

Welcome to presentation
by



NETPECKERS CONSULTING (P) LTD.

An ISO 9001:2000 compliant organization



On

Direct & Indirect Advantages of implementing

ISO 14001 in your organization DURATION 25 MINUTES.



Contents of the presentation

- Global warming issues
- Ozone - Depletion Causes & Effects
- Scope of Environment Management System
- Elements of successful EMS
- Indian Environment Legislations
- Environmental auditing
- Steps involved in Environmental Management System implementation
- Netpeckers Consulting (P) Ltd. Advantage for EMS



The emission of green house gases causing an increase in atmospheric Temperatures & resulting climatic Changes.

Global warming – Causes & Sources

Green house gases

- Carbon dioxide, methane, N_2O & CFC's
- Trap the sun's heat
- Control the temperature of the earth
- 7 billion tons of carbon dioxide are released each year
- 5.4 billion tons from the use of fossil fuels
- 1.6 from processes such as deforestation, reforestation
- & new cultivation



Global Warming – Effects

- Increase in temperature affect patterns of rain & snowfall

- Plants & animals not able to cope as changes disturb their

ecosystem

- As oceans warm & expand, glaciers melt & sea level may rise
- Low lying areas will flood & habitat is disturbed.



Global warming - Solutions

- Reduce production & consumption of fossil based energy

- Use cleaner production technologies like solar energy,

wind energy & tidal energy

- Improve efficiency in fossil based energy production
- Reduction of deforestation & increase in reforestation



Ozone - Depletion

Ozone Layer

- Ozone particles (10 parts per million) between 19 & 30 kms up in the earth's atmosphere
- Absorbs UV radiation before it enters the troposphere & the surface of the planet

Ozone Depletion

The deterioration of earth's protective ozone layer



Ozone Depletion - Solutions

- Reduction in the use of Chloro Fluoro Carbons
- The Montreal Protocol laid out control measures to reduce

Ozone depletion

- Control measures are characterized by
 1. 100% phase out by a specific date
 2. Initial freeze on consumption
 3. Interim targets
 4. Some minor exemptions for essential uses.



International Organization for
Standardization was set up in 1947 , Geneva
Switzerland with
Technical Committee 217
Consisting of participants nations

This committee sets standards for ISO 14001



Ten management principles according to ISO 14001

1. Recognize that environmental management is one of the highest priorities of any organization.
2. Establish & maintain communications with both internal & external
3. Determine legislative requirements & those environmental aspects associated with your activities, products, and services.
4. Develop commitment by everyone in the organization to environmental protection & clearly assign responsibilities & accountability.
5. Promote environmental planning throughout the life cycle of the product & the process.
6. Establish a management discipline for achieving targeted performance.
7. Provide the right resources & sufficient training to achieve performance targets.
8. Evaluate performance against policy, environmental objectives & targets, & make improvements wherever possible.
9. Establish a process to review, monitor & audit the environmental management system to identify opportunities for improvement in performance.
10. Encourage vendors to also establish environmental management systems.



Benefits of an Environmental Management System

- Protect human health & the environment from the potential impacts of its activities, products & services.
- Assist in maintaining & improving the quality of the environment
- Meet the customer's expectations.
- Maintain a good public & community relations.
- Satisfy investor criteria & improve access to capital.
- Provide insurance at a reasonable cost.
- Gain an enhanced image & market share.
- Satisfy vendor certification criteria.
- Improve cost control.
- Limit liabilities.
- Provide resource conservation.
- Provide effective technology development & transfer.
- Provide confidence to interested parties (and shareholders) that
 - Policies, objectives & targets are met,
 - Emphasis is on prevention first.
 - Reasonable care & regulatory compliance regularly occur &
 - System design includes continual improvement.



Objectives, according to ISO 14001, include commitment such as

1. Reduce waste of resources
2. Reduce resource depletion like water, power, air & land
3. Reduce or eliminate environmental pollution
4. Design products for minimal environmental impact in production, use & disposal;
5. Control environmental impact of raw material sourcing.
6. Control environmental impact on new developments.
7. Promote environmental awareness among employees &
8. Promote environmental awareness within the community.



Environmental performance indicators to measure & achieve objectives or targets.

1. Quantity of raw material used
2. Quantity of energy used
3. Quantity of emissions
4. Waster per quantity of finished product
5. Efficiency of material & energy use
6. Number of environmental incidents/accidents
7. Number of prosecutions
8. Number of vehicle miles per unit of production
9. Specific pollutant concentrations
10. Land area for wildlife habitat
11. Percent of water recycled
12. Percent of recycled material used in packaging
13. Investment in environment protection.



Example of environmental management plan

Policy : To conserve natural resources

Objective : To minimize water & power use wherever technologically & commercially viable.

Target : To reduce water & power consumption by 15% Of present levels within one year.

Action plan : Install equipment to recycle rinse water for process A For reuse in process B which requires water of a lesser Quality.

Person responsible : Maganbhai Patel

Resources : Existing operations staff, new water technology, 10k from capital budget

Completion date : 31 Dec 2002



Indian Environmental Legislations

The Water (Prevention & Control of pollution) Act 1974

- The Air (Prevention & Control of pollution) Act 1981
- Hazardous Wastes (Management & Handling) Rules 1989
- Manufacture, Storage & Import of Hazardous Chemical Rules 1989
- The Environment (Protection) Act 1986
- The National Environment Tribunal Act 1995



Indian Environmental Legislations

1. Forest (Conservation) Act 1980
2. Municipal solid wastes (Management & Handling) Rules 1999
3. The Factories Act 1948 Amendment 1987
4. The Mines Act
5. The Indian Boilers Act 1923 & Rules 1961
6. The Indian Electricity Act 1910 & Rules 1956
7. The public liability insurance Act 1991



Environmental Pollution with relation to Business Operations

- Air Pollution
- Water pollution
- Land pollution
- Noise pollution
- Radio active material use



What is Environmental Management System ?

The part of the overall management system that includes Organization Structure, planning activities, responsibilities, procedures, processes & resources for developing, implementing, achieving, reviewing & maintaining the environmental policy.

The core elements of ISO 14001

1. Environmental policy
2. Planning
3. Implementation & Operation
4. Checking, Corrective action & preventive action
5. Management Review



Virtuous Cycle

Redefine the targets

Continual Improvement

Planning

- 1. Environmental Aspects requirements
- 3. Objective & targets
- 4. Environment Management Program

Management Review

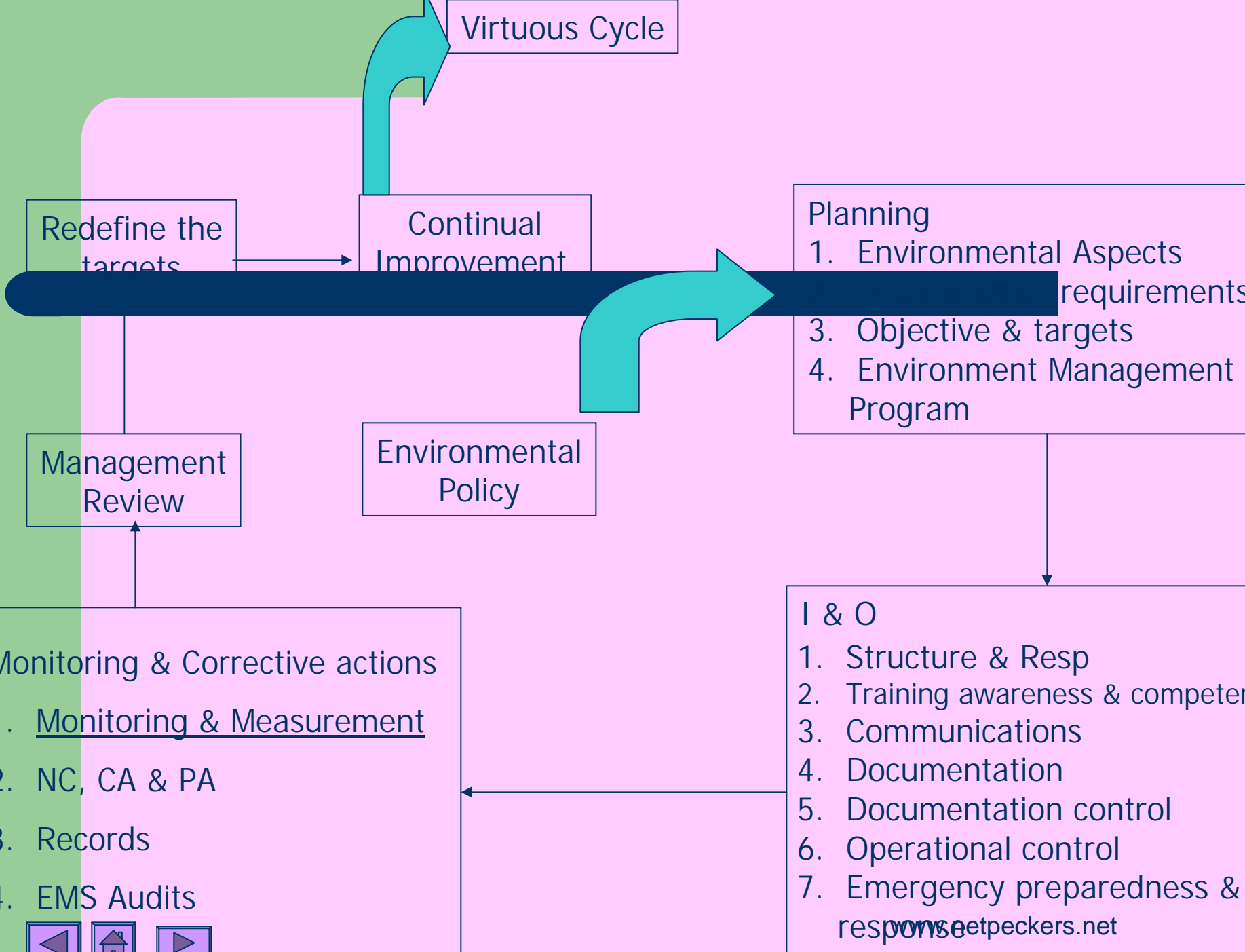
Environmental Policy

I & O

- 1. Structure & Resp
- 2. Training awareness & competenc
- 3. Communications
- 4. Documentation
- 5. Documentation control
- 6. Operational control
- 7. Emergency preparedness & response

Monitoring & Corrective actions

- 1. Monitoring & Measurement
- 2. NC, CA & PA
- 3. Records
- 4. EMS Audits



Planning of objectives & targets

Listing of environmental aspects

determine Significant aspects

Define environmental policy

Define objectives & targets



Interested parties for organization

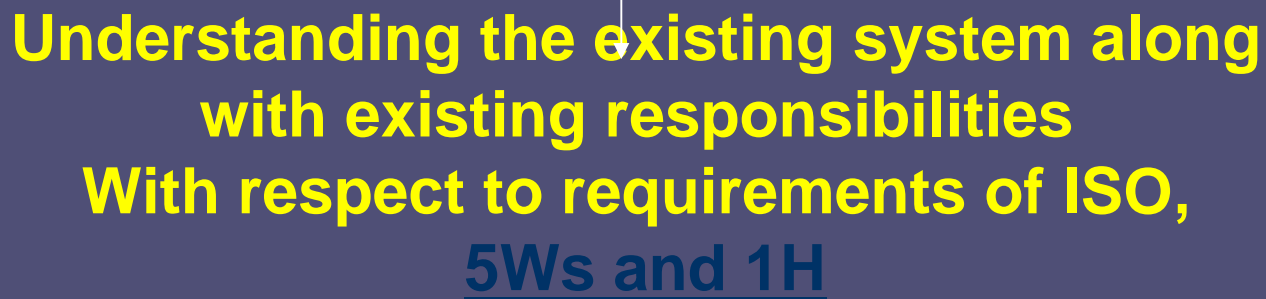
1. Customers
2. Employees
3. Suppliers
4. Society
5. Pollution control boards
6. State government
7. Central government
8. Certifying bodies for Environment Management System



Steps involved in ISO 14001 Project & our scope of services



Appointment of consultant



**Understanding the existing system along
with existing responsibilities
With respect to requirements of ISO,
5Ws and 1H**

*If we wish to define an activity in totality logically,
we should normally be able to define it in terms of*

5Ws & 1H as depicted below

Who does What Why When Where

&

How

*W's - Defines Activity, Responsibility &
Authority, Need / Purpose, Time & Location*

*H- Defines Operating Procedure of Activity /
Set of Instructions*



Define environmental aspects & impacts
Affecting the organization

Ranking of aspects v/s impacts of the organization

Define environment objectives & targets
With respect to legal, management & other requirements

Develop Environmental Management Program
For office & factory . Develop day to day activities of
WAN & LAIR policy

Define operations & responsibilities

Develop & implement documented procedures
Including records needed & documentation control

Training and awareness to all
The concerned employees

Develop External & Internal communication

Prepare emergency preparedness & response plan

Conduct emergency mock drills

Conduct internal environmental audit

Checking non conformances, &
Carrying out corrective & preventive action plan

Call third party agency for audit, co-ordinate the audit

Receipt of Certificate



Level 1 Environment Management Manual

Level 2 Quality System Procedures

Control of documents

Control of records

Internal audits

Corrective action

Preventive action

**Level 3 Standard Operating Procedures / Work Instructions
(if required by M.R.)**

Level 4 Formats / Records

Specific Advantages of implementing ISO 14001

1. Cost savings on effective use of Power, Water, Land, Air & other material use in Office & factory
2. Compliance to increasing legal and statutory requirements
3. Satisfies customer requirements
4. Better environment for workmen
5. Environmental awareness in your office, factory and society
6. Recognized name in market
7. Special preference in government organizations



TEAM @ NETPECKERS

1. Certified Auditor
2. Documentation Executive
3. Survey Executive
4. Marketing & Customer Support executive
5. Customer relationship management executive
6. Chartered Accountant
7. Industrial Lawyer



Professional Memberships

- Quality management web ring
 - Internal Consultants World wide
-
- International Webmaster's Association Guild
 - Ahmedabad Management Association
 - Environment Link Forum
 - British Library



Summary of all the ISO guidelines

Decide what you do.
Say what you do.
Do what you say.



Thank you for joining in the presentation
Please fill in the feedback form
Which would help us to be more precise
In our efforts.

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