

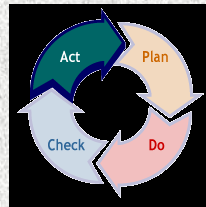
**“Using an EMS to enHance
the Environment
and
your Bottom Line”**

**MANUFACTURING
SUMMIT
Mississippi State, MS
March 9, 2011**



E3 - enHance, EFEC & EMS

.....a way of doing business!



EFEC
Enhancing Furniture's Environmental Culture

Objectives

- **Benefits** of an Environmental Management System (EMS)
- **MDEQ's enHance Program** & an EMS
- **Resources** for Implementing an EMS

Traditionally,
“Environmental Management ”
has been tied to
Regulatory Compliance
and is often considered
an
**Additional Cost of
Doing Business**



Environmental Management

Air Emissions

- Air Operating Permit
- Title V
- State

Clean Air Act

Solid Waste

- Hazardous Waste Compliance
- Solid Waste Regulations

RCRA

Water

- Storm Water Permit
- WW Discharge Permit
- Pretreatment
- NPDES

Clean Water Act

...



but....

an

Environmental Management System (EMS)

Manages Wastes

for a

**Cost-Effective Way
Of Doing Business**

***“A sound and well-conceived EMS
is a practical management tool that
can help your company to:***

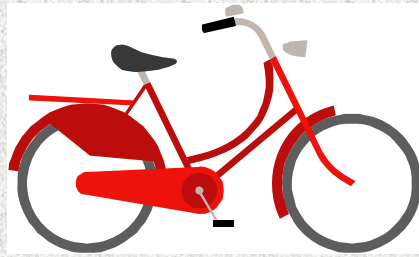
- 1. reduce waste and hence operating costs;***
- 2. gain a competitive advantage;***
- 3. demonstrate compliance with its legal obligations;***
- 4. improve its public image”***

Good practice guide by Envirowise

IT IS WHAT YOU DESIGN

An EMS can improve an organization's environmental performance and it's bottom line but no two organizations are alike and the benefits of an EMS will differ significantly

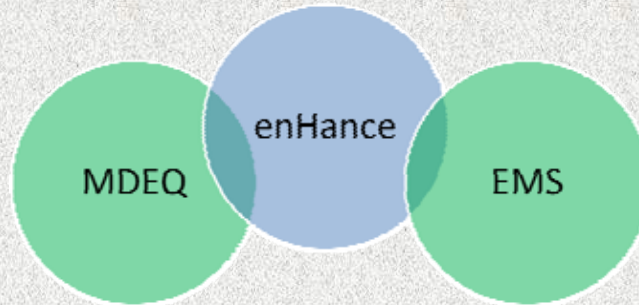
You Must Fit it To Your Culture



Reasons for Implementing an EMS

1. Making operational improvements
2. Changing the operational culture
 - EMS is a framework for bringing about change
3. Enhancing your ability to meet your regulatory requirements
4. Improving relationship with regulatory bodies
5. Creating greater employee awareness and commitment to environmental performance
6. _____

MDEQ, enHance and Environmental Management Systems



EPA NATIONAL & REGIONAL PRIORITY FOR POLLUTION PREVENTION

EPA believes that EMS's, if implemented properly, can serve as a valuable tool to help organizations:

- *improve their environmental performance (reduce impacts)*
- increase the use of pollution prevention (reduce costs)*
- improve compliance (reduce liability)*



BACKGROUND



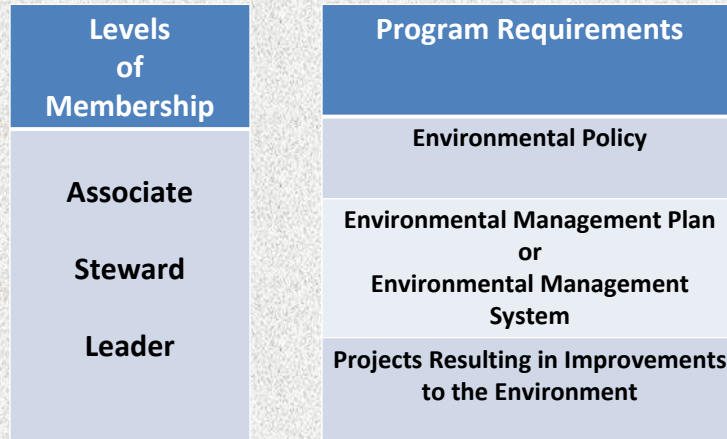
- MDEQ signed a Memorandum of Agreement with EPA
- A cornerstone of the MOA was an Environmental Management System
- MDEQ launched enHance in July 2008

enHance Objective

*“To encourage voluntary environmental stewardship by recognizing committed **environmental leaders**, thus nurturing the reduction of waste and conservation of resources, resulting in long term economic benefits and continuous environmental enhancement.”*



enHance Membership



Evolution of Environmental Management



Adapted from ALCOA Presentation, "Our Story," Pentagon, March 2001

enHance & Sustainability



The TRIPLE BOTTOM LINE is an Emerging Standard for Public and Nonprofit Accounting that considers Three Larger Factors:

***People
Planet
Profit***

What is Green or Sustainable?

Way of doing business

..... operate in ways that solve rather than cause environmental and social problems.

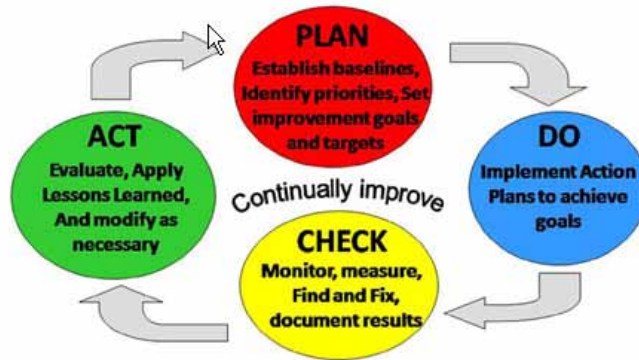
Adopt principles, policies, and practices that improve the quality of life for their employees, businesses, citizens, industries, and the environment.

Looking at
the big
picture

Making
Continuous
Improvement

Measuring
Impacts

CONTINUOUS IMPROVEMENT MODEL



ENVIRONMENTAL MANAGEMENT SYSTEM REQUIREMENTS

- Environmental Policy
- Planning
 - Aspects, Legal and other Requirements, Objectives, Targets
- Implementation and Operation
 - Roles, Responsibility and Authority
 - Competence, Training & Awareness
 - Communication, Documentation, Operational Control of Documents
- Checking
 - Monitoring and Measuring
 - Evaluation of compliance
 - Corrective & Preventive Action
 - Control of Records
 - Internal Audit
- Management Review

Environmental Management System

Aspects & Impacts

Activity	Aspect (Cause)	Impact (Effect)	Objective	Targets
Office Operations	Resource consumption-Energy	Air Emissions Depletion of natural resources	Reduce energy consumption	By department: Reduce usage by 10% from previous year
	Resource consumption-Paper Usage	Solid Waste Deforestation	Decrease solid waste generated and reduce natural resource consumption	Make double-sided copies Order paper with 10% recycled content

EMS RESOURCES

www.deq.state.ms.us/enhance

Environmental Management Systems

What is an Environmental Management System (EMS)?
An EMS is an organized and structured way that allows an organization to identify, understand, and reduce the environmental impacts of its activities, products, and services. Successful implementation of EMS is based on leadership and organization that the environmental and economic benefits.

What is an EMS Model?
There is no one type of EMS, but there are elements that are common to all EMS. An EMS Model is a process based on continual improvement in which an organization is constantly reviewing and improving the system.

What are the key elements of an EMS?

- Policy statement
- Identification of significant environmental impacts & legal requirements
- Development of Goals and Objectives to reduce impacts

Who should use an EMS?
An EMS is for everyone. This is a model that can be used by a wide range of organizations including manufacturing facilities, universities, government agencies and local governments, service industries, and others.

What are the benefits of an EMS?
An EMS is a tool to effectively manage environmental impacts and improve environmental stewardship. Potential benefits often include:

- Increased operating efficiency
- Reduced costs and risk
- Improved environmental and public relations
- Compliance

An EMS serves the organization and its mission – it is a process, not a program.

enHance Leaders – Implemented EMS

- Baxter International, Cleveland
- EKA Chemicals, Columbus
- Haworth, Bruce
- Hunter Douglas, Tupelo
- International Paper, Redwood
- Nucor Steel, Flowood
- Caterpillar, Oxford
- Naval Construction Battalion Center, Gulfport
- Southern Natural Gas, Pickens
- Cooper Tire, Tupelo
- Columbus Air Force Base, Columbus
- Custom Engineered Wheels, Tupelo
- Flexsteel, Starkville
- Nissan, Canton
- Southern Natural Gas, Onward



ANNUAL WORKSHOP APRIL 5, 2011 Jackson, MS

enHance Workshop

E3 – Energy, the Economy and the Environment
Best Practices and Resources for Efficiency, Competitiveness and Sustainability

The Mississippi Department of Environmental Quality's (MDEQ) enHance program is a voluntary initiative to recognize environmental leaders in Mississippi.

This workshop will highlight some of best practices utilized by current enHance members and provide resources for reducing energy consumption and costs, as well as available funding and training for energy management.

Workshop Agenda (More details about each session are available at www.mma-eh3.org)

9:00 a.m. Welcome and Introduction, Richard Hill, MDEQ, and Mary Jean Gates, ESCOM

9:15 a.m. Energy Efficiency Best Practices Case Study: The Cooper Tire Company, John Swartzendruber, Cooper Tire, Tupelo

9:40 a.m. Waste Reduction Best Practices Case Study, Philip James, ABE/Kuhman Electric, Crystal Springs

10:05 a.m. Best Practices – Environmental Benefits of LEED, Jeff Swanson & Patrick Laddin, Mississippi Chapter of U.S. Green Building Council

10:30 a.m. Break

10:45 a.m. Best Practices – Technologies for Monitoring and Controlling Energy Use, Chad Moore, EFG

11:10 a.m. Funding Opportunities for Energy Efficiency and Environmental Projects, Mississippi Development Authority Panel Discussion

11:25 a.m. Audit Opportunities with MDECER, Chad Wheeler, Mississippi State University

11:40 a.m. EPA's E3 Program, Pam Swingle, EPA Region 4

12:05 p.m. Final Questions, Workshop Wrap-up

When & Where

- Registration – 8:30 to 9 a.m.
- Program: 9 a.m. to 1:30 p.m.
- Tuesday, April 5, 2011, Hilton Jackson, 155 North and County Line Rd., Jackson, 601-957-2900

Rooms are \$250 per night. Use code ABBA when making your reservation. Rate is available through March 4.

Cost

- \$25 per person, includes session and luncheon.

REGISTER ONLINE NOW!

Respeaker notices will be sent a few days prior to the seminar. If you do not receive a respeaker notice, or if you need more information about this or other MMA seminars, contact Barbara at 601-948-1222 or barbara@mma-eh3.org.





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EPEC (Enhancing Furniture's Environmental Culture)



EPEC is a voluntary environmental management system created by AHFA in 1999 to help its members develop and maintain strong, proactive environmental programs.

EPEC provides a systematic approach for reviewing and improving your company's operations for better environmental performance and improved profitability. In addition, many states now offer specific benefits for companies with an environmental management system in place. These benefits may include less reporting, fewer inspections, permit flexibility, faster permit approvals, government recognition and reduced permit and application fees.

EPEC registration requires a company to analyze the environmental impact of its operations, raw materials and finished products on a facility-by-facility basis. Measurable benefits include:

- Better management of resources and raw materials;
- Reduced energy and water consumption;
- Reduced waste disposal and associated costs; and,
- Improved overall operational performance and efficiency.

All of a company's domestic facilities, including headquarters buildings and warehouses in addition to factories, must be EPEC-registered to proceed with AHFA's Sustainable by Design program.

For more information on beginning the EPEC program, contact Bill Perdue, bperdue@ahfa.us.

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