



EQ-The Environmental Quality Company

**Implementation of ISO 14001
(Environmental Standard)**

Connecticut Department of Energy

and

Environmental Protection



EQ IS THE ANSWER

WELCOME!

INTRODUCTIONS



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EQ History

Proud to be celebrating 55 years!
1957-2012

- 55 Years of delivering quality environmental services
- Growth from 1 to 30 locations
- Growth from 3 to 1,000 employees



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What is a Environmental Management System?

Part of an organization's management system used to develop and implement its environmental policy and manage its environmental aspects.

(AS/NZS ISO 14001:2004)



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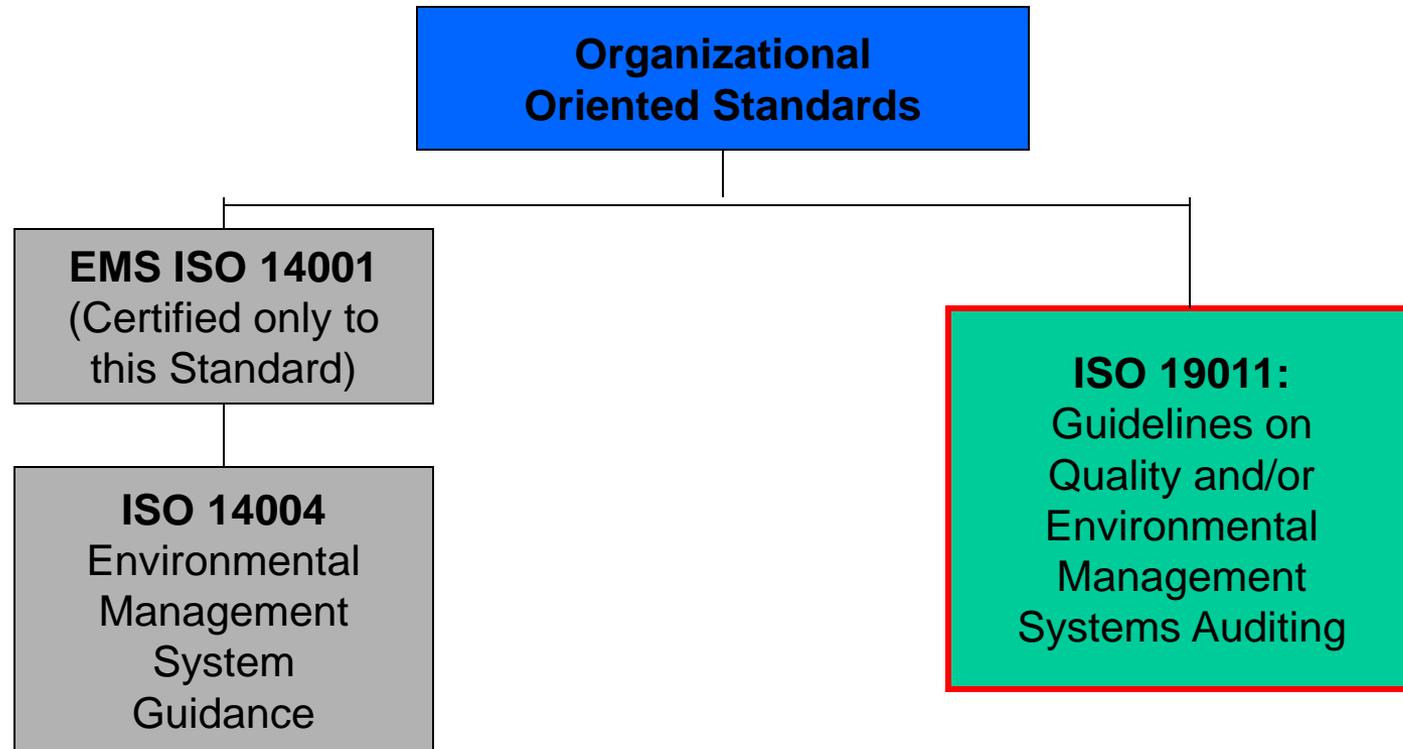
What is ISO 14001:2004?

- An international standard for requirements of an environmental management system.
- Produced by the International Organization for Standardization.
- Adopted jointly by Standards Australia and Standards New Zealand for application in Australia and New Zealand.
- Used as basis for third party certification of environmental management systems.



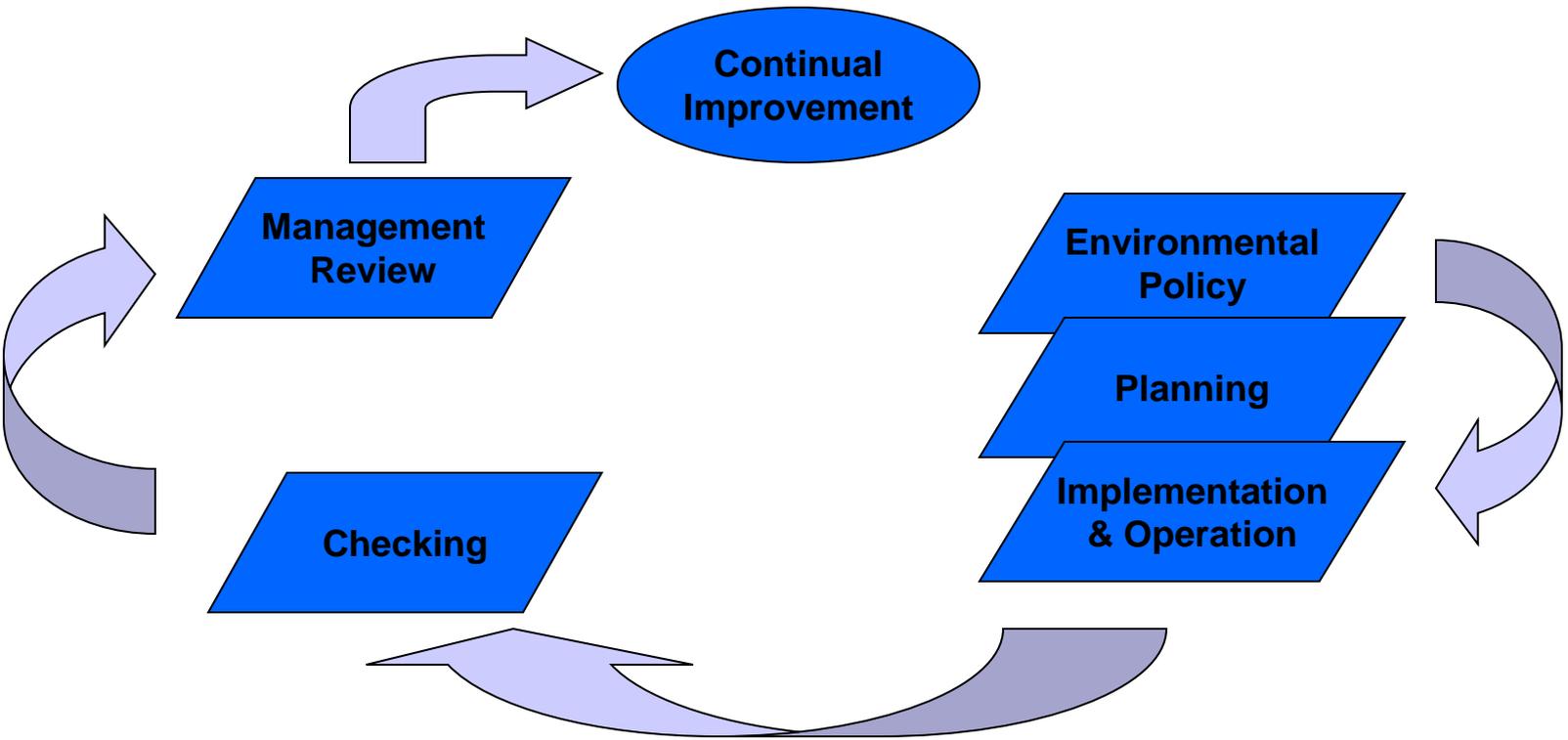
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ISO 14000 Series of Standards



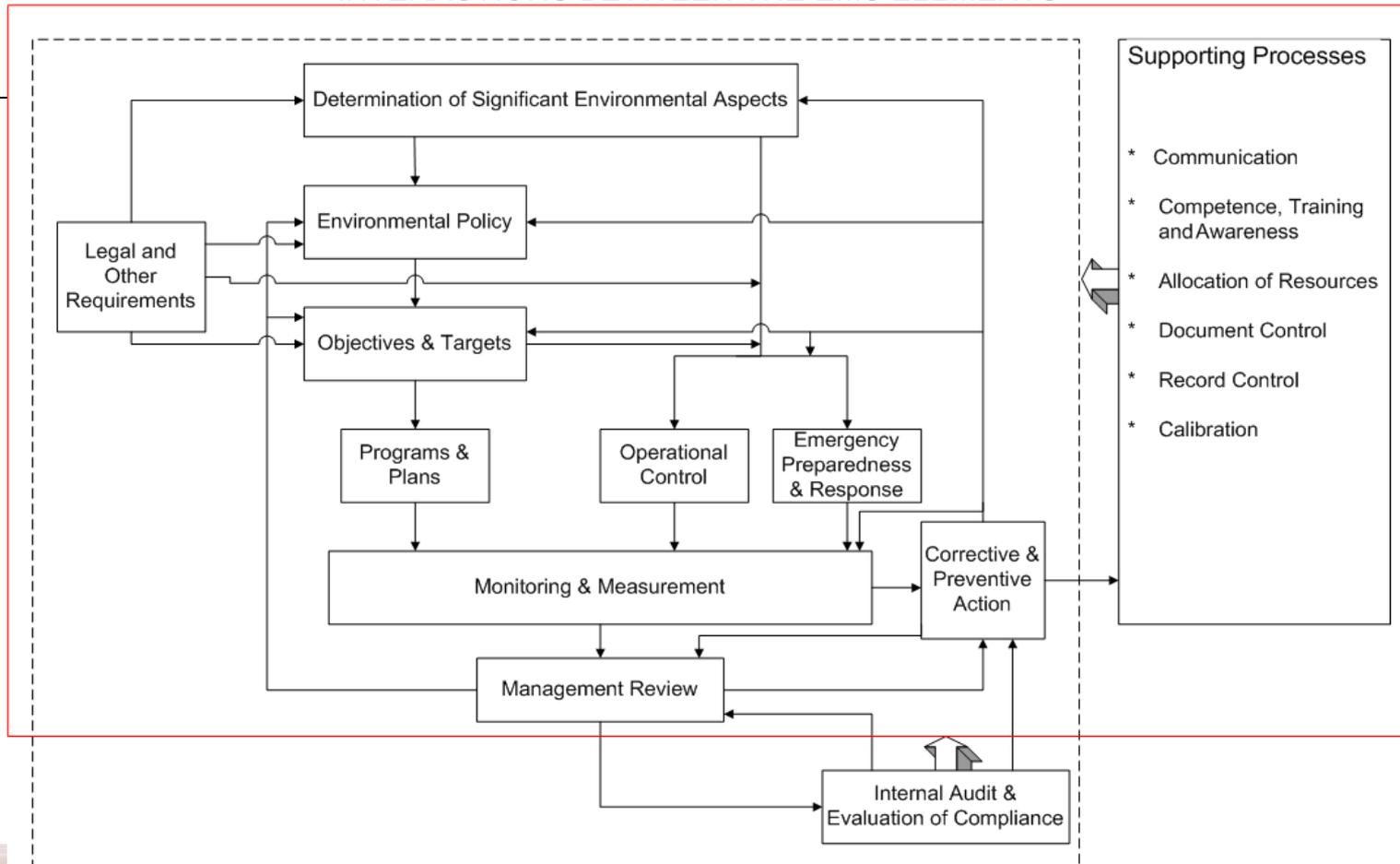
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Key Elements of an Environmental Management System Continual Improvement Loop (ISO 14001)



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INTERACTIONS BETWEEN THE EMS ELEMENTS



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Why have an EMS?

- Improve management of environmental impacts
- Set targets to reduce energy use, water use & waste to landfill
- Initiate and maintain procedures to improve efficiencies
- Define key responsibilities for achieving targets
- Monitor and measure environmental performance against key indicators
- Regularly assess progress towards achieving set objectives
- Ensure due diligence and ongoing consideration of legal and other environmental requirements



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Why have an EMS? Cont.

- Assist with environmental reporting
- Achieve cost savings
- Show leadership, community
- Obtain competitive advantage
- May be required by clients, customers and/or regulators
- Build goodwill from customers, employees and stakeholders



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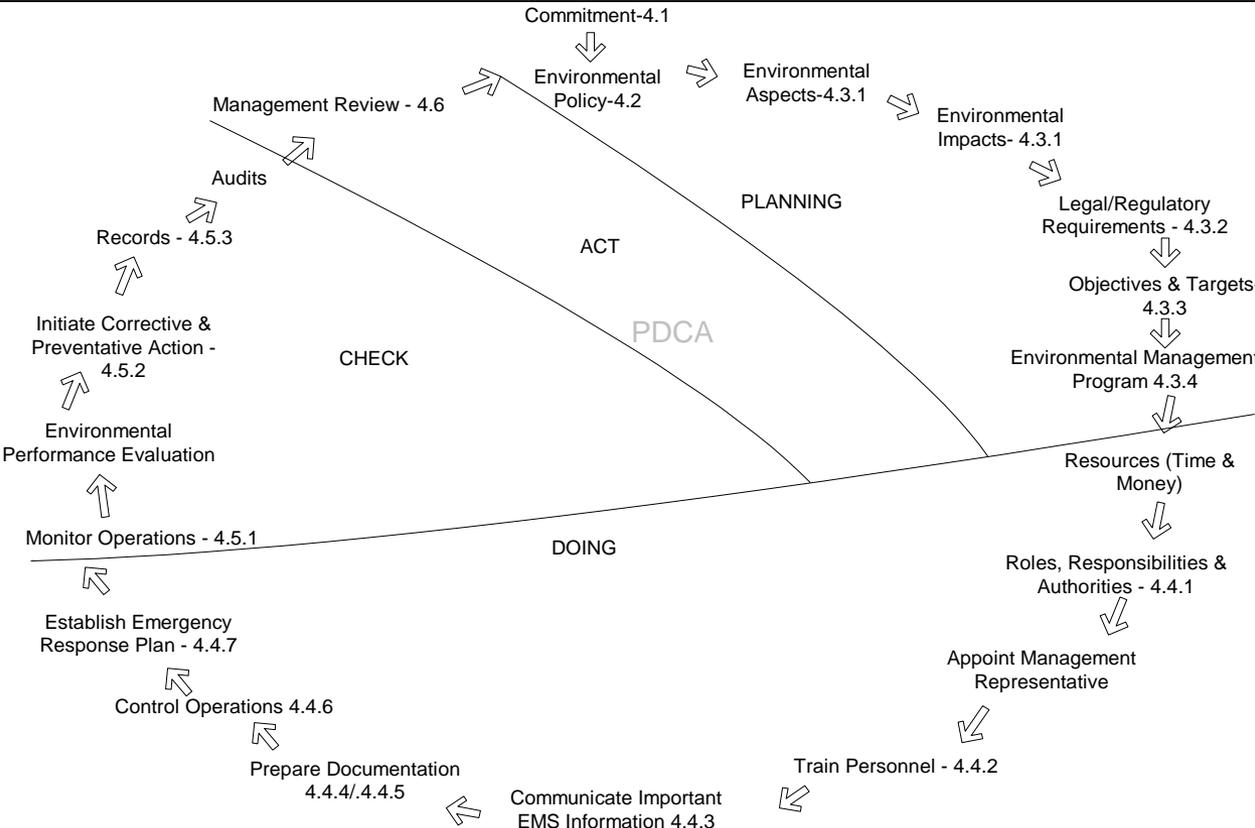
Role of management in establishing & implementing an EMS

- Develop & approve environmental policy as a statement of commitment
- Creates the environment that fully involves people and in which it can operate effectively
- Provides the tools and resources to be successful
- Provides direction
- Appoint management representative(s) to ensure EMS is established, implemented and maintained, and to report on performance of EMS including recommendations for improvement
- Provide support to management representative in establishment phase to overcome barriers
- Regularly review the EMS to ensure its continuing suitability, adequacy and effectiveness.



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EMS IMPLEMENTATION CYCLE



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Environmental Policy

- Sets the guidance for the way the Organization plans to manages its environmental impacts
- Set by top management
- Acts as the pinnacle of the EMS
- Includes commitments to pollution prevention, legal compliance & continual improvement
- Includes framework for objectives & targets
- Must be effectively communicated & maintained

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EQ'S Mission

EQ is committed to being recognized as the best **provider** of environmental management services. To reach this goal, EQ will use innovative technologies and services that minimize waste volumes, reduce costs and **protect** the environment. EQ will **set the** industry **standard** for customer service, associate satisfaction and financial stability.

We are **committed** to:

- Ensuring a safe and healthy environment for EQ Associates, our customers and the public;
- Complying with all applicable laws, regulations and other requirements to which we subscribe;
- Continually improving our integrated Quality, Environmental, and Health & Safety Management Systems;
- Providing a comprehensive line of environmental solutions by utilizing continual innovation and new applications of current technologies;
- Minimizing the environmental impacts of our services, operations and products, through application of sustainability principles such as recycling, reuse, pollution prevention, emergency preparedness and conservation of materials and natural resources;
- Exceeding our customers' expectations for quality, service and products.
- Educating, training and motivating our EQ Associates because they are the key to applying the management system into our operations, developing new solutions and satisfying our valued customers.



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3 Steps in Planning the EMS

1. Environmental aspects
2. Legal & other requirements
3. Objectives, targets & programs



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Environmental aspects

- Identify environmental aspects
- Determine aspects with *significant* environmental impact
- Document & maintain on a spread sheet
- Ensure that significant environmental aspects are the focus of the rest of the EMS



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Legal & other requirements

- Identify environmental legal requirements applicable to the operations of the organization
- Identify other environmental requirements to which the facility subscribes
- Show how legal & other requirements apply to environmental aspects
- Keep these up-to-date & incorporate them into other elements of the EMS



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Environmental Management System

Air Permits

Training

Waste Mgt.

Compliance Audits

Wastewater

Emergency Response

Energy

Recycling, etc.



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Objectives, targets & programs

- *Objective*: overall goal consistent with environmental policy that the Corporate Goals wants to achieve
- *Target*: detailed performance requirement to achieve objective
- Environmental program/action plan:
 - to achieve objectives & targets
 - Includes responsibility, means & timeframe



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Implementation & Operation

- Resources, roles, responsibility & authority
- Competence, training & awareness
- Communication
- Documentation
- Control of documents
- Operational control
- Emergency preparedness & response



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Competence, training & awareness

- Identify positions & roles associated with significant environmental aspects
- Assess competence
- Identify training needs
- Fulfil training needs
- Disseminate awareness of the EMS



Communication

- Develop internal communication process
- Ensure that communication from external parties is appropriately managed
- Decide how to proactively communicate externally about significant environmental aspects



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Documentation

- Environmental policy, objectives and targets
- Description of the scope of the environmental management system
- Description of the main elements of the environmental management system and their interaction, and reference to related documents
- Documents and records required by the standard
- Documents and records determined by the organization to be necessary to ensure the effective planning, operation and control of processes that relate to its significant environmental aspects.



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Document control

- Document approval
- Document review, update and re-approval
- Identification of changes and current revision status
- Availability at points of use
- Legibility and identification
- Identification and distribution of external documents
- Management of obsolete documents.



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Operational control

- Physically control **all** activities, functions, products and processes associated with significant environmental impacts
- Operational control **must** include **documented** work instructions and operating procedures defining the manner in which control will be maintained, on a **risk management basis**
- Operational control extends to significant environmental aspects of goods & services used by the facility, for communication to suppliers & contractors.



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Emergency preparedness & response

- Procedures to identify potential for accidents and emergency situations, appropriately respond to, and minimize the environmental impact of, accident and emergency situations
- Test emergency response plans
- Review emergency preparedness & response procedures, especially after incidents



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Checking

- Monitoring & measurement
- Evaluation of compliance
- Nonconformity, corrective action & preventive action
- Control of records
- Internal audit



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Monitoring & measurement

- Monitor the activities, functions and processes that are associated with a significant environmental impact
- Monitor performance, operational controls, & conformity with environmental objectives & targets
- Calibrate or verify any monitoring & measurement equipment



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Evaluation of compliance

- Periodically evaluate compliance with legal & other requirements
- Record the evaluations



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Nonconformity, corrective action & preventive action

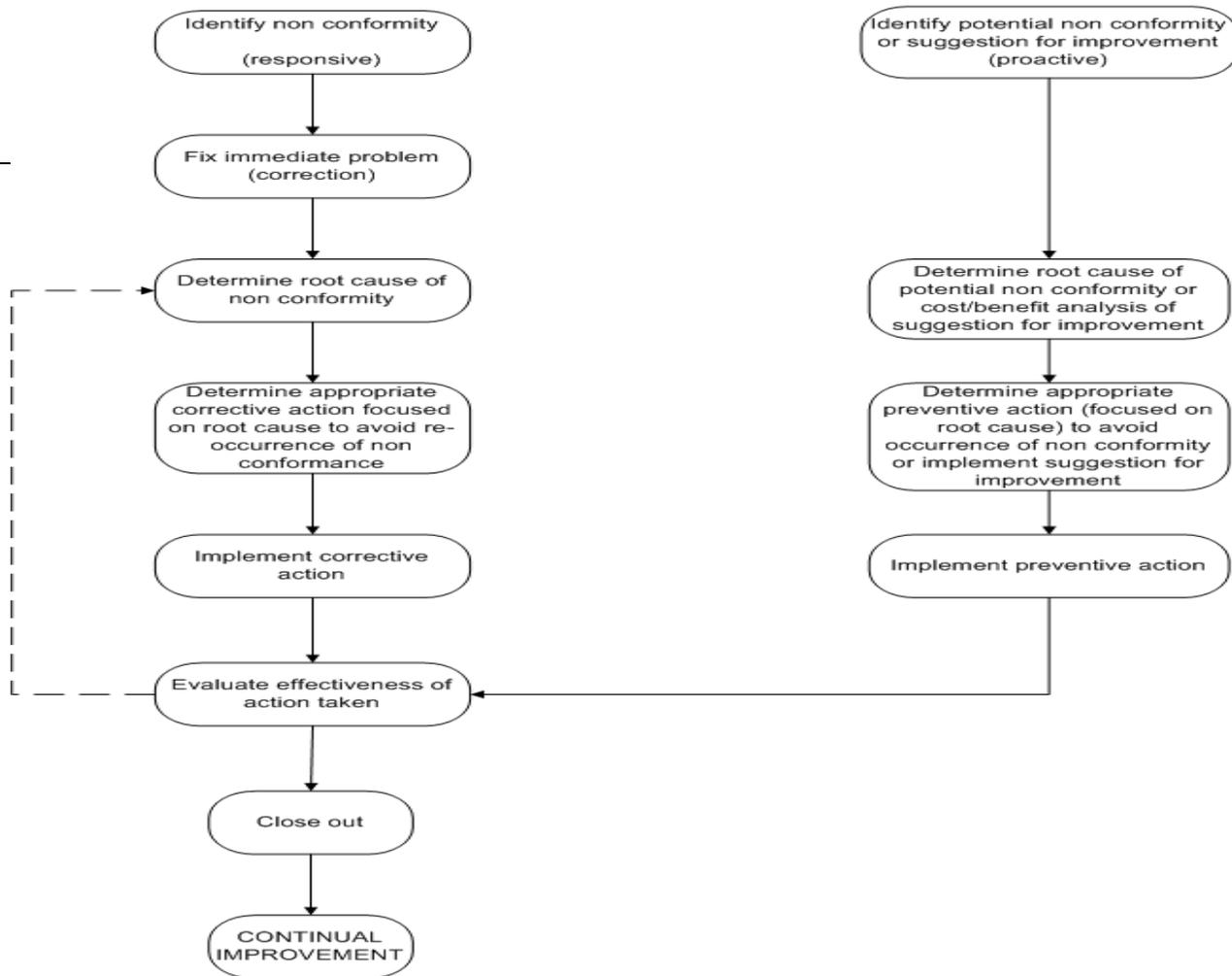


- Identify actual & potential nonconformities
- Take action to correct nonconformities and mitigate environmental impact
- Investigate nonconformities & determine root cause
- Take corrective action to avoid recurrence, & preventive action to prevent occurrence
- Review effectiveness of action taken (verification/validation)



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Corrective & Preventive Action



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Control of records

- Retain all environmental records required for the successful development, implementation and maintenance of the EMS



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Internal audit

- Establish & implement internal audit program to:
 - evaluate conformity with requirements of EMS & international standard
 - evaluate effectiveness of EMS
 - provide information to top management



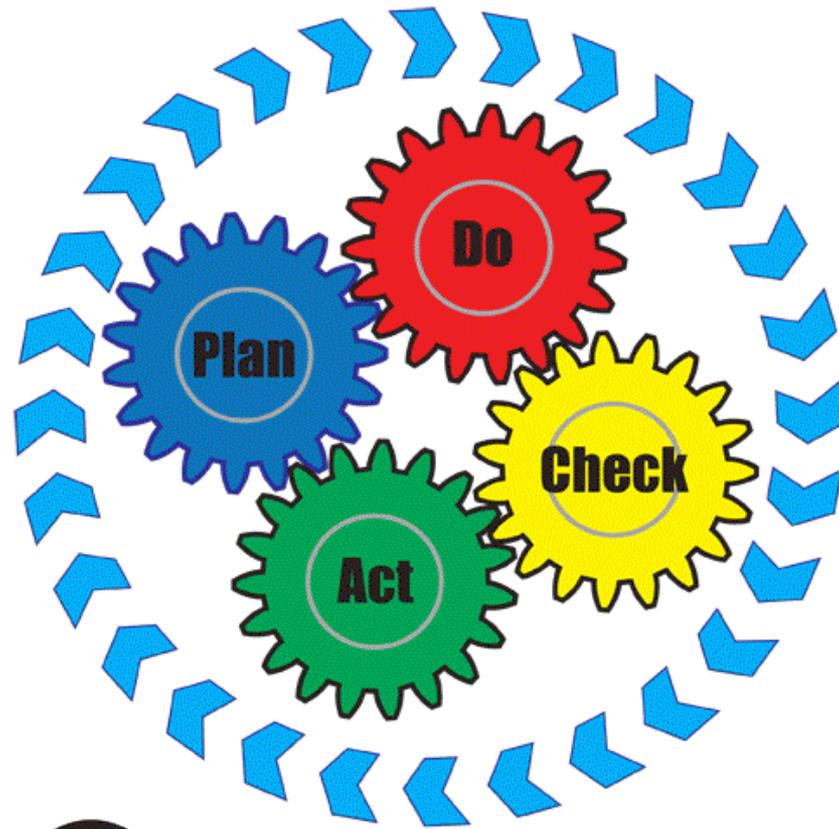
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Management Review

- Holistic & strategic evaluation, by top management, of audit findings and the degree to which organization's environmental policy, objectives and targets, programs and procedures are functioning to improve environmental performance.



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Plan - Do - Check - Act



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Steps to establishing an EMS

1. Obtain commitment from top management.
2. Define responsibilities, appoint management representative(s), establish EMS steering committee, develop implementation plan, initial training on EMS.
3. Planning—identify environmental aspects, legal & other requirements; formulate environmental policy; establish environmental objectives & targets & programs.



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Steps to establishing an EMS, cont.

4. Implementation & operation—develop documentation & processes
5. Checking—develop processes for monitoring & measurement & corrective & preventive action
6. Develop and deliver presentation on awareness of the EMS in the agency.



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Steps to establishing an EMS, cont.

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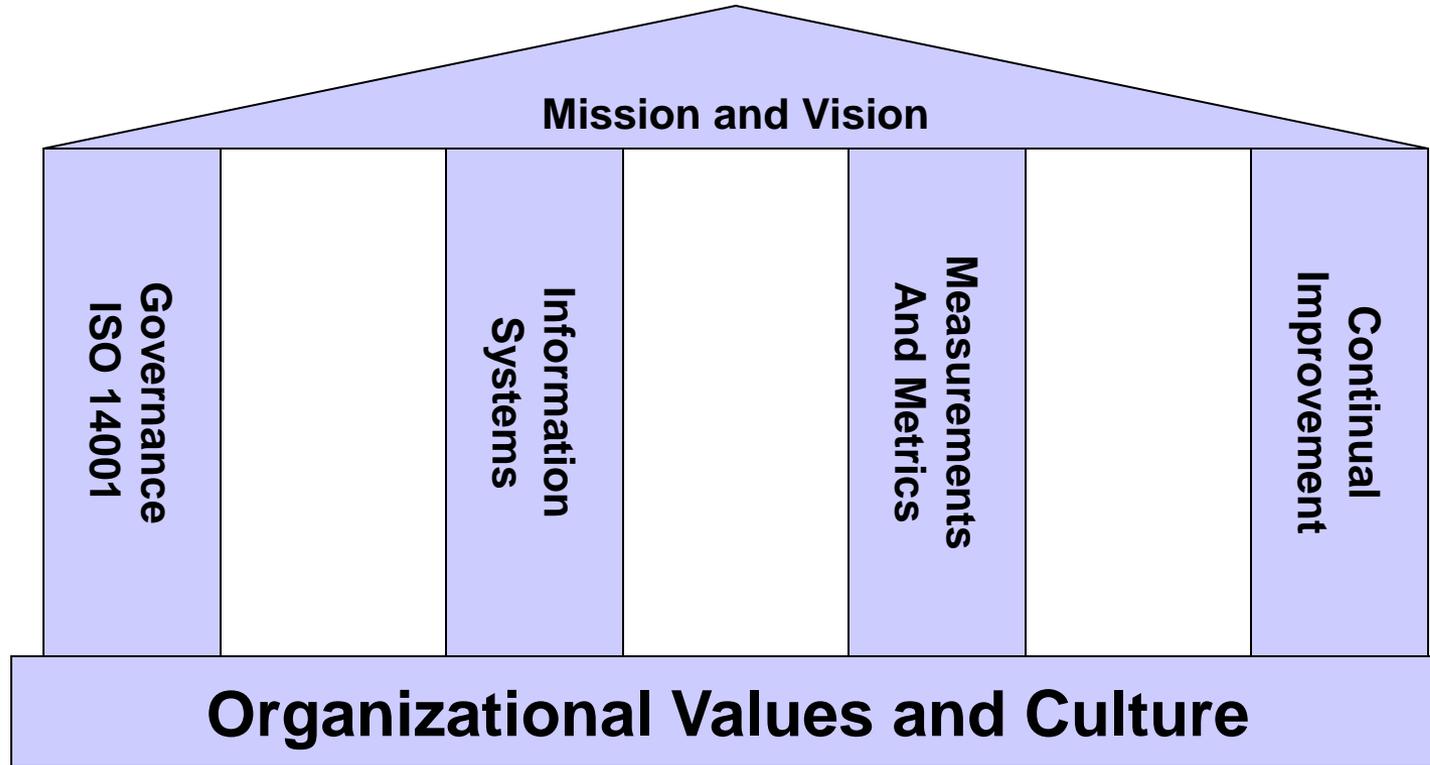
Steps to establishing an EMS, cont.

7. Establish internal audit program, including training; conduct initial internal audit to evaluate conformity to requirements of ISO 14001, including evaluation of compliance
8. Follow up internal audit with improvements to system
9. Conduct initial management review of EMS
10. Implement improvements from management review



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How Things Fit



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Steps to gaining certification of an EMS

1. Apply to accredited conformity assessment body for ISO 14001 certification
2. External comprehensive documentation review & preliminary audit to evaluate readiness for certification
3. Implement improvements from documentation review & preliminary audit
4. Certification audit



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Steps to gaining certification of an EMS, cont.

5. Management review, & implementation of further improvements
6. Plan corrective action in response to any nonconformities raised
7. Certification granted for 3 years
8. Surveillance audits annually
9. Monthly management reviews
10. Every 3 years - recertification audits.



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What resources are required?

- Management representative(s) to co-ordinate establishment, implementation & maintenance of EMS & report to top management.
- Management Team to establish the EMS, and possibly continue to maintain the EMS.
- Training of management representative & management team members on environmental management systems & ISO 14001.



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What resources are required? cont.

- Training of management representative & internal auditors on internal auditing.
- Delivery of awareness training on environmental management system to staff.
- Possible resources for waste segregation, energy & water efficiency measures, and other environmental action plans.
- Minor modification to procedures to enable monitoring of key characteristics of operations that have environmental impact.



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Barriers to effective implementation

- Lack of management support and commitment
- Inadequate resources
- Lack of support from staff
- Inadequate awareness and culture within the organisation
- Lack of clear responsibilities and authorities
- EMS too complex for the organization
- Organizational politics & culture within functional areas



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Conclusion

An environmental management system takes time and commitment from the entire organization.

Effective running of an EMS will provide ongoing environmental benefits, cost savings and contribute to building an attractive work place culture.



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Questions?



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