure that those personnel requiring access to EMS documents have the most up-to-date versions and are aware of the document control process.

### **2.0 Activities Affected**

- 2.1 All areas and departments.

### **3.0 Forms Used**

- 3.1 Master Document List (F9-1)

### **4.0 References**

- 4.1 P10: Environmental Records Procedure
- 4.2 ISO 14001 Standard (4.4.5)

### **5.0 Definitions**

- 5.1 Controlled Documents: controlled documents are in their final form and can be used as needed and are available for access by area or department personnel. All documents not marked "CONTROLLED DOCUMENT" are for reference purposes only.

### **6.0 Exclusions (None)**

### **7.0 Procedure**

- 7.1 The Environmental Management Representative (EMR), or designee, shall be responsible for coordinating, developing, issuing, and controlling EMS documents.
- 7.2 Procedures shall be in a format that is consistent with other controlled documents at the company.
- 7.3 The EMR, or designee, shall maintain a master set of EMS documents.
- 7.4 Each area or department manager, or designee, should maintain a list of, or have access to, all EMS documents relevant to his or her area or department, as applicable.
- 7.5 Relevant documents are available at the locations where they are needed.
- 7.6 EMR, or designee, ensure current versions are available and used.
- 7.7 The Cross-Functional Team shall review and approve changes to EMS documents.
- 7.8 All controlled documents shall be marked with the words "CONTROLLED DOCUMENT."
- 7.9 Controlled versions of system documents may be placed on the computer system for access by area or department personnel.
- 7.10 All controlled documents issued by the EMR, or designee, shall be recorded on the F9-1: Master Document List.

- 7.11 The EMR, or designee, shall—
  - 7.11.1 Provide notice to affected personnel to ensure that they are aware of the new or revised document
  - 7.11.2 Issue controlled copies of those documents to appropriate employees

**8.0 General Rules**

- 8.1 All documents not marked with the words “Controlled Document” shall be considered uncontrolled.

**9.0 Frequency**

- 9.1 Ongoing.

**10.0 Records**

- 10.1 Records shall be retained consistent with the P10: Environmental Records Procedure.

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

**F9-1: Master Document List (Blank Form)**

See completed form in Section II, Sample EMS Manual.

ID	Title	Issue Date	Authorized By

Contact Person: \_\_\_\_\_ Date Completed: \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

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## **P10: Environmental Records Procedure (Example Procedure)**

### **1.0 Purpose**

- 1.1 This procedure identifies the management and retention of environmental records at XYZ Construction Co.

### **2.0 Activities Affected**

- 2.1 The areas and departments specified in the F10-1: Index of Environmental Records.

### **3.0 Forms Used**

- 3.1 F10-1: Index of Environmental Records

### **4.0 References**

- 4.1 P3: Environmental Review of New Processes, Materials, and Projects Procedure
- 4.2 ISO 14001 Standard (4.5.4)

### **5.0 Definitions**

- 5.1 Records: documented information that is evidence of an environmental activity or event that has been or is being performed or is required to be retained for future reference. It is information on environmental performance.

### **6.0 Exclusions (None)**

### **7.0 Procedure**

- 7.1 Records shall be catalogued on the F10-1: Index of Environmental Records, which specifies where they are maintained, how long they are retained, and by whom.
- 7.2 Record retention will be consistent with applicable environmental legal and other requirements.
- 7.3 Each area or department manager, or designee, shall have access to the index of all environmental records relevant to his or her area or department.
- 7.4 Each area or department (including project sites) responsible for maintaining a record has the responsibility for filing and indexing records to ensure accessibility and notifying the EMS Coordinator of any added records.
- 7.5 Project-specific records will be filed with the other records and documents related to that project. In accordance with the P3: Environmental Review of New Processes, Materials, and Projects Procedure, reports will be submitted regularly to headquarters for inclusion in the companywide EMS and filing by the EMS Coordinator.

### **8.0 General Rules**

- 8.1 Records shall be and remain legible, readily retrievable, and stored and maintained so as to prevent damage, deterioration, or loss as appropriate to the importance of the record.

**9.0 Frequency**

9.1 Ongoing.

**10.0 Records**

10.1 Records shall be retained consistent with this procedure.

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected



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## **P11: Environmental Audits Procedure (Example Procedure)**

### **1.0 Purpose**

- 1.1 This procedure defines the mechanism for the planning and implementation of internal EMS and environmental legal requirements compliance audits at XYZ Construction Co.

### **2.0 Activities Affected**

- 2.1 All areas and departments.

### **3.0 Forms Used**

- 3.1 F8-1: Environmental Corrective and Preventive Action Request (CAR) Form  
3.2 F8-2: Environmental Corrective and Preventive Action Tracking Log  
3.3 F11-1: Internal EMS Audit Checklist  
3.4 F11-2: Internal EMS Audit Schedule Form  
3.5 F11-3: EMS Internal Audits—General Company Employee Checklist  
3.6 F11-4: EMS Internal Audits—General Company Employee Questionnaire in Spanish

### **4.0 References**

- 4.1 P2: Legal and Other Requirements Procedure  
4.2 P8: Correcting and Preventing Environmental Problems Procedure  
4.3 P10: Environmental Records Procedure  
4.4 P12: Top Management Environmental Review Procedure  
4.5 ISO 14001 Standard (4.5.2, 4.5.5)

### **5.0 Definitions**

- 5.1 Auditee: individual audited.  
5.2 Auditor: audit team member performing the audit.  
5.3 Audit Criteria: policies, practices, procedures, or other requirements against which the auditor compares objective evidence about the subject matter.  
5.4 Audit Program Leader: individual responsible for maintaining the Environmental Audit Program.  
5.5 CAR: corrective and preventive action request that identifies observed problems.  
5.6 Finding: an existing condition supported by objective evidence.  
5.7 Problem: the nonfulfillment of specified system requirements.  
5.8 Objective Evidence: qualitative or quantitative information, records, or statements of fact, pertaining to the existence and implementation of an EMS element, that is based on measurement or test and that can be verified.

### **6.0 Exclusions (None)**

### **7.0 Procedure**

- 7.1 The Environmental Management Representative (EMR), or designee, shall plan, schedule, and implement internal EMS and environmental legal compliance audits. The audit schedule, developed on the F11-2: Internal EMS Audit Schedule Form, will be used

- to identify the frequency and location of the audits and will be revised as necessary. Revisions to the audit schedule may be based on the results of prior audits.
- 7.2 Audit frequency will be established on a priority basis, taking into account previous audit results and the relative importance of the area or department, and will not be less than once per year. Each area or department will be audited at least once every three years. Audits will occur at planned intervals.
  - 7.3 An audit team will be formed whose membership has no responsibility within the area or department to be audited (at that time). This independence will be documented by indicating on the audit report or other audit record the area or department to which the auditors belong. At XYZ Construction Co. the audit team is comprised of members of the Cross-Functional Team.
  - 7.4 The audit team shall perform internal environmental audits.
    - 7.4.1 At least one member of the team shall be competent in the environmental auditing process through either training and/or experience.
    - 7.4.2 All members of the audit team shall have an awareness and understanding of the XYZ Construction Co.'s EMS by virtue of formal and informal training.
  - 7.5 Audit scope and criteria will be established for each area or department prior to each audit. Audit criteria may be documented by the audit team on the F11-1: Internal EMS Audit Checklist, the F11-3: EMS Internal Audits—General Company Employee Checklist, and the F11-4: EMS Internal Audits—General Company Employee Questionnaire in Spanish, which are used during the audits.
  - 7.6 During the audit, the audit team will record audit information, such as items checked, individuals interviewed, any concerns identified, compliance (see the P2: Legal and Other Requirements Procedure), and any corrective or preventive actions (see the P8: Correcting and Preventing Environmental Problems Procedure) completed during the audit.
  - 7.7 The audit team shall promptly notify the EMR, or designee, of any possible legal noncompliance. Upon verification of noncompliance, the EMR shall notify company management.
  - 7.8 Upon completion of the internal audit, the audit team will review their findings with the auditee and responsible and accountable area or department representative. The team will then initiate a corrective and preventative action request (CAR) for each finding of problems or noncompliance, using the F8-1: Environmental Corrective and Preventive Action Request (CAR) Form.
  - 7.9 The EMS Coordinator, or designee, will track the status of all outstanding CARs using the F8-2: Environmental Corrective and Preventive Action Tracking Log (see the P8: Correcting and Preventing Environmental Problems Procedure).
  - 7.10 The responsible and accountable area or department representative will identify the root cause of any problems (where applicable), corrective and preventive actions to be undertaken, and the dates by which these actions will be completed. This information will be documented on the original CAR and the CAR sent to the applicable area or department manager. A copy of the CAR will also be provided to the EMS Coordinator, or designee, within the time frame established during the audit review meeting.
  - 7.11 Upon completion of the corrective and preventive actions, the area or department manager will acknowledge completion of these actions by signing the original CAR and returning it to the EMS Coordinator, or designee.
  - 7.12 Corrective and preventive actions will be verified during the next internal audit or the area or department manager may contact the EMS Coordinator to schedule verification of actions prior to the next audit.

- 7.13 When full conformance is determined or corrective and preventive actions accepted, the audit team leader will sign the original CAR and return it to the EMS Coordinator, or designee, for closure and filing.
- 7.14 At least annually, the EMR, or designee, will summarize system audit results with top management as specified in the P12: Top Management Environmental Review Procedure.

**8.0 General Rules** (None)

**9.0 Frequency**

- 9.1 At least annually.

**10.0 Records**

- 10.1 Records shall be retained consistent with the P10: Environmental Records Procedure.

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

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**F11-1: Internal EMS Audit Checklist (Blank Form)**

Area/ Department:	EMS Requirement	Date:		Audit Team Leader:		
		Yes	No	Findings/Remarks	Responsible Party/Parties	Date Completed
<b>Structure, Responsibility, Purpose, and Scope</b>						
	Company has defined the roles, responsibilities, and authorities to facilitate an effective EMS.					
	Company management has appointed an EMS Team with defined roles and responsibilities to implement the EMS.					
	Company Environmental Management Representative (EMR) reports on the performance of the EMS to top management for review and continuous improvement.					
	The company ensures the availability of resources essential for the implementation, maintenance and control of the EMS.					
	The company has defined the scope of the EMS.					
<b>Environmental Policy</b>						
	Top management has defined the company's Environmental Policy (Policy).					
	Policy is specific to the company and is appropriate to the nature, scale, and environmental impacts of its activities, products or services.					
	Policy includes a commitment to continuous improvement in environmental performance and the prevention of pollution.					
	Policy includes a commitment to sharing information on its EMS with the community.					
	Policy includes a commitment to comply with applicable environmental requirements.					

Area/ Department:	Date:		Audit Team Leader:		
	Yes	No	Findings/Remarks	Responsible Party/Parties	Date Completed
<b>EMS Requirement</b>					
Policy includes a commitment to meeting other requirements to which the company subscribes.					
Policy provides the framework for setting and reviewing environmental objectives and targets.					
Policy is implemented and maintained.					
Policy is communicated to all employees.					
Policy is made available to the public.					
<b>Legal and Other Requirements</b>					
Company has a procedure to identify and have access to legal and other requirements and to determine how these requirements apply to its environmental aspects.					
Company maintains access to all current federal, state, and local legal requirements by either contacting the appropriate authorities or subscribing to a legal update service.					
Company has documented procedures for periodically evaluating compliance with relevant environmental legal requirements.					
EMR is responsible for planning, scheduling, and implementing internal environmental legal compliance assessments, including the identification of required resources.					
A procedure is in place for these assessments, and they evaluate compliance with applicable environmental legal and other requirements to which the company subscribes.					
These assessments are documented and are part of the EMS.					

Area/ Department:	Date:		Audit Team Leader:		
	Yes	No	Findings/Remarks	Responsible Party/Parties	Date Completed
<b>EMS Requirement</b> Company considers that environmental legal and other requirements to which it subscribes are considered in developing and maintaining its EMS.					
<b>Environmental Aspects</b>					
Company has established and maintains a procedure to identify the environmental aspects that it can control or over which it can be expected to have an influence within the scope of its EMS, in order to determine those aspects that have or can have significant impacts. It takes into account modified, planned, or new activities, products, or services in this process.					
Company has considered in its significant environmental aspects (SEA) determination the aspects associated with on-site contractor activities.					
SEAs are considered in developing, implementing, and maintaining the EMS including forming the basis for establishing process and management controls, environmental improvement programs, and SEAs for further investigation and study.					
<b>Objectives and Targets</b>					
Company has considered technological options and financial, operational, and organizational requirements in establishing its objectives and targets.					
Company has considering legal and other requirements in establishing objectives and targets.					

Area/ Department:	Date:		Audit Team Leader:		
	Yes	No	Findings/Remarks	Responsible Party/Parties	Date Completed
<b>EMS Requirement</b> Company has considered the views of interested parties in establishing objectives and targets.					
Company objectives and targets are documented, capable of being achieved, measurable where practicable, and consistent with the Policy and its commitments.					
<b>Action Plans</b>					
Company has established and maintained action plans for achieving its objectives and targets.					
These action plans designate responsibility for achieving objectives and targets at relevant functions and levels of the company and the means and time frame for their achievement.					
New activities, products, or services are reviewed for potential environmental impacts and aspects.					
Company has defined roles and responsibilities for environmental review of new projects.					
Project originator reviews and characterizes the environmental and energy aspects of a new project.					
Company has identified operations associated with SEAs.					
Company has planned maintenance activities in order to ensure that they are carried out under specified conditions.					

Area/ Department:		Date:		Audit Team Leader:		
EMS Requirement	Yes	No	Findings/Remarks	Responsible Party/Parties	Date Completed	
Operations associated with SEAs have documented procedures to cover situations where their absence could lead to deviations from the Policy, objectives, and/or targets.						
Procedures stipulate operating conditions.						
Company has a procedure related to the identifiable SEAs of goods and services provided by contractors and vendors and communicates procedures and requirements to suppliers and contractors.						
Company or initiating activity communicates relevant company-specific environmental procedures, work practices, and requirements to affected contractors prior to the commencement of requested work.						
Company has a procedure for the prevention of pollution and waste minimization.						
Company has documented procedures for monitoring and measuring key characteristics of operations associated with SEAs.						
Company has established metrics to track performance, relevant operational controls, and conformance with objectives and targets.						
<b>Training and Awareness</b>						
The company has performed a comprehensive environmental training needs analysis.						
Individuals working for the company or on its behalf whose work may create a significant impact, or is associated with a SEA, have received appropriate training.						

Area/ Department:	Date:		Audit Team Leader:		
	Yes	No	Findings/Remarks	Responsible Party/Parties	Date Completed
<b>EMS Requirement</b> Company has a procedure to make individuals working for it or on its behalf aware of the importance of conformance with the Policy and procedures, the significant impacts associated with their work, and their roles and responsibilities as they pertain to the Policy.					
Company has a procedure to make individuals working for it or on its behalf aware of requirements of the EMS, the potential consequences of departure from operating procedures, and emergency preparedness and response.					
Company individuals working for it or on its behalf performing tasks that can cause significant environmental impact are competent on the basis of education, training, and/or experience.					
<b>Communication</b>					
Company has a procedure for internal communication between the various levels and functions of the company.					
Internal communications procedures are used to facilitate implementation of legal requirements, Policy, and other requirements.					
Company has a procedure to log external communications and record the responses to external communications that concern environmental issues.					
EMR, or designee, responds to inquiries from the community and regulatory agencies.					

Area/ Department:	Date:		Audit Team Leader:		
	Yes	No	Findings/Remarks	Responsible Party/Parties	Date Completed
<b>EMS Requirement</b>					
A designated person, in consultation with the EMR, is responsible for responding to media communications.					
Company has documented whether it will externally communicate about its SEAs and, if so, has established a procedure for this.					
Where the external communication relates to an environmental incident, appropriate emergency response procedures are identified and followed.					
<b>Emergency Preparedness &amp; Response (EP&amp;R)</b>					
Potential environmental incidents and emergencies likely to occur at the company have been identified by the CFT.					
Methods for preventing, mitigating associated impacts, and responding to potential and actual releases that require emergency response have been established and maintained at the company and involve the appropriate response personnel.					
Roles and responsibilities for communications within the company and for obtaining outside support services (e.g., police, fire) have been established and are maintained at the company.					
The EP&R procedures at the company are reviewed and revised on an annual basis or as necessary by the CFT.					
EP&R methods and communications are tested on an annual basis or as necessary.					

Area/ Department:	Date:		Audit Team Leader:		
	Yes	No	Findings/Remarks	Responsible Party/Parties	Date Completed
The company emergency response leader records information necessary to determine corrective and preventive actions and any improvements to existing procedures that may be needed.					
<b>EMS Manual and Records</b>					
Company has information in paper or electronic form to describe the core elements of the EMS and their interactions.					
Company has information in paper or electronic form to provide direction to related documentation.					
Company has a procedure for controlling all documents required by the EMS.					
Authorized personnel review documents and forms for adequacy before use or release.					
The EMR, or designee, maintains a master list of documents and records.					
Relevant documents are available at the locations where they are needed.					
Obsolete documents are promptly removed from all points of use or otherwise insured against unintended use.					
Obsolete documents retained for legal or preservation purposes are properly identified.					
Company has a procedure for defining responsibility concerning the creation and modification of documents					
Documentation is approved, legible, dated, and readily identifiable, maintained in an orderly manner, periodically reviewed, and retained for a specified period.					

Area/ Department:		Date:		Audit Team Leader:		
EMS Requirement	Yes	No	Findings/Remarks	Responsible Party/Parties	Date Completed	
Company has a procedure to identify, maintain, and dispose of environmental records as necessary to demonstrate conformity to the requirements of its EMS and of the ISO 14001 standard. These records include training records, results of audits, and results of evaluations of compliance with environmental legal requirements.						
Each activity responsible for maintaining a record has the responsibility for establishing the method for filing and indexing the records for accessibility.						
The responsible activity is the generator of the record.						
Company records procedure is consistent with corporate record retention procedures.						
<b>Correct and Prevent Problems</b>						
Company has a procedure for nonconformities and corrective and preventive actions defining responsibility and authority for investigating and mitigating environmental impacts.						
Each activity within the company is responsible for identifying specific techniques to identify the root cause(s), take appropriate corrective or preventive action, and verify effectiveness and prevent recurrence where possible.						
Company reviews the actions taken and implements and documents changes resulting from corrective and preventive action.						

Area/ Department:	Date:		Audit Team Leader:		
	Yes	No	Findings/Remarks	Responsible Party/Parties	Date Completed
<b>Internal Audits</b>					
Company has a program and procedure for periodic EMS audits.					
The EMR, or designee, is responsible for planning, scheduling, and implementing internal EMS audits.					
An EMS audit team will be formed whose membership has no responsibility within the activity to be audited.					
An EMS audit schedule will be developed for each activity to be audited. Audit frequency is determined on a priority basis that accounts for previous audit results and the relative importance of the activity, and is not to be less than once per year for each activity.					
The EMS audit team has established a checklist of questions relating to the EMS. These questions are reviewed and amended as necessary based on audit findings and other factors.					
During the audit, the EMS audit team records audit observations, indicating items checked, individuals interviewed, any concerns identified, and any corrective or preventive actions completed during the audit.					
The audit team documents its findings using an audit findings form.					
The area representatives address the corrective and preventive action sections within the specified time limit and return the information to audit team and EMR.					
The EMR notifies company management of potential noncompliance with legal requirements.					

Area/ Department:	Date:		Audit Team Leader:		
	Yes	No	Findings/Remarks	Responsible Party/Parties	Date Completed
<b>EMS Requirement</b> The audit team reviews corrective actions and confirms proper implementation either by a subsequent check or during the next audit. The EMR, or designee, submits audit summaries for management review.					
<b>Management Review</b>					
Management reviews are conducted by the EMR and the management committee.					
The EMR schedules these reviews at least once each year and outputs are documented, including required actions and changes to the EMS.					
The review addresses all applicable components of the XYZ Construction Co.'s EMS, including among other information: <ul style="list-style-type: none"> <li>• Results of environmental management system audits</li> <li>• Communication from external interested parties</li> <li>• The performance of the EMS</li> <li>• The extent to which objectives and targets have been met</li> <li>• Status of corrective and preventive actions</li> <li>• Follow-up actions from previous management reviews</li> <li>• Changing circumstances</li> <li>• Recommendations for improvement</li> </ul>					

Contact Person: \_\_\_\_\_ Date Completed: \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected



**F11-3: EMS Internal Audits—General Company Employee Checklist (Blank Form)**

<b>Employee Name:</b>	
<b>Questions</b>	<b>Findings/Observations</b>
<b>Environmental Policy</b>	
Do you know the company's Environmental Policy?	
What are the keywords of the Policy?	
How does the Policy relate to your job?	
What is your understanding of the company's EMS and your role?	
ADDITIONAL QUESTIONS:	
<b>Environmental Aspects</b>	
Are you aware of the significant environmental aspects in your work area?	
What are they?	
Where can they be found?	
ADDITIONAL QUESTIONS:	
<b>Objectives and Targets</b>	
Do you know what the objectives and targets for the significant environmental aspects are?	
Where can these be found?	
What is the status or progress on the objectives with which your work area is involved?	
ADDITIONAL QUESTIONS:	
<b>Training and Awareness</b>	
Have you received awareness training on the company's EMS and the significant environmental aspects in your work area?	
Have you received training on your role and responsibility to conform with the company's EMS and emergency preparedness and response?	
Are you aware of the potential consequences of departure from your environmental work practices (environmental impact)?	
ADDITIONAL QUESTIONS:	
<b>Communication</b>	
Have you received information on the company's EMS and significant environmental aspects?	
How (e.g., newsletter, department meetings, training, posters, pocket cards)?	
Do you have an example?	
If you had a concern about the EMS or any environmental concern, what would you do?	
ADDITIONAL QUESTIONS:	

<b>Employee Name:</b>	
<b>Questions</b>	<b>Findings/Observations</b>
<b>Emergency Preparedness and Response</b>	
Do you know the difference between an incidental release/spill versus one that requires an emergency response?	
What types of spills/releases are you allowed to clean up?	
What do you do if there is a spill/release that requires the services of personnel outside of your immediate work area (i.e., an emergency response)?	
ADDITIONAL QUESTIONS:	
<b>EMS Manual and Records</b>	
Do you have access to current versions of your department's action plans, procedures, and/or environmental work instructions?	
Where are they kept?	
If there are any postings in the department, the auditor should check to see if they are current.	
Does your area maintain any environmentally related records (e.g., training records, monitoring equipment calibration records, completed forms)?	
Do you have an index of those records with storage location and retention period? What is the retention period?	
The auditor should ask to see those records and check for consistency with index and retention periods, readily retrievable and legible, stored to protect from damage, deterioration, or loss.	
ADDITIONAL QUESTIONS:	
<b>Correcting and Preventing Problems</b>	
Do you know what to do if you get a CAR?	
ADDITIONAL QUESTIONS:	

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

**F11-4: EMS Internal Audits—General Company Employee Questionnaire in Spanish  
(Blank Form)**

**PREGUNTAS CLAVE PARA ENTREVISTADOS**

**NOMBRE:** \_\_\_\_\_

**DEPARTAMENTO:** \_\_\_\_\_

**CARGO/FUNCION:** \_\_\_\_\_

**FECHA:** \_\_\_\_\_

- 1) Describa en sus propias palabras la Política Ambiental de la organización
- 2) Cuales son sus funciones habituales
- 3) Que entrenamiento ha recibido a la fecha en materia ambiental o del sistema ambiental
- 4) Cuales son sus roles y responsabilidades en el sistema ambiental
- 5) Mencione los aspectos ambientales más importantes de su área de trabajo
- 6) Que procedimientos del sistema ambiental están relacionados con su trabajo
- 7) Que registros ambientales son generados o controlados por su departamento
- 8) Cual es su responsabilidad en caso de emergencia / si Ud. es el primero en detectarla
- 9) Que hace Ud. en caso de detectar alguna actividad a hecho que le parezca anormal o incorrecto dentro del funcionamiento del sistema ambiental
- 10) Cuales son los principales Objetivos y Metas ambientales de su departamento y que programas están relacionados al cumplimiento de los mismos

**COMENTARIOS GENERALES Y/O OBSERVACIONES DEL AUDITADO:**

\_\_\_\_\_  
\_\_\_\_\_

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

## **P12: Top Management Environmental Review Procedure (Example Procedure)**

### **1.0 Purpose**

- 1.1 This procedure defines the process for the periodic review and evaluation of the XYZ Construction Co. EMS by top management to ensure its continuing suitability, adequacy, and effectiveness.

### **2.0 Activities Affected**

- 2.1 All areas and departments.

### **3.0 Forms Used**

- 3.1 F12-1: Management Review Record

### **4.0 References**

- 4.1 P1: Legal and Other Requirements Procedure
- 4.2 P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure
- 4.3 P8: Correcting and Preventing Environmental Problems Procedure
- 4.4 P10: Environmental Records Procedure
- 4.5 P11: Environmental Audits Procedure
- 4.6 ISO 14001 Standard (4.6)

### **5.0 Definitions (None)**

### **6.0 Exclusions (None)**

### **7.0 Procedure**

- 7.1 The Environmental Management Representative (EMR) and top management shall conduct a review of the EMS at least once each year.
- 7.2 Management review meetings shall be scheduled in advance by the EMR and an agenda issued to ensure appropriate preparation and attendance.
- 7.3 The meeting shall review all applicable components of the XYZ Construction Co.'s EMS, including among other information:
  - 7.3.1 Results of environmental management system audits
  - 7.3.2 Communication from external interested parties
  - 7.3.3 The performance of the EMS
  - 7.3.4 The extent to which objectives and targets have been met
  - 7.3.5 Status of corrective and preventive actions
  - 7.3.6 Follow-up actions from previous management reviews
  - 7.3.7 Changing circumstances
  - 7.3.8 Recommendations for improvement
- 7.4 The EMR and top management shall review and confirm their approval and the continual suitability, adequacy, and effectiveness of the Policy, environmental objectives and targets, action plans, and other elements of the system as well as confirm that legal compliance requirements are met.

7.5 The EMR, or designee, will publish and maintain meeting minutes identifying issues discussed, possible changes to the Policy, and corrective and preventive actions to be taken consistent with the commitment to continual improvement. Required actions will be assigned to the responsibility of process, area, and functional management.

7.6 Timely decisions will be made.

**8.0 General Rules** (None)

**9.0 Frequency**

9.1 At least once each year.

**10.0 Records**

10.1 Records shall be retained consistent with the P10: Environmental Records Procedure.

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected



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## **SAMPLE EMS RECORDS**

### **Select EMS Records**

The following EMS records are provided to further illustrate how to complete a selection of the blank forms provided in Integral Procedures and Blank Forms (see Section II, Sample EMS Manual). Keep in mind that not every blank form has a sample completed record. In addition, as indicated in the P10: Environmental Records Procedure, the completed forms in the Sample EMS Records (as well as those contained in the Sample EMS Manual under Integral Documents) are recorded on the F10-1: Index of Environmental Records (see Section II, Sample EMS Manual).

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**F1-3: Compliance Checklists for Applicable Legal and Other Requirements  
(Completed Form)**

Requirements	Assigned To	Completed Date
<b>Federal Requirements</b>		
<b>Storm Water Runoff</b>		
<b>Getting a Permit</b>		
1. Who will determine if you need a storm water permit? (A permit is generally required when at least one acre of land is disturbed.)	[Insert Name]	[Insert Date]
2. Who will find out what agency issues the storm water permit for your location (i.e., federal U.S. Environmental Protection Agency [EPA], state, or local government) and get the permit? To determine your permitting authority, go to the following web site: <a href="http://cfpub.epa.gov/npdes/stormwater/authorization_status.cfm">http://cfpub.epa.gov/npdes/stormwater/authorization_status.cfm</a> . If your construction activity occurs in an area where the state issues permits, contact your state for further information about applicable requirements.	[Insert Name]	[Insert Date]
<b>The following questions specifically apply to the Federal Construction General Permit.</b>		
3. Who will submit the Notice of Intent (NOI) before the start of the construction project and submit the Notice of Termination (NOT) to EPA when the construction project is complete?	[Insert Name]	[Insert Date]
4. Who will comply with the Endangered Species Act requirements?	[Insert Name]	[Insert Date]
5. Who will determine if the receiving waters are covered under a Total Maximum Daily Load (TMDL) requirement?	[Insert Name]	[Insert Date]
6. Who will develop the storm water pollution prevention plan (SWPPP)?	[Insert Name]	[Insert Date]
<b>Meeting Permit Requirements</b>		
7. Who will perform the inspections?	[Insert Name]	[Insert Date]
8. How often will they be performed?	[Insert Name]	[Insert Date]
9. Who will install and maintain best management practices (BMP) and storm water controls?	[Insert Name]	[Insert Date]
10. Who will notify site personnel of the permit requirements (e.g., ensuring controls are in place and telling the recordkeeper of any site changes)?	[Insert Name]	[Insert Date]
11. Who will modify the SWPPP during the construction project (including updating records and documenting inspection results)?	[Insert Name]	[Insert Date]
12. Who will update the site map?	[Insert Name]	[Insert Date]
13. Who will be the recordkeeper?	[Insert Name]	[Insert Date]
<b>Oil Spill Requirements for Construction Activities</b>		
<b>Spill Prevention Control and Countermeasure (SPCC) Requirements</b>		
1. Who will determine if SPCC requirements apply (i.e., determining oil storage capacity at the site and whether the site location poses a hazard)?	[Insert Name]	[Insert Date]
2. Who will develop the SPCC plan? Where will the plan be kept?	[Insert Name]	[Insert Date]

Requirements	Assigned To	Completed Date
3. Who will update the SPCC plan with changes to the construction site and maintain documentation/records?	[Insert Name]	[Insert Date]
4. Who will be responsible for implementing the plan?	[Insert Name]	[Insert Date]
5. Who will maintain any secondary containment or diversionary structures?	[Insert Name]	[Insert Date]
6. Who will perform the necessary inspections?	[Insert Name]	[Insert Date]
7. Who will inspect the integrity of the storage tanks?	[Insert Name]	[Insert Date]
8. Who will train site personnel?	[Insert Name]	[Insert Date]
9. Who will make sure fuel transfer requirements are met?	[Insert Name]	[Insert Date]
10. Who will report any oil spills to the National Response Center and state and local authorities?	[Insert Name]	[Insert Date]
11. Who will respond following a spill?	[Insert Name]	[Insert Date]
<b>Dredged and Fill Activities</b>		
<b>Getting a Permit</b>		
1. Who will determine if wetlands are present at the site?	[Insert Name]	[Insert Date]
2. Who will determine whether the construction project will impact waters of the United States (i.e., will fill materials or pollutants be discharged into wetland areas)?	[Insert Name]	[Insert Date]
3. Who will determine if the Section 404 permit requirements apply to your construction project (including a review of exempt activities)? Contact your state environmental department and the U.S. Army Corps of Engineers (COE) District Office for requirements.	[Insert Name]	[Insert Date]
4. Who will determine if a Section 401 state certification is required?	[Insert Name]	[Insert Date]
5. Who will perform (or hire someone to perform) the wetland delineation, if required?	[Insert Name]	[Insert Date]
6. Who will determine if a Nationwide Permit (or regional or state general permit) is applicable to your construction project?	[Insert Name]	[Insert Date]
7. Nationwide Permits: Who will submit a preconstruction notification, if required?	[Insert Name]	[Insert Date]
8. Individual Permits: Who will submit the application for an individual permit and check that the permit is received?	[Insert Name]	[Insert Date]
<b>Meeting Permit Requirements</b>		
9. Who will perform mitigation activities under your permit?	[Insert Name]	[Insert Date]
10. Who will ensure that any general or special conditions in the permit are met (applies to general and individual permits)?	[Insert Name]	[Insert Date]
11. Who will maintain the necessary documentation?	[Insert Name]	[Insert Date]
12. Who will submit a compliance certification once the construction is complete, if required?	[Insert Name]	[Insert Date]
<b>Hazardous and Nonhazardous Solid Waste</b>		
<b>Determining Applicability</b>		
1. Who will determine if hazardous wastes are present at the construction site (e.g., fluorescent bulbs containing mercury removed during demolition, contaminated soil)?	[Insert Name]	[Insert Date]

Requirements	Assigned To	Completed Date
2. Who will be responsible for proper management and disposal of any hazardous wastes present at the construction site?	[Insert Name]	[Insert Date]
3. Who will identify whether additional hazardous wastes will be generated during construction activities (e.g., ignitable paint wastes, degreasing solvents, remediation waste that is also considered a hazardous waste)?	[Insert Name]	[Insert Date]
4. Who will submit the preliminary notification to EPA or the state once hazardous waste is generated?	[Insert Name]	[Insert Date]
5. Who will get the EPA ID number?	[Insert Name]	[Insert Date]
6. Who will determine whether the site classifies as a large, small, or conditionally exempt small quantity generator?	[Insert Name]	[Insert Date]
<b>Meeting RCRA Requirements for Hazardous Waste Generators</b>		
7. Who will establish and maintain hazardous waste storage requirements?	[Insert Name]	[Insert Date]
8. Who will develop the contingency plan and emergency procedures, as required?	[Insert Name]	[Insert Date]
9. Who will maintain the necessary documentation?	[Insert Name]	[Insert Date]
10. Who will ensure that site personnel are trained to handle hazardous waste?	[Insert Name]	[Insert Date]
11. Who will determine whether a Resource Conservation and Recovery Act (RCRA) permit or Remedial Action Plan (RAP) is required (i.e., who will keep track of how long hazardous waste is stored at the site)?	[Insert Name]	[Insert Date]
12. Who will get the hazardous waste RCRA permit, if required?	[Insert Name]	[Insert Date]
13. Who will get a licensed hazardous waste hauler?	[Insert Name]	[Insert Date]
14. Who will properly package the hazardous waste for transport?	[Insert Name]	[Insert Date]
15. Who will mark and label the package?	[Insert Name]	[Insert Date]
16. Who will complete and sign the Uniform Hazardous Waste Manifest?	[Insert Name]	[Insert Date]
<b>Solid Waste/Construction and Demolition Debris Requirements</b>		
17. Who will contact the state environmental department for any applicable solid waste or construction and demolition debris requirements?	[Insert Name]	[Insert Date]
18. Who will review the state requirements and designate responsibility?	[Insert Name]	[Insert Date]
19. Who will meet state recycling standards, if applicable?	[Insert Name]	[Insert Date]
<b>Hazardous Substances (Superfund Liability) Requirements</b>		
<b>Pre-Planning Issues</b>		
1. Who will conduct the historical review (to determine the possible presence of hazardous substances) of the construction site?	[Insert Name]	[Insert Date]
2. If this is a Superfund or Brownfields property, who will identify and analyze if there are specific issues associated with the site (e.g., could the owner/developer be considered a prospective purchaser; is the property municipally-owned and was acquired through an involuntary action such as tax foreclosure; are there ongoing or remaining cleanup or long-term maintenance obligations)?	[Insert Name]	[Insert Date]

Requirements	Assigned To	Completed Date
associated with the site)?		
3. Who will ensure that soil, air, and water samples are taken and analyzed, if necessary?	[Insert Name]	[Insert Date]
4. If a hazardous substance is found, who will contact the National Response Center and state and local authorities?	[Insert Name]	[Insert Date]
5. Who will coordinate with EPA regarding any necessary site cleanup activities?	[Insert Name]	[Insert Date]
6. Who will follow the steps of the Brownfields Program if the construction site is a brownfields site?	[Insert Name]	[Insert Date]
7. Who will maintain documents/records containing hazardous substance information?	[Insert Name]	[Insert Date]
<b>Project-Related Wastes</b>		
8. Who accepts responsibility for generated wastes? (The waste "generator" is the person whose activity first "produces" the waste.)	[Insert Name]	[Insert Date]
9. Who will ensure proper handling, storage, transport, and disposal of discovered (i.e., generated) waste?	[Insert Name]	[Insert Date]
10. Who will ensure that reporting obligations are met?	[Insert Name]	[Insert Date]
<b>Polychlorinated Biphenyl (PCB) Waste</b>		
<b>Identifying PCB Materials</b>		
1. Who will determine if PCB materials or equipment are at the site?	[Insert Name]	[Insert Date]
2. Who will label all PCB-containing materials?	[Insert Name]	[Insert Date]
3. Who will determine what items will be stored for reuse or removed for disposal?	[Insert Name]	[Insert Date]
4. Who will determine the actual PCB concentrations?	[Insert Name]	[Insert Date]
5. Who will look for old spills or leaks?	[Insert Name]	[Insert Date]
6. Who will be responsible for handling any PCB remediation issues?	[Insert Name]	[Insert Date]
7. Who will be responsible for cleaning up new spills?	[Insert Name]	[Insert Date]
8. Who will contact the National Response Center and state and local authorities in case of a spill emergency?	[Insert Name]	[Insert Date]
9. Who will complete and file the PCB Activity Form?	[Insert Name]	[Insert Date]
<b>Handling PCB Materials</b>		
10. Who will prepare the materials for storage or disposal?	[Insert Name]	[Insert Date]
11. Who will determine if the site has an allowable permanent PCB waste storage area?	[Insert Name]	[Insert Date]
12. Who will complete and sign the manifest?	[Insert Name]	[Insert Date]
13. Who will keep all of the records including the activity form, the manifest, the certification of disposal, and any on-site inspection reports?	[Insert Name]	[Insert Date]
14. Who will identify and hire the companies that will be used to transport and dispose of PCBs?	[Insert Name]	[Insert Date]
<b>Asbestos</b>		
<b>Asbestos Identification and Removal</b>		
1. Who will schedule the site inspection with a certified asbestos inspector?	[Insert Name]	[Insert Date]

Requirements	Assigned To	Completed Date
2. If asbestos is present, who will determine if it will be disturbed in amounts greater than the "threshold" quantities?	[Insert Name]	[Insert Date]
3. Who will ensure that an approved laboratory is used for testing the asbestos?	[Insert Name]	[Insert Date]
4. Who will complete and submit the notification form?	[Insert Name]	[Insert Date]
5. Who will hire the asbestos removal/remediation company and ensure that they have the proper licenses and certifications?	[Insert Name]	[Insert Date]
6. Who will notify the state Health Department (if required)?	[Insert Name]	[Insert Date]
7. Who will receive the notification form?	[Insert Name]	[Insert Date]
8. Who will maintain the records of asbestos inspections and notifications?	[Insert Name]	[Insert Date]
<b>Air Pollution Permits</b>		
<b>Getting a Permit</b>		
1. Who will determine if you need an air permit? (A permit may be required for the uncontrolled open burning of debris; dust generation; vehicle emissions; and combustion gases from oil fired equipment.)	[Insert Name]	[Insert Date]
2. Who will be responsible for getting the air permit?	[Insert Name]	[Insert Date]
3. Who will notify site personnel of the permit requirements if a large source of emissions such as a rock crusher, cement plant, or a hot mix asphalt plant is located at the construction site (e.g., ensuring that proper record keeping and monitoring are completed)?	[Insert Name]	[Insert Date]
<b>Ozone Depleting Substances (CFCs)</b>		
4. Who will determine if equipment containing ozone depleting substances are located at the site?	[Insert Name]	[Insert Date]
5. Who will be responsible for any equipment containing ozone depleting substances located at the site?	[Insert Name]	[Insert Date]
6. Who will determine if the equipment containing ozone depleting substances will be removed for treatment off-site or treated on-site before demolition activities are begun?	[Insert Name]	[Insert Date]
7. Who will maintain copies of records from the disposal contractor verifying that the ozone depleting substances have been removed from the appliances?	[Insert Name]	[Insert Date]
<b>Threatened or Endangered Species</b>		
<b>Federal Action Determination</b>		
1. Who will determine whether your construction activity involves a federal action?	[Insert Name]	[Insert Date]
<b>Responsible Party</b>		
2. Who will check during the planning process whether the federal agency or another party will be fulfilling the ESA requirements?	[Insert Name]	[Insert Date]
<b>Environmental Assessment</b>		
3. Who will contact state or Federal fish and/or wildlife agencies and get expert advice on whether state or ESA listed species or habitat may be affected?	[Insert Name]	[Insert Date]

Requirements	Assigned To	Completed Date
4. Who will maintain the necessary documentation (e.g., fish and/or wildlife agencies communications, biological assessments)?	[Insert Name]	[Insert Date]
<b>If listed threatened or endangered species or critical habitat for listed species are found in your construction area:</b>		
5. Who will evaluate whether your construction project will adversely impact the listed species/habitat (i.e., perform/coordinate biological evaluation or assessment)?	[Insert Name]	[Insert Date]
6. Federal Action Projects: Who will submit the biological evaluation/assessment to the National Oceanic and Atmospheric Administration (NOAA)-Fisheries for marine species or the U.S. Fish and Wildlife Service (USFWS) for all other species?	[Insert Name]	[Insert Date]
<b>If assessment determines that your activities will impact listed threatened or endangered species or critical habitat:</b>		
7. Who will ask the USFWS/National Marine Fisheries Service (NMFS) or appropriate state environmental protection agency for advice on how to reduce potential impacts?	[Insert Name]	[Insert Date]
8. Who will develop alternate project scopes to avoid adverse impacts?	[Insert Name]	[Insert Date]
<b>If assessment determines that impacts cannot be avoided:</b>		
9. Federal Action Projects: Who will request a formal consultation (Section 7 consultation) in writing with the USFWS/NMFS or appropriate state environmental protection agency? The request must include: 1) description of the activity, affected area, listed species/habitat potentially impacted, how the activity will impact the species/habitat, and analysis of cumulative effects; 2) relevant reports; and 3) other relevant documentation including all previous communication with NOAA-Fisheries/USFWS.	[Insert Name]	[Insert Date]
10. Non-Federal Action Projects: Who will apply for an ESA permit and coordinate with USFWS/NMFS (process is referred to as a Section 10 consultation)? Your application needs to include a habitat conservation plan and additional measures.	[Insert Name]	[Insert Date]
11. Who will be responsible for ensuring a permit is received from USFWS/NMFS?	[Insert Name]	[Insert Date]
<b>Meeting ESA Requirements</b>		
12. Who will ensure that habitat enhancement requirements are met, if required?	[Insert Name]	[Insert Date]
13. Who will ensure that any restrictions on construction activities are met?	[Insert Name]	[Insert Date]
<b>State Requirements</b>		
[Insert State-Specific Requirements]	[Insert Name]	[Insert Date]
<b>Local Requirements</b>		
[Insert Local Requirements]	[Insert Name]	[Insert Date]

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

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**F2-1: Company Processes Form (Completed Form)**

<b>Company Processes</b>
Burning, Cutting, and Welding
Carpentry
Concrete Forming, Pouring, and Placing (Oils, Curing Compounds)
Core Drilling (Drilling Slurry)
Demolition (Any Removals or Deconstruction Activity)
Dewatering
Drilled Piers/Shafts
Earth Disturbing (Grading, Excavating, Filling [Embankments], and Trenching)
Equipment Repair and Maintenance
Exterior Fascia/Wall Construction (Masonry, etc.)
Floor Covering
General Support: Office Administration (Supplies, Paper, etc.)
Interior Wall Construction (Drywalling, etc.)
Landscaping
Materials Production (Rock Crushing, Hot Mix Asphalt Plants, Portland Cement Concrete Plants, and Pugmills)
Mobilization
Painting
Paving (Hot Mix Asphalt Paving, Portland Cement Concrete Paving)
Roofing & Waterproofing
Shoring
Site Clearing
Storage of Liquid Materials (Oil, Fuel, Lubricants, etc.)
Storage of Materials & Lay Down Areas
Transportation of Materials, Equipment, and Personnel to/from Job Site
Utilities Work (Storm Sewer, Sanitary Sewer, Waterlines, Electrical, Phone, and Other Utilities)
Waste Management (Hazardous)
Waste Management (Nonhazardous)

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

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**F2-3: Aspects and Significance Determination Form (Completed Form)**

Process: Site Clearing		SIGNIFICANCE DETERMINATION						
ASPECT IDENTIFICATION		Legal Requirements, Voluntary Commitments, Company Policy	Community Concern	Waste Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance (S) or Nonsignificance (N)	
<b>INPUTS</b>								
<b>Energy:</b>								
Petroleum based fuels	N	S	S	S	S	S	Environmental concern if a spill occurs; keep stored off site whenever possible. If stored on site, use secondary containment to control spill. HazMat Training for response personnel may be required.	
Batteries	N	N	N	N	N	N	All equipment and vehicle batteries are sealed. Spillage or leakage should not be a concern, unless an accident occurs that damages the equipment's battery. In case of lead and sulfuric acid spill from battery damage, see "Spillage."	
Welding/cutting gases	N	N	N	N	N	N	Welding and cutting needed for occasional repair to equipment. Gases are stored off site.	
Electricity	N	N	N	N	N	N	Occasional generator use for operating arc welding machine to repair equipment.	
<b>Supplies/Consumables:</b>								
Silt fences, straw bales, etc.	N	N	N	N	N	N	Reuse silt fences whenever possible, recycle according to company procedure when damaged and no longer useful. Hay bales are organic and will break down in time, so they can be used as erosion prevention once the hay bale loses its shape, BMP (Best Management Practice).	
Construction stakes	N	N	N	N	N	N	Reuse stakes for installation of future hay bales.	
<b>Chemicals (see Material Safety Data Sheet log):</b>								
Equipment/Maintenance Products	S	S	S	S	S	S	See "Spillage," Automotive Fluids and Equipment Fluids.	
<b>OUTPUTS</b>								
<b>Air Emissions:</b>								
VOCs	S	S	S	S	S	S	Generated by use of fossil fuels on site. Control through regular maintenance and annual inspection of vehicles. Pay special attention to upcoming federal laws regulating emission requirements for heavy equipment.	

Process:		Site Clearing					
ASPECT IDENTIFICATION		SIGNIFICANCE DETERMINATION					
Category/Aspect	Legal Requirements, Voluntary Commitments, Company Policy	Community Concern	Waste Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance (S) or Nonsignificance (N)	
Dust/Particulate Matter	S	S	S	S	S	Generated through moving soil during clearing operations. Control with water mist to prevent impact to surface waters and neighboring properties.	
NOx	S	S	S	S	S	Pay special attention to upcoming federal laws regulating emission requirements for heavy equipment.	
SOx	S	S	S	S	S	Pay special attention to upcoming federal laws regulating emission requirements for heavy equipment.	
CO	S	S	S	S	S	Pay special attention to upcoming federal laws regulating emission requirements for heavy equipment.	
<b>Nuisance:</b>							
Noise	S	S	S	S	S	Noise level potential to exceed local or municipal guidelines governing amount of ambient noise. Time of activity may also be a concern to the surrounding community.	
<b>Solid Wastes:</b>							
Construction and demolition debris	S	S	S	S	S	If an existing structure is on site, then this will be an issue. Demolition debris will be recycled according to the company's recycling program.	
Soil	N	N	N	N	N	Anticipate much scrub brush and trees on site. Will be brought to specialty subcontractor to be shredded for landscaping chips. Stone and boulders on site will be recycled in other building materials by a subcontractor specializing in such activity.	
Regulated (hazardous waste)	S	S	S	S	S	If the site is contaminated by a regulated material, in excess of the state's requirements for site remediation for contaminated sites, then the project will be addressed as governed by environmental law. HazMat training will be required.	
Other	N	N	N	N	N	Other nonregulated solid wastes found on site should be minimal. These include miscellaneous waste debris on site (associated paper, soft drink containers, etc.).	
<b>Discharges to Water:</b>							
Storm water (silt, oils, etc.)	S	S	S	S	S	Storm water run-off must be managed and controlled. A Storm Water Pollution Prevention Program (SWPPP) is necessary to achieve this goal.	

Process: Site Clearing		SIGNIFICANCE DETERMINATION					
ASPECT IDENTIFICATION		Legal Requirements, Voluntary Commitments, Company Policy	Community Concern	Waste Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance (S) or Nonsignificance (N)
<b>Spillage:</b>							
Petroleum based fuels	S	S	S	S	S	S	This aspect can be deemed nonsignificant (N) if fuels are stored off-site.
Automotive fluids	S	S	S	S	S	S	This aspect can be deemed nonsignificant if automotive fluids are stored off site and maintenance activities are limited to areas that are protected in case of a spill.
Equipment fluids	S	S	S	S	S	S	This aspect can be deemed nonsignificant if automotive fluids are stored off site and maintenance activities are limited to areas that are protected in case of a spill.
Chemical	N	N	N	N	N	N	Lead acid from batteries, if spilled, could present a hazard. Not likely to occur.
Solvents	N	N	N	N	N	N	Used in equipment and vehicle maintenance. Will not be a concern if maintenance activities are performed off site.
<b>Habitat Destruction:</b>							
Wetlands	S	S	S	S	S	S	This aspect must be controlled through an appropriately implemented SWPPP.

Contact Person: \_\_\_\_\_ Date Completed: \_\_\_\_\_

**Record of Revisions**

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**F2-6: Compliance Action Plan Form (Completed Form)**

<b>Affected Media:</b>	Storm Water
<b>Affected Area/ Activity/ Process:</b>	Concrete Forming, Pouring, and Placing, Core Drilling, Dewatering, Drilled Piers/Shafts; Earth Disturbing (Grading, Excavating, Filling, and Trenching), Landscaping, Concrete Plants, Mobilization, Shoring, Site Clearing, Storage of Liquid Materials, Storage of Materials & Lay Down Areas, Transportation of Materials, Equipment, and Personnel to/from Job Site, Utilities Work
<b>Applicable EMS Procedures:</b>	<ul style="list-style-type: none"> <li>• P1: Identification of Legal and Other Requirements Procedure</li> <li>• P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure</li> <li>• P3: Environmental Review of New Processes, Materials, and Projects Procedure</li> <li>• P4: Environmental Briefing of Subcontractors and Service Providers Procedure</li> <li>• P5: Environmental Training and Awareness Procedure</li> <li>• P8: Correcting and Preventing Environmental Problems Procedure</li> <li>• P10: Environmental Records Procedure</li> <li>• P11: Environmental Audits Procedure</li> </ul>

SEA	Existing Documented Work Instructions/BMPs	Documented Work Instructions Development/ Modification Needed	Monitoring and Measurement	Associated Job Functions
Unstabilized soil	<ul style="list-style-type: none"> <li>• SS-1 Scheduling</li> <li>• SS-2 Preservation of Existing Vegetation</li> <li>• SS-3 Hydraulic Mulch</li> <li>• SS-4 Hydroseeding</li> <li>• SS-5 Soil Binders</li> <li>• SS-6 Straw Mulch</li> <li>• SS-7 Geotextiles, Plastic Covers, &amp; Erosion Control Blankets/Mats</li> </ul>	<ul style="list-style-type: none"> <li>• Wood Mulching</li> <li>• Earth Dikes/Drainage Swales &amp; Lined Ditches</li> <li>• Outlet Protection/ Velocity Dissipation Devices</li> <li>• Slope Drains</li> <li>• Streambank Stabilization</li> </ul>	Site inspection plans, compliance certification	Supervisors, storm water operators, operating engineers, laborers
Sediment-laden runoff	<ul style="list-style-type: none"> <li>• SC-1 Silt Fence</li> <li>• SC-2 Sediment/Desilting Basin</li> <li>• SC-3 Sediment Trap</li> <li>• SC-4 Check Dam</li> <li>• SC-5 Fiber Rolls</li> <li>• SC-6 Gravel Bag Berm</li> <li>• SC-7 Street Sweeping and Vacuuming</li> <li>• SC-8 Sandbag Barrier</li> <li>• SC-9 Straw Bale Barrier</li> <li>• SC-10 Storm Drain Inlet Protection</li> </ul>		Site inspection plans, compliance certification, discharge Reporting, sampling and analysis plan for sediment, sampling and analysis plan for nonvisible pollutants	Supervisors, storm water operators, operating Engineers, laborers

SEA	Existing Documented Work Instructions/BMPs	Documented Work Instructions Development/Modification Needed	Monitoring and Measurement	Associated Job Functions
Dust emissions	<ul style="list-style-type: none"> <li>DE-1 Wind Erosion/Dust Control</li> </ul>		Site inspection plans, compliance certification	Supervisors, storm water operators
Tracking runoff	<ul style="list-style-type: none"> <li>TC-1 Stabilized Construction Entrance/Exit</li> <li>TC-2 Stabilized Construction Roadway</li> </ul>	<ul style="list-style-type: none"> <li>Entrance/Outlet Tire Wash</li> </ul>	Site inspection plans, compliance certification	Supervisors, storm water operators, operating engineers, equipment operators, truck drivers, laborers
Other storm water impacts	<ul style="list-style-type: none"> <li>OSI-1 Water Conservation Practices</li> <li>OSI -2 Dewatering Operations</li> <li>OSI -3 Paving and Grinding Operations</li> <li>OSI -4 Temporary Stream Crossing</li> <li>OSI -5 Clear Water Diversion</li> </ul>	<ul style="list-style-type: none"> <li>Illicit Connection/Illegal Discharge Detection and Reporting</li> <li>Potable Water/Irrigation</li> <li>Vehicle and Equipment Cleaning</li> <li>Vehicle and Equipment Fueling</li> <li>Vehicle and Equipment Maintenance</li> <li>Pile Driving Operations</li> <li>Concrete Curing</li> <li>Material and Equipment Use Over Water</li> <li>Concrete Finishing</li> <li>Structure Demolition/Removal Over or Adjacent to Water</li> </ul>	Site inspection plans, compliance certification, discharge reporting, sampling and analysis plan for sediment, sampling and analysis plan for nonvisible pollutants	Supervisors, storm water operators, bricklayers, carpenters, cement masons, iron workers, plumbers, operating engineers, equipment operators, truck drivers, laborers

Contact Person: \_\_\_\_\_ Date Completed: \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

**F2-6: Compliance Action Plan Form (Completed Form)**

<b>Affected Media:</b>	Waste Management and Materials Pollution Control
<b>Affected Area/ Activity/ Process:</b>	All
<b>Applicable EMS Procedures:</b>	<ul style="list-style-type: none"> <li>• P1: Identification of Legal and Other Requirements Procedure</li> <li>• P2: Environmental Aspects, Objectives and Targets, and Action Plans Procedure</li> <li>• P3: Environmental Review of New Processes, Materials, and Projects Procedure</li> <li>• P4: Environmental Briefing of Subcontractors and Service Providers Procedure</li> <li>• P5: Environmental Training and Awareness Procedure</li> <li>• P8: Correcting and Preventing Environmental Problems Procedure</li> <li>• P10: Environmental Records Procedure</li> <li>• P11: Environmental Audits Procedure</li> </ul>

SEA	Existing Documented Work Instructions/BMPs	Documented Work Instructions Development/ Modification Needed	Monitoring and Measurement	Associated Job Functions
Hazardous and Non-hazardous waste	<ul style="list-style-type: none"> <li>• WM-1 Material Delivery and Storage</li> <li>• WM-2 Material Use</li> <li>• WM-3 Stockpile Management</li> <li>• WM-4 Spill Prevention and Control</li> <li>• WM-5 Solid Waste Management</li> <li>• WM-6 Hazardous Waste Management</li> <li>• WM-7 Contaminated Soil Management</li> <li>• WM-8 Concrete Waste Management</li> <li>• WM-9 Sanitary/Septic Waste Management</li> <li>• WM-10 Liquid Waste Management</li> </ul>	None	Site inspection plans, compliance certification	Supervisors, storm water operators, bricklayers, carpenters, cement masons, iron workers, plumbers, operating engineers, equipment operators, truck drivers, laborers

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

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**F2-7: Improvement and/or Study Action Plan Form (Completed Form)**

**Action Plan Type (check one):**

<input checked="" type="checkbox"/>	Improvement
<input type="checkbox"/>	Study

<b>Significant Environmental Aspect:</b>	Hazardous and Nonhazardous Waste
<b>Affected Area/ Activity/ Process:</b>	All
<b>Objective:</b>	Reduce hazardous and nonhazardous waste volumes not being recycled by 10 percent
<b>Target:</b>	August 2005

Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Comments/Deliverables
Develop waste generation baseline and metric	Cross-Functional Team (CFT)	July 2004	August 2004	Waste volumes report
Develop a plan for designating dumpsters for different waste streams	Construction Superintendent	August 2004	September 2004	Waste segregation plan
Review and implement plan	CFT	September 2004	December 2004	Meeting minutes
Explore market for used asphalt	Engineering team	September 2004	December 2004	List of possible recyclers
Implement asphalt recycling	Construction Superintendent	December 2004	June 2005	Quarterly status report
Compare waste generation volumes to baseline	CFT	July 2005	August 2005	Waste volumes report
Review feasibility and effectiveness of waste segregation and asphalt recycling	Top Management	August 2005	August 2005	Meeting minutes

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

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**F2-7: Improvement and/or Study Action Plan Form (Completed Form)**

**Action Plan Type (check one):**

<input type="checkbox"/>	Improvement
<input checked="" type="checkbox"/>	Study

<b>Significant Environmental Aspect:</b>	Fuel and Energy Use
<b>Affected Area/ Activity/ Process:</b>	All
<b>Objective:</b>	Investigate possibilities for reduction of fuel and energy use
<b>Target:</b>	Complete investigation by January 2005

Task/Action Items	Responsible Party	Project Start Date	Project Completion Date	Comments/Deliverables
Develop energy use baseline and metric and designate Energy Reduction Team.	Cross-Functional Team (CFT)	July 2004	August 2004	Energy use report and list of energy team members
Monitor energy use	Energy Reduction Team	August 2004	September 2004	Frequency of monitoring to be established by Energy Reduction Team
Determine how to proceed with a plan for shutting down engines when idle, including employee training needs	Energy Reduction Team	September 2004	December 2004	Report plan to CFT
With input from CFT, finalize plan for reducing energy and fuel use	Energy Reduction Team	December 2004	January 2005	Fuel and Energy Use Reduction Plan for Management Review and Action

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

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## **F2-8: Environmental Work Instruction and/or Best Management Practice Template (Completed Form)**

Note: This is a sample BMP. You should revise this sample for your operations if you wish to use it. In revising it, it is critical to review the requirements for your company in accordance with the most recent federal, state, and local legal requirements.

### **SS-2: Preservation of Existing Vegetation**

#### **1.0 Purpose**

- 1.1 To identify and protect existing desirable vegetation that provides erosion and sediment control benefits. Best management practice (BMP) objectives include soil stabilization, sediment control, tracking control, and wind erosion control.

#### **2.0 References**

- 2.1 Storm Water Pollution Prevention Plan

#### **3.0 Definitions (None)**

#### **4.0 Responsibility**

- 4.1 The storm water operator is responsible for overall implementation and checking for implementation of this BMP.
- 4.2 The designated supervisor is responsible for implementation of this BMP in his or her work area.

#### **5.0 Procedure**

- 5.1 General Requirements
  - 5.1.1 Preserve existing vegetation at areas on a site where no construction activity is planned or will occur at a later date.
  - 5.1.2 On a year-round basis, temporary fencing shall be provided prior to the commencement of clearing and grubbing operations or other soil-disturbing activities in areas.
  - 5.1.3 Clearing and grubbing operations should be staged to preserve existing vegetation.
  - 5.1.4 Protection of existing vegetation requires planning, and may limit the area available for construction activities.
- 5.2 Timing
  - 5.2.1 Preservation of existing vegetation shall be provided prior to the commencement of clearing and grubbing operations or other soil-disturbing activities in areas identified on the plans to be preserved, especially on areas designated as Environmentally Sensitive Areas (ESAs).
  - 5.2.2 Preservation of existing vegetation shall conform to scheduling requirements set forth in the special provisions.
- 5.3 Design and Layout
  - 5.3.1 Mark areas to be preserved with temporary fencing made of orange polypropylene that is stabilized against ultraviolet light.

- 5.3.2 The temporary fencing shall be at least 1 meter (3.2. ft) tall and shall have openings not larger than 50 mm by 50 mm (2 in by 2 in).
- 5.3.3 Fence posts shall be either wood or metal, as appropriate for the intended purpose. The post spacing and depth shall be adequate to completely support the fence in an upright position.
- 5.3.4 Minimize the disturbed areas by locating temporary roadways to avoid stands of trees and shrubs and to follow existing contours to reduce cutting and filling.
- 5.3.5 Consider the impact of grade changes to existing vegetation and the root zone.
- 5.4 Installation
  - 5.4.1 Construction materials, equipment storage, and parking areas shall be located where they will not cause root compaction.
  - 5.4.2 Keep equipment away from trees to prevent trunk and root damage.
  - 5.4.3 Maintain existing irrigation systems.
  - 5.4.4 Employees and subcontractors shall be instructed to honor protective devices.
  - 5.4.5 No heavy equipment, vehicular traffic, or storage piles of any construction materials shall be permitted within the drip line of any tree to be retained.
  - 5.4.6 Removed trees shall not be felled, pushed, or pulled into any retained trees.
  - 5.4.7 Fires shall not be permitted within 30 m (100 ft) of the drip line of any retained trees. Any fires shall be of limited size, and shall be kept under continual surveillance. No toxic or construction materials (including paint, acid, nails, gypsum board, chemicals, fuels, and lubricants) shall be stored within 15 m (50 ft) of the drip line of any retained trees, nor disposed of in any way which would injure vegetation.
- 5.5 Trenching and Tunneling
  - 5.5.1 Trenching shall be as far away from tree trunks as possible, usually outside of the tree drip line or canopy. Curve trenches around trees to avoid large roots or root concentrations. If roots are encountered, consider tunneling under them. When trenching and/or tunneling near or under trees to be retained, tunnels shall be at least 450 mm (18 in) below the ground surface, and not below the tree center to minimize impact on the roots.
  - 5.5.2 Tree roots shall not be left exposed to air; they shall be covered with soil as soon as possible, protected, and kept moistened with wet burlap or peat moss until the tunnel and/or trench can be completed.
  - 5.5.3 The ends of damaged or cut roots shall be cut off smoothly.
  - 5.5.4 Trenches and tunnels shall be filled as soon as possible. Careful filling and tamping will eliminate air spaces in the soil which can damage roots.
  - 5.5.5 Remove any trees intended for retention if those trees are damaged seriously enough to affect their survival. If replacement is desired or required, the new tree shall be of similar species, and at least 50 mm (2 in) caliper, unless otherwise required by the contract documents.
  - 5.5.6 After all other work is complete, fences and barriers shall be removed last. This is because protected trees may be destroyed by carelessness during the final cleanup and landscaping.
- 5.6 Maintenance and Inspection
  - 5.6.1 During construction, the limits of disturbance shall remain clearly marked at all times. Irrigation or maintenance of existing vegetation shall conform to the requirements in the landscaping plan. If damage to protected trees still occurs, maintenance guidelines described below shall be followed:
    - Serious tree injuries shall be attended to by an arborist
    - During construction, District Environmental shall be contacted to ensure that ESAs are protected.

**6.0 Records**

- 6.1 Records and recording as described in the SWPPP.
- 6.2 Training requirements for storm water operators are documented in the P5: Environmental Training and Awareness Procedure.

**Approved by:**

\_\_\_\_\_   
Environmental Management Representative

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

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**F5-1: Training Needs—Environmental Course Analysis (Completed Form)**

Course/Topics	Employees Requiring Training	Source of Training	Duration (Hours)	Frequency
Best Management Practice (BMP)	Crew/Specific Project	[Insert Source]	[Insert Hours]	Monthly
HAZWOPER: First Responder	Crew/Specific Project	[Insert Source]	[Insert Hours]	Annual
Environmental Awareness HAZWOPER First Responder Awareness, Integrated Emergency Response and Spill Contingency Plan, Prevention Plan, Waste Management Plan, Energy Management, Asbestos Management, MSDS Common Chemicals on Project	All field personnel	[Insert Source]	[Insert Hours]	Every other year
Universal Waste	All field personnel	[Insert Source]	[Insert Hours]	Annual
Spill Response Plan	Emergency Response Team; For all new team members	[Insert Source]	[Insert Hours]	Initially (tested annually)
Waste Minimization: 3Rs - Reduce, Reuse, Recycle	All New Projects/ Subcontractors	[Insert Source]	[Insert Hours]	Annual
EMS Lead Auditor Training	EMS Coordinator, Lead Internal Auditor	[Insert Source]	[Insert Hours]	Initially
EMS Awareness Training	All employees and full- time on-site contractors	[Insert Source]	[Insert Hours]	Initially and new hires as necessary
EMS Document Training (see also "Applicable Procedures by Department")	Employees and fulltime on site contractors whose work requires knowledge of the document	[Insert Source]	[Insert Hours]	Initially, new hires, and when document changes occur
EMS Implementation Training, In-Depth Environment Seminars	EMS Coordinator and EMR	[Insert Source]	[Insert Hours]	Ongoing
Erosion, Sediment Control Plan	Crew/Specific Project	[Insert Source]	[Insert Hours]	Monthly
Above Ground Fuel Storage Tanks (over 660 gallons) Spill Prevention, Control and Counter-Measure Plan	Crew/Specific Project	[Insert Source]	[Insert Hours]	6-Month

**Contact Person:** \_\_\_\_\_ **Date Completed:** \_\_\_\_\_

**Record of Revisions**

Date	Description of Revision	Sections Affected

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