

## DEPARTMENT OF ENVIRONMENT (HEADQUARTERS)

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### GUIDANCE DOCUMENT ON IMPLEMENTATION OF SELF-REGULATION INITIATIVE IN INDUSTRIAL MANUFACTURING PREMISES

#### ENVIRONMENTAL MAINSTREAMING TOOLS

##### 1. INTRODUCTION

**Self-regulation** has been adopted by the Department of Environment (DOE) as a **long-term goal** to be achieved and a **culture** to be inculcated within the regulated sectors through mainstreaming of environmental agenda. **Environmental mainstreaming** has been integrated into all the recent regulations of the DOE. This approach to pollution control is a **win-win concept** which has shown to accrue positive results in improved environmental image of companies, increased public acceptability of projects, optimal operation of pollution control systems (PCSs), prevention of PCS failures, cost savings in PCS operation, systematic management of performance monitoring data and improved regulatory compliance on a sustained basis. On a wider perspective, self-regulation which complements the existing **command and control approach** of the DOE, would result in cultivating **environmental ownership** and excellence in **environmental commitment** and in **environmental regulatory compliance** from the regulated sectors.

This Guidance Document is intended to give guidance to companies on the **mainstreaming elements** to be implemented and on the general aspects to be considered in the planning and implementation of the environmental mainstreaming initiative in their premise.

##### 2. ENVIRONMENTAL MAINSTREAMING

Environmental mainstreaming is a tool for accomplishing the goal of cultivating the **self-regulation culture** in the regulated sectors. Environmental mainstreaming refers to the integration of environmental concerns, aspects,

and considerations in all business processes, at all stages of decision making, at all levels of organizational hierarchy, and at all phases of the operation of a manufacturing company. Through environmental mainstreaming the manufacturing company owner is shouldered with greater environmental responsibility and accountability for ensuring **environmental friendly options** are chosen in the course of operation of his manufacturing facility and in conducting his business.

### 3. MAINSTREAMING ELEMENTS

The following are the mainstreaming elements which are required to be implemented in most industrial manufacturing companies:

- **Environmental policy (EP)**

Most EPs were formulated years ago which may not capture the current and emerging environmental concerns. Companies should take this opportunity to **review** their EP to ensure it reflects their **strong environmental commitment** and incorporate **new strategies** on environmental protection and pollution control. The EP must be **communicated** to all staff, and the company's contractors and suppliers, which should also formulate their own EP.

Contractor's and sub-contractor's environmental responsibility must be spelt out in explicit terms in the contract document.

- **Competent person(CP)**

This mainstreaming element has been made mandatory for several years now. CPs play an important **communicating role** between DOE and the industry by discharging **DOE-regulated functions** in the way which has been stipulated by the DOE. CPs position should be commensurate with their responsibilities.

- **Performance monitoring (PM)**

PM is a **proactive and preventive monitoring** of processes to ensure pollution control systems (PCSs) are optimally operated and

maintained. PM should be incorporated as a **standard code of practice** (SOP) which must be implemented and strictly enforced.

- **Environmental performance monitoring committee(EPMC)**

PMC is a permanent committee at the **operational level** which is established to monitor the operation, maintenance, and performance of pollution control systems (PCSs), waste reduction targets, etc. The PMC must be chaired by a **senior officer** of the company and all PMC members must be **officially appointed** by the company's **General Manager (GM)** or **chairman** or **Chief Executing Officer (CEO)**. The PMC must meet at a minimum **once a month** and meeting records must be maintained.

- **Environmental regulatory compliance monitoring committee (ERCMC)**

ERCMC is a permanent committee at the **policy level** which is set up to monitor the implementation and effectiveness of environmental policy and for formulating additional policy elements if necessary. Implications of new environmental regulatory amendments, environmental implication of company expansion program, environmental improvement projects, major initiatives to address major noncompliance issues, procurement and purchasing policy vis-à-vis environmental implications are subject matters discussed at ERCMC meetings. The company's compliance with all the regulations enforced by the DOE comes under the scrutiny and responsibility of this committee. The ERCMC is chaired by the company's **General Manager (GM)** or **chairman** or **Chief Executing Officer (CEO)** with members comprised of the heads of the departments. The ERCMC must meet at a minimum **once in a quarter** and meeting records must be maintained.

- **Record keeping**

A systematic procedure and **record keeping system** must be established to keep records related to the operation, maintenance and performance of pollution control systems (PCM), upset conditions and the chemical usage.

- **Data analysis and interpretation**

The performance monitoring data, compliance monitoring data, upset conditions data, and operation and maintenance data must be analyzed and presented in **suitable format** for presentation at PMC meetings and for **decision making purposes**.

- **Mini laboratory**

Wherever applicable, a mini laboratory should be set up to **support** the operation and maintenance of pollution control systems (PCSs), especially the industrial effluent treatment systems (IETs), air pollution control systems, etc. The mini laboratory must be equipped with the necessary performance monitoring (PM) equipment and adequately staffed.

- **Discharge and emission monitoring**

Discharges of effluent or air emissions to the environment must be monitored on a scheduled basis and reported according to regulatory requirements. Wherever applicable, **real time monitoring system** such as continuous emission monitoring system (CEMS), or predictive emission monitoring system (PEMS), or equivalent system for effluent monitoring must be investigated for implementation.

- **Reporting and communication**

A reporting procedure and an **internal communication channel** within the company must be officially established for reporting and communicating environmental performance to the relevant company personnel. This creates **company wide awareness and concern** for the environment and for environmental performance. Regulatory

environmental compliance and excellent performance is an achievement and pride which should be shared among the company staff.

#### **4. BUDGET ALLOCATION AND STAFFING REQUIREMENT**

Sufficient budget must be allocated for the **implementation** of the environmental mainstreaming (EM) initiative. Top level commitment in the form of budget allocation is a prerequisite for the success of the initiative. Wherever required, **staff** must be made available to perform functions which are necessary for the implementation of the mainstreaming initiative.

#### **5. IMPLEMENTATION SCHEDULE AND MONITORING**

The environmental mainstreaming (EM) concept must be understood by the top management of the company and the understanding trickle down to those involved in the implementation phase of the mainstreaming initiative. An implementation schedule must be drawn up and the EM implementation program monitored by the general manager or chairman or chief executing officer (CEO) of the company. It is recommended that the EM initiative should be completed **within six to twelve months** except if it involves real time monitoring mainstreaming elements.

#### **6. REPORTING TO THE DOE**

Within **six months** from the commencement of the implementation of the environmental mainstreaming (EM) initiative, an **implementation status report** must be submitted to the DOE.

#### **7. USE OF THE GUIDANCE DOCUMENT BY NONMANUFACTURING COMPANIES**

Although the use of the Guidance Document is more focused for the manufacturing companies, the general concepts introduced and discussed in the document are also generally applicable to **non manufacturing**

**companies** such as the service industry. These companies are also required to implement self-regulation initiatives in their businesses. Whenever appropriate, the mainstreaming elements discussed in this Guidance Document can be **modified** to suit their own particular situation.

### **GOOD LUCK IN YOR SELF-REGULATION INITIATIVES**

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