



EFFECTIVENESS OF EMP

Jabatan Kerja Raya



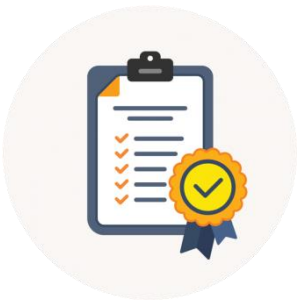
AGENDA

- **Audit and Monitoring Requirement**
- **Environmental Officer (EO)**
- **Common Environmental Issues**

Date: 18.02.2020

Presenter: Kevin Quah

Company: ERE Consulting Group



How to ensure compliance to environmental regulatory?

???
EMP
EIA



- Environmental Management System
- Environmental Risk of Premise
- **Environmental Regulatory Compliance**



Tool to assess compliance with environmental legislation;

ALL PROJECTS??



EIA Approval
Notification from DOE



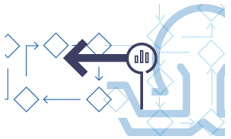
With CESSWI /CISEC



- Lead Auditor
- Audit Assistant

SITE INSPECTION

COLLECT SAMPLES



Conducting the Audit

INTERVIEW

DOCUMENTATION



Environmental Team on Site



Monitoring Records, SW inventory, EMP, ESCP, receipts, other approvals



ESCP, EMP, EIA COA



Water samples, etc



Requirement of Audit



STAGES OF PROJECT

SCOPE

FREQUENCY

Pre- Construction



Documentation – Approval



Before commencement of work on site

Construction

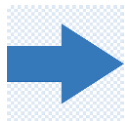


Documentation, Site



3 months once 4 months once
6 months once 12 months once

Operation



Documentation, Site



6 months once 12 months once Not required at all



Findings



Good Practices



Observation

Potential Non Compliance



NON-COMPLIANCE

Non Compliance

CORRECTIVE ACTION

Submit within 21 days
from the audit date



DOE State

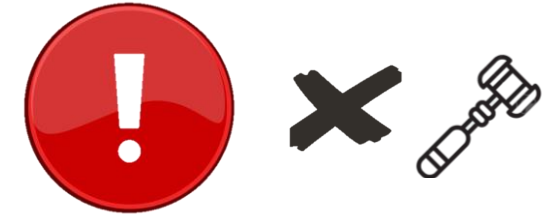
If cannot submit?

RECOMMENDED

Develop prelim idea for Proponent to provide expected level of corrective action

Provide a yardstick for DOE to gauge appropriateness of action taken by proponent

- Appropriate training
- Clear procedure
- Improving monitoring of environmental discharge / emission



Not legally binding recommendations

Final decision → PROJECT PROPONENT

Guided by



EIA COA

EMP

EQA 1974

ESCP

**Waste
Management**

**Sampling
Points**

**Generator Set
application**

**Air / Noise
pollution**

**Sanitation
Facilities**

**What do the Auditors
look for?**

**ESCP
/LDP2M2
measures**

Housekeeping

Documentation

**SW storage
area**

Oil and Petroleum storage





Waste Management

Scheduled Waste Management



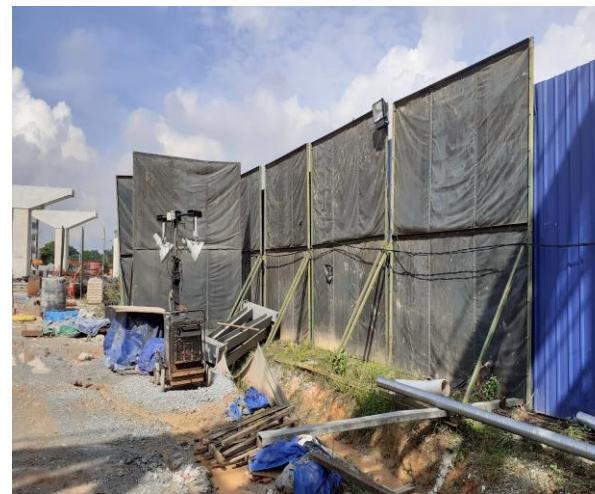


Best Practices

Machineries



Air / Noise Control Measures



15/12/2015 11:04



Best Practices

Sanitation Facilities & Housekeeping





Best Practices

Oil and Petroleum Products Storage





LDP2M2 MEASURES





Environmental Monitoring Requirement



PERFORMANCE MONITORING (PM)

- Precursor to indicate whether LDP2M2 is functioning as designed & effective
- Discharge from silt trap
- Inspection of earth drain, check dams, silt fence
- Weekly / after heavy rain events (> 12.5 mm)



IMPACT MONITORING (IM)

- To verify mitigation measures have been implemented to minimize impact beyond the project area
- River water monitoring
- Air, Noise, Vibration monitoring at sensitive receptors



COMPLIANCE MONITORING (CM)

- P2M2 implemented to comply with EIA COA
- Discharge from silt trap
- Emission discharge

PERFORMANCE MONITORING REPORT

WHY

Ensure Compliance & Effectiveness of Mitigating Measures



Environmental Monitoring Requirement

EARTH DRAIN					May 2019																														
LOCATION	DESCRIPTION	Plan	Actual	DESILTING / INSPECTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
ZONE 8		1&18/5		Desilting																															
ZONE 9		2&19/5		Desilting																															

Existing PBT Drain

LOCATION	DESCRIPTION	Plan	Actual	DESILTING / INSPECTION	April 2019																														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						
ZONE 8		9/5/2019		Desilting																															
ZONE 9		17/5/2019		Desilting																															

SILT FENCE

LOCATION	DESCRIPTION	Plan	Actual	MAINTENANCE / INSPECTION	May 2019																														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						
ZONE 1		10/11/2005		MAINTENANCE																															
ZONE 2		13-14/5		MAINTENANCE																															
ZONE 4		13-14/5		MAINTENANCE																															
ZONE 8		13-14/5		MAINTENANCE																															
ZONE 9		13-14/5		MAINTENANCE																															

SILT TRAP

LOCATION	DESCRIPTION	Plan	Actual	MAINTENANCE / INSPECTION	May 2019																														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						
ZONE 8		8/5/2019		MAINTENANCE																															
ZONE 9		12/5/2019		MAINTENANCE																															

SANDBAG

LOCATION	DESCRIPTION	Plan	Actual	MAINTENANCE / INSPECTION	May 2019																														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						
ZONE 1		11/5/2019		MAINTENANCE																															
ZONE 9		13/5/2019		MAINTENANCE																															

Sistem Online DOE yang Lain

PROFIL LAPORAN TUKAR KATA LALUAN LOG KELUAR

BAHAGIAN PENILAIAN
Environmental Impact Assessment (EIA) Section

Dokumen Panduan Hubungi Kami

Paparan Maklumat Laporan Pemeriksaan BMPs
Berikut merupakan maklumat lengkap mengenai Laporan pemeriksaan BMPs yang dijalankan.

Export to Hindi Export to Word Export to Excel

Kembali Tambah

LAPORAN PEMERIKSAAN BMPs
A. Pemeriksaan BMPs

Identifikasi

Nama Projek	Construction and Completion of Light Transit Rail Line 3 (LRT 3) From Bandar Utama to Johon Setia.
No. Rujukan Fail JAS	(R)B50/012/101/387
No. Rujukan Laporan	MCB/GS01/00091/2019
Laporan bagi Bulan	November
Laporan bagi Tahun	2019
Tarikh Pemeriksaan	26-11-2019
Masa Periksa	05:00 pm

Tolak Hujan

Bacaan Tolak Hujan	4 mm
Tempoh Hujan	1 jam
Bacaan Oleh	MUHAMMAD RASHIDAN BIN NAHMUD

Jadual 1 : Pemeriksaan BMPs (14 Rekod)

#	Jenis BMPs	Komponen Projek	BMPs Berfungsi	Cadangan Pembaikan	Tarikh Cadangan	Tarikh Slap	Gambar
1	SLOPE PROTECTION	Zone 1	Ya	BMPs berada dalam keadaan baik.			
2	SAND BAG	Zone 1	Ya	BMPs berada dalam keadaan baik.			
3	SILT FENCE	Zone 1	Ya	BMPs berada dalam keadaan baik.			



Environmental Monitoring Requirement

BMPs MAINTENANCE SCHEDULE

LOCATION DAY	WEEK 1							WEEK 2							WEEK 3							WEEK 4						
	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN
P16-29 to P17-23 (Kawasan 17 - Surau)	✓							✓							✓							✓						
P17-24 to P17-54 (Surau - Sepadu)		✓							✓							✓							✓					
P17-55 to P17-82 (Pasar - J.Meru)			✓							✓							✓							✓				
P18-01 to P18-35 (TM - BHP)				✓							✓							✓							✓			
P19-01 to P19-53 (BHP - Jambatan Kota)					✓							✓							✓							✓		
P20-01 to P21-10 (Jambatan Kota - Masjid)						✓							✓													✓		
P21-12 to P22-10 (Mosque - Traffic Light Batu Unjur)							✓							✓													✓	

Note : 1. Inspection to be carried out on weekly basis or after heavy rain event >12.5mm

2. Maintenance will be carried out once required after inspection done or if silt trap / sediment pond / silt fence reach 2/3 capacity of the existing level.

	Prepared by	Reviewed By	Approved By
Signature:			
Name:	Siti Zubaidah Ismail	Kalaiselvan Selvaraja	Hee Kee Sang
Designation :	Environmental Manager	Asst. General Manager - ESH	Project Director
Date:	30/1/2019	30/1/2019	30/1/2019

Inspection/Maintenance on all BMPs Structures and existing drain within ROW :

1. Silt Trap / Sediment Tank
2. Wash Trough / Washing Facilities
3. Sandbags / Silt Fence
4. Slope / Stockpile Protection
5. Earth / Perimeter Drain
6. Scupper Drain / Existing Drain

ESH Summary of Maintenance Record

Year: 2019

Location: Persiaran Kerjaya

No	Items	Date	Month : <u>JUNE</u>																														Location: Persiaran Kerjaya	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		31
1	Silt Trap		/			/										/			/				/											
2	Silt Fence							/	/															/			/	/		/	/			
3	Wash Trough						/	/			/								/			/			/					/	/			
4	Slope protection						/	/																										
5	Housekeeping					/	/	/	/			/	/	/	/						/	/	/											
6	Scheduled Waste Storage					/	/	/				/	/	/	/				/								/	/						
7	Access Road																																	
8	Stockpile						/	/																										
9	Drip Tray Maintenance					/	/				/	/	/	/				/																
10	Toilet Maintenance		/		/	/	/				/	/	/	/										/										
11	Water Spray for Dust Emission				/	/	/							/	/				/					/				/						
12	Open Burning																																	
13	Oil Spill Traces		/																															
14	Desilt earth drain		/																															
15	construct chute drain																																	

Note:

✓ : Maintenance done

x : Any issue (Please indicate in the remarks)

** To be attached with weekly inspection records with remarks

Prepared by:

Name: NURULAINI TAIB
Designation: ENVIRONMENTAL ASSISTANT
Date: 2/7/2019
WCT BERHAD

Verified by:

Name: ABDUL LATIF BIN AHMAD
Designation: ENVIRONMENTAL MANAGER
Date: WCT BERHAD



WHATS WRONG HERE & WHAT TO DO?





Who makes sure of the implementation of P2M2 on site?



- Responsible for implementation of LDP2M2 & EMP on site
- Daily inspection on BMPs (LDP2M2 components)
- Site meeting fortnightly with proponent & contractor
- Conduct in-situ measurement (ST discharge) within 30 min after rainfall
- Liaise with authority and provide assistance to team on env matters
- Responsible for day-to-day operation ensuring contractors comply with env requirements (EIA, EMP, authority's req)



COMPETENT

- **CISEC (Certified Inspector on Sediment and Erosion Control)**
- **CESSWI (Certified Erosion Sediment and Stormwater Inspector)**
- **Or Equivalent**

CERTIFIED PROFESSIONAL
ENVIRONMENTAL OFFICER IN
EIA PROJECT DEVELOPMENT
AND OPERATION
(CePEOEIA)

Manage aspects
of environmental
effectively

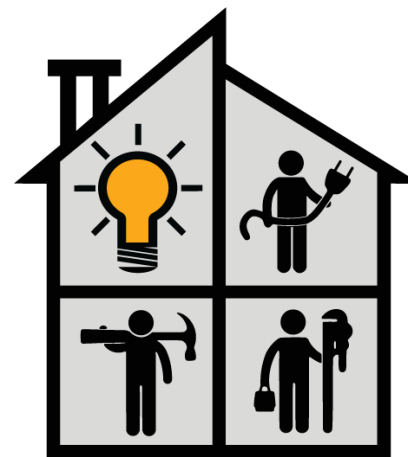
**Pre-Requisite:
CISEC, CESSWI**



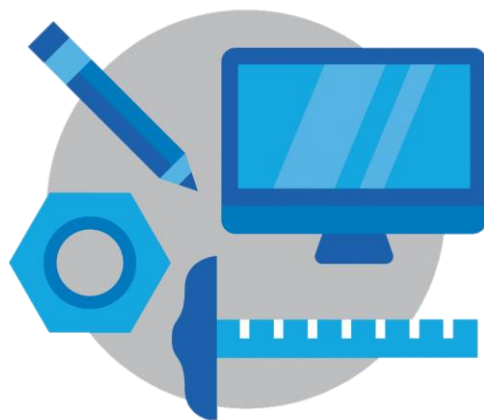
COMMON ENVIRONMENTAL ISSUES



Costing vs implementation of P2M2



Cooperating with
Contractors



Design vs Environment



Dealing with public