



ENVIRONMENT PROTECTION DEPARTMENT

MINISTRY OF TOURISM, CULTURE AND ENVIRONMENT SABAH



Environmental Self-Regulation (ESR) Guideline in
Compliance with Environmental Conditions for River
Sand and Stone Mining Activities in Sabah

**Environmental Self-Regulation (ESR) Guideline in
Compliance with Environmental Conditions for River
Sand and Stone Mining Activities in Sabah**



Environment Protection Department (EPD)
Sabah

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Foreword

As part of the Environment Protection Department's continuous efforts to enhance environmental management in Sabah, this document is published to minimise impacts of development activities for river sand/stone mining and processing activities. For any approved Environmental Impact Assessment (EIA) the project proponent is required to sign an Agreement of Environmental Conditions (AEC).

The AEC outlines all the conditions which must be complied with by the proponent. Proper and efficient management of the environmental components associated with river sand/stone mining helps in enhancing compliance with the AEC. Therefore, this Environmental Self-Regulation (ESR) guideline is published with the intention to foster self-regulation practices among project proponents via five (5) components: Environmental Policy, Environmental Budgeting, Environmental Committee, Environmental Reporting, and Environmental Training. This ESR guideline is to be used in tandem with the Standard Operating Procedures (SOPs), which are published in a separate handbook, to further improve environmental compliance.

I sincerely hope that this document is utilised to its fullest extent by project proponents and other relevant stakeholders. I would like to extend my utmost appreciation to all government agencies, organisations and individuals who have contributed to the preparation of this ESR, without whom this publication would not be possible.

VITALIS J. MODUYING
DIRECTOR
ENVIRONMENT PROTECTION DEPARTMENT, SABAH

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ABBREVIATIONS

AEC	Agreement of Environmental Condition
ECR	Environmental Compliance Report
EIA	Environmental Impact Assessment
EPD	Environment Protection Department
ESR	Environmental Self-Regulation
EC	Environmental Committee
EO	Environmental Officer
PPs	Project Proponents
SOPs	Standard Operating Procedures
IF	Inspection Form

1 INTRODUCTION

In Sabah, River Sand and Stone Mining Activities, which is categorised as “prescribed activities” under the Second Schedule of the Environment Protection (Prescribed Activities) (Environmental Impact Assessment) Order 2012, is required to submit an Environmental Impact Assessment (EIA) to the Environment Protection Department (EPD) for approval.

Based on the approved EIA report, the EPD and Project Proponents (PPs) are required to agree on a set of environmental conditions known as Agreement of Environmental Conditions (AEC). PPs must implement all environmental conditions stipulated in the AEC in a self-regulatory manner. The Standard Operating Procedures (SOPs) for River Sand and Stone Mining Activities by the EPD assist PPs in AEC compliance, whereas this Environmental Self-Regulation (ESR) is a guideline for PPs to practise self-regulation.

1.1 OBJECTIVE OF ESR

The objectives of this ESR are to:

- Guide PPs in Environmental Management and Environmental Self-Regulation element in their company.
- Guide PPs to produce Environmental Self-Regulation (ESR) reporting and submit to EPD.

1.2 HOW TO USE THE ESR

This Environmental Self-Regulation (ESR) guideline is to be used together with the SOPs for River Sand and Stone Mining Activities formulated by the EPD. The SOPs provide clear guidance to PPs for AEC compliance. Best mitigation measures for minimising environmental impacts and implementation methods of mitigation measures for compliance to the environmental conditions are described in the SOPs for the PPs' guidance.

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There are twelve (12) major sections in the SOPs, where each section represents one Environmental Condition. The Environmental Conditions are:

1	• CONTROL OF RIVER STONE AND SAND MINING ACTIVITIES
2	• CONTROL OF PROCESSING AND STOCKPILES AREA
3	• RIVER PROTECTION
4	• CONTROL OF SURFACE RUNOFF
5	• CONTROL OF LIQUID WASTE DISCHARGE FROM BARGE
6	• CONTROL OF AIR QUALITY
7	• CONTROL OF NOISE AND OPERATION TIME
8	• OIL MATERIAL AND SCHEDULED WASTE
9	• CONTROL OF SOLID WASTE AND BIOMASS
10	• CONTROL OF SEWAGE
11	• CONTROL OF TRAFFIC AND TRANSPORTATION (LAND AND RIVER)
12	• ABANDONMENT / PROJECT CLOSURE

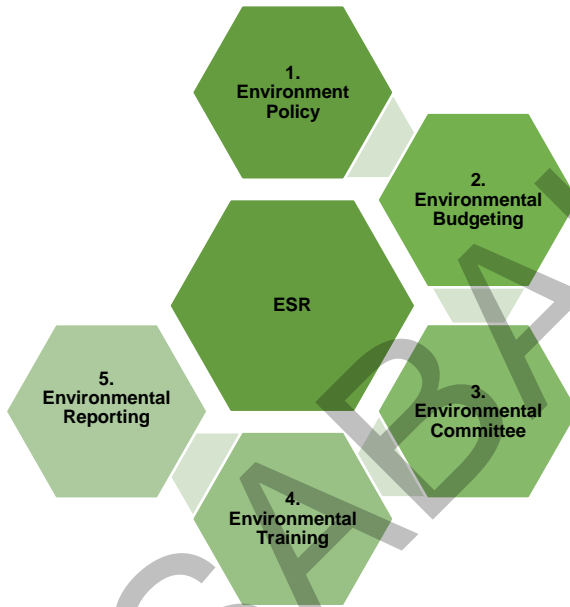
Environmental Self-Regulation (ESR) Guideline in Compliance with Environmental Conditions for River Sand and Stone Mining Activities in Sabah

The ESR guideline is developed to guide and encourage PPs to undertake self-regulation during sand and stone mining activities in relation to environmental conditions. The guideline includes guidance on conducting self-regulation to monitor environmental conditions, steps on carrying out corrections for non-compliances, as well as reporting and training programmes. There are five (5) environmental components in the ESR, which can be referred to in **Section 1.3**.

1.3 CONTENT OF ENVIRONMENTAL SELF-REGULATION (ESR) GUIDELINE

ESR is a guideline developed to assist the achievement of Self-Regulation objectives in an organisation and requires participation from all levels of the organisation. The system includes the following environmental components:

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Each of the above environmental components is elaborated further in the following sections.

2 ENVIRONMENTAL POLICY

2.1 INTRODUCTION

Environmental policy is a written statement outlining the aims and principles of river sand and stone activities in terms of managing the environmental effects and aspects of its operations through AEC compliance. Top management must be involved in producing the policy and they must understand the principles and commitments contained. Any existing company policy can be incorporated into this environmental policy. However, for small-scale companies, it is adequate to use their own AEC as the main reference. The established environmental policy shall be updated from time to time by the PPs.

2.2 PROPOSED STEPS IN CREATING A BRIEF ENVIRONMENTAL POLICY

A basic guide for creating an environmental policy is shown in **Annex 1** as reference. It provides an illustrative example of environmental policy development utilising the following five steps:

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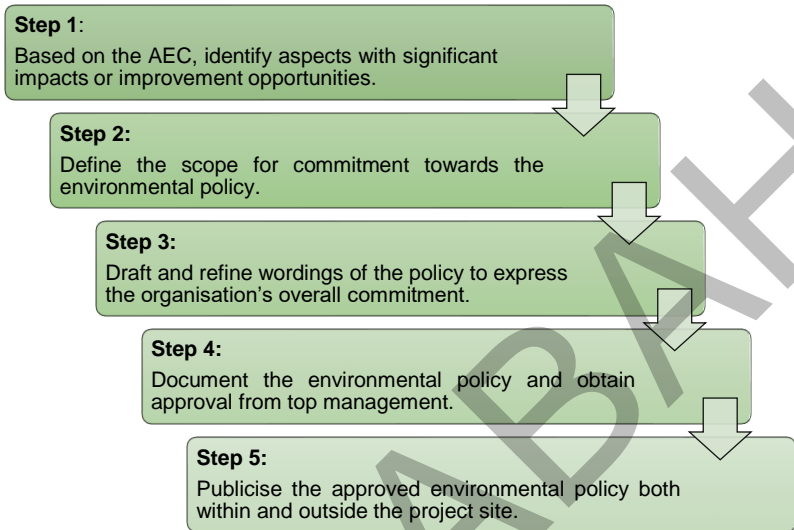


Figure 1: Proposed Step in Creating a Brief Environmental Policy.

However, for small-scale companies, it is sufficient to make a copy of the AEC available and display it inside and outside the office as the main reference for the operator to ensure environmental management of the project site area is well regulated.

3 BUDGETING

3.1 INTRODUCTION

Budgeting is the process that ensures funds and resources are adequately available and allocated for the implementation of ESRs. It provides transparency to assure funds remain available throughout the implementation of ESR-related activities. When the company's environmental policy is updated, budgeting needs to be updated correspondingly to be in line with the implementation of the new policy.

3.2 PROPOSED STEPS FOR DEVELOPING BUDGETS FOR THE IMPLEMENTATION OF ESR

Budgets are developed and refined throughout river sand and stone mining activities for environmental compliance. This process is iterative and involves close coordination between technical and budget staff. Immediate action can be taken to rectify the non-compliance or improve existing mitigation measures if budgeting is not necessary.

This section proposes the budget development process to implement corrections for non-compliances / improvement in four steps and **Annex 2** provides an example. However, there are multiple ways to develop a budget that covers the cost of implementing corrections for non-compliances / improvement and it also depends on the suitability of owned budgeting systems implemented by the project proponent.

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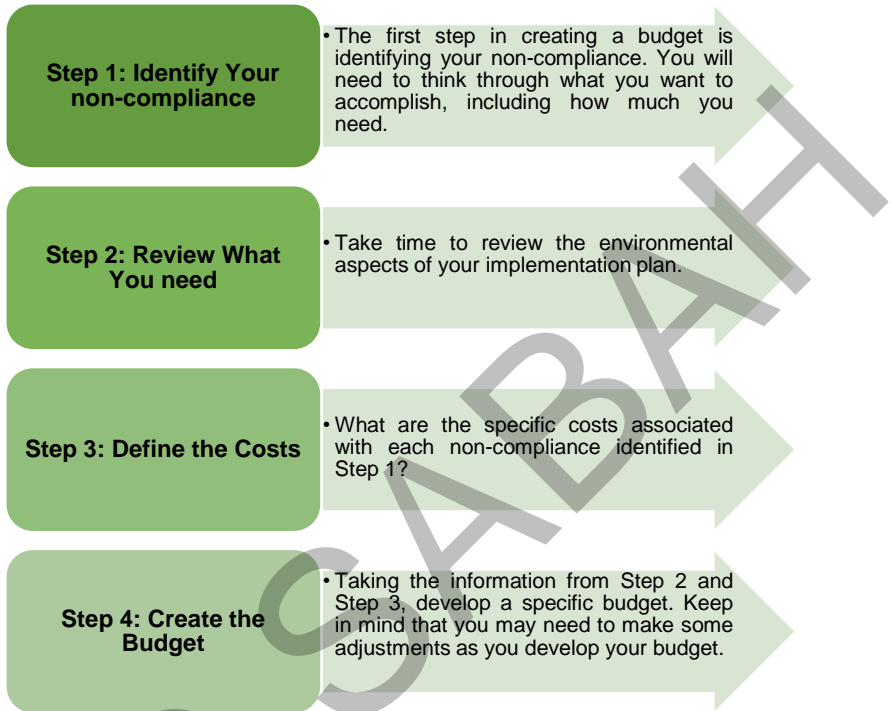


Figure 2: Developing Budgets for Implementation of Environmental Self-Regulation.

4 ENVIRONMENTAL COMMITTEE

4.1 INTRODUCTION

To ensure that self-regulation is continuously achieved, an Environmental Committee (EC) should be set up. The committee is responsible for monitoring the implementation of self-regulation and fulfils an important communications function. Any existing committee in the organisation can be used as a platform for establishing this Environmental Committee.

4.2 ENVIRONMENTAL COMMITTEE MEMBERS

Depending on the size and capacity of the company the committee members shall consist of minimum two person or more. Committee team members shall consist of a person who could make decision, approve budget, and be responsible as the EO.

4.3 SPECIFIC RESPONSIBILITIES OF TEAM MEMBERS

Example of the member in the environmental committee are:

Director/Site Manager – A person from the top management, preferably responsible for decision-making.

Site Supervisor – To ensure the daily functioning of employees and site activities.

Environmental Officer (EO) – To ensure continuous compliance to the AEC, conduct site inspections, prepare, and submit reports to authorities and liaise with authorities.

Supporting Personnel - A person who provides manpower, knowledge and advice to the EC based on their expertise. For example, account supervisor / assistant site supervisor:

- Account Supervisor ensures all financial and accounting operations within an accounting department run smoothly.
- Assistant Site Supervisor is the person who assists in monitoring activities at the mining site and helps the Site Supervisor perform other administrative tasks.

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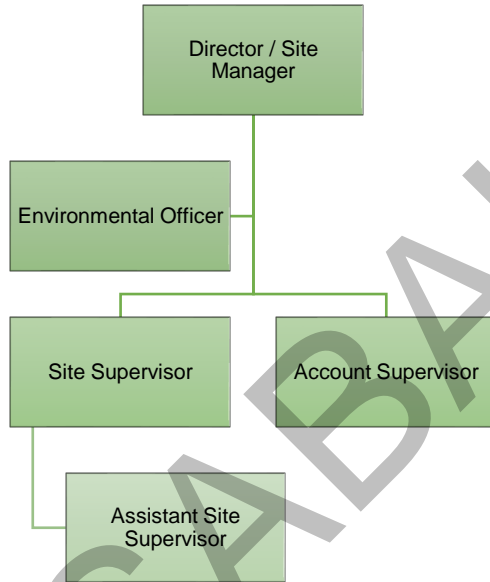


Figure 3: Example of Organisation Chart for Environmental Committee.

4.4 COMMITTEE MEETING/DISCUSSION

Committee members are proposed to meet on a regular basis. The agenda is to present the compliance status of the AEC and discuss non-compliance issues identified during site inspections. Similarly, any new environmental requirement or legislation imposed by the government should be shared with all members during the meeting or discussion. However, for small-scale companies, the manager plays an important role in conducting inspections for the surrounding area of the project site, if there are non-compliances detected during the inspection, the manager will discuss and instruct employees to carry out the necessary corrections, while the budget required for such corrections is at the discretion of the manager him/herself.

5 REPORTING

5.1 INTRODUCTION

An internal reporting format should be established to enable PPs to evaluate the implementation status of the AEC. This section describes the reporting process.

5.2 REPORTING PROCESS

Below is the description of each reporting process that should be practiced by PPs. Refer to **Figure 4** for the overall reporting process flowchart.

5.2.1 Internal Site Inspection

Refer to the AEC to identify the compliance status during site inspections. Any non-compliance identified will be stated in the Inspection Form (IF). The form also includes an area to write down the required improvement for the existing mitigation measures. The IF is shown in **Annex 3** for reference while **Annex 4** shows an example of completing the IF.

5.2.2 Proposed Correction/Improvement and Implementation

After the internal site inspection, the following steps are to be taken to close non-compliances and/or to propose improvement to the existing mitigation measures.

- Step 1 : Proposed correction and / or improvement to the existing mitigation measures in the IF by referring to SOPs
- Step 2 : Complete the IF by filling in the required details i.e., budget (required or not), person in-charge, etc.
- Step 3 : Submit IF to EC for discussion and approval.
- Step 4 : Implement corrections and/or improvement when approval is acquired.
- Step 5 : Prepare the ESR report as an internal record.

Please note that, one (1) IF will be used to record one (1) non-compliance and/or improvement only.

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5.2.3 IF Reporting Frequency

Inspections is proposed to be carried out based on the following frequency for internal record. However, the frequency of site inspections is dependent on PPs.

Table 1: IF Reporting Frequency

Phase	Reporting Frequency
During preparation and operation	Monthly
During Abandonment	Once

5.2.4 ESR summary Record and Submission to EPD

After completing the IF form, all the completed form will be summarised under ESR report and format is as attached in **Annex 5**. The example of completing the ESR report is illustrated in **Annex 6**. The ESR summary report will be sent along with the environmental compliance report (ECR) where the submission frequency is based on the AEC.

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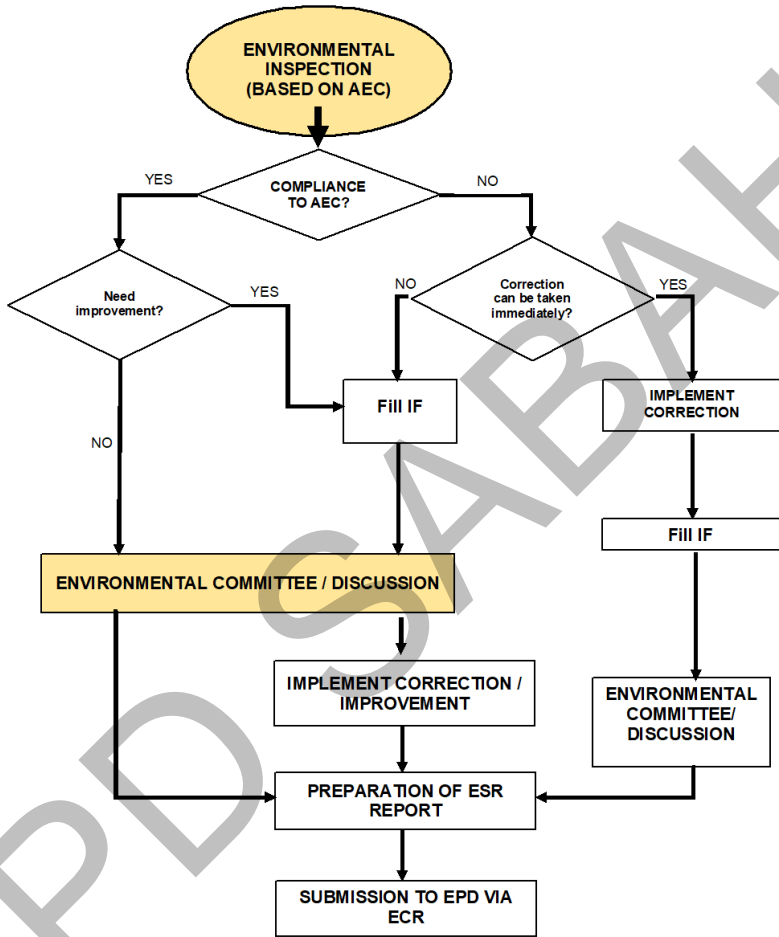


Figure 4: Flowchart for Environmental Self-Regulation (ESR) Reporting.

6 TRAINING

6.1 INTRODUCTION

Training should be organised for site workers, staff and Environmental Committee members to improve their knowledge on environmental protection as well as to ensure the environmental policy is properly implemented.

6.2 PROPOSED TRAINING PROGRAMME

The training programme focuses on site workers / staff and Environmental Committee members. Training can be conducted by Environment Protection Department personnel. Types of training are shown below:

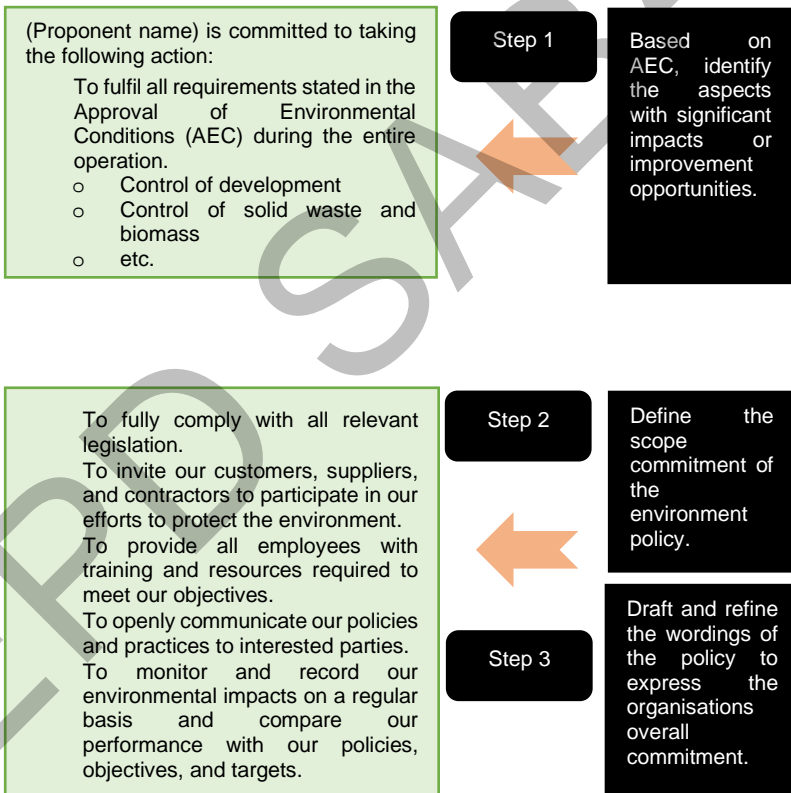
No.	Types of Training
1.	Understanding the importance of the content of Agreement of Environmental Conditions (AEC) to all site workers / staff and Environmental Committee members.
2.	Actual training on corrections and implementation at the field by referring to the AEC and SOPs.
3.	Training on the ESR Reporting process.

ANNEX 1: Example of Environmental Policy development.

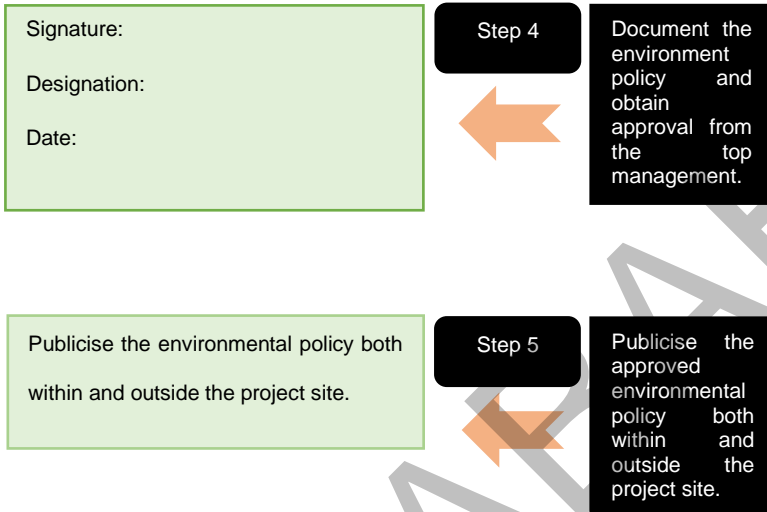
ORGANISATION NAME & LOGO

Environmental Policy

We recognise that our Sand and Rock Mining activity has an important role to play in protecting and enhancing the environment for future generations and to help secure the long-term sustainability of the Mining Industry.



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ANNEX 2: Example of the process for developing a budget.

Environmental Budgeting

Step 1: Identify Your non-compliance

Example Scenario: No flagpoles at the mineable area

Photo:



No flagpoles at the mineable area

No flagpoles were provided at the mineable area.

Step 2: Review what you need.

- Flagpoles need to be installed at the mineable area by refer Map as stated in AEC.
- Material needed: Labour charges, sinker, buoy, chain, and flagpoles.

Step 3: Define the costs.

- Cost needed to build and install buoy, sinker, chain, and flagpoles.

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Step 4: Create the Budget.

Expenses detail	Quantity	Amount (RM)	Total (RM)
Labour charge – 2 persons (Duration – 1 week)	4	500	2000.00
Sinker	4	200	800.00
Flag	4 pcs	45.00	180.00
Bouy	4	350.00	1400.00
Steel chain	4	100.00	400.00
TOTAL			RM 4,780.00

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ANNEX 3: Inspection Form (IF)

INSPECTION FORM	
Location <i>(Describe the location specifically)</i> :	Date:
GPS:	
Condition no.:	Category: CORRECTION IMPROVEMENT
EXPLANATORY REMARKS	
.....	
.....	
.....	
PROPOSED CORRECTION / IMPROVEMENT	
.....	
.....	
.....	
Issued by: Environmental Officer	
Date:	
TO BE FILLED AFTER COMMITTEE MEETING	
Budget: Required Not required	
Assigned to:	
Proposed Date to Start:	
Proposed Date of Completion:	
Prepared by: (Environmental officer)	
Date:	
Verified: (Manager)	
Date:	
Approval: (Chairman)	
Date:	

ANNEX 4: Example on completing the IF.

INSPECTION FORM	
Location (<i>Describe the location specifically</i>): Mineable area GPS:	Date: 10/07/2022
Condition no.: 5.1.4	Category: CORRECTION IMPROVEMENT
EXPLANATORY REMARKS	
No signage of flagpole was used to mark the mineable area boundary.	
PROPOSED CORRECTION / IMPROVEMENT	
Boundary of mineable area should be marked using flagpoles/ buoy/ other suitable marker. Corrective action to be taken within 2-months from the submission of this report.	
Issued by: Environmental Officer	
Date: 10/07/2022	
TO BE FILLED AFTER COMMITTEE MEETING	
Budget:	Required Not required
Assigned to:	Azman
Proposed Date to Start:	11/04/2022
Proposed Date of Completion:	14/04/2022
Prepared by: (Environmental officer)	
Date:	10/07/2022
Verified: (Manager)	
Date:	11/07/2022
Approval: (Chairman/Director)	
Date:	11/07/2022

ANNEX 5: ESR Report

ESR Report			
AEC ref. no.:			
Date of AEC:			
Project title:			
Reporting period:			
Prepared by:			
Date:			
No. Syarat (Condition No.)	Tindakan Pembetulan (Correction Action)	Tarikh Mula (Start Date)	Tarikh Siap (Completion Date)

Prepared by:	
Designation:	
Date:	
Company Stamp:	

ANNEX 6: Example in Completing the ESR Report

ESR Report			
AEC ref. no.:	JKAS/PP/04/600-1/05/7/2 (33)		
Date of AEC:	31 Julai 2003		
Project title:	River Stone Mining on Lots PT. XX along Sg. XX and Aggregate Crushing Facility on Lots Of CL.XX by XX at XX Sabah, Malaysia		
Reporting period:	April 2022		
Prepared by:	Mr. Azman		
Date:	20th April 2022		
No. Syarat (Condition No.)	Tindakan Pembetulan (Correction Action)	Tarikh Mula (Start Date)	Tarikh Siap (Completion Date)
5.1.4	Boundary of mineable area have marked using flagpoles	12/04/2022	13/04/2022

Prepared by:	Mr. Azman
Designation:	EO
Date:	14/04/2022
Company Stamp:	



EPD BAHK