Environmental Management System for the Organizations to Achieve Business Excellence

by

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Objectives :-

1. To implement Environmental Management Systems (EMS) in the Organizations.

2. To follow ISO 14000 EMS Standards in order to Provide Certifications for the Products, processes and Organizational Management.
Vision

Global Supplier

Transformation

Indian industry
Representation of a Process

Fig. 1: Schematic Representation of a Process.

PROCEDURE*
("Specified way to carry out an activity or a process" - may be documented or not)

PROCESS
("Set of interrelated or interacting activities")

MONITORING AND MEASUREMENT OPPORTUNITIES
(Before, during and after the process)

Input
(Includes Resources)

Output

PRODUCT
("Result of a process")

EFFECTIVENESS OF PROCESS = Ability to achieve desired results
(Focus of ISO 9001:2000)

EFFICIENCY OF PROCESS = Results achieved vs resources used
(Focus of ISO 9004:2000)

Note - This is the definition of "procedure" given in ISO 9000:2000.
This does not necessarily mean one of the 6 "documented procedures" required by ISO 9001:2000.
• What is Environmental Management Systems?
  • Environmental Management System (EMS) ensures that organizations identify and focus on improving areas where they have significant environmental impacts.
  • It is a Continual cycle of planning, implementing, reviewing and improving the activities on Organizational environmental obligations.
Success in Business needs the following aspects:-
1. Customer expectation
2. Environmental Concern
3. Legislations
4. Economics
5. Cost management
6. Technology Innovations
7. Staff expectations
Environmental Management System Principle

Eight Management Principles:
1. Customer focused organizations,
2. Leadership
3. Involvement of people
4. Process approach
5. System approach to the management
6. Continual improvements
7. Factual approach to decision making
8. Mutually beneficial supplier relationships
Focus of EMS on Management Research

- EMS focuses on key drives of performance excellence in products and processes as well as organizations that are focused on
  1. Delivering values to the customers,
  2. Internal operational processes,
  3. Staff’s learning.
- Hence, this system approach to the environmental management shall achieve excellence in the overall performances of the organization.
Environmental and economic benefits are:
1. Total amount of pollution has been reduced.
2. Cost of production has been cut down.
3. Higher ecological efficiency
4. Enterprise investments pay back within three years.
5. End pipe treatments cost reduced.
6. Zero waste technique have been introduced
Ecological Industrial Development:-

2. Raw Materials Usage
3. Minimum Waste Discharge

Facilitates:

1. Reduction in Pollution
2. Reduction of waste disposal cost
3. Utilization of By products
ISO 14000 Standards Procedures

The “Plan-Do-Check-Act” Cycle.
Integration of Environmental Impact Assessment:-

➢ EIA is a systematic Identification and evaluation of Potential Effects of Proposed Projects, plans, programs, legislative actions relative to the physical, biological, chemical, and cultural and socio-economic components of the total environment.
STEPS TO CONDUCT EIA:-

Step-1: Identification of quantity and quality characteristics of concerned environment of proposed project

Step-2: Preparation of description of existing environmental resource conditions

Step-3: Procurement of relevant quantity and quality standards

Step-4: Impact predictions,

Step-5: Assessment of impact significance,

Step-6: Identification and incorporation of mitigative measures
Integration of ERP-EMS Softwares in Organizations
Japanese Kaizen EMS Approaches
Gradual Orderly Environmental Improvements by Participation of Every Employee with Minimum Cost
Japanese 5 S-EMS Approaches

1. Seri
2. Seiton
3. Seiso
4. Seiketsu
5. Shitsuke
Environmental Clearances:- Highly Polluting Industries have to Obtain this from the Regulating Authorities to Check the Pollution is Under Control
The ISO-14000 series of standards have been developed to assist organizations in achieving engineering, environmental and economic gains.

- Improved environmental performance
- Prevention of pollution
- Reduction in waste, waste recycling, reusages, recovery
- Cleaner Production
- Ecological Industrial Development
- Enhancing internal management system efficiency
- Optimum utilization of resources and anticipating regulatory / legal requirements
ISO 14000 FAMILY ENVIRONMENTAL MANAGEMENT STANDARDS

• The ISO 14000 series fall into two main categories:
  • (1) organizational management system standards, and
  • (2) product-related standards. Only one of these standards provides for certification – ISO 14001 (Environmental Management System specifications). The remainders are guidance standards.
• Briefly stated, the ISO 14000 series covers the following areas:
  • ISO 14001 – Environmental Management Systems (EMS). The formal elements of an environmental management system includes environmental policy, planning, implementation, verification and management review.
  • ISO 14004 – General Guidance for developing and implementing an EMS.
  • ISO 14010 – 12 – Environmental auditing principles and guidance.
  • ISO 14031 – Environmental performance evaluation guidance.
  • ISO 14020 – 24 – Environmental labeling guidance (products)
  • ISO 14040 – 45 – Life-cycle Assessment principles and guidance (mainly products)
  • ISO 14050 – Terms and definitions
  • ISO Guide 64 – Inclusion of environmental aspects in product standards (Guide)
Key System components for ISO 14000 –EMS standards

1. Environmental Policy statements
2. Planning Process
3. Organizational Responsibilities and Accountabilities
4. Implementation Systems and Operational Controls
5. Measurements and Auditing Systems
6. Systems for Periodic Top Management review
Some Benefits of ISO-14000 EMS standards:-

1. Management of Environment efficiency and efficiency
2. Saving of Resources
3. Customers satisfactions
4. Reduction in Pollution and
5. Cleaner Production
6. Reduction in Product costs
7. Productivity Improvements
8. Quality improvements
9. Eco-friendly Products and processes
10. Organizational development
11. Elimination of Internal Operational problems
12. Ecological Industrial development
13. Staff learning, development and participation
Systematic innovation methods

1. Functionality
2. Evolution trends
3. Inventive principles

Reaching the target needs a change of system:

3 possibilities
- Doing the function in another way
- Jumps in the evolution trends
- Solving a conflict / contradiction
Conclusions and Recommendations:-

1. Environmental management systems protects the environment and prevents Pollution.

2. ISO 14000 EMS certifications provide benefits for the organizations as well as Globally towards sus. environment
“It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.”
- Charles Darwin

“Survival is not compulsory, but to survive QUALITY is compulsory!”
- Deming

Survival is not compulsory, but to survive ENVIRONMENTAL QUALITY is compulsory!
- G.Vijayan Iyer
Thanking you
Any Questions?