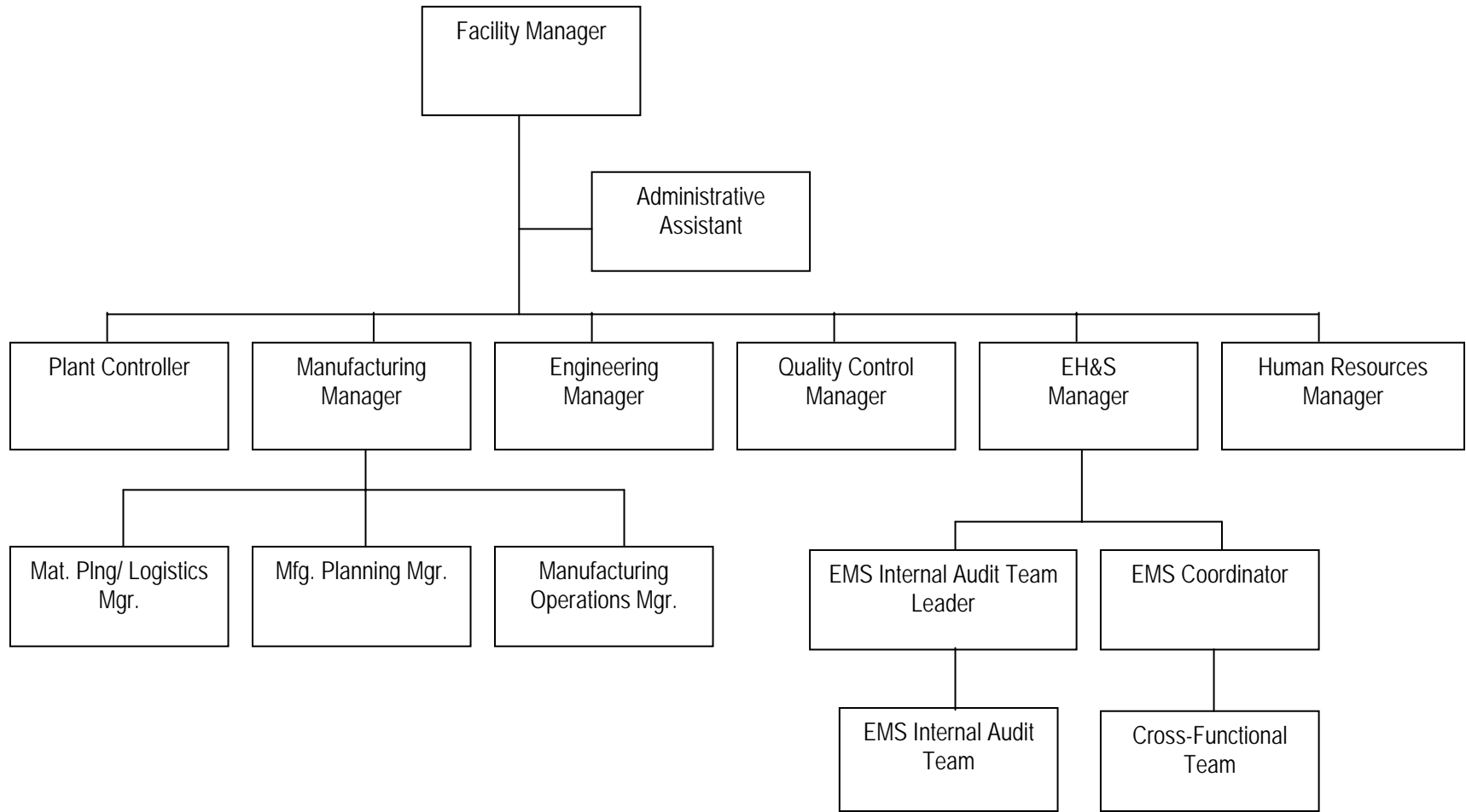


US EPA ARCHIVE DOCUMENT

EXHIBITS

Number	Title	Page	ISO Standard
Exhibit 1	Facility Org. Chart and EMS Core Team Description	E-1	4.4.1
Exhibit 2	EAF Steel Company's Environmental Policy	E-3	4.2
Exhibit 3	List of Legal and Other Environmental Requirements	E-4	4.3.2
Exhibit 4 (F-003.01)	Aspect Identification and Significance Determination for Electric Arc Furnace Operations	E-9	4.3.1, 4.3.3
Exhibit 5 (F-003.01)	Aspect Identification and Significance Determination for Finishing	E-13	4.3.1, 4.3.3
Exhibit 6 (F-003.02)	Example of Linking SEAs, Objectives and Targets, and EMS Operational Control Procedures to Measurement Indicators, Job Functions, Responsible Parties, and Applicable Operations	E-16	4.3.3
Exhibit 7	Program to Reduce Total Energy Consumption	E-22	4.3.3
Exhibit 8	Program to Reduce Water Use	E-24	4.3.3
Exhibit 9	Program to Reduce Process Wastewater Discharge Zinc Levels	E-25	4.3.3
Exhibit 10	Program for Reduction of Hazardous Waste	E-26	4.3.3
Exhibit 11	Training Needs Analysis Matrix	E-27	4.4.2
Exhibit 12	Master Document List	E-29	4.4.4
Exhibit 13	EMS Records Management Table	E-31	4.4.4
Exhibit 14	Facility Population and Top Management Internal Audit Checklists	E-33	4.5.5

Exhibit 1:



Facility Organization Chart and EMS Core Team Description

Core Team Function	Name	Regular Position
Management Representative*	Jose Rodriguez	Facility manager
EMS Coordinator**	Carol White	Environmental, health & safety manager
Cross Functional Team***	Willie Scott	Manufacturing supervisor
	Darnell Jenkins	Injection molding line
	Julia Jordan	Finishing line
	Paula Lingo	Packing supervisor
	Jonathan Ash	Packing line
	Maria Lopez	Sales supervisor
	Janet Romero	Sales associate
	Oz Glenn	Invoicing supervisor
Peter Faulkner	Building maintenance	

Signed _____ Facility Manager

Date: _____

***Environmental Management Representative (EMR).** The EMR, a member of the facility's top management has been appointed and, irrespective of other responsibilities, has responsibility and authority for ensuring that the EMS is implemented and maintained in accordance with the requirements of ISO 14001 and for reporting on the performance of the EMS to top management for review and as the basis for improvement

****EMS Coordinator.** The EMS coordinator is responsible for identifying, assigning, scheduling, ensuring the necessary support for, and ensuring completion of all tasks relating to the EMS; maintaining the EMS manual under the leadership of the EMR; and leading the EMS Cross-Functional Team.

*****Cross-Functional Team (CFT).** The CFT is made up of members of each major operation within the facility who represent their area or department in several facets of the EMS, such as identifying environmental aspects, determining significant environmental aspects, setting objectives and targets, implementing action plans, reviewing and tracking internal audit results, and serving as an information resource. The CFT meets regularly.

Exhibit 2:

EAF Steel Company's Environmental Policy

EAF Steel Company is a state-of-the art electric arc furnace producer of hot band steel from raw material scrap. EAF Steel committed minimizing its adverse impact on the environment by complying with all applicable environmental legal requirements and other environmental requirements to which we subscribe. Furthermore, EAF Steel Company, within the scope of its EMS, commits to:

- Reuse, recycle, and prevent pollution whenever practical;
- Use energy and water efficiently throughout our operations;
- Ensure the safe and proper disposal of materials;
- Monitor and share information about our environmental performance and operation of our EMS with the community;
- Continuously pursue opportunities to improve our environmental performance.

At EAF Steel Company the environment is everyone's job, because we live here too.

Signed: _____ CEO

Date: _____

Signed: _____ Facility Manager

Date: _____

Signed: _____ Division Manger

Date: _____

Signed: _____ EHS Manager

Date: _____

Exhibit 3:

List of Legal and Other Environmental Requirements

This table lists descriptions of legal and other environmental requirements for electric arc furnace facilities and how they are relevant to production process and facility support. This example for a hypothetical state is based on F-001.01, Form for Legal and Other Requirements.

LEGAL REQUIREMENTS

U.S. Federal Environmental Laws:

- Clean Air Act (CAA) and CAA Amendments
- Clean Water Act (CWA) and CWA Amendments
- Safe Drinking Water Act (SDWA)
- Resource Conservation and Recovery Act (RCRA)
- Comprehensive Environmental Response Compensation and Liability Act (CERCLA)
- Emergency Planning and Community Right-to-Know Act (EPCRA)
- Toxic Substances Control Act (TSCA)
- Hazardous Materials Transportation Act (HMTA) as amended by the Hazardous Materials Transportation Uniform Safety Act (HMTUSA)

U.S. Federal Environmental Regulations:

Air:

- 40 CFR 50 (U.S. Environmental Protection Agency [EPA] regulations on primary and secondary National Ambient Air Quality Standards [NAAQS])
- 40 CFR 52 (EPA regulations for state Prevention of Significant Deterioration [PSD] programs)
- 40 CFR 61 (EPA regulations for National Emissions Standards for Hazardous Air Pollutants [NESHAPs])
- 40 CFR 70 (EPA regulations on state operating permit programs)
- 40 CFR 82 (stratospheric ozone protection regulations)

Water:

- 40 CFR 112 (EPA regulations on oil pollution prevention)
- 40 CFR 117 (EPA regulations on determination of reportable quantities for hazardous substances)
- 40 CFR 123 (EPA regulations on state pollution discharge elimination system permit programs)

Solid and Hazardous Waste:

- 40 CFR 260 (EPA general requirements for hazardous waste management)
- 40 CFR 261 (EPA regulations for identifying hazardous waste)
- 40 CFR 262 (EPA regulations for hazardous waste generators)
- 40 CFR 268 (EPA restrictions on land disposal of certain hazardous wastes)
- 40 CFR 273 (EPA standards for universal waste management)
- 40 CFR 279 (EPA standards for managing used oil)

CERCLA/EPCRA:

- 40 CFR 300 (EPA National Oil and Hazardous Substance Contingency Plan)
- 40 CFR 302 (EPA designation, reportable quantities, and notification requirements for hazardous substances)
- 40 CFR 355 (EPA regulations for emergency planning and notification)
- 40 CFR 370 (EPA hazardous chemical reporting and community right-to-know requirements)
- 40 CFR 372 (EPA toxic chemical release reporting regulations)

Other Federal:

- CFR 700-799 (TSCA regulations regarding asbestos, PCBs, toxic chemical usage and reporting, as appropriate)
- 49 CFR 171-397 (U.S. Department of Transportation regulations regarding transportation of hazardous materials, as required for contracted transporters of hazardous materials)

State of [Your State] Environmental Statutes:

- [Your State] Code, Title I, State Sovereignty and Management
- [Your State] Code, Title III, Public Services and Regulations
- [Your State], Title IV, Public Health
- [Your State], Title V, Agriculture
- [Your State], Title X, Financial Responsibilities
- [Your State] Code, Title XI, Natural Resources
- [Your State], Title XVI, Criminal Law and Procedure

State of [Your State] Environmental Regulations ([Your State] Administrative Code—YSAC):

- 21 YSAC Chapters 44-45 (Pesticides)
- 27 YSAC Chapters 21-22 (Soil Conservation)
- 199 YSAC Chapters 10, 12 (Utilities)
- 261 YSAC Chapter 65 (Brownfield Redevelopment)
- 281 YSAC Chapter 96 (Asbestos)
- 347 YSAC Chapters 110,130,140 (Right-to-Know)
- 561 YSAC Chapters 9, 14, 15 (Groundwater Hazard)
- 565 YSAC Chapters 50,51 (Oil, Gas Minerals)
- 567 YSAC, Title I, Chapters 1-12 (General Rulemaking)
- 567 YSAC, Title II, Chapters 20-31 (Air Quality)
- 567 YSAC, Title III, Chapters 38,39, 50-55 (Water Wells, Water Use)
- 567 YSAC, Title IV, Chapters 60-69 (Wastewater Treatment and Disposal)
- 567 YSAC, Title V, Chapters 70-76 (Flood Plain Development)
- 567 YSAC, Title VI, Chapters 81-83 (Certification of WWTP Operators, Well Contractors, Laboratories)
- 567 YSAC, Title VIII, Chapters 100-111, 117-119 (Solid Waste Management and Disposal)
- 567 YSAC, Title IX, Chapters 120-121 (Land Application of Sludge and Solid Waste)
- 567 YSAC, Title X, Chapters 131-137 (Spills and Hazardous Conditions)
- 567 YSAC, Title XI, Chapters 140,141,144,145,148,149 (Hazardous Waste)
- 605 YSAC Chapters 100-104 (Energy Management Division)
- 641 YSAC Chapters 40,69,71,72 (Public Health – radiation and lead abatement programs)
- 661 YSAC Chapter 5 (Fire Marshall)
- 761 YSAC Chapter 520 (Transportation)
- 875 YSAC Chapters (Labor Services, Right to Know)

Local Regulations and Site Permits—Fictional City Facility

- Fictional City, Your State Codes and Ordinances, Chapter 19.44, Sections 010-060
- Fictional City, Your State Board of Adjustment Special Use Permit
- YSDNR General Storm Water Permit Authorization No.: IA-3440-3280
- Fictional City, Your State, Bureau of Fire Prevention Annual Permit No.: A-11244
- Fictional City, Your State and YSDNR Air Permits: (see table)

PERMIT	AGENCY	ISSUED	EXPIRES	COMMENTS
Title V Permit: 03-TV-006	YSDNR	01/14/2003	01/13/2008	Operating air permit-entire facility
Electric Arc Furnace: 74-A-217-S2	YSDNR	12/03/2001		Const. Permit incorp. into Title V
Reheat Furnace: 97-A-024, 87-A-166-S1	YSDNR	12/03/2001		Const. Permit incorp. into Title V
Lime Silo: 79-A-211	YSDNR	09/13/1979		Const. Permit incorp. into Title V
Shredder: 88-A-063-S3, 88-A-062-S3	YSDNR	07/16/2002		Const. Permit incorp. into Title V
Pneu. Dust Transfer System: 01-A-728	YSDNR	07/06/2001		Const. Permit incorp. into Title V
Carbon silo: 02-A-397	YSDNR	08/06/2002		Const. Permit incorp. into Title V
YSDNR NPDES Permit No. 7078101, USEPA NPDES No. IA0061972	YSDNR, USEPA	07/20/1999	07/19/2004	
YSDNR Stormwater Permit No. 6-78078101	YSDNR	01/28/1994	04/24/2004	
YSDNR Water Use Permit No. 3903-R2 (well permit)	YSDNR	11/05/1995	11/04/2005	
Radioactive Certificate of Registration #3267-1-70-FG	IDPH	08/01/2003	08/01/2004	Registration for Ronan low level caster mold level sources

OTHER REQUIREMENTS

EAF Company Policy

- EAF EHS Basic Requirement Guidelines at <http://www.eafsteel.com/ehs/basicidx.htm>

Miscellaneous or Site-Specific

- ISO 14001 (1996)

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Revision / Date	Description:
1 / 01-11-02	Expanded "Your State Statutes" to include number and title description. Added "Local Regulations and Permits" section and rearranged items accordingly. Deleted "Customer Requirements" as there are no ISO 14001 customer requirements for EAF Steel.
2 / 03-01-02	Changed "EAF Steel 10A Environmental Questionnaire" to "EAF Steel Environmental Assessment Form" under "OTHER REQUIREMENTS".
3 / 06-21-02	Changed reference for EAF Steel requirements under EAF Steel Company Policy to web site address http://www.eafsteel.com/ehs/basicidx.htm .
4 / 07-05-02	Expanded Fictional City, Your State Ordinances by adding "Chapter 19.44, Sections 010-060" to identify the specific ordinances applicable to EAF Steel.
5 / 02-12-03	Added " Title V Permit: 03-TV-006" to YSDNR Permits list.
6 / 09-10-03	Added section for NSR-Fictional City
7 / 12-23-03	Redo of permit section to include table with expiration dates

Exhibit 4:

Aspect Identification and Significance Determination (F-003.01) (Associated with procedure P-003)

Aspect Identification and Significance Determination for: Electric Arc Furnace Operations							
Process: Melting Scrap Steel							
Person Completing Form: Joe Lightening Date: 8/23/2004							
ASPECT IDENTIFICATION		Condition Type	SIGNIFICANCE DETERMINATION				
Category/Aspect	Normal, Abnormal, Start-up, Shut-down, Upset	Legal Requirements/ Voluntary Commitments, Company Policy ¹	Community Concern/Image	Material Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance or Non- significance
INPUTS							
Energy:							
Natural gas	Normal			X		S	Energy Use Reduction Program
Electricity	Normal			X		S	Energy Use Reduction Program
Carbon	Normal					N	Does not meet criteria
Compressed air	Normal			X		S	Energy Use Reduction Program
Water:							
Pre-treated water	Normal			X		S	Water Use Reduction Program
Secondary (recycled, grey) water	Normal			X		S	Water Use Reduction Program
Materials:							
Baghouse Bags	Normal					N	Does not meet criteria
Alloys (FeSi, FeV, SiMn)	Normal					N	Does not meet criteria
Lime	Normal					N	Does not meet criteria
Scrap steel	Normal					N	Does not meet criteria
Ladle sand	Normal					N	Does not meet criteria
Argon/Nitrogen	Normal					N	Does not meet criteria
Oxygen	Normal					N	Does not meet criteria
Supplies/Consumables:							
Electrodes	Normal					N	Does not meet criteria
Cu Panels	Normal					N	Does not meet criteria
Lance parts	Normal					N	Does not meet criteria
Refractory	Normal					N	Does not meet criteria

¹When a yes for a legal requirement, how the requirement applies to the aspect needs to be noted in the rationale column.

Aspect Identification and Significance Determination for: Electric Arc Furnace Operations							
Process: Melting Scrap Steel							
Person Completing Form: Joe Lightening Date: 8/23/2004							
ASPECT IDENTIFICATION		Condition Type	SIGNIFICANCE DETERMINATION				
Category/Aspect	Normal, Abnormal, Start-up, Shut-down, Upset	Legal Requirements/ Voluntary Commitments, Company Policy ¹	Community Concern/Image	Material Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance or Non- significance
Flux	Normal					N	Does not meet criteria
Tips	Normal					N	Does not meet criteria
Thermocouples	Normal					N	Does not meet criteria
Samplers	Normal					N	Does not meet criteria
Gloves, etc	Normal					N	Does not meet criteria
Misc. RMU	Normal					N	Does not meet criteria
Packaging	Normal					N	Does not meet criteria
Pallets	Normal					N	Does not meet criteria
Radiation detectors	Normal					N	Does not meet criteria
Other							
Chemicals (see Material Safety Data Sheet log):							
Hydraulic fluids	Normal	X				S	Managed as material of concern
Chemical additives	Normal	X				S	Managed as material of concern
Water Treatment Chemicals	Normal	X				S	Managed as material of concern
OUTPUTS							
Point Sources Air Emissions: (include all items specified in point source permits)							
VOCs	Normal	X	X			S	Operating permit condition
Particulate Matter	Normal	X	X			S	Operating permit condition
NOx, SOx, CO	Normal	X	X			S	Operating permit condition
CO ₂	Normal					N	Does not meet Criteria
Mercury	Abnormal	X				S	Operating permit condition
Fugitive Air Emissions:							
Heat	Normal	X				S	Operating permit condition
Steam	Normal	X				S	Operating permit condition
VOCs	Normal	X	X			S	Operating permit condition
EAF Dust/Particulate	Normal	X	X			S	Operating permit

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Aspect Identification and Significance Determination for: Electric Arc Furnace Operations								
Process: Melting Scrap Steel								
Person Completing Form: Joe Lightening Date: 8/23/2004								
ASPECT IDENTIFICATION		Condition Type	SIGNIFICANCE DETERMINATION					
Category/Aspect		Normal, Abnormal, Start-up, Shut-down, Upset	Legal Requirements/ Voluntary Commitments, Company Policy ¹	Community Concern/Image	Material Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance or Non-significance
Matter								condition
NOx, SOx, CO		Normal	X	X			S	Operating permit condition
CO ₂		Normal					N	Does not meet criteria
Process Wastewater Discharge:								
Contact Cooling Water		Normal	X				S	Operating permit condition
Non-Contact Cooling Water		Normal	X				S	Operating permit condition
Storm Water Discharge:								
NA								
Other Material Outputs:								
Used baghouse bags					X			Recycling Program
Alloys Waste (FeSi, FeV, SiMn, eg)		Normal			X			Materials Use Reduction Program
Lime waste		Normal			X			Materials Use Reduction Program
Ladle sand waste		Normal			X	X	S	Recycling Program
Argon/Nitrogen waste		Normal	X					Materials Use Reduction Program
Oxygen waste		Normal	X					Materials Use Reduction Program
Slag		Normal			X		S	Part of Reduce, Reuse, Recycle Program
Pit steel		Abnormal			X		S	Part of Reduce, Reuse, Recycle Program
Ductwork drop out solids		Normal					N	Does not meet criteria
Packaging		Normal			X		S	Part of Reduce, Reuse, Recycle Program
Pallets		Normal			X		S	Part of Reduce, Reuse, Recycle Program
Area clean-up debris		Normal					N	Does not meet criteria
Crane rail dust		Normal					N	Does not meet criteria

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Aspect Identification and Significance Determination for: Electric Arc Furnace Operations							
Process: Melting Scrap Steel							
Person Completing Form: Joe Lightening Date: 8/23/2004							
ASPECT IDENTIFICATION		SIGNIFICANCE DETERMINATION					
Category/Aspect	Condition Type	Legal Requirements/ Voluntary Commitments, Company Policy ¹	Community Concern/Image	Material Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance or Non- significance
	Normal, Abnormal, Start-up, Shut-down, Upset						
Spent refractory	Normal			X		S	Materials Use Reduction Program
EAF Dust (KO-61)	Normal	X				S	Operating permit condition
Noise/Odor/Radiation/Traffic/Aesthetic/Land Use/Land:							
Noise / Vibrations	Normal	X	X			S	Local noise suppression ordinance
Odor	Normal		X			S	Odor reduction program
Spillage and Other:							
Petroleum based fuels/lubricants	Abnormal	X				S	As per spill response plan requirements
Aqueous based fluids	Abnormal	X				S	As per spill response plan requirements
EAF Dust (KO-61)	Abnormal	X				S	As per spill response plan requirements
Chemicals	Abnormal	X				S	As per spill response plan requirements

Record of Revisions

Revision Date	Description	Sections Affected

US EPA ARCHIVE DOCUMENT

Exhibit 5

Aspect Identification and Significance Determination (F-003.01) (Associated with procedure P-003)

Aspect Identification and Significance Determination for: Finishing							
Process: Finishing							
Person Completing Form: Bill Baxter						Date: 10/14/2004	
ASPECT IDENTIFICATION		Condition Type	SIGNIFICANCE DETERMINATION				
Category/Aspect	Normal, Abnormal, Start-up, Shut-down, Upset	Legal Requirements/ Voluntary Commitments, Company Policy ²	Community Concern/Image	Material Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance or Non- significance
INPUTS							
Energy:							
Natural gas	Normal			X		S	Energy Use Reduction Program
Electricity	Normal			X		S	Energy Use Reduction Program
Compressed Air	Normal			X		S	Energy Use Reduction Program
Water:							
Pre-treated water	Normal			X		S	Water Use Reduction Program
Materials:							
Argon/Nitrogen	Normal	X				S	Materials Use Reduction Program
Oxygen	Normal	X				S	Materials Use Reduction Program
Supplies/Consumables:							
Tags & Wire	Normal					N	Does not meet criteria
Metal banding	Normal					N	Does not meet criteria
Shear Blades	Normal					N	Does not meet criteria
Chemicals (see Material Safety Data Sheet log):							
White paint (water-based)	Normal	X				S	Managed as material of concern
Hydraulic fluids	Normal	X				S	Managed as material of concern
Lubricants	Normal	X				S	Managed as material of concern

²When a yes for a legal requirement, how the requirement applies to the aspect needs to be noted in the rationale column.

Aspect Identification and Significance Determination for:								
Process:				Finishing				
Person Completing Form:				Bill Baxter		Date: 10/14/2004		
ASPECT IDENTIFICATION		Condition Type	SIGNIFICANCE DETERMINATION					
Category/Aspect		Normal, Abnormal, Start-up, Shut-down, Upset	Legal Requirements/Voluntary Commitments, Company Policy ²	Community Concern/Image	Material Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance or Non-significance
Water Treatment Chemicals		Normal	X				S	Managed as material of concern
OUTPUTS								
Point Sources Air Emissions: (include all items specified in point source permits)								
NA								
Fugitive Air Emissions:								
NA								
Process Wastewater Discharge:								
Used Quench Tank Water		Shut down	X					Operating permit condition
Storm Water Discharge:								
NA								
Other Material Outputs:								
Used Metal Banding		Normal				X		Part of Reduce, Reuse, Recycle Program
Used Tags & Wire		Normal				X		Part of Reduce, Reuse, Recycle Program
Used Shear Blades		Shut down				X		See Maintenance Dept. Aspects
Used fluids, lubricants, floor dry		Shut down	X					See Maintenance Dept. Aspects
Noise/Odor/Radiation/Traffic/Aesthetic/Land Use/Land:								
Noise / Vibrations		Normal	X	X			S	Local noise suppression ordinance

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Aspect Identification and Significance Determination for:							
Process:				Finishing			
Person Completing Form:				Bill Baxter		Date: 10/14/2004	
ASPECT IDENTIFICATION		Condition Type	SIGNIFICANCE DETERMINATION				
Category/Aspect	Normal, Abnormal, Start-up, Shut-down, Upset	Legal Requirements/ Voluntary Commitments, Company Policy ²	Community Concern/Image	Material Reduction or Pollution Prevention Potential	Potential Impact to the Environment	Significant (S) Not Significant (N)	Rationale for Significance or Non- significance
Spillage and Other:							
Petroleum based fuels/lubricants	Abnormal	X				S	As per spill response plan requirements
Aqueous based fluids	Abnormal	X				S	As per spill response plan requirements
Chemicals	Abnormal	X				S	As per spill response plan requirements

Record of Revisions

Revision Date	Description	Sections Affected

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	Objective & Target: C=Control I=Improve S=Study	Measurement Indicators	Associated Job Functions/ Training Needs	Existing Operational Control (Procedure, Work Instruction, BMP, Visual Aid. or EMP)	New Operational Control (Procedure, Work Instruction, BMP, Visual Aid or EMP)	Person Responsible	Production							Facilities and Maintenance				Material Handling and Storage									
							Scrap Yard & Prep	EAF	Ladle Metallurgy Station	Caster	Rolling Mill	Offline Straightening	Finishing	Maintenance	Bag House	Mobile Equipment	General Facility	Scrap Yard and Scale	Shipping	Oil and Fuel Storage	Slag Processing						
Point Source and Fugitive VOCs, PM, NOx, Sox, CO Emissions	C/I	Emission concentration and volume	Facility maintenance & Environmental	Centralized Air Pollution Control SOPs, Reg. Reporting Calendar, & Reduced Air Emission EMP																							
Metals, Oil & Grease, Priority Pollutants, TSS, TOC, COD, pH, in Wastewater and waste water flow	C, I	Emission concentration and volume	Wastewater treatment personnel & Environmental	Critical Ranges of Vital WWTP Operational Indicators, Wastewater Treatment Plant SOPs, Reg. Reporting calendar, & Reduce Process Wastewater Discharge Zinc Levels EMP																							

	Objective & Target: C=Control I=Improve S=Study	Measurement Indicators	Associated Job Functions/ Training Needs	Existing Operational Control (Procedure, Work Instruction, BMP, Visual Aid. or EMP)	New Operational Control (Procedure, Work Instruction, BMP, Visual Aid or EMP)	Person Responsible	Production							Facilities and Maintenance				Material Handling and Storage									
							Scrap Yard & Prep	EAF	Ladle Metallurgy Station	Caster	Rolling Mill	Offline Straightening	Finishing	Maintenance	Bag House	Mobile Equipment	General Facility	Scrap Yard and Scale	Shipping	Oil and Fuel Storage	Slag Processing						
Hazardous Materials (EAF dust, used solvents, petroleum-based fluids, WWTP sludge) Waste	C, I	Pounds of waste to landfill	Waste area personnel & Environmental	Solid waste handling procedures, waste area job-specific instructions, Materials Use Reduction and Hazardous Waste Reduction EMPs																							
Non-Hazardous Waste (lime, ladle sand, baghouse bags, slag, pit steel, drop-out solids, packaging, pallets, spent refractory)	C, I	See previous	See previous	Solid waste handling procedures, waste area job-specific instructions, Materials Use Reduction and Reduce, Reuse, Recycle EMPs																							
Hazardous and Non-hazardous Material Spills	C, I	Spill Incident Records	Facility wide	Spill Reporting and Clean-up Bulk Liquids Transfer, Spill Reduction EMP																							

- Scrap yard
- Shredder
- Melt shop (including EAF, radiation detection, caster operation)
- EAF bag house
- Outside yard
- Slag processing area
- Pump house and pond
- Rolling mill
- Warehouse and shipping

Exhibit 7

Program to Reduce Total Energy Consumption

Significant Environmental Aspect:	Energy use	Area/Department(s):	Total Facility
Objective:	Reduce total energy consumption	Process:	All
Target:	Meet company business plan energy reduction goal of 10% normalized for production by January 2006 using 1999/2000 baseline numbers		
Category:	Control/Maintain <input type="checkbox"/>	Study or Investigate <input type="checkbox"/>	Improve <input checked="" type="checkbox"/>

Task/Action Items	Responsible Party	Resources Needed	Project Start Date	Project Completion Date	Comments/Deliverables
Monitor energy use	Energy Reduction Team	Utility Bills Totalizer Power Meter	1/2004	Ongoing	C – At least monthly; frequency of monitoring to be established by Energy Reduction Team
Optimize Ventilation Air Exhaust Air	Facility Manager		1/2004	12/2004	D – Report monthly progress to Energy Reduction Team
Identify, monitor and repair compressed air leaks	Facility Manager		1/2004	Ongoing	D – Report monthly progress to Energy Reduction Team
Optimize steam generation and distribution	Facility Manager		1/2004	Ongoing	D – Report quarterly progress to Energy Reduction Team
Minimize winter space heating areas	Facility Manager, General Manager		1/2004	6/2004	D – Investigate, discuss with workers, and report to Energy Reduction Team
Minimize heat loss in tanks	Facility Manager, Plating Manager		1/2004	Ongoing	D – Report quarterly progress to Energy Reduction Team
Use most economical heat source for tank heating	Facility Manager, Plating Manager		1/2004	Ongoing	D – Report annually progress to Energy Reduction Team

Task/Action Items	Responsible Party	Resources Needed	Project Start Date	Project Completion Date	Comments/Deliverables
Optimize facility lighting	Facility Manager		1/2004	Ongoing	D – Report annually progress to Energy Reduction Team
Optimize compressed air generation and distribution	Facility Manager, Plating Manager		1/2004	Ongoing	D – Report quarterly progress to Energy Reduction Team
Minimize loss in electricity distribution system	Facility Manager, Plating Manager		1/2004	Ongoing	D – Report quarterly progress to Energy Reduction Team
Study feasibility of energy reduction by redesigning ventilation systems	Engineering Department		6/2004	10/2004	D – Submit findings to Energy Reduction Team by 10/15/04
Prepare recommendations based on study findings	Engineering Department		11/2004	12/2004	D - Present recommendations to Energy Reduction Team by 12/15/04
Implement recommendations where feasible	Engineering Department		1/2005	12/2005	D – Report monthly progress to Energy Reduction Team

Exhibit 8:

Program to Reduce Water Use

Significant Environmental Aspect:	Water use	Area/Department(s):	Total Facility
Objective:	Investigate water use reduction	Process:	All
Target:	Complete study by Jan 2005		
Category:	Control/Maintain <input type="checkbox"/>	Study or Investigate <input checked="" type="checkbox"/>	Improve <input type="checkbox"/>

Task/Action Items	Responsible Party	Resources Needed	Project Start Date	Project Completion Date	Comments/Deliverables
Conduct Water Balance	Facility Manager, Plating Manager	Water Meters, Water Bills	1/2004	6/2004	D – Report findings to Water Reduction Team by 6/2004
Document cooling water use at each operation	Facility Manager, Plating Manager	Water Meters	1/2004	6/2004	D – Report findings to Water Reduction Team by 6/2004
Evaluate opportunity for optimizing water use reduction	Facility Manager, Plating Manager	Feasibility analysis	1/2004	6/2004	D – Report findings to Water Reduction Team by 6/2004
Prepare recommendations based on study findings	Environmental Coordinator		7/2004	9/2004	D – Present recommendations to Water Reduction Team by 9/15/2004
Implement recommendations where feasible	Engineering Department		10/2004	12/2004	D – Report monthly progress to Water Reduction Team

Exhibit 9:

Program to Reduce Process Wastewater Discharge Zinc Levels

Significant Environmental Aspect:	Process Wastewater Discharge	Area/Department(s):	Wastewater Plant
		Process:	All
Objective:	Reduce process wastewater discharge zinc levels		
Target:	Reduce daily average zinc concentrations from 5mg/L to 4mg/L by January 2005		
Category:	Control/Maintain <input type="checkbox"/>	Study or Investigate <input type="checkbox"/>	Improve <input checked="" type="checkbox"/>

Task/Action Items	Responsible Party	Resources Needed	Project Start Date	Project Completion Date	Comments/Deliverables
Monitor daily average zinc concentrations in wastewater discharge	Wastewater Treatment Plant Supervisor		4/2004	Ongoing	D – Report quarterly usage to Environmental Coordinator
Study methods to optimize wastewater treatment processes for zinc removal	Wastewater Treatment Plant Supervisor		4/2004	8/2004	D – Report findings to Environmental Coordinator by 8/15/04
Study methods for source reduction of zinc reaching wastewater stream	Manufacturing Operations Manager		4/2004	8/2004	D – Report findings to Environmental Coordinator by 8/15/04
Prepare recommendations based on study findings	Wastewater Treatment Plant Supervisor		9/2004	12/2004	D – Report recommendations to Environmental Coordinator by 12/15/2004
Implement recommendations where feasible	Wastewater Treatment Plant Supervisor and Manufacturing Operations Manager		1/2005	11/2005	D – Report monthly progress to Environmental Coordinator

Exhibit 10:

Program for Reduction of Hazardous Waste

Significant Environmental Aspect:	Hazardous Waste Generation	Area/Department(s):	Total Facility
Objective:	Reduce hazardous waste generation	Process:	All
Target:	Reduce hazardous wastewater treatment sludge disposed of in landfills by 50% or more based on 1992 generation		
Category:	Control/Maintain <input type="checkbox"/>	Study or Investigate <input type="checkbox"/>	Improve <input checked="" type="checkbox"/>

Task/Action Items	Responsible Party	Resources Needed	Project Start Date	Project Completion Date	Comments/Deliverables
Determine which hazardous chemicals being used could begin to be phased-out or substituted	Manufacturing Operations Manager		12/2003	2/2004	D – Report findings to 2/15/04
Initiate process to phase-out or substitute identified hazardous chemicals	Manufacturing Operations Manager		3/2004	Ongoing	D – List steps to be taken to fulfill initiative and responsibilities D - Report monthly progress
Prepare recommendations based on study findings	Manufacturing Operations Manager		5/2004	6/2004	D – Report recommendations to Environmental Coordinator by 6/15/04.
Implement recommendations where feasible	Manufacturing Operations Manager		7/2004	12/2004	D – Report monthly progress to Environmental Coordinator
Monitor amounts of hazardous waste in treatment sludge	Engineering Department		12/2003	Ongoing	D – Report quarterly amounts to Environmental Coordinator
Initiate process to process reduce hazardous waste through source reduction	Engineering Department		6/2004	12/2004	D – List steps to be taken to fulfill initiative and responsibilities

Exhibit 11:

Training Needs Analysis Matrix

Date: November 11, 2004

Course	Employees Requiring Training	Source of Training	Duration (Hours)*	Frequency*
CERCLA TSCA 8 (e) Spill Reporting	Security, maintenance, and environmental personnel			
Integrated Emergency Response and Spill Prevention Control and Countermeasure Plan	Security, maintenance, and environmental personnel, Wastewater Treatment Operators			Once every year, each new maintenance staff
Storm Water Pollution Prevention Plan and BMPs	Environmental personnel, Wastewater Treatment Operators			Once every three years, each new maintenance staff
Materials Management Plan	Materials management and environmental personnel			Once every three years, each new maintenance staff
Wastewater Treatment and Disposal (including sampling and analysis training if appropriate)	Wastewater Treatment Operators			Once every three years, each new maintenance staff
Permit Monitoring and Record Keeping	Environmental personnel and other employees whose job relates to SEAs			Once, each new maintenance staff
Operation of Air Pollution Control System	Maintenance and environmental personnel			Once, each new maintenance staff
Hazardous Waste Management, Characterization, and Disposal Training	Environmental personnel and other employees whose job relates to SEAs			Annually

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Course	Employees Requiring Training	Source of Training	Duration (Hours)*	Frequency*
EMS Lead Auditor Training	EMS Coordinator, Lead Internal Auditor			Initially
EMS Awareness Training	All employees and full-time on-site contractors			Initially and annually thereafter
EMS Document Training (see also "Applicable Procedures by Department")	Employees			Initially, new hires, and when document changes occur
EMS Implementation Training	Cross Functional Team and Environmental Management Representative			Initially
EMS Internal Auditor Training	EMS internal auditors			Initially and new auditors

*Note that Federal, state, local requirements and company best practices should be consulted in determining training needs, including the appropriate frequency and duration of training courses.

Exhibit 12:

Master Document List

ID	Title	Issue Date	Location	Authorized By
Tier I Documents				
Policy				
	Environmental Policy	11/4/04	EMS manual; Admin Office	KLJ
Manuals & Plans				
	EMS Manual			
	Integrated Spill Plan			
Tier II Documents				
Procedures & Related Forms				
P-001	Procedure for Identification of Legal and Other Requirements			
F-001.01	Legal and Other Requirements			
P-002	Procedure for Obtaining Agency Approval			
P-003	Procedure for Environmental Aspects, Objectives and Targets, and Programs			
F-003.01	Aspects Identification and Significance Determination			
F-003.01 alternate	Significance Determination for Aspects Based on Environmental and Business Considerations			
F-003.02	Linking SEAs, Objectives and Targets, and EMS Operational Control Procedures to Measurement Indicators, Job Functions, Responsible Parties, and Applicable Processes			
F-003.03	Program(s) Form			
P-004	Procedure for Environmental Review for New Processes, Materials, and Projects			
F-004.01	Environmental Checklist for New Processes and Materials			
F-004.02	Environmental Checklist for New Projects			
P-005	Procedure for Environmental Training and Awareness			
F-005.01	Training Needs Analysis – Environmental Courses			
F-005.02	Training Needs Analysis – Procedures and Work Instructions by Area/Department			
P-006	Procedure for Communication with Stakeholders			
F-006.01	External Stakeholder Communication Record			
P-007	Procedure for Environmental Document Control			
F-007.01	Master Document List			
P-008	Procedure for Environmental Briefing of Sub-contractors and Service Providers			
F-008.01	Environmental Briefing Packet and Method Statement			
P-009	Procedure for Emergency Preparedness and Response			
F-009.01	Emergency Preparedness and Response Requirements Matrix			
P-010	Procedure for Monitoring and Measurement			
F-010.01	Environmental Measurement Indicators Log			
F-010.02	Calibration Log			
F-010.03	Compliance Tracking Log			
P-011	Procedure for Corrective and Preventive Action			
F-011.01	Corrective and Preventive Action Request			
F-011.02	Corrective and Preventive Action Tracking Log			
P-012	Procedure for Environmental Records			
F-012.01	Index of Environmental Records			

ID	Title	Issue Date	Location	Authorized By
P-013	Procedure for Internal and Regulatory Compliance Audits			
F-013.01	Internal Audit Checklist			
F-013.02	Internal Audit Schedule Form			
F-013.03	General Company Employee Checklist for Internal Audits			
F-013.04	Questionnaire for General Company Employee in Spanish			
P-014	Procedure for Management Review			
F-014.01	Management Review Record			
Tier III Documents				
Work Instructions				
WI-001	Operational Control for Container Labeling			
WI-002	Operational Control for Hazardous Waste Satellite Accumulation Areas			
WI-002.01	Weekly Hazardous Waste Satellite Storage Inspection Checklist			
WI-003	Operational Control for Empty Chemical Container Handling			

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Exhibit 13:

EMS Records Management Table

Title:	EMS RECORDS MANAGEMENT TABLE	Doc. No.:	EMF-4.5.3
Revision Date:	September 7, 2004	Approval by:	
Print Date:	May 10, 2005 (Uncontrolled document if printed)		Page 1 of 2

Record Type	Person Responsible	Location	File Method	Retention Minimum
ADMINISTRATION				
Records on costs - purchasing, operations, and disposal	Office Manager	Admin. Office	Date order	3 years
Utility bills	Office Manager	Admin. Office	Date order	3 years
Record of annual non-usable material quantity received	Office Manager	Admin. Office	Date order	Life of facility
Certificates of Insurance	Office Manager	Admin. Office	Date order	Life of facility
Non-usable Material Analysis Sheets	Office Manager	Admin. Office	Customer name	3 years
Non-usable Material Manifests - outgoing	Office Manager	Admin. Office	Date order	3 years
HUMAN RESOURCES				
Training Needs Analysis and Training Records	Human Resource Manager	Human Resource Office	By type and date order	5 years
ENVIRONMENTAL				
Incident Reports	Env. Dept.	Env. Office	Date order	3 years
Complaint Reports	Env. Dept.	Env. Office	Date order	3 years
EMS communications with external parties	Env. Dept.	Env. Office	Issue	3 years
Decision regarding external communication of significant environmental aspects	Env. Dept.	Env. Office	Date order	3 years
Major Source Determination Records	Env. Dept.	Env. Office	Date order	Life of facility
Title V Permit Exemption	Env. Dept.	Env. Office	Date order	Life of facility
Correspondence regarding Air Notices	Env. Dept.	Env. Office	Date order	5 years
Odor Control System Permit	Env. Dept.	Env. Office	Date order	5 years or per permit
Air Emission Reports	Env. Dept.	Env. Office	Date order	5 years
Records on material disposal sites used	Env. Dept.	Env. Office	Site name	Life of facility
Internal Audit Reports	Env. Dept.	Env. Office	Date order	5 years

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Record Type	Person Responsible	Location	File Method	Retention Minimum
Corrective and Preventive Action Requests (F-011.01) and Corrective and Preventive Action Tracking Log (F-001.02)	Env. Dept - EMR	Env. Office – CAPAN database	Date order	2 years after completion of action
Management Review Record (F-014.01)	Env. Dept. – EMS Coordinator	Env. Office	Date Order	Life of facility

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Exhibit 14:

Facility Population and Top Management Internal Audit Checklists

General Facility Population Checklist for EMS Internal Audits (Look for documentation of planning/evidence of implementation)	
Questions	Findings/Observations
Environmental Policy	
1. Do you know the facility's Environmental Policy?	
2. What are the keywords of the Policy?	
3. How does the Policy relate to your job?	
4. What is your understanding of the facility's EMS and your role?	
ADDITIONAL QUESTIONS:	
Environmental Aspects	
1. Are you aware of the aspects and the significant environmental aspect in your department?	
2. What are they?	
3. Where can they be found?	
ADDITIONAL QUESTIONS:	
Objectives and Targets	
1. Do you know what the objectives and targets for the significant environmental aspects are?	
2. Where can these be found?	
3. What is the status or progress on the objectives with which your department is involved?	
ADDITIONAL QUESTIONS:	
Training, Awareness, and Competence	
1. Have you received awareness training on the facility's environmental management system and the significant environmental aspects in your department?	
2. Have you received training on your role and responsibility to conform with the facility's: a. Environmental Management System b. Emergency preparedness and response	
3. Are you aware of the potential consequences of departure from your environmental work practices (environmental impact)?	
ADDITIONAL QUESTIONS:	
Communication	
1. Have you received information on the facility's Environmental Management System and significant environmental aspects?	
2. How (e.g., facility newsletter, department meetings, training, posters, pocket cards)?	
3. Do you have an example?	

General Facility Population Checklist for EMS Internal Audits (Look for documentation of planning/evidence of implementation)	
Questions	Findings/Observations
4. If you had a concern about the EMS or any environmental concern, what would you do?	
ADDITIONAL QUESTIONS:	
Documentation and Control of Documents	
1. Do you have access to current versions of your department's action plans, procedures, and/or environmental work instructions?	
2. Where are they kept?	
3. If there are any postings in the department check to see if they are current.	
ADDITIONAL QUESTIONS:	
Operational Control	
1. Roles/instructions are clearly understood by querying against documentation that applies to your area(s). Record any findings/observations.	
2. What are the ramifications if instructions are not followed?	
List documentation reviewed:	
Emergency Preparedness and Response	
1. Do you know the difference between an incidental release/spill versus one that requires an emergency response?	
2. What types of spills/releases are you allowed to clean up?	
3. What do you do if there is a spill/release that requires the services of personnel outside of your immediate work area (i.e., an emergency response)?	
ADDITIONAL QUESTIONS:	
Monitoring and Measurement	
1. Do you have any monitoring equipment in your area?	
2. What is monitored or measured?	
3. Are there any calibration requirements? What is the frequency? Who performs them?	
ADDITIONAL QUESTIONS:	
Nonconformance and Corrective and Preventative Action	
1. Do you know what to do if you get a CAR?	
ADDITIONAL QUESTIONS:	

General Facility Population Checklist for EMS Internal Audits (Look for documentation of planning/evidence of implementation)	
Questions	Findings/Observations
Records	
1. Does your area maintain any environmentally-related records (e.g., training records, monitoring equipment calibration records, completed forms)?	
2. Do you have an index of those records with storage location and retention period? What is the retention period?	
3. Show me those records (consistency with index and retention periods, readily retrievable and legible, stored to protect from damage, deterioration or loss).	
ADDITIONAL QUESTIONS:	

Top Management Checklist for EMS Internal Audits	
Top Management	Objective Evidence
Structure and Responsibility	
a. At what level within the facility is the designated EMS Coordinator placed? <i>Auditor Note: Is the EMS Coordinator at a level within the facility to effectively implement an EMS for his/her facility?</i>	
b. What authority does the EMS Coordinator have to carry out his/her responsibilities?	
c. How does the facility assess its resource needs for environmental management? How are these factored into operating and strategic plans (and vice versa)?	
d. What resources (financial, technical personnel) has management provided to develop or maintain the EMS?	
e. How are you informed on the performance of the EMS? Do you receive routine reports?	
f. Are responsibilities for the environmental management of the facility documented? If so, where? Is an integrated structure in place in which accountability and responsibility are defined, understood, and carried out?	
g. How are these responsibilities communicated to all employees (including managers)?	
Notes:	
Environmental Policy	
a. Describe your role in the development of the environmental policy.	
b. How do you know that your policy is appropriate for your activities, products, and services?	
c. What is management's role in the review and	

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Top Management Checklist for EMS Internal Audits	
Top Management	Objective Evidence
revision of the policy?	
d. How does management ensure continued adherence to the policy throughout the facility?	
e. How does the policy help guide facility decisions?	
f. How are employees made aware of the environmental policy?	
g. How is the policy made available to the public?	
<i>Auditor Note: Is there evidence that the policy was issued by top management (e.g., Is the policy signed? By whom? At what level in the facility?)?</i>	
Notes:	
Objectives and Targets	
a. What are the environmental objectives and targets for your facility? What is your role in approving them? What are the relevant functions and levels within your facility that support the attainment of each of the objectives and targets?	
b. How are the environmental objectives linked to other facility goals (and vice versa)?	
c. Are the objectives/targets consistent with the goals of the environmental policy for prevention of pollution and continual improvement?	
d. How were the objectives and targets developed by or communicated to management?	
e. How does management keep up with progress in meeting their objectives and targets throughout the year?	
f. How often are you informed of the status of the objectives and targets?	
g. On what basis are the objectives and targets reviewed and modified?	
Notes:	
Communication	
a. How are you informed of the environmental issues within your facility? How often does this take place? Does this include compliance issues?	
b. How are you kept up-to-date with progress in meeting your facility's environmental objectives and targets? How is this information passed on to your managers?	
c. How do you communicate with the facility on environmental issues? How frequently?	

Top Management Checklist for EMS Internal Audits	
Top Management	Objective Evidence
d. How does the facility handle inquiries from interested parties (e.g., the public, regulators, other organizations) on environmental matters? Who has responsibility for responding to such inquiries?	
Notes:	
Management Review	
a. Describe the facility's management review process.	
b. How often are management reviews performed? How was this frequency determined?	
c. Who is involved in the management review process? What are their roles in this process?	
d. What changes have been made to the EMS as a result of the last review?	
Notes:	

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