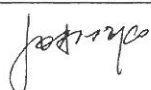



Main Wealth Development Ltd.

**Yau Tong Bay – Decommissioning of
Shipyards Sites**

**Monthly EM&A Report
for October 2013**

[11/2013]

	Name	Signature
Prepared & Checked:	Joanne Ko	
Reviewed, Approved & Certified:	Y T Tang (ETL)	

Version:	Rev. 0	Date: 18 November 2013
----------	--------	------------------------

Disclaimer

This report is prepared for Main Wealth Development Ltd. and is given for its sole benefit in relation to and pursuant to Yau Tong Bay – Decommissioning of Shipyards Sites and may not be disclosed to, quoted to or relied upon by any person other than Main Wealth Development Ltd. without our prior written consent. No person (other than Main Wealth Development Ltd.) into whose possession a copy of this report comes may rely on this report without our express written consent and Main Wealth Development Ltd. may not rely on it for any purpose other than as described above.

AECOM Asia Co. Ltd.
15/F, Grand Central Plaza, Tower 1, 138 Shatin Rural Committee Road, Shatin, NT, Hong Kong
Tel: (852) 3922 9000 Fax: (852) 2317 7609 www.aecom.com



Our ref AFK/EC/TK/bw/T329531/22.01/0004
T 2828 5919
E terence.kong@mottmac.com.hk
Your ref

Main Wealth Development Limited
71/F Two International Finance Centre
8 Finance Street
Central
Hong Kong

19 November 2013

Attn : Ms. Amy Chan / Mr. Gregory Chan

Dear Madam,

**Yau Tong Bay – Decommissioning of Shipyard Sites
Environmental Permit No. EP-409/2010
Condition 5.4 – Monthly EM&A Report for October 2013 (version: Rev. 0)**

Further to the receipt from Environmental Team (ET) of the captioned Monthly EM&A Report on 15 and 18 November 2013 via email, pursuant to Condition 5.4 of Environmental Permit I hereby verify the captioned report (Rev. 0) for Yau Tong Bay.

Yours faithfully
for MOTT MACDONALD HONG KONG LIMITED

A handwritten signature in black ink, appearing to read "Terence Kong".

Terence Kong
Independent Environmental Checker (IEC)



NATURE & TECHNOLOGIES (HK) LIMITED

科技環保(香港)有限公司

Unit B, 11/F, Grandion Plaza, 932 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon
九龍長沙灣道 932 號興迅廣場 11 樓 B 室 Tel 電話: *(852) 2877 3122 Fax 傳真: (852) 25110922
Email 電郵 : enquiry@nt.com.hk Website 網址 : <http://www.nt.com.hk>

Our Ref: 3.14/018/2009/at

19 November 2013

Main Wealth Development Ltd.
72 – 76/F, Two International Finance Centre
8 Finance Street
Central
Hong Kong

Attn: Ms. Iris Cheng

Dear Ms. Cheng,

**Yau Tong Bay – Decommissioning of Shipyard Sites
Environmental Permit No. EP-409/2010
Monthly EM&A Report for October 2013 (Version: V.0)**

With reference to the captioned document verified by IEC on 19 November 2013, we are pleased to provide our confirmation for the document on sections that is specific to soil remediation work pursuant to Condition 5.4 of the Environmental Permit No. EP-409/2010.

Yours faithfully,
Nature & Technologies (HK) Limited

Ir Dr Gabriel C K Lam
Independent Environmental Auditor

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	1
行政摘要	2
1 INTRODUCTION	3
1.1 Background	3
1.2 Scope of Report	4
1.3 Project Organization	4
1.4 Summary of Construction Works	5
1.5 Summary of EM&A Programme Requirements	5
2 NOISE MONITORING	6
2.1 Monitoring Requirements	6
2.2 Monitoring Equipment	6
2.3 Monitoring Locations	6
2.4 Monitoring Parameters, Frequency and Duration	6
2.5 Monitoring Methodology	7
2.6 Monitoring Schedule for the Reporting Period	7
2.7 Monitoring Results	7
3 WATER QUALITY MONITORING	9
3.1 Monitoring Status	9
4 LAND CONTAMINATION	9
4.1 Monitoring Status	9
5 ENVIRONMENTAL SITE INSPECTION AND AUDIT	9
5.1 Site Inspection	9
5.2 Advice on the Solid and Liquid Waste Management Status	10
5.3 Environmental Licenses and Permits	10
5.4 Implementation Status of Environmental Mitigation Measures	11
5.5 Summary of Exceedances of the Environmental Quality Performance Limit	11
5.6 Summary of Complaints, Non-compliances, Notification of Summons and Successful Prosecutions	11
6 FUTURE KEY ISSUES	11
6.1 Construction Programme for the Coming Months	11
6.2 Key Issues for the Coming Month	11
6.3 Monitoring Schedule for the Coming Month	11
7 COMMENTS, RECOMMENDATIONS AND CONCLUSIONS	11
7.1 Comments on Mitigation Measures	11
7.2 Recommendations on EM&A Programme	12
7.3 Conclusions	13

List of Tables

Table 1.1	Contact Information of Key Personnel
Table 2.1	Noise Monitoring Equipment
Table 2.2	Locations of Impact Noise Monitoring Stations
Table 2.3	Noise Monitoring Parameters, Frequency and Duration
Table 2.4	Summary of Construction Noise Monitoring Results in the Reporting Period
Table 5.1	Summary of Environmental Licensing and Permit Status

List of Figures

- Figure 1 Site Location Plan
- Figure 2 Noise Monitoring Locations
- Figure 3 Environmental Complaint Handling Procedure

List of Appendices

- Appendix A Project Organization Structure
- Appendix B Construction Programme
- Appendix C Implementation Schedule of Environmental Mitigation Measures (EMIS)
- Appendix D Summary of Action and Limit Levels
- Appendix E Calibration Certificates of Monitoring Equipments
- Appendix F EM&A Monitoring Schedules
- Appendix G Impact Daytime Construction Noise Monitoring Results and their Graphical Presentation
- Appendix H Event Action Plan
- Appendix I Site Inspection Summaries
- Appendix J Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

EXECUTIVE SUMMARY

The proposed “Yau Tong Bay – Decommissioning of Shipyard Sites” (hereinafter referred to as “the Project”) is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) Schedule 2 and is governed by the Environmental Permit No. EP-409/2010. The Project aims to demolish the past and existing shipyards and their building structures and marine structures and decontaminate identified contaminated spots.

The demolition works of the Project commenced on 21 November 2011 and was completed in September 2012. The impact Environmental Monitoring and Audit (hereinafter referred to as “EM&A”) programme for the Project commenced on 21 November 2011. The EM&A works was suspended from November 2012 for the captioned Project and the EM&A works has been resumed upon commencement of soil remediation works. The impact EM&A programme includes daytime construction noise and water quality monitoring, soil remediation works monitoring and auditing and site auditing. Method statement for biopiling and cement solidification was submitted in October 2013 and its approval is pending.

This report documents the findings of EM&A works conducted in the period between 28 and 31 October 2013.

As informed by the Contractor, the major construction activity carried out in the reporting period was setting up biopile base liner and cement solidification mixing pit.

A summary of monitoring and audit activities conducted in the reporting period is listed below:

Daytime noise monitoring	1 session
Water quality monitoring	0 session
Environmental site inspection	1 session

Breaches of Action and Limit Levels for Daytime Construction Noise

No Action Level exceedance was recorded since no construction noise related complaint was received in the reporting period.

No Limit Level exceedance of construction noise was recorded in the reporting period.

Breaches of Action and Limit Levels for Water Quality

Water quality monitoring was not conducted in the reporting period as demolition of marine structures was not yet commenced. No Action/Limit Level exceedance of water quality was recorded in the reporting period.

Environmental Complaint, Non-compliance, Notification of Summons and Successful Prosecution

No complaint, non-compliance, notification of summons and successful prosecution was received in the reporting period.

Reporting Change

There was no reporting change required in the reporting period.

Future Key Issues

According to the updated programme, excavation works will commence in late November 2013.

行政摘要

「油塘灣船廠拆卸工程」(以下簡稱「本工程項目」)是一項被臚列於環境影響評估條例(第 499 章)附表 2 中的指定工程項目並受到環境許可證編號 EP-409/2010 所管制。本工程項目的主要目的是要拆除位於油塘灣的舊有和現有的船廠及其建築物和海事結構，以及處理指定的已受污染點。

本工程項目已於二零一一年十一月二十一日竣工並於二零一二年九月完工。本工程項目的施工期間環境監察及審核計劃亦由二零一一年十一月二十一日開始。由二零一二年十一月起，本工程項目之施工期間環境監察與審核工作暫停直至土壤修復工程開始。施工期間環境監察與審核計劃包括：日間建築噪音監測，水質監測，已受污染泥復育工作的監察與審核及工地審核巡查。生物堆及水泥凝固的方法聲明在二零一三年十月提交，正在等待審批。

本報告記錄了於二零一三年十月一日至三十一日期間所進行的環境監察與審核工作。

根據承建商提供的資料，在上述的期間的主要建築活動為設立生物堆積底座內膽及水泥凝固混合坑。

在上述的期間有下列次數的監察及審核活動進行：

日間建築噪音監測	1 次
水質監測	0 次
環境巡查	1 次

違反監測標準

日間建築噪音

在上述的期間沒有收到有關建築噪音的投訴，所以噪音監測結果皆符合行動水平。

在上述的期間的所有日間建築噪音監測結果皆符合極限水平。

水質

因為相關的海事結構拆除工程仍未開始，故沒有水質監測在上述的期間進行。因此，沒有違反水質行動水平和極限水平的記錄。

有關收到的環境的投訴，傳票及檢控

在上述的期間沒有收到有關環境的投訴，傳票及檢控。

報告修訂

本報告期間並沒有修訂報告。

預計要注意的事項

根據最新的程序表，挖掘工程將在二零一三年十一月下旬開始。

1 INTRODUCTION

1.1 Background

- 1.1.1. The Project Site of “Yau Tong Bay-Decommissioning of Shipyard Sites” (hereinafter referred to as “the Project”) is located along the shore of Yau Tong Bay (which is also known as Kwun Tong Tsai Wan) in East Kowloon within the Kwun Tong District and the Project Site together with its adjacent land is zoned Comprehensive Development area (“CDA”) on the Approved Cha Kwo Ling, Yau Tong, Lei Yue Mun Outline Zoning Plan (OZP) No. S/K15/19. It faces Victoria Harbour to the southwest and is bounded by the Eastern Harbour Crossing Ventilation Building to the west, Cha Kwo Ling Road to the north and east, and Ko Fai Road to the south. The site is also adjacent to the former Yau Tong Industrial Area, which is at present mainly occupied by obsolete industrial buildings.
- 1.1.2. The Project is a designated project and is governed by the Environmental Permit No. EP-409/2010 (hereinafter referred to as “the EP”).
- 1.1.3. Major works to be undertaken in the Project include:-
- Demolition of past and existing shipyard and building structures;
 - Demolition of marine structure of shipyards; and
 - Decontamination of identified contaminated spots.
- 1.1.4. For the decommissioning of past and existing shipyard lots, there is a total of 39 Marine Lots along the shore of Yau Tong Bay are under the control of the Project Proponent (Main Wealth Development Limited) and covered in this Project. These 39 lots (or the ‘concerned lots’) ,with a total area of over 1 hectare (ha), as listed below and highlighted in **Figure 1**, are hereinafter referred to as the ‘Project Site’. The land uses for the Project Site had been industrial and various land uses including shipyards, timber yards, sawmills and concrete batching plant.
- YTML No. 1
 - YTMLs No. 5-14
 - YTML No. 15
 - YTMLs No. 19-24
 - YTMLs No. 27-38
 - YTMLs No. 41-46
 - YTML No. 54
- 1.1.5. Main Wealth Development Limited (the Project Proponent) has commissioned Stephen Cheng Consulting Engineers as the Engineer of the Project and Kin Wing Construction Co., Ltd was commissioned as the Decontamination Contractor of the Project (hereafter referred to as “the Contractor”).
- 1.1.6. AECOM Asia Company Limited was appointed to undertake the Environmental Team (hereafter referred to as “ET”) services for implementation of all the Environmental Monitoring and Audit (hereafter referred to as “EM&A”) works under the Project. Mott MacDonald Hong Kong Limited and Nature & Technologies (HK) Limited act as the Independent Environmental Checker (hereafter referred to as “IEC”) and Independent Environmental Auditor (hereafter referred to as “IEA”) for the Project respectively.
- 1.1.7. According to the updated programme, the demolition works of the Project commenced on 21 November 2011. Hoarding and demolition works for the Project was completed in September 2012. Method statement for biopiling and cement solidification was submitted in October 2013 and its approval is pending.
- 1.1.8. In accordance with the updated Environmental Monitoring and Audit Manual (hereinafter referred to as “the EM&A Manual”) of the Project, there is a need of an impact EM&A programme includes daytime construction noise and water quality monitoring, soil remediation works monitoring and auditing and site auditing. The impact EM&A Programme for the Project commenced on 21 November 2011. The EM&A works was suspended from November 2012 for the captioned Project and the EM&A works has been resumed upon commencement of soil remediation works.

1.2 Scope of Report

- 1.2.1 This is the thirteenth monthly EM&A Report for the Project “Yau Tong Bay – Decommissioning of Shipyard Sites”. This report presents a summary of the environmental monitoring and audit works, list of activities and mitigation measures proposed by the ET for the Project in October 2013 (from 28 October 2013 to 31 October 2013).

1.3 Project Organization

- 1.3.1 The project organization structure is shown in **Appendix A**. The key personnel contact names and numbers are summarized in **Table 1.1**.

Table 1.1 Contact Information of Key Personnel

Party	Name	Telephone	Fax
Project Proponent (Main Wealth Development Limited)	Gregory Chan	2908 8679	2562 0029
Engineer (AECOM Asia Co. Ltd.)	Jeremy Yuen	3922 9000	3922 9797
Decontamination Contractor (Contractor) (Kin Wing Construction Co., Ltd)	Lee Kam Hung	2637 5066	-
Independent Environmental Checker (IEC) (Mott MacDonald Hong Kong Limited)	Terence Kong	2828 5919	2827 1823
Independent Environmental Auditor (IEA) (Nature & Technologies (HK) Limited)	Gabriel Lam	2877 3122	2511 0922
Environmental Team Leader (ETL) (AECOM Asia Co. Ltd.)	Y T Tang	3922 9393	3922 9797

1.4 Summary of Construction Works

- 1.4.1 The demolition works of the Project commenced on 21 November 2011 and was completed in September 2012.
- 1.4.2 The decontamination works of the Project will commence upon the approval of the Method statement for biopiling and cement solidification.
- 1.4.3 As informed by the Contractor, the major construction activity carried out in the reporting period was setting up biopile base liner and cement solidification mixing pit.
- 1.4.4 The general layout plan of the Project site is shown in **Figure 1**.
- 1.4.5 The latest Construction Programme is shown in **Appendix B**.
- 1.4.6 The environmental mitigation measures implementation schedule are presented in **Appendix C**.

1.5 Summary of EM&A Programme Requirements

- 1.5.1 The EM&A programme required environmental monitoring for daytime construction noise and water quality, soil remediation works monitoring and auditing and environmental site inspections for air quality, water quality, noise, waste management and landscape and visual impact. The EM&A requirements for each parameter described in the following sections include:-
 - All monitoring parameters;
 - Monitoring schedules for the reporting month and forthcoming months;
 - Action and Limit levels for all environmental parameters;
 - Event / Action Plan;
 - Environmental mitigation measures, as recommended in the Project EIA study final report; and
 - Environmental requirement in contract documents.

2 NOISE MONITORING

2.1 Monitoring Requirements

2.1.1 In accordance with the EM&A Manual, impact noise monitoring was conducted for at least once per two weeks at designated noise monitoring stations during the construction phase of the Project. The Action and Limit level of the noise monitoring is provided in **Appendix D**.

2.2 Monitoring Equipment

2.2.1 Noise monitoring was performed using sound level meter at each designated monitoring station. The sound level meters deployed comply with the International Electrotechnical Commission Publications (IEC) 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator was deployed to check the sound level meters at a known sound pressure level. Brand and model of the equipment is given in **Table 2.1**.

Table 2.1 Noise Monitoring Equipment

Equipment	Brand and Model
Integrated Sound Level Meter	Rion NL-31; B&K 2270
Acoustic Calibrator	Rion NC-73

2.3 Monitoring Locations

2.3.1 Monitoring stations NM1 to NM3 were set up at the proposed locations in accordance with the EM&A Manual.

2.3.2 **Figure 2** shows the locations of the monitoring stations. **Table 2.2** describes the details of the monitoring stations.

Table 2.2 Locations of Impact Noise Monitoring Stations

Monitoring Station	Location	Description
NM1	Yau Lai Estate Hong Lai House	1m from the exterior of the roof top façade of the building
NM2	S.K.H. Yau Tong Kei Hin Primary School	1m from the exterior of the roof top façade of the building
NM3	C.C.C. Kei Faat Primary School (Yau Tong)	1m from the exterior of the roof top façade of the building

2.4 Monitoring Parameters, Frequency and Duration

2.4.1 **Table 2.3** summarizes the monitoring parameters, frequency and duration of impact noise monitoring.

Table 2.3 Noise Monitoring Parameters, Frequency and Duration

Parameter	Frequency and Duration
30-mins measurement at each monitoring station between 0700 and 1900 on normal weekdays. L_{eq} , L_{10} and L_{90} would be recorded.	At least once per two weeks

2.5 Monitoring Methodology

2.5.1 Monitoring Procedure

- (a) Façade measurements were made at all monitoring locations.
- (b) The battery condition was checked to ensure the correct functioning of the meter.
- (c) Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:-
 - (i) frequency weighting: A
 - (ii) time weighting: Fast
 - (iii) time measurement: $L_{eq(30\text{-minutes})}$ during non-restricted hours i.e. 07:00 – 1900 on normal weekdays; $L_{eq(5\text{-minutes})}$ during restricted hours i.e. 19:00 – 23:00 and 23:00 – 07:00 of normal weekdays, whole day of Sundays and Public Holidays
- (d) Prior to and after each noise measurement, the meter was calibrated using the acoustic calibrator for 94dB(A) at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1 dB(A), the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- (e) During the monitoring period, the L_{eq} , L_{10} and L_{90} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
- (f) Noise measurement was paused during periods of high intrusive noise (e.g. dog barking, helicopter noise) if possible. Observations were recorded when intrusive noise was unavoidable.
- (g) Noise monitoring was cancelled in the presence of fog, rain, wind with a steady speed exceeding 5m/s, or wind with gusts exceeding 10m/s.

2.5.2 Maintenance and Calibration

- (a) The microphone head of the sound level meter was cleaned with soft cloth at regular intervals.
- (b) The meter and calibrator were sent to the supplier or HOKLAS laboratory to check and calibrate at yearly intervals.
- (c) Calibration certificates of the sound level meters and acoustic calibrators are provided in **Appendix E**.

2.6 Monitoring Schedule for the Reporting Period

2.6.1 The schedule for environmental monitoring in October 2013 is provided in **Appendix F**.

2.7 Monitoring Results

2.7.1 The monitoring results for noise are summarized in **Table 2.4** and the monitoring data is provided in **Appendix G**.

Table 2.4 Summary of Noise Monitoring Results in the Reporting Period

	Average, dB(A), L_{eq} (30 mins)	Range, dB(A), L_{eq} (30 mins)	Limit Level, dB(A), L_{eq} (30 mins)
NM1	64.9	64.5 – 65.2	75
NM2	63.0	60.8 – 63.8	70 [#]
NM3	62.1	54.9 – 65.8	70 [#]

Limit Level of 70dB(A) applies to education institutes while 65dB(A) applies during school examination period.

- 2.7.2 No Action Level exceedance was recorded since no construction noise related complaint was received in the reporting period.
- 2.7.3 No Limit Level exceedance was recorded at all monitoring stations in the reporting month.
- 2.7.4 Major noise sources during the noise monitoring included construction activities of the Project, construction activities by other contracts and nearby traffic noise.
- 2.7.5 The event action plan is annexed in **Appendix H**.

3 WATER QUALITY MONITORING

3.1 Monitoring Status

- 3.1.1 Water quality monitoring was not conducted in the reporting period as demolition of marine structures was not commenced. No Action/Limit Level exceedance of water quality was recorded in the reporting period.

4 LAND CONTAMINATION

4.1 Monitoring Status

- 4.1.1 No soil remediation works monitoring and auditing was commenced in the reporting period as soil remediation works had not yet been commenced.

5 ENVIRONMENTAL SITE INSPECTION AND AUDIT

5.1 Site Inspection

- 5.1.1 Site Inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. In the reporting period, 1 site inspection was carried out on 29 October 2013.
- 5.1.2 The environmental site inspection summary is provided in **Appendix I**.
- 5.1.3 Particular observations during the site inspection are described below:-

Air Quality

- 5.1.4 Wheel washing facilities with high pressure jets were not provided at two entrance points of the site.
- 5.1.5 Stockpiles of wastes and construction materials were not sprayed with water; or covered entirely by impervious sheeting or placed in sheltered areas. The Contractor should cover stockpiles of wastes and construction materials; and regularly spray water to stockpile materials or dusty site surfaces should be maintained.

Noise

- 5.1.6 No adverse observation was identified in the reporting period.

Water Quality

- 5.1.7 Open stockpiles of construction materials and stockpiles of cement placed on site were not covered with tarpaulin or similar fabric.
- 5.1.8 Construction debris and spoil be were not covered up or disposed of as soon as possible to avoid being washed into the nearby receiving waters.
- 5.1.9 The Contractor should cover stockpiles of wastes and construction materials.

Chemical and Waste Management

- 5.1.10 No adverse observation was identified in the reporting period.

Landscape and Visual Impact

5.1.11 No adverse observation was identified in the reporting period.

Miscellaneous

5.1.12 The Contractor should provide recycling bins at the site office area and site exits.

5.1.13 The Contractor has partially rectified observations as identified during environmental site inspection in the reporting month within agreed time frame. Rectifications of remaining identified items are undergoing by the Contractor. Follow-up inspections on the status on provision of mitigation measures will be conducted to ensure all identified items are mitigated properly.

5.2 Advice on the Solid and Liquid Waste Management Status

5.2.1 The Contractor had submitted application form for registration as a chemical waste producer for the Project.

5.2.2 As advised by the Contractor, no Inert C&D wastes was generated on site and disposed of at Public Fill (Tseung Kwan O Area 137 Fill Bank). No general refuse was generated on site and disposed of at North East New Territories (NENT) Landfill. No metals was generated and collected by registered recycling collector and no chemical waste was collected by licensed contractor in the reporting period.

5.2.3 The Contractor is advised to properly maintain on site C&D materials and wastes collection, sorting and recording system and maximize reuse / recycle of C&D materials and wastes. The Contractor is reminded to properly maintain the site tidiness and dispose of the wastes accumulated on site regularly and properly.

5.2.4 The Contractor is reminded that chemical waste containers should be properly treated and stored temporarily in designated chemical waste storage area on site in accordance with the Code of Practise on the Packaging, Labelling and Storage of Chemical Wastes.

5.3 Environmental Licenses and Permits

5.3.1 The environmental licenses and permits for Stage 1 of the Project and valid in the reporting month is summarized in **Table 5.1**.

Table 5.1 Summary of Environmental Licensing and Permit Status

Statutory Reference	License/ Permit	License or Permit No.	Valid Period		Remarks
			From	To	
EIAO	Environmental Permit	EP-409/2010	10/01/2011	N/A	Yau Tong Bay – Decommissioning of Shipyard Sites
WDO	Chemical Waste Producer Registration	5213-290-K2822-04	22/10/2013	N/A	Whole Construction Site
WDO	Billing Account for Disposal of Construction Waste	7018469	N/A	N/A	Whole Construction Site

5.4 Implementation Status of Environmental Mitigation Measures

- 5.4.1 In response to the site audit findings, the Contractor carried out corrective actions.
- 5.4.2 A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in **Appendix C**. Many recommended mitigation measures were implemented properly.

5.5 Summary of Exceedances of the Environmental Quality Performance Limit

- 5.5.1 No Action Level exceedance was recorded since no construction noise related complaint was received in the reporting period.
- 5.5.2 No Limit Level exceedance of construction noise was recorded in the reporting period.
- 5.5.3 Water quality monitoring was not conducted in the reporting period as demolition of marine structures was not yet commenced. No Action/Limit Level exceedance of water quality was recorded in the reporting period.

5.6 Summary of Complaints, Non-compliances, Notification of Summons and Successful Prosecutions

- 5.6.1 The Environmental Complaint Handling Procedure is annexed in **Figure 3**.
- 5.6.2 No environmental complaint, non-compliance, notification of summons and prosecution was received in the reporting period.
- 5.6.3 Cumulative statistics on complaints, non-compliance, notifications of summons and successful prosecutions are summarized in **Appendix J**.

6 FUTURE KEY ISSUES

6.1 Construction Programme for the Coming Months

- 6.1.1 The proposed major construction works for the Project in November 2013 include:-
- Setting up biopile base liner and cement solidification mixing pit;
 - Excavation of contaminated soil in Zones R1, R2, R4, R5, A1, A2, A4, A5, T19A, T22BA and T36A;
 - Formation of biopiles;
 - Excavation and disposal of PCB-contaminated soil in Zones T32D and T32E to landfill; and
 - Decommissioning of the underground oil tank at YTML 6-11.

6.2 Key Issues for the Coming Month

- 6.2.1 According to the updated programme, excavation works will commence in late November 2013.

6.3 Monitoring Schedule for the Coming Month

- 6.3.1 The tentative schedule for environmental monitoring in November 2013 is provided in **Appendix F**.

7 COMMENTS, RECOMMENDATIONS AND CONCLUSIONS

7.1 Comments on Mitigation Measures

- 7.1.1 According to the environmental site inspection performed in the reporting month, the following comments were provided:-

Air Quality Impact

- The Contractor should cover stockpiles of wastes and construction materials; and regularly spray water to stockpile materials or dusty site surfaces should be maintained.

Construction Noise Impact

- Nil.

Water Quality Impact

- The Contractor should regularly spray water to stockpile materials or dusty site surfaces should be maintained.

Chemical and Waste Management

- Nil.

Landscape and Visual Impact

- Nil.

Miscellaneous

- The Contractor should provide recycling bins at the site office area and site exits.

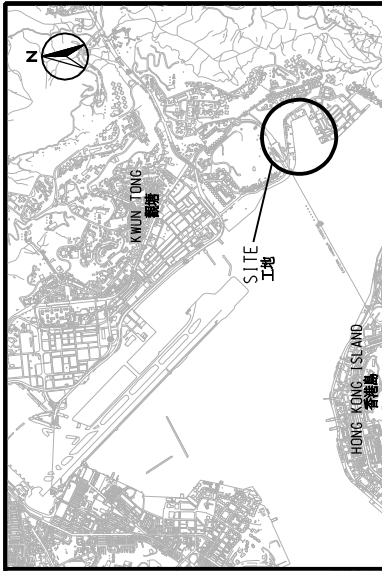
7.2 Recommendations on EM&A Programme

- 7.2.1 The impact noise and water quality monitoring programme ensured that any environmental impact to the receivers would be readily detected and timely actions could be taken to rectify any non-compliance. Assessment and analysis of monitoring results collected demonstrated the environmental acceptability of the Project. The weekly site inspection and soil remediation monitoring and auditing ensured that all the environmental mitigation measures recommended in the EIA report were effectively implemented.
- 7.2.2 The EM&A programme effectively monitored the environmental impacts from the construction activities and no particular recommendation was advised for the improvement of the programme.

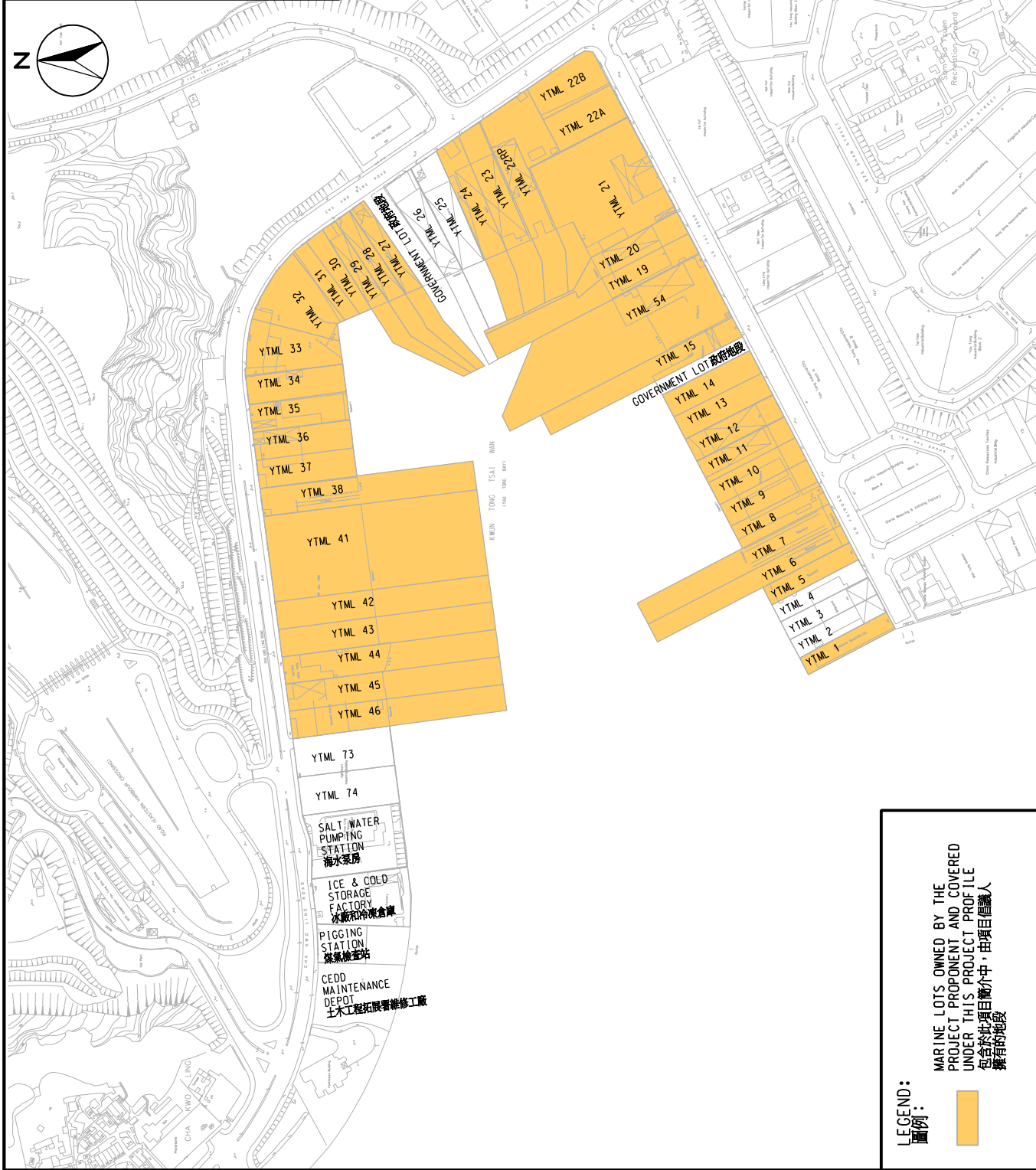
7.3 Conclusions

- 7.3.1 Noise monitoring was carried out 1 time in the reporting period.
- 7.3.2 No Action Level exceedance was recorded since no construction noise related complaint was received in the reporting period.
- 7.3.3 No Limit Level exceedance of construction noise was recorded in the reporting period.
- 7.3.4 Water quality monitoring was not conducted in the reporting period as demolition of marine structures was not yet commenced. No Action/Limit Level exceedance of water quality was recorded in the reporting period.
- 7.3.5 In the reporting month, no excavation of inspection pits and borehole drilling for structural and environmental sampling were conducted in the site. No soil remediation works monitoring and auditing was commenced in the reporting period as soil remediation works was yet to be commenced.
- 7.3.6 Environmental site inspection was carried out 1 time in October 2013. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site audits.
- 7.3.7 No environmental complaint, non-compliance, notification of summons and prosecution was received in the reporting period.

FIGURES



KEY PLAN
位置圖



LEGEND:
圖例:

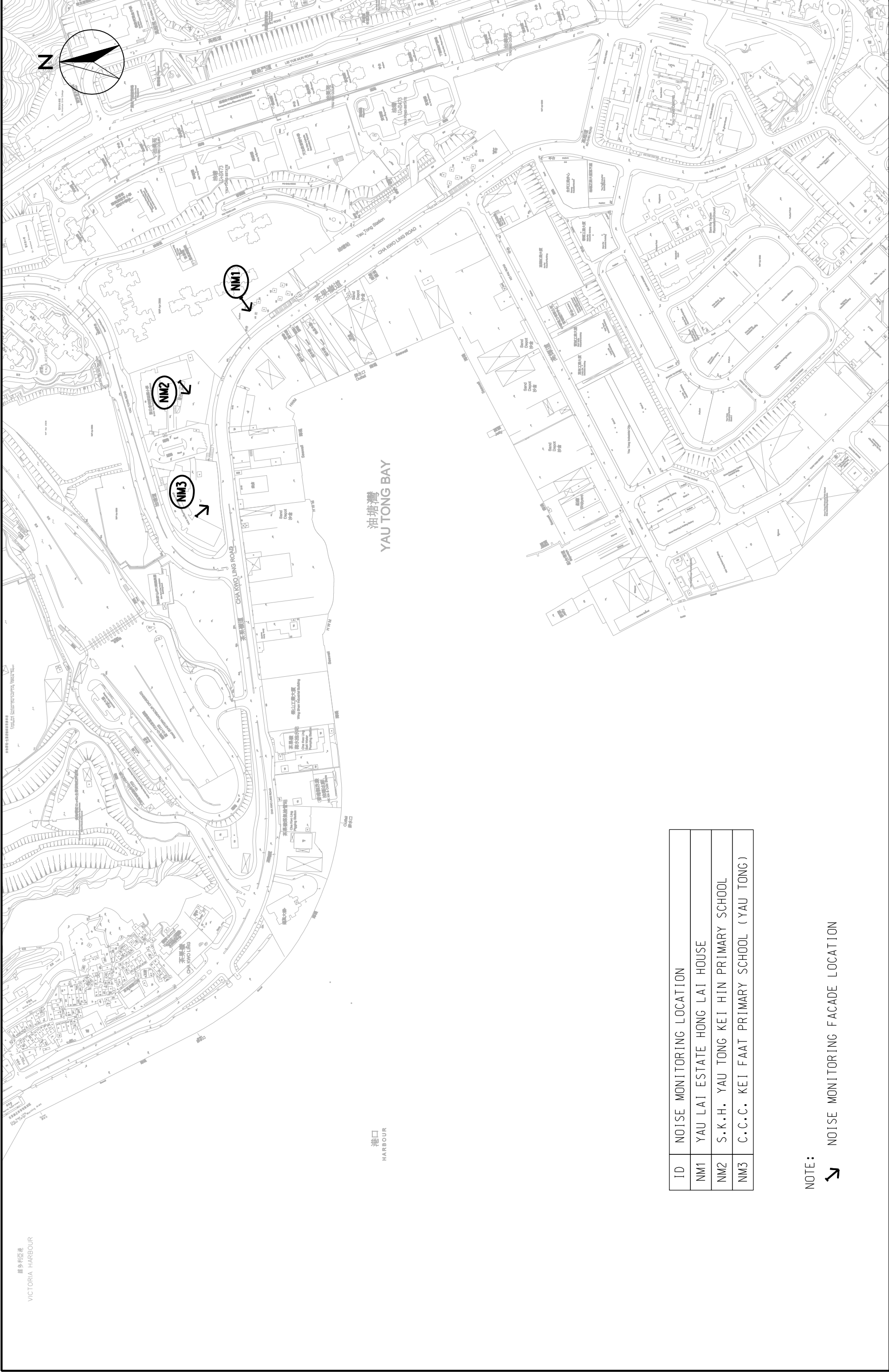
MARINE LOTS OWNED BY THE PROJECT PROPONENT AND COVERED UNDER THIS PROJECT PROFILE
包含於此項目概介中，由項目信託人擁有的地盤

YAU TONG BAY - DECOMMISSIONING OF SHIPYARD SITES PROJECT PROFILE
油蔴地 - 船廠拆卸工程

SITE LOCATION PLAN
工地位置圖

SCALE 比例	A4 1 : 4500	DATE 日期	NOV 2010
CHECK 校核	---	DRAWN 繪圖	---
JOB No.	60048283	FIGURE No.	1
REV			A





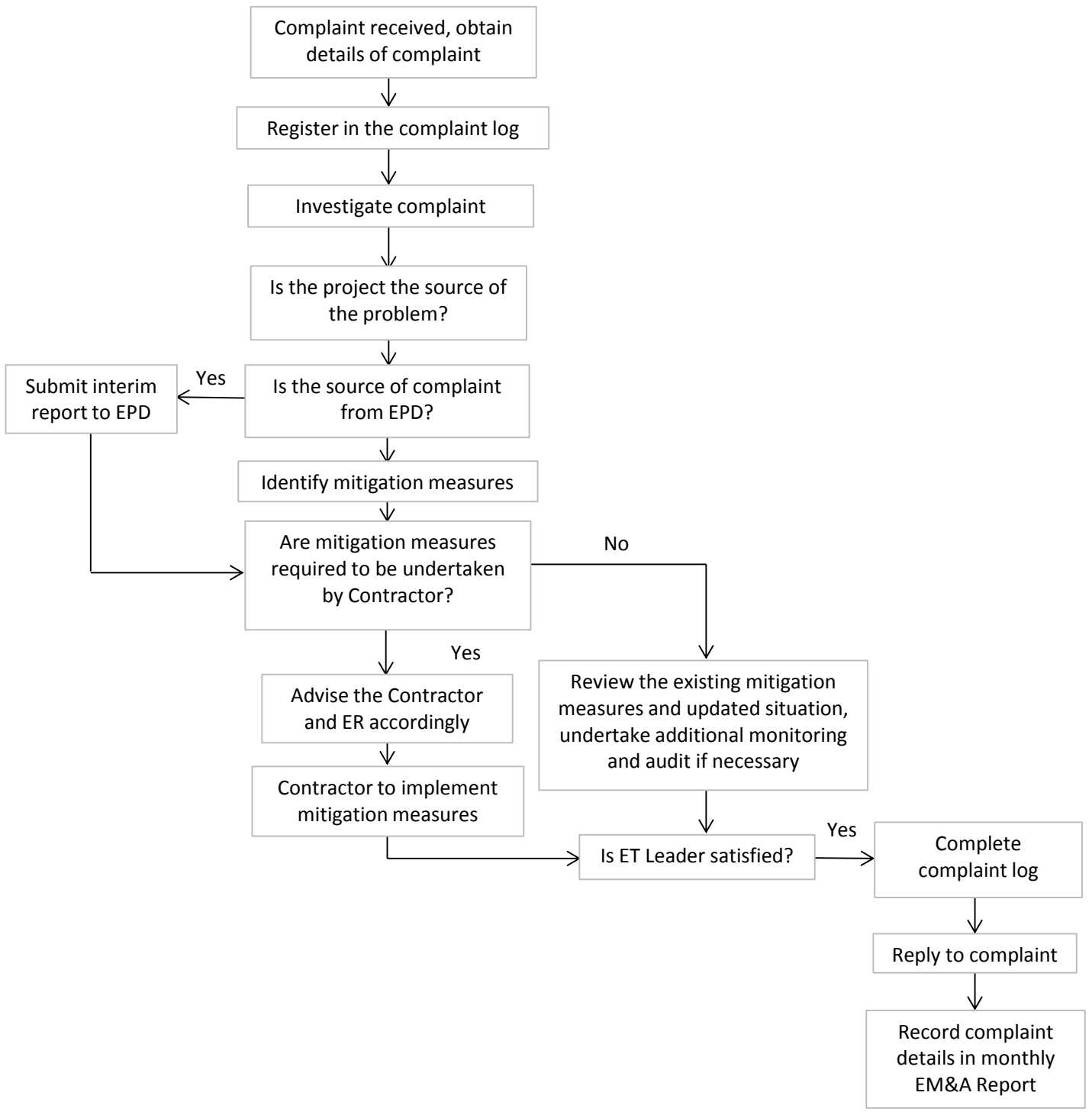
ID	NOISE MONITORING LOCATION
NM1	YAU LAI ESTATE HONG LAI HOUSE
NM2	S.K.H. YAU TONG KEI HIN PRIMARY SCHOOL
NM3	C.C.C. KEI FAAT PRIMARY SCHOOL (YAU TONG)

NOTE:
 NOISE MONITORING FACADE LOCATION

YAU TONG BAY – DECOMMISSIONING OF SHIPYARD SITES
 NOISE MONITORING LOCATIONS

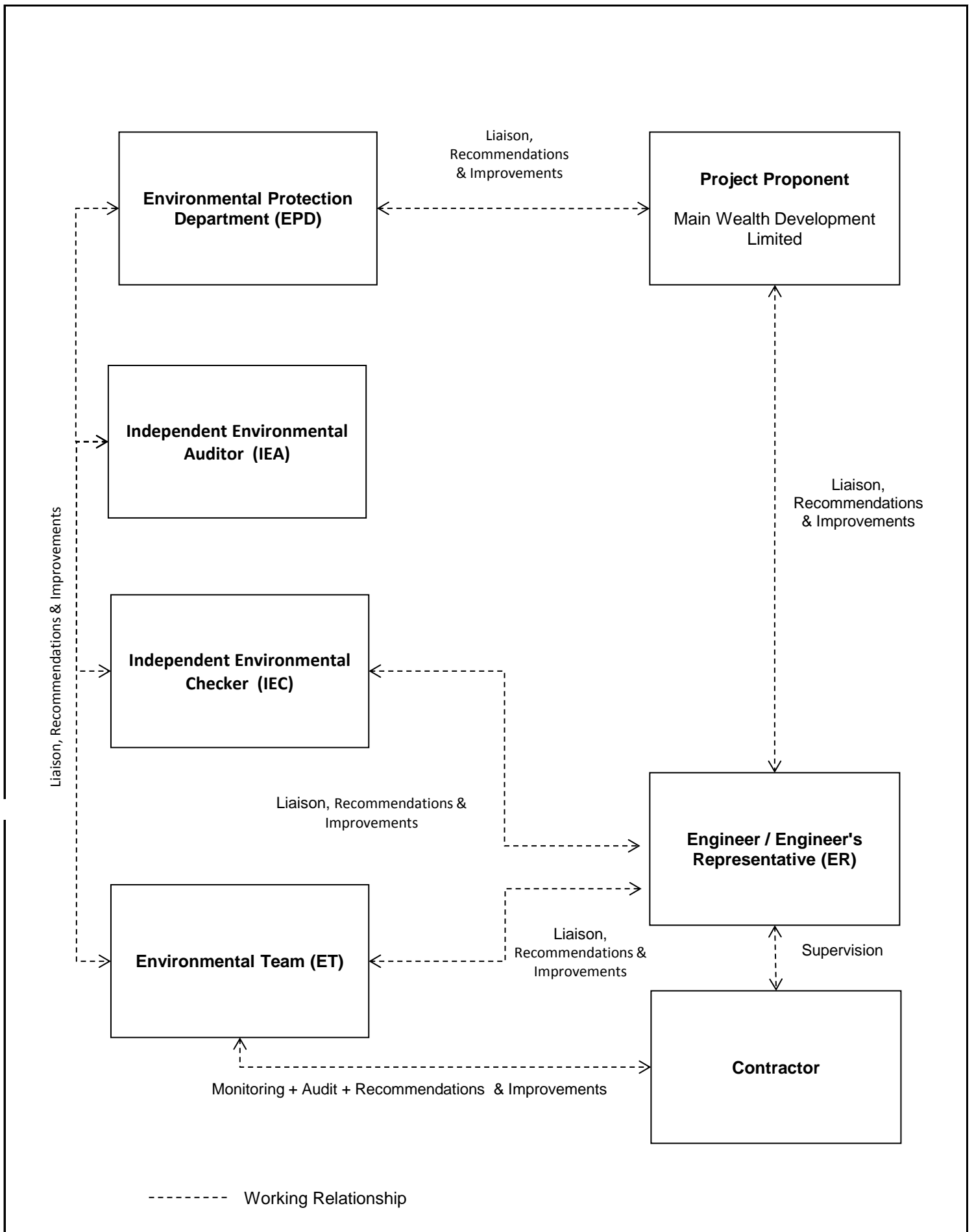
SCALE	A3 1 : 3000	DATE	AUG. 2011
CHECK	LSHT	DRAWN	LLHY
PROJECT NO.	60048283	FIGURE NO.	2
		REV	--





AECOM	Yau Tong Bay – Decommissioning of Shipyard Sites	SCALE	N.T.S.	DATE	Dec-11
		CHECK	ENFL	DRAWN	JWYM
	Environmental Complaint Handling Procedure	JOB NO.	60048283	FIGURE NO.	3

**APPENDIX A
PROJECT ORGANIZATION STRUCTURE**



	Yau Tong Bay - Decommissioning of Shipyard Sites	SCALE	N.T.S.	DATE	Jun-11
		CHECK	ENFL	DRAWN	LCHC
	Project Organization Structure	JOB NO.	60048283	APPENDIX	A

**APPENDIX B
CONSTRUCTION PROGRAMME**

Yau Tong Bay Redevelopment Land Decontamination Works

Construction Programme (Rev. 1)

I.D No.	Activity Description	Start	Finish	2013				2014												2015				
				Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan				
10	Submission of Method Statement for Biopiling and Cement Solidification	13-Sep-13	6-Nov-13	█	█	█																		
20	Approval of the Method Statement for Biopiling and Cement Solidification by EPD	30-Sep-13	15-Nov-13		█	█																		
30	Submission of ELS Plan	13-Sep-13	23-Oct-13	█	█																			
40	BD Approval and Consent of ELS Plan	24-Oct-13	23-Jan-14			█	█	█																
42	EM & A by ET	28-Oct-13	5-Jan-15			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
45	Pre-sampling of the sidewall samples	11-Nov-13	30-Nov-13			█																		
50	Setting up biopile base liner and cement solidification mixing pit	28-Oct-13	23-Nov-13			█																		
60	Excavation of Contaminated Soil in Zone R1, R2, R4, A2 for Biopiling	25-Nov-13	14-Jan-14				█	█																
70	Excavation of Contaminated Soil in Zone R3, T32E and T35C for Biopiling	24-Jan-14	23-Mar-14						█	█														
80	Cement Solidification Pilot Test	25-Nov-13	7-Dec-13				█																	
90	Excavation of Contaminated Soil in Zone A1, A2, A4, A5, R5, T19A, T22BA, T36A for Cement Solidification	25-Nov-13	31-Dec-13				█	█																
100	Excavation of Contaminated Soil in Zone A3, R6, R7, R8, T22BB and T32C for Cement Solidification	15-Jan-14	16-Mar-14						█	█														
110	Cement Solidification Treatment Process	9-Dec-13	30-Mar-14					█	█	█													█	
120	Operation and maintenance of Biopile System	24-Mar-14	2-Nov-14								█	█	█	█	█	█	█	█	█	█				
130	Sample collection for TCLP test for PCB Contaminated Soil	11-Nov-13	16-Nov-13			█																		
132	Submission of TCLP test results to EPD	18-Nov-13	23-Nov-13			█																		
134	Approval by EPD for Landfill disposal	25-Nov-13	21-Dec-13				█																	
136	Excavation and disposal of PCBs Contaminated Soil in Zone T32D and T32E to Landfill	23-Dec-13	23-Feb-14					█	█															
140	Submission and approval of method statement for clearance of the Underground Oil Tank	30-Sep-13	2-Nov-13		█																			
143	Clearance of the Underground Oil Tank	4-Nov-13	9-Nov-13			█																		
147	Submission and approval of method statement for demolition of Underground Oil Tank	25-Oct-13	9-Nov-13		█																			
148	Removal of Underground Oil Tank	11-Nov-13	26-Jan-14			█	█	█																
150	Confirmation Sampling & Testing in the vicinity of the Underground Oil Tank	28-Jan-14	9-Feb-14						█															
160	Submission of Supplementary Contamination Assessment Report	11-Feb-14	2-Mar-14						█															
170	Submission of Remediation Report	18-Nov-14	21-Dec-14																			█	█	
180	Remove all plants and equipment for decontamination works.	23-Dec-14	5-Jan-15																				█	█

█ Critical Activity

**APPENDIX C
IMPLEMENTATION SCHEDULE OF
ENVIRONMENTAL MITIGATION MEASURES
(EMIS)**

Appendix C - Implementation Schedule of Environmental Mitigation Measures (EMIS)

Air Quality - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Air Quality during Construction	<ul style="list-style-type: none"> Careful siting of construction activities which generate substantial amount of dust can effectively reduce the overall impact. 	During construction	V
	<ul style="list-style-type: none"> Use of regular watering, with complete coverage if possible, to reduce dust emissions from exposed site surfaces and unpaved roads and for dusty construction areas and areas close to ASRs, particularly during dry weather. 		V
	<ul style="list-style-type: none"> Open stockpiles shall be avoided. Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where possible, prevent placing dusty material storage piles near ASRs. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines. 		@
	<ul style="list-style-type: none"> No free falling construction debris should be allowed; debris should be let down by hoist or enclosed tunnel to the ground. 		N/A
	<ul style="list-style-type: none"> All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet. 		V
	<ul style="list-style-type: none"> Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading points, and use of water sprinklers at the loading area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods. 		N/A
	<ul style="list-style-type: none"> Height from which dusty materials are dropped should be controlled to a minimum practical height to limit fugitive dust generation from unloading. 		N/A
	<ul style="list-style-type: none"> Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations. 		V
	<ul style="list-style-type: none"> Skip hoist for material transport should be totally enclosed by impervious sheeting. 		V
	<ul style="list-style-type: none"> Establishment and use of vehicle wheel and body washing facilities at the exit points of the site and public roads, combined with cleaning of public roads wherever necessary and practical. 		@
	<ul style="list-style-type: none"> The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores. 		V
	<ul style="list-style-type: none"> Provision of not less than 2.4m high hoarding from ground level along site boundary where adjoins a road, streets or other accessible to the public except for a site entrance or exit. 		V
	<ul style="list-style-type: none"> Imposition of speed controls for vehicles on site haul roads. Where feasible, routing of vehicles and positioning of construction plants should be at a maximum possible distances from sensitive receivers. 		V
	<ul style="list-style-type: none"> Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides. 		N/A
	<ul style="list-style-type: none"> Instigation of an environmental monitoring and auditing program to monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise. 		V

Noise - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Construction Noise during Construction	<ul style="list-style-type: none"> • In order to reduce the excessive noise impacts at the affected NSRs during normal daytime working hours, the following mitigation measures shall be implemented:- <ul style="list-style-type: none"> - adopting quiet powered mechanical equipment; - scheduling of works; - erect a 3m tall moveable noise barriers along the site boundary; and - noise enclosure. 	During construction	V
	<ul style="list-style-type: none"> • Only well-maintained plant should be operated on-site and plant should be serviced regularly. 		V
	<ul style="list-style-type: none"> • Silencers or mufflers on construction equipment should be utilized and should be properly maintained. 		V
	<ul style="list-style-type: none"> • Mobile plant, if any, should be sited as far away from NSRs as possible. 		V
	<ul style="list-style-type: none"> • Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum. 		V
	<ul style="list-style-type: none"> • Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. 		V
	<ul style="list-style-type: none"> • Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities. 		V
	<ul style="list-style-type: none"> • Use of acoustic barriers as close to the source as possible. Equipment to be shielded: air compressor, water pump, concrete pump, dumper, dump truck, generator, various hand tools, saw, excavator, loader, truck mixer, mobile crane, vibrator and breaker. 		During examination periods of the school nearby

Water Quality - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Water Quality during Construction	Construction works at or close to the seafront	During construction	V
	<ul style="list-style-type: none"> Temporary storage of construction materials (e.g. equipment, filling materials, chemicals and fuel), chemical waste storage area and temporary stockpile of construction and demolition materials should be located well away from the seawater front and storm drainage during carrying out of the works. 		@
	<ul style="list-style-type: none"> Stockpiling of construction and demolition materials and dusty materials should be covered and located away from the seawater front and storm drainage. 		@
	<ul style="list-style-type: none"> Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby receiving waters. 	During construction	V
	Construction run-off and Drainage		V
	<p>The site practices outlined in ProPECC PN 1/94 "Construction Site Drainage" shall be followed as far as practicable in order to minimise surface runoff and the chance of erosion, and also to retain and reduce any suspended solids prior to discharge. These practices include, inter alia, the following items:-</p> <ul style="list-style-type: none"> Provision of perimeter channels to intercept storm-runoff from outside the site. These shall be constructed in advance of site formation works and earthworks. 		N/A
	<ul style="list-style-type: none"> Vehicle and plant servicing areas, vehicle wash bays and lubrication bays should as far as possible be located within roofed areas. The drainage in these covered areas should be connected to foul sewers via a petrol interceptor and/or oil/grease separator. Oil leakage or spillage should be contained and cleaned up immediately. Waste oil should be collected and stored for recycling or disposal in accordance with the Waste Disposal Ordinance. 		V
	<ul style="list-style-type: none"> Sand/silt removal facilities such as sand traps, silt traps and sediment basins shall be provided to remove sand/silt particles from runoff to meet the requirements of the Technical Memorandum standard under the Water Pollution Control Ordinance. The design of silt removal facilities should be based on the guidelines provided in ProPECC PN 1/94. All drainage facilities and erosion and sediment control structures should be inspected monthly, regularly cleaned and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. 		V
	<ul style="list-style-type: none"> Careful programming of the works to minimise the potential of soil erosion during the rainy season. Other measures that need to be implemented before, during, and after rainstorms are summarized in ProPECC PN 1/94. 		V
	<ul style="list-style-type: none"> Exposed soil surface shall be protected by paving as soon as possible to reduce the potential of soil erosion. 		@
<ul style="list-style-type: none"> Open stockpiles of construction materials on site shall be covered with tarpaulin or similar fabric during rainstorm. 	V		
General Construction Activities	<ul style="list-style-type: none"> Debris and rubbish generated on-site shall be collected, handled and disposed of properly to avoid entering the nearby nullah and stormwater drains. Stockpiles of cement and other construction material should be kept covered when not being used. 	During construction	V

Impact	Mitigation Measures	Timing	Implementation Status
Water Quality during Construction	<ul style="list-style-type: none"> Oils and fuels should only be used and stored in designated areas which have pollution prevention facilities. All fuel tanks and storage areas shall be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event. 		V
	Sewage Effluent		
	<ul style="list-style-type: none"> Temporary sanitary facilities, such as portable chemical toilets, shall be employed on-site. A licensed contractor would be responsible for appropriate disposal and maintenance of these facilities. 	During construction	V
	<ul style="list-style-type: none"> Effluent discharged from the construction site should comply with the standards stipulated in the TM-DSS. 		N/A
	<ul style="list-style-type: none"> Subject to the sampling results of Contamination Assessment Plan of the site, any contaminated land treatments are subjected to EPD's requirements on handling, treatment and disposal. Should effluent stream and/or extracted ground water be discharged from the site, the discharge shall comply with the WPCO and any EPD special requirements. 		N/A
<ul style="list-style-type: none"> Establishment of baseline and impact monitoring program to establish the baseline water quality condition and monitor the construction process in order to enforce controls and modify method of work if any adverse impacts on the water sensitive receivers are detected. 	V		

Waste Management- Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Waste Management during Construction	Good Site Practice		
	<ul style="list-style-type: none"> Nominate an approved personnel, such as a site manager, to be responsible for good site practices and effective arrangements for collection and disposal to an appropriate facility of all wastes generated at the works area. Training of site personnel in proper waste management and handling procedures shall be undertaken. 	During construction	V
	<ul style="list-style-type: none"> Construction materials should be planned and stocked carefully to minimise and avoid unnecessary generation of waste. 		V
	<ul style="list-style-type: none"> General refuse shall be stored and collected separately from other construction and chemical wastes. Provide on-site refuse collection facilities and enclosed transfer facility for storage and containment. 		V
	<ul style="list-style-type: none"> Waste points should be provided sufficiently and waste should be collected regularly. 		V
	<ul style="list-style-type: none"> Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers. 		V
	<ul style="list-style-type: none"> Separate chemical wastes for special handling and appropriate treatment at the Chemical Waste Treatment Centre located at Tsing Yi. Chemical waste shall be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. 		V

Impact	Mitigation Measures	Timing	Implementation Status	
Waste Management during Construction	<ul style="list-style-type: none"> Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors. 	During construction	V	
	<ul style="list-style-type: none"> Develop procedures such as a trip-ticket system to monitor the disposal of C&D material and solid wastes at public filling areas and landfills, and to control fly-tipping. 		V	
	<ul style="list-style-type: none"> A recording system for the amount of wastes generated, recycled and disposed should be proposed. 		V	
	Waste Reduction Measures			
	<p>Good management and control can prevent the generation of a significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:-</p>		During construction	
	<ul style="list-style-type: none"> Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal. 			V
	<ul style="list-style-type: none"> Encourage collection of aluminum cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force. 			V
	<ul style="list-style-type: none"> Any unused chemicals or those with remaining functional capacity shall be recycled. 			V
	<ul style="list-style-type: none"> Use of reusable non-timber formwork to reduce the amount of C&D material. 			V
	<ul style="list-style-type: none"> Prior to disposal of C&D waste, it is recommended that wood, steel and other metals shall be separated for re-use and / or recycling to minimise the quantity of waste to be disposed of to landfill. 			V
<ul style="list-style-type: none"> Proper storage and site practices to minimise the potential for damage or contamination of construction materials. 		V		
<ul style="list-style-type: none"> Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. 		V		
General Site Wastes				
<ul style="list-style-type: none"> Collection area for construction site waste should be provided where waste can be stored prior to removal from site. 		During construction	V	
<ul style="list-style-type: none"> An enclosed and covered area for the collection of the waste is recommended to reduce 'wind blow' of light material. 			V	
<ul style="list-style-type: none"> An open area used for storage or loading/unloading of wastes should be bunded and all the polluted surface run-off collected within this area should be diverted into sewers. 			V	
<ul style="list-style-type: none"> General refuse should be stored in enclosed bins or compaction units separate from C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. 			V	
Workforce Wastes				
<ul style="list-style-type: none"> Suitable collection sites around site offices and canteen should be required. 		During construction	V	
<ul style="list-style-type: none"> Waste should be removed daily or as often as required. 			V	

Impact	Mitigation Measures	Timing	Implementation Status
Waste Management during Construction	Chemical Waste		
	<ul style="list-style-type: none"> • After use, chemical waste (for example, cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Package, Labelling and Storage of Chemical Wastes. 	During construction	V
	<ul style="list-style-type: none"> • Waste should be properly stored on site within suitably designed containers and should be collected by approved licensed waste collectors for disposal at the Chemical Waste Treatment Centre (CWTC) or other licensed facility in accordance with the Waste Disposal Chemical Waste (General) Regulation. 		V
	<ul style="list-style-type: none"> • Any service shop and minor maintenance facilities should be located on hard standing within a bunded area, and sumps and oil interceptors should be provided. 	During construction	N/A
	<ul style="list-style-type: none"> • Provision of appropriate on-site temporary storage facility for any asbestos containing materials (ACM) where necessary. Storage facilities shall be designed in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. 		V
	<ul style="list-style-type: none"> • Employ registered contractors for removal of ACM off-site and disposal at a designated landfill site. 		V
	Construction and Demolition Material		
	<ul style="list-style-type: none"> • The selective demolition method is recommended to be employed to minimize the effort of sorting mixed C&D materials. 	During construction	V
	<ul style="list-style-type: none"> • In order to minimise the impact resulting from collection and transportation of C&D material for off-site disposal, it is recommended that the public fill material generated from demolition works shall be re-used on-site as far as possible. 		V
	<ul style="list-style-type: none"> • A suitable area should be designated to facilitate the sorting process and a temporary stockpiling area will be required for the separated materials. Separate construction and demolition material into C&D waste (non-inert material) and public fill (inert material) for appropriate disposal. Public fill disposed at a public filling area shall only consist of earth, building debris, broken rock and concrete. The material shall be free from marine mud, household refuse, plastic, metals, industrial and chemical waste, animal and vegetable matter, and other material considered to be unsuitable by the Filling Supervisor. Small quantities of timber mixed with otherwise suitable material would be permitted. C&D waste, such as wood, glass, plastic, steel and other metals, shall be reused or recycled and, as a last resort, disposed to landfill. 		V

Land Contamination - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
<p>Land Contamination (For inaccessible lots and lots which the Permit Holder opt to re-assess in accordance with the Risk-Based Remediation Goals (RBRGs) approach)</p>	<ul style="list-style-type: none"> Further land contamination assessments to be carried out for inaccessible lots, lots which the Permit Holder opt to re-assess in accordance with the RBRGs approach, as well as areas that required further sampling to ascertain contamination extent. Supplementary CAP, CAR and RAPs to be submitted to EPD for endorsement before commencement of remediation work. These reports shall detail the further sampling & remediation works required. The development construction work shall only commence after all the remediation work has been completed. 	<p>Inaccessible lots as described under para. 3.5 of Appendix 7A of YTB-EIA as well as areas that required further sampling to ascertain contamination extent/ Upon availability of site access</p> <p>Supplementary CAP, CAR and RAPs to be submitted to EPD for endorsement before commencement of the remediation work.</p> <p>Development construction work should only commence after all the remediation</p>	<p>@</p> <p>(Two CAPs (Yau Tong Bay - Decommissioning of Shipyard Sites Supplementary CAP for Previous Inaccessible Lots (YTML 27, 44, 45-46, 54 and Underground Oil Tank at YTML 6-11) & Yau Tong Bay - Decommissioning of Shipyard Sites (CAP for YTML 1, 6-11, 15, 28, 29, 38 and 41-43)) have been submitted to EPD and approved on 6 Jul 2011 and 30 Aug 2011 respectively. CARs and RAPs will be submitted after the completion of site investigation according to the CAPs.)</p>

Impact	Mitigation Measures	Timing	Implementation Status
		work has been completed.	
Land Contamination (For inaccessible lots and lots which the Permit Holder opt to re-assess in accordance with the Risk-Based Remediation Goals (RBRGs) approach)	<ul style="list-style-type: none"> • A method statement detailing the following shall be submitted to EPD for endorsement:- <ul style="list-style-type: none"> - Methodology, monitoring and verification procedures for biopiling and solidification; - Pilot test procedures for solidification process to ascertain the concrete mix recipe and leachability of the product; - The sample size for the verification soil test to be conducted by IEA for spot check purpose; - The notification system for notifying the Director the satisfactory completion of the excavation and treatment of contaminated soil; and - Provision and operation requirements of equipment and personnel decontamination facilities. 	<p>All areas identified to require solidification of soil as land remediation / The pilot test results and method statement shall be submitted and endorsed at least one month prior to the full scale solidification works.</p> <p>All soil identified and to be identified as contaminated with TPH / The method statement shall be submitted and endorsed at least one month prior to the commencement of the biopiling works.</p>	N/A

Impact	Mitigation Measures	Timing	Implementation Status
Land Contamination (For inaccessible lots and lots which the Permit Holder opt to re-assess in accordance with the Risk-Based Remediation Goals (RBRGs) approach)	<ul style="list-style-type: none"> <li data-bbox="401 224 1503 280">• A Soil Remediation Report should be submitted to EPD to demonstrate that the remediation work has been properly carried out. <li data-bbox="401 813 1503 930">• Inspections for dioxin. Should there be signs of incineration facilities, burn pits or facilities that utilises high temperature burning, soil sampling for dioxin will be carried out. Details regarding such sampling shall be approved by EPD. A detailed proposal for dealing with dioxin contaminated material, if found, shall also be submitted to EPD for approval. 	<p data-bbox="1535 224 1734 776">All areas identified to require soil and groundwater remediation / The Remediation Report shall be submitted and endorsed prior to the commencement of the development construction works.</p> <p data-bbox="1535 813 1734 1117">All the Yau Tong Bay marine lots inspection and testing shall commence upon availability of site.</p>	<p data-bbox="1755 224 1969 805">N/A</p> <p data-bbox="1755 813 1969 1141">V</p>
Land Contamination (For lots and facilities assessed under EIA with approved CAP, CAR and RAP based on Dutch B levels	<ul style="list-style-type: none"> <li data-bbox="401 1157 1503 1274">• A pilot test shall be conducted to ascertain the concrete mix recipe and leachability of the product prior to a full scale solidification and a method statement detailing the solidification procedure (including the sampling proposal for process monitoring) shall be submitted to EPD for endorsement. 	<p data-bbox="1535 1157 1734 1474">All areas identified to require solidification of soil as land remediation / The pilot test results and method</p>	<p data-bbox="1755 1157 1969 1479">N/A</p>

Impact	Mitigation Measures	Timing	Implementation Status
referenced to ProPECC PN3/94 – Contaminated Land Assessment and Remediation)		statement shall be submitted and endorsed prior to the full scale solidification works.	
Land Contamination (For lots and facilities assessed under EIA with approved CAP, CAR and RAP based on Dutch B levels referenced to ProPECC PN3/94 – Contaminated Land Assessment and Remediation)	<ul style="list-style-type: none"> • A method statement detailing the biopiling methodology, monitoring and verification procedures shall be submitted to EPD for endorsement. 	All soil identified and to be identified as contaminated with TPH / The method statement shall be submitted and endorsed prior to the commencement of the biopiling works.	N/A
Assessment and Remediation)	<ul style="list-style-type: none"> • A Soil Remediation Report should be submitted to EPD to demonstrate that the remediation work has been properly carried out. 	All areas identified to require soil and groundwater remediation / The Remediation Report shall be submitted and endorsed prior to the commencement of the development construction	N/A

Impact	Mitigation Measures	Timing	Implementation Status
		works.	

Landscape and Visual Impact - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Landscape and Visual Impact during Construction	<ul style="list-style-type: none"> On-site mature trees within the Project boundary shall be retained. Any mature tree shall not be transplanted or fell unless permission has been given by EPD. 	During construction	V
	<ul style="list-style-type: none"> During the biopiling process, the biopiles shall be limited to a height of less than 3m. 		N/A
	<ul style="list-style-type: none"> Erection and maintenance of decorative screen/colour hoarding around the site. 		V

Legend: V = implemented;
X = not implemented;
@ = partially implemented;
N/A = not applicable - No such work was undertaken or no such material was used on site.

**APPENDIX D
SUMMARY OF ACTION AND LIMIT LEVELS**

Appendix D - Summary of Action and Limit Levels

Table 1 – Action and Limit Levels for Construction Noise (0700-1900 hrs of normal weekdays)

Location	Action Level	Limit Level
NM1	When one documented complaint, related to 0700 – 1900 hours on normal weekdays, is received from any one of the sensitive receivers.	75 dB(A)
NM2		65/70 dB(A)*
NM3		65/70 dB(A)*

*Daytime noise Limit Level of 70 dB(A) applies to education institutions, while 65dB(A) applies during school examination period.

**APPENDIX E
CALIBRATION CERTIFICATES OF
MONITORING EQUIPMENTS**



CERTIFICATE OF CALIBRATION

Certificate No.: 13CA0305 01-01 Page 1 of 2

Item tested

Description:	Sound Level Meter (Type 1)	,	Microphone
Manufacturer:	B & K	,	B & K
Type/Model No.:	2250-L	,	4950
Serial/Equipment No.:	2681366 (N.011.01)	,	2665582
Adaptors used:	-	,	-

Item submitted by

Customer Name: AECOM ASIA CO LIMITED
Address of Customer: -
Request No.: -
Date of receipt: 05-Mar-2013

Date of test: 05-Mar-2013

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	23-May-2013	CIGISMEC
Signal generator	DS 360	33873	29-May-2013	CEPREI
Signal generator	DS 360	61227	29-May-2013	CEPREI

Ambient conditions

Temperature: 21 ± 1 °C
Relative humidity: 60 ± 10 %
Air pressure: 1000 ± 10 hPa

Test specifications

- The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.
- The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.
- The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsiveness of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory:


Huang Jian Min/Feng Jun Qi

Date: 05-Mar-2013

Company Chop:



Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.



CERTIFICATE OF CALIBRATION

Certificate No.: 13CA0325 01-03

Page: 1 of 2

Item tested

Description: Acoustical Calibrator (Class 1)
Manufacturer: Rion Co., Ltd.
Type/Model No.: NC-73
Serial/Equipment No.: 10186482 / N.004.09
Adaptors used: -

Item submitted by

Customer: AECOM ASIA CO., LTD.
Address of Customer: -
Request No.: -
Date of receipt: 25-Mar-2013

Date of test: 26-Mar-2013

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2412857	29-May-2013	SCL
Preamplifier	B&K 2673	2239857	17-Dec-2013	CEPREI
Measuring amplifier	B&K 2610	2346941	17-Dec-2013	CEPREI
Signal generator	DS 360	61227	29-May-2013	CEPREI
Digital multi-meter	34401A	US36087050	10-Dec-2013	CEPREI
Audio analyzer	8903B	GB41300350	29-May-2013	CEPREI
Universal counter	53132A	MY40003662	29-May-2013	CEPREI

Ambient conditions

Temperature: 22 ± 1 °C
Relative humidity: 60 ± 10 %
Air pressure: 1000 ± 10 hPa

Test specifications

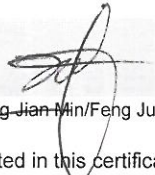
- 1, The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.
- 2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.
- 3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on page 2 of this certificate.

Approved Signatory:


Huang Jian Min/Feng Jun Qi

Date: 26-Mar-2013

Company Chop:



Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

**APPENDIX F
EM&A MONITORING SCHEDULES**

**Yau Tong Bay - Decommissioning of Shipyard Sites
Tentative Impact Air Quality and Noise Monitoring Schedule for October 2013**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-Oct	2-Oct	3-Oct	4-Oct	5-Oct
6-Oct	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct
13-Oct	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct
20-Oct	21-Oct	22-Oct	23-Oct	24-Oct	25-Oct	26-Oct
27-Oct	28-Oct	29-Oct	30-Oct	31-Oct		
	Noise					

The schedule is subject to change due to unforeseeable circumstances (e.g. adverse weather, etc)

**Yau Tong Bay - Decommissioning of Shipyard Sites
Tentative Impact Air Quality and Noise Monitoring Schedule for November 2013**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1-Nov	2-Nov
						24-hour TSP 1-hour TSP
3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	8-Nov	9-Nov
				24-hour TSP 1-hour TSP		
10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	15-Nov	16-Nov
			24-hour TSP 1-hour TSP Noise			
17-Nov	18-Nov	19-Nov	20-Nov	21-Nov	22-Nov	23-Nov
		24-hour TSP 1-hour TSP				
24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	29-Nov	30-Nov
	24-hour TSP 1-hour TSP Noise					24-hour TSP 1-hour TSP

The schedule is subject to change due to unforeseeable circumstances (e.g. adverse weather, etc)

**APPENDIX G
IMPACT DAYTIME CONSTRUCTION NOISE
MONITORING RESULTS AND THEIR
GRAPHICAL PRESENTATION**

Appendix G Impact Daytime Construction Noise Monitoring Results

Location : NM1 (Yau Lai Estate Hong Lai House Rooftop - Façade)

Day time 07:00-19:00 hrs Normal Weekdays Impact Noise Monitoring Results

Date	Start Time	End Time	Weather	Measured Noise Level for 30-min, dB(A)			Baseline Noise Level, dB(A)	Corrected Construction Noise Level, dB(A) **	Limit Level, dB(A)	Major Noise Source(s) Observed	Remarks	Mean Temp. (°C)	Mean Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90									
28-Oct-13	11:00	11:30	Sunny	65.2	66.8	61.7	65.4	65.2	75.0	Construction activities of other contracts; Traffic Noise	-	25.3	<5 m/s	B&K 2250L (2681366)	Rion NC-73 (10186482)
								Average	65.2						
								Min.	65.2						
								Max.	65.2						

Location : NM2 (S.K.H. Yau Tong Kei Hin Primary School Rooftop - Façade)

Day time 07:00-19:00 hrs Normal Weekdays Impact Noise Monitoring Results

Date	Start Time	End Time	Weather	Measured Noise Level for 30-min, dB(A)			Baseline Noise Level, dB(A)	Corrected Construction Noise Level, dB(A) **	Limit Level, dB(A) [#]	Major Noise Source(s) Observed	Remarks	Mean Temp. (°C)	Mean Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90									
28-Oct-13	9:30	10:00	Sunny	63.8	65.7	61.0	64.0	63.8	70.0	Construction activities of other contracts; Traffic Noise	-	25.3	<5 m/s	B&K 2250L (2681366)	Rion NC-73 (10186482)
								Average	63.8						
								Min.	63.8						
								Max.	63.8						

Remarks:

- Limit Level of 70dB(A) applies to education institutes while 65dB(A) applies during school examination period.

** Construction noise level is only calculated when Measured noise level (Leq) > Baseline noise level.

If Measured noise level < Baseline noise level, Corrected noise level = Measured noise level

Appendix G Impact Daytime Construction Noise Monitoring Results

Location : NM3 (C.C.C. Kei Faat Primary School (Yau Tong) Rooftop - Façade)
 Day time 07:00-19:00 hrs Normal Weekdays Impact Noise Monitoring Results

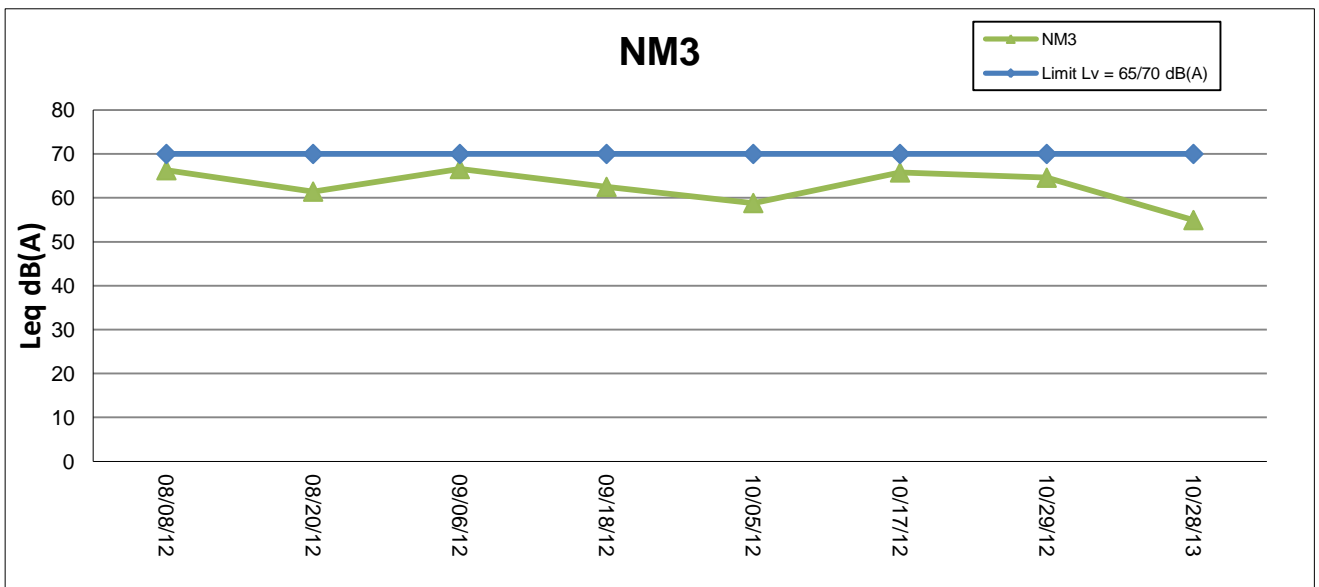
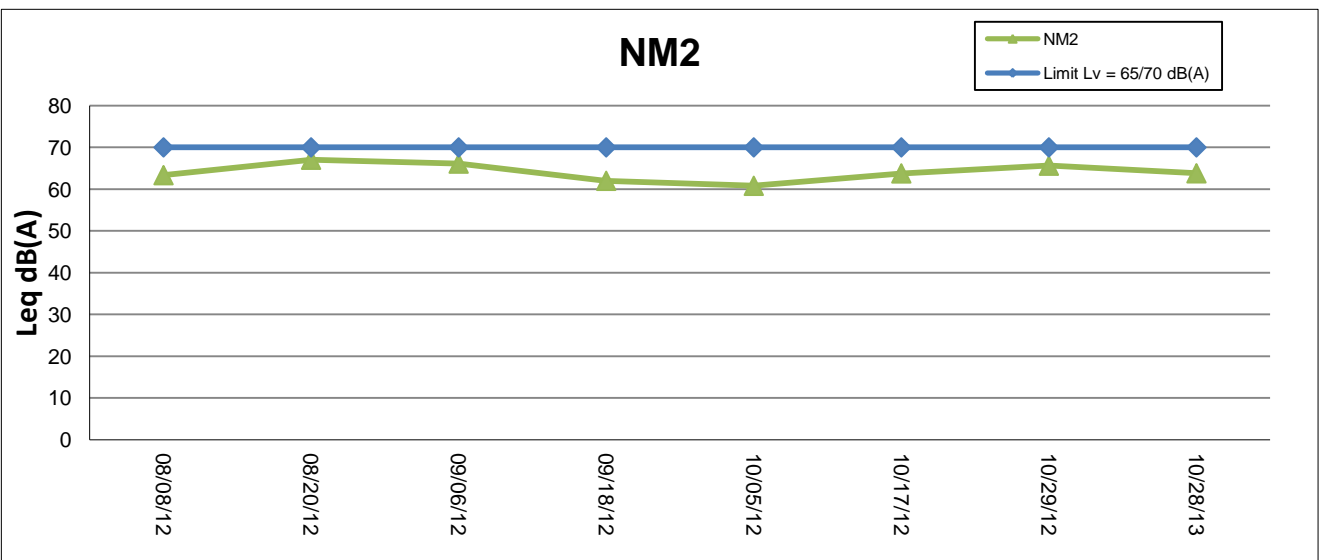
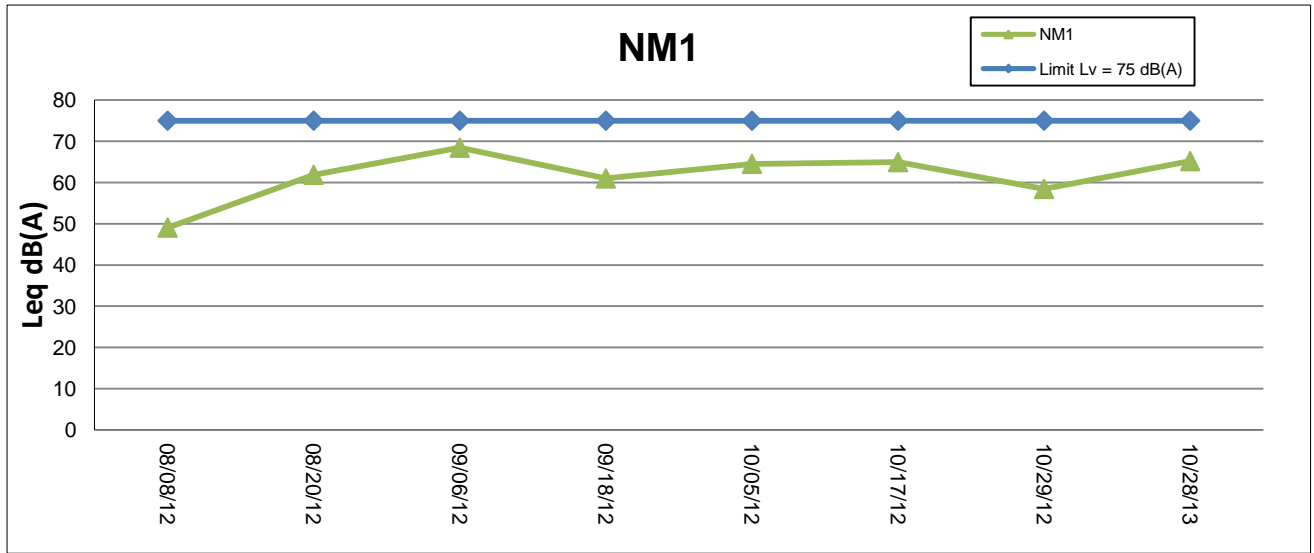
Date	Start Time	End Time	Weather	Measured Noise Level for 30-min, dB(A)			Baseline Noise Level, dB(A)	Corrected Construction Noise Level, dB(A) **	Limit Level, dB(A) [#]	Major Noise Source(s) Observed	Remarks	Mean Temp. (°C)	Mean Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
				Leq	L10	L90									
28-Oct-13	10:10	10:40	Sunny	66.7	69.6	62.7	66.4	54.9	70.0	Construction activities of other contracts; Traffic Noise	-	25.3	<5 m/s	B&K 2250L (2681366)	Rion NC-73 (10186482)
							Average	54.9							
							Min.	54.9							
							Max.	54.9							

Remarks:

- Limit Level of 70dB(A) applies to education institutes while 65dB(A) applies during school examination period.

** Construction noise level is only calculated when Measured noise level (Leq) > Baseline noise level.

If Measured noise level < Baseline noise level, Corrected noise level = Measured noise level



Remark: Measured noise level would be shown if Measured noise level (Leq) <= Baseline noise level

	Yau Tong Bay – Decommissioning of Shipyard Sites	SCALE	N.T.S.	DATE	Nov-13
	Graphical Presentation of Impact Daytime Construction Noise Monitoring Results	CHECK	ENFL	DRAWN	JCYK
		JOB NO.	60048283	APPENDIX No.	G
					-

**APPENDIX H
EVENT ACTION PLAN**

Appendix H – Event Action Plan

Event / Action Plan for Noise

Event Limit Level	Action			
	ET Leader	IEC	ER	Contractor
Action Level	<ol style="list-style-type: none"> 1. Notify IEC, ER and Contactor; 2. Carry out investigation and identify the source; 3. Report the results of investigation to the IEC, ER and Contactor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Advise the ER on the effectiveness of the proposed remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC and ER; 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 1. Inform IEC, ER, EPD and Contractor; 2. Repeat measurement to confirm findings; 3. Increase monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contractor"s working procedures; 6. Discuss with the IEC, Contractor and ER on remedial measures require; 7. Assess effectiveness of Contractor"s remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring . 	<ol style="list-style-type: none"> 1. Review the investigation results submitted by the ET; 2. Check the Contractor"s working procedures; 3. Discuss amongst ER, ET and Contractor on the potential remedial actions; 4. Review Contractor"s remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Discuss with ET, IEC and ER on proper remedial measures; 3. Submit proposals for remedial actions to IEC and ER within 3 working days of notification; 4. Implement the agreed proposals ; 5. Submit further proposal if problem still not under control; 6. Stop the relevant portion of works as instructed by the ER until the exceedance is abated .

**APPENDIX I
SITE INSPECTION SUMMARIES**

EM&A Environmental Inspection Record

Yau Tong Bay -
Decommissioning of Shipyard Sites



Site Inspection Summary

Inspection Information

Date:	29 October 2013
Time:	14:40
Inspection No.:	51

Non-compliance

Nil

Observations

<p><u>Follow Up Observation</u></p> <p>Nil.</p> <p><u>New Observation</u></p> <ol style="list-style-type: none">1. Stockpile of waste / construction materials should be covered.2. Regular spraying of water to stockpile materials or dusty site surface should be maintained.3. Wheel washing facilities are not observed at two site entrances.4. Recycling bins should be provided at site office area and site exits.
--

Remarks

Nil

**APPENDIX J
STATISTICS ON COMPLAINTS,
NOTIFICATION OF SUMMONS AND
SUCCESSFUL PROSECUTIONS**

Appendix J

Cumulative Statistics on Complaints, Non-compliance, Notifications of Summons and Successful Prosecutions

	Date Received	Subject	Status	Total no. in this reporting period	Total no. since project commencement
Environmental complaints	-	-	-	0	4
Non-compliance	-	-	-	0	0
Notification of summons	-	-	-	0	0
Successful Prosecutions	-	-	-	0	0