

Appendix B

Sample Forms for EM&A Programme

Sample Template for Interim Notifications of Environmental Quality Limits Exceedances

Incident Report on Action Level or Limit Level Non-compliance

Project	
Date	
Time	
Monitoring Location	
Parameter	
Action & Limit Levels	
Measured Level	
Possible reason for Action or Limit Level Non-compliance	
Actions taken / to be taken	
Remarks	

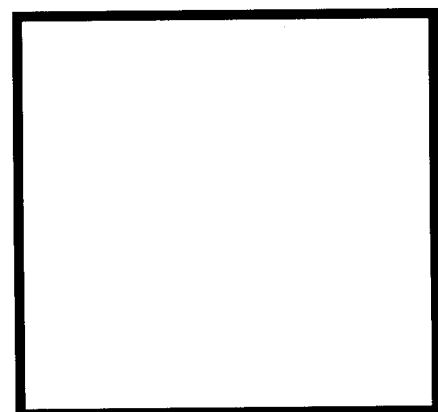
Location Plan

Prepared by : _____

Designation : _____

Signature : _____

Date : _____



Data Sheet for TSP Monitoring

Monitoring Location		
Details of Location		
Sampler Identification		
Date & Time of Sampling		
Elapsed-time Meter Reading	Start (min.)	
	Stop (min.)	
Total Sampling Time (min.)		
Weather Conditions		
Site Conditions		
Initial Flow Rate, Qsi	Pi (mmHg)	
	Ti (°C)	
	Hi (in.)	
	Qsi (Std. m ³)	
Final Flow Rate, Qsf	Pf (mmHg)	
	Tf (°C)	
	Hf (in.)	
	Qsf (Std. m ³)	
Average Flow Rate (Std. m ³)		
Total Volume (Std. m ³)		
Filter Identification No.		
Initial Wt. of Filter (g)		
Final Wt. of Filter (g)		
Measured TSP Level (µg/m ³)		

	<u>Name & Designation</u>	<u>Signature</u>	<u>Date</u>
Field Operator :	_____	_____	_____
Laboratory Staff :	_____	_____	_____
Checked By :	_____	_____	_____

Construction Noise Monitoring Field Record Sheet

Monitoring Location		
Description of Location		
Date of Monitoring		
Measurement Start Time (hh:mm)		
Measurement Time Length (min.)		
Noise Meter Model/Identification		
Calibrator Model/Identification		
Measurement Results	L ₉₀ (dB(A))	
	L ₁₀ (dB(A))	
	Leq (dB(A))	
Major Construction Noise Source(s) During Monitoring		
Other Noise Source(s) During Monitoring		
Remarks		

		<u>Name & Designation</u>	<u>Signature</u>	<u>Date</u>
Recorded By	:			
Checked By	:			

Operational Stage Traffic Noise Monitoring – Field Survey Record Sheet

General

Monitoring location/Reference No.	
Person-in-charge	
Date and Day of monitoring	
Measurement time	From to
Description of location (incl. floor level) (attach plan separately)	
Microphone position	

Weather Conditions

Weather conditions	
Temperature (°C)	
Wind speed (ms ⁻¹)	

Equipment

Instrument	Type	Serial No.	Setting
Sound level meter			
Calibrator			

Calibration

Before measurement:	After measurement:
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Raw Data

Time	Traffic data*				Noise level (30 min)				Average speed kph a/b c/d #
	Near side		Far side		dB(A)				
	LV	HV	LV	HV	L ₁₀	L ₉₀	L _{eq}	L _{max}	

Note: LV - light vehicle (i.e. private car, motorcycle, taxis and van)
 HV - heavy vehicle (i.e. other than LV)
 * - traffic count for a duration of 15 minutes
 # - a/b|c/d = near side LV/near side HV | far side LV/far side HV

Operational Stage Traffic Noise Monitoring – Field Survey Record Sheet (cont'd)

Others

Mitigation measures in place near measurement location	
Other noise source(s) during monitoring	
Remarks	

Personnel

	Name	Designation	Signature	Date
Recorded by				
Checked by				

Water Quality Monitoring Data Record Sheet

Location	
Date	
Start Time (hh:mm)	
Weather	
Sea Conditions	
Tidal Mode	
Water Depth (m)	
Monitoring Depth	
pH	
Salinity (mg/l)	
Temperature (°C)	
Turbidity (NTU)	
SS Sample Identification (mg/l)	
SS (mg/l)	
Observations	

Name & Designation

Signature

Date

Recorded By : _____

Checked By : _____

Note: The SS results are to be filled up once they are available from the laboratory.

Data format for water quality monitoring

A. The data base structure for water quality monitoring is listed below. The ET shall select the related field names to create their own data recording sheet.

field Name	type	width	dec	remark
project/contract ID				given by EPD
workArea ID				given by EPD
samStn				sampling Station
altitude		0		altitude of Sampling Station
longitude		0		longitude of Sampling Station
easting				K Grid (Easting) of Sampling Station
northing				K Grid (Northing) of Sampling Station
date				sampling Date
time				sampling Time
replicate				1 = first sample; 2 = duplicated sample; etc
stnPurpose				purpose of Sampling Station (C = control; I = Impact; S = Sensitive receiver; etc)
samPurpose				purpose of Sample (B = baseline; I = Impact)
weather		0		sunshine, precipitation, humidity, air temperature)
tideStatus		0		tidal Status (e.g mid_ebb; mid-flood)
waterDepth				depth of water column in meter
samDepthM				depth of sample taken in meter
samDepth				depth of sample taken (S=surface; M=middle; B=bottom)
waterTemp				water Temperature
salinity				
DO				dissolved Oxygen
DO%				dissolved Oxygen in % saturation
turbidity				
TSS				suspended solids
metals_T ...				total metals (approx. 7 parameters, and can be more)
metals_D ...				dissolved metals (approx. 7 parameters, and can be more)
trace organic ...				trace organic (e.g PAHs, PCBs etc.. can be a lot)
nutrients				nutrients (include several parameters such as NO ₂ -N, NO ₃ -N, H ₃ -N, TP, OP etc)

OD				
OD				
chlorophyll_a				
coli		0		
coliform		0		faecal coliform
ARA ...				other parameters not listed above. (Confirm with EPD individually)

(Remark: enter 999.99 to any numeric field that have no reading. Please note that "zero" is also a valid data)

B. Details of water analytical methods and detection limits for different parameters.

Parameter	Limits of detection for WQ parameters	Units of measurement for WQ parameters	Analytical methods
e.g. DO			
e.g. Cd_T			
etc ...			

C. Apart from A and B, the following information shall also be provided:

1. Project name, contract number, consultant name and telephone, contractor name, contact person and telephone number, site staffs and telephone.
2. Project commencement date and the proposed completion date, frequency of sampling and project work nature, e.g. dumping, dredging or reclamation.
3. List of site instrument for water quality monitoring.

Site Inseption Proforma

Ref: _____

Date	Location	Req't Ref.*	Observation/Deficiency	Mitigation Action** (Responsible Agency)	Date*** of Confirmation

- * *EIA Ref/EM&A Log Ref/Design Document Ref/Environmental Protection Contract Clause*
- ** *Specific Environmental Mitigation Measures should be stated, such as, equipment, processes, systems, practices or technologies.*
- *** *The required completion date to confirm the specified Environmental Protection Action*

This Proforma is an Environmental Protection Instruction for: _____ on _____

Signed by Environmental Team Leader: _____ Date: _____

Copy to Independent Environmental Checker

Proactive Environmental Protection Proforma

Ref: _____

Ref*	Proposed Construction Method**	Location/ Working Period	Anticipated Impacts	Recommended Mitigation Measures

* EIA Ref/EM&A Log Ref/Design Document Ref

** Details of equipment, vehicles, plants, processes, technologies for the option of construction method

Revised by Environmental Team Leader: _____

Date: _____

Approved by Independent Environmental Checker: _____

Date: _____

DATA RECOVERY SCHEDULE

Ref: _____

Date	Air Quality Monitoring					Noise Monitoring					Water Quality Monitoring				
	Monitoring Station*					Monitoring Location*					Monitoring Location*				
	A1	A2	A3	A4	A5	N1	N2	N3	N4	N5	W1	W2	W3	W4	W5
1															
2															
3															
4															
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26															
27															
28															
29															
30															
31															
% of R															

* *Remark type of parameters*
 % of R *The percentage of Data Recovery is the actual monitoring over the scheduled monitoring*

Signed by Environmental Team Leader: _____ Date: _____

Copy to Independent Checker (Environment)

REGULATORY COMPLIANCE PROFORMA

Ref: _____

Ref**	Environmental License/Permit*	Control Area/Facility/Location	Effective Date

* *Name of Applicant, Business Corporation, relevant regulation and remark of license/permit conditions*

** *File reference of the licensee/permittee*

Recorded by Environmental Team Leader: _____

Date: _____

Signed by Independent Checker (Environment): _____

Date: _____

COMPLAINT LOG

Ref: _____

Log Ref	Date/Location	Complainant/ Date of Contact	Details of Complaint	Investigation/Mitigation Action	File Closed

Filed by Environmental Team Leader: _____

Date: _____