



# EMS

---

## **Environmental Management System ISO 14001**



# International Organization for Standardization



---

- Based in Geneva, Switzerland
- Member bodies from 110 countries
  - » ANSI is U.S. Representative
- ISO identifies need for a standard and assigns the work to a technical committee (TC)
- The TC works through a structure of sub-committees and working groups



# ISO 14000 Key Dates

---

- 1991 – Strategic Advisory Group for the Environment (SAGE) formed
- June 1992 – UN Conference on Environment and Development agreed on need for EMS
- June 1993 – ISO TC-207 initial meeting
- 1996 – ISO 14001
- 2004 – ISO 14001 Revised



# ISO 14000 Series of Standards

---

- ISO 14001 2004
  - » EMS specification with guidance for use
- ISO 14004 2004
  - » EMS general guidelines on principles, systems and supporting techniques
- ISO 19011 2002
  - » Guidelines for quality and/or environmental management systems auditing



# ISO 14001

---

- Requirements for certification of an EMS
- Only elements that can be objectively audited
- No absolute requirements beyond compliance with regulation and continual improvement
- Common principles with ISO 9000



# ISO 14001

---

- Provide assurance that performance meets requirements using audits and reviews in a structured management system
- System depends upon commitment at all levels and in all functions
- Applicable to all types and sizes of organizations



# ISO 14001

---

- Accommodates diverse geographic, cultural and social conditions
- Overall aim is to support environmental protection and prevention of pollution in balance with socio-economic needs



# Should I Have an EMS?

---

- Am I required to comply with environmental laws and regulations?
- Do I want to improve environmental performance?
- Are environmental affairs a significant liability?
- Do I lack time and resources to fill environmental obligations?



# Benefits of an EMS

---

- Improved environmental performance
- Reduced liability
- Competitive advantage
- Improved compliance
- Reduced costs
- Fewer accidents



# Benefits of an EMS

---

- Employee involvement
- Employee morale
- Improved public image
- Better access to capital
- Enhanced image with regulators



# Definition of an EMS

---

A continual cycle of **planning, implementing, reviewing,** and **improving** the actions that an organization takes to meet its environmental obligations

**Plan**

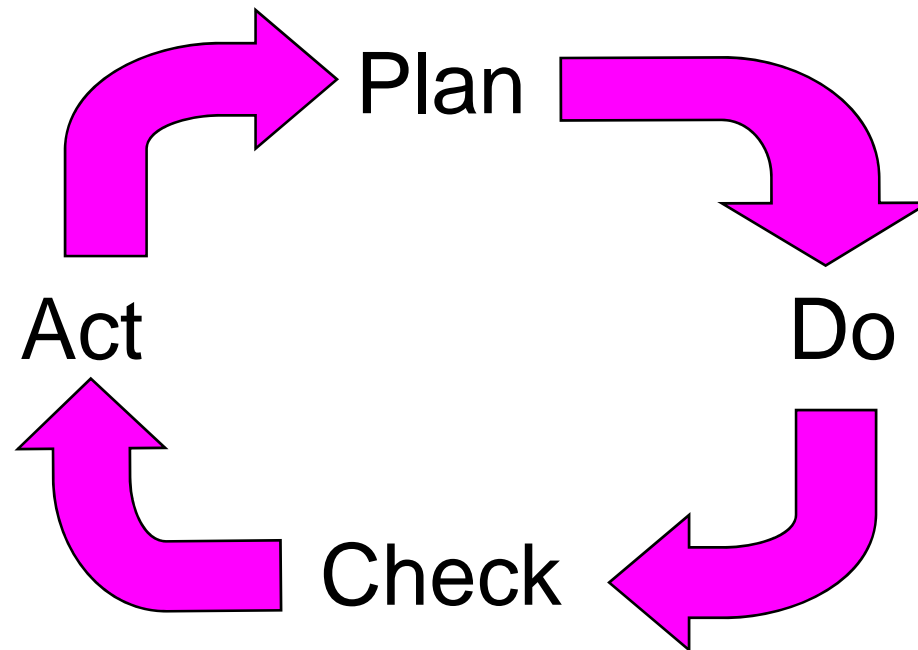
**Do**

**Check**

**Act**



# Definition of an EMS





# Key Elements of an EMS

---

- Environmental policy
- Planning
- Implementation
- Checking and corrective action
- Management review
- Continuous improvement



# EMS Principles

---

The EMS model is based on the following:

- Commitment and policy –define policy & ensure commitment to EMS
- Planning –plan to fulfill policy
- Implementation – develop the capabilities & support mechanisms to achieve policy, objectives and targets



# EMS Principles

---

- Measurement and evaluation – measure, monitor and evaluate environmental performance
- Review and improvement – review and continually improve EMS with the objective of improving overall performance



# Environmental Policy

---

Statement by the organization of its intentions and principles in relation to its overall environmental performance which provides a framework for action and for setting of its environmental objectives and targets



# SBM Environmental Policy

---

SBM has a commitment to comply with relevant environmental legislation and regulations and with other requirements to which the organization subscribes. SBM is committed to pollution prevention. Continual improvement and continual monitoring of its activities related to the environment. SBM set objectives and targets to comply with all laws and regulations pertaining to the environment and pollution prevention and will continue to improve and reduce any negative effects on the environment.



# Planning

## Environmental aspects/impacts

- » Environmental Aspects are the elements of a manufacturer's activities, products or services that are likely to interact with the environment.
- » Environmental Impacts are the changes to the environment – beneficial or adverse – which result, wholly or partially, from the activities, products or services of the manufacturer.



# Planning

---

- Legal and other requirements
- Objectives, targets and programs
- Resources, roles, responsibility and authority



# Implementation

---

- Competence, training and awareness
  - » Importance of conformity with EMS
  - » Significant environmental aspects
  - » Benefits of improved performance
  - » Roles and responsibilities for EMS
  - » Potential consequences of departure from specified procedures



# Implementation

---

- Communication
- Documentation
- Control of documents
- Emergency preparedness and response
- Monitoring and measurement



# Checking & Corrective Action

---

- Evaluation of compliance
- Nonconformity, corrective action and preventive action
- Control of records
- Internal audit



# Management Review

---

Top management reviews EMS to:

- Ensure continuing suitability, adequacy and effectiveness
- Evaluate the possible need for changes to the policy and/or objectives and targets