

# ISO14001 Environmental Management System



Employee Awareness

# Agenda

- ISO 14001 Environmental Management system
- TWMC Environmental Policy
- Environmental Aspects and Impacts
- Related Objectives and Targets
- Key Procedures and Work Practices
- Contractor Method Statement
- Questions

# ISO-14001 EMS

- International environmental standards
- A common approach to environmental management similar to ISO 9001
- Enhance an organization's ability to measure and attain environmental performance
- Identify potential cost savings
- Enhance business opportunities
- Scope limited to Round Rock Facility

# TWMC EMS Policy

- TECO-Westinghouse Motor Company will provide the necessary resources to establish, implement, maintain and continually improve an environmental management system committed to compliance with applicable environmental laws, regulations, policies, procedures and other adopted requirements. All TWMC executives, directors, managers, supervisors and employees are accountable and have a personal and corporate responsibility to ensure that this commitment is incorporated into daily activities and functions.
- We will work to improve our environmental performance by:
  - Communicating our commitment to everyone working for or **on behalf of TWMC**;
  - Developing and periodically evaluating environmental objectives and targets that prevent pollution, minimize waste, improve service reliability and promote energy efficiency and cost savings;

# Environmental Regulations

- 4 Environmental monitoring and reporting
- 14 Air emissions regulations
- 3 Water related regulations
- 7 Solid and liquid waste regulations

# ***ISO 14001:2004***

- “The organization shall establish and maintain (a) procedure(s) to identify the environmental aspects of its activities, products, or services that it can **control** and over which it can be expected to **have an influence**, in order to determine those which have or can have significant impacts on the environment.
- The organization shall ensure that the aspects related to these significant impacts are considered in settings its environmental objectives.
- The organization shall keep this information up-to-date.”

# ***WHAT IS AN ENVIRONMENTAL ASPECT?***

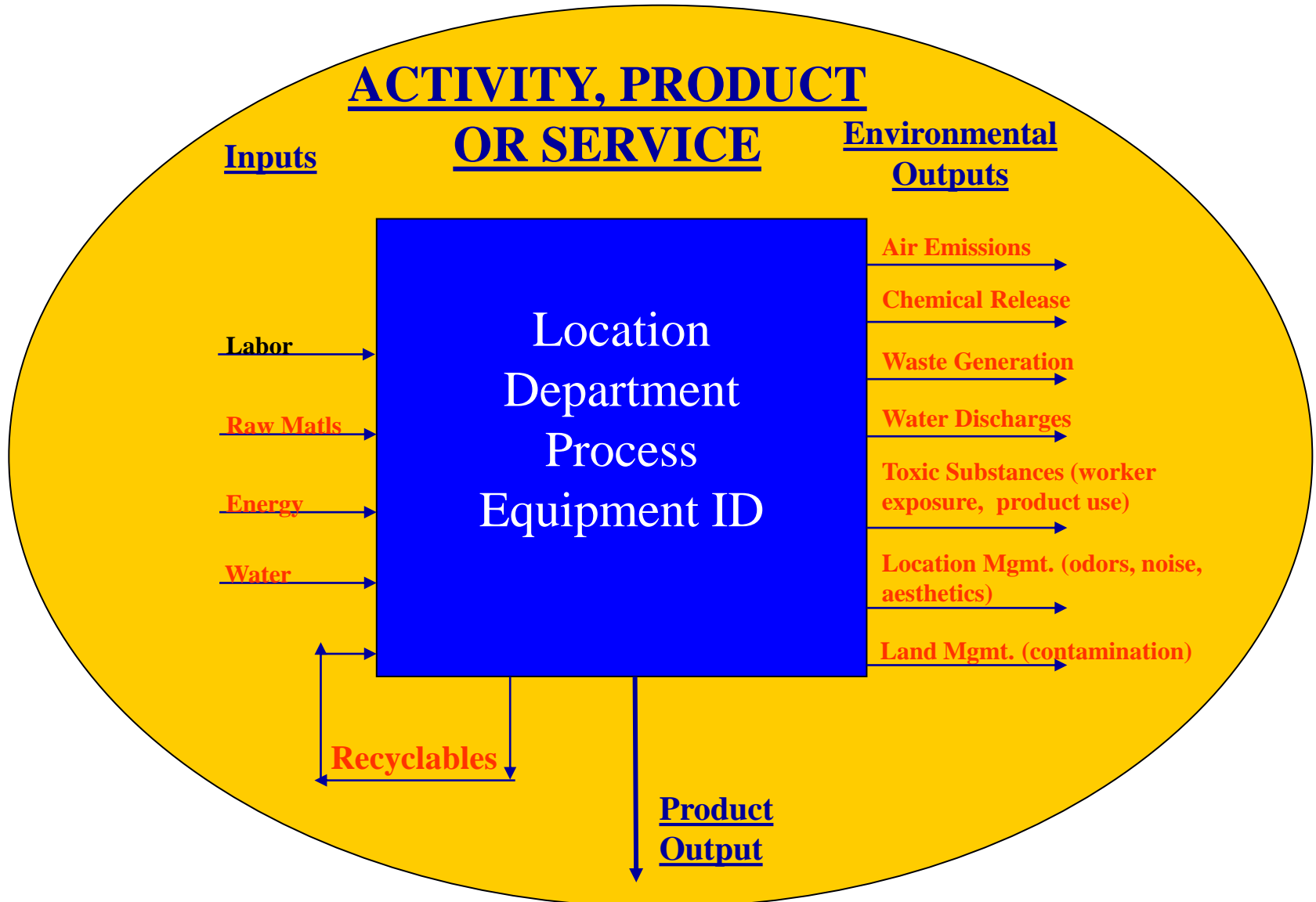
- ISO 14001 Defines Environmental Aspect as
  - **element of an organization's activities, products or services that can **interact** with the environment**
- ISO 14001 Defines Environmental Impact as:
  - **any **change** to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's environmental activities, products or services**

# Environmental Aspects & Impacts

- Most other elements are directly associated with results from identifying and ranking aspects and their associated impacts:
  - Objectives and Targets
  - Management Program
  - Training/Awareness
  - Operational Control
  - Emergency preparedness
  - Monitoring and measuring
  - Corrective and Preventative Action
  - Auditing



# Aspects & Impacts Identification Team



# Significant Impact Risk Table

Legal / Regulatory

Recordkeeping

Cost

Stakeholder

Frequency

Severity

# Significant Aspects

Reference #	Department	Activity Product or Service	Aspect	Environmental		Significance of Impact						Notes	
				Impact	Description	Regulatory	Frequency	Cost	Stakeholder	Frequency	Severity		Score
201243	Machining	Chip Conveyor	Spill/Release	Soil contamination	Chips and oil/coolant leaking from conveyor system	5	2	5	4	5	3	24	Chips and oil on ground, possible contamination
201231	Production	Surface Coating	Potential spill/release	Soil contamination	From paint related waste spill	5	2	5	4	1	5	22	
201237	Production	Welding	Air Emissions	Air quality	Fumes and dust	5	3	3	3	5	3	22	2000lb max
201251	Maintenance	Water treatment	Potential spill/release	Air quality	Acid spill in mezzanine where water pools	5	2	4	3	4	5	22	Leaking AC units creates potential for spilled acid to mix with water
201263	Contractors	Activities	Waste Generation	Landfill Depletion	Potential pollution or regulatory violations	5	2	4	3	3	5	22	Unmonitored activities by contractors for waste generation and work performed could cause environmental contamination
201206	Production	Material Handling	Air Emissions	Air quality	CO2 from forklifts	4	2	4	2	5	3	21	Land Emission
201212	Production	Material Handling	Potential spill/release	Stormwater Contamination	Potential contamination from hydrocarbon based liquids	5	2	4	4	1	5	21	Cleanup activities
201218	Production	Manufacturing	Waste Generation	Landfill Depletion	Empty Aerosol Cans	5	2	3	2	5	4	21	Must be empty, can be recycled \$160/55g drum, Equipment \$750
201227	Production	Surface Coating	Air Emissions	Air quality	Emission from painting activities	5	2	3	3	5	3	21	VOC limits
201228	Production	Surface Coating	Paint Waste	Depletion of Resources	Scrapped or excess paint, xylene, thinners	4	4	3	2	3	5	21	Fuel blending/\$140 per drum - Storage of scrapped material issues
201229	Production	Surface Coating	Paint Waste	Stormwater Contamination	From paint related waste spill	5	2	4	4	1	5	21	
201234	Production	Surface Preparation	Waste Generation	Soil contamination	Sandblasting waste material	4	4	3	3	3	4	21	Previous cleanup - \$10k
201245	Machining	Leaking Machines	Waste Generation	Soil contamination	Absorbants from oil spills	5	2	3	3	4	4	21	\$160/drum -
201253	Wind	Testing	Potential spill/release	Soil contamination	Hydraulic fluid leaking during testing	5	2	3	3	4	4	21	Cleanup activities
201266	Production	Manufacturing	Waste Generation	Waste labeling	Proper hazardous and Universal waste labeling	4	4	2	3	4	4	21	Ensuring hazardous and universal waste containers properly labeled
201267	Production	Surface Coating	Air Emissions	Pollution	Using spray coating without closing overhead doors in paint booths	5	2	3	3	3	5	21	Using spray coatings in the paint booths with the overhead doors open.
201211	Production	Material Handling	Potential spill/release	Soil contamination	Potential contamination from hydrocarbon based liquids	5	2	4	3	1	5	20	
201247	Machining	Machining product	Waste Generation	Depletion of Resources	Waste oil	5	2	3	2	5	3	20	Recycled, \$0 service
201249	Maintenance	Light bulbs	Waste Generation	Soil contamination	Disposal of light bulbs	5	2	3	3	3	4	20	Additional disposal cost \$300-500 annually

# Objective and Target

- Recycling vs Solid Waste: Improve recycling efforts
  - Increase recycled collection by 15% (5 Tons)
  - Increase compacted trash by 10%
- Large amount of recyclables in trash
- Large amount of compactable trash in 40yd bins
- Reduce solid waste costs, additional rebates

# TWMC's Environmental Management System

- Key Elements
  - Environmental Management Manual
  - Procedures
  - Work Practices
  - Management Plans

# Key Procedures

- EP-002 Env Aspects, Objectives, Targets & Env Management Plans
- EP-004 Non-Conformance, Corrective & Preventative Action
- EP-006 Emergency Preparedness and Response
- EP-009 External Communications
- **EP-010 Contractor Control**
- EP-013 Environmental Records

# Work Practices

- EWP-001: Hazardous & Universal Waste
- EWP 002: Welding Fume & Dust Control
- EWP 003: Spill & Leak Containment and Cleanup
- EWP-004: Tracking Surface Coating Usage
- EWP-005: Dry Abrasive Blasting

# EP-010 Contractor Control

## Contractor Method Statement

- Required for all Contractors
- Clerical & Non-entry deliveries exempt
- Effective 1 October 2012
- Mini-environmental impact study
- Standard services: Valid for 1 year
- Special projects: Valid for specific contract
- Identified Environmental Aspects & Impacts
- Waste Management Activities



# Contractor Method Statement

- Sections I – III: Completed by TWMC
- Section IV:
  - Contractor Contact Information
    - Pager = E-mail address
  - Subcontractor Identification
  - Environmental Management Basics

# Contractor Method Statement

- Sections V
  - Work description
  - Emissions: Air, Water
  - Hazardous Materials
  - Training
  - Waste generation and handling
  - Energy consumption
  - Other: waste minimization, monitoring, additional regulatory issues
- Section VI: Contractor certification

# Questions