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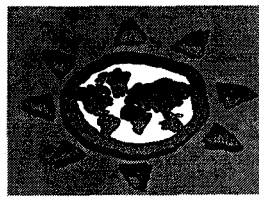
*Ford Motor Company*



ISO 14001

Environmental Management  
System Workbook





# **Ford Supplier ISO 14001 Awareness Workshop EMS WORKBOOK**

## **TABLE OF CONTENTS**

<b>Section 1</b>	<b>Presentation</b>
<b>Section 2</b>	<b>Launch and Implementation Tools</b>
<b>Section 3</b>	<b>EMS Template</b>
<b>Section 4</b>	<b>Resources</b>





## **SECTION 1**



### **PRESENTATION**

This section of the workbook contains copies of presentation overheads, two to a page. Space has been provided on the right side of each page for entering important notes and comments.




# Introduction to ISO 14001 Implementation

## Slides



*Introduction to ISO 14001  
Implementation*



Protecting the Environment is Everyone's  
Job

## Notes

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*Agenda*

- ◆ Supplier Workbook
- ◆ ISO 14001 & Environmental Management Systems
- ◆ Assessing What You Have
- ◆ Management Commitment
- ◆ Establishing The Approach
- ◆ Planning
- ◆ System Documents



11/23/99 Version No. 2 2

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*ISO 14001 Supplier Workbook*

Purpose 

- ◆ Learning aid in visualizing EMS documents
- ◆ Jump start to development & implementation
- ◆ EMS Template fulfills ISO 14001 4.4.4 requirement for system documentation (i.e., EMS Manual)

11/23/99 Version No. 2 3

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*ISO 14001 Supplier Workbook*

Contents 

- ◆ Presentation slides
- ◆ Launch & implementation tools
- ◆ EMS template (must be modified to address local considerations)
- ◆ Resources

11/23/99 Version No. 2 4

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*EMS Template*



Contents

- ◆ EMS manual & appendices - identifies EMS documents and relationship to ISO 14001
- ◆ Environmental policy
- ◆ Aspects, objectives & targets
- ◆ Legal & other requirements
- ◆ Environmental management programs

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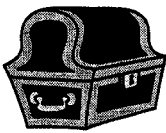
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*EMS Template*

Contents

- ◆ Structure & responsibility
- ◆ Training matrix
- ◆ Procedures
- ◆ Work practices
- ◆ Master document list
- ◆ Master records list



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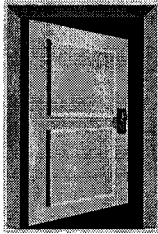
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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*ISO 14001 & Environmental Management Systems*



*The Basics*

11/23/99 Version No. 2 7

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*Birth Of An EMS Standard*



- ♦ September 1996- ISO 14001 EMS finalized  
– "Environmental Management Systems- Specification With Guidance For Use"
- ♦ International Organization For Standardization
- ♦ ISO 9001 & 9002 QMS created by same organization



11/23/99 Version No. 2 8

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# Introduction to ISO 14001 Implementation

## Slides

## Notes



### Definitions

- ◆ **Env. Management System (EMS):** the part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy

11/23/99

Version No. 2

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### Definitions

Environmental Management Representative (EMR)



- ◆ Ultimate responsibility for EMS
- ◆ Directs Cross Functional Team in developing, implementing, and maintaining EMS
- ◆ Reports EMS performance to management

11/23/99

Version No. 2

10

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*Definitions*

Cross Functional Team (CFT) 

- ◆ Representatives from main areas & departments
- ◆ Standing team
- ◆ EMS development
- ◆ Supports implementation & maintenance

11/23/99 Version No. 2 11

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 *Definitions*

- ◆ Env. Aspect: element of an organization's activities, products or services that can interact with the environment
- ◆ Env. Impact: any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's activities, products or services

11/23/99 Version No. 2 12

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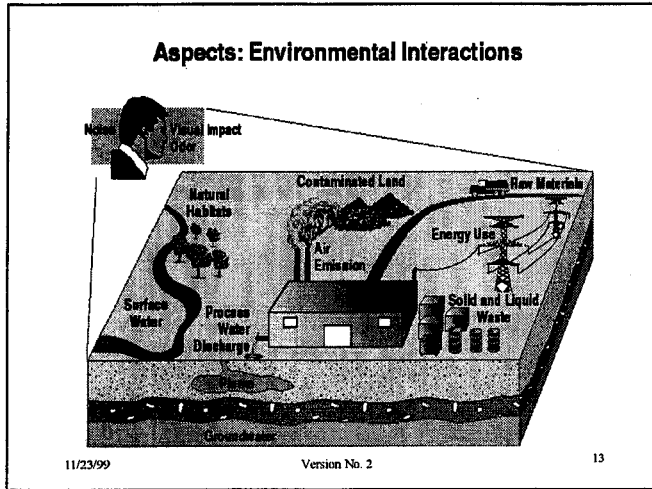
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# Introduction to ISO 14001 Implementation

## Slides

## Notes



 *Definitions*


- ♦ **Env. Objective:** overall ... goal, arising from the ... policy, ... which is quantified where practicable
- ♦ **Env. Target:** detailed performance requirement, quantified where practicable, ... that needs to be set and met in order to achieve ... (the stated objective) ...

11/23/99 Version No. 2 14

# Introduction to ISO 14001 Implementation

## Slides

*Definitions*



- ◆ Environmental Performance: measurable results of the environmental management system, related to an organization's control of its environmental aspects, based on its environmental policy, objectives and targets

11/23/99

Version No. 2

15

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*Definitions*

- ◆ "it is intended that the implementation of an environmental management system described by ... (ISO 14001)... will result in improved environmental performance"  
(Annex A A.1)

11/23/99

Version No. 2

16

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# Introduction to ISO 14001 Implementation

## Slides



### Definitions

♦ **Env. Management Program:** documented plan for achieving an objective & target that includes:

- Responsibilities
- Means
- Time frames

11/23/99

Version No. 2

17

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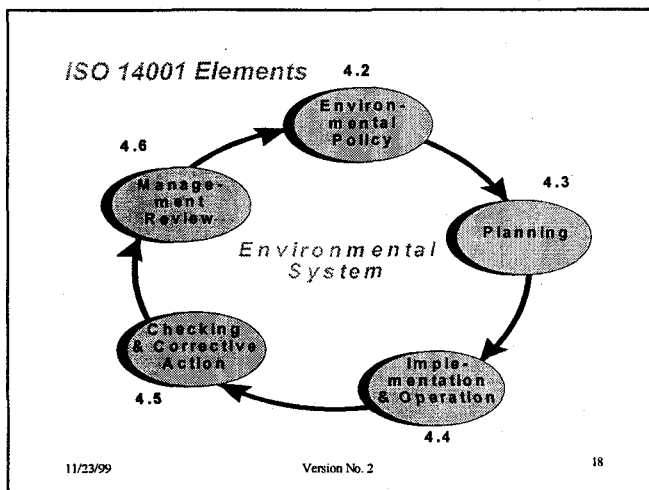
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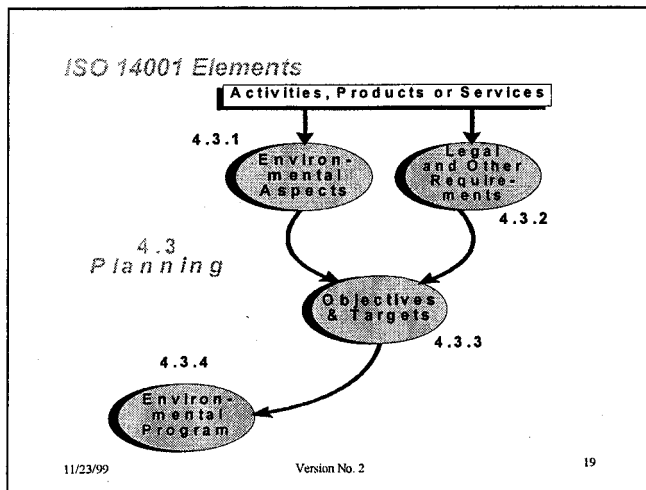
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# Introduction to ISO 14001 Implementation

## Slides



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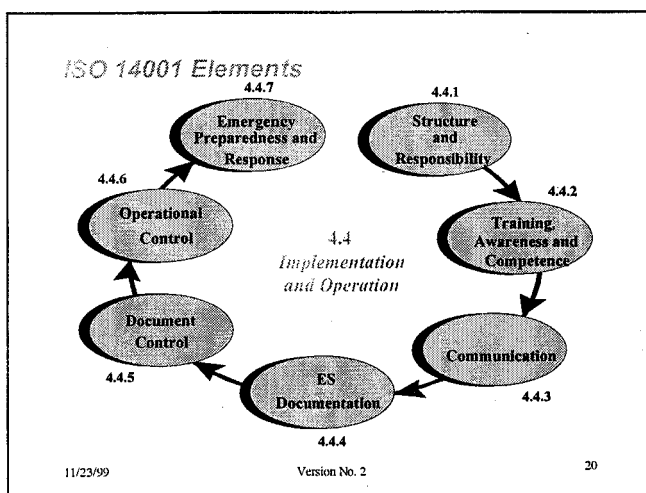
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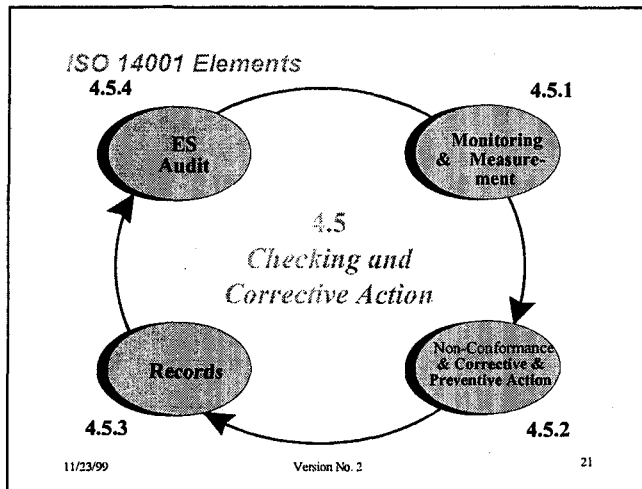
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# Introduction to ISO 14001 Implementation

## Slides



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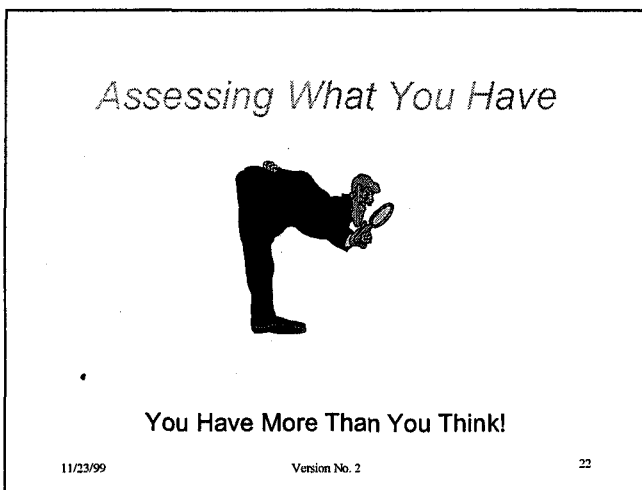
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# Introduction to ISO 14001 Implementation


## Slides

## Notes

*Assessing What You Have*

Understand What You Should Have

- ◆ Review ISO 14001 requirements
- ◆ Review internal requirements
- ◆ Review Ford & other requirements



11/23/99 Version No. 2 23

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*Assessing What You Have*

Review Internal Requirements

- ◆ Corporate, Division & Plant
  - Directives
  - Guidelines
  - Procedures
  - Business Plans



11/23/99 Version No. 2 24

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*Assessing What You Have*

Review Ford & Other Requirements 

- ♦ ISO 14001 registration
- ♦ Material restrictions (WSS-M99P9999-A1)
- ♦ Recyclable plastic & polymeric materials (E4)
- ♦ Packaging solutions
- ♦ Material approval - production & non-production

11/23/99 Version No. 2 25

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*Assessing What You Have*

 Review What You Do Have

- ♦ Identify current management systems (Environmental, Quality, Health & Safety, etc.)
  - How were systems implemented?
  - What are the system elements?
  - What works & what doesn't?
  - Where are the opportunities?

11/23/99 Version No. 2 26

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*Assessing What You Have*

Review What You Do Have



- ◆ Identify operating components
  - Applicable areas & departments?
  - What processes, activities & services are in each?
  - External support?

11/23/99 Version No. 2 27

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*Assessing What You Have*

Review What You Do Have



- ◆ Document key information
  - What products are made?
  - What materials are used?
  - What types of wastes & discharges are generated?
  - What sources of energy are required?

11/23/99 Version No. 2 28

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*Assessing What You Have*

Review What You Do Have



- ◆ Identify regulatory compliance permits and governmental reports
- ◆ Review compliance status
- ◆ Review environmental programs
  - Ex.: Elimination of Hg containing lighting
- ◆ Assess training & audit programs

11/23/99 Version No. 2 29

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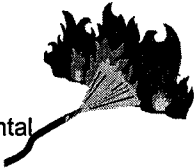
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*Assessing What You Have*

Review What You Do Have



- ◆ Identify relevant environmental plans & procedures
  - Ex.: Spill prevention plan
  - Ex.: Document control procedure
- ◆ Review organizational structure & environmental responsibilities

11/23/99 Version No. 2 30

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# Introduction to ISO 14001 Implementation

## Slides

*Assessing What You Have*

Determine Resource Needs 

- ◆ Resources depend on:
  - Size & complexity of facility
  - ISO 9001/2 registration
  - Applicable environmental requirements
  - Workloads

11/23/99 Version No. 2 31

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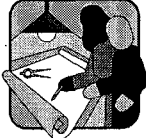
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*Assessing What You Have*

Determine Resource Needs 

- ◆ General assumptions
  - Development & implementation: 10 months
  - Awareness training: 45 min per employee
  - Procedure training: 15 min per procedure & employee

11/23/99 Version No. 2 32

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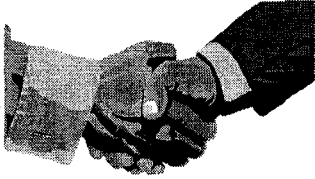
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# Introduction to ISO 14001 Implementation

## Slides

*Management Commitment*



**An Absolute Requirement**

11/23/99 Version No. 2 33

## Notes

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*Management Commitment*

**Management Responsibilities**



- ◆ Selects & supports Environmental Management Representative (EMR)
- ◆ Establishes environmental policy
- ◆ Provides resources to implement and maintain Env. Management System (EMS)
- ◆ Approves & periodically reviews EMS

11/23/99 Version No. 2 34

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# Introduction to ISO 14001 Implementation

## Slides

*Management Commitment*

Management Launch Meeting

- ◆ Provide understanding of benefits, requirements & effort
- ◆ Select an EMR & CFT
- ◆ Establish registration date
- ◆ Document commitment



>Section 2: Launch & Implementation Tools<

11/23/99 Version No. 2 35

## Notes

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*Management Commitment*

Launch Document

- ◆ Management meeting launch guidance
- ◆ Meeting agenda
- ◆ Meeting announcement
- ◆ Commitment memorandum
- ◆ CFT roles & responsibilities



11/23/99 Version No. 2 36

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# Introduction to ISO 14001 Implementation

## Slides

*Management Commitment*

Potential Cross Functional Team Members



- Environmental
- Quality
- Engineering
- Material Handling
- Controller's Office
- Human Resources
- Maintenance
- Training
- Production
- Safety

11/23/99 Version No. 2 37

## Notes

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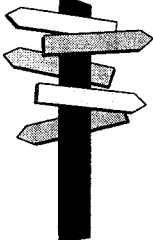
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*Establishing The Approach*



Pick The Right Path

11/23/99 Version No. 2 38

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# Introduction to ISO 14001 Implementation

## Slides

*Establishing The Approach*

- ◆ Obtain management commitment
- ◆ Train Cross Functional Team (CFT) & others on ISO 14001 requirements
- ◆ Establish development & implementation plan
- ◆ Develop & implement EMS
- ◆ Obtain management approval
- ◆ Obtain registration



11/23/99 Version No. 2 39

## Notes

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*Establishing The Approach*

Establish Development & Implementation Plan



- ◆ Develop clear understanding of implementation path
- ◆ Establish realistic implementation schedule

>Section 2: Launch & Implementation Tools<

11/23/99 Version No. 2 40

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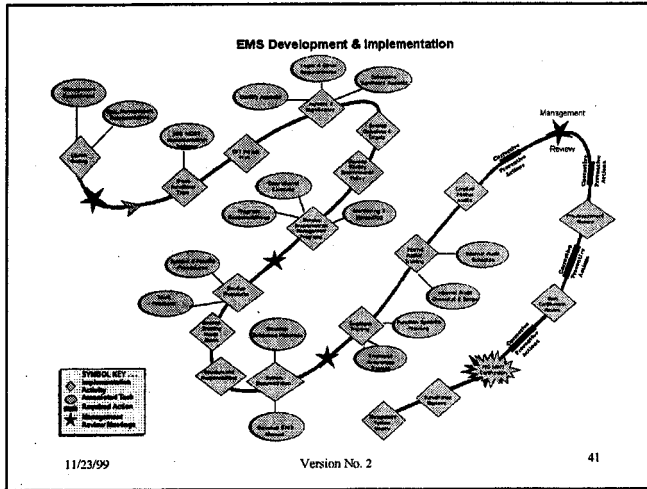
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# Introduction to ISO 14001 Implementation

## Slides



## Notes

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*Establishing The Approach*

**Implementation Schedule**



- ◆ Identify main tasks to be completed and corresponding time frames
- ◆ Determine who's doing what
- ◆ Be consistent with management expectations

11/23/99 Version No. 2 42

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# Introduction to ISO 14001 Implementation

## Slides

*Establishing The Approach*

Develop & Implement System



- ◆ Identify what you already have & use it!
- ◆ Distribute responsibilities among Cross Functional Team (CFT) and others
- ◆ CFT can't do it all!

11/23/99 Version No. 2 43

## Notes

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*Establishing The Approach*

Obtain Management Approval



- ◆ Obtain approvals after completing major development & implementation milestones
- ◆ Document approvals in meeting minutes
- ◆ Obtain final approval of entire system

>Section 2: Launch & Implementation Tools <  
>As Starting Point<

11/23/99 Version No. 2 44

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# Introduction to ISO 14001 Implementation

## Slides

*Establishing The Approach*

Obtain 3rd Party Certification

◆ Certification requires an accredited registrar  
& certification audit



11/23/99 Version No. 2 45

## Notes

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*Planning*



Taking The First Step

11/23/99 Version No. 2 46

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# Introduction to ISO 14001 Implementation

## Slides

*Environmental Aspects*

ISO 14001, 4.3.1 Environmental Aspects



- ♦ Organization responsible for identifying and maintaining aspects
- ♦ Include those under control or influence
- ♦ Used to set environmental objectives
- ♦ Information kept current

11/23/99 Version No. 2 49

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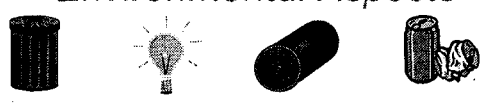
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*Environmental Aspects*



- ♦ General trash
- ♦ Spent aerosol cans
- ♦ Welding fumes
- ♦ Waste paint & solvents
- ♦ Automotive exhaust
- ♦ Paint spray emissions
- ♦ Car wash water
- ♦ Compressed air use
- ♦ Electricity
- ♦ Natural gas
- ♦ Wastewater discharge
- ♦ Storm water runoff
- ♦ Storage tanks
- ♦ Contaminated land

11/23/99 Version No. 2 50

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# Introduction to ISO 14001 Implementation

## Slides

*Environmental Aspects*

- ◆ Aspect types
  - Controlled
  - Influenced
  - Potential
  - Actual
- ◆ Environmental aspect categories
  - Used to organize aspects



11/23/99 Version No. 2 51

## Notes

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*Aspect Categories*



◆ Material use	◆ Wastewater discharges
◆ Air emissions	◆ Solid & liquid waste
◆ Water use	◆ Noise
◆ Energy use	◆ Odor
◆ Stormwater discharges	◆ Natural environment
◆ Storage tanks	◆ Land condition

11/23/99 Version No. 2 52

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# Introduction to ISO 14001 Implementation

## Slides

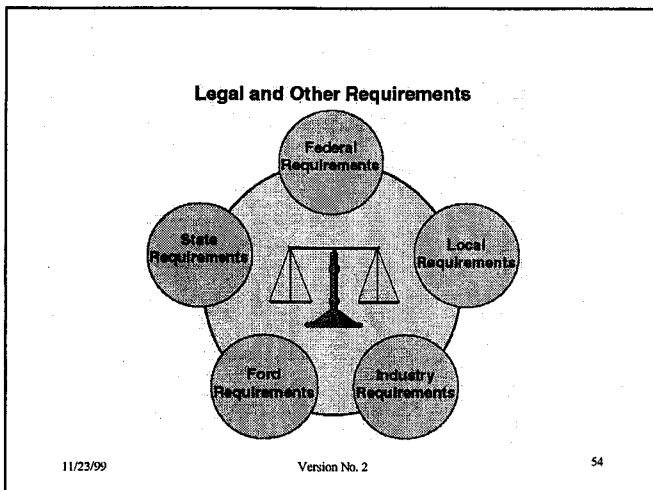
## Notes

*Identifying Aspects*

- ◆ Identify all areas & departments
- ◆ Identify corresponding activities, processes & services
- ◆ Use 2 to 3 people teams (1 from area or dept.)
- ◆ For each aspect category ask:
  - do we have or could we have ...?
- ◆ Record specific aspects



11/23/99 Version No. 2 53



# Introduction to ISO 14001 Implementation


## Slides

## Notes

*Legal & Other Requirements*

ISO 14001, 4.3.2 Legal & Other Requirements

- ◆ Procedure for identifying and accessing legal & other requirements
  - Federal, provincial/state, and local regulations
  - Corporate requirements
  - Industry-specific requirements
- ◆ Applicable to environmental aspects



11/23/99 Version No. 2 55

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*Legal & Other Requirements*

EP-007 Env. Regulations and Other Requirements



- ◆ Env. coordinator maintains access to & list of:
  - Federal, provincial/state & local regulations
  - Other requirements
- ◆ Env. coordinator communicates requirements to applicable areas & departments

>Section 3, Tab C: Legal & Other Requirements<

11/23/99 Version No. 2 56

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# Introduction to ISO 14001 Implementation

## Slides

*Legal & Other Requirements*

EP-009 Agency Approvals



- ◆ Env. coordinator & permit team determines need for environmental permits and develops applications
- ◆ Environmental Management Representative (EMR) communicates with regulatory agencies
- ◆ EMR communicates permit issues with management

11/23/99 Version No. 2 57

## Notes

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**Environmental Legal Requirements**

ASPECT	REQUIREMENT	CITATION/ SOURCE
Material Usage	<b>GENERAL ENVIRONMENTAL REQUIREMENTS</b>	
	Hazardous Substances and Reportable Quantities (CERCLA)	40 CFR Part 302
	Hazardous Chemical Reporting: Community Right To Know (SARA Title III)	40 CFR Part 370
	Toxic Chemical Release Reporting: Community Right To Know (SARA Title III)	40 CFR Part 372

>Section 3, Tab C: Legal & Other Requirements<

11/23/99 Version No. 2 58

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*Significant Aspects*



- ◆ Aspects that can cause a significant change to the environment (significant impact)
- ◆ Change could be negative or positive
  - Example: global warming from CO<sub>2</sub> emissions
  - Example: wetland preservation
- ◆ Only significant aspects are further managed
- ◆ CFT evaluates aspects for significance

11/23/99 Version No. 2 59

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*Significant Aspect Criteria*

EP-002 Environmental Aspects, Objectives ...



- ◆ Regulated (or other requirement)
  - Example: hazardous waste
- ◆ Potential for release
  - Example: propane from storage tank

>Section 3: EMS Template<

11/23/99 Version No. 2 60

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# Introduction to ISO 14001 Implementation


## Slides

## Notes

*Significant Aspect Criteria*

EP-002 Environmental Aspects, Objectives ...

- ♦ Business plan and energy usage
  - Example: natural gas usage
- ♦ Environmental load
  - Example: plastic containers



11/23/99 Version No. 2 61

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*Significant Aspect Criteria*

EP-002 Environmental Aspects, Objectives ...

- ♦ Environmental load
  - Toxicity
  - Restricted substance
  - Amounts (volume & mass of releases, resource consumption)
  - Frequency & severity



11/23/99 Version No. 2 62

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# Introduction to ISO 14001 Implementation


## Slides

## Notes

*Documentation of Aspects*

EP-002 Environmental Aspects, Objectives ...

- ◆ CFT identifies aspects and significant aspects
- ◆ Rationale for significance documented
- ◆ Aspects reviewed every six months
- ◆ Process & facility changes reviewed



11/23/99 Version No. 2 63

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*Objectives & Targets*

ISO 14001, 4.3.3 Objectives and Targets

- ◆ Establish and maintain objectives & targets
- ◆ Must consider:
  - Legal & other requirements
  - Significant env. aspects
  - Technological options
  - Financial, operational & bus.requirements
  - Views of interested parties



11/23/99 Version No. 2 64

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# Introduction to ISO 14001 Implementation

## Slides

*Objective Categories*

EP-002 Environmental Aspects, Objectives ...



- ◆ Objectives & targets established for all significant aspects
- ◆ CFT reviews performance of objectives & targets every 6 months

11/23/99 Version No. 2 65

## Notes

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*Objective Categories*

EP-002 Environmental Aspects, Objectives ...



- ◆ Control/Maintain
  - Maintain existing program
- ◆ Improve
  - Reduce usage
- ◆ Investigate/Study
  - Study the feasibility

11/23/99 Version No. 2 66

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*Objectives & Targets*



- ♦ **Objective-** an environmental goal
  - e.g., Reduce energy
  - e.g., Maintain regulatory compliance
  - e.g., Study material substitution
- ♦ **Target-** amount & when goal will be met
  - e.g., 10%, rate basis, from 1994 by 2002
  - e.g., Ongoing
  - e.g., Complete by Jan. 2001

11/23/99 Version No. 2 67

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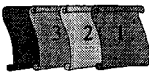
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*Aspects, Objectives & Targets*  
*Example Forms*



- ♦ **Example No. 1**
  - Environmental Aspects
- ♦ **Example No. 2**
  - Environmental Aspects, Objectives & Targets
- ♦ **Example No. 3**
  - Environmental Aspects, Objectives and Targets
- ♦ **Example No. 4**
  - Significant Aspects Summary, Operational Controls

>Section 3, Tab B: Aspects, Objectives & Targets<

11/23/99 Version No. 2 68

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# Introduction to ISO 14001 Implementation

## Slides

*Environmental Policy*

ISO 14001, 4.2 Environmental Policy



- ♦ Appropriate to the nature, scale & environmental impacts of activities, products, or services
- ♦ Commitment to continual improvement & prevention of pollution
- ♦ Commitment to comply with regulations & other requirements

11/23/99 Version No. 2 69

## Notes

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*Environmental Policy*

ISO 14001, 4.2 Environmental Policy



- ♦ Provides the framework for setting & reviewing environmental objectives & targets
- ♦ Documented, implemented and maintained
- ♦ Communicated to all employees
- ♦ Available to the public

11/23/99 Version No. 2 70

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# Introduction to ISO 14001 Implementation

## Slides


*Environmental Policy*

Contents

- ◆ Header with facility name
- ◆ Intro explaining what facility does
- ◆ Inclusion of the 4 commitments & other requirements
- ◆ General objectives established at facility
- ◆ Authorizing signature & date

>Section 3, Tab A: Policy<

11/23/99 Version No. 2 71



## Notes

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*Environmental Management Programs*

ISO 14001, 4.3.4 Env. Management Programs

- ◆ Establish & maintain programs for achieving objectives and targets
- ◆ Identify means, responsibilities and timeframes
- ◆ Review new projects or changes for applicability to existing programs

11/23/99 Version No. 2 72



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# Introduction to ISO 14001 Implementation

## Slides

*Environmental Management Programs*  
*Example Programs*



- ♦ **Example No. 1**
  - Regulatory Compliance Program
- ♦ **Example No. 2**
  - Managed Material Program
- ♦ **Example No. 3**
  - Reduce Energy Program
- ♦ **Example No. 4**
  - Waste Minimization Program

>Section 3, Tab D: Management Programs<

11/23/99 Version No. 2 73

## Notes

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*Environmental Management Programs*

EP-002 Environmental Aspects, Objectives ...

- ♦ EMPs should be created to address:
  - Pollution prevention/Waste minimization
  - Energy management
  - Materials management
  - Compliance assurance



11/23/99 Version No. 2 74

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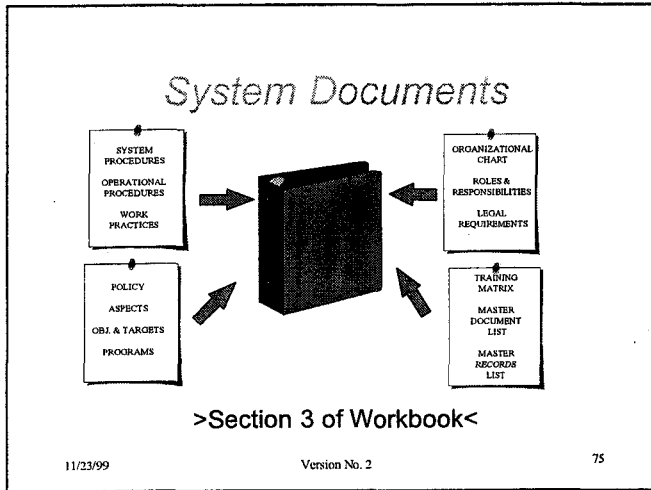
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# Introduction to ISO 14001 Implementation

## Slides



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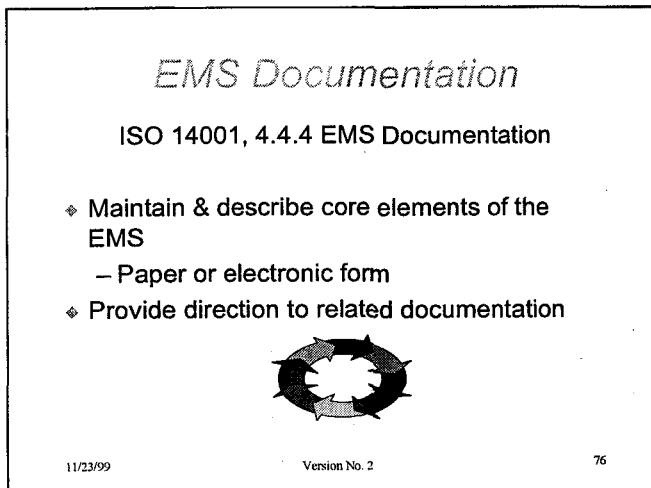
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# Introduction to ISO 14001 Implementation

## Slides

*EMS Documentation*

- ◆ EMS manual
- ◆ Environmental Policy
- ◆ Roles & responsibilities
- ◆ Legal & other requirements
- ◆ Aspects
- ◆ Objectives & targets

- ◆ EMPs
- ◆ Training matrix
- ◆ Procedures & forms
- ◆ Work practices
- ◆ Master document list
- ◆ Master records list
- ◆ References



11/23/99Version No. 277

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*EMS Template - Procedures*

No.	Title	ISO 14001
EP-001	Formatting Environmental Procedures, Work Practices and Forms	N/A
EP-002	Environmental Aspects, Objectives and Targets, and Management Programs	4.3.1 4.3.3 4.3.4
EP-003	Environmental Management System and Regulatory Compliance Audits	4.5.4

11/23/99Version No. 278

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# Introduction to ISO 14001 Implementation

## Slides

<i>EMS Template - Procedures</i>		
No.	Title	ISO 14001
EP-004	Non-Conformance and Corrective and Preventive Action	4.5.2
EP-005	Environmental Management System Management Review	4.6
EP-006	Emergency Preparedness and Response	4.4.7
EP-007	Environmental Regulations and Other Requirements	4.3.2
11/23/99 Version No. 2 79		

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<i>EMS Template - Procedures</i>		
No.	Title	ISO 14001
EP-008	Environmental Review of Projects	4.3.1
EP-009	Agency Approvals	4.4.6
EP-010	Environmental Communication	4.4.3
EP-011	Contractor Control	4.4.6
11/23/99 Version No. 2 80		

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*EMS Template - Procedures*

No.	Title	ISO 14001
EP-012	Environmental Document Control	4.4.5
EP-013	Environmental Records	4.5.3
EP-014	Environmental Training and Awareness	4.4.2
EP-015	Monitoring and Measurement	4.5.1

11/23/99 Version No. 2 81

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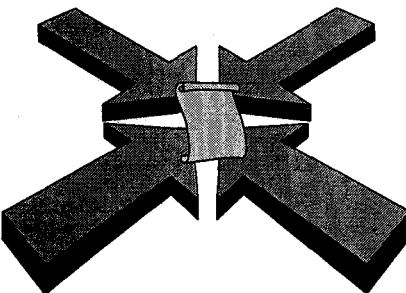
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*Master Document List*



>Section 3, Tab G: Master Document List<

11/23/99 Version No. 2 82

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# Introduction to ISO 14001 Implementation

## Slides

*Document Control*

**Document Control Ensures  
That Only Approved  
Documents Are Available For  
Use**



11/23/99 Version No. 2 83

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*Document Control*

ISO 14001, 4.4.5 Document Control

- ◆ Develop procedure to control documents
  - Can be located
  - Reviewed, revised, & approved
  - Current versions available
  - Obsolete documents properly handled
  - Legible, dated, identifiable, and maintained



11/23/99 Version No. 2 84

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*Document Control*

EP-012 Environmental Document Control



- ◆ EMR or designee maintains master documents & issues controlled copies
- ◆ CFT reviews & approves changes to EMS documents
- ◆ Documents marked "Controlled Document"
- ◆ Documents available where needed

11/23/99 Version No. 2 85

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*Records*

ISO 14001, 4.5.3 Records



- ◆ Procedure for records management
- ◆ Records must be legible, identifiable, & traceable to the activity, product, or service
- ◆ Protected against damage, deterioration, or loss
- ◆ Retained for a specified period

11/23/99 Version No. 2 86

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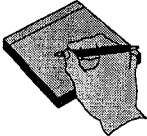
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# Introduction to ISO 14001 Implementation

## Slides

*Records*

EP-013 Environmental Records



- ◆ Records retained as specified in Index of Environmental Records
- ◆ Retention consistent with legal & other requirements
- ◆ Responsible personnel access master list of records relevant to their area or department

11/23/99 Version No. 2 87

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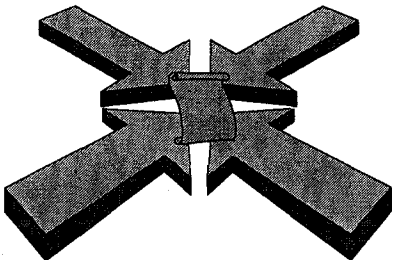
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*Index of Environmental  
Records*



>Section 3, Tab H: Master Records List<

11/23/99 Version No. 2 88

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# Introduction to ISO 14001 Implementation

## Slides


## Notes

*Structure & Responsibility*  
ISO 14001, 4.4.1 Structure & Responsibility

- ♦ Define roles, responsibilities & authorities
- ♦ Provide adequate resources
  - Human resources, specialized skills, technology & financial resources
- ♦ Appoint EMR

*>Section 3, Tab E: Structure & Responsibilities<*

11/23/99 Version No. 2 89



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*Operational Controls*  
ISO 14001, 4.4.6 Operational Controls

- ♦ Identify operations & activities associated with significant aspects
- ♦ Procedure needed where absence could lead to deviations from policy, objectives & targets
- ♦ Communicate procedures to contractors where applicable

11/23/99 Version No. 2 90



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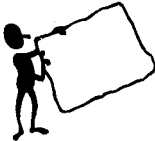
# Introduction to ISO 14001 Implementation

## Slides

*Operational Controls*

Types of Operational Controls

- ◆ Operational procedures
- ◆ Work practices
- ◆ EMPs
- ◆ Permits/Legal & other requirements
- ◆ Visual aids
- ◆ Manuals & plans



11/23/99 Version No. 2 91

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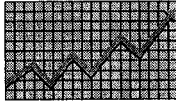
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*Monitoring & Measurement*

ISO 14001, 4.5.1 Monitoring & Measurement

- ◆ Procedure(s) to monitor & measure key characteristics of processes & activities
- ◆ Record information to track performance
- ◆ Calibration procedures
- ◆ Procedure for regulatory compliance audits



11/23/99 Version No. 2 92

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# Introduction to ISO 14001 Implementation

## Slides


## Notes

*Monitoring & Measurement*

ISO 14001, 4.5.1 Monitoring & Measurement

♦ Key characteristics associated with significant aspects

- volumes (e.g., gallons of spent paint)
- weights (e.g., tons of metal scrap)
- rates (e.g., number of car repairs per day)



11/23/99 Version No. 2 93

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*Monitoring & Measurement*

EP-015 Monitoring & Measurement

♦ Internal audits monitor conformance to objectives & targets

♦ Environmental performance monitored per Env. Management Programs (EMPs)

♦ Operational controls monitored per EMPs, procedures, work practices & visual aids



11/23/99 Version No. 2 94

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

### *Monitoring & Measurement*

#### EP-015 Monitoring & Measurement



- ❖ Calibrate per manufacture's recommendations or at least annually
- ❖ Calibration & maintenance addressed in maintenance program or work practices
- ❖ Area/Department list of equipment to be calibrated & frequency

11/23/99

Version No. 2

95

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### *Training*

#### ISO 14001, 4.4.2 Training, Awareness & Competence



- ❖ Identify training needs
- ❖ Establish training procedures
  - Importance of conformance
  - Consequences of departure from procedures
- ❖ Personnel competent by education, training, and/or experience

11/23/99

Version No. 2

96

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*Training*

EP-014 Environmental Training and Awareness



- ◆ Training department completes Training Needs Analysis (TNA) and training schedule, reviews at least annually and revises as necessary
- ◆ Permanent on-site contractors included in training program
- ◆ Training records maintained by Training dept.

11/23/99      Version No. 2      97

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*Training*

Training Needs Matrix



- ◆ Environmental Courses
- ◆ Procedures and Work Instructions by Area / Department

>Section 3, Tab F: Training Matrix<

11/23/99      Version No. 2      98

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# Introduction to ISO 14001 Implementation

## Slides

*Communications*

ISO 14001, 4.4.3 Communications

- ◆ Procedure for internal and external communications
- ◆ Between various levels and functions
- ◆ Document & respond to external communications (e.g., requests for info)
- ◆ Record decision for external communication of significant aspects



11/23/99 Version No. 2 99

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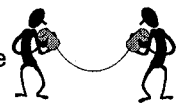
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*Communications*

EP-010 Environmental Communication

- ◆ CFT communicates employee concerns to management
- ◆ Area/Dept. managers communicate legal & other changes to employees
- ◆ HR Manager and EMR involved in external communication with interested parties
- ◆ Communications documented



11/23/99 Version No. 2 100

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*Emergency Preparedness & Response*

ISO 14001, 4.4.7 Emergency Prep. & Response



- ◆ Procedure(s) to identify potential & respond to accidents & emergencies
- ◆ Focus on prevention & mitigation
- ◆ Process for review and modification
- ◆ Periodically test procedures, where needed

11/23/99 Version No. 2 101

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*Emergency Preparedness & Response*

EP-006 Emergency Prep. & Response



- ◆ CFT identifies potential incidents semi-annually
- ◆ Emergency Response Coordinator develops and maintains emergency response methods
- ◆ Methods tested at least annually

11/23/99 Version No. 2 102

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

### *Emergency Preparedness & Response*

#### EP-006 Emergency Prep. & Response

- ◆ Response activities conducted within bounds of training, procedures and regulatory expectations
- ◆ Corrective & preventative actions initiated following incidents & emergencies



11/23/99

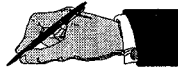
Version No. 2

103

### *Env. Review of Projects*

#### EP-008 Env. Review of Projects

- ◆ Initiating Activity completes Env. Checklist with appropriation request
- ◆ EMR reviews request & checklist
- ◆ EMR or designee identifies aspects
- ◆ Environmental issues resolved with Initiating Activity



11/23/99

Version No. 2

104

# Introduction to ISO 14001 Implementation

## Slides

## Notes

### *Contractor Control*

#### EP-011 Contractor Control



- ◆ Facility provides information to contractors to ensure awareness of EMS
- ◆ Contractors submit Method Statements to Initiating Activity prior to working on-site
- ◆ Contractors conform to EMS requirements, ensure staff awareness & maintain records

11/23/99

Version No. 2

105

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### *EMS Audits*

#### ISO 14001, 4.5.4 EMS Audits



- ◆ Procedure to determine conformance to ISO 14001 requirements & planned arrangements
- ◆ Audits prove conformance
- ◆ Results reported to management
- ◆ Audit schedule based on importance & results of previous audits

11/23/99

Version No. 2

106

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# Introduction to ISO 14001 Implementation


## Slides

## Notes

*EMS Audits*

Types of Audits

- ◆ 1st Party - Conducted by facility staff
- ◆ 2nd Party - Conducted by personnel not associated with facility (e.g., corporate staff, consultant)
- ◆ 3rd Party - Conducted by registrar or regulatory authority



11/23/99 Version No. 2 107

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*EMS Audits*

EP-003 EMS & Regulatory Compliance Audits

- ◆ Quality Manager responsible for EMS audits
- ◆ Audit team independent of area being audited
- ◆ EMR responsible for compliance audits
- ◆ Nonconformances recorded on Corrective and Preventative Action Requests (CARs)
- ◆ Open CARs reported to management

11/23/99 Version No. 2 108

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*Nonconformance & Corrective  
And Preventive Action*

ISO 14001, 4.5.2 Nonconformance and  
Corrective and Preventive Action



- ◆ Procedure for handling  
& investigating nonconformances
- ◆ Mitigate impacts and correct & prevent  
problems
- ◆ Modify procedures, as applicable

11/23/99 Version No. 2 109

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*Nonconformance & Corrective  
And Preventive Action*

EP-004 Nonconformance and Corrective ...



- ◆ Response to nonconformances  
and noncompliances:
  - ID root cause
  - Determine corrective & preventative actions
  - Implement actions & verify effectiveness

11/23/99 Version No. 2 110

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

### *Nonconformance & Corrective And Preventive Action*

EP-004 Nonconformance and Corrective ...



- ◆ Nonconformances and noncompliances identified outside audit process
- ◆ Quality Manager creates Corrective and Preventative Action Requests (CARs) for nonconformances, as appropriate
- ◆ EMR creates CARs for noncompliances

11/23/99

Version No. 2

111

### *Management Review*

ISO 14001, 4.6 Management Review

- ◆ Top management (i.e., facility/plant management) reviews suitability of EMS at defined intervals
- ◆ Comprehensive & documented review
- ◆ Assess the need for changes to EMS in-line with commitment to continual improvement



11/23/99


Version No. 2

112

# Introduction to ISO 14001 Implementation

## Slides

*Management Review*



EP-005 EMS Management Review

- ♦ Management reviews EMS annually
- ♦ EMR reports on EMS performance
- ♦ Corrective actions assigned to responsible managers
- ♦ Meeting records maintained by EMR

11/23/99 Version No. 2 113

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*Registration Process*

- ♦ Certification Audit
  - Pre-assessment review
  - Main audit
- ♦ Surveillance audits
- ♦ Re-certification audit



11/23/99 Version No. 2 114

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*Registration Process*

Certification Audit



- ◆ Main audit
  - Major & minor nonconformances
- ◆ Auditors recommend, Registrar decides
- ◆ Certificate of registration good for 3 years - maybe

11/23/99 Version No. 2 115

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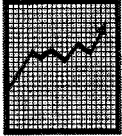
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*Registration Process*

Surveillance Audits



- ◆ At least annually
- ◆ Proof of continual EMS improvement
- ◆ Look for systemic problems
- ◆ Major nonconformance could effect re-certification

11/23/99 Version No. 2 116

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# Introduction to ISO 14001 Implementation

## Slides

## Notes

*Registration Process*

Re-Certification Audits



- ◆ Every three years by Registrar's auditors
- ◆ Same approach as Certification Audit

11/23/99 Version No. 2 117

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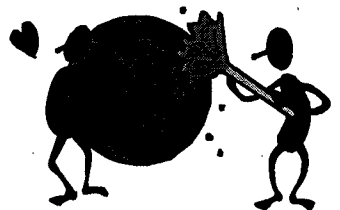
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Protecting the Environment is  
Everyone's Job,  
And So Is Maintaining the EMS!



11/23/99 Version No. 2 118

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## **SECTION 2**

### **LAUNCH AND IMPLEMENTATION TOOLS**

This section of the workbook contains documents useful in launching ISO 14001 activities. In particular the following documents are included:

- Launch Guidance Document
- EMS Development & Implementation Flowchart
- EMS Development & Implementation Schedule
- EMS Management Review Meeting forms

The Launch Guidance Document provides information and tools to those responsible for obtaining management commitment at the facility level to implement ISO 14001. Prior knowledge of ISO 14001 requirements by those using this document is assumed.

The EMS Development & Implementation Flowchart and Schedule are complementary documents that can be used to describe the path for implementing ISO 14001 and the main activities necessary for successful implementation. The schedule assumes a ten (10) month period to develop & implement ISO 14001 prior to registration.

The EMS Management Review Meeting forms are templates that can be used by facility management to periodically review development & implementation activities prior to registration. It is important that all management review meetings be documented to demonstrate management involvement in the system.





# **ISO 14001 Environmental Management System**

## **Launch Guidance Document**

This document pertains to those responsible for obtaining management commitment to implement an ISO 14001-based environmental management system



## **Table of Contents**

- 1. Management meeting launch guidance**
- 2. Management review meeting generic agenda**
- 3. Management meeting announcement**
- 4. Sample memorandum on the implementation of a new environmental management system based on ISO 14001**
- 5. Sample Cross Functional Team roles and responsibilities**



## **Management Meeting Launch Guidance**

- Meeting will be conducted by those responsible for obtaining management commitment to implement an ISO 14001-based system
- Schedule meeting when all members of the Management Team can attend, especially the Facility/Plant Manager
- Coordinate meeting so that appropriate Corporate and Division representatives can attend
- Schedule meeting for at least one hour to allow sufficient time to cover all the material

### **Scheduling**

- Review Management Team schedule's to ensure full attendance
- Distribute meeting announcement if necessary (see attached)

### **Meeting Room Setup**

- Overhead projector
- Podium and microphone if required or available
- Flip chart and markers

### **Meeting Material - presentation material provided by presenters**

- Power point presentation materials
- Environmental management system development & implementation flowchart
- Management review meeting #1 agenda
- Draft commitment memorandum



## ***Facility/Plant Name* Environmental Management System Management Review Meeting #1**

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

Location: \_\_\_\_\_

Attendees: See sign-in sheet

<u>Agenda Topics</u>	<u>Time</u>	<u>Responsibility</u>
1. Introduce ISO 14001 Elements and Management Responsibilities		
2. Review Development & Implementation Flowchart		
3. Designate Environmental Management Representative & establish Cross Functional Team (CFT)		
4. Review Draft Commitment Memorandum		

<u>Agenda Topics</u>	<u>Discussion Topic</u>	<u>Required Documentation</u>
1. Introduce ISO 14001 Elements and Management Responsibilities	<ul style="list-style-type: none"> <li>• ISO 14001 background including similarities to ISO 9001/2 &amp; QS 9000</li> <li>• Review presentation overheads &amp; explain management responsibilities</li> </ul>	<ul style="list-style-type: none"> <li>• Attendance sign-in sheet</li> </ul>
2. Review Development & Implementation Flowchart	<ul style="list-style-type: none"> <li>• Discuss the implementation strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Meeting minutes reflecting endorsement of implementation plan</li> </ul>
3. Designate Environmental Management Representative & Establish Cross Functional Team (CFT)	<ul style="list-style-type: none"> <li>• Roles &amp; responsibilities of environmental management representative</li> <li>• Selection of EMR</li> </ul>	<ul style="list-style-type: none"> <li>• Meeting minutes identifying EMR</li> </ul>
4. Review Draft Commitment Memorandum	<ul style="list-style-type: none"> <li>• Issuance of memorandum from facility/plant manager committing implementation of ISO 14001 and announcing EMR</li> </ul>	<ul style="list-style-type: none"> <li>• Signed memorandum</li> </ul>





## Meeting Announcement

Attendance List : *(list names of attendees)*  
Meeting date and time: *(identify date and time of meeting)*

### Announcement

A Management Team meeting has been scheduled to review and discuss the ISO 14001 Environmental Management System standard, and to obtain your commitment for implementing this system. ISO 14001 is a voluntary international standard that will help establish a common environmental baseline across all our facilities. It will also help improve our overall environmental performance, thus assuring a safe environment for our children and future generations.

### Meeting Agenda

1. Introduce ISO 14001 Elements and Management Responsibilities
2. Review Development & Implementation Flowchart
3. Designate Environmental Management Representative & Establish Cross Functional Team
4. Review Draft Commitment Memorandum



## Memorandum

Date: (Date)

To: (Facility/Plant Management)

From: (Facility/Plant Manager Name)

Subject: Implementation of a New Environmental Management System Based on ISO 14001

Over the next several months the (Facility/Plant Name) will be implementing a new Environmental Management System (EMS) based on the ISO 14001 international environmental standard. The fundamental goal of this voluntary international standard is continual improvement in our environmental performance as measured by the types and amounts of wastes and discharges we create. This increased environmental stewardship will help ensure a safe environment for our children and future generations.

In order to support this new initiative, I am designating (named individual) as the Environmental Management Representative for the (Facility/Plant Name). In this capacity, (named individual) will be responsible for coordinating the actions needed to meet the environmental requirements of the ISO 14001 standard, as well as those of the company. (named individual) will also periodically report implementation progress to Plant Management.

To ensure adequate resources for developing and implementing the new EMS, I have asked (named individual) to assemble and direct a standing cross-functional team. This team will have representatives from most plant functions and activities. Team responsibilities may include evaluating current systems and documents for potential inclusion in the EMS, developing an environmental policy, identifying wastes and discharges associated with our operations and determining appropriate tracking metrics, assuring that regulatory compliance requirements are met, and, in general, creating all required system documents and processes.

We will be obtaining certification to the ISO 14001 standard by an independent, accredited Registrar. I would like our new EMS be fully implemented in sufficient time to allow the certification process to begin by (Date). I, therefore, request your full support in attaining this goal.



## **CROSS FUNCTIONAL TEAM**

### **Roles & Responsibilities**

#### **Team Membership**

The Cross Functional Team (CFT) should include representation from most functional and process/work areas. In addition to the Environmental Management Representative, typical representation may include:

- Production
- Maintenance
- Human Resources
- Safety
- Engineering
- Material Handling
- Quality
- Controller's Office
- Environmental Engineers
- Training

#### **Environmental Management Representative Roles & Responsibilities**

The Environmental Management Representative is a member of the Management Team and has the primary direct responsibility and authority to develop and implement the Environmental Management System, including managing the overall project, reporting progress to the facility manager, scheduling periodic reviews by the Management Team and chairing the Cross Functional Team.

#### **Team Member Roles & Responsibilities**

CFT members must be motivated and willing to undertake the responsibilities, time commitment and opportunities involved in developing and implementing the EMS at the facility. They should also have access to their respective Area or Department Manager to assure that:

- area/department environmental aspects are identified,
- objectives and targets are consistent area/department goals,
- area/department procedures and work instructions are complete, accurate and implemented, and
- employee awareness and job specific training are completed

Due to the linkages between ISO 14001 and ISO 9001/2 including Document Control, Records, Structure and Responsibility, Management Review, Internal Audits, etc., it is strongly recommended that the Cross Functional Team include representation from the Quality Department as well as others closely involved in the development and implementation of the ISO 9001/2 system.

The Cross Functional Team will have responsibility for EMS development including:



- Developing a facility specific environmental policy
- Identifying environmental aspects
- Evaluating aspect significance
- Developing objectives and targets
- Creating environmental management programs
- Detailing operational control requirements
- Directing training resources
- Implementing an internal auditing system

The Cross Functional Team will also be the primary ISO 14001 communications link to area and department personnel. CFT members will need support from areas and departments in developing procedures and work instructions, maintaining documents and records, and training all facility employees.

There will be frequent CFT meetings of 1-3 hour's duration and assignment of responsibilities between meetings, continuing until the certification audit. The CFT is to document its meetings with agendas, attendance sign-in lists and minutes indicating decisions and recommendations concerning environmental management system development and implementation.

### **Typical Area/Department Activities and Assignments**

#### **Facility/Plant Manager**

- Overall responsibility for development and implementation of the environmental management system.
- Allocation of resources for implementation and training.

#### **Controller's Office**

- Assure financial considerations are addressed in preparing projects, in reviewing projects, and planning.

#### **Department/Area Manufacturing Areas**

- Develop and implement area specific procedures and/or work instructions to minimize environmental releases and comply with regulatory requirements.
- Develop procedures and/or work instructions for start-up, shut-down and other non-routine operating conditions.
- Support resource availability for awareness training and job specific training.





## **Materials Handling**

- Develop and implement procedures and/or work instructions to reduce the risk of spills or releases to the environment.
- Develop and implement internal waste management procedures and/or work instructions.

## **Employee Relations/Human Resources -- Training, Security & Safety**

- Develop training needs analyses and plans.
- Implement employee awareness and job specific training.
- Maintain environmental training records.
- Coordinate development and implementation of emergency procedures including procedures to control spills and releases.

## **Maintenance Operations**

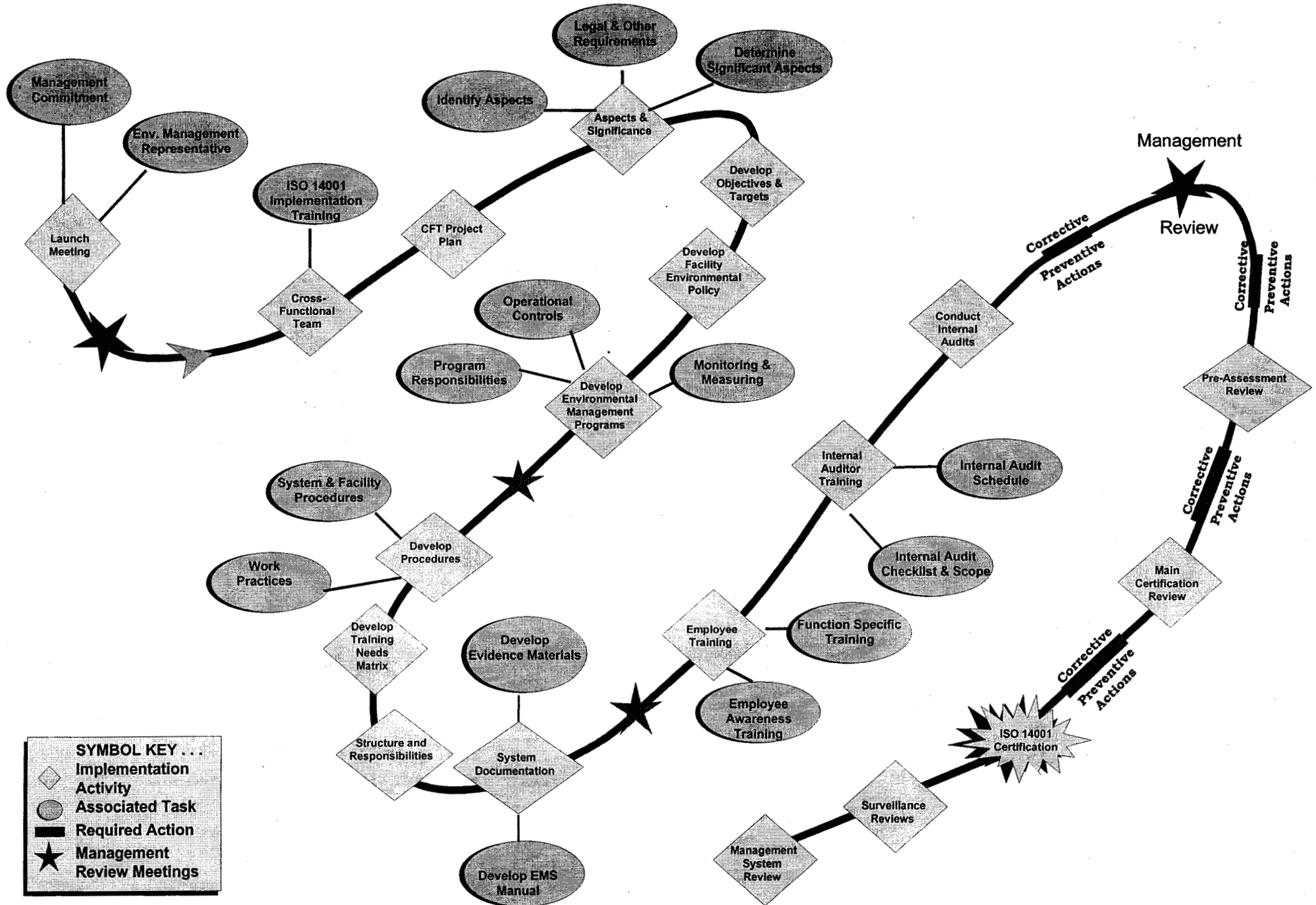
- Develop and implement procedures and/or work instructions to assure proper calibration of control and monitoring instrumentation.
- Develop and implement procedures and/or work instructions to maintain environmental control equipment.

## **Engineering/Environmental Coordinator**

- Assure technological and technical options reviewed and considered in establishing objectives and targets.
- Develop and implement procedures and/or work instructions to assure that necessary permit, license and other regulatory approvals are identified during project development.
- Facilitate CFT meetings on behalf of EMR when appropriate.
- Manage and maintain facility compliance assurance program.

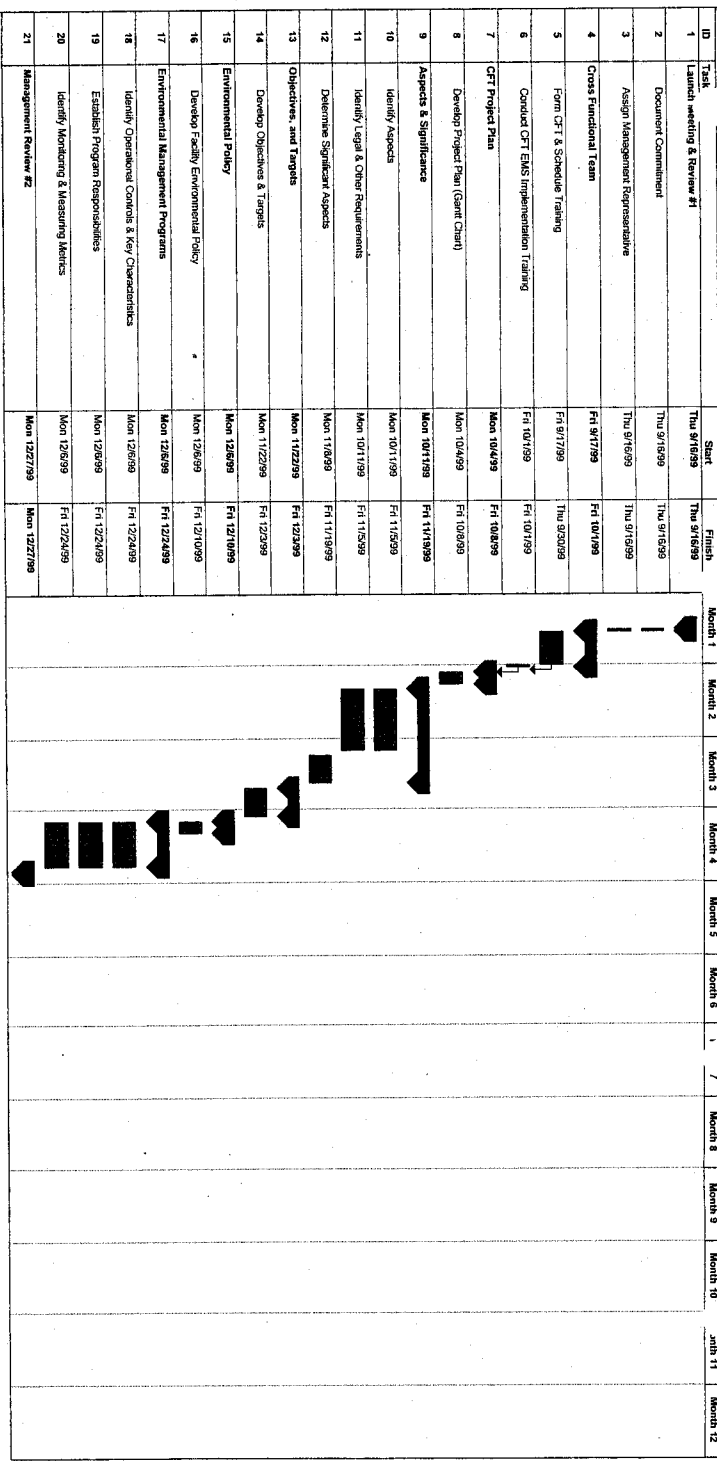


# Environmental Management System.. Development & Implementation





# Environmental Management System Development & Implementation Schedule















Task	Milestone	Summary	Rollup Task	Rollup Critical Task	Rollup Milestone	Rollup Progress	External Tasks	Project Summary	Rollup Spk
Critical Task									
Progress									

Supplier Implementation Schedule.mpp



# Environmental Management System Development & Implementation Schedule

ID	Task	Start	Finish	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
22	Review & Accept Work Products	Mon 12/27/99	Mon 12/27/99												
23	Develop Procedures	Mon 12/27/99	Fri 2/11/00												
24	Develop System and Facility Procedures	Mon 12/27/99	Fri 1/28/00												
25	Develop Work Practices	Mon 12/27/99	Fri 2/11/00												
26	Develop Training Needs Matrix	Mon 1/24/00	Fri 2/11/00												
27	Document Required Training	Mon 1/24/00	Fri 2/11/00												
28	Structure & Responsibility	Mon 1/24/00	Fri 2/11/00												
29	Develop Structure and Responsibilities Document	Mon 1/24/00	Fri 2/11/00												
30	Develop Organization Chart	Mon 2/7/00	Fri 2/11/00												
31	System Documentation	Mon 2/14/00	Fri 3/10/00												
32	Develop EMS Manual	Mon 2/14/00	Fri 2/25/00												
33	Develop Evidence Materials	Mon 2/14/00	Fri 3/10/00												
34	Management Review #3	Mon 3/13/00	Mon 3/13/00												
35	Review & Accept Work Products	Mon 3/13/00	Mon 3/13/00												
36	Internal Auditor Training	Mon 3/13/00	Wed 3/15/00												
37	Internal Auditor Training	Mon 3/13/00	Wed 3/15/00												
38	Employee Training	Mon 3/20/00	Fri 5/5/00												
39	Train Trainers on EMS Awareness & Procedures	Mon 3/20/00	Fri 3/24/00												
40	Trainers Conduct Awareness & Procedure Training	Mon 3/27/00	Fri 5/5/00												
41	Internal Auditing	Thu 3/16/00	Fri 5/26/00												
42	Develop Internal Audit Schedule & Audit Checklists	Thu 3/16/00	Wed 4/12/00												

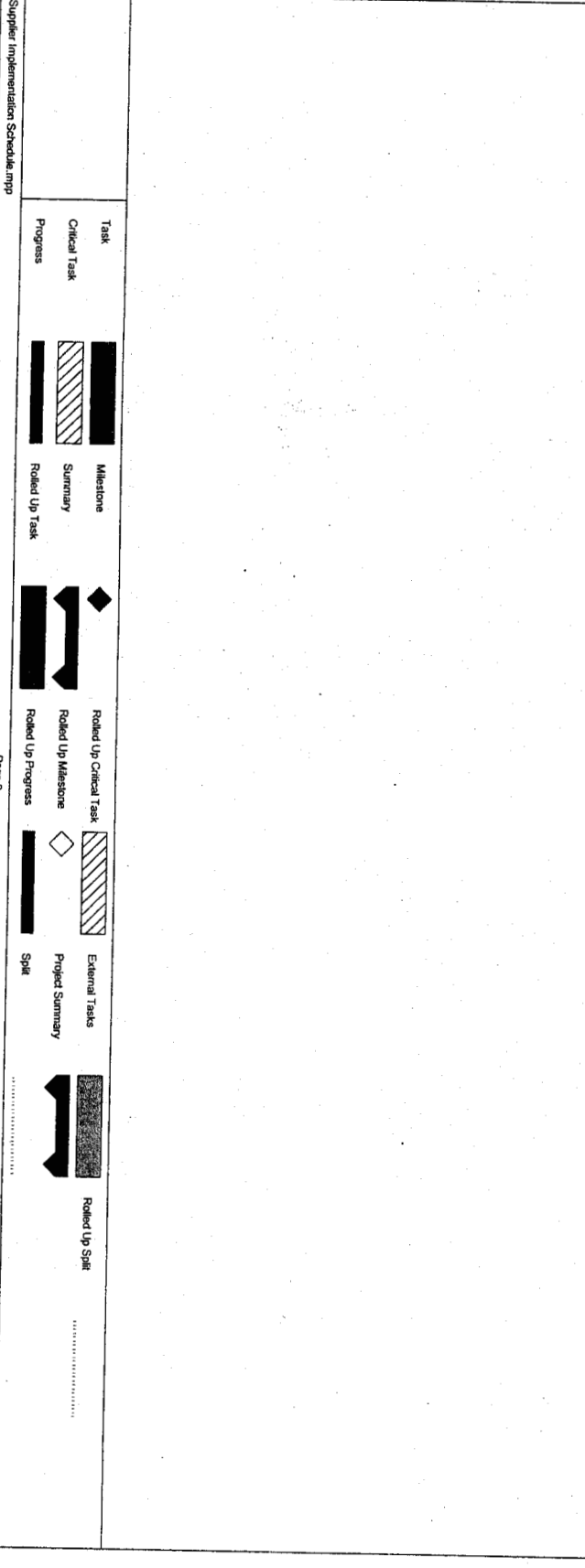
Task		Milestone		Rolled Up Critical Task		External Tasks		Rolled Up Split	
Critical Task		Summary		Rolled Up Milestone		Project Summary			
Progress		Rolled Up Task		Rolled Up Progress		Split			





# Environmental Management System Development & Implementation Schedule

ID	Task	Start	Finish	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
43	Conduct Internal Audits	Mon 4/17/00	Fri 5/12/00												
44	Address Non-Conformances	Mon 5/1/00	Fri 5/25/00												
45	Management Review #4	Mon 5/5/00	Mon 5/5/00												
46	Review & Approve EMS	Mon 6/5/00	Mon 6/5/00												
47	ISO 14001 Certification	Mon 6/19/00	Fri 7/21/00												
48	Pre-Assessment Review	Mon 6/19/00	Wed 6/21/00												
49	Main Certification Review	Mon 7/17/00	Fri 7/21/00												
50	ISO 14001 Certification	Thu 8/17/00	Thu 8/17/00												





# Facility/Plant Name Environmental Management System Management Review Meeting #2

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

Location: \_\_\_\_\_

Attendees: See sign-in sheet

<u>Agenda Topics:</u>	<u>Time</u>	<u>Responsibility</u>
1. Cross Functional Team Training		
2. Environmental Aspects		
3. Significant Aspects		
4. Objectives & Targets		
5. Environmental Policy		
6. Environmental Management Programs		

<u>Agenda Topics</u>	<u>Discussion Topic</u>	<u>Required Documentation</u>
1. Cross Functional Team Training	<ul style="list-style-type: none"> <li>• Status of CFT training</li> <li>• Agreement on roles &amp; responsibilities for development &amp; implementation of EMS</li> </ul>	<ul style="list-style-type: none"> <li>• Meeting minutes reflect current status of training</li> <li>• Meeting minutes reflect agreement for roles and responsibilities for development &amp; implementation</li> </ul>
2. Environmental Aspects	<ul style="list-style-type: none"> <li>• Review aspects identified for the facility</li> </ul>	<ul style="list-style-type: none"> <li>• Meeting minutes reflect concurrence by management of the identified aspects</li> </ul>
3. Significant Aspects	<ul style="list-style-type: none"> <li>• Review significant aspects and rationale for decision</li> <li>• Discuss external communications for significant environmental aspects</li> </ul>	<ul style="list-style-type: none"> <li>• Meeting minutes reflect concurrence by management of identified significant aspects</li> <li>• Meeting minutes reflect decision by management on external communication of significant aspects</li> </ul>
4. Objectives & Targets	<ul style="list-style-type: none"> <li>• Review objectives &amp; targets for significant aspects that have been identified</li> </ul>	<ul style="list-style-type: none"> <li>• Meeting minutes reflect concurrence by management of identified objectives &amp; targets</li> <li>• Meeting minutes reflect a commitment of resources (human and economic) by management to meet objectives by the targeted dates</li> </ul>
5. Environmental Policy	<ul style="list-style-type: none"> <li>• Review environmental policy</li> </ul>	<ul style="list-style-type: none"> <li>• Meeting minutes reflect policy approval</li> </ul>
6. Environmental Management Programs	<ul style="list-style-type: none"> <li>• Review programs to ensure linkage with objectives &amp; targets</li> </ul>	<ul style="list-style-type: none"> <li>• Meeting minutes reflect approval of programs and corresponding resources &amp; time frames</li> </ul>



*Facility/Plant Name* Environmental Management System  
Management Review Meeting #3

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

Location: \_\_\_\_\_

Attendees: See sign-in sheet

<u>Agenda Topics</u>	<u>Time</u>	<u>Responsibility</u>
1. Facility Procedures		
2. Work Practices		
3. Training Needs Analysis		
4. Roles & Responsibilities		
5. System Documentation		

<u>Agenda Topic</u>	<u>Discussion Topic</u>	<u>Required Documentation</u>
1. Facility Procedures	<ul style="list-style-type: none"><li>Review that system procedures have been developed to conform to ISO 14001</li></ul>	<ul style="list-style-type: none"><li>Meeting minutes reflect that management has concurred on the development of system procedures</li></ul>
2. Work Practices	<ul style="list-style-type: none"><li>Review that work practices have been developed for specific activities or processes</li></ul>	<ul style="list-style-type: none"><li>Meeting minutes reflect that management has concurred on the development of work practices</li></ul>
3. Training Needs Analysis	<ul style="list-style-type: none"><li>Review training requirements for individuals whose job functions affect the operation of the EMS</li></ul>	<ul style="list-style-type: none"><li>Meeting minutes reflect management concurrence with training needs analysis</li></ul>
4. Roles & Responsibilities	<ul style="list-style-type: none"><li>Review roles &amp; responsibilities of those required to maintain and improve the system</li></ul>	<ul style="list-style-type: none"><li>Meeting minutes reflect management concurrence</li></ul>
5. System Documentation	<ul style="list-style-type: none"><li>Review EMS manual to verify system documents linked to ISO 14001 elements</li></ul>	<ul style="list-style-type: none"><li>Meeting minutes reflect management's approval of EMS manual</li></ul>



*Facility/Plant Name* Environmental Management System  
Management Review Meeting #4

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

Location: \_\_\_\_\_

Attendees: See sign-in sheet

<u>Agenda Topics</u>	<u>Time</u>	<u>Responsibility</u>
1. System Training		
2. Internal Audits		
3. Corrective and Preventive Actions		
4. System Management Review		

<u>Agenda Topics</u>	<u>Discussion Topic</u>	<u>Required Documentation</u>
1. System Training	<ul style="list-style-type: none"><li>• Status of employee awareness training</li><li>• Status of procedure/work practice training</li><li>• Status of internal auditor training</li></ul>	<ul style="list-style-type: none"><li>• Meeting minutes reflect current status of training</li></ul>
2. Internal auditing	<ul style="list-style-type: none"><li>• Review internal audit schedule</li><li>• Status of internal audit observations</li></ul>	<ul style="list-style-type: none"><li>• Meeting minutes reflect current status of internal audits</li></ul>
3. Corrective and Preventive Actions	<ul style="list-style-type: none"><li>• Status report on corrective and preventive action plans</li></ul>	<ul style="list-style-type: none"><li>• Meeting minutes reflect concurrence by management on corrective and preventive action plans</li></ul>
4. System Management Review	<ul style="list-style-type: none"><li>• Review total status of Environmental Management System to ensure continuing suitability, adequacy and effectiveness</li></ul>	<ul style="list-style-type: none"><li>• Meeting minutes reflect details of environmental management system review and materials or information presented</li></ul>





## SECTION 3

### EMS TEMPLATE

This section of the workbook contains the Environmental Management System (EMS) Template. The EMS Template serves the following purposes:

- As a learning aid in "visualizing" ISO 14001 required documents
- As a tool to help "jump start" your development and implementation activities
- As a system manual that fulfills the requirements of ISO 14001, element 4.4.4 Documentation
- As a means for identifying the approach used by various Ford Motor Company facilities

As you review this EMS Template please keep in mind that it must be modified to fit the circumstances of your particular organization. ***It is also important to note that the use of this EMS Template does not, in itself, guarantee ISO 14001 registration.*** Registration is based on conformance to ISO 14001 Standard, as well as conformance to the documents that comprise your EMS. This EMS Template helps you meet many of the requirements of ISO 14001, but it does not ensure the adequate implementation of the documents you create.



*Facility/Plant Name*

**ENVIRONMENTAL MANAGEMENT  
SYSTEM MANUAL**

**Date**



## TABLE OF CONTENTS

1.0	PURPOSE.....	1
2.0	SCOPE.....	1
3.0	ISSUE AND UPDATE.....	1
4.0	ENVIRONMENTAL POLICY .....	2
5.0	ENVIRONMENTAL ASPECTS.....	2
6.0	LEGAL AND OTHER REQUIREMENTS.....	2
7.0	ENVIRONMENTAL OBJECTIVES AND TARGETS.....	3
8.0	ENVIRONMENTAL MANAGEMENT PROGRAMS .....	3
9.0	ORGANIZATIONAL STRUCTURE AND RESPONSIBILITY .....	4
10.0	TRAINING, AWARENESS AND COMPETENCE .....	4
11.0	COMMUNICATION.....	5
12.0	ENVIRONMENTAL MANAGEMENT SYSTEM DOCUMENTATION .....	5
13.0	DOCUMENT CONTROL.....	5
14.0	OPERATIONAL CONTROL.....	5
15.0	EMERGENCY PREPAREDNESS AND RESPONSE.....	6
16.0	MONITORING AND MEASUREMENT.....	6
17.0	NONCONFORMANCE AND CORRECTIVE AND PREVENTIVE ACTION ...	7
18.0	RECORDS.....	7
19.0	ENVIRONMENTAL MANAGEMENT SYSTEM AUDIT .....	7
20.0	MANAGEMENT REVIEW .....	8
21.0	RECORD OF REVISIONS .....	8



## **APPENDICES**

Appendix A	Policy
Appendix B	Aspects, Objectives & Targets
Appendix C	Legal and Other Requirements
Appendix D	Management Programs
Appendix E	Structure and Responsibilities
Appendix F	Training Matrix
Appendix G	Master Document List
Appendix H	Master Records List
Appendix I	Procedures
Appendix J	Work Practices





## 1.0 Purpose

This manual defines the scope of the *Facility/Plant Name's* Environmental Management System (EMS) and provides a linkage of system documents to the various elements of the ISO 14001:1996 standard.

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

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

## 2.0 Scope

The *Facility/Plant Name* EMS provides a mechanism for environmental management throughout all areas and departments. The environmental management system is designed to cover environmental aspects which a facility can control and directly manage, and those it does not control or directly manage but can be expected to have an influence.

## 3.0 Issue and Update

The control of this Manual is in accordance with the *Facility/Plant Name* environmental procedure EP-016 Environmental Document Control. All copies of this Manual not marked "CONTROLLED DOCUMENT" are uncontrolled and should be used for reference purposes only.

Amendments to this manual will be issued by the Environmental Management Representative or designee following approval by the Facility/Plant Manager.



#### **4.0 Environmental Policy**

The *Facility/Plant Name* Environmental Policy (Policy) is endorsed by the Facility/Plant Manager. The policy covers all activities at the facility. The Policy includes a commitment to continual improvement and prevention of pollution, as well as a commitment to meet or exceed relevant environmental legislation, regulations and other requirements. The Policy will be reviewed annually by top management, communicated to all employees and made available to the public in accordance with the Environmental Communication procedure. See Appendix A - Policy for a copy of the *Facility/Plant Name* Environmental Policy.

##### Reference Material

ISO 14001 Standard (4.2)

##### Applicable Procedures

EP-010 Environmental Communication

#### **5.0 Environmental Aspects**

The *Facility/Plant Name* Cross Functional Team (CFT) identifies the environmental aspects which the facility controls and over which it may be expected to have an influence, and determines which of those aspects are considered significant. Discussions regarding significance are recorded in CFT meeting minutes. These aspects are reviewed at least semi-annually by the CFT or when there is a new or changed process or activity at the facility. The Environmental Management Representative maintains CFT minutes and other records. A list of all aspects by area and department is included in Appendix B - Aspects, Objectives & Targets.

##### Reference Material

ISO 14001 Standard (4.3.1)

##### Applicable Procedures

EP-002 Environmental Aspects, Objectives and Targets, and Management Programs

EP-008 Environmental Review of Projects

#### **6.0 Legal and Other Requirements**

The *Facility/Plant Name* has established an environmental procedure for the purpose of identifying, accessing and communicating legal and other requirements that are applicable to the facility. Additional information is also available through legal publications. Local regulations are identified, accessed and communicated



by the Environmental Coordinator. At least annually the Environmental Coordinator will review the most current national, regional, provincial, state and local legal and other requirements as applicable to *Facility/Plant Name*. Please see Appendix C for a list of Legal and Other Requirements.

Reference Materials

Legal and Other Requirements

ISO 14001 Standard (4.3.2)

Applicable Procedures

EP-007 Environmental Regulations and Other Requirements

## **7.0 Environmental Objectives and Targets**

The Cross Functional Team has developed objectives and targets for each significant environmental aspect. These objectives and targets define:

1. the performance objectives (Investigate/Study, Control/Maintain, or Improve) for each significant environmental aspect;
2. the specific, quantified targets which define those performance objectives; and
3. the planned deadlines for the achievement of those targets.

Objectives and targets are developed considering significant environmental aspects, technological options and financial, operational and business plans, and the views of interested parties. Appendix B - Aspects, Objectives & Targets identifies the facility's objectives and targets.

Reference Material

ISO 14001 Standard (4.3.3)

Applicable Procedures

EP-002 Environmental Aspects, Objectives and Targets, and Management Programs

EP-008 Environmental Review of Projects

## **8.0 Environmental Management Programs**

The CFT establishes environmental management programs (EMPs) as a means for achieving objectives and targets. These programs define the principal actions to be taken, those responsible for undertaking those actions and the scheduled times for their implementation. The EMPs are developed by the CFT and approved by



the Facility/Plant Management Team (refer to Section 5.0 Environmental Aspects). The EMPs are in Appendix D - Management Programs.

Reference Material:

ISO 14001 Standard (4.3.4)

Applicable Procedures

EP-002 Environmental Aspects, Objectives and Targets, and Management Programs

EP-008 Environmental Review of Projects

## **9.0 Organizational Structure and Responsibility**

Environmental management system roles, responsibilities and authorities are defined at relevant functions and levels within the organization. The Facility/Plant Management Team jointly provides the resources essential to the implementation and control of the environmental management system, including: training, human resources, specialty services, financial resources, technical and informational services. The Environmental Management Representative has primary responsibility for establishing, operating and maintaining the EMS. A Cross Functional Team provides routine EMS support and reports directly to the EMR. Documentation, which describes various positions, is included in Appendix E - Structure & Responsibilities.

Reference Material

ISO 14001 Standard (4.4.1)

## **10.0 Training, Awareness and Competence**

The *Facility/Plant Name* identifies, plans, monitors and records training needs for personnel whose work may create a significant impact upon the environment. The *Facility/Plant Name* has an environmental procedure to train employees at each relevant function and level so they are aware of the environmental policy, significant environmental aspects, their roles and responsibilities in achieving conformance with the policy and procedures, and with the requirements of the environmental management system. The training coordinator is responsible for maintaining employee training records. Appropriate records are monitored and reviewed on a scheduled basis. Competency is determined by the employee's supervisor as specified in EP-021. An environmental training plan is in Appendix F - Training Matrix.

Reference Material

ISO 14001 Standard (4.4.2)





Applicable Procedures

EP-014 Environmental Training and Awareness

**11.0 Communication**

The *Facility/Plant Name* has established and will maintain a procedure for internal and external communications regarding environmental aspects and the EMS.

Reference Material

ISO 14001 Standard (4.4.3)

Applicable Procedures

EP-010 Environmental Communication

**12.0 Environmental Management System Documentation**

This Manual identifies all documents relevant to the EMS. A copy of EMS documents, other than visual aids and records, can be obtained from the Environmental Management Representative or designee. System procedures and forms are provided in Appendices I - Procedures and J - Work Practices.

Reference Material:

ISO 14001 Standard (4.4.4)

**13.0 Document Control**

The *Facility/Plant Name* has established an environmental procedure for controlling all documents related to the environmental system. This procedure describes 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. Controlled documents are obtainable from the Environmental Management Representative or designee. A list of controlled documents is provided in Appendix G - Master Document List.

Reference Material

ISO 14001 Standard (4.4.5)

Applicable Procedures

EP-001 Formatting Environmental Procedures, Work Practices & Forms

EP-012 Environmental Document Control



#### **14.0 Operational Control**

The CFT is responsible for identifying operations and activities associated with significant environmental aspects that require operational controls in procedures, work practices or environmental management programs.

These documents define the mechanisms for the establishment, implementation and maintenance of the EMS and ensure that the system is maintained in accordance with the environmental policy and objectives and targets and is communicated to suppliers and contractors.

- System Procedures (See Appendix I): Cover the management and control of both the EMS and the principal environmental aspects, which the system manages. These procedures are Facility/Plant wide in their application.
- Work Practices (See Appendix J): Cover the environmental control of specific operational activities and are usually activity specific in their application.

##### Reference Material

ISO 14001 Standard (4.4.6)

#### **15.0 Emergency Preparedness and Response**

The *Facility/Plant Name* has an environmental procedure to identify potential for and respond to accidents and emergency situations, and for preventing and mitigating the environmental impacts that may be associated with them. Emergency methods are reviewed by the CFT on an annual basis and after the occurrence of accidents or emergency situations.

##### Reference Material

ISO 14001 Standard (4.4.7)

##### Applicable Procedures

EP-006 Emergency Preparedness and Response

#### **16.0 Monitoring and Measurement**

The *Facility/Plant Name* has established an environmental procedure to monitor and measure the key characteristics of its operations and activities that can have a significant impact on the environment. This procedure includes calibration and maintenance requirements and ensures that records will be retained.



The *Facility/Plant Name* has established an Environmental Regulatory Compliance Program. Procedure EP-003 outlines the requirements of the program and to periodically review regulatory compliance and report results to management on a yearly basis

Reference Material

ISO 14001 Standard (4.5.1)

Applicable Procedures

EP-003 Environmental Management System and Regulatory Compliance Audits  
EP-015 Monitoring and Measurement

**17.0 Nonconformance and Corrective and Preventive Action**

The *Facility/Plant Name* has an environmental procedure for defining responsibility and authority for handling and investigating nonconformances, for taking action to mitigate impacts, and for initiating and completing corrective and preventive action. Any changes in procedures resulting from corrective and preventive actions are implemented and recorded. The Audit Program Leader maintains these records.

Reference Material

ISO 14001 Standard (4.5.2)

Applicable Procedures

EP-004 Non-Conformance and Corrective and Preventive Action

**18.0 Records**

The *Facility/Plant Name* has an environmental procedure for the identification, maintenance and disposal of environmental records. These records include training records and the results of audits and reviews. They are readily retrievable and protected against damage, deterioration and loss. The Areas and Departments maintain their own environmental records. Record and document retention is also specified in the procedure. A list of relevant records is provided in Appendix H - Master Records List.

Reference Material

ISO 14001 Standard (4.5.3)

Applicable Procedures

EP-013 Environmental Records



## **19.0 Environmental Management System Audit**

Periodic system audits are conducted to ensure that the environmental management system has been properly implemented and maintained. The results of these audits are provided to management. Audits are performed according to a schedule, which is based on the environmental importance of an activity, the results of previous audits and the audit schedule. All auditors are trained and audit records are kept with the Audit Program Leader.

### Reference Material

ISO 14001 Standard (4.5.4)

### Applicable Procedures

EP-003 Environmental Management System and Regulatory Compliance Audits

## **20.0 Management Review**

The Facility/Plant Management Team reviews all elements of the EMS annually to ensure its continuing suitability, adequacy and effectiveness. Meeting minutes record these reviews and are kept by the EMR or designee.

### Reference Material

ISO 14001 Standard (4.6)

### Applicable Procedures

EP-005 Environmental Management System Management Review

## **21.0 Record Of Revisions**

Revision Date	Description	Sections Affected





## APPENDIX A

### ENVIRONMENTAL POLICY

*The following policy is only an example. It must be modified to address facility specific conditions and requirements.*

*The following are tips on structuring the Environmental Policy:*

- *Include a title, such as "(Facility/Plant Name) Environmental Policy".*
- *Include an opening paragraph that briefly describes the activities, products and/or services of the facility.*
- *Include a statement that communicates the facilities commitment to complying with acceptable environmental practices, including the commitment to meet or exceed legal, regulatory and other requirements, to strive for continual improvements and to minimize the creation of waste and pollution.*
- *Include a list, in general terms, of objective or programs relevant to significant environmental aspects, thus making the policy "facility specific".*
- *The policy should be signed by the Facility/Plant Manager.*
- *The policy should be made available to the public, by:*
  - *Posting at the facility entrance*
  - *Providing copies to the public upon request*



## **FACILITY/PLANT NAME ENVIRONMENTAL POLICY**

The *Facility/Plant* (provide an opening paragraph that briefly describes the activities, products and/or services at the facility).

Our Environmental Policy is to be a responsible corporate citizen in protecting the environment. We are committed to complying with accepted environmental practices, including the commitment to meet or exceed applicable legal and other requirements, to strive for continual improvement in our environmental management system, and to minimize the creation of wastes and pollution. We will, therefore, manage our processes, our materials and our people in order to reduce the environmental impacts associated with our work.

The *Facility/Plant Name* pledges to implement and operate the ISO 14001 Environmental Management System to further enhance environmental performance. Our main objectives are to:

- *Investigate the reduction of hazardous and toxic chemicals*
- *Reduce, reuse and recycle waste and packaging*
- *Improve the efficiency of energy usage*

This policy will be communicated to all parties interested in the performance of our environmental management system.

Signed: \_\_\_\_\_

Facility/Plant Manager

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



## **APPENDIX B**

### **ASPECTS, OBJECTIVES & TARGETS**

*The following information on aspects, objectives and targets are only examples. The correct identification of aspects and determination of significance can only be made after proper consideration of national, regional and local conditions and requirements.*

*The documents provided in the appendix include:*

- *A description of controlled and influenced environmental aspects*
- *Four examples of environmental aspects for three different facilities/plants*



## ENVIRONMENTAL ASPECTS

1. The *Facility/Plant Name's* environmental aspects are determined, and their significance evaluated, through implementation of EP-002 (Environmental Aspects, Objectives & Targets and Management Programs).
2. The environmental aspects for the *Facility/Plant Name* Environmental Management System are recorded in the Environmental Aspects list maintained in this section of the Environmental Management System Manual. Environmental aspects include:

a) **Controlled Environmental Aspects**

Controlled environmental aspects are aspects that the *Facility/Plant Name* can directly manage through its organizational structure and responsibilities. These aspects are controlled through the Environmental Management System consistent with the Environmental Policy.

b) **Influenced Environmental Aspects**

Influenced Environmental Aspects are aspects generated on-site that the *Facility/Plant Name* does not directly control, but over which the *Facility/Plant Name* has some authority (i.e., through contractual obligations) or persuasion.





Example No. 1  
Environmental Aspects Identification

Environmental Audit Report:  
Privileged Document

Reference Number	Environmental Aspect	Process / Activity	S=Significant, NS=Not Significant	R=Regulated, C=Corp.Citizenship, V=Volume T=Toxicity	Injection Molding /Regrind Areas	Foam Molding Areas	Cast Skin Areas	Paint Areas	Panel Assembly Areas	Console Assembly Area	MP&L	Paint Mix Area	Service Pack	Human Resources	Power House	WWTF	QC Lab	Garage	Tech Services / Maint. Activities	Tool Room	Foam Lab/ Proto Type	Office Areas	AME
1	Air Emissions		S*	R				X	X			X											
2		Paint/Clear Coat Booths (Softfeel, Waterbase (E-Cure), Cast Skin, SE Foam, Mask Repair)	S					X	X			X											
3		Miscellaneous Cleaning Operations	NS					X				X								X	X		
4	Sanitary Sewer Discharges		S*	R															X				
5		Paint Booth - Booth Water (Except EN114)	S					X															
6		Mask Washers (Depis. EN114,SN95 only)	S					X															
7	Potential Discharges	Spill / Leak / Incorrect discharge	NS			X	X		X		X	X			X	X		X	X	X	X		
8	Solid & Liquid Wastes - Hazardous and Regulated		S*	R											X	X		X	X	X	X		
9	Paint Sludge	Painting Operations	S					X	X														
10	Paint Filters	Painting Operations	NS					X	X	X									X				
11	Aerosol Cans		S			X	X	X	X	X		X	X		X	X		X	X	X	X		
12	Energy Use		S	C																			
13	Electricity	Processes / Activities Site - wide			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Revision Date: 11/12/98  
Issue Date: 3/27/98

Issue Date:



**Example No. 2  
Environmental Aspects, Objectives  
& Targets Determination**

Environmental Audit Report:  
Privileged Document

Form Completed by: Jane Doe

Date Completed: 9/24/99

Department/Area: Engine Assembly

Process/Activity: All

Aspect Identification		Significance		Objectives & Targets	
Category*/Aspect	Quantity / Volume	Rationale for Significance / Nonsignificance**	S/NS***	Objective	Target
<b>AIR EMISSIONS</b>					
MAINTENANCE PAINT SPRAY BOOTH EXHAUST		R	S	MAINTAIN COMPLIANCE TO REGULATIONS. UPGRADE MAINT. PAINT BOOTH EXHAUST SYSTEM	ON-GOING 6/98
AIR DISCHARGE FROM AIR SCRUBBER AT WASTE TREATMENT		NS	NS		
<b>WASTEWATER DISCHARGE</b>					
SANITARY SEWAGE DISCHARGE TO CITY		R	S	MAINTAIN COMPLIANCE TO PERMITS FOR LIFE OF PERMITS. INVESTIGATE LOW FLOW SHOWER HEADS	ON-GOING 1/99
<b>LIQUID &amp; SOLID WASTES</b>					
WASTE GASOLINE GEN. BY HOT TEST, DYNO, IND. GARAGE, & TANK FARMS		R	S	MAINTAIN COMPLIANCE TO HAZARDOUS WASTE REGULATIONS	ON-GOING
CARTRIDGE FILTERS		NS	NS		
<b>MATERIAL USE</b>					
HYDRAULIC, LUBE OIL USAGE		NS	NS		

\*Aspect Categories: Air Emissions, Wastewater Discharges, Liquid & Solid Wastes, Energy Use, Storm Water Discharges, Water Use, Storage Tanks, Material Usage, Noise, Odor, Natural Environment, Land Condition

\*\*Rationale for Significance/Non-Significance: R = Regulated/Other Req., A = Accidental Release, E = Energy, L = Environmental Load, NS = Does not meet significance criteria

\*\*\*Abbreviations: S = Significant & NS = Not Significant

Issue Date: 8/5/99

EF-002.01



**Example No. 3**  
**Environmental Significant Aspects, Objectives and Targets Identification**

Environmental Audit Report: Privileged Document

**Person Completing**  
**Form:** Paint CFT

**Area/Department(s):**  
 Paint

**Process:**  
 Painting/Topcoat

Aspect Identification			Significance Determination								Objectives and Targets	
Category/Aspect	Description	Quantity / Volume	Regulated 7.3	Potential Release 7.4	Business Plan 7.5	Material of Concern 7.6	Load on Environ. 7.6	Other 7.6	Check if Significant	Rational for Significance/ Non-Significance	Objective & Type*	Target
<b>Material Use</b>												
Paints - Basecoats	Totes	High	x						x	Regulated	C, Control and Maintain Compliance	Ongoing
Paints - Clearcoats	Totes	High	x						x	Regulated	C, Control and Maintain Compliance	Ongoing
<b>Air Emissions</b>												
Particulates	Permit 276-88	Low	x						x	Regulated	C, Control and maintain compliance	Ongoing
VOCs	Permit 276-88	High	x						x	Regulated	I, Implement block painting program	5% per unit reduction in VOCs based on 1996 baseline by year end 2000
<b>Water Use</b>												
Well Water	Process	High			x				x	Regulated, Business Plan	I, Reduce water consumption	10% volume from 1996 baseline by 2002

\*Type = C for Control, S for Study and I for Improve

Date Issued: 02/15/98

Date Revised: 08/04/99









## APPENDIX C

### LEGAL AND OTHER REQUIREMENTS

*The following legal and other requirement tables are only examples. They must be modified to properly address national, regional or local condition and requirements.*



## Environmental Legal Requirements

ASPECT	REQUIREMENT	CITATION/SOURCE
<b>Material Usage</b>	<b>GENERAL ENVIRONMENTAL REQUIREMENTS</b>	
	Hazardous Substances and Reportable Quantities (CERCLA)	40 CFR Part 302
	Hazardous Chemical Reporting: Community Right To Know (SARA Title III)	40 CFR Part 370
	Toxic Chemical Release Reporting: Community Right To Know (SARA Title III)	40 CFR Part 372
<b>Air Emissions</b>	<b>AIR QUALITY REQUIREMENTS</b>	
	Air Quality (CAA)	40 CFR Parts 50-61
	CFC Containing Equipment	40 CFR Part 82
	State Air Permit #8580	State Act 336 Part 2
<b>Stormwater Discharges</b>	<b>WATER QUALITY REQUIREMENTS</b>	
	Discharge of Oil	40 CFR Part 110
	Spill, Pollution Control and Countermeasures (CWA)	40 CFR Part 112
	Water Discharge Permits	40 CFR Part 122
	Test Procedures for Analysis of Pollutants	40 CFR Part 136
	Spillage of Oil and Polluting Material	State Act 245 Part 5
	State Stormwater Permit #8585	State Act 246 Part 2
<b>Wastewater Discharges</b>	City Water & Sewerage Permit #123	City Ordinance 65
	<b>WASTEWATER REQUIREMENTS</b>	
	State NPDES Wastewater Permit #8587	State Act 225 Part 6



## Environmental Legal Requirements (cont.)

ASPECT	REQUIREMENT	CITATION/SOURCE
<b>Solid &amp; Liquid Waste</b>	<b>WASTE REQUIREMENTS</b>	
	Hazardous Waste RCRA	40 CFR Parts 264-265
	Land Disposal Restrictions	40 CFR Part 268
	Used Oil Management Standards	40 CFR Part 279
	Hazardous Substances and Reportable Quantities	40 CFR Part 302
	Toxic Substance Control Act	40 CFR Part 700
	PCB Waste Management	40 CFT Part 761
	Asbestos Management	40 CFR Part 763
	Hazardous Waste Management	State Act 299
	Solid Waste Management Act	State Act 451 Part 115
	Liquid Industrial Waste	State Act 451 Part 121
	Medical Waste Management	State Act 368 Part 138
	Universal Waste	State Act 451 Part 225
<b>Material Usage, Solid &amp; Liquid Waste and Storage Tanks</b>	<b>EMERGENCY RESPONSE REQUIREMENTS</b>	
	Emergency Planning and Notifications	40 CFR Part 355
	Underground Storage Tank Management	State Act 505 Part 120



## Environmental Other Requirements

ASPECT	REQUIREMENT	CITATION/SOURCE
	<b>OTHER REQUIREMENTS</b>	
	Environmental Management Systems	ISO 14001:1996
	Ford Global Terms and Conditions	Implementation and maintenance of ISO 14001 certified EMS. One facility certified by 12/31/01. All supplier manufacturing sites certified by 7/1/03
	Ford Restricted Substance Management Standard WSS-M99P9999-A1	Addresses chemicals and material involved in products or services delivered to Ford and identifies those considered either restricted or prohibited
	Ford Worldwide Design Standard 00.00D28 Complete Vehicle Recycling	Outlines the requirements for developing and implementing recycling strategies and technologies
	Ford Engineering Standard E4	Outlines the requirements for properly marking plastic, polymeric and recycled content parts
	Ford Packaging Guideline	Guideline addresses packaging solutions to minimize the environmental impact for delivered products and services
	Production, Non-Production and Post-Production Material Procedure, Ford Automotive Procedure 03-132	Outlines the material approval process prior to bringing materials into Ford facilities





## **APPENDIX D**

### **MANAGEMENT PROGRAMS**

*The following information on environmental management programs are only examples. The establishment of appropriate management programs can only be made after proper consideration of national, regional and local conditions and requirements.*

*However, environmental management programs should be developed to address the following:*

- *Compliance Assurance*
- *Material Management*
- *Utility Management*
- *Waste Minimization*



## Environmental Management Programs

**Significant Aspect:** All aspects determined significant based on legal requirements

**Champion:** EMR

**Department/Area(s):** All applicable

**Process/Activity:** All applicable

**Objective:** Maintain regulatory compliance

**Target:** Ongoing

**Program Plan:** Regulatory Compliance Program

**Date:** September 21, 1999

Task	Responsible Party	Schedule	Performance Monitoring	Key Characteristics/Operational Controls/Comments
Identify applicable legal & other requirements	Env. Coordinator	Oct. 99 & annually thereafter	List of legal & other requirements	Prepare list as specified in EP-007
Communicate legal & other requirement changes to applicable area or dept. managers	Env. Coordinator	Ongoing	Communication record	Prepare memoranda or email summarizing changes and provide to area or dept. managers per EP-007 & EP-010
Communicate legal & other requirement changes to applicable staff	Affected area or dept. managers	Ongoing	Communication record or meeting minutes	Report changes as specified in EP-010
Conduct internal compliance audits	EMR & Compliance audit team	As specified in audit schedule	Audit schedule, checklists, CARs & audit summary report	EMR reports non-compliances to Management Team
Prepare and maintain list of monitoring and reporting requirements & schedules. Conduct monitoring and submit required reports as specified by legal & other requirements.	Env. Coordinator	Ongoing	List of requirements & schedules, reports	List of monitoring and reporting requirements & schedules revised as needed. Reports to agencies reviewed & approved by EMR prior to submittal



**Program Plan: Regulatory Compliance Program (cont.)**

Task	Responsible Party	Schedule	Performance Monitoring	Key Characteristics/Operational Controls/Comments
Calibrate and maintain monitoring equipment as specified by legal & other requirements, and by manufacturer instructions	Affected area or dept. manager	Ongoing	Calibration & maintenance schedules and records	Affected areas & dept.'s maintain list of monitoring equipment and calibration & maintenance schedules. Corresponding records maintained by area or dept.
Prepare permit applications and revise permits as necessary	Env. Coordinator	Ongoing	Applications & permit conditions	Permit applications prepared per applicable legal & other requirements. Permit conditions monitored per list of monitoring and reporting requirements & schedules
Respond to agency inquiries	Env. Coordinator	Ongoing	Communication records	Communications conducted per EP-010
Use project method statements to assess impact of new installations or equipment on compliance	EMR	Ongoing after Oct. 99	Project Method Statements & Evaluation report	Method statements generated per EP-011. EMR prepares evaluation report and submits to Project Manager. Project must be modified if compliance not maintained
Ensure CFC/HCFC and PCB containing equipment are serviced and maintained according to applicable requirements	Affected area or dept. managers	Ongoing	Maintenance schedules & records	Affected areas or dept.'s maintain maintenance records
Review waste streams to ensure that waste materials are properly classified	Env. Coordinator	Per monitoring schedules	List of waste streams	This review must be completed at least every 6 mo.'s prior to aspect identification
Ensure hazardous waste accumulation areas are maintained per applicable requirements	Affected area or dept. managers	Per monitoring schedules	Inspection log	Completed inspection logs submitted to Env. Coordinator for review
Ensure proper handling and disposal of wastes	Env. Coordinator	Per monitoring schedules	Waste manifests, inspection logs	Records maintained by Env. Coordinator



## Environmental Management Programs

**Significant Aspect:** Materials identified as significant

**Champion:** EMR

**Department/Area(s):** All applicable

**Process/Activity:** All applicable

**Objective:** Manage significant materials

**Target:** Ongoing

**Program Plan:** Managed Material Program

**Date:** September 21, 1999

Task	Responsible Party	Schedule	Performance Monitoring	Key Characteristics/Operational Controls/Comments
Identify materials used by facility and determine significance	CFT	Oct. 99 & every 6 mo.	Data recorded on EF-002.01	Type and annual quantity of materials recorded per EP-002. Materials determined significant are "Managed Materials".
Track Managed Material usage by area/department	CFT	Monthly, beginning Nov. 99	Monthly usage record	Type and monthly quantity of Managed Materials by area department. Results reported to EMR.
Investigate feasibility of reducing Managed Material usage	CFT	Nov. 99 & every 6 mo.	Report of investigation	Report results of investigation, with recommendations, to EMR.
As appropriate, develop plan for reducing the use of select Managed Materials per EMR direction	CFT	Dec. 99 & every 6 mo.	Reduction plan	Reduction plan submitted to EMR for approval.
Implement Managed Material usage reductions, as applicable	Affected area or dept. manager	Jan. 00 & upon issuance of new plan	Monthly usage record	Type and monthly quantity of Managed Materials by area department. Results reported to EMR.





**Program Plan:** Managed Material Program (cont.)

Task	Responsible Party	Schedule	Performance Monitoring	Key Characteristics/Operational Controls/Comments
Evaluate materials before they are used on-site	CFT & affected area or dept. manager	Ongoing	Evaluation record	Personnel who purchase materials for on-site use will establish a system approved by the CFT for evaluation and approval of materials before they are brought on-site. The established system will use EP-002 for the evaluation. Results of reviews are to be reported to EMR. Materials deemed too hazardous may be banned.

Training Purposes Only



### Environmental Management Programs

**Significant Aspect:** Energy usage identified as significant

**Champion:** EMR

**Department/Area(s):** All applicable

**Process/Activity:** All applicable

**Objective:** Reduce energy

**Target:** 5% (rate basis & production  
normalized) from 1998 levels by Jan. 2002

**Program Plan:** Energy Reduction Program

**Date:** September 21, 1999

Task	Responsible Party	Schedule	Performance Monitoring	Key Characteristics/Operational Controls/Comments
Monitor Energy Usage	Controller	October through December 1999	Utility Bills	Rate of Usage reported monthly to Energy Team
Identify high potential energy users and energy type. Prioritize areas for energy savings principally based on feasibility of energy reduction potential.	CFT	January 2000 - February 2000 and update semi annually	Data recorded on EF-002.01	Type and rates of utility usage recorded per EP-002
Develop utility reduction plan to achieve energy usage objective & targets.	CFT	March 2000	Reduction plan	Plan submitted to Management Team by the EMR for approval
For energy process identified in utility plan and establish baseline and performance metrics to track.	Controller	April 2000, track monthly	Monthly utility bills	Rate of usage and actual vs baseline reported monthly to Utility Team
Implement reduction initiatives as specified in the plan	Affected area or dept. manager	As specified in reduction plan	Progress reports	CFT to monitor implementation progress and report findings each month to EMR



Facility/Plant Name Environmental Management System Manual

**Program Plan: Energy Reduction Program (cont.)**

Task	Responsible Party	Schedule	Performance Monitoring	Key Characteristics/Operational Controls/Comments
Use project method statements to assess impact of new installations of equipment on reduction initiatives	EMR	Ongoing after Oct. 99	Project Method Statements & Evaluation report	Method statements generated per EP-011. EMR prepares evaluation report and submits to Project Manager. Objective & targets may be modified if project utilization rates adversely affect reduction initiatives and project utilization cannot be changed.



### Environmental Management Programs

**Significant Aspect:** Solid & liquid wastes identified as significant

**Champion:** EMR

**Department/Area(s):** All applicable

**Process/Activity:** All applicable

**Objective:** Reduce solid & liquid wastes

**Target:** 5% (volume basis & production normalized) from 1998 levels by December 2000

**Program Plan:** Waste Minimization Program

**Date:** September 21, 1999

Task	Responsible Party	Schedule	Performance Monitoring	Key Characteristics/Operational Controls/Comments
Identify solid & liquid wastes generated by facility and determine significance	CFT	Oct. 99 & update every 6 mo.	Data recorded on EF-002.01	Types and annual quantities of wastes & emissions recorded per EP-002.
Evaluate current and potential waste minimization practices for significant solid & liquid wastes and air emissions (e.g., recycle, reuse, or change in process or practice to minimize, eliminate or substitute)	CFT	Nov. 99 & update every 6 mo.	Report of evaluation	Report results of evaluation, with recommendations, to EMR. Include a discussion of current waste and air emission minimization practices.
Select target waste streams and develop action plan to achieve 2000 target	CFT	Dec. 99 & every 6 mo.	Minimization plan	Minimization plan submitted to Management Team by EMR for approval.
Establish traceable performance metrics for chosen waste streams.	Affected area or dept. manager	Monthly	Monthly record	Types and monthly quantities of wastes & emissions by area or department. Results reported to EMR.
Implement minimization initiatives specified in the plan	Affected area or dept. manager	As specified in minimization plan	Progress reports	CFT to monitor implementation progress and report findings each month to EMR





**Program Plan: Waste Minimization Program (cont.)**

Task	Responsible Party	Schedule	Performance Monitoring	Key Characteristics/Operational Controls/Comments
Evaluate program effectiveness and need for program adjustments to meet target.	Waste Coordinator, CFT	Quarterly	CFT Minutes	Comparison between actual and baseline is monitored and effectiveness of program evaluated.
Develop annual report for management review to include summary and status of action plans.	EMR, CFT	August 2000 and August 2001	Report	EMR to present the report to the Management Team to assess progress of action plans and need for adjustments.
Use project method statements to assess impact of new installations or equipment on reduction initiatives	EMR	Ongoing after Oct. 99	Project Method Statements & Evaluation report	Method statements generated per EP-011. EMR prepares evaluation report and submits to Project Manager. Objective & targets may be modified if project utilization rates adversely affect reduction initiatives and project utilization cannot be changed.



## **APPENDIX E**

### **STRUCTURE & RESPONSIBILITIES**

*The following structure & responsibilities table and organization chart are only examples.  
They must be modified to properly address local conditions.*



## **Structure and Responsibilities**

### **Facility/Plant Manager**

- a) Has overall responsibility for the development and implementation of the Environmental Management System.
- b) Allocates EMS resources.
- c) Participates in the management review of the Environmental Management System for suitability, adequacy and effectiveness.
- d) Sets the focus of environmental policy, objectives and targets for the facilities/stores.

### **Department/Area Managers**

- a) Participate on the Management Team in reviewing the plant's Environmental Management System.
- b) Support the Environmental Management Representative in providing resources adequate to achieve environmental objectives and targets and proper implementation and maintenance of the environmental management system.

### **Controller**

- a) Manages the accounting and financial operations of the plant including the funding for projects and expenses to maintain compliance with regulations and adherence to company environmental policy.
- b) Participates on the Management Team in reviewing the plant's Environmental Management System.

### **Human Resources Manager**

- a) Is responsible for providing industrial and public relations services for the plant.
- b) Is responsible for external environmental communications with interested parties and the media.
- c) Oversees the plant's training programs including environmental training.
- d) Participates on the Management Team in reviewing the plant's Environmental Management System.

### **Material Handling Manager**

- a) Is responsible for the storage of production and non-production materials.
- b) Ensures that delivery, transportation, handling and storage of all materials are properly managed.
- c) Manages shipping of waste materials.
- d) Maintains information on usages, storage and inventory of all production materials.
- e) Manages warehouse layout optimization, facilitating material and waste flow.
- f) Participates on the Management Team in reviewing the plant's Environmental Management System.



## Facility/Plant Name Environmental Management System Manual

### Structure and Responsibilities

#### **Quality Manager**

- a) Manages the Quality Management System for the plant.
- b) Manages and controls quality documents.
- c) Coordinates the Records Retention system for the plant.
- d) Participates on the Management Team in reviewing the plant's Environmental Management System.

#### **Plant Safety Manager**

- a) Manages the plant safety activities including coordination of Emergency Response Plan when appropriate.
- b) Participates on the Management Team in reviewing the plant's Environmental Management System.

#### **Information Systems Manager**

- a) Manages Facility/Plant computer systems including systems for the Environmental Management System.

#### **Environmental Management Representative - EMR**

- a) Participates as a member of the Management Team.
- b) Directs the Cross Functional Team in the development, implementation and maintenance of the environmental management system.
- c) Reports to the Management Team on the status of the environmental management system, including: environmental compliance, system audits and corrective action plans.

#### **Environmental Coordinator**

- a) Monitors and interprets environmental legal requirements applicable to the Facility/Plant.
- b) Monitors and interprets other requirements to which the Facility/Plant subscribes.
- c) Supports the Environmental Management System by:
  - generating and submitting reports required by the government
  - maintaining summary data and information on liquid and solid wastes, air emissions, and other key environmental performance measurables
  - determining the appropriate disposal methods for all wastes at the Facility/Plant
  - maintaining environmental records as required.
- d) Maintains the Environmental Management System Manual.
- e) Manages applicable permit applications.
- f) Acts on behalf of the Facility/Plant, when assigned and as required, as the official representative with regulatory and local authorities.





## Structure and Responsibilities

### Cross Functional Team

- a) Periodically identifies aspects, determining significance, establishing environmental objects and targets and creating environmental management programs.
- b) Maintains system procedures, including those for Emergency Response.
- c) Develops, implements and maintains the environmental management system under the direction of the Environmental Management Representative.
- d) Acts as the Pollution Prevention, Waste Minimization and Energy Team, where applicable.

### Emergency Response/Safety Committee

- a) Manages safety and security activities including coordination of the Emergency Response Plan.

### Audit Program Leader

- a) Schedules & coordinates internal environmental system audit program. Reports audit results to the Environmental Management Representative.
- b) Monitors closures of non-conformances.

### Internal System Audit Team

- a) Audits environmental system elements as directed by the Environmental Audit Program Leader.
- b) Reports system non-conformances and verifies corrective and preventative actions are implemented.

### Project Managers

- a) Reviews and characterizes environmental aspects of a project through the use of Project Environmental Checklists.
- b) Receives and reviews Environmental Method Statements from contractors.
- c) Forwards Method Statements and Checklists to EMR.
- d) Works with EMR to resolve environmental issues with contractors.



## APPENDIX F

### TRAINING MATRIX

*The following training matrix tables are only examples. They must be modified to properly address national, regional or local conditions and requirements.*



## TRAINING NEEDS MATRIX ENVIRONMENTAL COURSES

Course	Employees Requiring Training	Source of Training	Duration (Hours)	Frequency
A/C Refrigeration Servicing (Stationary)	A/C Maintenance			Once, each new maintenance staff
HAZWOPER: First Responder	Security			Annual
Environmental Awareness	(Bulk Materials, HAZWOPER 1 <sup>st</sup> Responder Awareness, Integrated Emergency Response and Spill Contingency Plan, Prevention Plan, Waste Management, Energy Management, Asbestos Management)			Every other year
Incident Command Training	Security and Supervisors			Annual
Fire Brigade Training	Emergency Response Team			For all new team members
RCRA Awareness Training	Waste Management Coordinator			Annual
EMS Lead Auditor Training	Environmental Coordinator, Lead Internal Auditor			Initially
EMS Awareness Training	All employees & full time on-site contractors			Initially, New hires and as necessary
EMS Document Training (see also "Applicable Procedures by Department")	Employees and full time on-site contractors whose work requires knowledge of the document			Initially, New hires and when document changes occur
EMS Implementation Training	Cross Functional Team & EMR			Initially
EMS Internal Auditor Training	EMS Internal Auditors			Initially and New Auditors



## TRAINING NEEDS MATRIX

### PROCEDURES AND WORK INSTRUCTIONS BY AREA/DEPARTMENT

Procedure/ Work Practice No.	Title	Area/Department							
		Tool & Die	Truck Shop	Paint Shop	Safety	Powerhouse Engineer	Maint./Facility Engineering	Production	Shipping
EV-01	CSP Asbestos Management				X				
EV-02	PCB Management					X	X		
EV-03	Bulk Material Management					X			X
EV-04	Outside Equipment Storage Management	X					X		
EV-05	Material Usage/ Tox # Assignment	X		X	X	X	X		
WI02-01	PCB-Containing Transformer Instructions						X		
WI03-01	Bulk Chemical Truck Deliveries					X	X		
WI03-02	Bulk Truck Deliveries of Petroleum Products						X		
WI03-04	Bulk Propane Delivery and Storage						X		
WI04-01	Scrap Metal	X					X		
WP03-05	Machining Coolants	X	X				X		
WP03-06	Road Salt						X		
WP03-07	Power House/ Cooling Tower Chemical Usage					X			
WP05-01	Review/Approve "Special" Biocide Additions to CSP Coolant Systems				X	X	X		
WP06-01	KECKES Boilers					X	X		





## **APPENDIX G**

### **MASTER DOCUMENT LIST**

*The following master document list is only an example. It must be modified to properly address national, regional or local conditions and requirements.*



## MASTER DOCUMENT LIST

ID	Title	Issue Date	Location	Authorized By
<b>Policy</b>				
	Environmental Policy			
<b>Manuals &amp; Plans</b>				
	EMS Manual			
	Integrated Spill Plan			
<b>Procedures</b>				
EP-001	Formatting Environmental Procedures and Work Practices			
EP-002	Environmental Aspects, Objectives and Targets, and Management Programs			
EP-003	Environmental Management System and Regulatory Compliance Audits			
EP-004	Non-Conformance and Corrective and Preventive Action			
EP-005	Environmental Management System Management Review			
EP-006	Emergency Preparedness and Response			
EP-007	Environmental Regulations and Other Requirements			
EP-008	Environmental Review of Projects			
EP-009	Agency Approvals			
EP-010	Environmental Communication			
EP-011	Contractor Control			
EP-012	Environmental Document Control			
EP-013	Environmental Records			
EP-014	Environmental Training and Awareness			
EP-015	Monitoring and Measurement			
<b>Work Practices</b>				
EWP-020.01	Servicing of Stationary Refrigeration Equipment			
EWP-023.01	Waste Drum Shipments			
EWP-024.01	Bulk Material Loading and Unloading			
<b>Forms</b>				
EF-002.01	Environmental Aspects			
EF-003.01	Audit Checklist			
EF-003.02	Corrective and Preventative Action Request (CAR)			
EF-003.03	Internal Environmental Audit Summary Report			



## MASTER DOCUMENT LIST (cont.)

ID	Title	Issue Date	Location	Authorized By
<b>Forms (cont.)</b>				
EF-003.04	Audit Schedule			
EF-005.01	Attendee Sheet			
EF-008.01	Project Environmental Checklist			
EF-010.01	External Communications Log			
EF-011.01	Environmental Briefing Packet and Contractor Method Statement Template			
EF-012.01	Master Document List			
EF-013.01	Index of Environmental Records			
EF-014.01	Training Matrix			
EF-999.01	Management Review Meeting			
	Service Order			
	Evacuation Label			
	Appliance Input			
	Refrigerant Cylinder Input			
	Refrigerant Transfer			
	Bulk Material Inspection Log			
<b>Audit Checklists</b>				
ACEP-002	Audit Questions for Procedure EP-002			
ACEP-003	Audit Questions for Procedure EP-003			
ACEP-004	Audit Questions for Procedure EP-004			
ACEP-005	Audit Questions for Procedure EP-005			
<b>Records (see Appendix J - Master Records List)</b>				
<b>References</b>				
ISO 14001:1996	Environmental Management Systems - Specification with Guidance for Use	9/96		



## **APPENDIX H MASTER RECORDS LIST**

*The following master records list is only an example. It must be modified to properly address national, regional or local conditions and requirements.*





### Index of Environmental Records

Document	Record	Retention (yrs)	Controlled By	Location
EP-002	Environmental aspects			
	CFT meeting agenda, minutes and attendance sheets			
	Environmental management programs			
	Management review agenda, attendance sheets, meeting minutes and assignments			
EP-003	Audit checklists			
	Corrective & preventative action requests			
	Audit schedule			
	Original copies of internal environmental audit records			
	Internal environmental audit summary report			
EP-004	Corrective & preventative action requests			
	Action plans, where used.			
EP-005	Management review agenda, attendance sheets, meeting minutes and assignments			
EP-006	Incident reports			
	Records of emergency response tests and drills			
	Training records			
EP-007	List of relevant environmental legal & other requirements			
EP-008	Project appropriation requests			
	Project environmental checklist			
EP-009	Environmental permits & applications			
	Regulatory communications			
EP-010	Records of internal communications			
	Records of external communications			
	Log of external communications			
EP-011	Contractor method statements			
	Contractor records pertaining to environmental training, etc.			



### Index of Environmental Records (cont.)

Document	Record	Retention (yrs)	Controlled By	Location
EP-012	Master document list			
EP-013	Index of environmental records			
EP-014	Training matrix			
	Training schedule			
EP-015	Key characteristics and environmental performance of significant aspects			
	Compliance audit documents			
	Calibration & maintenance records			
EWP-020.01	Refrigeration technician certification card			
	Weight logs			
	Appliance input			
	Refrigerant cylinder input			
	Refrigerant transfer			
	Tank certifications			
EWP-023.01	Waste manifests			
EWP-024.01	Shipping manifests			
	Waste manifests			
	Weekly inspection logs			



## **APPENDIX I**

### **PROCEDURES**

*The following procedures are only examples. They must be modified to properly address national, regional or local conditions and requirements.*



## Environmental Procedure Index

<b>Procedure No.</b>	<b>Procedure Title</b>	<b>ISO 14001 Element</b>
EP-001	Formatting Environmental Procedures and Work Practices	N/A
EP-002	Environmental Aspects, Objectives and Targets, and Management Programs	4.3.1/4.3.3/4.3.4
EP-003	Environmental Management System and Regulatory Compliance Audits	4.5.4
EP-004	Non-Conformance and Corrective and Preventive Action	4.5.2
EP-005	Environmental Management System Management Review	4.6
EP-006	Emergency Preparedness and Response	4.4.7
EP-007	Environmental Regulations and Other Requirements	4.3.2
EP-008	Environmental Review of Projects	4.3.1
EP-009	Agency Approvals	4.4.6
EP-010	Environmental Communication	4.4.3
EP-011	Contractor Control	4.4.6
EP-012	Environmental Document Control	4.4.5
EP-013	Environmental Records	4.5.3
EP-014	Environmental Training and Awareness	4.4.2
EP-015	Monitoring and Measurement	4.5.1





## **Formatting Environmental Procedures, Work Practices & Forms**

### **1.0 Purpose/Scope**

This procedure defines the format to be used in creating *Facility/Plant Name* environmental procedures (EPs), environmental work practices (EWPs) and forms (EFs).

The control of these documents is addressed in environmental procedure EP-016 (Environmental Document Control).

### **2.0 Activities Affected**

All

### **3.0 Forms Used**

None

### **4.0 References**

ISO 14001:1996, Element 4.4.5

### **5.0 Definitions**

None

### **6.0 Exclusions**

None

### **7.0 Procedure**

7.1 Environmental Procedures shall:

- a) have a unique reference number in the bottom corner of the page in the format "EP-###" where:  
EP = *Facility/Plant Name* Environmental Procedure identifier  
EP-### = Environmental Procedure Number and each # is a digit.
- b) be paginated in the format "Page # of #" in the bottom center of the page.
- c) be dated as per date of issue/revision in the bottom corner of the page.
- d) have a title at the top of the page
- e) have the following sections:
  - 1.0 Purpose/Scope
  - 2.0 Activities Affected
  - 3.0 Forms Used
  - 4.0 References
  - 5.0 Definitions
  - 6.0 Exclusions
  - 7.0 Procedure
  - 8.0 General Rules
  - 9.0 Records
  - Record of Revisions



**7.2 Environmental Work Practices shall:**

- a) have a unique reference number in the bottom corner of the page in the format "EWP-####" where:  
EWP = *Facility/Plant Name* Environmental Work Practice identifier.  
EWP-#### = Environmental Work Practice Number, each # is a digit.
- b) have a title at the top of the page.
- c) be paginated in the format "Page # of #" in the bottom center of the page.
- d) be dated as per date of issue/revision in the bottom corner of the page.
- e) be written in whatever form is considered to be appropriate to the operational circumstances.

**7.3 Environmental Forms shall:**

- a) have a unique reference number in the bottom corner of the page in the format "EF-###.##" where:  
EF = *Facility/Plant Name* Environmental Form identifier.  
EF-###.## = Environmental Form Number, each # is a digit.
- b) have a title at the top of the page
- c) be paginated in the format "Page # of #" in the bottom center of the page.
- d) be dated as per date of issue/revision in the bottom corner of the page.
- e) be written in whatever form is considered to be appropriate to the operational circumstances.

**8.0 General Rules**

None

**9.0 Records**

None

**Record of Revisions**

Revision Date	Description	Sections Affected



## **Environmental Aspects, Objectives and Targets, and Management Programs**

### **1.0 Purpose/Scope**

This procedure defines the mechanism for the identification and significance evaluation of the environmental aspects of the *Facility/Plant Name* operations, in order to determine those aspects which have actual or potential significant impacts upon the environment.

It also defines the framework within which the Facility/Plant Name shall establish and maintain environmental objectives and targets and environmental management programs.

### **2.0 Activities Affected**

All areas and departments

### **3.0 Forms Used**

- 3.1 Environmental Aspects, Objectives & Targets Determination
- 3.2 Environmental Management Programs

### **4.0 References**

- 4.1 EP-005 Environmental Management System Management Review
- 4.2 EP-006 Emergency Preparedness and Response
- 4.3 EP-007 Environmental Regulations and Other Requirements
- 4.4 EP-008 Environmental Review of Projects
- 4.5 EP-010 Environmental Communication
- 4.6 EP-014 Environmental Training and Awareness
- 4.7 EP-015 Monitoring and Measurement
- 4.8 ISO 14001:1996, Elements 4.3.1, 4.3.3 and 4.3.4

### **5.0 Definitions**

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

### **6.0 Exclusions**

None



## **7.0 Procedure**

### **7.1 Identification of Environmental Aspects**

7.1.1 A Cross Functional Team championed by the Environmental Management Representative shall identify environmental aspects of operations that can be controlled or influenced. This information will be documented on the Environmental Aspects form.

7.1.2 Using pertinent plant information (e.g., process flow diagrams, plant layout maps, etc.) the facility/plant Cross Functional Team (CFT) will document all relevant activities, processes and services in which to identify aspects.

7.1.3 The CFT will identify the specific environmental aspects using General Aspect Categories. General Aspect Categories shall include, but not necessarily be limited to, the following:

- Air Emissions
- Liquid & Solid Wastes
- Stormwater Discharges
- Storage Tanks
- Noise
- Natural Environment
- Wastewater Discharges
- Energy Usage
- Water Usage
- Material Usage
- Odor
- Land Condition

7.1.4 Lists of the aspects identified shall be maintained and shall be reviewed by the Cross Functional Team at least every six months to identify any new aspects that should be added and any old aspects that should be deleted. Aspects identified through implementation of EP-008 shall be incorporated into the lists of aspects.

### **7.2 Determination of Significant Aspects**

7.2.1 The Cross Functional Team shall review and evaluate the aspects identified and shall determine their significance using the criteria in 7.2.2 below. Where a new aspect is incorporated into the lists of aspects (see 7.1.4 above) it shall be reviewed and evaluated by the Cross Functional Team to determine significance.

7.2.2 The environmental aspects of the facility/plant may be considered by the Cross Functional Team to be "significant" where the aspect:

- 7.2.2.1 Is subject to relevant legislation, regulation, permit requirements, and/or other requirements. This will likely include aspects associated with processes and activities if: (1) environmental regulations or other requirements specify controls and conditions, (2) information must be provided to outside authorities, and/or, (3) there are or may be periodic inspections or enforcements by these authorities. This will also include aspects that are addressed in the facility business plan or other applicable documents.





7.2.2.2 Is subject to a potential accidental release (liquid or gas only) that is regulated or that could be of sufficient quantity to cause environmental concern. These aspects shall be managed and controlled through implementation of environmental procedure EP-006 (Emergency Preparedness and Response).

7.2.2.3 Pertains to energy usage.

7.2.2.4 Is subject to high environmental loading due to one or more of the following criteria:

- toxicity (compositional characterization of materials and wastes)
- Ford Engineering Specification WSS-M99P9999-A1 (Restricted Substance Management Standard)
- amounts (volumes and masses of releases)
- amounts (consumption of renewable and non-renewable resources)
- frequencies of episodes
- severity of actual or potential impacts

7.2.3 The rationale for significance and insignificance will be documented on the Environmental Aspects, Objectives & Targets Determination form.

### 7.3 Establishing and Maintaining Objectives and Targets

7.3.1 The Cross Functional Team shall establish and maintain environmental objectives and targets for all significant aspects. Objectives and targets shall be consistent with the *Facility/Plant Name* environmental policy and shall be one of three types: control; improve; or investigate.

7.3.2 In establishing objectives and targets consideration shall be given to:

- environmental legal and other requirements
- technological options
- financial, operational and business requirements
- views of interested parties

7.3.3 Performance against objectives and targets shall be reviewed at least every six months by the Cross Functional Team and reported at the management review meeting (see environmental procedure EP-005: Environmental Management System Management Review). The management review shall endorse the facility environmental objectives and targets.

### 7.4 Establishing and Maintaining Environmental Management Programs

7.4.1 The Cross Functional Team shall establish and maintain environmental management programs for achieving the objectives and targets developed for the significant environmental aspects identified and updated every 6 months.



- 7.4.2 Environmental management programs shall identify the means, time-frames and those responsible for achieving associated objectives and targets. Responsibility will be identified at each relevant function and level of the organization.

## **8.0 General Rules**

- 8.1 The Cross Functional Team shall include representation from all appropriate functional areas and departments.
- 8.2 The environmental aspects and significant aspects associated with the operations of semi-permanent on-site contractors are covered by this procedure.
- 8.3 Interested parties include employees and the community. Their input is obtained through the implementation of EP-010.
- 8.4 All records pertaining to the development and determination of aspects, significant aspects, objectives and targets, and environmental management programs will be marked "Environmental Audit Report: Privileged Document" (*U.S. Only*).
- 8.5 The environmental management programs that address the following areas should be created if applicable objectives and targets are developed:
- 8.5.1 Compliance Assurance
  - 8.5.2 Pollution Prevention/Waste Minimization
  - 8.5.3 Energy Management
  - 8.5.4 Materials Management

## **9.0 Records**

Records shall be retained consistent with EP-013.

### **Record of Revisions**

Revision Date	Description	Sections Affected



**Facility/ t Name**  
**Environmental Aspects, Objectives**  
**& Targets Determination**

Environmental Audit Report:  
Privileged Document

Form Completed by: \_\_\_\_\_

Date Completed: \_\_\_\_\_

Department/Area: \_\_\_\_\_

Process/Activity: \_\_\_\_\_

Aspect Identification		Significance		Objectives & Targets	
Category*/ Aspect	Quantity / Volume	Rationale for Significance / Nonsignificance**	S/NS***	Objective	Target

\*Aspect Categories: Air Emissions, Wastewater Discharges, Liquid & Solid Wastes, Energy Use, Storm Water Discharges, Water Use, Storage Tanks, Material Usage, Noise, Odor, Natural Environment, Land Condition

\*\*Rationale for Significance/Non-Significance: R = Regulated/Other Req., A = Accidental Release, E = Energy, L = Environmental Load, NS = Does not meet significance criteria

\*\*\*Abbreviations: S = Significant & NS = Not Significant



***Facility/Plant Name***  
**Environmental Management Programs**

**Significant Aspect:**

**Champion:**

**Department/Area(s):**

**Process/Activity:**

**Objective:**

**Target:**

**Date:**

**Program Plan:**

Task	Responsible Party	Schedule	Performance Monitoring	Key Characteristics/Operational Controls/Comments





## **Environmental Management System and Regulatory Compliance Audits**

### **1.0 Purpose/Scope**

This procedure defines the mechanism for the planning and implementation of internal environmental management system and regulatory compliance audits at the *Facility/Plant Name*.

### **2.0 Activities Affected**

All areas and departments

### **3.0 Forms Used**

- 3.1 Audit Checklist
- 3.2 Corrective and Preventive Action Request (CAR)
- 3.3 Internal Environmental Audit Summary Report
- 3.4 Audit Schedule

### **4.0 References**

- 4.1 EP-004 Non-conformance and Corrective and Preventive Action
- 4.2 EP-005 Environmental Management System Management Review
- 4.3 ISO 14001:1996, Elements 4.5.1 and 4.5.4
- 4.4 Compliance Assurance Program Guideline

### **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 preventative action request that identifies observed non-conformances.
- 5.6 Finding: an existing condition supported by objective evidence.
- 5.7 Non-conformance: the non-fulfillment 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 which is based on measurement or test and which can be verified.

### **6.0 Exclusions**

None

### **7.0 Procedure**

- 7.1 Conducting the Internal EMS Audit
  - 7.1.1 The Quality Manager or designee shall plan, schedule and implement internal environmental management system audits. The audit schedule will be used to identify the frequency and location of internal environmental management system audits and will



be revised as necessary. Revisions to the audit schedule may be based on the results of prior audits.

- 7.1.2 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 for each location. Each area or department will be audited at least once every three years on all system elements.
- 7.1.3 For each area or department within the facility, an audit team will be formed whose membership has no responsibility within the area or department to be audited. This independence will be documented by indicating on the audit report or other audit record the organization to which the auditors belong.
- 7.1.4 Competent audit teams shall perform internal environmental audits.
  - 7.1.4.1 At least one member of the team shall be competent in the environmental auditing process through either training and/or experience.
  - 7.1.4.2 All members of the audit team shall have an awareness and understanding of the *Facility/Plant Name's* environmental management system by virtue of formal and informal training.
- 7.1.5 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 in an Audit Checklist and the checklist used during the audits.
- 7.1.6 During the audit, the audit team will record audit information, such as: items checked, individuals interviewed, any concerns identified and any corrective or preventative actions completed during the audit. The audit team shall promptly notify the Environmental Management Representative or designee of any possible regulatory non-compliance. Upon verification of non-compliance, the Environmental Management Representative shall notify facility management.
- 7.1.7 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 CAR for each finding of non-conformance (Note: a non-compliance is a non-conformance) using the Corrective Action Request form.
- 7.1.8 The Quality Manager or designee will track the status of all outstanding CAR's using the Internal Environmental Audit Summary Report form (see also EP-004).
- 7.1.9 The responsible and accountable area or department representative is to identify the root cause of the non-conformance (where applicable), corrective and preventative 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 Quality Manager or designee within the time frame established during the audit review meeting.
- 7.1.10 Upon completion of the corrective and preventative actions, the area or department manager will acknowledge completion of these actions by signing the original CAR and returning it to the Quality Manager or designee.



- 7.1.11 Corrective and preventative actions will be verified during the next internal audit or the area or department manager may contact the Quality Manager to schedule verification of actions prior to the next audit.
- 7.1.12 When full conformance is determined or corrective and preventative actions accepted, the audit team leader will sign the original CAR and return it to the Quality Manager or designee for closure and filing.
- 7.1.13 At least annually, the Environmental Management Representative or designee will summarize system audit results with facility management as specified in EP-005.
- 7.2 Conducting the Compliance Assessment Audit
  - 7.2.1 The EMR or designee is responsible for planning, scheduling and implementing internal environmental regulatory compliance assessment audits, including the identification of required resources.
  - 7.2.2 The EMR or designee develops and maintains the environmental compliance assurance program and issues program support documents, based on company environmental compliance assurance guidelines, where available.
  - 7.2.3 During a compliance assessment audit, assessment team members will record information, such as: items checked, individuals interviewed, any possible regulatory non-compliance issues. The assessment team shall promptly notify the Environmental Management Representative or designee of any possible regulatory non-compliance. Upon verification of non-compliance, the Environmental Management Representative shall notify facility management.
  - 7.2.4 The assessment team reviews possible regulatory non-compliance issues with the responsible and accountable area or department representative. The team also prepares a CAR identifying the issues, corrective and preventative actions required, and the individuals responsible for completing the actions. The EMR or designee and area or department manager will concur with the CAR before its issuance.
  - 7.2.5 Upon completion of the corrective and preventative actions, the area or department manager will acknowledge completion of these actions by signing the original CAR and returning it to the EMR or designee.
  - 7.2.6 Corrective and preventative actions will be verified in a timely manner by a member of the assessment team. When full compliance is determined or corrective and preventative actions accepted, the assessment team member will sign the original CAR and return it to the EMR or designee for closure and filing.
  - 7.2.7 Each calendar quarter, the EMR or designee will present a summary of open CAR's that are based on regulatory non-compliance to facility management for review.

## **8.0 General Rules**



- 8.1 Records, including CAR's, relating to potential or actual non-compliance issues will be treated as confidential and will be kept separate from those relating to internal EMS audits.
- 8.2 Potential non-conformance issues (Note: a non-compliance is a non-conformance) must receive prompt attention and timely corrective and preventative action.
- 8.3 All audit records shall be marked "Environmental Audit Report: Privileged Document" (US only) and distributed to individuals with a need to know their contents in order to assess, respond to or remedy a potential or actual non-conformance.

## **9.0 Records**

Records shall be retained consistent with EP-013.

### **Record of Revisions**

Revision Date	Description	Sections Affected





*Facility/Plant Name*  
**Internal Audit Checklist**

**Date:** \_\_\_\_\_ **Area/Department:** \_\_\_\_\_

<b>Auditee:</b>	<b>Audit Date:</b>	<b>Audit Criteria:</b>
<b>Requirements</b>	<b>Questions</b>	<b>Findings/Observations</b>

Audit Team Leader Signature: \_\_\_\_\_

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



***Facility/Plant Name***  
**Corrective and Preventative Action Request (CAR)**

<b>A. Audited Area/Department:</b>	
<i>Audit Date:</i> <i>Auditee(s):</i>	<i>Auditor(s):</i> <i>Date:</i>
<b>B. Description of Non-Conformance:</b>	<b>C. Root Cause Analysis:</b>
Audit Criteria: Applicable ISO 14001 Element:	
<b>D. Corrective Action:</b>	
Date of Implementation:	
<b>E. Preventative Action:</b>	
Date of Implementation:	
<b>F. Verification:</b>	
Date of Verification:	
<i>Auditor (signed):</i>	<i>Date:</i>



**Internal Environmental Audit Summary Report**

[illegible]



**Date:**

Issue Date:

X = System Audit to be Conducted  
Y = Compliance Audit to be Conducted

Page 1 of 1

EF-003.04

[illegible]





## **Non-conformance and Corrective and Preventive Action**

### **1.0 Purpose/Scope**

This procedure defines the responsibilities and process for identifying and investigating non-conformances with the *Facility/Plant Name* environmental management system, for taking action to mitigate any negative impacts caused, and for applying corrective and preventive actions.

### **2.0 Activities Affected**

All areas and departments

### **3.0 Forms Used**

Corrective and Preventive Action Request (CAR)

### **4.0 References**

- 4.1 EP-003 Environmental Management System and Regulatory Compliance Audits
- 4.2 EP-006 Emergency Preparedness and Response
- 4.3 EP-010 Environmental Communication
- 4.4 EP-012 Environmental Document Control
- 4.5 EP-015 Monitoring and Measurement
- 4.6 ISO 14001:1996, Element 4.5.2

### **5.0 Definitions**

None

### **6.0 Exclusions**

None

### **7.0 Procedure**

- 7.1 Where non-conformances or non-compliances are identified through the environmental audit process, the responsible and accountable area or department representative, affected are or department manager, audit team member or EMR, as specified in EP-003, is responsible for:
  - a) Identifying the root cause(s) of non-conformances or non-compliances
  - b) Identifying appropriate corrective and preventive actions (including modifying or creating environmental procedures and work practices)
  - c) Planning and implementing corrective and preventive actions
  - d) Verifying the close-out and effectiveness of corrective and preventative actions
- 7.2 Where non-conformances are identified outside the environmental audit process, the Quality Manager or designee will generate a CAR, as appropriate, in accordance with EP-003. The affected area or department manager or designee is responsible for:
  - a) Identifying the root cause(s) of these non-conformances
  - b) Identifying appropriate corrective and preventive actions (including modifying or creating environmental procedures and work practices)



- c) Planning and implementing corrective and preventive actions
- d) Verifying the close-out and effectiveness of corrective and preventative actions

The Quality Manager or designee will verify proper implementation of corrective and preventive actions.

- 7.3 Where non-compliances are identified outside the environmental audit process, the EMR or designee will generate a CAR, as appropriate. The CAR will then be addressed as specified in EP-003.

## **8.0 General Rules**

- 8.1 All incidents, accidents, spills, releases and emergencies shall be dealt with through environmental procedure EP-006 (Emergency Preparedness and Response).
- 8.2 A corrective and preventative action request (CAR) shall be used for recording non-conformances (Note: a non-compliance is a non-conformance) and corrective and preventative actions as indicated in EP-003 or in step 7.2 of this procedure.
- 8.3 Action Plans may be used where appropriate for planning, scheduling and managing corrective and preventive actions.
- 8.4 Environmental procedures (EPs), environmental work practices (EWPs) and/or training programs shall be modified and/or created where necessary to establish adequate controls for avoiding repetition of non-conformances and non-compliances.

## **9.0 Records**

Records shall be retained consistent with EP-013.

### **Record of Revisions**

Revision Date	Description	Sections Affected



## **Environmental Management System Management Review**

### **1.0 Purpose/Scope**

This procedure defines the process for the periodic review and evaluation of the *Facility/Plant Name* environmental management system by the Facility/Plant Management Team, to ensure its continuing suitability, adequacy and effectiveness.

### **2.0 Activities Affected**

All areas and departments

### **3.0 Forms Used**

Attendee Sheet

### **4.0 References**

- 4.1 EP-002 Environmental Aspects, Objectives and Targets, and Management Programs
- 4.2 EP-003 Environmental Management System and Regulatory Compliance Audits
- 4.3 EP-004 Nonconformance and Corrective and Preventive Action
- 4.4 EP-007 Environmental Regulations and Other Requirements
- 4.3 EP-015 Monitoring and Measurement
- 4.5 ISO 14001:1996, Element 4.6

### **5.0 Definitions**

None

### **6.0 Exclusions**

None

### **7.0 Procedure**

- 7.1 The Facility/Plant Manager and Facility/Plant Management Team shall conduct a review of the environmental management system at least once each year.
- 7.2 Management review meetings shall be scheduled in advance by the Environmental Management Representative and an agenda issued to ensure appropriate preparation and attendance.
- 7.3 The meeting shall review all applicable components of the *Facility/Plant Name* environmental management system. The Environmental Management Representative shall present information for review and concurrence, which may include but not be limited to:
  - a) Environmental Policy
  - b) Environmental Aspects
  - c) Objectives & Targets and Programs
  - d) Legal and Other Requirements
  - e) Training, Awareness and Competence
  - f) Operational Control



**Facility/Plant Name Environmental Procedure**  
**Procedure # EP-005**

- g) Emergency Preparedness and Response
- h) Monitoring and Measurement
- i) Nonconformance and Corrective and Preventative Action
- j) Environmental System and Regulatory Compliance Audits

7.4 The Facility/Plant Manager and Facility/Plant Management Team shall review and confirm their approval and the continual suitability, adequacy and effectiveness of the environmental policy, environmental objectives and targets, environmental management programs and other elements of the system as well as regulatory compliance requirements are met..

7.5 The Environmental Management Representative or designee will publish and maintain meeting minutes identifying issues discussed and corrective and preventive actions to be taken. 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 Records

Records shall be retained consistent with EP-013.

### Record of Revisions

Revision Date	Description	Sections Affected





***Facility/Plant Name***  
**EMS Management Review Sign-In Sheet**

**Date:**[illegible]



## **Emergency Preparedness and Response**

### **1.0 Purpose/Scope**

This procedure defines the framework for preparing for and responding to emergencies involving potential environmental incidents at the *Facility/Plant Name*.

### **2.0 Activities Affected**

All areas and departments

### **3.0 Forms Used**

None

### **4.0 References**

- 4.1 EP-002 Environmental Aspects, Objectives and Targets, and Management Programs
- 4.2 EP-004 Non-conformance and Corrective and Preventive Action
- 4.3 EP-010 Environmental Communication
- 4.4 ISO 14001:1996, Element 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 facility shall be identified semi-annually by the Cross Functional Team and documented according to EP-002 and Emergency Response and Planning requirements.
- 7.2 Methods to respond to, mitigate and prevent environmental emergencies shall be established and maintained at the facility in the Security Office by the Emergency Response Coordinator.
- 7.3 Roles and responsibilities for communications within the facility and for obtaining outside support services shall be established and maintained at the facility via the emergency plans.
- 7.4 Environmental emergency methods and communications will be tested at least annually. The Security Office 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.



**Facility/Plant Name Environmental Procedure**  
**Procedure # EP-006**

- 7.5 Following an environmental emergency, the cause of the emergency and corresponding emergency methods shall be reviewed. Corrective/preventative actions will be identified and undertaken by implementing EP-004. Methods to respond to, mitigate and prevent releases that arise as a consequence of an environmental emergency shall be amended as required and the EMR or Environmental Coordinator notified.
- 7.6 Where applicable, regulatory agencies shall be notified by the Environmental Coordinator of environmental incidents consistent with EP-010.

**8.0 General Rules**

- 8.1 All emergency response activities are to be conducted within boundaries of training levels, appropriate procedures, and governmental regulations.
- 8.2 The facility manager shall designate an emergency response coordinator.

**9.0 Records**

Records shall be retained consistent with EP-013.

**Record of Revisions**

Revision Date	Description	Sections Affected



## **Environmental Regulations and Other Requirements**

### **1.0 Purpose/Scope**

This procedure defines the mechanism for identifying and maintaining current legal and other requirements and regulations applicable to the *Facility/Plant Name*, and for maintaining access to up-to-date editions of those requirements.

### **2.0 Activities Affected**

Environmental Coordinator

### **3.0 Forms Used**

None

### **4.0 References**

- 4.1 EP-010 Environmental Communication
- 4.2 Governmental/commercially available publications
- 4.3 Other requirements to which *Facility/Plant Name* subscribes (e.g., Ford requirements)
- 4.4 ISO 14001:1996, Element 4.3.2.

### **5.0 Definitions**

None

### **6.0 Exclusions**

None

### **7.0 Procedure**

- 7.1 The Environmental Coordinator shall maintain up-to-date listings of applicable environmental legal and other requirements through the maintenance, access and review of the relevant references listed in Section 4.0 above at least annually.
- 7.2 The Environmental Coordinator may undertake additional activities as appropriate to ensure that all applicable legal and other requirements are available.
- 7.3 Access to, or copies of, all applicable legal and other requirements shall be readily available.
- 7.4 The Environmental Coordinator shall communicate legal and other requirements to all applicable areas and departments, consistent with EP-010.

### **8.0 General Rules**

None





## **9.0 Records**

Records shall be retained consistent with EP-013.

### **Record of Revisions**

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



## **Environmental Review of Projects**

### **1.0 Purpose/Scope**

This procedure defines the method for identifying and evaluating the environmental issues of new projects at the *Facility/Plant Name* to:

- a) ensure that appropriate consideration is given to environmental issues prior to project approval and funding;
- b) ensure that new environmental aspects generated by projects are identified and their significance evaluated; and,
- c) provide a mechanism for the amendment of environmental management system elements and programs, where relevant, to ensure that the environmental management system applies to such projects.

### **2.0 Activities Affected**

All areas and departments

### **3.0 Forms Used**

Project Environmental Checklist

### **4.0 References**

EP-002 Environmental Aspects, Objectives and Targets, and Management Programs

### **5.0 Definitions**

None

### **6.0 Exclusions**

None

### **7.0 Procedure**

- 7.1 Areas/departments initiate Project Appropriation Requests when the need for project funding becomes apparent.
- 7.2 The initiating activity or designee shall identify and evaluate environmental issues associated with the project. A summary of this evaluation shall be documented on a Project Environmental Checklist form and the form added to the Appropriation Request. This process may be undertaken in liaison with the Environmental Coordinator (or other competent individual) at the discretion of the initiating activity, and shall include an identification of environmental aspects, and requirements for obtaining approvals from environmental regulatory agencies.
- 7.3 The initiating activity shall submit the Appropriation Request and completed Project Environmental Checklist for review to the Environmental Management Representative.



**Facility/Plant Name Environmental Procedure**  
**Procedure # EP-008**

- 7.4 The Environmental Management Representative, or designee, shall review the proposed project to ensure that all relevant environmental issues have been identified, and if incomplete shall return the Appropriation Request and Project Environmental Checklist to the initiating activity for alteration.
- 7.5 The Environmental Management Representative, or designee, shall review the environmental aspects of the project, considering their significance in line with EP-002.
- 7.6 Following appropriate review, the Environmental Management Representative or designee may approve the project by returning the Appropriation Request to the initiating activity for further processing. If a project is not acceptable, the initiating activity will coordinate any necessary actions to satisfy concerns identified. The initiating activity in conjunction with the Environmental Management Representative or designee will coordinate any necessary prevention, mitigation or control activities associated with the project.

**8.0 General Rules**

- 8.1 Environmental aspects associated with projects shall be evaluated for significance by the Cross Functional Team per EP-002.
- 8.2 Changes to the Environmental Management System resulting from an environmental review of a project will be approved by the Facility/Plant Management Team.

**9.0 Records**

Records shall be retained consistent with EP-013.

**Record of Revisions**

Revision Date	Description	Sections Affected



**Facility/Plant Name**  
**Project Environmental Checklist**

**Project Description:**

**Project Number:**

**AIR EMISSIONS**

- Will this project/process change produce air emissions?  
Will this project/process change require an air permit or permit modification?  
Does the change require air pollution controls?  
Does the project/process change require the use or purchase of ozone depleting substances?

Yes	No

**WATER DISCHARGES**

- Does the project/process change result in a wastewater, sanitary or storm water discharges?  
Will the project/process change result in changes to water discharge flow rates?  
Will the discharge require a permit modification?  
Will new or additional pretreatment be required?  
Are facility discharges to a common sewer altered?

Yes	No

**STORAGE TANKS**

- Will underground storage tanks be installed?  
Will tanks be installed to store hazardous waste or materials, petroleum products or propane?

Yes	No

**WASTE GENERATION**

- Will the project/process change produce a waste or recyclable material?  
Will the waste be classified as special or hazardous?  
Will off-site disposal be required?  
Are special handling, abatement or disposal measures required?

Yes	No

**ENERGY USAGE**

- Will the project/process change effect facility energy usage?

Yes	No

**OTHER CONSIDERATIONS**

- Do recycling options and costs need to be considered?  
Does the project/process change require use of toxic, hazardous or carcinogenic materials?  
Do project/process materials require special handling or storage?  
Does the project cause land disturbances?  
Do pollution prevention issues need to be addressed?  
Does the project/process change impact the surrounding community (i.e., odor, noise etc.)?  
Are there any wildlife or land use issues?  
Does the project/process change alter or add to current facility aspects?  
Does the project/process change require a change to Emergency Response methods?

Yes	No

\_\_\_\_\_  
Initiating Activity Manager

\_\_\_\_\_  
Date

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

\_\_\_\_\_  
Date





## **Agency Approvals**

### **1.0 Purpose/Scope**

This procedure describes the method to be implemented to secure approval from regulatory agencies for processes and activities at the *Facility/Plant Name* affecting air emissions, waste management or water discharges, as well as the method for other environmental approvals.

### **2.0 Activities Affected**

All areas and departments

### **3.0 Forms Used**

None

### **4.0 References**

- 4.1 EP-002 Environmental Aspects, Objectives and Targets and Programs
- 4.2 EP-007 Environmental Regulations and Other Requirements
- 4.3 EP-008 Environmental Review of Projects
- 4.4 EP-010 Environmental Communication
- 4.5 ISO 14001:1996, Elements 4.3.4, 4.4.6, 4.5.1

### **5.0 Definitions**

- 5.1 Regulatory Agency: governmental unit delegated authority for implementing regulations related to ambient air quality, waste management and/or water discharge quality.
- 5.2 Process: materials, activities, equipment associated with operations.
- 5.3 Permit: permit, licenses, certifications or other authorizations issued by a governmental regulatory body.

### **6.0 Exclusions**

None

### **7.0 Procedure**

- 7.1 Where operations are identified as potentially requiring environmental permits the Environmental Coordinator shall coordinate the investigation and permitting process through the use of an informal "permit team" comprising of at least the Environmental Coordinator and as appropriate, a representative from the *Facility/Plant Name* function responsible for the operation concerned.
- 7.2 All communications in connection with permits, and specifically those with the relevant regulatory agencies, shall be undertaken in conformance with EP-010.
- 7.3 The "permit team" shall develop a strategy to secure permits in concurrence with existing operational timing plans. The Environmental Management Representative (EMR) is responsible for timely communicating issues to the Facility/Plant Management Team.



**Facility/Plant Name Environmental Procedure**  
**Procedure # EP-009**

7.4 The Environmental Coordinator shall coordinate the preparation, submission and negotiation of permit applications, operating through the "permit team". Permits obtained shall be reviewed to ensure that they adequately cover the operation(s) concerned.

7.5 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.

**8.0 General Rules**

None

**9.0 Records**

Records shall be retained consistent with EP-013.

**Record of Revisions**

Revision Date	Description	Sections Affected



## **Environmental Communication**

### **1.0 Purpose/Scope**

This procedure defines the process for:

- a) Internal environmental communication/awareness within the *Facility/Plant Name*.
- b) External environmental communication between the *Facility/Plant Name* and external interested parties, such as regulatory authorities and the public/local community groups.

### **2.0 Activities Affected**

All areas and departments

### **3.0 Forms Used**

External Communication Log

### **4.0 References**

- 4.1 Environmental Policy
- 4.2 EP-002 Environmental Aspects, Objectives and Targets and Programs
- 4.3 EP-005 Environmental Management System Management Review
- 4.4 EP-006 Emergency Preparedness and Response
- 4.5 EP-007 Environmental Regulations and Other Requirements
- 4.6 EP-008 Environmental Review of Projects
- 4.7 EP-009 Agency Approvals
- 4.8 EP-011 Contractor Control
- 4.9 EP-012 Environmental Document Control
- 4.10 EP-014 Environmental Training and Awareness
- 4.11 ISO 14001:1996, Element 4.4.3.

### **5.0 Definitions**

External Communications: written or electronic correspondence, telephone conversations and oral discussions or meetings with anyone external to the company.

### **6.0 Exclusions**

None

### **7.0 Procedure**

- 7.1 Internal Communications/Awareness
  - 7.1.1 Internal environmental communications shall be implemented to ensure those personnel at each relevant level and function are aware of the following:
    - 7.1.1.1 the environmental management system;



- 7.1.1.2 the importance of conformance with the environmental policy, procedures and system;
- 7.1.1.3 the potential consequences of system non-conformances;
- 7.1.1.4 individual roles and responsibilities in achieving conformance with procedures, including emergency preparedness and response; and
- 7.1.1.5 the significant environmental aspects associated with work activities and the environmental benefits of improved personal performance.

7.1.2 Internal environmental communications may be accomplished by the use of:

- 7.1.2.1 Notice boards
- 7.1.2.2 Awareness training of facility personnel, as appropriate in line with job function
- 7.1.2.3 Environmental training of relevant job functions, as appropriate (see environmental procedure EP-014: Environmental Training and Awareness)
- 7.1.2.4 Newsletters
- 7.1.2.5 Electronic notes
- 7.1.2.6 Team meetings and meeting minutes
- 7.1.2.7 Management reviews and meeting minutes
- 7.1.2.8 Corrective Action Requests

7.1.3 Communication of environmental issues from employees to the Facility/Plant Management Team shall be handled by the Cross Functional Team member representing the affected area, in coordination with the Environmental Management Representative. These communications shall be documented.

7.1.4 Communication of changes to legal & 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 External communications concerning the environmental aspects of the facility should be directed to the Security Manager, Human Resources Manager or the Environmental Management Representative.
- 7.2.2 The Environmental Management Representative or Environmental Coordinator is responsible for responding to inquiries from interested parties and regulatory agencies.
- 7.2.3 The Human Resources Manager or designee is responsible for sending current copies of the environmental policy to interested parties. These requests will be documented on the External Communications Log.
- 7.2.4 The Human Resources Manager in consultation with the Environmental Management Representative is responsible for responding to media communications.
- 7.2.5 Where community concerns relate to an environmental emergency, EP-004 shall be implemented.
- 7.2.6 The Environmental Management Representative or designee is responsible for determining the need for and preparation of any notification to regulatory agencies on an as needed basis.





**8.0 General Rules**

- 8.1 CFT members and Area or Department Managers shall maintain their own internal communication records.
- 8.2 The Environmental Management Representative shall maintain records of external environmental communication with interested parties and the media.
- 8.3 The Environmental Coordinator shall maintain records of external environmental communications with regulatory agencies.

**9.0 Records**

Records shall be retained consistent with EP-013.

**Record of Revisions**

Revision Date	Description	Sections Affected



***Facility/Plant Name***  
**External Communications Log**

Date _____ Time _____	Contact Name(s): _____ _____	Type of Contact: Meeting _____ Email/Letter _____ Telephone _____ Other (describe): _____
		Person Completing Form: _____ _____

Environmental Issue/Concern:

Actions to be Taken:

Type of Follow-up Required:



## **Contractor Control**

### **1.0 Purpose/Scope**

This procedure defines the process for controlling the environmental aspects of on-site contractors and their sub-contractors at the *Facility/Plant Name*.

### **2.0 Activities Affected**

All areas and departments authorizing contractors to work on-site.

### **3.0 Forms Used**

Environmental Briefing Packet and Contractor Method Statement template

### **4.0 References**

ISO 14001:1996, Element 4.4.6

### **5.0 Definitions**

Method Statement: a written statement prepared by a contractor which 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 Contractor activities and services that are not performed at the Facility/Plant.
- 6.2 Contractors performing emergency services.
- 6.3 Contractors providing clerical, accounting or other similar administrative services.

### **7.0 Procedure**

- 7.1 A Cross Functional Team led by the EMR or designee develops a process to obtain and review contractor method statements.
- 7.2 The need for contractor services is identified and a request for a Method Statement is prepared by the initiating activity.
- 7.3 Information related to contractor on-site activities shall be documented by the contractor using a Contractor Method Statement.
- 7.4 Completed contractor method statement forms will be submitted to the initiating activity. The EMR or designee will evaluate method statements to identify potential environmental issues and concerns.
- 7.5 Prior to on-site work contractors shall:
  - 7.5.1 Be provided with information and documents to ensure their awareness of the *Facility/Plant Name* Environmental Management System and their conformance to it.



7.5.2 Submit a completed Contractor Method Statement to the initiating activity.

7.6 While on-site contractors shall conform to the *Facility/Plant Name* Environmental Management System, and to all applicable legal and other requirements.

7.7 Contractors shall maintain records as specified by the environmental management system and by contract requirements.

## **8.0 General Rules**

Contractors shall ensure their on-site staff is aware of environmental management system requirements.

## **9.0 Records**

Records shall be retained consistent with EP-013.

### **Record of Revisions**

Revision Date	Description	Sections Affected





## **Environmental Briefing Packet and Contractor Method Statement Template**

### **A. Environmental Briefing Package**

#### **Introduction**

The *Facility/Plant Name* Environmental Management System is designed to meet the requirements of ISO 14001 Standard. The principle elements of the EMS and environmental policy are:

1. to establish and operate effective procedures aimed at controlling environmental performance to comply with all relevant environmental legislation and regulations;
2. to set objectives and targets aimed at achieving continual improvement in environmental performance; and
3. to introduce improvements which contribute to the prevention of the pollution at the source, where possible.

**An important part of the EMS relates to the control of contractors and their sub-contractors, who are required to comply with the *Facility/Plant Name* environmental policies and procedures.**

The nature of the contractor activities is such that contractor personnel have significant potential to affect the environmental performance and regulatory compliance of the facility. Contractor personnel and the facility must therefore work together to achieve the facility's environmental policy, the environmental objectives and targets, and the protection of the environment.

Contractors must be aware of the importance of compliance with relevant environmental legislation and regulations, and the consequences of non-compliance.

*ity*. **The contractor is responsible for developing a Contractor Method Statement and returning it to the *Facility/Plant Name* Environmental Management Representative or designee.**

**The contractor is responsible for communicating to all contractor personnel the information in their Method Statement as well as information from the Contractor Environmental Briefing Package.**

#### **CONTRACTOR PERSONNEL ENVIRONMENTAL INFORMATION**

##### ***Facility/Plant Name* Environmental Management System**

All contractors working at *Facility/Plant Name* are required to comply with the requirements of the EMS and the environmental policy. This Environmental Guide provides general details of the Environmental Management System and Environmental Policy.

##### **Environmental Management Basics - Contractors on-site**

Contractors shall not allow discharges to drains and/or sewers without prior approval from the Environmental Coordinator.

Contractors shall provide adequate spill/release prevention for all bulk materials.

Contractors shall immediately notify the *Facility/Plant Name* Safety Committee Champion and the project manager of any spills, releases, or other environmental incidents.

Contractors shall immediately notify the Environmental Coordinator and the project manager of any abnormal conditions found during excavation at the facility. Visibly discolored soils, soils with a discernible odor, and/or heavily stained concrete must not be removed from the site without prior approval of the Environmental Coordinator.

Contractors shall properly label, store, and dispose of all waste materials generated from their activities per *Facility/Plant Name* procedures or guidance.



## *Facility/Plant Name*

### Environmental Briefing Packet and Contractor Method Statement Template

If *Facility/Plant Name* personnel are required to work with potentially hazardous materials brought on-site by a contractor, prior approval of the material by the Environmental Coordinator is required.

Contractors must be sensitive to the effects of noise, odor, light, fugitive dust emissions, and traffic movement to the facility and in the local community.

Contractors shall be required to prepare and maintain records pertaining to the work performed in accordance with environmental regulatory requirements, including record retention requirements.

Contractors shall ensure protection of the natural environment surrounding the work area.

Contractor shall ensure that all employees are properly trained on such things as the proper handling of material and equipment, proper response to incidents involving their material and general information relating to the *Facility/Plant Name* Environmental Management System

#### Environmental Management System Documents

The *Facility/Plant Name* may wish to include or provide the following information prior to Contractors/sub-contractors beginning work

##### Environmental Policy

*Note: The facility/location may want to Include a copy of the Environmental Policy*

##### Index of Environmental Management System procedures

*Note: The facility/location may want to Include an index of environmental system procedures*

*(example)*

Procedure Number	Title	ISO 14001 Element
EP-010	Environmental Review of Projects	4.4.6

##### Index of local procedures and work instruction

*Note: The facility/location may want to include an index of all or applicable system procedures and work practices*

*(example)*

System Procedure/ Work Practice Number	Title	Issue Date

##### Contractor Management Procedure

*Note: The facility/location may want to include a copy of the Contractor Control EP-014*

##### Emergency Response Procedure

*Note: The facility/location may want to include a copy of the Emergency Preparedness and Response procedure Ep-006*



**Environmental Briefing Packet and Contractor Method Statement Template**

**B. Contractor Method Statement**

**Introduction:**

The Contractor shall prepare and maintain information including a clear method statement, regarding Contractor/sub-contractor activities, which outlines the work to be undertaken and the method(s) for minimizing environmental impacts and maintaining compliance with environmental regulations.

*To assist in organizing and maintaining information, background information sections have been included (section I, II, III). Sections can be modified or deleted as required when requesting a method statement from Contractors..*

**Facility/Plant Name Personnel To Complete Sections I, II, and III**  
**Suppliers Complete Sections IV, V, and VI**

**Section I Your Information:** [ type or print]

<b>Name:</b>	
<b>Phone Number:</b>	
<b>Fax Number:</b>	
<b>Dept Name:</b>	
<b>Dept Number:</b>	

**Section II. Requisition Information:** [type or print]

<b>Requisition Number:</b>	
<b>Project Number: (if applicable)</b>	



*Facility/Plant Name*

**Environmental Briefing Packet and Contractor Method Statement Template**

**Section III. Service or Activity to be Performed: [Check all that apply]**

<b>Material/Chemical:</b> (Production/Non-production)	Paint Solvent Sealer	Treatment Chemicals Lubricants, Oils, Greases Gasoline	Janitorial/Maintenance Other (specify) _____ Other (specify) _____
<b>Facilities/Construction:</b>	Electrical Paint Structural	Roofing Mechanical HVAC	General Contractor Arch/Engin/Consulting Other (specify) _____
<b>Industrial Services:</b> (Includes Environmental Services)	Asbestos Lead Maintenance Janitorial	Emergency Response Env. Consulting Paint Booth Cleaning	Waste Management Other (specify) _____
<b>Containerization:</b>	5 gal. or less Drums Totes Bulk Tanks	<b>Type of Contract:</b>	Commodity Management On-site Manager Provided Total Cost Contract





**Environmental Briefing Packet and Contractor Method Statement Template**

**Section IV. Supplier/Contractor Information: [Circle all that apply]**

**Current Supplier/Contractor to this Facility**

**New Supplier/Contractor to this Facility**

**Currently Involved in other Facility project(s)**

**List Project(s):** \_\_\_\_\_

**(Complete Information in table below) [type or print]**

<b>Name:</b>	
<b>Address:</b>	
<b>City:</b>	
<b>State:</b>	
<b>Phone Number:</b>	
<b>Fax Number:</b>	
<b>President/General Manager:</b>	
<b>Facility Site Coordinator:</b>	
<b>Email Address:</b>	
<b>Phone Number:</b>	
<b>Mobile Number:</b>	
<b>Fax Number:</b>	
<b>Pager:</b>	
<b>24 Hour Emergency Number:</b>	



*Facility/Plant Name*

**Environmental Briefing Packet and Contractor Method Statement Template**

**Subcontractor Information:** (List suppliers/contractors not identified) [type or print]

Type	Firm Name
Architectural	
Mechanical	
Electrical	
HVAC	
Industrial Services	
Painting	
Roofing	
Asbestos	
Architectural/Engineering Consulting Firm	
Sampling/Testing	
Chemical Supplier	
Other (specify)	
Scrap/Salvage Dealer	
Waste Disposal	
Demolition Disposal	

***Note: It is strongly recommended you have your subcontractors and suppliers involved at this facility complete a separate environmental briefing package for the facility's review.***



*Facility/Plant Name*

**Environmental Briefing Packet and Contractor Method Statement Template**

**Supplier/Contractor is financially responsible for on-site environmental remediation actions resulting from incidents involving their employees and subcontractors. To minimize the risk of environmental accidents please review and initial the items contained in the Environmental Management Basics Table below:**

<b>Environmental Management Basics</b>	<b>Supplier/Contractor Initials</b>
<b>Supplier/Contractor understands the importance of compliance with relevant environmental legislation and regulations, and the consequences of non-compliance.</b>	
<b>All Suppliers/Contractors working at the facility are required to comply with and ensure their employees and any Suppliers/Sub-Contractors or agents comply with the facility's Environmental Management System (EMS) and environmental policy.</b>	
<b>All Suppliers/Contractors acknowledge receiving or were made aware of the facility's environmental policy, as well as applicable system procedures and work practices.</b>	
<b>Suppliers/Contractors shall not discharge anything to drains and/or sewers without prior approval from the facility's Environmental Coordinator. Spills and other releases to the environment must be immediately reported to the Safety Committee Champion.</b>	
<b>Suppliers/Contractors shall provide adequate spill release prevention, as approved by the facility's Environmental Coordinator.</b>	
<b>Suppliers/Contractors shall immediately notify the facility's Environmental Coordinator and the Project Manager of any abnormal conditions found during excavation activities at the facility.</b>	
<b>Suppliers/Contractors shall properly label, store, and dispose of all their waste materials used on-site in accordance with facility procedures and all legal requirements.</b>	
<b>If facility personnel are required to work with potentially hazardous materials brought on-site by a contractor, prior approval of the material by the Environmental Coordinator is required.</b>	
<b>Suppliers/Contractors shall minimize the effects of noise, odor, light, fugitive dust emissions, and traffic movement on and/or adjacent to facility property.</b>	
<b>Suppliers/Contractors shall obtain, prior to commencing work, all necessary environmental approvals or permits and present copies of such permits to the facility's Environmental Coordinator.</b>	
<b>Suppliers/Contractors were informed of actions to be taken during an actual emergency situation.</b>	
<b>The Supplier/Contractor understands that the facility may interrupt Supplier/Contractor activities that violate facility policies and/or all legal requirements.</b>	



**Environmental Briefing Packet and Contractor Method Statement Template**

**Section V. Contractor Method Statement:**

**Respond to the following questions: [use additional space where required]**

This method statement must be completed, signed, and returned to the facility's Environmental Management Representative before contracted work commences.

**Work Description**

Briefly describe the work to be performed while on-site including the activities of each of the suppliers/contractors.

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---

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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.

---

---

---

**Water Discharges**

Will the work you perform produce or cause the release of any wastewater?

YES

NO

IF YES, how will the wastewater be handled?

---

---

---

**Materials**

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

---

---

---

**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.

---

---

---

**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:

---

---

---





***Facility/Plant Name***

**Environmental Briefing Packet and Contractor Method Statement Template**

Will any wastes generated be recyclable?

YES NO

IF YES, list the recyclable and where and how they will be recycled:

---

---

---

---

***Energy***

Will the work you perform consume energy?(electricity, compressed air, natural gas, steam, etc.) YES NO

IF YES, explain what type of energy will be consumed, and how you will minimize consumption:

---

---

---

---

***Other***

Are there any other ways in which your work will be affecting and/or protecting the environment? YES NO

If so, please describe below.

---

---

---

---

***Other***

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

---

---

---

---

***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 the facility

---

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**Environmental Briefing Packet and Contractor Method Statement Template**

**Section VI. Supplier/Contractor Certification: [review and sign]**

**I have reviewed and understand the information contained in this document. I also understand that *Facility/Plant Name* Personnel have the right to inspect our activities and those of our Suppliers/Contractors with regards to 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 facility's Environmental Management Representative should be contacted to make this determination.**

<b>Name</b>	
<b>Title</b>	
<b>Signature</b>	
<b>Date</b>	



## **Environmental Document Control**

### **1.0 Purpose/Scope**

This procedure defines the mechanism for controlling Environmental Management System documents.

The purpose of this procedure is to ensure that those personnel requiring access to environmental management system documents have the most up-to-date issues and are aware of the document control process.

### **2.0 Activities Affected**

All areas and departments

### **3.0 Forms Used**

Master Document List

### **4.0 References**

- 4.1 EP-001 Formatting Environmental Procedures, Work Practices & Forms
- 4.2 ISO 14001:1996, Element 4.4.5

### **5.0 Definitions**

None

### **6.0 Exclusions**

None

### **7.0 Procedure**

- 7.1 The Environmental Management Representative or designee shall be responsible for coordinating, developing, issuing and controlling environmental management system documents.
- 7.2 Procedures shall be in the format specified by environmental procedure EP-001.
- 7.3 The Environmental Management Representative 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 their area or department, as applicable.
- 7.5 Relevant documents are available at the locations where they are needed.
- 7.6 Personnel 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 Environmental Management Representative or designee shall be recorded on a Master Document List.
- 7.11 The Environmental Management Representative or designee shall:
- 7.11.1 Provide notice to affected personnel to ensure they are aware of the new or revised document; and
  - 7.11.2 Issue controlled copies of those documents to appropriate personnel.

## **8.0 General Rules**

All documents not marked with the words "Controlled Document" shall be considered uncontrolled.

## **9.0 Records**

Records shall be retained consistent with EP-013.

### **Record of Revisions**

Revision Date	Description	Sections Affected





**Facility/Plant Name**  
**Master Document List**

**Date:**[illegible]



## **Environmental Records**

### **1.0 Purpose/Scope**

This procedure identifies the management of environmental records at the *Facility/Plant Name*.

### **2.0 Activities Affected**

The areas and departments specified in the Index of Environmental Records.

### **3.0 Forms Used**

Index of Environmental Records

### **4.0 References**

ISO 14001:1996, Element 5.5.3

### **5.0 Definitions**

Records: documented information that: (a) is evidence of an environmental activity or event that has been or is being performed, or (b) 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 maintained and retained as specified in the Index of Environmental Records.

7.2 Record retention will be consistent with applicable legal and other requirements.

7.3 Each area or department manager or designee shall have access to a master list of all EMS records relevant to their area or department, as applicable.

7.4 Each activity responsible for maintaining a record has the responsibility for establishing the method for filing and indexing records to ensure accessibility.

### **8.0 General Rules**

Records shall be 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 Records**

Records shall be retained as specified in this procedure.



**Record of Revisions**

Revision Date	Description	Sections Affected



## Index of Environmental Records

**Date:**

Issue Date:

Page 1 of \_\_\_\_\_

EF-013.01

[illegible]





## **Environmental Training and Awareness**

### **1.0 Purpose/Scope**

This procedure defines the process for identifying and planning environmental training and awareness at the *Facility/Plant Name*.

### **2.0 Activities Affected**

All areas and departments

### **3.0 Forms Used**

- 3.1 Training Needs Matrix - Environmental Courses
- 3.2 Training Needs Matrix - Procedures and Work Practices by Area/Department

### **4.0 References**

- 4.1 EP-002 Environmental Aspects, Objectives and Targets and Programs
- 4.2 EP-007 Environmental Regulations and Other Requirements
- 4.3 EP-008 Environmental Review of Projects
- 4.4 EP-010 Environmental Communication
- 4.5 ISO 14001:1996, Element 4.4.2

### **5.0 Definitions**

None

### **6.0 Exclusions**

None

### **7.0 Procedure**

#### **7.1 Training**

- 7.1.1 A training needs analysis (TNA) and training schedule shall be completed and maintained by the Training Department to identify the level of instruction needed by personnel whose jobs may create a significant impact on the environment.
- 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 or designee, in consultation with the Training Department to ensure its continuing adequacy.
- 7.1.3 The TNA shall be developed by knowledgeable individuals with appropriate expertise and experience in: operational environmental management; relevant environmental legal requirements for environmental training; and training provision at the facility/plant.



**Facility/Plant Name Environmental Procedure**  
**Procedure # EP-014**

7.1.4 New, part-time and transferred employees, as well as permanent on-site contractors, shall be included in the environmental training program.

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

**7.2 Awareness**

Environmental awareness shall be implemented as specified in EP-010.

**7.3 Competence**

Employee competence relevant to the EMS is determined through applicable training and through observation of performance by the employee's supervisor.

**8.0 General Rules**

8.1 The Training Department shall maintain the current copy of the TNA and training schedule

8.2 The Training Department shall maintain records of the environmental training which individuals have received.

8.3 The Environmental Management Representative and Training Department shall maintain data/record elements that together comprise an environmental training program.

8.4 The Training Department will maintain curriculum and class objectives for all training courses.

**9.0 Records**

Records shall be retained consistent with EP-013.

**Record of Revisions**

Revision Date	Description	Sections Affected



***Facility/Plant Name***  
**Training Needs Matrix**  
**Environmental Courses**

**Date:**[illegible]



*Facility/Pl. Name*  
**TRAINING NEEDS MATRIX**  
**PROCEDURES AND WORK INSTRUCTIONS BY AREA/DEPARTMENT**

Procedure/ Work Practice No.	Title	Area/Department							





## **Monitoring and Measurement**

### **1.0 Purpose/Scope**

This procedure defines the mechanism for the monitoring and measurement of significant environmental aspects associated with the *Facility/Plant Name* operations and activities; the calibration and maintenance of monitoring equipment; and the evaluation of compliance with relevant environmental legal and policy requirements.

### **2.0 Activities Affected**

All areas and departments

### **3.0 Forms Used**

None

### **4.0 References**

- 4.1 EP-002 Environmental Aspects, Objectives and Targets and Management Programs
- 4.2 EP-003 Environmental Management System and Regulatory Compliance Audits
- 4.3 EP-004 Nonconformance and Corrective and Preventive Action
- 4.4 EP-005 Environmental Management System Management Review
- 4.5 EP-006 Emergency Preparedness and Response
- 4.6 EP-007 Environmental Regulations and Other Requirements
- 4.7 EP-008 Environmental Review of Projects
- 4.8 EP-010 Environmental Communication
- 4.9 EP-011 Contractor Control
- 4.10 EP-014 Environmental Training and Awareness
- 4.11 ISO 14001:1996, Element 4.5.1

### **5.0 Definitions**

None

### **6.0 Exclusions**

None

### **7.0 Procedure**

- 7.1 Monitoring and Measurement of Significant Aspects, Objectives and Targets and Operational Controls
  - 7.1.1 The monitoring and measurement of key characteristics and environmental performance associated with significant aspects will be specified in environmental management programs.
  - 7.1.2 The monitoring and measurement of conformance to specified environmental objectives and targets will be accomplished through the internal system audit process, as specified



in EP-003, and through the creation of Corrective Action Requests, as specified in EP-004.

- 7.1.3 Operational controls will be monitored and measured as indicated in applicable environmental management programs, procedures, work practices, or visual aids. The methods, frequencies and responsible parties for completing the monitoring and measuring activities will be specified in these documents.

**7.2 Calibration and Maintenance of Environmental Monitoring Equipment**

- 7.2.1 Relevant areas and departments shall ensure that environmental monitoring equipment is calibrated and maintained at a frequency consistent with manufacturers' recommendations, or at least every 12 months if those recommendations are unknown. Relevant areas and departments shall maintain calibration and maintenance records as necessary to prove conformance with this procedure.

- 7.2.2 Calibration and maintenance of environmental monitoring equipment shall be addressed in area and department preventative maintenance programs, where applicable, or in local work practices, if desired.

- 7.2.3 Each applicable area and department will maintain a list of EMS equipment requiring calibration and the corresponding calibration frequency.

**7.3 Evaluation of Compliance**

- 7.3.1 The evaluation of compliance with relevant environmental legal requirements shall be accomplished through the implementation of EP-003.

**8.0 General Rules**

None

**9.0 Records**

Records shall be retained consistent with EP-013.

**Record of Revisions**

Revision Date	Description	Sections Affected



## APPENDIX J

### WORK PRACTICES

*The following work practices are only examples. Actual work practices to be developed by the Facility/Plant will depend on the particular significant aspects established, the types of operational controls and monitoring required, and legal & other requirements applicable.*



## Environmental Work Practice Index

<b>Work Practice No.</b>	<b>Work Practice Title</b>	<b>ISO 14001 Element</b>
EWP-020.01	Servicing of Stationary Refrigeration Equipment	4.4.6
EWP-023.01	Waste Drum Shipments	4.4.6
EWP-024.01	Bulk Material Loading and Unloading	4.4.6





*Facility/Plant Name*  
**ENVIRONMENTAL WORK PRACTICE**  
**EWP-020.01**

**OPERATION: SERVICING OF STATIONARY REFRIGERATION EQUIPMENT**

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- 1 Only trained and certified refrigeration technicians may service refrigeration systems.
- 2 Certified Refrigeration Technicians are responsible for ensuring their tools are in good working condition:
  - 2.1 All hoses and gauges are free of damage or possible leaks.
  - 2.2 Recovery cylinders are in good condition, of the proper type and the retest date has not expired.
  - 2.3 Recovery equipment is approved & certified, properly oiled and filters are in good condition.
- 3 When a Certified Refrigeration Technician is adding or removing refrigerant from a refrigeration system or cylinder, methods prescribed by legal requirements and best engineering practice shall be followed.
- 4 Certified Refrigeration Technicians shall use appropriate scales and measuring devices to determine the amounts of refrigerant transferred during servicing. The amounts of refrigerant use shall be recorded.
- 5 Appliance Servicing:
  - 5.1 When adding or removing refrigerant from an appliance, the Certified Refrigeration Technician shall complete all required information on a Service Order Form.
  - 5.2 If equipment is to be scrapped or shipped off-site, the Certified Refrigeration Technician shall evacuate the refrigerant and affix a signed and dated evacuation label to the equipment. Scrapped equipment shall have their refrigeration lines cut after refrigerant is removed.
  - 5.3 All required information on the Appliance Input Form shall be completed by the Certified Refrigeration Technician for new refrigeration equipment.
  - 5.4 Certified Refrigeration Technicians will immediately notify area or department managers of any significant appliance leaks or unintentional venting of refrigerant.
- 6 Cylinder Management:
  - 6.1 All required information on a Refrigerant Cylinder Input Form must be completed by a Certified Refrigeration Technician when new refrigerant cylinders are received.
  - 6.2 If a cylinder is not clearly marked with the type of refrigerant it contains, a Certified Refrigeration Technician shall properly label or tag the cylinder to identify refrigerant type.
  - 6.3 All required information on a Refrigerant Transfer Form will be completed when refrigerant is transferred from one cylinder to another.
  - 6.4 Shipment of refrigerants off-site for recycling or disposal must be coordinated with designated waste handlers.
- 7 Contractor Control:
  - 7.1 A copy of the Contractor's Certified Refrigeration Technician Card is required to be on file with the area or department prior to any work being performed.
  - 7.2 The Contractor is responsible for performing work in compliance with all legal and other requirements.
  - 7.3 A *Facility/Store Name* Certified Refrigeration Technician shall observe the work performed by the Contractor and shall complete a Contractor Input Form.
  - 7.4 All refrigerant reclaiming shall be accomplished using certified tanks.
  - 7.5 All required information on a Service Order shall be completed or supplied by the Contractor.
- 8 Unless otherwise specified in this procedure, Certified Refrigeration Technicians shall maintain refrigeration records.



*Facility/Plant Name*  
**ENVIRONMENTAL WORK PRACTICE**  
**EWP-023.01**

**OPERATION: WASTE DRUM SHIPMENTS**

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- 1 The designated waste handler contacts the proper disposal facility and transporter to schedule the waste drum shipments.
- 2 The designated waste handler will direct the transporter to the pickup location.
- 3 The transporter will verify proper labeling and cleanliness of drums before they are loaded, and prepare the proper waste manifests.
- 4 The designated waste handler or designee stages and loads the drums onto the transportation vehicle.
- 5 In the event of a non-incidental spill, the Emergency Response Coordinator will be notified.
- 6 After the transportation vehicle has been loaded, the transporter will provide the completed waste manifests to the waste handler.
- 7 If required, the driver will placard the transportation vehicle. The waste handler will determine when and what placarding is required.
- 8 The Environmental Management Representative or designee shall review the waste manifests and sign them when appropriate.
- 9 The Environmental Management Representative shall retain copies of the waste manifests.



*Facility/Plant Name*  
**ENVIRONMENTAL WORK PRACTICE**  
**EWP- 024.01**

**OPERATION: BULK MATERIAL LOADING AND UNLOADING**

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- 1 When the Bulk Material Transporter arrives at the facility, an area or department representative will direct the transporter to the appropriate tank.
- 2 The transporter and area or department representative will follow this transfer procedure:
  - 2.1 The transporter is responsible for ensuring that the truck has appropriate DOT placarding prior to entering the facility.
  - 2.2 The transporter is instructed by the area or department representative regarding the facility's bulk material transfer protocol.
  - 2.3 The area or department representative indicates proper tanker spotting.
  - 2.4 The area or department representative verifies that the volume available in the bulk storage tank is greater than the volume of product to be transferred from the delivery tank. The transporter is responsible for ensuring the capacity of the tank truck is not exceeded.
  - 2.5 The area or department representative will remove pipeline caps or blanker flanges and assure connection to the correct delivery transfer lines.
  - 2.6 The area or department representative inspects facility transfer connections for damage or material leaks.
  - 2.7 The transporter will make all connections necessary for material transfer.
  - 2.8 The area or department representative will stay alert and have a clear unobstructed view of the operation at all times during the transfer.
  - 2.9 The area or department representative will verify the transporter is in attendance monitoring the transfer operations.
  - 2.10 The area or department representative is authorized to order the transporter to terminate the transfer and have the driver move the tanker during an emergency.
  - 2.11 The transporter will remove transfer lines such that excess material will flow back toward the receiving tank or catchment basin.
  - 2.12 The area or department representative will monitor the termination process.
- 3 Copies of shipping manifests are retained by the appropriate area or department. Waste manifests are retained by the Environmental Management Representative or designee.
- 4 The bulk material storage area is inspected weekly by the appropriate area or department and an inspection log completed.



## **SECTION 4**

### **RESOURCES**

This section of the workbook provides a listing of training providers, consultants, and registrars used to assist Ford Motor Company during implementation and certification to ISO 14001 Standard





## ISO 14001 RESOURCES

Service	Name	Affiliation	Address	Phone Number	Internet Address
<b>Training</b>					
Environmental Lead Auditor & Internal Auditor  ISO 14001 Awareness & Implementation Training for Suppliers	Barb Fricano	Ford Motor Company Fairlane Training and Development Center	19000 Hubbard Drive Dearborn, Michigan 48121	313 323 2762	bfricano@ford.com
Environmental Lead Auditor & Internal Auditor	Bob Wilson Cheryl Mitchell-Burt	IQuES	41820 West Six Mile Road, Suite 100 Northville, Mi. 48167	248 344 4466	IQuES@aol.com
Environmental Lead Auditor & Internal Auditing	Romelia Molina	Instituto Tecnologico y de Estudios Superiores de Monterrey	Campus Monterrey, Centro de Calidad Ambiental, Edificio Cedes 40 Piso Ave. E. Garza Sada 2501 MTY, N.L. cp 64849 Mexico	(52) (8) 328 4338	rmolina@campus.mty.itesm.mx
<b>Registrars</b>					
3 <sup>rd</sup> Party Audits	Lucinda Deichert	LRQA Ltd	LRQA Ltd Suite 330, 15810 Park Ten place Houston TX 77084	281 398 7370	Lucinda_deichert@mail.Lrqa usa.com
	Christine Dhammi	LRQA Ltd	LRQA Ltd Hiramford Middlemarch Office Village Siskin Drive	44 1203 882236	christine.dhammi@lrqa.com



Service	Name	Affiliation	Address	Phone Number	Internet Address
			Coventry UK CVS 4FJ		
	Robert Brayfield	Vehicle Certification Agency	17250 Newburgh Road, Suite 140 Livonia, Mi. 48152	734 5911605 (102)	vcamsc@wwnet.com
	Trevor Davies	Vehicle Certification Agency	1 The Eastgate office Centre Eastgate Road Bristol BS5 6XX, UK	0117 9515151	Not Available
	Vijay V. Rao	TUV Rheinland of North America	248 Travis Trail McMinnville, TN 37110-9044	931 668 3899	vrao@us.tuv.com
<b>Consultant Services</b>					
*	James Buckert Peg Hopkins	Geomatrix Consultants, Inc	One Parklane Blvd. Suite 200 East Dearborn, Michigan 48126	313 323 3653 313 3233222	jbuckert@geomatrix.com phopkins@aol.com
*	Carl Chambers	McNamee Industrial Services, Inc.	3131 S. State Street Ann Arbor, Mi. 48108	734 213 5051	chambers@mcnamee.com
*	Ed Butt	EMC Limited	7&9 Church Street Baldock Hertfordshire SG7 5AE United Kingdom	+44 (0) 1462 894 155	email@ecm.ltd.uk
*	Sam Brumale	Dames & Moore	Level 10, 636 St Kilda Road Melbourne, VIC 3004	61 3 9510 5050	mel@dames.com
**	Chris Bell	Sidley & Austin	1722 I Street Northwest Washington D.C 2006	202 736 8118	cbell@sidley.com
*	Martin Houldin	EMAG	4 Milligans Chase Galley wood Chelmsford Essex, CM2 8QD, UK	01245 350779	Not Available



Service	Name	Affiliation	Address	Phone Number	Internet Address
*	James Pearson	ERM	6 <sup>th</sup> Fl Hecny Tower 9 Chatham Road Tsimshatsui Kowloon, Hong Kong	852 2271 3000	jmp@ermhk.com
*	Eduardo Selbach	Selbach/Entrix de Mexico SA de CV	Irapuato 12 Col. Hipodromo Condesa, C.P. 06170, Mexico, D.F.	(5) 277 31 88 515 4426	Not Available
<b>Other Information</b>					
Ford Contacts	Nancy Gilbert	Purchasing U.S	Ford World Headquarters The American Road Dearborn Mi. 48126	313 2489826	ngilber2@ford.com
	Peggy Muegge	Purchasing Germany	Purchasing Business Office Fordweke AG NA/ED-Ford-St. 1 D-50725 Koeln	49-221-9018983	pmuegge@ford.com
	John Connor	EQO U.S.	Environmental Quality Office One Parklane Blvd. Suite 1400 East Dearborn, Michigan 48126	313 248 7555	jconnor2@ford.com
	Christina Fung	EQO Canada	The Canadian Road P.O. Box 2000 Oakville, Ontario L6J 5E4 Canada	905 845 2511 (1158)	cfung@ford.com
	Frances Leedham	EQO Europe	Trafford House 8 Station Way Basildon, Essex U.K. SS165XX	44 1268 703411	fleedham@ford.com
	Dionisio Menchero	EQO Latin America	Paseo de la Reforma 333 - lo Piso., Col. Cuauhtemoc.	(52) (5) 3266252	amencher@ford.com



Service	Name	Affiliation	Address	Phone Number	Internet Address
			Mexico D.F. cp 06500		
	Henry Marszalek	EQO Asia Pacific	Ford Australia Head Office 1735 Sydney Road Campbellfield Victoria Australia 3061	61 3 9357914	hmarszal@ford.com
Draft & Final ISO Standards	ISO Central Secretariat	International Organization for Standardization	Case Postale 56 CH-1211 Geneve 20 Switzerland	41 22 749 01 11	
		American National Standards Institute (ANSI) - US Only	11 West 42 <sup>nd</sup> Street, 13 <sup>th</sup> Floor New York, New York 10036	212 642 4900	www.ansi.org
Listing of Certified Registrars		Registrar Accreditation Board (RAB) - US Only	P.O. Box 3005 Milwaukee, Wisconsin 53201	800 248 1946	www.rabnet.com
Copies of ISO 14001 Supplier Workbook # 103962	Bo Jessop	Diversified Document Solutions	12801 Prospect St. Dearborn Mi. 48126-9224	313 203 5000	bjessop@msxi.com

(\*) Provided the following services  
ISO 14001/Ford EMS consulting services  
ISO 14001 Internal Auditing Training  
ISO 14001 Awareness/Implementation Training

(\*\*) ISO 14001 Awareness Training

