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Broad Outline of the Environmental Management System and ISO-14001 Requirements

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This article highlights the broad features of the preparatory requirements for adoption of international standards for environmental management and also the salient features of the environmental management system requirements of ISO 14001 which can be adopted on voluntary basis by the industry. These are just the broad parameters of the environmental management system requirements and a detailed formulation and adoption of the system will require elaborate exercise in accordance with the appropriate approved parameters.

The recent news reports about the road-blocks in the successful acquisitions of companies in the energy and in the oil exploration sectors due to non-compliance with the legal requirements and non-rehabilitation plans of affected tribal persons in the forest areas have once again highlighted the need and importance of adequate environmental management systems and compliances by the industry. In this regard, it is felt that formulation and implementation of a proper Environmental Management System ("EMS") on a voluntary basis would have at least ensured successful acquisition of the target company and also ensured in the smooth operation of the industry concerned.

With gradual but increasing threat to the environment beyond assimilative capacity of the nature, the International Organization for Standardization (ISO) has set out International Standards for Organizations of all types and sizes having regard to the diverse global geographical, social and climatic conditions. With the advent of stringent environmental legislations to foster environment protection organizations are now-a-days more concerned to comply the legislation pertaining to environment and specified rules and regulations enacted thereto. However, various large organizations have undertaken periodical review or audit to assess their performance on the environmental matters which were not enough to satisfy themselves whether the stipulated criteria have been complied with or some additional requirements to be fulfilled. For ensuring themselves, with regard to the compliances and assessing their performance, there needs to be an integrated management system to achieve these objectives.

International Standards pertaining to the Environment Management have the main objective to provide the organizations the basic elements of the effective Environmental Management System ("EMS") and specifies the requirements of such Environmental Management System. The success of the EMS depends upon the attitude of the management, commitment of the top management, implementation procedure and effectiveness of enforcement authorities. It enable the organizations to set environmental policy and objectives and to assess its effectiveness. The international standard contains only those requirements that may be considered and audited for certification and or registration. It does not establish absolute requirement for environment performance beyond commitment, in the policy, to the compliance of the environmental legislations and to gradual development in this regard. The implementation of several environment techniques may result in providing maximum output. However, the inclusion, adoption and implementation of this International Standard may not guarantee the optimal results. But the EMS should encourage organizations to implement the best available technology which is economically viable to them to achieve the environmental objectives. Broadly it involves the following stages :-

1. Environmental Policy
2. Planning
3. Implementation and Operation
4. Checking and Corrective Action



Broad Outline of the Environmental Management System and ISO-14001 Requirements

5. Management Review

6. Continual Improvement

In this context, it is pertinent to mention that the Supreme Court in its judgment in *Rural Litigation and Entitlement Kendra v State of Uttar Pradesh* (1989) 1 Comp LJ 105 (SC) has held that the right to a wholesome environment is part of the “right to life” guaranteed by Article 21 of the Constitution of India. Further, the definition given to “environment” in the Environment Protection Act, 1986 (“EPA”) includes “water, air and land and the inter-relationship which exists among and between water, air and land and human beings, other living creatures, plants, micro-organism and property” and that as per the EPA, “environmental pollution” means “the presence in the environment of any environmental pollution like any solid, liquid or gaseous substance, present in such concentration as may be or tend to be injurious to environment”, it is felt that every citizen of the country can invoke the Constitutional provisions regarding “right to life” and bring to the notice of the Court any trade or industry which may adversely affect the environment and which may emit environmental pollutants.

In *F.B. Taraporwala & Others v Bayer India Limited & Others* (1996) 5 Comp LJ 60 (SC), the Supreme Court held that “Industrial growth – yes: but by exposing a large segment of society to the risk of losing lives – no. This apprehension is not imaginary. Bhopal disaster brought to the knowledge of all what a tragedy can be caused by chemical industries. In the wake of what happened there more than a decade ago, industrialists engaged in producing chemical started thinking of taking precautionary and protection measures to see that if worst were to befall, how could their financial liability be taken care of.” It is sad that despite many environmental friendly judgments from the Apex Court and despite the enactment of legal provisions for environmental protection, not enough is being done to protect the environment and that the victims of environmental accidents still do not get timely and adequate compensation and the guilty does not get punished. It is in this context that the voluntary adoption of EMS by the industry will at least ensure that industrial development and ecology are not opposed to each other and that sustainable development is the answer.

ENVIRONMENTAL MANAGEMENT SYSTEM MODEL FOR INTERNATIONAL STANDARD : ISO 14001-BROAD FEATURES

(a) General Requirements

The International Standard envisages certain requirements

for the Environment Management System which assist the organizations to formulate a structural policy having regard to the existing legislation concerning the environment. The International Standard is applicable to the organizations which intend to implement the EMS in conformity with its existing environment policy, seeking certification of its EMS and make a self declaration that its EMS is in conformance with the International Standard. The aforesaid requirements should be incorporated into the EMS. It is not necessary that each and every requirement should be complied with. The applicability of the requirement will depend upon the nature of the organization, its activities and its environment policy. The induction and implementation of the EMS is described by the stipulated specifications for improved environmental performance which is based on the concept that the Organization will evaluate and review its EMS for identifying the opportunity for further development. The EMS provides a structural framework for gradual improvement and enables the organization to achieve the environmental performance set by it. The induction and implementation of the EMS will not necessarily result in immediate reduction of the adverse environmental impact. An Organization has the freedom and flexibility in determining the implementation of the International Standard to whole of its units or selective units. The level of complexity of the EMS depends upon the size of the Organization and nature of its activities.

(b) Environment Policy

The EMS enables an organization to establish an environment policy suitable to it, identify the environmental aspects, legislative and regulatory requirements, set appropriate environmental objectives and targets, establish a structural framework for implementing environment policy to achieve the targets. It also enable the organization to plan, control, monitor, audit and review its activities to ensure that the policy is complied with and the EMS is suitable for the organization and is also capable of adapting to the changing circumstances. The environment policy of the organization should reflect the commitment of the top management to comply with the applicable laws in force. The environment policy forms the basic framework of organization’s objectives and targets. The policy should be clear in its objectives and should be periodically reviewed having regard to the changing conditions and circumstances.

(c) Planning

The organization should consider significant environment

Articles

Broad Outline of the Environmental Management System and ISO-14001 Requirements



aspects as a preference to its EMS. This process should take into account the cost and time for undertaking the analysis, degree of control over the environmental aspects and inputs and outputs associated with the past and current activities. The process of consideration of the significant environmental aspects should cover the emissions to air, releases to water, waste management, contamination of the land, use of the raw materials and the natural resources and social impact. It should also consider the normal operating conditions, shut down and start up conditions and significant impact in emergency situations.

The organization should also consider the industry codes of practice, agreement with the public authorities as well as non-regulatory guidelines related to the environmental issues. The objectives and targets should be measurable and the preventive measures should also be considered. The organization shall consider the best available technology after taking into the account its cost effectiveness and economic viability.

The organization should induct and use one or more Environment Management Programmes for successful implementation of the EMS. The programme(s) should clearly specify how the organization's objectives and targets to be attained and should also consider the time and resource management for implementing the environment policy of the organization. The Environment Management Programme may also include consideration of planning, design, production and marketing stages.

(d) Implementation and Operation

The commitment of top, middle and lower level of management as well as of employees of an organization shall result into a successful EMS. The responsibilities towards the environment should not only be confined to the environmental management personnel but should also include other areas of the organization such as the operational management persons other than those responsible for the policy formulation for successful implementation of the EMS. .

The organization shall also identify the training needs of the personnel whose involvement and commitment shall make significant impact on the implementation of the EMS. It shall also establish a procedure to make its employees aware of the importance of conformance with the environment policy and procedures as well as requirements of the EMS, the significant environmental impacts of their activities and environmental benefits, their roles and responsibilities in achieving conformance with the environmental policy and procedures and with the requirements of the EMS including the emergency

preparedness and finally the potential consequences of departure from the specified procedure.

The Organization shall establish and maintain procedure for internal communication between the various levels and functions of the organization and receiving, documenting and responding to the relevant communication from external interested parties and from the governmental authorities.

The organization shall establish and maintain information in electronic or in paper form to describe the elements of the EMS and to provide direction to the related documentation.

The organization shall establish and maintain procedure for controlling all documents required by this International Standard to ensure that the documents has been properly maintained and periodically reviewed & revised and approved by the authorized persons. The organization shall also ensure that the current versions of the relevant documents are available at all the locations where operations essential to the effective functioning of the EMS are performed and obsolete documents are promptly removed from the points of issue and that the obsolete documents are suitably identified and retained for the legal or preservation purposes. The documentation should clearly identify the responsible official issuing the same and it should be legible, dated, easily identifiable and maintained properly in order.

The Organization shall identify and locate those operations and activities having significant environmental impact and accordingly plan these activities by maintaining orderly procedures to cover the situations leading to a deviation from the organization's environmental policy and targets.

The organization shall also establish and maintain procedures for preventing and mitigating environmental impacts in case of accidents and emergency situations and review and revise its emergency preparedness and response procedure after occurrence of accidents or emergency situations.

(e) Checking and Corrective Actions

The organization shall periodically monitor its operations and activities by establishing and maintaining an orderly procedure of recording its track performance, operational control and conformance with its environmental objects and targets as well as evaluation of its compliance with the environmental legislation and regulations. It should also have a system for updating the changes made in the environmental laws and regulations and how it may impact the implementation of the EMS. It shall also ensure that responsibility and authority for handling and investigating non-conformance and taking corrective and preventive action to eliminate the causes of



Broad Outline of the Environmental Management System and ISO-14001 Requirements

actual and potential non-conformance. The organization shall also keep environmental records relating to the activity, product or services involved, as well as records relating to audits and review. The organization shall also establish and maintain monitoring programmes and ensure that procedure for periodical Management System Audits has been properly implemented as well as to determine whether the EMS conforms to planned arrangement for environment management including the requirements of International Standard. The environmental audit programme shall be based on the importance of the activity from the environmental point of view and shall also cover the scope of the environmental audit, methods of conducting audits as well as the responsibilities and requirements for conducting audits and reporting the results thereto.

(f) Management Review

The top level management of the organization shall periodically review the operations and performance of its EMS as well as determine its continuing suitability, adequacy and effectiveness. In this process, the management shall ensure that necessary information is collected for evaluation of the EMS and the said information is suitably documented. The review process shall assist the management to decide about the possible need for change in its environmental policy, objectives and other key elements of the environment management system in the context of EMS audit results and changing circumstances. The review shall also include the results of the environmental audit, the extent to which the objectives and targets have been met and the response of the interested parties.

ENVIRONMENT MANAGEMENT SYSTEM IN AUTO INDUSTRY

The Indian Auto Industry comprises of passenger car, commercial vehicles, two and three wheelers, engines and the components thereto. This industry has an important role in the transport sector which is in fact, fraught with the environmental issues that evolved out of the quality of the fuel used, traffic planning and the existence of the road system. Analysts opine that the Auto Industry is not as environmentally harmful as chemical industry, however there are several environmental impacts of the auto industry. Almost all the manufacturing units in this industry use water and generate waste water after operations which require treatment before disposal. Apart from this, waste water is also generated by the staff and workers working in this industry which also require treatment before disposal. Substantial amount of the air pollutants is released by the

units in this industry because of the use of boilers, captive power plants, diesel generators and volatile organic compounds. There is thus a definite need to install suitable air pollution control devices to check and curb the effect of the air pollution. Apart from this, most of the units in this industry also use some organic chemical, paints and other volatile organic compounds, and as a result of which waste water is generated which require immediate treatment before its disposal. A number of non-recyclable solid waste is also generated due to electroplating operations, paint operations, phosphatising, machine operations, oils and chemicals. Hence there is a need for EMS to handle, control and mitigate the effect of the environmental pollution to ensure and assure a pollution free environment. The benefits of developing an EMS as per ISO-14001 include the continual improvements in the environment performance through pollution prevention initiatives, cost containment, improved competitiveness in the market, enhancement of the company's image and improvement of the staff morale.

However there are some barriers to designing and implementing an EMS in the line of ISO-14001. The barriers may include lack of the support and commitment of the top management of the organization; short term vision and perspective of the middle level management or lack of awareness of the operational staff, mindset and perceived high costs; limited resources, budget and manpower; insufficient training at all level of the organization; non-compliance of the legal provisions relating to environmental protection and non-integration of the EMS with the organization's management system.

CONCLUSION

The benefits of EMS can be summarized as improved operational efficiency; better utilization of materials and resources; reduced costs and wastage; increased access to world markets; improved staff morale and work environment; assurance to interested parties; enhanced corporate image and encouraging partnership between the industry and the regulators. In the National context, EMS can result in better utilization of national resources; reduced pressure on environment; reduced cost of enforcement; potential annual savings; globally competitive industry and environmentally conscious Nation. With so many advantages of implementation of EMS, even on voluntary basis by the industry, it is felt that environmental accidents and disasters can be averted and many lives can be saved and the integrated inclusive industrial development can take place while protecting the environment and ensuring sustainable development. □