

Module -3 Environmental Management System

- **ISO 14000 - EMS as per ISO 14001**
- **Benefits and Barriers Of EMS**
- **Concept of Continual Improvement and Pollution Prevention**
- **Environmental Policy**
- **Initial Environmental Review**
- **Environmental Aspect and Impact Analysis**
- **Legal and other requirements**
- **Objectives and Targets**
- **Environmental Management Programs**
- **Structure and Responsibility**
- **Training Awareness and Competence**
- **Communication**
- **Documentation and Document Control**
- **Operational Control**
- **Monitoring and Measurement**
- **Management Review**
- **EMAS**

ISO 14000

ISO 14000 is defined as a series of international environmental management standards, guides, and technical reports. ISO 14000 is the international standard that specifies requirements for an effective environmental management system (EMS).

The aim of the ISO 14000 series of standards is to help organizations implement and improve their EMS. The primary objective of the ISO 14000 series of standards is *to promote effective environmental management systems in organizations*. It provides a framework that an organization can follow, rather than establishing environmental performance requirements.

The standards specify requirements for establishing an environmental management policy, determining environmental impacts of products or services, planning environmental objectives, implementing programs to meet objectives, and conducting corrective action and management review.

The standards seek to provide cost-effective tools that make use of best practices for organizing and applying information about environmental management.

The ISO 14000 family was developed in response to a recognized industry need for standardization. With different organizational approaches to environmental management, comparisons of systems and collaboration had proved difficult. ISO 14000 standards and practices can be applied to any organization, regardless of size or industry.

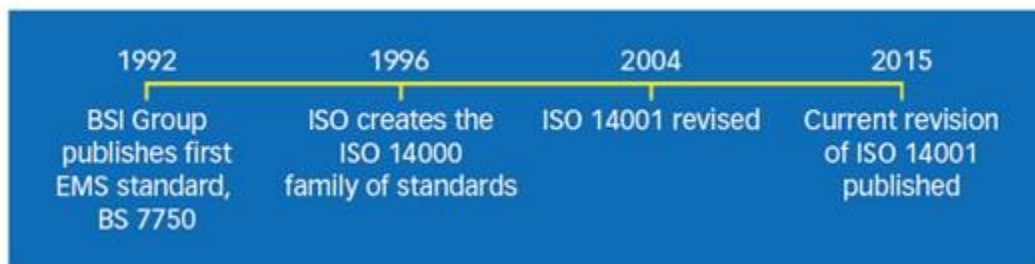
The ISO 14000 family includes most notably the ISO 14001 standard, which represents the core set of standards used by organizations for designing and implementing an effective environmental management system (EMS). Other standards in this series include ISO 14004, which gives additional guidelines for a good EMS and standards that are more specialized dealing with specific aspects of environmental management

ISO 14001 requires an organization to:

- develop an environmental policy with a commitment to compliance;
- have a procedure for identifying and having access to environmental laws and regulations;

- set objectives and targets that are in line with its environmental policy (which includes a commitment to compliance);
- establish operational control procedures;
- establish procedures for emergency preparedness and response;
- establish a procedure for periodically evaluating compliance

ISO 14000 History



History of ISO 14000

- The first environmental management system standard, BS 7750, was published in 1992 by the BSI group.
- In 1996, the International Organization for Standardization (ISO) created the ISO 14000 family of standards.
- ISO 14001 underwent revision in 2004.
- The current revision of ISO 14001 was published in September 2015.

Environmental Management Systems (EMS)

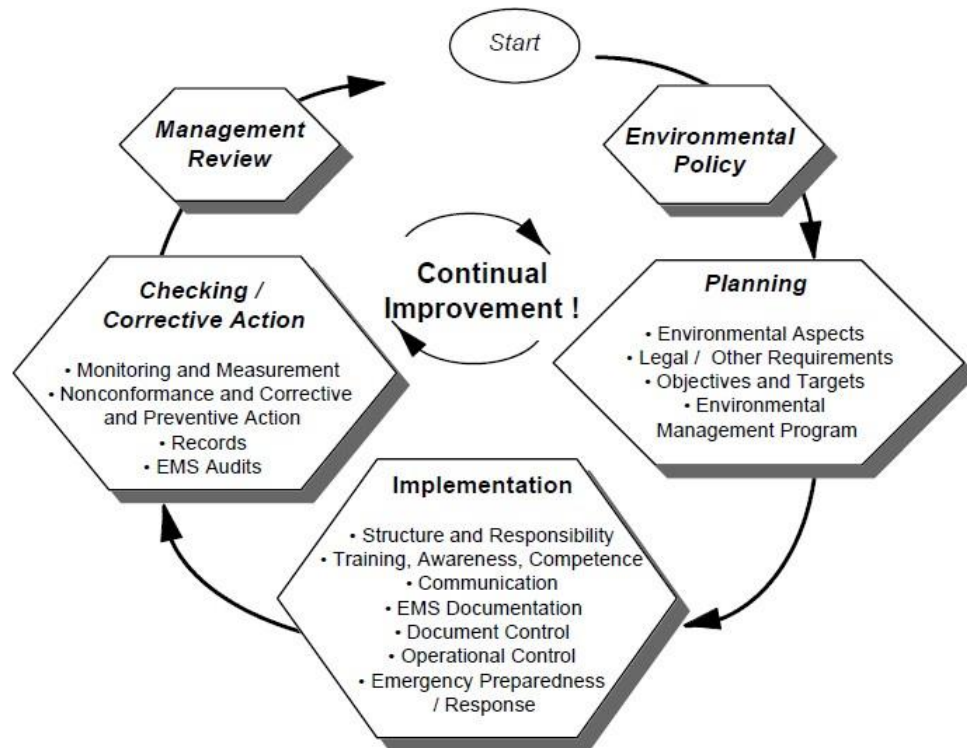
An Environmental Management System (EMS) is a set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency.

An Environmental Management System (EMS) is a framework that helps an organization achieve its environmental goals through consistent review, evaluation, and improvement of its environmental performance.

The assumption is that this consistent review and evaluation will identify opportunities for improving and implementing the environmental performance of the organization. The EMS itself does not dictate a level of environmental performance that must be achieved; each organization's EMS is tailored to its own individual objectives and targets. An EMS can also help address non-regulated issues, such as energy conservation, and can promote stronger operational control and employee stewardship.

Core elements of EMS include the following:

1. **Environmental policy:** An environmental policy is usually published as a written statement, expressing the commitment of the senior management to improving appropriate environmental performance
2. **Environment action plan:** An environment programme or action plan describes the measures the organization will take over the coming year(s).
3. **Environment related organizational structures:** The structures establish assignments, delegate authority and assign responsibility for actions.
4. **Integration of environmental concerns:** The integration of environmental management into regular operation means the establishment of procedures for incorporating environmental measures into other operational aspects



Environmental Management System Process

Environmental Management System Process

1. **Environmental policy:** Develop a statement of your organization's commitment to the environment. Use this policy as a framework for planning and action.
2. **Environmental aspects:** Identify environmental attributes of your products, activities and services. Determine those that could have significant impacts on the environment.
3. **Legal and other requirements:** Identify and ensure access to relevant laws and regulations (and other requirements to which your organization adheres).
4. **Objectives and targets:** Establish environmental goals for your organization, in line with your policy, environmental impacts, views of interested parties and other factors.
5. **Environmental management program:** Plan actions to achieve objectives and targets.
6. **Structure and responsibility:** Establish roles and responsibilities and provide resources.

7. **Training, awareness and competence:** Ensure that your employees are trained and capable of carrying out their environmental responsibilities.
8. **Communication:** Establish processes for internal and external communications on environmental management issues.
9. **EMS documentation:** Maintain information on your EMS and related documents.
10. **Document control:** Ensure effective management of procedures and other system documents.
11. **Operational control:** Identify, plan and manage your operations and activities in line with your policy, objectives and targets.
12. **Emergency preparedness and response:** Identify potential emergencies and develop procedures for preventing and responding to them.
13. **Monitoring and measurement:** Monitor key activities and track performance.
14. **Nonconformance and corrective and preventive action:** Identify and correct problems and prevent recurrences.
15. **Records:** Keep adequate records of EMS performance.
16. **EMS audit:** Periodically verify that your EMS is operating as intended.
17. **Management review:** Periodically review your EMS with an eye to continual improvement.

Benefits of EMS:

- Improved environmental performance
- Enhanced compliance
- Pollution prevention
- Resource conservation
- New customers/markets

- Increased efficiency/reduced costs
- Enhanced employee morale
- Enhanced image with public, regulators, lenders, investors
- Employee awareness of environmental issues and responsibilities

Barriers of EMS:

- Lack of management commitment
- Lack of awareness about EMS
- Employees are unable to perceive the benefit of EMS and relate these to their own benefits
- No emphasis/focus on training the employees to be able to meet the Environmental Policy Objectives
- Documentation may prove a deterrent. Companies may feel that EMS leads to generation of too much paperwork and hence may not implement the system.
- Cost of Certification is prohibitive, especially SMEs, find it difficult to bear the cost of getting auditors from abroad
- Recurring cost of certification. Every 3 years companies need to apply for re-certification.
- Changing priorities for the company.
- Lack of trained and qualified manpower e.g., auditors in the country.
- The system may remain on paper and be implemented only for audit purposes.
- No clear emphasis on developing/strengthening institutions within the country to promote implementation of EMS.

Initial Environmental Review:

The first step in creating an EMS is to perform an Initial Environmental Review. This tells organization where they are and creates a road map for the organization. In order to build a solid environmental management system it is essential to understand exactly how the activities, products and services of the organization interact with the environment.

This process will enable organization to understand what aspects of the organization have a significant environmental impact. It will ensure that other aspects of the environmental management system – policy, objectives, targets and the management program – are focused on those areas where organization can gain the most benefits. The environmental review is the starting point for a good environmental management system.

Initial Environmental Review enables organization to:

- identify how existing site operations have an environmental impact – eg. the impact of normal operating conditions, abnormal conditions and emergency situations
- establish which of these impacts are significant and need improvement by setting objectives and targets
- identify breaches or potential breaches of environmental legislation
- identify relevant EMS documentation which needs to be put in place
- quantify emissions, discharges, and material and utility use
- identify opportunities for improving performance and minimising waste
- evaluate previous emergency situations and accidents
- develop your environmental policy

Benefits of an Initial Environmental Review

The Initial Environmental Review helps determine the organization's environmental position, and should include:

- Environmental statutory and regulatory requirements

- Recognize items/areas with environmental impact
- Environmental Performance Criteria
- Feedback of previous experiences
- Opportunities for improvement in-house as well as external (contractors, vendors, etc.)

Environmental Policy:

An environmental policy is usually published as a written statement, expressing the commitment of the senior management to improving appropriate environmental performance. Environmental policy is the commitment of an organization or government to the laws, regulations, and other policy mechanisms concerning environmental issues. These issues generally include air and water pollution, waste management, ecosystem management, maintenance of biodiversity, the protection of natural resources, wildlife and endangered species

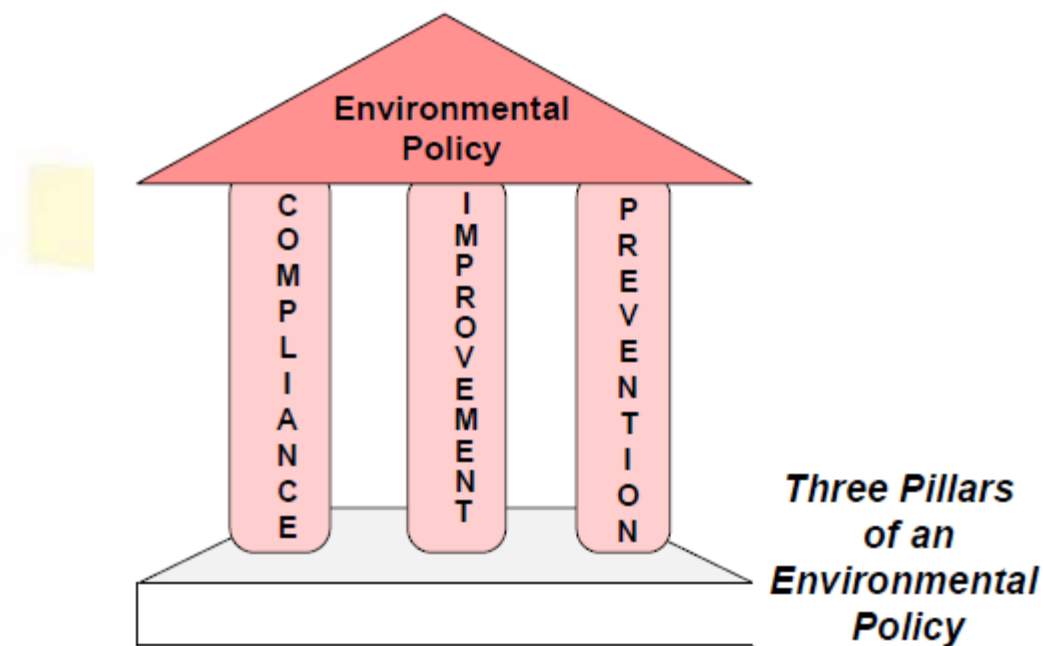
The ISO 14001 standard is probably the best reference standard for the development of an environmental policy.

In summary, an environmental policy must be:

- appropriate to the organization;
- include a commitment for continual improvement and prevention of pollution;
- include a commitment to comply to relevant legal and other requirements; and,
- provide the framework for setting and reviewing environmental objectives and targets

It is most often understood as a public statement of the intentions and principles of action for the organization regarding the environment. The policy statement should define the broad environmental goals the organization has decided to achieve. These are most clear if they are quantified, e.g., to reduce emissions of pollutants by 95% within 5 years, to provide sewerage and biological treatment of sludge for 60% of the population within 3 years, etc.

Concerning environmental policy, the importance of implementation of an eco-energy-oriented policy at a global level to address the issues of global warming and climate changes should be accentuated. Policies concerning energy or regulation of toxic substances including pesticides and many types of industrial waste are part of the topic of environmental policy. This policy can be deliberately taken to direct and oversee human activities and thereby prevent harmful effects on the biophysical environment and natural resources, as well as to make sure that changes in the environment do not have harmful effects on humans.



Benefits of developing an environmental policy:

An organization can publicly advertise that it has considered its environmental performance and has adopted best practice or is working towards improving its environmental performance. It is all relative to the organization and the type of industry but the environmental policy can advertise the environmental status and environmental objectives of the organization to all stakeholders.

Current and potential clients can read the statement and are able to determine whether they would like to continue or start business with the organization. *It also can provide clear direction to all stakeholders about the organization's environmental values.*

Environmental Aspect and Impact Analysis:

Identification and evaluation of significant environmental aspects, especially in the planning phase, is the most fundamental part of ISO 14001. To understand the environmental aspects and impacts is one of the key success factors of implementing an ISO 14001 EMS.

An environmental aspect is the way your activity, service, or product impacts the environment. For example, one of the environmental aspects of car washing may be a cleaning agent that has potential for water pollution (this pollution is the environmental impact).

An environmental impact is a change to the environment. Environmental impacts are caused by environmental aspects.

All activities, services, and products that fall within your defined scope have to be taken into consideration to identify environmental aspects and impacts. An **activity** is a part of the core business (e.g., production process steps). **Service** means an auxiliary service that supports core activities (e.g., boilers, heating & cooling, maintenance). A **product** is the goods you offer for market. An environmental aspect of the product could be, e.g., excessive packaging of the product, or level of recyclability of the product at the end of its lifecycle.

Aspects can be divided into direct and indirect. Direct environmental aspects are associated with activities, products, and services of the organization itself, over which it has direct management control (e.g., how you manage waste on your site).

However, for non-industrial organizations the focus will often be on indirect environmental aspects of their activities (e.g., how your subcontractor manages waste on your site, chain controlled aspects, customer controlled aspects). The identification of environmental aspects often considers, e.g., emissions to air, releases to water and land, use of raw material, waste and natural resources, impacts on biodiversity, etc.

Legal and other requirements-

Almost all organizations implementing ISO 14001 are aware that legal requirements are the foundation and basic requirement of ISO 14001.

Legal requirement compliance in ISO 14001 includes:

1. Environmental Policy should reflect the commitment of top management to comply with applicable legal requirements and other requirements, supported by adequate resources.
2. The organization may find environmental regulations on the website of government agencies in charge of environmental protection or on other specialized services. In a wide list of regulations, you should choose only those that are applicable to your business.
3. The organization should plan how to comply with legal requirements. If you find during identification of applicable legal requirements that you are partially in compliance with a specific applicable regulation, or you have completely ignored it, now is the time to set it as a target.
4. In the implementation phase, the organization should have instruments in place for dealing with legal requirements (e.g., sufficient documents to demonstrate compliance, responsibilities and authorities
5. Periodic evaluation of compliance is important, because even if your organization is in compliance today you cannot be sure that it will be in compliance in six months or a year
6. Where a non-compliance with legal requirements is discovered, the organization is required to take immediate corrective action, which may include actions to immediately inform the environmental regulator depending on the specific legal requirements and magnitude of the non-compliance.
7. The environmental management representative to inform top management through the management review process about results of evaluation of compliance and possible changes in legal requirements. This is to ensure that top management is aware of the risks of potential or actual non-compliance and has taken appropriate steps to meet the commitment to legal compliance.

Some of the important legislations for environment protection are as follows:

- The National Green Tribunal Act, 2010
- The Air (Prevention and Control of Pollution) Act, 1981
- The Water (Prevention and Control of Pollution) Act, 1974
- The Environment Protection Act, 1986
- The Hazardous Waste Management Regulations, etc.

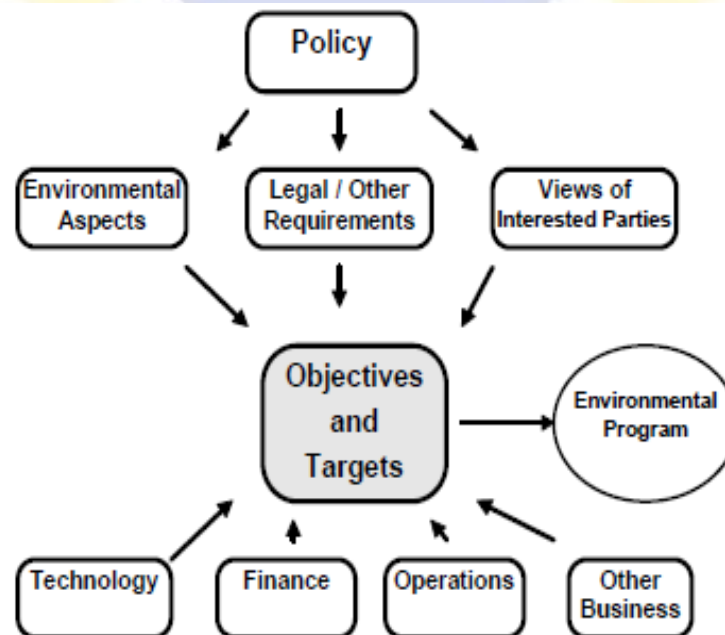


Objectives and Targets:

By definition, an objective is “a thing aimed at or sought; a goal.” In ISO 14001 you are using your environmental objectives to identify, track, and notify employees and interested parties what the goals of organization environmental management system (EMS) improvements are to be. They need to be made relevant at all levels of the organization that need to know them, and they need to be consistent with organization environmental policy, since this is the overall stated goal of the EMS.

In the ISO 14001 standard they discuss objectives and targets together, and this can help organization to understand them better. The best objectives are referred to as S.M.A.R.T. objectives (specific, measurable, achievable, realistic and time-based), and this way of creating objectives makes a target an integral part of the objective.

- **Specific:** The first thing that is needed in a good objective is that it be specific, including a specific target.
- **Measurable:** Hand in hand with the specific objective is an objective that can be measured. If you have no way of measuring how a process is performing now, then how will you know if you have made any improvement? The standard itself even mentions that objectives and targets should be measurable where practicable.
- **Agreed:** To make objective happen organization need to have it agreed upon by those who will be doing the work.
- **Realistic:** By making a goal realistic, organization can better gather the necessary cooperation of the people in the process that are affected by the change.
- **Time-Based:** Having a time associated with the completion of the objective allows for tracking organization progress toward achieving your goals.



Environmental Management Programs:

An Environmental Management Program is the roadmap the organization will follow to achieve its environmental objectives and targets. It is a document that provides the details of what must be done, by whom, how, and when, for each of the defined objectives and targets. The objectives and targets themselves must be assigned priorities at the start.

When devising the environmental program:

- Management must designate responsibility for achieving the objectives and targets at each function and level within the organization.
- Management must provide the means for fulfilling the objectives and targets. In a practical sense, this means allocating resources, such as people, skills, technologies, and financing. If the company is going to truly commit to implementing an EMS, then in short, management needs to put the corporation's money where its mouth is.
- A time frame in which objectives and targets will be achieved needs to be established. The implementers need to be challenged to meet a realistic implementation schedule with the resources that are made available.

The environmental management program should be integrated into the company's overall strategic plan. Within the spirit of the EMS, environmental management programs should be reviewed periodically and revised regularly to reflect changes in the company's objectives and targets.

Concept of continual improvement and pollution prevention:

Continual Improvement is an important aspect of any EMS and ISO 14001 references it in five separate clauses. To fully benefit from it, it's not enough to implement a system based on ISO 14001, or even to have your EMS certified as ISO 14001-compliant—the organization must monitor and maintain its system, and find ways to improve to it. Similarly, the International Organization for Standardization (ISO) reviews and revises its standards in an ongoing effort to improve relevance and effectiveness.

Continuous improvement aims to:

- Increase Efficiency
- Increase Quality
- Reduce Costs

Organizations that implement continuous improvement achieve this by making small, gradual improvements over time.

Aspects of an Improvement Plan

1. Improvement is based on small changes - that can be implemented immediately
2. Input from the entire workforce is necessary - (employees performing the process need to be involved in change decisions)
3. Employees must be allowed to take ownership of improvement decisions - and will be more invested in the changes that they came up with in the first place
4. Communication regarding the change is crucial to ongoing success - this is harder with bigger organizations, which is why having some type of continuous improvement software is important
5. The improvement must be analyzed - to see whether it really is effective (another reason why software is necessary)

Pollution prevention:

Pollution prevention is defined to mean the use of processes or practices that reduce or eliminate the use of hazardous substances and the generation of pollutants or wastes at the source. This contrasts with pollution control, which relies on end of pipe treatment.

Pollution prevention also includes practices that reduce the use of energy, water or other resources through conservation or more efficient use.

Where pollution prevention is not feasible, the EMS should include options for recycling, treatment and disposal, considered in that order.

Pollution Prevention Criteria:

The facility shall establish and maintain an environmental management system, which must include the following pollution prevention criteria.

- a. Provide for recycling or treatment of hazardous wastes (in that order) where pollution prevention is not technically or economically feasible.
- b. Are available to the public on request.
- c. Are actively communicated to employees.
- d. Establish a commitment from top management to implement the policies and to review and evaluate the EMS at periodic intervals

Structure and Responsibility

For EMS to be effective, roles and responsibilities must be clearly defined and communicated. In an organization, the commitment of all employees is needed.

Top management plays a key role by providing the resources needed to ensure that the EMS is implemented effectively. Ensuring this capability is one of the most important jobs of top management.

Top management should appoint a management representative.

This representative:

1. ensures that the EMS is established and implemented;
2. reports on its performance over time; and
3. works with others to modify the EMS when necessary.

Functions	How They Can Help (Possible Roles)
Purchasing	<ul style="list-style-type: none"> • Develop and implement controls for chemical / other material purchases
Human Resources	<ul style="list-style-type: none"> • Define competency requirements and job descriptions for various EMS roles • Integrate environmental management into reward, discipline and appraisal systems
Maintenance	<ul style="list-style-type: none"> • Implement preventive maintenance program for key equipment
Finance	<ul style="list-style-type: none"> • Track data on environmental management costs • Prepare budgets for environmental management program • Evaluate economic feasibility of environmental projects
Engineering	<ul style="list-style-type: none"> • Consider environmental impacts of new or modified products and processes • Identify pollution prevention opportunities
Top Management	<ul style="list-style-type: none"> • Communicate importance of EMS throughout organization • Provide necessary resources • Track and review EMS performance
Line Workers	<ul style="list-style-type: none"> • Provide first-hand knowledge of environmental aspects of their operations • Support training for new employees

Training, Awareness and Competence

Competence:

The first step is to identify what skills and abilities are required for a person to perform the job function so as to avoid the potential significant impacts. This competence can be gained in the form of outside education, training, or experience. For instance, if you have a chemical process that must maintain the concentration of a bath to a certain pH, or else there will be unwanted air emissions, then this bath concentration must be maintained.

If you require the operator to measure the concentrations and adjust the pH level through addition of an acid or base, then there is a level of chemical knowledge required to perform this action. It may not require the operator to hold a degree in chemistry, but chemical knowledge must be there in order to avoid the unwanted environmental impact of air emissions.

Training:

After identifying what competencies are required for the processes to avoid potential significant environmental impacts, you need to find people with these competencies to fill these positions. Of course, in reality there will often be a choice of candidates who have many of the required competencies, but not all of them. This is where training comes into place, especially when you are first implementing your environmental management system and find that the people already doing a job do not have all of the competencies that are newly identified for the position.

Training can come in many forms, from enrollment in external programs offered by colleges, universities, or specialized training companies, to on-the-job training where an experienced person works with a less-experienced individual to teach them the knowledge they need to perform the job. The employee in the example above need not attain a degree in chemical engineering to perform the job, but they may need to gain an understanding of the chemical processes required to safely perform their tasks.

Awareness:

Even those who have the desired competencies need to be made aware of how their tasks can lead to the identified potential environmental impacts. The requirements of ISO 14001 separate the need for awareness into four distinct areas:

- **Conforming to the environmental policy and procedures.** When people understand why a policy or procedure is in place, they are much more likely to follow that requirement. Telling employees that they need to prevent pollution from their process is one thing, but when they understand that not following the process can lead to environmental damage and potential fines that can lead to company insolvency, they may be more likely to follow the rules.
- **Significant environmental aspects and potential impacts.** The person running a chemical process may know that uncontrolled waste emissions from that process can be harmful to the environment if not properly controlled, but they may not understand what those controls need to be. Awareness of the proper procedure and the benefits of following it are important to compliance with the rule.
- **Roles and responsibilities to achieve conformity.** If a person does not understand what their role is, they are very unlikely to perform that role. This is particularly important when you are dealing with a temporary employee or contractor who will not know your specific processes unless you tell them. For example, if you expect that all fluorescent light bulbs will be collected and stored for proper recycling, but do not tell a contractor or summer student who is employed to replace the bulbs, then they may just throw them in the regular garbage because they did not understand that this was their role.
- **Potential consequences of departure from procedures.** This links directly back to my first point: if employees are aware of the consequences of not following the procedures, such as environmental damage or fines for the organization, they are more likely to understand why the procedure needs to be followed rather than just following it because that is what is written. Many employees gain a great deal of pride and satisfaction in their work if they better understand why it is important.

Communications:

Communication is the glue that holds together the elements of an environmental management system. Effective environmental management requires effective communications.

Communications will help:

- motivate the workforce;
- explain the environmental policy (both internally and externally) and how it relates to the overall business vision / strategy;
- ensure understanding of roles and expectations;
- demonstrate management commitment;
- monitor performance; and,
- identify potential system improvements.

Effective internal communications require mechanisms for information to flow top-down and bottom-up. Since employees are on the “front lines,” they are often an excellent source of information, issues and ideas.

Communicating with external parties is also important for effective environmental management. Obtaining the views of neighbors, community groups, and customers, (among others), will help you understand how your organization is perceived by others. Information from external sources can be critical in setting environmental and other business goals.

An effective EMS should include procedures for:

- communicating internally (between levels and functions), and
- soliciting, receiving, documenting and responding to external communications.

Documentation and document control:

Documents are an important element of an environmental management system (EMS) as they provide written evidence of procedures, records and instructions. They can also provide a history of the EMS, enabling organization to check whether improvements are continuing to being made.

Documents likely to be part of EMS include:

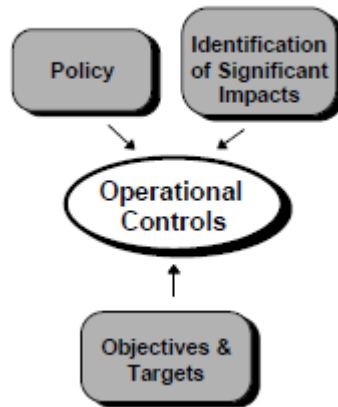
- an environmental policy
- objectives and targets
- structure and responsibilities for those involved in environmental work in your business
- information on how the EMS operates
- how documents and operational procedures are controlled
- monitoring and measurement records
- corrective and preventive action
- records, eg training and auditing information
- management review decisions

Document control procedure should designate responsibility and authority for preparing documents, making changes to them and keeping them up-to-date. In other words, organization need to make it clear who can actually change documents

Factors to be considered to control any documents organization needs to create:

- Approve for adequacy
- Review, update and re-approve
- Identify changes and current revision status
- Ensure relevant version is available
- Prevent unintended use when obsolete

Operational Control



Effective operational planning and control lies at the heart of every effective EMS (Environmental Management System).

The operation control defined must should take into consideration:

- create controls in line with its environmental requirements to ensure that the design and development process for the product or service considers the life cycle stage
- define the environmental requirements for the procurement of products and services
- communicate all relevant environmental requirements to external providers which include contractors
- consider the need to provide information in regards to the end-of-life treatment of products and services with consideration in, transportation, delivery, use, and final disposal.
- maintain detailed documentation to ensure that the processes have been carried out as planned

If an operation or activity is complex, and/or the environmental impacts have the potential to be significant, these controls put in place should take the form of documented procedures. To develop an effective EMS an organization must determine which operations should be covered by documented procedures and how those operations should be controlled

Monitoring and Measurement:

Monitoring helps organization to manage business better. An EMS without an effective monitoring and measurement program is like driving at night without the headlights on — you know that you are moving but you can't tell where you are going!

Monitoring and measurement enables you to:

- **gauge** your environmental **performance**;
- **analyze root causes** of problems;
- **identify** areas where **corrective action** is needed; and,
- **improve performance** / increase efficiency.

Organization should develop procedures to:

- **monitor key characteristics** of operations and activities that can have significant environmental impacts;
- **track performance** (including how well organization meet objectives and targets);
- **calibrate and maintain** monitoring equipment; and,
- through internal audits, periodically **evaluate your compliance** with applicable laws and regulations

Management Review:

Management review is intended to ensure that the environmental management system is healthy, and to look for places that improvement can happen. Management reviews also offer a great opportunity to keep EMS efficient and cost-effective.

Top management must periodically review the EMS in order to:

- Ensure its continuing suitability, adequacy and effectiveness.
- Address possible needs for changes to the environmental policy, objectives and targets, and other elements of the EMS.
- Identify opportunities for continual improvement.

Eco-Management and Audit Scheme (EMAS)

It is a premium management instrument developed by the European Commission for companies and other organizations to evaluate, report, and improve their environmental performance. EMAS is open to every type of organization eager to improve its environmental performance and achieve recognition.

The aim of EMAS is to recognize and reward those organizations that go beyond minimum legal compliance and continuously improve their environmental performance.

EMAS helps the organization in:

PERFORMANCE: EMAS supports organisations in finding the right tools to improve their environmental performance. Participating organisations voluntarily commit to both evaluating and reducing their environmental impact.

CREDIBILITY: Third party verification guarantees the external and independent nature of the EMAS registration process.

TRANSPARENCY: Providing publicly available information on an organisation's environmental performance is an important aspect of EMAS. Organisations achieve greater transparency both externally through the environmental statement and internally through employees' active involvement.

EMAS calls for maintenance of an effective environmental management system (EMS) which ensures that an environmental policy is available, that objectives, targets and programmes are set to improve environmental performance and the promulgation of such to ensure continuous improvement as a whole.

Benefits of EMAS:

- EMAS registrants can use the EMAS logo to promote their achievement and commitment to environmental performance.
- Improved stakeholder relationships.
- The EMAS Register lists the details of all organizations that have met the requirements and are currently registered.

- Enhanced credibility and recognition
- Improved environmental management
- Reduced operating costs
- Customer satisfaction

Implementation:

In order to register with EMAS, an organization must comply with the following implementation steps:

- Environmental review
- Environmental policy
- Environmental programme
- Environmental management system
- Environmental audit
- Environmental statement
- Verification and Registration