

GUIDELINES FOR PREPARATION OF ENVIRONMENTAL MANAGEMENT PLAN (EMP)

(For Confirmation of Compliance under Regulation 13(2)(b) & Regulation 14 of the IEE/EIA Regulations, 2000)

1. INTRODUCTION

1.1 Purpose of the Guidelines

These Guidelines have been developed to assist Project Proponents in the preparation of a comprehensive and effective Environmental Management Plan (EMP) required for obtaining confirmation of compliance from Pak-EPA prior to commencement of operation of a project, in accordance with Regulation 13(2)(b) and Regulation 14 of the IEE/EIA Regulations, 2000.

The EMP shall serve as a compliance demonstration document, enabling the Federal Agency to verify that all environmental approval conditions and IEE/EIA commitments relating to design, construction, mitigation, monitoring, operation, and maintenance have been duly implemented.

1.2 Scope of EMP

The EMP shall cover:

- All phases of the project relevant to confirmation of compliance (design, construction, and pre-operation).
- All environmental aspects and impacts identified in the approved IEE/EIA.
- All conditions stipulated in the Environmental Approval.

2. GENERAL PRINCIPLES

While preparing the EMP, the Project Proponent shall ensure that:

- The EMP is **project-specific and site-specific**.
- All commitments made in the approved IEE/EIA are clearly reflected.
- Mitigation measures are **practical, measurable, and verifiable**.
- Documentary and photographic evidence is provided wherever possible.
- Responsibilities for implementation are clearly defined.

Generic or theoretical EMPs without evidence of implementation shall not be considered adequate for confirmation of compliance.

3. STRUCTURE AND CONTENTS OF EMP

3.1 Project and Proponent Information

The EMP shall include:

- Name and address of the Project Proponent.
- Name, location, and brief description of the project.
- Project capacity, scale, and operational status.
- Contact details of the designated environmental focal person.

3.2 Environmental Approval and Regulatory Context

The EMP shall provide:

- Reference to Environmental Approval (letter number, date, issuing authority).
- Validity status of approval.
- List of applicable environmental laws, rules, regulations, and standards, including:
 - Pakistan Environmental Protection Act, 1997
 - Pak-EPA Review of IEE/EIA Regulations, 2000
 - National Environmental Quality Standards (NEQS)
 - Any sector-specific rules or guidelines

3.3 Condition-wise Compliance Matrix (Mandatory)

A detailed compliance matrix shall be provided, covering:

- All conditions imposed in the Environmental Approval.
- All relevant mitigation and management commitments stated in the approved IEE/EIA.

The matrix shall clearly indicate:

- The condition/requirement.
- Action taken to comply.
- Supporting evidence.
- Compliance status.

The compliance matrix shall be supported with annexures such as photographs, test reports, invoices, contracts, and monitoring records.

3.4 Identification of Environmental Aspects and Impacts

The EMP shall identify key environmental aspects associated with the project, including but not limited to:

- Air emissions
- Wastewater/effluent generation
- Solid and hazardous waste
- Noise and vibration
- Occupational health and safety
- Resource consumption (water, fuel, energy)

For each aspect, the corresponding environmental impacts identified in the IEE/EIA shall be referenced.

3.5 Environmental Management and Mitigation Measures

For each identified environmental aspect, the EMP shall specify:

- Source and nature of impact.
- Mitigation measures adopted.
- Pollution control systems installed.
- Standard operating procedures (SOPs).
- Operation and maintenance arrangements.

The following minimum areas shall be addressed:

3.5.1 Air Quality Management

- Description of emission sources.
- Installed air pollution control measures.
- Stack parameters and fuel specifications.
- Maintenance and monitoring procedures.

3.5.2 Wastewater and Effluent Management

- Sources and quantity of wastewater generation.
- Description of ETP/STP including design capacity.
- Effluent disposal or reuse arrangements.
- Compliance with NEQS.

3.5.3 Solid and Hazardous Waste Management

- Identification and classification of waste streams.
- Waste segregation, storage, and handling procedures.
- Transportation and final disposal arrangements.
- Engagement of authorized waste handlers.

3.5.4 Noise Management

- Identification of noise sources.
- Noise control measures and PPE usage.
- Monitoring arrangements and standards.

3.6 Construction Phase Compliance (Where Applicable)

Where confirmation of compliance is sought after construction:

- The EMP shall confirm that all construction-phase mitigation measures were implemented.
- Evidence such as site photographs and completion records shall be provided.
- Measures adopted for restoration and cleanup shall be described.

3.7 Occupational Health and Safety (OHS)

The EMP shall describe:

- Occupational health and safety policy.
- Provision and enforcement of PPE.
- Worker training and awareness programs.
- Emergency preparedness and response measures.
- Fire safety, first aid, and medical facilities.

3.8 Environmental Monitoring Plan

A monitoring plan shall be included, specifying:

- Environmental parameters to be monitored.
- Monitoring locations and frequency.
- Applicable standards (NEQS).
- Responsible personnel or third-party laboratories.

Monitoring records shall be maintained and made available to Pak-EPA upon request.

3.9 Reporting and Auditing Mechanism

The EMP shall outline:

- Internal inspection and supervision arrangements.
- Environmental record keeping system.
- Periodic compliance reporting to Pak-EPA.
- Corrective and preventive action procedures in case of non-compliance.

3.10 Institutional and Management Arrangements

The EMP shall clearly define:

- Organizational structure for environmental management.
- Roles and responsibilities of key personnel.
- Designation of Environment Officer or focal person.

3.11 Operation and Maintenance Commitments

The EMP shall include:

- SOPs for operation of pollution control equipment.
- Preventive maintenance schedules.
- Contingency plans for equipment failure or emergencies.

3.12 Declaration and Undertaking

The EMP shall conclude with a signed declaration by the Project Proponent confirming:

- Accuracy and completeness of information.
- Full compliance with Environmental Approval conditions.
- Commitment to continued compliance during operation.
- Acceptance of additional conditions imposed by Pak-EPA under Regulation 14(3).

4. ANNEXURES

The EMP shall be supported by relevant annexures, including but not limited to:

- Photographs of installed environmental control systems.
- Monitoring and test reports (if available).
- Contracts with authorized waste handlers.
- Layout drawings and system schematics.
- Any other relevant documentary evidence.

5. REGULATORY NOTE

Submission of an EMP does not automatically confer confirmation of compliance. Pak-EPA may:

- Conduct site inspections.
- Seek additional information.
- Impose further conditions under Regulation 14(3).

Only upon satisfaction of compliance shall written confirmation be issued to the Project Proponent.