CHAPTER 6

POST SUBMISSION STAGE OF EIA REPORT

6.1 GUIDANCE DOCUMENT FOR PREPARATION AND SUBMISSION OF ENVIRONMENTAL MANAGEMENT PLAN (EMP)

Environmental Management Plan (EMP) translates the pollution prevention and mitigation measures (P2M2s) recommended in the EIA Report and the approval conditions (COAs) into action. The EMP is neither a report of another study nor a document which is descriptive in character. As a contrast, the EMP document states in explicit terms what actions will be taken, what measures will be instituted, what structures will be built, what will be installed, when the actions will be executed; etc. in order to incorporate the P2M2s in the project activities and for the project activities to be compliant with the COAs. The EMP is a concrete plan of action which is explicit, illustrative, action-oriented, time-bound and definitive. Even though the EMP exhibits all of the above characteristics, the EMP is by nature a living document which needs to be revised and updated when there exists certain circumstances which demand changes to be made. These factors may include changes to project details and surrounding areas and inadequacy of the control measures to comply with regulatory standards.

Although in this EIA Guidelines the EMP is discussed in the post submission stage of the EIA Report, the Project Proponent is recommended to prepare the EMP at the same time as the EIA Report. If this option is taken, both the EIA Report and the EMP can be submitted to the DOE at the same time. If deemed necessary, the EMP can later be updated to incorporate the requirements of the COAs.

6.2 OBJECTIVE OF GUIDANCE DOCUMENT

The objective of the Guidance Document is to provide general guidance to the Project Proponent and consultants in the preparation of EMPs to be submitted to the DOE for approval. Pertinent aspects to be incorporated in the EMPs are stipulated to ensure that the EIA approval conditions (COAs) are translated into actionable items resulting in reduced adverse impacts to the environment.

6.3 HOW TO GET STARTED

Firstly the Project Proponent and the Consultant who has been tasked to prepare the EMP shall study and understand the pollution prevention and mitigation measures (P2M2s) recommended in the EIA Report and the EIA approval conditions (COAs).

Secondly, for each P2M2s and COAs, whether it is administrative or physical in nature, the Consultant shall identify actions required to be executed in order to implement the P2M2s or comply with the COAs.

Thirdly, the Consultant shall compute an estimated cost to be incurred for each of the executable actions.

Fourthly, the Consultant shall brief the Project Proponent (PP) on the executable actions to be undertaken and the cost implication. Later, the PP shall make a declaration or pledge that all the actions stipulated in the EMP will be implemented.

The logical steps to be followed in the EMP preparation as outlined above are depicted in Figure 6.1.

Step: Action by:

1	Study recommended P2M2s and COAs	EMP Preparer
2	Translate identified P2M2s and COAs into executable actions	EMP Preparer
3	Prepare cost estimate	EMP Preparer
4	Make declaration	Project Proponent

Figure 6.1: Typical steps in EMP Preparation

Note: The EMP preparer shall be a consultant registered with the DOE.

6.4 PREPARATION OF LAND DISTURBING POLLUTION PREVENTION AND MITIGATION MEASURES (LD-P2M2)

Brief explanation on LD-P2M2 is given below.

The LD-P2M2 document is a legal pledge made by the Project Proponent to take efforts, measures, actions, or due diligence in accomplishing the overarching goal of protecting the environment and in mitigating the environmental impact in the process of implementation of the proposed development project.

The LD-P2M2 gives guidance to the Project Proponent's personnel especially the Environmental Officer (EO), in supervising the implementation of the LD-P2M2 that includes the installation, inspection and maintenance (2I's1M) of the Best Management Practices (BMPs) as well as in preparing the required documentation and reports on (2I's1M).

The focus of the LD-P2M2 is on the prevention, mitigation and control of the discharge from the development area containing the major pollutant (suspended solids) resulting from land disturbing activities.

The Guidance Document for the preparation of the document on Land Disturbing Pollution Prevention and Mitigation Measures (LD-P2M2) replaces the Guidance Document for the Preparation of Erosion and Sediment Control Plan (ESCP) issued earlier by the DOE.

The Land Disturbing Pollution Prevention and Mitigation Measures (LD-P2M2) document is to be attached or inserted into the EMP as part of the EMP submission requirement.

Generally, the following shall be prepared and provided in the LD-P2M2 document. The details are explained in the Guidance Document for the preparation of the document on Land Disturbing Pollution Prevention and Mitigation Measures (LD-P2M2).

(a) Narrative Description

The narrative describing the project description, existing site conditions, conditions after development, major land disturbing activities, total site area, total disturbed area, soil types, design criteria for Pollution Prevention and Mitigation Measures (P2M2), expected rainfall, runoff velocities and peak flows, and illustration of how, what, where, why, and when P2M2 is to be installed, inspected and maintained.

(b) Schedule of construction (land disturbing) activities

Schedule of construction activities detailing the project phasing, construction stages and sequences that progress with the implementation of each of the LD-P2M2s in a timely manner. Holding a pre-construction meeting to be attended by the owner or owner’s representative, or his project environmental officer, project contractors and sub-contractors is an example of an initial

construction sequence conducted prior to any land disturbing activities.

(c) LD-P2M2 Plan and Construction Notes

A plan consisting of maps and/or site plans showing the existing geomorphology and land use of the site, to be overlaid with site development map that depict the proposed land disturbing activities or earthworks, inclusive of proposed area alterations and the locations of all P2M2s facilities. Construction notes which refer to general instructions of P2M2s application, shall be included in the LD-P2M2 plan or may written on a separate sheet.

(d) Method Statement

Method Statement and layout plan to be implemented for the major land disturbing activities of the project that may cause the discharge of pollutants, particularly suspended solids. In this context, Method Statement refers to Environmental Method Statement that details how, what, where, why, and when the elements of environmental protection, P2M2s will be integrated and implemented into each of the land disturbing activities. The land disturbing activities which progress in stages and sequence include but are not limited to:

i. Site land clearing
ii. Excavation of cuttings
iii. Forming of embankments and fills
iv. Excavation of foundation pits, trenches and tunnels or viaduct
v. Stream or river diversion
vi. Stream or river crossing
vii. In-stream works
viii. Drilling of boreholes

6.5 FORMAT OF ENVIRONMENTAL MANAGEMENT PLAN (EMP)

The EMP shall at a minimum, contain the following chapters: chapter 1 to chapter 5. However, the depth of treatment and details discussed in chapter 5 shall be tailored to suit the individual project, the pollution prevention and mitigation measures (P2M2s) recommended in the EIA Report and the EIA approval conditions (COAs).

The EMP for prescribed activities falling under both Schedules (First Schedule and Second Schedule) of the EIA Order shall follow the general specifications and format, and shall contain chapters 1 to 5 as explained below.

Chapter 1: Introduction

Provide information on:

a. Project layout as approved in the Development Order by Local Authority.
b. Project implementation schedule.
c. Name of the EMP preparer and his consulting firm.

Chapter 2: Policy

Provide information on:

a. Company's corporate policy statement on environmental management and protection.
b. Commitment by the top management on the mainstreaming of environmental agenda and instiling of self regulation in the

development project and on ensuring continous compliance with the environmental regulatory requirements.

Chapter 3: Organizational Structure

Provide information on:

a. Organization chart of the company's top management with responsibilities on environmental management and protection (provide names, positions, mobile phone contact numbers and e-mail addresses).
b. Name, mobile phone contact number and e-mail address of environmental manager, environmental officer (EO), engineering consultant, contractor, site supervisor and competent person* (wherever relevant and available).

   (*Note: Competent person is a person certified by the DOE through the certification program administered by the Environment Institute of Malaysia, EiMAS)
c. Name of environmental consultant and accredited laboratory conducting environmental monitoring, analysis of environmental samples and submitting reports to the DOE.

Chapter 4: Training Requirement

Provide information on:

a. Plan for staff training in order to develop competency to discharge responsibilities on environmental requirements and compliance. The training areas shall include maintenance and performance monitoring of all P2M2 (LD-P2M2, IETS, APCS, STS, management of scheduled waste), wherever relevant.

Chapter 5: Environmental Requirements

Provide information on:

a. EIA Approval Conditions (COAs)
b. LD-P2M2 document
c. Pollution prevention and mitigation measures (P2M2) to be implemented as in the Table 6.1.

Table 6.1: Pollution Prevention and Mitigation Measures (P2M2) To Be Implemented

Project activities and environmental issues concerned	Impacts	P2M2 recommended in EIA Report	P2M2 to be implemented

(Note: The contents of the above Table are to be derived from "Summary of Impacts and pollution prevention and mitigation measures" recommended in the EIA Report and additional requirements stipulated in the EIA approval conditions (COAs). P2M2 shall be those which can be described as "state of the art technologies" or "industry best practices").

d. Water Pollution Control

i. Water pollution control monitoring

Water pollution control monitoring consists of performance monitoring (PM) of effluent treatment system (for treating sewage or industrial effluent), effluent discharge monitoring (Compliance monitoring-CM) and ambient water quality monitoring (Impact monitoring-IM). IETS or STS performance monitoring (PM) is compulsory, while ambient water quality monitoring covering areas beyond the boundary of project site may be required only on a case to case basis (IM). Proposed PM and CM program shall be prepared with details on parameters, the recommended ranges, monitoring frequency, field log sheets, data analysis and interpretation, and record keeping. For IM program, details on monitoring location, longitude and latitude, frequency, parameters, equipment, monitoring schedule, and personnel required shall be provided.

ii. Effluent treatment

The following information shall be provided: proposed treatment technology; schedule for submission of Notification for new source of effluent discharge, design of IETS; recruitment of competent person and purchase of relevant equipment. The IETS shall be that which can be described as state of the art technologies or industry best practices.

iii. Temporary sullage and sewage treatment

The following information shall be provided: proposal for the management and treatment of sullage and provision of temporary sewage facilities for workers shall be provided.

iv. Permanent sullage and sewage treatment

The following information shall be provided: proposed treatment technology; schedule for submission of Notification for new source of sewage discharge, design of sewage treatment system (STS); recruitment of competent person and purchase of relevant equipment.

v. Control of oil and grease, concrete wash, etc.

The following information shall be provided: proposed methods of managing discharge of other pollutants, particularly oil and grease, and concrete wash effluent during the construction phase.

e. Control of Air Pollution and Noise

i. Air pollution control monitoring

Air pollution control monitoring consists of performance monitoring (PM) of air pollution control system (APCS), air emission discharge monitoring (Compliance monitoring-CM), and ambient air quality monitoring (Impact monitoring-IM). APCS performance monitoring (PM) is compulsory, while ambient air quality monitoring covering areas beyond the boundary of project site (IM) may be required only on a case to case basis. Proposed PM and CM program shall be prepared with details on parameters, the recommended ranges, monitoring frequency, field log sheets, data analysis, and record keeping. For IM program, details on monitoring location, longitude and latitude, frequency, parameters, equipment, monitoring schedule, and personnel required shall be provided.

ii. Air pollution control

The following information shall be provided: proposed control technology; schedule for submission of Notification for new sources of

air pollution; design of air pollution control system (APCS); recruitment of competent person and purchase of relevant equipment. The APCS shall be that which can be described as “state of the art technologies” or industry best practices.

f. Materials And Waste Management

i. Raw materials and stockpiles.

The following information shall be provided: proposal for the management of raw materials, including chemicals, fuels, etc., and stockpiles.

ii. Solid waste.

The following information shall be provided: proposal for the management of solid waste during land disturbance and construction phase.

iii. Biomass.

The following information shall be provided: proposal for the management of biomass during land clearing and construction phase.

iv. Spoils/dredge materials/construction waste.

The following information shall be provided: proposal for the management of spoils/ dredge materials/construction waste during land disturbance/earthwork and construction phase.

v. Open burning.

The following information shall be provided: Measures to prevent occurrence of open burning.

vi. Housekeeping.

The following information shall be provided: proposal for implementing best practices in general housekeeping, including housekeeping of the vehicles and machinery maintenance area.

g. Scheduled Waste Management

The following information shall be provided: proposal for the management of scheduled waste to comply with Environmental Quality (Scheduled Waste) Regulations 2005 generated during construction and post construction stages.

h. Emergency Response Plan (ERP)

The following information shall be provided: name and contact details (mobile phone number, e-mail address) of the professional who has been tasked to prepare the ERP and the schedule for its preparation and submission to DOE.

i. Abandonment And Closure Plan

In a particular case where the project proponent intends to abandon a project whether it is in the construction stage or after it has started operation, an abandonment and closure plan shall be prepared. Decommissioning and closure plan is especially relevant to extractive industries such as minerals mining and oil and gas exploration and extraction.

j. Declaration And Checklist

(a) Declaration

The Project Proponent is required to make a declaration that all the actions/measures/plans outlined in the EMP will be implemented as in the Table 6.2**.** The form is required to be filled out and submitted to the DOE together with the EMP document.

Table 6.2: Declaration By Project Proponent/Authorized Person

DECLARATION BY PROJECT PROPONENT/AUTHORIZED PERSON

I certify that the Environmental Management Plan (EMP) has been prepared with my knowledge and I shall undertake the responsibility to ensure the actions/plans/ and pollution prevention and mitigation measures (P2M2) stated in the EMP will be implemented. I have provided sufficient allocation for the implementation of the EMP and P2M2.

PROJECT TITLE: ……

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PROJECT ADDRESS/LOCATION: ……..

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To assist the Consultant who has been assigned the task to prepare the EMP for submission to the DOE, a checklist/form

A checklist to assist the Consultant in the EMP preparation and to summarize the EMP actionable items is given in Table 6.3.

Table 6.3 ENVIRONMENTAL MANAGEMENT PLAN PREPARATION CHECKLIST

PROJECT TITLE: _____
NAME OF PROJECT PROPONENT: _____
_____
NAME OF CONSULTANT: _____

RECOMMENDED POLLUTION PREVENTION AND MITIGATION MEASURES (P2M2s) AND EIA APPROVAL CONDITIONS (COAS) COMPLIANCE CHECKLIST

P2M2 RECOMMENDED OR COA NUMBER….	**ACTIONABLE ITEM IN EMP ON PAGE…..**	**NOTES**

Name of Project Proponent

……..

Signature : (……)

Date : ……