

ISSUE_1

Proposal on Reporting Mechanism

Agreement No. CE 59/2017 (EP)
Independent Environmental Checker for Tung
Chung New Town Extension - Investigation

B&V PROJECT NO. 198377
B&V FILE NO. 198377.42.0001

PREPARED FOR



土木工程拓展署
Civil Engineering and
Development Department

25 MAY 2018

[illegible]

Table of Contents

1.0	INTRODUCTION	1
1.1	BACKGROUND.....	1
1.2	PROJECT DESCRIPTION	1
1.3	OBJECTIVE OF THE REPORT.....	1
2.0	DUTIES OF THE IEC.....	3
2.1	OVERVIEW.....	3
3.0	ORGANISATION OF THE IEC AND ITS SUPPORTING TEAM	4
3.1	ORGANISATION CHART	4
3.2	DUTIES OF KEY STAFF AND SPECIALIST TEAM.....	4
4.0	PROPOSED REPORTING MECHANISM.....	6
4.1	OVERVIEW.....	6
4.2	DISCHARGE OF ROUTINE DUTIES	6
	<i>Document and Data Verification.....</i>	<i>6</i>
	<i>Compliance with the Event and Action Plan.....</i>	<i>7</i>
	<i>Site Inspections and Audits.....</i>	<i>7</i>
	<i>Attend meetings.....</i>	<i>8</i>
	<i>Offer objective and professional advice on environmental issues.....</i>	<i>8</i>
	<i>Report to the CEDD and the DEP.....</i>	<i>9</i>
4.3	HANDLE EACH AND EVERY CHANGE OF CIRCUMSTANCES, EMERGENCY EVENTS RELATING TO VIOLATION OF ENVIRONMENTAL LEGISLATION	9
4.4	PROPER RECORDS KEEPING AND REPORT AND INFORMATION TRANSFER MECHANISM.....	10
5.0	REVIEW OF THE REPORTING MECHANISM.....	14
COMPLIANCE CHECKLIST FOR THE PROPOSAL ON REPORTING MECHANISM		

List of Tables

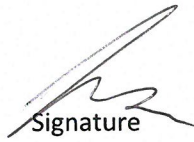
Table 4.1	Methodologies on Discharging Duties listed in the Environmental Permit	11
-----------	--	----

List of Figures

Figure 3-1	Organization Chart	4
------------	--------------------------	---



Prepared by:


Signature

Ivan Ting

Printed Name

25 May 2018

Date

Reviewed by:


Signature

Manuel Chua

Printed Name

25 May 2018

Date

Approved by:


Signature

Amy Cheung

Printed Name

25 May 2018

Date

1.0 Introduction

1.1 BACKGROUND

- 1.1.1 Black & Veatch Hong Kong Limited (B&V) was commissioned by Civil Engineering and Development Department (CEDD) on 27 February 2018 to undertake the Independent Environmental Checker (IEC) services as required and/or implied, both explicitly and implicitly, in the Environmental Permit (EP), Environmental Impact Assessment Report (EIA Report) and Environmental Monitoring and Audit Manual (EM&A Manual) for the Tung Chung New Town Extension Project (TCNTE).

1.2 PROJECT DESCRIPTION

- 1.2.1 TCNTE (the Project) at Tung Chung East (TCE) and Tung Chung West (TCW) was a Designated Project under Schedule 3 of the Environmental Impact Assessment Ordinance (EIAO). TCNTE also consists of various Schedule 2 Designated Projects under the EIAO. This includes the planned reclamation at TCE and for the proposed Road P1 (Tung Chung – Tai Ho Section), marina, distributor roads at TCE and TCW, revitalisation of an existing channelized section of Tung Chung Stream, in which a River Park would be formed and provision of sustainable urban drainage systems (SUDS) at TCW.
- 1.2.2 The scope of TCE includes reclamation, site formation and engineering infrastructure works (including construction of Road P1) for the developments of TCE, provision of salt water supply to TCNT and Siu Ho Wan (SHW) topside and infrastructure works in the existing TCNT.
- 1.2.3 The scope of TCW includes site formation works, decontamination works, engineering infrastructure works for the developments of TCW, Ma Wan Chung improvement works, engineering infrastructure improvement works, road works and construction of River Park and Town Park.
- 1.2.4 The statutory EIA for TCNTE was carried out and the EIA Report (Register No. AEIAR–196/2016) was approved with condition on 8 April 2016 under the EIAO. The EIA has identified and assessed the potential environment impacts arising from the project including air quality, noise, water quality, sewerage and sewage treatment implications, waste, land contamination, landscape and visual, ecology, fisheries and cultural heritage. Following the approval of the EIA Report, the Environmental Permit (EP) (EP No.: EP-519/2016) was granted on 9 August 2016.

1.3 OBJECTIVE OF THE REPORT

- 1.3.1 This proposal was prepared in respond to the Condition 2.8 of the EP, which stated that the IEC shall submit a proposal, no later than 3 weeks before the commencement of the construction of the Project, on the reporting mechanism covering the approaches for the IEC and the team to report to the Director of Environmental Protection (the DEP) on the following aspects:
- (i) How to discharge all the duties specified under the EM&A programme and the EP, taking into account the construction activities and programme of the Project;

-
- (ii) How to handle each and every change of circumstances, emergency events relating to violation of environmental legislation (such as illegal dumping and landfilling relating to the Project) or non-compliance (including suspects of non-compliance) with the recommendations (such as construction methods, mitigation measures, and environmental standards) of the EIA Report, the updated EM&A Manual and the EP, which might affect the monitoring or control of adverse environmental impacts from the Project; and
 - (iii) How to keep proper records in order to respond to questions and enquires from the Director of Environmental Protection (DEP) on the EM&A programme and duties discharged by the IEC.

2.0 Duties of the IEC

2.1 OVERVIEW

2.1.1 The IEC shall oversee the EM&A programme of the Project in accordance to the updated EM&A Manual and the EP. In summary the duties of the IEC shall comprises of the following tasks:

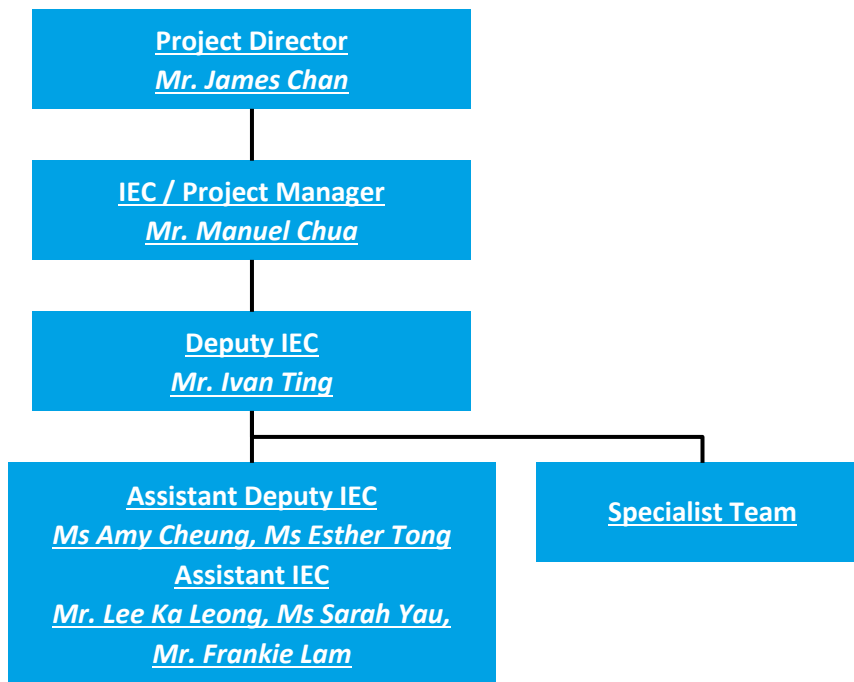
- (i) To verify the qualifications of the Ecologist (EP Condition 2.5) and Surveillance Team (EP Condition 2.6) appointed for this Project;
- (ii) To review the overall EM&A performance of the Project, including the performance of the Environmental Team (ET) and the Contractor;
- (iii) To audit and review the environmental monitoring results, including the accuracy of the monitoring results, monitoring equipment, monitoring locations, monitoring procedures and locations of the sensitive receivers;
- (iv) To review and verify the environmental acceptability of permanent and temporary works, relevant plans and submissions required in the updated EM&A Manual and under the EP, including the logbook(s) kept by the ET on-site;
- (v) To conduct site audits and inspections;
- (vi) To conduct site audits and inspections and attend meetings with the DEP when necessary;
- (vii) To offer objective and professional advice on environmental issues, when requested, and to respond to questions and enquires from the EPD on the EM&A programme and duties discharged by the IEC, with the support of relevant information, documents and records as appropriate;
- (viii) To ensure the mitigation measures recommended in the EIA Report and the updated EM&A Manual have been properly implemented in a timely manner;
- (ix) To review the mitigation measures submitted by the Contractor in accordance with the Event and Action Plans, and ensure the proposed mitigation measures have been properly implemented;
- (x) To liaise closely with the DEP, and to notify the DEP by fax or email, within one working day of receipt of notification from the ET Leader, or identification by the IEC and his team, of each and every change of circumstances and emergency events mentioned in EP Condition 2.8(ii);
- (xi) To report the findings to the ET, the Engineer Representative (ER), the CEDD and the DEP.

3.0 Organisation of the IEC and its Supporting Team

3.1 ORGANISATION CHART

3.1.1 The organization chart is presented in **Figure 3-1**.

Figure 3-1 Organization Chart



3.2 DUTIES OF KEY STAFF AND SPECIALIST TEAM

- 3.2.1 Condition 2.7 of the EP required that a single full time on-site IEC with a supporting team shall be deployed for the project. Full time on-site IEC is defined as the IEC shall be at the project site during office hours. Project site refers to all areas that host operations related to the project, including construction works sites, marine vessels, meeting with stake holders related to the project, or other works sites outside the project area where applicable, e.g. sensitive receivers, monitoring locations, or off site works area, e.g. a public sorting facility, a waste treatment facility, or a casting yard, that are operated by the contractor.
- 3.2.2 As such, during the construction works, an IEC shall maintain his presence at the site. Should the IEC cannot attend the site, for example due to sickness, annual leave, etc, the IEC or deputy IEC shall inform the EPD, CEDD, ET and RE as soon as possible.
- 3.2.3 During IEC absence, deputy IEC shall take up his role and attend on site duties assigned to the IEC. Deputy IEC will carryout all duties of the IEC, including sign off documents on his behalf.
- 3.2.4 Key staffs and specialist team of the project team are presented below:
- (i) **Project Director** will oversee the operation of the IEC Team and ensure that adequate professional, technical and administrative resources are allocated to the team to carry out its duties as stipulated in **Section 2.0**.

-
- (ii) **IEC / Project Manager** will be responsible for day-to-day management and conduct the duties of the IEC as stipulated in **Section 2.0**. He will be the main coordinator between various parties of the project, including the CEDD, the EPD, the ET, the Contractors, other Government Departments and other related stakeholders. He will also liaise with the support team to provide necessary support when necessary.
 - (iii) **Deputy IEC** will be stationed on-site full-time and is responsible to take up the role of the IEC in his absence as discussed in **Section 3.2.2**. He will conduct all tasks assigned to the IEC.
 - (iv) **Assistant Deputy IEC** will act as reserve in case both the IEC and Deputy IEC are not available on site. The assistant deputy IEC will conduct all tasks assigned to the IEC during the period.
 - (v) **Assistant IEC** will conduct site inspections, independent environmental data measurements and other document review, preparation of the audit reports tasks when necessary.
 - (vi) **Specialist Team** will provide specialist support for this Project to address key environmental aspects (including air quality, noise, water quality, ecology, landscape and visual, waste management, cultural heritage and land contamination) and / or engineering aspects of the TCNTE works.

4.0 Proposed Reporting Mechanism

4.1 OVERVIEW

4.1.1 The reporting mechanism for the Project is proposed in this section. The duties of the IEC for this Project can be summarised in the following aspects:

- (i) Document and data verification, for all submissions under the updated EM&A Manual and the EP, which may include, qualifications for the appointment of Ecologist and Surveillance Team, on-site logbooks, site audit checklists, GPS data received from contractors, and others necessary submissions;
- (ii) Conduct tasks defined in the Event and Action Plans of the updated EM&A Manual where applicable, and check the mitigation measures submitted by the Contractor in accordance with the Event and Action Plans;
- (iii) Site inspections and audits, either accompanying DEP or not, scheduled or ad-hoc, or other site inspections required for the EM&A programme;
- (iv) Attend meetings, including the scheduled Site Safety and Environmental Management Committee (SSEMC) meetings, liaison meeting with CEDD, ET, ER and Contractors regarding to the EM&A programme implementation, liaison meeting with stakeholders and other Government Departments, etc;
- (v) Offer objective and professional advice on environmental issues and the EM&A works performed by the ET; and
- (vi) Report to the CEDD and the DEP, including the monthly submission of the Monthly Audit Report (MA Report), notification to DEP of each and every instance or circumstance or change of circumstances, and other submissions prepared by the IEC for the EM&A Programme.

4.1.2 The detailed methodology on discharging the duties mentioned above are given in **Section 4.2** to **Section 4.4**. **Table 4.1** summarised the actions in table for easy reference.

4.2 DISCHARGE OF ROUTINE DUTIES

4.2.1 As discussed in **Section 4.1**, the duties of IEC can be divided into six main categories. The proposed routine to discharge these duties will be discussed as follows.

Document and Data Verification

4.2.2 All submissions under the updated EM&A Manual and the EP, which include, qualifications for the appointment of Ecologist and Surveillance Team, Waste Management Plan, Dolphin Watching Plan, Silt Curtain Deployment Plan, site audit checklists, GPS data received from contractors, and others necessary submissions, shall be received via e-mail with or without a hard copy. If no soft copy is given, the reports will be scanned as .PDF files by the IEC Team.

4.2.3 Response for each document submitted shall be completed within five working days upon receive. Monthly EM&A Report shall be commented or verified within two working days.

4.2.4 Verification letters will be printed for signature. Signed letter will be saved and recorded on site for record.

- 4.2.5 On-site logbook kept by ET as required by the EP Condition 2.3(v) shall be inspected on a weekly basis. Any instance or circumstance or change of circumstances will be acknowledged by signature onto the logbook, and no soft copy will be kept. Other documents kept on-site on similar manner, if any, will be treated in the same way.
- 4.2.6 Environmental monitoring data will be audited by the IEC once per month, additional audits may be conducted where necessary. The IEC will collect one random water samples during routine water quality monitoring to conduct independent environmental testing on Total Suspended Solids to verify the monitoring result collected by the ET. Other environmental monitoring conducted by direct reading method, including Noise, Construction Dust, Turbidity and Dissolved Oxygen for Water Quality, etc, IEC will verify the equipment used on site are calibrated.

Compliance with the Event and Action Plan

- 4.2.7 Exceedance on monitoring results, including Noise, Construction Dust, Water Quality, etc, will be recorded by the ET, and ET shall inform IEC, contractor and ER in accordance to the updated EM&A Manual. Upon receive of any exceedance event, IEC shall carry out the actions specified in the Event and Action Plan of the EM&A Manual, and upon receive of mitigation measures proposed by the contractor, to review and verify the effectiveness of the proposed mitigation measures.
- 4.2.8 Where necessary, IEC shall discuss with relevant parties and specialists, including Contractor, ET, RE, and the specialist team as discussed in **Section 3.0**, before verifying the mitigation measures. Ad-hoc site inspections shall be arranged to ensure the mitigation measures proposed, including additional watering, maintenance of silt curtain, noise mitigation, etc, have been properly implemented and exceedances have been mitigated.
- 4.2.9 Verification of monitoring data will be conducted whenever an exceedance has been recorded. Further ad-hoc inspections shall be arranged where necessary.
- 4.2.10 ET shall conduct investigation and submit an Investigation Report on each exceedance event, IEC will verify the report and include any additional proposal or recommendations as necessary before the submission to EPD by ET.
- 4.2.11 Environmental complaints are in normal case be directed to EPD, ER, Contractor or ET and responded in accordance to the Complaint Management Plan submitted under Condition 2.1 of the EP. In special cases where the complaints were received by IEC directly, IEC shall forward the complaint to ER and ET such that they will conduct investigation as specified in the plan. The complaint will also be at the same time forwarded to CEDD and EPD for their record.

Site Inspections and Audits

- 4.2.12 Site inspections and audits will either be a scheduled one, or an ad-hoc one. Scheduled site inspections are monthly site inspections and audits arranged by ET, ER, CEDD or EPD, for example, Site Safety and Environmental Management Committee (SSEMC) shall hold a joint site inspection once per month for each contract. IEC Team will assign staff to conduct the scheduled site inspections and audits where necessary.

- 4.2.13 Ad-hoc site inspections and audits may be arranged if there is exceedance event identified, or improvement on mitigation measures is proposed, or instance or circumstance or change of circumstances has been identified, to ensure the Contractor comply with the proposed actions. Ad-hoc site inspections initiated by other parties, including EPD or ET, will be facilitated as far as possible.
- 4.2.14 After site inspections and audits, an IEC Site Inspection Report will be generated. The report shall include information including the date and time of the inspections, works area inspected, respective contracts, will be recorded. The report will include the implementation status of the mitigation measures (e.g. waste management, dust control, noise mitigation, water quality protection etc), any observation and/or deficiency (tire track outside the construction site, oil leakage, deviation from the mitigation measures in the approved plans etc) identified during the inspection, and any mitigation measures proposed in response to the observations. Photo records will also be included for reference. The IEC Site Inspection Report will be submitted to CEDD and EPD and sent to the Contractor, ET, and ER for their record.
- 4.2.15 Site inspection and audits will be conducted at least twice a month. Additional audits will be conducted when necessary. IEC Site Inspection Report will be submitted to CEDD and EPD and sent to the Contractor, ET, and ER for their record for each site inspection and audit conducted before the end of the next working day.

Attend meetings

- 4.2.16 Meetings to be attended by IEC would include the scheduled Site Safety and Environmental Management Committee (SSEMC) meetings, liaison meeting with CEDD, ET, ER and Contractors regarding to the EM&A programme implementation, liaison meeting with stakeholders and other Government Departments, etc.
- 4.2.17 Once the schedule of the meeting is proposed, the IEC will discuss with the host and other parties to understand the purpose of the meeting, and the role of the IEC in the meeting.
- 4.2.18 When necessary, the IEC will collect necessary information and prepare a presentation for the meetings. Meeting minutes will not be prepared by IEC.
- 4.2.19 During special periods, e.g. during initial stage of a new construction contract, additional meetings with EPD may be required. Where necessary, increased frequency of regular meetings with EPD will be conducted.

Offer objective and professional advice on environmental issues

- 4.2.20 IEC Team will take a proactive approach when offering advices on environmental issues. During the routine inspection and independent environmental data measurements as discussed in **Section 4.2.6**, the IEC Team may identify environmental issues or identify potential risks, for example a new type of construction works (e.g. piling) to be commenced that may lead to environmental issues (e.g. noise, dust impact). The IEC Team shall then evaluate the potential risks of the issues, including the likeliness of exceedance, additional nuisance, potential breaching of environmental legislation etc, and propose suitable mitigation measures, including implementing additional mitigation measures, or apply for appropriate license, etc. The IEC Team will constantly review the data collected and

conduct ad-hoc site inspections where necessary, and report the findings to the CEDD and the EPD by the end of the next working day.

- 4.2.21 The review will be conducted throughout the EM&A Programme. CEDD and EPD will be notified whenever any advice has been proposed. Formal conclusion or suggestion, e.g. propose site scheduling of works to avoid cumulative impact, use of additional mitigation measures, or license application including variation of the EP, will be presented in the MA Report.

Report to the CEDD and the DEP

- 4.2.22 Routine submission including MA Report will be submitted to CEDD on a monthly basis. The Report will be prepared in accordance to the template agreed with CEDD. The MA Report will be copied to EPD as a routine reporting mechanism.
- 4.2.23 During the reporting month, IEC will conduct independent environmental data measurements as discussed in **Section 4.2.6**. The results will be compared against the results obtained by the ET. The comparison will be sent to CEDD and DEP via the MA Report.
- 4.2.24 The IEC Team will also review the EM&A works performed by the ET by reviewing the monitoring data collected by ET. Whenever the latest monitoring result is available, IEC Team will review and compare against previous results to assess the EM&A performance of the ET. Findings will be provided monthly and presented in the MA Report.
- 4.2.25 In addition, IEC shall in constantly contact with CEDD and EPD on any circumstances or observations. As such informal communications would be achieved whenever convenient, especially when any circumstances have been suspected.

4.3 HANDLE EACH AND EVERY CHANGE OF CIRCUMSTANCES, EMERGENCY EVENTS RELATING TO VIOLATION OF ENVIRONMENTAL LEGISLATION

- 4.3.1 On every instance or circumstance or change of circumstances which may affect the compliance with the recommendations of the EIA Report or the EP, ET shall be responsible to notify IEC within one working day. IEC may also identify any instance or circumstance during their routine inspections and audits. Upon receive of notification from ET, or identified by the IEC during inspection and audits, IEC shall discuss with ET, ER and contractor on the instance and conduct site inspection where necessary.
- 4.3.2 The notification to EPD, together with the associated IEC Site Inspection Report, if available, will be generated and be sent to the Contractor, ET, ER, CEDD and EPD by the end of the next working day upon receive of such notification.
- 4.3.3 Should events relating to violation of environmental legislation, or least having EP liability, is observed, such events will be classified as emergency issues and will be addressed immediately. IEC Team member responsible for the identification of the event will immediately report to the IEC. The IEC will immediately determine if the event would contribute to violation of the EP and if the event has no EP liability, then the event will be recorded in the respective IEC Site Inspection Report.

- 4.3.4 If violation of environmental legislation is suspected, respective photo record will be sent to the Contractor, ET and ER immediately for further investigation. CEDD and EPD will also be notified by e-mail immediately. Event investigation will be conducted as soon as possible, and an Event Investigation Report will be prepared. The Event Investigation Report will be delivered to ET, ER, and Contractor for review, and subsequently submit to CEDD and EPD.

4.4 PROPER RECORDS KEEPING AND REPORT AND INFORMATION TRANSFER MECHANISM

- 4.4.1 To achieve an environmental friendly EM&A Programme, facsimile as a communication channel will be avoided as far as possible. E-mail will be the main communication channel to minimise printing. All submissions will be delivered by e-mail until formal submission, where hardcopies will be printed in accordance to the specific requirement.
- 4.4.2 Soft copy of all received submissions will be saved under the respective category, and the received document will be logged under the document log file and actions required, including review, comment, verify, record only, will be assigned. The IEC Team will then review the document, seeking for professional review / advisory if required, and provide a comment on the report. If no comment is required, a verification letter will be released.
- 4.4.3 The comment will be saved with the received document in the same folder for easy reference. Further updates will be divided into different folder to avoid confusion.
- 4.4.4 A document index log will also be created and the respective receive date, action required, and response date will be recorded for all documents received from the ET, the Contractor, or other parties. This will allow the IEC team to quickly review if any response to submission was outstanding and required immediately action.
- 4.4.5 Site audit reports and monitoring data obtained from site inspections, independent environmental data measurements will also be saved under the folder of respective reporting month.
- 4.4.6 All submitted documents, correspondences, reports, and received reports, information, data, etc will be saved on a computer located on-site. The documents will be organised under a file system implemented for the project. This filing mechanism will enable the IEC to retrieve necessary information quickly for a specific incident.
- 4.4.7 On request by EPD, CEDD, ET or ER, required information will be extracted and sent to the requested party where appropriate.

Table 4.1 Methodologies on Discharging Duties listed in the Environmental Permit

Actions	Objectives of the Action	Timing / Frequency	Response Turnaround time	EP Condition
Routine Duties				
<u><i>Document Verification / Inspection</i></u>				
Submission Verification	Verification of all submissions to EPD pursuant to EM&A Manual requirements, EP Conditions and other submissions	Whenever a submission is received for verification	5 working days (2 working days for Monthly EM&A Report)	2.8(i), 1.9, 2.5, 2.6, 3.2, 3.4, 3.5
Verification of on-site logbook (EP 2.3 (v))	Inspect and acknowledgement of the on-site logbook required under EP Condition 2.3 (v) prepared by ET	Once monthly minimum, or when occurrence of an instance or circumstance or change of circumstances, which may affect the compliance with the recommendations of the approved EIA Report (AEIAR-196/2016) and the EP	1 working day	2.8(i), 2.9(iii)
Checking of other data (GPS records, waste flow table, site inspection checklists, etc)	Inspect and verify all data collected by ET and Contractor during the Project progress	At least once per month, or whenever the data was received from respective parties	5 working days	2.8(i), 2.9(i)
Verification of environmental monitoring data	To verify the data collected by ET through independent environmental monitoring and verification	Once monthly minimum, or when necessary including event of exceedance, receive of complaints, etc	Not Applicable	2.8(i), 2.9(i)
<u><i>Compliance with the Event and Action Plan</i></u>				
Conduct necessary actions specified within the Event and Action Plan in the EM&A Manual and its revisions	To fulfil the tasks required by the EM&A Manual	Whenever an exceedances or other events that triggers the Event and Action Plan	Not Applicable	2.8(i), 3.3(iii)

Actions	Objectives of the Action	Timing / Frequency	Response Turnaround time	EP Condition
<u><i>Site Inspections and Audits</i></u>				
Scheduled site inspections and audits	To take part in the routine site inspections and audits including Site Safety and Environmental Management Committee (SSEMC), and those initiated by ET, ER, CEDD, or EPD	Minimum once per month. Additional site inspections and audits may be required as requested by ET, ER, CEDD or EPD, where necessary	1 working day (submission of IEC Site Inspection Report)	2.8(i), 2.9(i), 2.9(vi)
Ad-hoc site inspections and audits	To conduct additional site inspections and audits to supplement the EM&A Programme when necessary	Minimum twice per month. Additional site inspections and audits may be required as requested by ET, ER, CEDD or EPD, where necessary	1 working day (submission of IEC Site Inspection Report)	2.8(i), 2.9(i), 2.9(vi)
Any site inspection initiated by the Director of EPD	To conduct additional site inspections and audits with the Director of EPD	Upon requested by the Director of EPD	1 working day (submission of IEC Site Inspection Report)	2.8(i), 2.9(i), 2.9(vi)
<u><i>Attend Meetings</i></u>				
Attend SSEMC meetings, liaison meetings, and other meetings	To provide opinion and discuss any issues raised within the meeting	Whenever a meeting is necessary is arranged	Not Applicable	N/A
Attend meetings with the Director of EPD	To provide opinion and discuss any issues raised within the meeting	Whenever a meeting is necessary is arranged	Not Applicable	2.8(i), 2.9(vi)
<u><i>Offer objective and professional advice on environmental issues</i></u>				
Offer objective and professional advice on environmental issues	To offer objective and professional advice on environmental issues, with the support of relevant information, documents and records as appropriate	When requested	Not Applicable	2.8(i), 2.9(vii)

Actions	Objectives of the Action	Timing / Frequency	Response Turnaround time	EP Condition
<u>Report to the CEDD and the DEP</u>				
Monthly Progress Report	To provide a summary on the actions conducted by the IEC and also provide observation and recommendations on the EM&A works performed by the ET	Once per month	Not Applicable	N/A
Handle Each and Every Change of Circumstances, Emergency Events Relating to Violation of Environmental Legislation				
Inform EPD on each changes of circumstances, emergency events relating to violation of environmental legislation	To inform EPD on the changes of circumstances, emergency events relating to violation of environmental legislation	Whenever a change of circumstances, emergency events relating to violation of environmental legislation is received or observed	One working day after notified by ET, or when identified by IEC	2.8(ii)
Discussion with ET, ER and contractor	To obtain more information related to the changes of circumstances, emergency events relating to violation of environmental legislation	Whenever a change of circumstances, emergency events relating to violation of environmental legislation is received or observed	One working day after notified by ET, or when identified by IEC	2.8(ii)
Conduct Ad-Hoc site inspection at the works site reported	To obtain more information related to the changes of circumstances, emergency events relating to violation of environmental legislation	Whenever a change of circumstances, emergency events relating to violation of environmental legislation is received or observed	One working day after notified by ET, or when identified by IEC	2.8(ii)
Proper Records Keeping and Report and Information Transfer Mechanism				
Saves soft copy of files in a computer on site	To record all received and released documentations for the Project on site	Whenever a document is received or released	Not Applicable	2.8(iii)
Retrieve relevant information and send to EPD via e-mail	To provide information to EPD upon request	Whenever a request was received from EPD	2 working days	2.8(iii)

5.0 Review of the Reporting Mechanism

- 5.1.1 When considered appropriate by the IEC or EPD, the reporting mechanism would be adjusted. IEC shall review and update the reporting mechanism in consultation with EPD, to suit the changing project situation.
- 5.1.2 As such, the reporting mechanism detailed in this proposal shall be reviewed regularly upon commencement of construction works. Should the mechanism shall be optimised, the IEC shall propose the revision in the Monthly Audit Report to notify CEDD and EPD. This proposal shall then be updated and delivered to CEDD and EPD in the next reporting month for acceptance.

- END OF TEXT -

Compliance Checklist for the Proposal on Reporting Mechanism

Clause in the Updated EM&A Manual	Corresponding Clause in this Proposal
Section 3.1 Project Organisation	
Review the EM&A works performed by the ET (at not less than monthly intervals);	2.1.1(ii), 4.1.1(ii), 4.1.1(iii)
Audit the monitoring activities and results (at not less than monthly intervals);	2.1.1(ii), 2.1.1(iii)
Validate and confirm the accuracy of monitoring results, monitoring equipment, monitoring locations, monitoring procedures and location of sensitive receivers;	2.1.1(iii), 4.1.1(i)
Report the audit results to the ER and EPD in parallel;	2.1.1(xi)
Review the EM&A reports (monthly and quarterly summary reports) submitted by the ET;	4.1.1(i)
Review the proposal on mitigation measures submitted by the Contractor in accordance with the Event and Action Plans;	2.1.1(iv), 2.1.1(viii), 2.1.1(ix), 4.1.1(i), 4.1.1(ii)
Check the mitigation measures submitted by the Contractor in accordance with the Event and Action Plans;	2.1.1(ii), 2.1.1(v), 2.1.1(viii), 2.1.1(ix), 4.1.1(i), 4.1.1(ii), 4.1.1(iii)
Check the mitigation measures that have been recommended in the EIA and this Manual, and ensure they are properly implemented in a timely manner, when necessary; and	2.1.1(ii), 2.1.1(v), 2.1.1(viii), 4.1.1(ii), 4.1.1(iii)
Report the findings of site inspections and other environmental performance reviews to ER and EPD.	2.1.1(x), 2.1.1(xi)
Section 4.2 Environmental Management Plan	
The ER and the IEC will audit the implementation status against the EMP and advise the necessary remedial actions required.	2.1.1(ii), 2.1.1(v), 4.1.1(iii)
The review of on-site environmental performance shall be undertaken by ER and IEC through a systematic checklist and audit once the construction works commences.	2.1.1(ii), 2.1.1(v), 4.1.1(iii)
5.6 Laboratory Measurement / Analysis	
IEC shall regularly audit to the measurement performed by the laboratory to ensure the accuracy of measurement results.	2.1.1(iii), 4.1.1(i)

Clause in the Environmental Permit	Corresponding Clause in this Proposal
<i>Employment of Qualified Ecologist(s)</i>	
2.5 The Permit Holder shall, no later than 3 months before the commencement of the construction of the Project, appoint Qualified Ecologist(s) to form part of the ET to carry out work relating to ecological aspects including but not limited to dolphin monitoring, amphibian monitoring, and post-planting/transplanting monitoring and to prepare submissions for the Project as required under Conditions 2.13 to 2.22 respectively. Each Qualified Ecologist shall be a person who has at least 5 years of relevant experience. The qualification and experience of the Qualified Ecologist(s) shall be certified by the ET Leader and verified by the IEC.	2.1.1(i), 4.1.1(i)
<i>Employment of Surveillance Team</i>	
2.6 The Permit Holder shall, no later than 3 months before the commencement of construction of the Project, employ a Surveillance Team to form part of the ET to conduct regular site inspections to identify and report immediately to the IEC, the ER and the Director on suspected illegal dumping and landfilling of construction and demolition (C&D) materials within the Project site throughout the construction phase. Each member of the Surveillance Team shall be a person who has at least 3 years of experience in EM&A or environmental management. The qualification and experience of the members of the Surveillance Team shall be certified by the ET Leader and verified by the IEC.	2.1.1(i), 4.1.1(i)

Clause in the Environmental Permit	Corresponding Clause in this Proposal
Employment of IEC	
2.8 The IEC shall report directly to the Director on matters relating to the EM&A programme and environmental impacts from the Project and shall submit to the Director for approval, no later than 3 weeks before the commencement of the construction of the Project, a proposal on the reporting mechanism covering the approaches for the IEC and the team to report to the Director on: (i) how to discharge all the duties specified under the EM&A programme and this Permit, taking into account the construction activities and programme of the Project; (ii) how to handle each and every change of circumstances, emergency events relating to violation of environmental legislation (such as illegal dumping and landfilling relating to the Project) or non-compliance (including suspects of non-compliance) with the recommendations (such as construction methods, mitigation measures, and environmental standards) of the approved EIA Report (Register No. AEIAR-196/2016), the updated EM&A Manual and this Permit, which might affect the monitoring or control of adverse environmental impacts from the Project; and (iii) how to keep proper records in order to respond to questions and enquires from the Director on the EM&A programme and duties discharged by the IEC.	This Proposal
2.9 The IEC shall be responsible for duties defined in the updated EM&A Manual and this Permit, including but not limited to the following:	
(i) to audit the overall EM&A performance, including the implementation of all environmental mitigation measures and monitoring activities on site;	2.1.1(ii), 2.1.1(v), 2.1.1(viii), 2.1.1(ix), 4.1.1(i), 4.1.1(iii), 4.1.1(iii)
(ii) to verify the environmental acceptability of permanent and temporary works, relevant plans and submissions required in the updated EM&A Manual and under this Permit;	2.1.1(ii), 2.1.1(iv), 2.1.1(viii), 4.1.1(i), 4.1.1(ii)
(iii) to verify the log-book(s) mentioned in Condition 2.3(v);	2.1.1(iv), 4.1.1(i)
(iv) to notify the Director by fax or email, within one working day of receipt of notification from the ET Leader, or identification by the IEC and his team, of each and every change of circumstances and emergency events mentioned in Condition 2.8(ii);	2.1.1(x), 4.1.1(vi)
(v) to liaise closely with the Director;	2.1.1(x), 2.1.1(xi), 4.1.1(iv), 4.1.1(vi)
(vi) to accompany the Director in carrying out site inspections and attending meetings when requested;	2.1.1(vi), 4.1.1(iii), 4.1.1(iv)

Clause in the Environmental Permit	Corresponding Clause in this Proposal
(vii) to offer objective and professional advice on environmental issues, when requested, and to respond to questions and enquires from the Director on the EM&A programme and duties discharged by the IEC, with the support of relevant information, documents and records as appropriate; and	2.1.1(vii), 2.1.1(xi), 4.1.1(v)
(viii) to allocate adequate resources, including any necessary specialist support, for discharging the duties required in this Permit and the updated EM&A Manual.	3.2