

FIRST / SECOND SCHEDULE

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

NAME OF PROJECT PROPONENT

PROJECT TITLE

VOLUME X/Y

PROPOSED PROJECT GRAPHICS (ILLUSTRATION)



MONTH/YEAR

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EIA Report format

The format of the Report and its content are explained as follows:-

EIA Report Format for Preliminary Pages

At a minimum, the preliminary pages shall include the Environmental Pledge by the Project Proponent, the Declaration by the Qualified Person (i.e. EIA Consultant) and the Executive Summary. These are briefly described below:

(a) Project Proponent's Environmental Pledge

The Project Proponent shall make a declaration on the EIA Report prepared by the Qualified Person (EIA Consultant). The declaration shall be type written on the official letterhead of the

company of the Project Proponent as follows:-

"I hereby declare that the entire EIA Report is the product of the Qualified Person (i.e. the EIA Consultant) engaged by my company and all the facts stated in the Report and the accompanying information are to the best of my knowledge and belief true and correct, and that I have not withheld or distorted any material facts. I agree and I undertake the responsibility to implement all the pollution prevention and mitigation measures (P2M2s) described in the EIA Report, in the Environmental Management Plan (EMP), and in the LD-P2M2* as proposed by the EIA Consultant. I have allocated sufficient funds for the above purpose.

Name of Project Proponent:

NRIC Number:

Designation:

Signature: Date:

Company's stamp:

(Note*: LD-P2M2 stands for Land Disturbing Pollution Prevention and Mitigation Measures)

(b) Qualified Person's Declaration

The EIA Consultant team leader shall make a declaration on the EIA Report which shall be type written on the official letterhead of the company of the EIA Consultant as follows:-

"I declare that the entire EIA Report is the product of my own work and the work of my team members (i.e. other consultants who are also Qualified Persons) who worked under my supervision and all the facts stated in the Report and the accompanying information are to the best of my knowledge and

belief true and correct and that I have not withheld or distorted any material facts. I have briefed the Project Proponent on the content of the Report and highlighted to him all the pollution prevention and mitigation measures (P2M2s) described in it, and in the Environmental Management Plan (EMP), and in the LD-P2M2*, and the Project Proponent has agreed to implement them (i.e. P2M2). ”

Name of EIA Consultant team leader:

NRIC Number:

Designation:

Signature: Date:

Company's stamp:

(Note*: LD-P2M2 stands for Land Disturbing Pollution Prevention and Mitigation Measures)

(c) Executive Summary

The Executive Summary is an important part of the EIA Report. It shall be well written not only because it will be read widely and reviewed by the DOE, other authorities, and the public, but it is also an essential gateway for the Report to get read. The Executive Summary shall be written in a non-technical language and provides a summary of the proposed project, main issues associated with its implementation, and the pollution prevention and mitigating measures (P2M2s) to be taken to prevent and mitigate the potential impacts to the receptors.

The Executive Summary shall be concise and written in English and Bahasa Malaysia. The format of both versions shall be similar. The Executive Summary, in addition to summarizing the main findings and issues, shall contain the following information:

- (i) Name / Title of project
- (ii) A description of the project and the environment
- (iii) Name and contact details of the Project Proponent (Contact person, address, telephone number, e-mail address)
- (iv) Name of the registered EIA consulting firm and contact details (EIA team leader, address, telephone number, e-mail address)
- (v) Location of the project (including where applicable, coordinates, lot numbers, sub-district and district name)
- (vi) Relevant maps showing project location and sensitive receptors
- (vii) Flow diagrams of main processes (for industrial and other relevant activities)
- (viii) A tabulation of potential impacts, their magnitude and proposed pollution prevention and mitigation measures (P2M2s) as shown below:

Table: Summary of potential impacts, their magnitude and proposed pollution prevention and mitigation measures

Significant potential impacts	Magnitude of significant potential impacts	P2M2*	Reference page**

(Notes-

*P2M2s: Pollution prevention and mitigation measures. P2M2s shall be those which can be described as state of

the art technologies or best available technologies, or industry best practices.

** Reference page: page in the EIA Report)

- (ix) A description of performance monitoring (PM) program and compliance monitoring (CM) for pollution prevention and mitigation measures (P2M2) and tabulation of relevant PM parameters, recommended limits, monitoring locations and frequencies.
- (x) Whenever applicable, a description of impact monitoring program (IM), monitoring locations and frequencies.

The soft copy version (portable document format - PDF) of THE Executive Summary shall be submitted to the DOE (EIA Secretariat) together with the soft copy of the full EIA Report. The softcopy will be uploaded to the Enviro Knowledge Management Centre (EKMC) and website of the DOE for public display.

EIA Report Format for Main Text

The EIA Report format for the main text or body of the EIA Report shall contain at least the following chapters explained as follows:

Chapter 1: Introduction

1.1 Title of Project

The project title shall identify the type of proposed project and its specific location. The title shall also indicate if the project is part of a larger project proposal.

This Chapter shall contain at a minimum the following information:

- (i) Name / Title of project
- (ii) Name and contact details of the Project Proponent (Contact person, address, telephone number, e-mail address)
- (iii) Name of the registered EIA Consulting firm (EIA team leader, address, telephone number, e-mail address)
- (iv) Location of the project (including where applicable, coordinates, lot numbers, sub-district and district name)
- (v) Relevant maps showing project location and sensitive receptors

1.2 Project Proponent and Qualified Persons

This chapter shall state clearly the identity of the Project Proponent whether it is a public or private organization. The details of the EIA consulting firm and the consultants engaged for the EIA study shall be provided. The EIA consultant team shall be led by a team leader who shall be responsible for supervising the conduct of the EIA study and for coordinating the writing of entire EIA Report. All the members of the EIA consulting team (the team leader and the subject matter consultants (SMCs) shall be Qualified Persons registered with the DOE under the EIA Consultant Registration Scheme (www.doe.gov.my.)

1.3 Legal Aspects

1.3.1 Prescribed activity is subject to section 34A, Environmental Quality Act, 1974

This subparagraph shall state clearly that the proposed development project is a prescribed activity and EIA study is carried out and EIA Report is prepared to comply with the legal requirement under section 34A, Environmental Quality Act, 1974.

1.3.2 Conformance of proposed project to government's development plans

This subparagraph shall make a definitive statement stating that the proposed project concept and project location is in line with any development plans, policies or decisions of the Government of Malaysia prior to the EIA study, namely (but not limited to the following):-

- (i) National Physical Plan.
- (ii) Structure Plan.
- (iii) Local Plan.
- (iv) Regional Plan (inter-state planning).
- (v) Guidelines on Siting and Zoning of Industries and Residential Area.

Chapter 2: Terms of Reference of EIA Study

This chapter shall provide the TOR of the EIA study which has been endorsed by the DOE. The reference of the endorsement shall be cited (example TOR meeting or DOE's letter).

Chapter 3: Statement of Need

The statement of need shall outline the background of the project and the reasons for it being proposed. It shall establish social, economic or other needs for the project and shall conclude with a definitive statement of the aim of the project. The statement of need for the proposed project shall be substantiated.

Chapter 4: Project Options

This chapter shall discuss project options including the advantages and disadvantages from the perspective of technical, economic, social, and environmental aspects of the following alternatives (wherever applicable):

- (i) Site Options
- (ii) Project Options (including “no project option”, and “scaled-down project option”)
- (iii) Technology Options
- (iv) Raw Materials Options
- (v) Construction Method Options
- (vi) Layout Options
- (vii) Alignment Options
- (viii) Operation Options

Chapter 5: Project Description

This chapter shall provide information and discuss the following aspects:

- (i) A description of the project concept with the following details: size and capacity, land requirements, raw materials, energy source and consumption, water source and consumption, labor requirements, transportation,

support facilities, investment, market, and special infrastructural requirements

- (ii) Maps and diagrams (photographs might also be useful to describe some projects)
- (iii) A summary of the technical, economic, and environmental features that are essential to the project
- (iv) Proposed project implementation schedule and project lifespan (wherever applicable)
- (v) Comparison with the existing plant/project in Malaysia or elsewhere
- (vi) Operation and maintenance activities

Chapter 6: Existing Environment

This chapter shall explain clearly the sources of information used to describe the existing (or baseline) environment. The description of the existing environment shall conform to the following specifications, wherever appropriate:

- (i) The zone of study is a minimum 5 kilometers radius from project boundaries except for linear projects where the zone of study is a minimum of 0.5 kilometers
- (ii) The baseline conditions of the physico-chemical, biological, social, and economic setting prior to the implementation of the project is described in qualitative and quantitative terms

- (iii) Special attention is given to environmental sensitive areas, and areas of special or unique scientific, socio- economic or cultural values

Uncertainties of information obtained shall be discussed.

Chapter 7: Evaluation of Impacts

7.1 Identification and Prediction Assessment of Impacts

This subchapter shall present an analysis of the impacts identified and predicted which shall be described in quantitative and qualitative terms. An assessment matrix such as the one shown in **Appendix 7** shall be used to summarize the characteristics of the impacts. The impacts shall be characterized from the following aspects: their magnitude, extent, duration, and significance.

The discussion on impact identification and prediction shall cover following aspects and conform to the following requirements:

- (a) The zone of impact shall be identified based on size and complexity of the project and supported by appropriate modeling exercise;
- (b) The nature of the environmental effect (e.g. air quality changes; water quality changes);
- (c) The source of the impact (e.g. oil-fired furnace chimney emission); and
- (d) The nature of the impact (e.g. human health, visual esthetics).

7.2 Detailed Examination of Impacts

This subchapter contains information on the potential impacts predicted as a result of the implementation of the project and how the impacts were assessed. The methodologies used for predicting the impacts shall be described. For example, for air pollution impact studies, the outputs of modeling exercise (i.e. the highest short term and long term averages of pollutant concentrations at specific receptors) shall be presented and compared with the air quality standards. To indicate general impacts of pollutant emission in the study area, contours of pollutant concentration shall also be presented on a map using ArcGIS as GIS platform.

Similarly for other impact studies involving the modeling of water quality, ground water quality, noise, risk, sediment dispersion, oil slick and liquefied natural gas (LNG) spill, hydrology and hydrodynamics, etc., the outputs shall be presented in an easy to understand fashion. All modeling exercises shall undergo all the stages of modeling, namely, model verification, calibration, and validation. The uncertainties in the models shall be discussed thoroughly. Copies of model files in electronic format shall be submitted to the DOE's.

Depending on the characteristics of the project, impact studies may also involve economic evaluation of environmental impacts and risk assessment, which shall be performed wherever relevant.

7.3 Project Evaluation

In this subchapter the EIA Consultant shall attempt to quantify the environmental and development tradeoffs anticipated from

the proposed project by using the cost-benefit evaluation technique.

Chapter 8: Mitigation Measures

8.1 Adherence to DOE Guidelines

In the process of identifying the appropriate pollution prevention and mitigation measures (P2M2s), the technologies and practices which can be described as “the state of the art” or “best available technologies” (BATs), or “industry best practices” shall be evaluated and discussed in this subchapter. This applies to all stages of project implementation including the construction and operation stages.

The requirements and specifications stipulated in the following documents issued by the DOE shall be adhered to:

- (a) Guidance Document for addressing soil erosion and sediment control aspect in EIA Report as per **Appendix 3**.
- (b) Guidance Document for the preparation of Land Disturbing Pollution Prevention and Mitigation Measures (LD-P2M2) as per **Appendix 4**.
- (c) Other relevant guidelines and guidance documents issued by the DOE pertaining to environmental-related system and management as per **Appendix 5**.

Other documents issued by the DOE from time to time related to EIA process which may cover other environmental aspects shall also be adhered to.

8.2 Proposed Mitigation Measures

This subchapter contains a discussion of all the mitigation measures which have been adopted and incorporated into the design and implementation of the project to effectively eliminate, prevent, minimize predicted adverse impacts. For each potential adverse impact, at each stage of project implementation, the mitigation measure shall be identified, documented and costed. Mitigation measures include all actions and activities taken, put in place, or executed which could be structural, non-structural, procedural, or administrative in nature, to mitigate the adverse impacts. The Project Proponent shall provide evidence to show his commitment to implement all the proposed pollution prevention and mitigation measures (P2M2s).

Chapter 9: Environmental Management Plan (EMP)

9.1 Land Disturbing Pollution Prevention and Mitigation Measures

If the proposed development project involves any activity that disturbs land surface, a plan to mitigate soil erosion on the project site shall be prepared and presented in this subchapter. The requirements and specifications stipulated in the Guidance Document for the Preparation of the Document on Land Disturbing Pollution Prevention and Mitigation Measures (LD-P2M2) shall be complied with.

9.2 Proposed Monitoring Programme

Environmental monitoring comprises three types of monitoring, namely: Performance monitoring (PM), compliance (CM), and

impact monitoring (IM). Each type shall be detailed out in this chapter.

9.2.1 Performance monitoring (PM)

This subchapter shall contain a description of performance monitoring (PM) program for all pollution prevention and mitigation measures (P2M2) proposed for the project. A tabulation of relevant PM parameters, recommended limits, monitoring locations and frequencies, and instrumentation and personnel required shall also be discussed.

9.2.2 Compliance monitoring (CM)

A description of compliance monitoring (CM) program for all pollution prevention and mitigation measures (P2M2) shall be included in this subchapter. A tabulation of relevant CM parameters, discharge or emission standard, monitoring locations and frequencies, and instrumentation and personnel required shall also be presented.

9.2.3 Impact monitoring (IM)

The requirement on impact monitoring (IM) shall be evaluated on a case to case basis. The general consideration is that, IM is required only in cases where pollution prevention and mitigation measures (P2M2s) conforming to the category of best available technologies (BATs) cannot be clearly identified or there exist uncertainties in the long term impact to the receptors. The above evaluation shall be presented in this chapter. If IM is required, a description of the IM program, monitoring parameters,

monitoring locations and frequencies shall be described. A discussion of how long the IM program will be carried out, instrumentation and personnel required shall also be presented.

9.2.4 Environmental auditing

Proposal for performing an environmental audit of the project, after its completion, to assess the overall environmental compliance, the compliance with the environmental mainstreaming requirements and the fulfillment of the Environmental Pledge by the Project Proponent shall be discussed in this subchapter.

Chapter 10: Study Findings

In this Chapter the EIA Consultant shall draw appropriate conclusions of the study findings from the perspective of the impacts of the proposed project. The conclusions shall be summarized in a series of brief statements which refer to the relevant sections of the Report.

References

Provide full citation of all the references used.

Appendices

The appendices may include the following:

- (a) Input data and results of any modelling studies (soft and hard copy)
- (b) Supporting documents such as Site Suitability Assessment, Environmental Scoping Information, etc.
- (c) Other relevant documents such as list of attendance, meeting minutes, and photographs of public engagements, etc.

