
ENVIRONMENTAL MAINSTREAMING TOOLS

1. INTRODUCTION

Department of Environment (DOE) has adopted a regulation approach named 'Guided Self-Regulation (GSR)', as an achievable long term goals to develop an industrial society that have an intrinsic culture of pride in environmental excellence. GSR is a method, in which the regulated sectors, primarily industries and project proponent are guided towards achieving the goal of self-regulating by means of Environmental Mainstreaming Tools (EMT). As an effort to promote and adopt GSR, environmental mainstreaming has been integrated into all the DOE's recent regulations.

Following description is extracted from the DOE Directive dated 1 June 2017.

2. ENVIRONMENTAL MAINSTREAMING TOOLS

Environmental mainstreaming refers to the infusion of environmental agenda at all levels of the organizational structure in industrial sector. Effective environmental management results from collaborative efforts from all key personnel in the industrial organization from top management to general workers in carrying out their task and roles successfully.

In practice, infusion of environmental mainstreaming in industries to promote and instil self-regulation has been successfully translated into regulatory requirements on performance monitoring of pollution control measures, scheduled reporting, record-keeping, appointments of competent persons and involvement of environmental professionals playing specific roles in pursuing environmental excellence. This approach is a win-win concept, especially in pollution control, which has shown positive results in operation of pollution control system, prevention of pollution control failures, cost saving in pollution control operation, systematic performance monitoring data management, and improved regulatory compliance.

In achieving the main objective of self-regulation, the DOE has formulated a set of EMT to be implemented in organizations and industrial premises. The EMTs include:

i. Environmental Policy

The environmental policy of successful organizations uses strong and unequivocal statements to convey their environmental commitment to their employees, clients, stakeholders and the public. Environmental policy is disseminated to all relevant parties and translated into action in the work procedures, materials purchasing policy, business decision making process and cascades down to the supply chain.

ii. Environmental Budgeting

Sufficient budget must be set aside solely for the purpose of taking measures to comply with the environmental regulatory requirements and other environmental-related efforts.

At the design stage, budget must be available for the design and installation of the pollution control facilities, while at the operational stage, budget must be allocated for proper operation and maintenance of pollution control systems and management of waste generated by the industry or project development. The environmental budget also includes the cost for setting up laboratory facilities, provision of personnel and purchase of performance monitoring equipment.

iii. Environmental Monitoring Committee

The success of an organization to comply with the environmental requirements is contingent upon the relevant personnel in different departments in the organization playing their role in an effective manner. To promote collective responsibility to be environmentally compliant, two monitoring committees are set up; one at the working level, the other at the policy level. At the working level, the committee known as the Environmental Performance Monitoring Committee (EPMC) is chaired by a senior official of the organization and it meets on a monthly basis, or at a minimum, once in a quarter. At the policy level, the committee is known as Environmental Regulatory Compliance Monitoring Committee (ERCMC), which meets at a minimum, once a year. The chief executive officer or chairman of the organization chairs the ERCMC.

iv. Environmental Facility

The primary components of the environmental facilities include industrial effluent treatment system, air pollution control system, best management practices, and associated support facilities such as laboratory, performance monitoring equipment, online instrumentation system, and waste management infrastructure. The above form an integral part of the company's overall infrastructural planning, which cannot be compromised.

v. Environmental Competency

The relevant personnel involved in discharging various environmental responsibilities within an organization need to possess the required competencies. The personnel include those who have been assigned the task to perform DOE-regulated functions: to manage waste and supervise the operation of best management practices, air pollution control and effluent treatment systems. The organizations must draw up a comprehensive training program to produce competent persons and trained support staff to ensure full compliance with the DOE requirements in the regulated activities.

vi. Environmental Reporting and Communication

A formal communication channel must be established for reporting environmental concerns and system upsets which warrant prompt actions to be instituted. Internal reporting can be initiated to report on a regular basis the regulatory compliance status of the organization to the chief executive officer and various heads of the department within the organization. Updates of new environmental requirements and their implications can be disseminated to the relevant company personnel. ERC requires systematic analysis of performance monitoring data, which must be summarized in

appropriate format for easy understanding and communication and maintained for management review purposes.

vii. Environmental Transparency

To foster rapport with immediate neighbours, promote green image, and improve public confidence, companies are encouraged to be more transparent in the environmental compliance and achievement. Compliance status can be displayed on company website or bill board located at the boundary or entrance to the company’s premise, or communicated to the immediate neighbours through issuance of fliers on a scheduled basis. An environmental sustainability report can be prepared for the company to showcase its success in managing the environmental concerns of the company and minimizing the environmental footprint of its business. The corporate image of the organization is markedly enhanced through environmental transparency.

Rigorous implementation of EMTs by industries will result in creating organizations that are successful while taking pride in their environmental excellence at the same time. Proper inclusion of EMT in project planning and implementation is key in achieving the goal of self-regulation.

3. IMPLEMENTATION OF EMT IN PROJECT PLANNING

Project proponent must considers the incorporation of EMT in the early stages of project implementation, i.e. during planning stage. In doing so, selection of process method, project layout, equipment selection and personnel appointments can be made in-lined with approach listed by GSR. Incorporation of EMT in the planning stages also allows project proponent to save money over time by doing away efforts of retrofitting EMT into operational industrial operations.

3.1 REQUIREMENT TO NOTIFY DOE

Implementation of EMT by industries can be presented in EMT Compliance Report. The EMT Compliance Report must be submitted to the DOE, at a latest 30 days before the commencement of industrial operation. For prescribed activities, the DOE can made the report as a part of EIA approval conditions.

3.2 ROLES OF PROJECT PROPONENT IN EMT IMPLEMENTATION

The project proponent is the responsible party in infusing environmental mainstreaming tools and agenda in all stages of project implementation. The major roles and responsibilities of project proponent include:

- i. Formulating an Environmental Policy (EP) of the company which shall be communicated to the stakeholders, consultants, contractors and other parties involved in the project planning and implementation.

- ii. Establishing an organizational structure which clearly shows the emplacement of environmental experts such as environmental officer and environmental consultant, where they are charged with specific responsibilities to ensure environmental aspects are taken into consideration, and pollution prevention and mitigation measures (P2M2) are integrated into every stage of project planning and implementation.
- iii. Allocating sufficient funds for all stage of project planning and implementation with itemized budget required for water quality monitoring, air quality and noise monitoring, for comprehensive site survey and investigation of the specific existing site conditions, for implementation of Environmental Management Plan (EMP) including temporary pollution prevention and mitigation measures (P2M2). P2M2 shall be those which can be described as state of the art technologies, best available technologies (BATs), or industry best practices.
- iv. Appointing an Environmental Officer (EO) to be charged with responsibilities to execute environmental quality control and performance monitoring functions during the construction and operation phases of the project implementation. Service of an EO can also be obtained from an Environmental Officer Service Provider. Service of EO from EO service provider is allowed during the construction stage only. However, at the operational stage, the Project Proponent shall employ his own EO.
- v. Establishing a project Environmental Performance Monitoring Committee (EPMC) to monitor the environmental performance, effectiveness of pollution prevention and mitigation measures (P2M2), and status of regulatory compliance of the project. The EPMC shall be represented by all relevant parties involved in project implementation and chaired by a senior member representing the Project Proponent. The chairman who shall be formally appointed by the Project Proponent shall be responsible for ensuring the decisions of the meeting are responsibly executed. The EPMC shall meet at a minimum, once in a quarter and the minutes of the meeting shall be maintained.
- vi. Setting up a “mini laboratory”, wherever appropriate, to facilitate the implementation of environmental performance monitoring program. This mini laboratory shall be adequately equipped with relevant resources including staff and portable analytical testing equipment.
- vii. Ensuring the Environmental Management Plan (EMP) including temporary and permanent pollution prevention and mitigation measures (P2M2) are implemented and maintained according to industry’s best practices.